



CITY OF ESCONDIDO
 PLANNING DIVISION
 201 NORTH BROADWAY
 ESCONDIDO, CA 92025-2798
 (760) 839-4671

NOTICE OF DETERMINATION

DATE: September 20, 2022

TO: X Assessor/Recorder/County Clerk
 Attn: Fish and Wildlife Notices
 1600 Pacific Hwy, Suite 260
 San Diego, CA 92101
 MS: A-33

FROM: City of Escondido
 201 North Broadway
 Escondido, CA 92025

SUBJECT: Filing of Notice of Determination in compliance with Section 21089, 21108, or 21152 of the Public Resources Code.

PL22-0111 a Plot Plan Application and Grading Exemption to construct a 88,390 SF industrial building
 Project Title/Case No.

2001121065	City of Escondido
State Clearinghouse Number (if submitted to State Clearinghouse)	Lead Agency

Darren Parker, Associate Planner	(760) 839-4553
City Contact Person	Telephone Number

Mr. John Gerritsen, 200 E. Washington Avenue, Suite 200, Escondido, CA 92025, (760) 741-3570
 Project Applicant, Address and Phone Number

1970 Citracado Parkway, (APN's: 232-592-02-00, 232-592-03-00, 232-592-05-00, 232-592-06-00, & 232-592-17-00) on the southeast corner of Citracado Parkway and S. Andreasen Drive, Escondido, San Diego County,
 Project Location (include County)

Project Description: A request for the construction of an 88,390 SF-shell tilt-up concrete industrial building with interior mezzanines, surface parking, grade-level truck doors, loading dock door and site retaining walls. The subject property is located within Planning Area 8 of the Escondido Resource & Technology Center (ERTC) Specific Plan and has a General Plan land use designation of SPA 8 (Specific Planning Area 8).

This is to advise that on August 25, 2022 the City of Escondido approved the above-described project and has made the following determinations regarding the above-described project:

1. The project will not have a significant effect on the environment.
2. Pursuant to the ERTC Specific Plan, Section V-Plan Implementation and Development Process, the previously approved Final Environmental Impact Report (EIR 2001-12) prepared for the ERTC Specific Plan is a Program EIR in conformance with CEQA Section 15168. Pursuant to CEQA Section 15168(c), the proposed project was examined in light of the program EIR to determine whether an additional environmental document must be prepared. The program EIR addressed the environmental effects of the planned development within the entire 186-acres and the eight

different planning areas. The final EIR addressed the impacts of the development of up to 89,700 SF of building area in Planning Area 8 and a range of uses including offices, research and development, manufacturing, and data processing. This project, a subsequent activity, would develop only 88,390 SF of industrial space on 8.96-acres within Planning Area 8. The attached checklist documents the evaluation of the proposed project and the conclusion that the environmental effects of the operation were covered in the program EIR.

3. Mitigation measures were made with the original EIR (ER 2001-10) and incorporated into the conditions of approval, and a mitigation monitoring program was adopted. No new mitigation measures are required with the proposed project within Planning Area 7.
4. Findings were made with the original EIR for the entire 186-acres of the Specific Planning Area and the eight Specific Planning areas for the ERTC (Escondido Research and Technology Center) pursuant to the provisions of CEQA and the Program EIR.
5. A statement of Overriding Considerations was adopted for the specific Plan.
6. The project related issues are resolved through the compliance with code requirements, project design, and established mitigation measures. Therefore, pursuant to CEQA Section 15162, no additional environmental documentation needs to be prepared since no new effects would occur and no new mitigation measures would be required. The proposed development is within the scope of the project covered by the previously approved program EIR (2001-12).

A copy of the original Program EIR (ER 2001-10), the Specific Plan 2001-01-SPA and record of project approval is available for review by the general public at the City of Escondido Planning Division, 201 N. Broadway, Escondido, California 92025. Telephone number (760) 839-4671. The City of Escondido has complied with CEQA in preparation of the Notice of Determination.

Name of Official Filing Notice Darren Parker, Associate Planner Date: September 20, 2022

Signature:  Date: September 20, 2022
Associate Planner

Date Received for Filing _____

Filing Fee Transmitted to County Clerk X



CITY OF ESCONDIDO
PLANNING DIVISION
201 NORTH BROADWAY
ESCONDIDO, CA 92025-2798
(760) 839-4671

011421

NOTICE OF DETERMINATION*

DATE: November 26, 2002
TO: San Diego County Recorder's Office
Attn: Wendy Chevalier
P. O. Box 121750
San Diego, CA 92112-1750

FILED
Gregory J. Smith, Recorder/County Clerk

DEC 10 2002

BY AG DEPUTY

Office of Planning and Research
1400 Tenth Street
Sacramento, CA 94814

FROM: City of Escondido
201 N. Broadway
Escondido, CA 92025

SUBJECT: Filing of Notice of Determination in compliance with Section 21089, 21108, or 21152 of the Public Resources Code.

Tentative Vesting Subdivision Map, General Plan Amendment Specific Plan Amendment, Zone Change, Grading Exemptions, Specific Plan Amendment, and Development Agreement for Escondido Research and Technology Center, ER 2001-12, Tract 834, 2001-01-/GPA/SPA/CZ/GE/DA,
Project Title and Case No.

2001121065

State Clearinghouse Number (if submitted to State Clearinghouse)

Diana Delgadillo, Associate Planner
Contact Person Telephone Number

(760) 839-4555

Project Location:

The subject property is generally located north of Harmony Grove Road, east of Country Club Drive, west of Andreasen Drive, and south of Vineyard Avenue (APNs 232-512-05, -06, -10, -12, -13, -15, -16, -17, -18, -19, -20, -21, -23, -24).

Project Description:

The project consists of the following nine actions:

- General Plan amendment to change the Circulation Element of the General Plan to terminate Enterprise Street at the project boundary and adopt a Specific Plan of Alignment for Citracado Parkway that would modify Major Road standards within the project boundaries.
- General Plan Amendments to change 22 acres of the 210 total acres from industrial (Specific Plan) to residential (Estate 2), comprehensive revisions to the existing Specific Plan Area (SPA 8) Land Use Element Map and Text.
- A rezone of 22 acres of the 210 total acres of the project site from SP to RE-20 (Residential Estate, minimum 20,000 square feet).
- A Vesting Tentative Subdivision Map on approximately 182 acres to create minimum one-acre lots, grading exemptions for maximum peripheral fill slopes of up to 110', peripheral cut slopes of up to 55', internal fill slopes of up to 60', internal cut slopes of up to 78', and slope

inclinations of 1:1. Offsite improvements are proposed over the approximately 5.3 acre southern property owned by SDG&E.

- A Development Agreement involving portions of the ERTC project (excluding the SDG&E parcels and the 2 acre radio transmission tower site) between the City and Developers. Key terms include a ten year term, fee-waivers in return for other proposed payments and improvements, provision of reclaimed water, improvement responsibilities for roads and other utilities, pursuit of local air quality mitigation, grading prior to Final Subdivision Map, and automatic extensions of time for the Vesting Tentative Subdivision Map, and various public benefits.
- Potential relocation of the existing, on-site radio antenna to one of three potential locations (Planning areas 2,3, and 5) and replacement of the existing power line towers with a lower profile design.
- A 550 Megawatt, gas-fired, combined-cycle, electric generating facility (PEP/Palomar Energy Facility) is proposed as one of two options on 20 acres in the northeastern portion of the property
- Off-site improvements associated with the Palomar Energy Project include the construction of a brine return line that would tie to a point of connection with the HARRF north of Escondido Creek, water and gas line upgrades, and off-site habitat mitigation. Traffic mitigation will consist of actual improvements as well as fair share contributions toward the future improvement of intersections and segments in the area.
- A comprehensive revision that replaces the adopted Quail Hills Specific Plan involving approximately 188 acres.

This is to advise that on November 25, 2002 the City of Escondido approved the above-described project and has made the following determinations regarding the above-described project:

1. The project X will, will not, have a significant effect on the environment.
2. X An Environmental Impact Report was prepared for this project pursuant to the provisions of CEQA.

A Mitigated Negative Declaration was prepared for this project pursuant to the provisions of CEQA.

3. Mitigation measure++s X were, were not, adopted for this project.
4. A Statement of Overriding Considerations X was, was not, adopted for this project.

A copy of the Final Environmental Impact Report and record of project approval is available for review by the general public at the City of Escondido Planning Division, 201 N. Broadway, Escondido, California 92025. Telephone number (760) 839-4671.

Name of Official Filing Notice Diana Delgadillo, Associate Planner

Date Received for Filing

Filing Fee Transmitted to County Clerk \$875.00

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Imaging Prep Sheet Indexing Information

Doc Name: ER-2001-12		Escondido Research & Technology Center - Specific Plan/Final Environmental Impact Report	
Category #: 0820-20			
From: 11/2002		To: 11/2002	
Address: 1995 Citracado Parkway			
Case # or Doc #: ER-2001-01			
Assessors Parcel # (APN): various			
Add'l Info (optional information):			
Related Files: 2001-01-SPA/GE, 2002-03-GPA, Tract 834			
Applicant: JRMC Real Estate (James R. McCann)			

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**ESCONDIDO RESEARCH AND TECHNOLOGY CENTER
SPECIFIC PLAN**

FINAL ENVIRONMENTAL IMPACT REPORT

**FEIR 2001-12
SCH No. 2001121065**

November 2002

Prepared for:

City of Escondido
Planning Division
201 North Broadway
Escondido, CA 92025

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10/20/02

CITY OF ESPONDIDO
NOV 01 2002
FINANCIAL DIVISION

**FINAL ENVIRONMENTAL IMPACT REPORT
 ESCONDIDO RESEARCH AND TECHNOLOGY CENTER SPECIFIC PLAN
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- C Air Quality Technical Study
- D Acoustical Technical Study
- E Biological Resources Technical Study
- F Jurisdictional Wetland Delineation
- G Visual Resources Analysis
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- I Preliminary Geotechnical Study
- J Paleontological Resource Assessment

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ACRONYMS

ACOE	Army Corps of Engineers
ADT	Average Daily Trip
ALS	Advanced Life Support
AMSL	Above Mean Sea Level
APCO	Air Pollution Control Officer
AQIA	Air Quality Impact Analysis
ARB	Air Resources Board
BMPs	Best Management Practices
CAAQS	California Ambient Air Quality Standards
CalARP	California Accidental Release Prevention Program
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CDFG	California Department of Fish and Game
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CIWMB	California Integrated Waste Management Board
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CO	Carbon monoxide
CPUC	California Public Utilities Commission
CRHR	California Register of Historic Resources
CTG	Combustion Turbine Generator
dB	decibels
DEIR	Draft Environmental Impact Report
DHS	Department of Health Services
DOE	Department of Energy
DOT	Department of Transportation
du	Dwelling Unit
EIR	Environmental Impact Report
EMF	Electromagnetic Forces
EPA	Environmental Protection Agency
ERC	Emission Reduction Credits
ERRWP	Escondido Regional Recycled Water Project
ERTC	Escondido Research and Technology Center
ESA	Endangered Species Act
EUHSD	Escondido Union High School District
EUSD	Escondido Union School District
FAA	Federal Aviation Administration
FCC	Federal Communication Commission
FEMA	Federal Emergency Management Agency

FERC	Federal Energy Regulatory Commission
FPAs	Focused Planning Areas
GPA	General Plan Amendment
gpd	Gallons per day
HARRF	Hale Avenue Resource Recovery Facility
HAT	Humid Air Turbine
HRSG	Heat Recovery System Generator
HVAC	Heating, Ventilation, and Air Conditioning
Hz	hertz
IARC	International Agency for Research on Cancer
I-15	Interstate Highway 15
I-5	Interstate Highway 5
I-P	Industrial Park
ISRGT	Intercooled Steam Recuperated Gas Turbine
KOP	Key Observation Point
kV	Kilovolt
kV/m	kilovolts per meter
Ldn	Day Night Sound Level
LOS	Level of Service
MBAS	Methyl Blue Active Substance
mG	milligauss
mg/m ³	milligrams per cubic meter
MHCP	Multiple Habitat Conservation Plan
MHPA	Multiple Habitat Planning Area
MOU	Memorandum of Understanding
MSCP	Multiple Species Conservation Program
MSL	Mean Sea Level
µg/m ³	micrograms per cubic meter
µT	microtesla
MUN	Municipal
MW	Megawatt
MWD	Metropolitan Water District
NAAQS	National Ambient Air Quality Standards
NCCP	National Community Conservation Planning
NIEHS	National Institute of Environmental Health Sciences
NOP	Notice of Preparation
NO ₂	Nitrogen dioxide
NO _x	Nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
O ₃	Ozone
PA	Planning Area
PEL	Permissible Exposure Limit
PM _{2.5}	Fine Particulates less than 2.5 microns
PM ₁₀	Particulate Matter less than 10 microns

POTW	Publicly Owned Treatment Works
ppm	Parts Per Million
PSD	Prevention of Serious Deterioration
PTE	Potential to Emit
RAQS	Regional Air Quality Standards
RDMWD	Rincon del Diablo Municipal Water District
REL	Relative Explosion Level
RMP	Risk Management Plan
ROC	Reactive organic compound
ROG	Reactive organic gases
RWQCB	Regional Water Quality Control Board
SANDAG	San Diego Association of Governments
SCAQMD	South Coast Air Quality Management District
SDAPCD	San Diego Air Pollution Control District
SDCWA	San Diego County Water Authority
SDG&E	San Diego Gas and Electric
SDRWQCB	San Diego Regional Water Quality Control Board
SF	square feet
SIL	Significant Impact Level
SO ₂	Sulfur dioxide
SP	Specific Plan
SPA	Specific Plan Area
SPHS	San Pasqual High School
SR 78	State Route 78
STG	Steam Turbine Generator
STIG	Steam Injected Gas Turbine
SWPPP	Storm Water Pollution Prevention Plan
USFWS	U.S. Fish and Wildlife Service
V/m	volts per meter
VOC	Volatile organic compounds

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INTRODUCTION

This document is a Final Environmental Impact Report (EIR) which provides a review and analysis of the potential environmental impacts that could result from implementation of the proposed Escondido Research and Technology Center Specific Plan in the City of Escondido. In accordance with CEQA Guideline Section 15002, an EIR is the public document used by a governmental agency to analyze the significant environmental effects of a proposed project, to identify alternatives, and to disclose possible ways to reduce or avoid the possible environmental damage. The EIR itself does not control the way in which a project can be developed or constructed; rather, the governmental agency must respond to the information contained in the EIR by one or more of the seven methods outlined in Section 15002(h) which include:

1. Changing a proposed project;
2. Imposing conditions on the approval of a project;
3. Adopting plans or ordinances to control the broader class of project to avoid the adverse changes;
4. Choosing an alternative way to meet the same need;
5. Disapproving the project;
6. Finding that changing or altering the project is not feasible; or
7. Finding that the unavoidable significant environmental damage is acceptable as provided in Section 15093.

The proposed project is the implementation of the Escondido Research and Technology Center Specific Plan. The Escondido Research and Technology Center Plan will amend and supersede the existing Quail Hills Specific Plan, which was adopted by the City of Escondido in January 1988, by adoption of Resolution 88-126. The proposed Escondido Research and Technology Center business park ("ERTC Business Park") encompasses 186 acres within the Specific Plan area. The Specific Plan creates the regulatory processing and implementation framework to allow large business parks such as the proposed project to be developed. Development of the project will occur over a number of years, and operations will continue throughout and past the development of the project site. A

General Plan Amendment and Rezone are also proposed on approximately 22 acres.

A Power Plant is proposed under the Option B use program. The project consists of a natural-gas-fired combined-cycle power plant with proposed reclaimed water supply and brine return pipelines. The project will have a nominal electrical output of 550 megawatts, and commercial operation is planned for the Spring of 2004.

The Power Plant is subject to issuance of a license by the California Energy Commission (CEC). That license is separate from and not included among the approvals required for the proposed project. In accordance with CEQA Section 15168, the preparation of this Program EIR enables CEC to use the document as a basis for determining whether the development of the power plant would have significant environmental effects. Furthermore, in accordance with CEQA Section 15167, the EIR may be used as a Staged EIR based on the following:

- “(a) Where a large capital project will require a number of discretionary approvals from government agencies and one of the approvals will occur more than two years before construction will begin, a staged EIR may be prepared covering the entire project in a general form. The staged EIR shall evaluate the proposal in light of current and contemplated plans and produce an informed estimate of the environmental consequences of the entire project. The aspect of the project before the public agency for approval shall be discussed with a greater degree of specificity.

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

- (c) Where a statute such as the Warren-Alquist Energy Resources Conservation and Development Act provides that a specific agency shall be the Lead Agency for a project and requires the Lead Agency to prepare an EIR, a Responsible Agency which must grant an approval for the project before the Lead Agency has completed the EIR may prepare and consider a staged EIR.

- (d) An agency requested to prepare a staged EIR may decline to act as the Lead Agency if it determines, among other factors, that:

- (1) Another agency would be the appropriate Lead Agency; and
- (2) There is no compelling need to prepare a staged EIR and grant an approval for the project before the appropriate Lead Agency will take its action on the project.”

The staged EIR was developed as a device to deal with the problem of a large development project which would require many years for planning, engineering, and construction, but would need a number of approvals from public agencies before the final plans for the project would be available. Where those final plans would not be available, the Lead Agency preparing an EIR for one of the early approvals would have difficulty providing enough information about the project to evaluate the effects of the entire project as would otherwise be required.

Minor changes have been completed in response to the comments, as well as some minor clarifications to the text. No new significant impacts or increased magnitude of impacts have been identified. The text additions are underlined (underlined) to distinguish those from the original text. Text to be deleted has been noted in the right margin of the document. The following is a list of pages requiring text changes in response to various comments. The page numbers referenced below and in the response refer to the Final EIR.

Final EIR Section	Page Numbers
Acronyms text	Pages ix
Executive Summary text	Page S-4
Executive Summary text	Pages S-8 through S-10
Executive Summary text	Pages S-13 through S-16
Executive Summary, Table S-2	Pages S-17 through S-23
Executive Summary, Table S-2	Pages S-26 through S-29
Executive Summary, Table S-2	Page S-31
Executive Summary, Table S-3	Page S-32
Executive Summary text	Page S-35
Project Description text	Page 1-1
Project Description text	Page 1-11
Project Description text	Page 1-13
Project Description, New Figure 1.3-2A	Page 1-14
Project Description text	Page 1-18
Project Description text	Pages 1-21 through 1-23
Project Description text	Page 1-26
Transportation/Circulation text	Page 2.2-3
Transportation/Circulation, Table 2.2-7	Pages 2.2-26 and 2.2-27
Transportation/Circulation, Table 2.2-8	Pages 2.2-28 and 2.2-29
Transportation/Circulation, Table 2.2-9	Pages 2.2-32 and 2.2-33

Final EIR Section	Page Numbers
Transportation/Circulation text	Pages 2.2-44 and 2.2-45
Transportation/Circulation, Table 2.2-12	Pages 2.2-46 through 2.2-48
Transportation/Circulation text	Pages 2.2-49 and 2.2-50
Air Quality	Whole section replaced. Synopsis of Findings provided in response CEC letter. Thresholds of Significance text was modified; Power Plant Emissions - Construction text and Tables 2.3-7 and 2.3-8 were added; the following tables were renumbered; Tables 2.3-9, 2.3-10, and 2.3-12 were modified; and Ambient Air Quality Standards Analysis text was added.
Noise text	Pages 2.4-11 and 2.4-12
Noise text	Page 2.4-16
Hazards text	Page 2.5-1
Hazards text	Page 2.5-4
Hazards text	Page 2.5-6
Biological Resources text	Page 2.6-28
Biological Resources, Tables 2.6-4a and 2.6-4b	Page 2.6-33
Biological Resources text	Pages 2.6-34 through 2.6-36
Biological Resources, New Figure 2.6-5	Page 2.6-37
Aesthetics text	Pages 2.7-35 and 2.7-36
Aesthetics text	Pages 2.7-38 and 2.7-39
Aesthetics text	Pages 2.7-41 and 2.7-42
Water Quality text	Page 2.8-7
Water Quality text	Page 2.8-9
Cultural Resources text	Page 2.10-4
Alternatives, Table 3.1-1	Page 3-5
Alternatives text	Page 3-7
Alternatives text	Page 3-12
Alternatives text	Page 3-16
Alternatives text	Page 3-18
Growth-Inducing Impacts text	Page 5-2
Cumulative Effects, Table 6.1-1	Pages 6-3 and 6-4
Unavoidable Impacts text	Page 7-1
List of References text	Page 8-1
List of Preparers text	Pages 9-1 and 9-2

RESPONSE TO COMMENTS

Under CEQA, an agency must solicit and respond to comments from the public and from other agencies concerned with the project. The Draft EIR was submitted by the City of Escondido for public review on July 31, 2002. During the public review period, comments from regulatory agencies and the public responding to the Draft EIR were received by the City of Escondido. Comment letters are presented in the following order:

Federal and State Agencies

1. U.S. Fish and Wildlife Service/California Department of Fish and Game
2. California Energy Commission
3. Caltrans
4. Department of Toxic Substance Control

Local Government and Agencies

5. County of San Diego – Department of Public Works
6. Rincon del Diablo Municipal Water District

Other Organizations

7. Elfin Forest/Harmony Grove Town Council
8. Harmony Grove/Eden Valley Citizen's Group
9. San Dieguito Planning Group
10. Sempra Energy Resources
11. SDG&E – Palomar Energy
12. San Luis Rey Band of Mission Indians

Individual Respondents

13. Marty and Karen Duddy

The following section includes comments received during the public review process and responses to the comments. Each comment has been assigned a comment number, which corresponds to a response number and response that appears on the same page.

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US Fish and Wildlife Service
 Carlsbad Fish and Wildlife Office
 2730 Loker Avenue West
 Carlsbad, California 92008
 (760) 431-9440
 FAX (760) 431-9624



California Department of Fish & Game
 South Coast Regional Office
 4949 Viewridge Avenue
 San Diego, California 92123
 (858) 467-4201
 FAX (858) 467-4299

LETTER I - UNITED STATES FISH AND WILDLIFE SERVICE/CALIFORNIA FISH AND GAME

USFWS-1. The comment provides an introduction to the attached comments from the California Department of Fish and Game and U.S. Fish and Wildlife Services (Wildlife Agencies). A detailed response has been provided for each comment below.

In Reply Refer to:
 FWS-SDG-2262.3

SEP 24 2002

Ms. Diana Delgadillo
 City of Escondido/Planning Division
 201 North Broadway
 Escondido, California 92025-2798

Re: Escondido Research and Technology Center (ERTC) Specific Plan Draft Environmental Impact Report, City of Escondido, San Diego County, California (SCH# 2001.121065)

Dear Ms. Delgadillo:

The California Department of Fish and Game (Department) and U. S. Fish and Wildlife Service (Service) (collectively, "Wildlife Agencies") have reviewed the above-referenced Draft Environmental Impact Report (DEIR). The Wildlife Agencies have some concerns regarding the potential effects of this project on wildlife and regional conservation planning.

The Department is a Trustee Agency and a Responsible Agency pursuant to the California Environmental Quality Act (CEQA), Sections 15386 and 15381, respectively. Pursuant to Section 1802 of the Fish and Game Code, the Department has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants and habitat necessary for biologically sustainable populations of those species. As a Trustee Agency, the Department must be consulted by the Lead Agency during the preparation and public review for project-specific CEQA documents if there are potential impacts to biological resources. The Department reviews proposed projects, comments on their impacts, and determines whether the mitigation measures or alternatives proposed are feasible and appropriate. The Department also administers the Natural Community Conservation Planning (NCCP) program. The City of Escondido (City) is currently participating in the NCCP program through the preparation of a draft Multiple Habitat Conservation Program (MHCP) Subarea Plan. The primary concern and mandate of the Service is the protection of public fish and wildlife resources and their habitats. The Service has legal responsibility for the welfare of migratory birds, anadromous fish, and endangered animals and plants occurring in the United States. The Service is also responsible for administering the Endangered Species Act of 1973, as amended (Act) (16 U.S.C. 1531 *et seq.*).

The proposed project will amend and supersede the existing Quail Hills Specific Plan, which was adopted by the City in January 1986. A General Plan Amendment and Rezoning are also proposed on approximately 22 acres that are not part of the Specific Plan.

USFWS-1

The proposed development of the property was first discussed with the Wildlife Agencies during a July 8, 1999, meeting with the previous property owner (H.G. Fenton), the City, the U.S. Army Corps of Engineers (Corps), and Dudek & Associates, the biological consultant. At a July 17, 2001, meeting the Wildlife Agencies were advised that a new tentative map was being developed by JRM Real Estate that proposed primarily industrial development, including a power plant. During this meeting, the potential for onsite restoration of corridors along the waterline easement and the San Diego Gas & Electric easement were discussed. It was decided that, because of the potential for future disturbance for easement maintenance, onsite mitigation credit would not be feasible. The applicant was advised at that time that the project as proposed would probably not be eligible for a Habitat Loss Permit processed through section 4(d) of the Act because of the large number of gnatcatchers observed onsite.

The proposed Specific Plan encompasses 208 acres and proposes to develop 186 acres as a business park within eight Planning Areas located on both sides of the proposed Citracado Parkway extension, just south of Vineyard Drive, in the City. Associated offsite improvements include the widening of two streets: Vineyard Avenue between East Mission Road and Alpine Way, and Valley Parkway between 11th Street and Citracado Parkway. A 550-megawatt power plant is proposed on the 70-acre Planning Area 1. Two offsite elements are associated with the power plant: an offsite natural gas pipeline to be upgraded approximately one mile northeast of the project site and offsite water pipelines that extend to the southeast. With the exception of eight single-family dwellings in the southwest part of the ERTC property, the site consists primarily of vacant, undeveloped land. The site is bordered by industrial and commercial uses to the north and east, single-family homes to the west, and mostly vacant lands with scattered single-family homes on large lots, to the south.

The project site has rolling to hilly terrain, with prominent hills in the northern and southwestern parts of the property. The site is cut by a number of small gullies, with the most prominent drainage running from the west central to the southwest part of the property. Escondido Creek traverses an area 0.75 mile southeast and south of the project site. There is a network of dirt roads and trails on the property that have been used to access the electrical transmission towers and for off-road vehicle use.

The main vegetation types on the project site are Diegan coastal sage scrub, annual grassland, coast live oak woodland, mixed willow, mulefat, disturbed/ruderal habitat, seasonal ponds and drainages, eucalyptus (*Eucalyptus sp.*), and urban lands. Table 2.6-1 in the DEIR describes the acreage of each habitat onsite. The site supports one federally threatened species and several species designated as California Species of Special Concern (CSC). According to the biological resources report the following sensitive species were detected onsite: 14 individual federally threatened gnatcatchers (CSC); 7 juvenile and 250 western spadefoot toad tadpoles (*Spea hammondi*, CSC); southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*, CSC); loggerhead shrike (*Lanius ludovicianus*, CSC); Cooper's hawk (*Accipiter cooperii*, CSC); San Diego black-tailed jackrabbit (*Lepus californicus bennettii*, CSC); and Coronado skink (*Eumeces skiltonianus interparietalis*, CSC). Ashy spike-moss (*Selaginella cinerascens*),

another sensitive species observed onsite, is on the California Native Plant Society's list 4, indicating that it is of limited distribution. The white-tailed kite (*Elanus leucurus*), also known to occur onsite, is designated as a State Fully Protected species. This designation prohibits take or possession of this species at any time (i.e., no take authorizations from the State are available). Focused surveys were conducted for the Quino checkerspot butterfly (*Euphydryas editha quino*), Least Bell's vireo (*Vireo bellii pusillus*), and southwestern willow flycatcher (*Empidonax traillii extimus*). However, none of these species was found.

The project is anticipated to impact all current biological resources within the limits of the proposed project except for 3.8 acres of Diegan coastal sage scrub, 1.7 acres of oak woodland, and an incised ephemeral channel that will be preserved in Planning Areas 6 and 7. Table 2.6-3a in the DEIR describes the vegetation and habitat impacts of the proposed project and Table 2.6-4a describes the habitat-based mitigation ratios for project impacts.

The comments provided herein are based on the information provided in the DEIR, the Biological Resources and Impact Assessment for the Escondido Research & Technology Center Specific Plan Area dated October 12, 2001; Biological Assessment dated March 29, 2002; the Responses to Corps request for additional information dated August 16, 2002; Composite North County Subarea Plan Habitat Evaluation Model Results dated April 12, 2002; the Escondido Subarea Plan dated June 2001; the Wildlife Agencies knowledge of sensitive and declining vegetation communities in San Diego County, and our participation in regional conservation planning efforts.

The Wildlife Agencies appreciate the opportunity to comment on the DEIR. We offer our recommendations and comments in Enclosure 1 to assist the City in minimizing and mitigating project impacts to biological resources, and to assure that the project is consistent with ongoing regional habitat conservation planning efforts. In summary, we have the following concerns about the proposed project as described in the DEIR: (1) permitting impacts to Diegan coastal sage scrub through 4(d) take authorization [i.e., NCCP Habitat Loss Permit (HLP)] is not appropriate; (2) the DEIR does not fully evaluate the potential connectivity of the project site to adjacent County of San Diego (County) lands in relation to the County's efforts to create the North County Multiple Species Conservation Program (MSCP) Subarea Plan; (3) the DEIR inaccurately maps disturbed areas which would more appropriately be mapped as coastal sage scrub; (4) the DEIR does not include adequate measures to minimize indirect impacts from construction noise to gnatcatchers nesting in preserved habitat; (5) the DEIR does not discuss measures to reduce potential impacts to nesting and foraging raptors; (6) the DEIR did not adequately document maintenance, monitoring and funding of the onsite and offsite mitigation areas; (7) widths of proposed wetland and mitigation site buffers, the location of existing or proposed trails, and the location of fuel modification zones are not adequately addressed; (8) the DEIR does not fully analyze impacts to oak trees; (9) the DEIR has discrepancies in mitigation ratios and preserve acreages; (10) the DEIR does not discuss how both onsite preservation areas and offsite acquisition areas will be protected, maintained, and

Ms. Diana Delgadillo (FWS-SDG-22523)

4

monitored in perpetuity consistent with the draft MHCP, including funding; and (11) the DEIR does not fully analyze associated offsite impacts related to project infrastructure.

The Wildlife Agencies appreciate the opportunity to comment on the DEIR and are available to work with the City and their consultants to address these concerns. Please contact Nancy Frost of the Department at (858) 637-5511 or Janet Stuckrath of the Service at (760) 431-9440, if you have any questions or comments concerning this letter.

Sincerely,

Lee Ann Cananiza

William E. Tippets

for Pete Sorensen
Acting Assistant Field Supervisor
U.S. Fish and Wildlife Service

William E. Tippets
Environmental Program Manager
California Department of Fish and Game

cc: State Clearinghouse
County of San Diego

Enclosures (2)

ENCLOSURE 1

WILDLIFE AGENCY
COMMENTS AND RECOMMENDATIONS
ON THE ESCONDIDO RESEARCH AND TECHNOLOGY CENTER
DRAFT ENVIRONMENTAL IMPACT REPORT

- USFWS-2 1. Projects permitted under the section 4(d) of the Endangered Species Act must ensure no permanent loss or abandonment of gnatcatcher territories within core gnatcatcher population areas. Generally, an Habitat Loss Permit (HLP) is not appropriate for sites supporting significant populations of target species. The Natural Community Conservation Program (NCCP) Process Guidelines consider five or more pairs of gnatcatchers to be a significant population. In 1998, Dudek observed six gnatcatcher pairs onsite, and all six pairs will be impacted. Therefore, this project should be permitted through a section 7 consultation, if appropriate, an individual 10(a)(1)(b) Incidental Take Permit, or under the City of Escondido (City) Multiple Habitat Conservation Program (MHCP) Subarea Plan.
- USFWS-3 2. The project is adjacent to County of San Diego (County) land proposed for inclusion in the North County Multiple Species Conservation Program (MSCP) Subarea Plan. The final Environmental Impact Report (EIR) should address the consistency of the Escondido Research and Technology Center (ERTC) with the regional conservation planning for the North County MSCP Subarea Plan. While there are no current design criteria for linkages and corridors for the North County MSCP Subarea Plan, we recommend the MSCP County of San Diego Subarea Plan be consulted.
- USFWS-4 3. Section 2.6 of the Draft Environmental Impact Report (DEIR) concludes that the site lacks connectivity to core conservation areas; however, no supporting documentation was provided. The Wildlife Agencies were not provided adequate information to assess this issue. The final EIR should thoroughly analyze wildlife movement corridors and regional habitat connectivity in relation to the site's potential value for gnatcatcher survivorship and dispersal, even if it may only function as a stepping stone linkage for gnatcatchers and possibly other coastal sage scrub bird species. This analysis should include review and consideration of recent habitat modeling shown in the Composite North County Subarea Plan Habitat Evaluation Model Results. The DEIR describes the project site as "fragmented and degraded"; however, it supports a significant population of gnatcatchers, one of the largest concentrations within the City.
- USFWS-5 4. If viable connectivity for gnatcatcher dispersal between onsite and offsite habitat is found to exist, the final EIR should include feasible alternatives that would ensure the preservation of this population of gnatcatchers and this habitat linkage.
- USFWS-6 5. Because this project would impact an entire core gnatcatcher population, the 2:1 mitigation ratio given in the DEIR may not be adequate to fully offset impacts. Information provided in the final EIR regarding the site's regional connectivity and

USFWS-2. It is recognized that take authorization must be obtained under the ESA. As such, the project will be required to obtain take authorization prior to disturbance of coastal sage scrub. Unless the City has received approval of its Subarea Plan and been issued its take authorization, the project will need either a 4(d), 7, or 10(a) as approved/issued by the Service.

USFWS-3. The subject site is located within the Escondido Subarea of the North County MSCP. It has been designated industrial since the mid-1980s and represents Escondido's only remaining stock of vacant, industrial land. This plan focuses its recommended conserved habitat within the most important biological core areas and key wildlife corridor linkages. Neither the subject site, nor adjacent undeveloped lands, maintains possible linkages to the north, east, or west due to the presence of tracts of intervening, highly developed urban lands. A potential highly degraded linkage to the south consists of existing well-traveled roadways, various lots featuring ranchette-style homes with large yards and exotic plantings, disturbed grasslands, and a degraded Eucalyptus Woodland. While this area remains a potential low-quality habitat linkage, its long-term viability is questionable. This is reflected in the Subarea Plan preserve plan, which does not identify the subject site nor any of the adjacent or nearby properties as conservation areas under either the Biological Core and Linkage Areas (BCLA), nor the final Focused Planning Areas (FPA). The County of San Diego has not produced either maps or design criteria for linkages on County lands and has withdrawn from the MHCP planning efforts. As a result, there are no certainties as to what the County is planning relative to conservation in the adjacent lands to the west. Given that the City of Escondido has worked through conservation planning issues with the USFWS and CDFG and has prepared a defensible conservation strategy that does not rely on the project site, it would seem inappropriate to begin adjusting conservation boundaries within the City of Escondido based on what the County of San Diego may do in the future. It should be noted that early MHCP discussions clearly acknowledged the City's priority to develop the property consistent with the General Plan. The comment fails to acknowledge the subsequent meeting held on August 24, 1999 and the analysis conducted as a result of that meeting (documented in memos from Dudek and Associates on September 13 and 17, 1999). At that meeting, representatives of the wildlife agencies concurred with the conclusion that long-term onsite conservation was not feasible. The City's Subarea Plan was prepared based on this conclusion. Other than a reduction in the number of gnatcatcher pairs found on the property, no other conditions have changed to alter this conclusion.

USFWS-4. In reviewing both the vegetation and sensitive species within a 1-mile radius of the property (Merkel & Associates) and the Composite North County Subarea Habitat Evaluation Model Results, the subject site is not viewed as necessary as a stepping-stone for movement of gnatcatchers and other sage scrub avian species. This is based on the fact that the site is only tenuously connected through low-density residential areas to the southwest of the plan area. This connection links to limited habitat stands scattered across rural development and agricultural lands

further to the southwest. The site itself is a corridor dead-end in that it is surrounded on three sides by developed lands, and neither the San Marcos nor Escondido Subarea Plans have included an attempt at creating a new corridor through the developed areas at this location. Significant blocks of habitat that would comprise 'stepping stone islands' of native vegetation northward and eastward of the proposed project site are now absent from the San Marcos and Escondido valleys north and east of the site. Distances to undeveloped lands in the San Marcos Hills on the northern side of these valleys are considerable, and feasible connectivity in these directions does not exist. This view is validated by the fact that both the City of Escondido and the wildlife agencies, in development of the City of Escondido draft Subarea Plan of the MHCP, did not include the coastal sage scrub habitat within ERTC in the final Focused Planning Area (FPA) designation as preserve areas necessary to ensure long-term conservation goals of the MHCP. Moreover, the coastal sage scrub on the ERTC site was not even included as a Biological Core and Linkage Area (BCLA) in the North San Diego County MHCP.

USFWS-5. Conservation of this parcel of land has not been proposed in the City of Escondido's NCCP Subarea Plan. Development proposals for this site are being developed in accordance with the draft subarea plan. It would be inappropriate to replan site uses based on an uncertain conservation planning horizon within the County of San Diego. This is especially true since securing the existing weak linkage between this site and higher habitat value areas would require County conservation planning through low-density residential and agricultural lands.

USFWS-6. The subject property is not considered as a core population of gnatcatchers. The most recent, thorough gnatcatcher survey identified four pairs of birds on the site. Additionally, the increasing levels of peripheral disturbances from urbanization, lack of connectivity with quality habitat offsite, and the poor quality of onsite CSS (limited understory) do not allow for a good-quality, long-term, viable gnatcatcher preserve. Mitigation ratios in the DEIR are based on those established in the draft MHCP (Table 4-7) and the draft Escondido subarea plan and are based on anticipated conservation necessary to fully implement the plan and the overall MHCP. The proposed mitigation ratio of 2:1 and an equal number of birds exceeds the maximum ratio proposed in the draft MHCP, which is not based on whether the habitat is occupied. In light of the fact that the City's subarea plan has not yet been adopted, the City has required additional standards on any CSS mitigation lands used. These require that Coastal Sage Scrub mitigation lands be occupied by an equal number of gnatcatchers or be mitigation credits that have previously been approved by wildlife agencies for use in mitigating gnatcatcher-occupied habitat. This would ensure conservation of not only habitat, but gnatcatchers as well, even if the subarea plan is ultimately not finalized.

ENCLOSURE 1

survivorship and dispersal of this population of gnatcatchers will assist in developing the appropriate mitigation ratios.

6. We recommend that the final EIR state that prior to commencement of grading or clearing, mitigation measures will be reviewed and approved by the Wildlife Agencies and the City. This should include, but is not limited to, mitigation for impacts to Diegan coastal sage scrub and the western spadefoot toad.

7. A biological monitor should be present during construction and oversee the mitigation activities to ensure that conservation measures required in the EIR, resource agency permits, and construction documents are performed in compliance with those documents and any concurrent or subsequent mitigation plans. The biological monitor will have the authority to halt all associated project activities, which may be in violation of the conditions of any permits in effect. Any unauthorized impacts or actions not in compliance with the required mitigation should be immediately brought to the attention of the City and Wildlife Agencies.

8. Coastal sage scrub is mapped and mitigated because it is a sensitive habitat type that is foraging and nesting habitat for gnatcatchers. However, the DEIR delineates numerous interspaces within broader patches of Diegan coastal sage scrub (generally in Planning Areas 1 through 6) as disturbed habitat. Because these areas are within gnatcatcher use areas and during a site visit on November 6, 2001, we observed that the areas mapped as disturbed often contain small seedling shrubs indicative of recovering Diegan coastal sage scrub, these areas should be remapped as disturbed Diegan coastal sage scrub habitat and mitigated accordingly.

9. The DEIR states that boundary demarcation along the edge of preserved habitat and all clearing and grubbing will occur outside the gnatcatcher breeding season of approximately February 15 to August 31. In addition, prior to construction activities, a qualified biologist should survey the preserved habitat areas adjacent to the project site to determine if any gnatcatcher nests are within a distance potentially affected by noise from these activities. If no nesting gnatcatchers are located, no additional measures will need to be taken to mitigate indirect impacts. However, if nesting gnatcatchers are observed, no activity will occur within 300 feet of active nesting territories unless measures are implemented to minimize the noise and disturbance to those adjacent birds. If nesting birds are located adjacent to the project site with the potential to be affected by noise above 60 dBA L_{eq}, a noise barrier should be erected. This noise barrier should consist of a 20-foot-high continuous plywood fence supported by posts or an earthen berm located at the site boundary that abuts potential off-site habitat.

10. If the construction (including grading) occurs during raptor breeding season (February 15 - August 31), a qualified biologist should conduct a pre-construction survey of the project site and surrounding habitat to determine whether there are active raptor nests within that

USFWS-7. Mitigation for the California gnatcatcher is the subject of a formal Section 7 consultation between the U.S. Fish & Wildlife Service and the Corps of Engineers. Spadefoot toad mitigation will be addressed as an element of the project's onsite wetland mitigation program, which is subject to Corps of Engineers' permitting and the development of a streambed alteration agreement with the California Department of Fish & Game. Through these processes, additional input opportunities will be afforded the Wildlife Agencies. A mitigation measure will be added to the EIR to provide an agency review process during the preparation of final design and engineering of the mitigation site.

USFWS-8. Text has been added to the EIR. See Page 2.6-28.

USFWS-9. The purpose of the subject biological assessment was to map the current status of onsite vegetation. Such vegetation surveys are not intended to imply that a particular gnatcatcher use area may not include adjacent grassland or disturbed areas. Gnatcatchers within a single occupied territory will regularly forage across small expanses of grassland and disturbed lands (i.e., areas as broad as 10-50 yards). The mapping, however, was conducted under standard surveying criteria, in which areas of generally less than 20% CSS associated shrub cover were not mapped as CSS, and areas of more than 20% shrub cover were mapped as CSS. The biologists will review the areas again and revise maps and impact assessments if appropriate. The alterations may affect the final habitat acreage numbers slightly, but would not alter any of the conclusions regarding whether CSS and such associates as California gnatcatchers are being significantly impacted. Mitigation ratios would also not be affected.

USFWS-10. Text has been added to the EIR. See Page 2.6-35.

USFWS-11. Active raptor nests of such disturbance-tolerant species as red-shouldered hawks, red-tailed hawks, great horned owls, and American kestrels often occur within extremely close proximity to areas with high activity levels, including construction sites. Due to the presence of many eucalyptus groves adjacent to the proposed project, principally around existing residential developments, a blanket 500-foot setback for all construction during the breeding season is considered to be overly restrictive, especially for species with demonstrated high levels of tolerance to activity. The City will incorporate mitigation measures that restrict clearing and grubbing activities that would result in loss of active nest sites and will incorporate mitigation measures in the EIR that require the monitoring biologist to address the need for setbacks from any raptor nests on areas outside of the direct construction footprint on a case-by-case basis considering the types of activities to occur in the area, the species of raptor and its demonstrated tolerances to disturbance, the timing of activities, and the specific circumstances of the nesting. See Page 2.6-35.

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area. If an active nest is observed, we recommend that a buffer be established between the construction activities and the nest so that nesting activities are not interrupted. The buffer should be a minimum width of 500 feet and should be in effect as long as construction is occurring and until the nest is no longer active.

- USFWS-12 11. Transmission lines and towers associated with site development should follow the guidelines presented in Enclosure 2, *Service Interim Guidelines for Recommendations on Communications Tower Siting, Construction, Operation, and Decommissioning*.
- USFWS-13 12. Because of concerns about edge and indirect effects, the Wildlife Agencies typically require a minimum 100-foot wide biological buffer for existing wetlands and proposed mitigation sites to protect these habitats and the species they support from proposed development and its associated long-term activities. The final EIR and supporting documentation should be revised to reflect this and include a discussion of proposed buffers and clearly delineate the buffers and widths on the map.
- USFWS-14 13. The last paragraph on page 2.6-14 states: "...no MSCP narrow endemic species or critical populations of MSCP-covered species occur within the project vicinity." The proposed project is located within the draft MHCP boundaries. Clarify whether any proposed narrow endemic or covered species that are identified in the draft MHCP occur within the project vicinity.
- USFWS-15 14. A complete description and map of the location of any existing or proposed trails in designated onsite open space should be included in the final EIR. We recommend that no new trails be created within designated open space unless they replace existing trails that pose greater impacts to the sensitive biological resources. Existing trails near sensitive species may need to be closed during the gnatcatcher breeding season to avoid harassment and nest abandonment.
- USFWS-16 15. It is unclear from the description and maps provided where fuel modification zones occur. Inclusion of wildlife habitat within a fuel modification zone is considered a direct, permanent impact to that habitat and the wildlife (including plants) therein. A map showing the project footprint, fuel modification zones, and wildlife habitat preserved onsite should be included.
- USFWS-17 16. In order to reduce the potential for indirect effects from the proposed project, we recommend that lots adjacent to biological open space have permanent 6-ft-tall fencing and no gates between the development and the open space, that all lighting be shielded and directed away from the open space, and implementation of best management practices during construction in accordance with National Pollutant Discharge Elimination Systems General Permit requirements.

USFWS-12. The referenced Guidelines affect "communications towers, including radio, television, cellular, and microwave". As such, they are not applicable to electrical transmission line towers. However, SDG&E has been working with Wildlife Agencies and others to develop methods to protect raptors and other species around overhead utilities. A measure shall be incorporated into the EIR to ensure that current SDG&E design standards to protect birds around overhead power lines are required for any overhead utility connections.

USFWS-13. Jurisdictional wetland impacts and mitigation for the proposed ERTC project are as follows:

Jurisdictional Wetland Habitat	Total Impacts	Mitigation Ratio	Mitigation Total
Mixed Willow Series	3,920 SF	3:1	11,760 SF
Mulefat Series	870 SF	3:1	2,610 SF
Nonwetland Waters	5,001 SF	3:1	15,003 SF
Total Impacts	9,791 SF (0.22 ac)		29,373 SF (0.67 ac)
Credit for mixed willow habitat to be preserved and enhanced in PA 7			- 6,970 SF (0.17 ac)
Additional Mitigation Requirement (Wetland Creation, PA 7)			22,403 SF (0.50 ac)

As a result, ERTC is proposing 0.17 acre of existing wetlands preservation within PA 7, and an additional 0.50 acre of wetland creation in PA 7, which totals 0.67 acre of wetland mitigation. The wetland creation area is shown on attached Exhibit A.

This wetland creation is to be located in a gently sloping, shallow valley, incised only intermittently along the drainage bottom, within PA 7. The creation site is only slightly higher in elevation than the existing adjacent wetland habitat and drainage channel, and presently supports California annual grassland series vegetation, a disturbed upland community suitable for wetland creation. The alluvial soils and proximity to groundwater in the area are favorable to the creation of an expanded wetlands corridor.

The expanded wetlands corridor in PA 7 will be buffered from the urban business park uses by a manufactured perimeter slope a minimum of 100 horizontal feet in depth, and 50 vertical feet in height. This slope adjacent to the wetland restoration area will be planted with native CSS species, and as a result, should provide an adequate environmental buffer between the edge effects of the business park, and the existing and created (expanded) wetlands.

USFWS-14. No MHCP narrow endemic plant species occur within the ERTC area. The California gnatcatcher was the only "significant" covered species observed onsite. The Coronado Skink was previously observed by Dudek in 1998. Numbers of

this species are expected to be low onsite, and would not constitute a significant population, since the ERTC site supports only fair-quality habitat for this animal. This species could potentially occur throughout the site, especially in areas where rocks, logs, leaf-litter, or wood or cardboard debris occur. Populations would be expected to be the highest, on a year to year basis, within the oak/riparian woodlands habitat located within areas to be preserved in Planning Area 7. Exact population numbers and onsite distribution of this animal are presently unknown, but this is a common lizard, and its presence is not considered significant.

Potential impacts to this species could occur as a result of loss of habitat from development of sage scrub and annual grassland habitats located in Planning Areas 1-6. Acquisition of sage scrub habitat, in conjunction with mitigation for impacts to onsite sage scrub vegetation and the Coastal California Gnatcatcher, will adequately address mitigation for the Coronado Skink as well.

Mitigation for habitat loss is proposed to occur on the Bernardo Mountain site in southern Escondido. However, alternative sites may also be appropriate, providing they meet the acreage and bird density requirements. This site supports intact sage scrub occupied by California gnatcatchers and is an identified FPA for preserve design within the City of Escondido. This mitigation site would address concerns over habitat losses, the federally-listed California gnatcatcher, and impacts to the Coronado skink.

- USFWS-15. Exhibit 29 of the ERTC Specific Plan shows the proposed trail alignments for the project. Portions of these alignments could result in indirect impacts to gnatcatchers in the open space in PA 7, and also in the proposed CSS revegetation of the western perimeter slopes of the project. As a result, to minimize impacts, the developer is proposing to revise the community trail program to eliminate trails in locations that cross revegetated slopes. All trails have likewise been eliminated from PA 7. Attached Exhibit B shows the revised locations of proposed community trails.
- USFWS-16. Attached as Exhibit C is a proposed map showing the project footprint. No fuel modification zones extend into any wildlife habitat preserve on the site.
- USFWS-17. The proposed project has been revised to not include any residential uses. As a result, no pets are anticipated in the ERTC project, and cat-proof fencing would not be appropriately required. A mitigation measure will be added that all lighting be shielded and directed away from the PA 7 open space.

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- USFWS-18 17. The third paragraph under the heading Recreation on page 4-2 states that the proposed project includes the preservation and/or revegetation of approximately 40 acres of native habitat. However, the last paragraph on page 2.6-19 states that only 3.8 acres of coastal sage scrub, 1.7 acres of oak woodland, and an incised drainage will be preserved in Planning Areas 6 and 7. Clarify the discrepancy and map the location of proposed preservation and restoration areas.
- USFWS-19 18. The final EIR should include a description of how both onsite preservation areas and offsite acquisition areas will be protected, maintained, monitored, and funded in perpetuity and its consistency with the draft MHCP.
- USFWS-20 19. The DEIR states on page 1-17 that the two residential areas will be removed from the Specific Plan. However, on page 5-3, the DEIR states that the Land Use Element will require modification to accommodate residential land uses within planning areas of the Specific Plan. In addition, Table 2.6-4b on page 2.6-33 discusses proposed mitigation for estimated impacts from the residential development. The final EIR should clarify whether the two Estate II residential areas will be included or removed from the Specific Plan, whether the applicant proposes to mitigate for estimated impacts at this time, and whether the Estate II areas will require additional CEQA review in the future.
- USFWS-21 20. The total impact/mitigation amounts in Table 2.6-4a do not add up correctly horizontally. The final EIR should correct these numbers or clarify how they were reached.
- USFWS-22 21. Table 2.6-1 indicates that 0.1 acre seasonal ponds and drainages will be impacted within PA1. However, Table 2.6-4a does not include proposed mitigation for this impact. The draft Escondido MHCP Subarea Plan requires no-net-loss of wetlands. Therefore, this impact should be mitigated at a minimum ratio of 1:1.
- USFWS-23 22. The final EIR should discuss the impacts and proposed mitigation for the offsite road improvements. The staging areas for the offsite road improvements should be placed in disturbed areas such as a parking lot, not within habitat such as disturbed Diegan coastal sage scrub or annual grassland.
- USFWS-24 23. The final EIR should discuss the temporary and permanent impacts that the proposed 1.1-mile long, 16-inch subsurface reclaimed wastewater and 1.1-mile, 8-inch return lines will have on biological resources onsite and offsite.
- USFWS-25 24. Clarify the proposed mitigation ratio for annual grassland given in Tables 2.6-4a and 2.6-4b. As shown, the ratio reads that there will be one acre of mitigation for every 0.5 acre of impact (1:0.5).
- USFWS-26 25. In general, the Department supports woodland mitigation efforts that would create, enhance, or preserve replacement habitat that is ecologically connected and functional.

USFWS-18. It should be made clear that the only permanently preserved habitat on the ERTC site will be on PA 7, which vegetation and acreage numbers are reflected in this comment, totaling approximately 7.8 acres. In addition, assuming that the offsite mitigation program proposed by the applicant (and identified in response USFWS-18 below) is approved by the USFWS and CDFG, the developer has agreed to also install approximately 19 acres of CSS revegetation along the westerly perimeter slope. This area had not been previously contemplated for mitigation uses. Revegetation of this perimeter results in a total of approximately 26 acres of onsite preserve/restored native habitat. The balance of the 40 acres referenced on Page 4-2 probably included the SDG&E easement corridor, over which the developer does not have sufficient control to ensure native habitat protection or revegetation. The potential onsite native habitat preserve/restoration areas are shown on attached Exhibit D.

USFWS-19. The onsite 7.8 acres of preserved open space within PA 7 will be protected through recordation of a conservation easement. This easement will be permanently maintained by the ERTC business park owner's association. The CC&Rs for the ERTC project will require that sufficient funds exist in the association budget to maintain this area in accordance with the conservation easement requirements.

At this time, mitigation for impacts to coastal sage scrub (CSS) are proposed at a 2:1 ratio through the offsite purchase of mitigation area at the Bernardo Mountain site at the north end of Lake Hodges. Any additional amounts beyond that ultimately required for mitigation may be used for partial nonnative grassland (NNG) mitigation. Bernardo Mountain is considered an important segment of the Escondido Subarea Plan and the San Dieguito River Park habitat corridor. In addition, the Bernardo Mountain Preserve property contains a large tract of coastal sage scrub providing habitat that is suitable for many sensitive species. The biological values onsite, along with the property's proximity to adjacent large areas of MSCP preserve areas, and its connectivity to the protected open space lands occupied by listed and sensitive species, led to its conservation. This expanded biological preserve incorporates the local core gnatcatcher and cactus wren populations into one defensible unit that will provide a key component of the regional MSCP plan to protect sensitive San Diego County animal and plant resources.

The developer proposes to provide an endowment of sufficient size to fund the ongoing maintenance of the 100-acre mitigation site. A mitigation and monitoring plan which will provide the details of this ongoing conservation management effort will be provided by the developer prior to construction of the ERTC project.

The balance of the upland mitigation (NNG) will be through purchase of NNG credits at Daley Ranch in Escondido.

USFWS-20. The two residential areas are not within the Specific Plan; however, these parcels are being rezoned. Thus, the EIR must address the potential for future impacts. Since no site plans are available at this time, the EIR assessed the impacts assuming 100% disturbance. Mitigation ratios were established for future impacts. The City will review site plans when they are submitted and require appropriate mitigation at that time.

USFWS-21. The residential areas were inadvertently added into the totals. The corrected table should be as follows:

Vegetation Community	Ratio	PA 1		PAs 2-8		Total	
		Imp.	Mit.	Imp.	Mit.	Imp.	Mit.
CSS	2:1	6.9	13.8	38.2	76.4	45.1	90.2
Annual Grassland	0.5:1	7.5	3.8	88.0	44.0	95.5	47.8
Coastal Live Oak	3:1	0	0	0.1	0.3	0.1	0.3
Mixed Willow/Mulefat	3:1	0	0	0.1	0.3	0.22	0.66
Disturbed, etc.	None	5.5	0	26.0	0	31.5	0

USFWS-22. The updated impacts identified in the table responding to USFWS-21 above include the seasonal ponds and drainages within PA 1.

USFWS-23. As a result of the traffic generated by the ERTC project, the following offsite road widening improvements are proposed to be constructed in conjunction with the project. These offsite improvements are:

- a. Intersection improvements, including signalizing and widening of Vineyard Avenue to provide free turn lanes onto and from proposed Citracado Parkway.
- b. Installation of a traffic signal at the existing Enterprise Street/Andreasen Drive intersection.
- c. Widening of Harmony Grove Road from Andreasen Drive to Hale Avenue.
- d. Widening of "stick-out" areas to match adjacent improvements on Hale Avenue from Avenida Del Diablo to Ninth Avenue.
- e. Widening of "stick-out" areas to match adjacent improvements on Ninth Avenue from Hale Avenue to Valley Parkway.

The EIR did discuss the impacts of the offsite improvements. For those elements that had the potential to impact sensitive biological resources, the impacts were addressed (Page 2.6-27). Since final plans have not been prepared, supplemental CEQA review will be completed when final plans are prepared. See Mitigation Measure 7 (Page 2.6-34).

- USFWS-24. The reclaimed water supply and return brine lines are improvements that are part of the City of Escondido's Recycled Water Quality Enhancement Project, which is reviewed and permitted through a separate City process (ER 2002-16). This separate project covers the extension of the City's brine collection system between the southern limit of Escondido Creek to the Hale Avenue Resource Recovery Facility.
- USFWS-25. This is a typographical error. The correct ratio should be 0.5:1 (mitigation: impacts). It is shown correctly in the above table in response to USFWS-20.
- USFWS-26. We are proposing offsite preservation, not revegetation.

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An ecological restoration approach that emphasizes woodland habitat values may result in better quality habitat being established in appropriate locations.

So that we can assess if the proposed oak tree mitigation is of equivalent biological value to the oak trees that will be impacted, the final EIR should list the DBH of each oak tree that will be impacted. The following replacement ratios (using rooted plants in liners or direct planting of acorns) are recommended for oak trees that are removed:

- a. trees less than 5 inches diameter at breast height (DBH) should be replaced at 3:1
- b. trees between 5 and 12 inches DBH should be replaced at 5:1
- c. trees between 12 and 36 inches DBH should be replaced at 10:1
- d. trees greater than 36 inches DBH should be replaced at 20:1

The replacement ratio for damaged trees less than 12 inches DBH should be 2:1, and greater than 12 inches DBH should be 3:1. All other oaks should be fenced off and tagged to prevent equipment from operating in the drip line of these trees.

USFWS-27 20. We recommend the use of a native plant palette in landscaping projects adjacent to open space. Exotic plant species not to be used include those species listed on Lists A & B of the California Exotic Pest Plant Council's list of "Exotic Pest Plants of Greatest Ecological Concern in California as of October 1999." This list includes such species as: pepper trees, pampas grass, fountain grass, ice plant, myoporum, black locust, capweed, tree of heaven, periwinkle, sweet alyssum, English ivy, French broom, Scotch broom, and Spanish broom. A copy of the complete list can be obtained by contacting the California Exotic Pest Plant Council at 32912 Calle del Tesoro, San Juan Capistrano, CA 92675-4427, or by accessing their web site at <http://www.caleppe.org>.

USFWS-28 21. The proposed project will require a Lake or Streambed Alteration Agreement (SAA). The Department has direct authority under Fish and Game Code section 1600 *et seq.* regarding any proposed activity that would divert, obstruct, or affect the natural flow or change the bed, channel, or bank of any river, stream, or lake. The Department's issuance of a SAA for a project that is subject to CEQA requires CEQA compliance actions by the Department as a Responsible Agency. As a Responsible Agency under CEQA, the Department may consider the City's (Lead Agency's) CEQA documentation. To minimize additional requirements by the Department pursuant to Section 1600 *et seq.* and/or under CEQA, the documentation should fully identify the potential impacts to the lake, stream or riparian resources and provide adequate avoidance, mitigation, monitoring and reporting commitments for issuance of the agreement. A SAA notification form may be obtained by writing to the Department of Fish and Game, 4949 Viewridge Avenue, San Diego, California 92123-1662, or by calling (858) 636-3160, or by accessing the Department's web site at www.dfg.ca.gov/1600. The Department's SAA Program holds regularly scheduled pre-project planning/early consultation meetings. To make an appointment, please call (858) 636-3160.

USFWS-27. If ultimately required by permit requirements, the project may plant a CSS native plant palette in the landscaping adjacent to the natural open space preserve on PA 7, and on the manufactured slopes on the western perimeter of the project. The EIR shall include a mitigation measure restricting use of any species considered to be an invasive, listed on Lists A & B of the California Exotic Pest Plant Council's list of "Exotic Pest Plants of Greatest Ecological Concern in California as of October 1999".

USFWS-28. Comment noted. The information will be forwarded to the developer for further consultation with the Wildlife Agencies.

ENCLOSURE 2

United States Department of Interior
 Fish and Wildlife Service
 Washington, DC 20240

September 14, 2000

To: Regional Directors
 From: Director /s/ Jamie Rappaport Clark
 Subject: Service Guidance on the Siting, Construction, Operation and Decommissioning of Communications Towers

Construction of communications towers (including radio, television, cellular, and microwave) in the United States has been growing at an exponential rate, increasing at an estimated 6 percent to 8 percent annually. According to the Federal Communication Commission's *2000 Antenna Structure Registry*, the number of lighted towers greater than 199 feet above ground level (AGL) currently number over 45,000 and the total number of towers over 74,000. Non-compliance with the registry program is estimated at 24 percent to 38 percent, bringing the total to 92,000 to 102,000. By 2003, all television stations must be digital, adding potentially 1,000 new towers exceeding 1,000 feet AGL.

The construction of new towers creates a potentially significant impact on migratory birds, especially some 350 species of night-migrating birds. Communications towers are estimated to kill 4-5 million birds per year, which violates the spirit and the intent of the Migratory Bird Treaty Act and the Code of Federal Regulations at Part 50 designed to implement the MBTA. Some of the species affected are also protected under the Endangered Species Act and Bald and Golden Eagle Act.

Service personnel may become involved in the review of proposed tower sitings and/or in the evaluation of tower impacts on migratory birds through National Environmental Policy Act review; specifically, Sections 1501.6, opportunity to be a cooperating agency, and 1503.4, duty to comment on federally-licensed activities for agencies with jurisdiction by law, in this case the MBTA, or because of special expertise. Also, the National Wildlife Refuge System Improvement Act requires that any activity on Refuge lands be determined as compatible with the Refuge system mission and the Refuge purpose(s). In addition, the Service is required by the ESA to assist other Federal agencies in ensuring that any action they authorize, implement, or fund will not jeopardize the continued existence of any Federally endangered or threatened species.

A Communication Tower Working Group composed of government agencies, industry, academic researchers and NGO's has been formed to develop and implement a research protocol to determine the best ways to construct and operate towers to prevent bird strikes. Until the research study is completed, or until research efforts uncover significant new mitigation measures, all Service personnel involved in the review of proposed tower sitings and/or the evaluation of the impacts of towers on migratory birds should use the attached interim guidelines when making

USFWS-29. A transmittal from the United States Department of Interior was included as an attachment to the comment letter from the Wildlife Agencies. The information provided in this transmittal pertains to Communication Tower Siting, Construction, Operation, and Decommissioning. Because this attachment does not address the adequacy of the EIR, no additional response is warranted.

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recommendations to all companies, license applicants, or licensees proposing new tower sitings. These guidelines were developed by Service personnel from research conducted in several eastern, midwestern, and southern states, and have been refined through Regional review. They are based on the best information available at this time, and are the most prudent and effective measures for avoiding bird strikes at towers. We believe that they will provide significant protection for migratory birds pending completion of the Working Group's recommendations. As new information becomes available, the guidelines will be updated accordingly.

Implementation of these guidelines by the communications industry is voluntary, and our recommendations must be balanced with Federal Aviation Administration requirements and local community concerns where necessary. Field offices have discretion in the use of these guidelines on a case by case basis, and may also have additional recommendations to add which are specific to their geographic area.

Also attached is a Tower Site Evaluation Form which may prove useful in evaluating proposed towers and in streamlining the evaluation process. Copies may be provided to consultants or tower companies who regularly submit requests for consultation, as well as to those who submit individual requests that do not contain sufficient information to allow adequate evaluation. This form is for discretionary use, and may be modified as necessary.

The Migratory Bird Treaty Act (16 U.S.C. 703-712) prohibits the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts, and nests, except when specifically authorized by the Department of the Interior. While the Act has no provision for allowing unauthorized take, it must be recognized that some birds may be killed at structures such as communications towers even if all reasonable measures to avoid it are implemented. The Service's Division of Law Enforcement carries out its mission to protect migratory birds not only through investigations and enforcement, but also through fostering relationships with individuals and industries that proactively seek to eliminate their impacts on migratory birds. While it is not possible under the Act to absolve individuals or companies from liability if they follow these recommended guidelines, the Division of Law Enforcement and Department of Justice have used enforcement and prosecutorial discretion in the past regarding individuals or companies who have made good faith efforts to avoid the take of migratory birds.

Please ensure that all field personnel involved in review of FCC licensed communications tower proposals receive copies of this memorandum. Questions regarding this issue should be directed to Dr. Benjamin Tuggle, Chief, Division of Habitat Conservation, at (703)358-2161, or Jon Andrew, Chief, Division of Migratory Bird Management, at (703)358-1714. These guidelines will be incorporated in a Director's Order and placed in the Fish and Wildlife Service Manual at a future date.

**Service Interim Guidelines For Recommendations On
Communications Tower Siting, Construction, Operation, and Decommissioning**

1. Any company/applicant/licensee proposing to construct a new communications tower should be strongly encouraged to collocate the communications equipment on an existing communication tower or other structure (e.g., billboard, water tower, or building mount). Depending on tower load factors, from 6 to 10 providers may collocate on an existing tower.
2. If collocation is not feasible and a new tower or towers are to be constructed, communications service providers should be strongly encouraged to construct towers no more than 199 feet above ground level (AGL), using construction techniques which do not require guy wires (e.g., use a lattice structure, monopole, etc.). Such towers should be unlighted if Federal Aviation Administration regulations permit.
3. If constructing multiple towers, providers should consider the cumulative impacts of all of those towers to migratory birds and threatened and endangered species as well as the impacts of each individual tower.
4. If at all possible, new towers should be sited within existing "antenna farms" (clusters of towers). Towers should not be sited in or near wetlands, other known bird concentration areas (e.g., state or Federal refuges, staging areas, rookeries), in known migratory or daily movement flyways, or in habitat of threatened or endangered species. Towers should not be sited in areas with a high incidence of fog, mist, and low ceilings.
5. If taller (>199 feet AGL) towers requiring lights for aviation safety must be constructed, the minimum amount of pilot warning and obstruction avoidance lighting required by the FAA should be used. Unless otherwise required by the FAA, only white (preferable) or red strobe lights should be used at night, and these should be the minimum number, minimum intensity, and minimum number of flashes per minute (longest duration between flashes) allowable by the FAA. The use of solid red or pulsating red warning lights at night should be avoided. Current research indicates that solid or pulsating (beacon) red lights attract night-migrating birds at a much higher rate than white strobe lights. Red strobe lights have not yet been studied.
6. Tower designs using guy wires for support which are proposed to be located in known raptor or waterbird concentration areas or daily movement routes, or in major diurnal migratory bird movement routes or stopover sites, should have daytime visual markers on the wires to prevent collisions by these diurnally moving species. (For guidance on markers, see *Avian Power Line Interaction Committee (APLIC). 1994. Mitigating Bird Collisions with Power Lines: The State of the Art in 1994. Edison Electric Institute, Washington, D.C., 78 pp.* and *Avian Power Line Interaction Committee (APLIC). 1996. Suggested Practices for Raptor Protection on Power Lines. Edison Electric*

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Institute/Raptor Research Foundation, Washington, D.C., 128 pp. Copies can be obtained via the Internet at <http://www.eei.org/resources/pubcat/enviro/>, or by calling 1-800/334-5453).

7. Towers and appendant facilities should be sited, designed and constructed so as to avoid or minimize habitat loss within and adjacent to the tower "footprint". However, a larger tower footprint is preferable to the use of guy wires in construction. Road access and fencing should be minimized to reduce or prevent habitat fragmentation and disturbance, and to reduce above ground obstacles to birds in flight.
8. If significant numbers of breeding, feeding, or roosting birds are known to habitually use the proposed tower construction area, relocation to an alternate site should be recommended. If this is not an option, seasonal restrictions on construction may be advisable in order to avoid disturbance during periods of high bird activity.
9. In order to reduce the number of towers needed in the future, providers should be encouraged to design new towers structurally and electrically to accommodate the applicant/licensee's antennas and comparable antennas for at least two additional users (minimum of three users for each tower structure), unless this design would require the addition of lights or guy wires to an otherwise unlighted and/or unguyed tower.
10. Security lighting for on-ground facilities and equipment should be down-shielded to keep light within the boundaries of the site.
11. If a tower is constructed or proposed for construction, Service personnel or researchers from the Communication Tower Working Group should be allowed access to the site to evaluate bird use, conduct dead-bird searches, to place net catchments below the towers but above the ground, and to place radar, Global Positioning System, Infrared, thermal imagery, and acoustical monitoring equipment as necessary to assess and verify bird movements and to gain information on the impacts of various tower sizes, configurations, and lighting systems.
12. Towers no longer in use or determined to be obsolete should be removed within 12 months of cessation of use.
13. In order to obtain information on the usefulness of these guidelines in preventing bird strikes, and to identify any recurring problems with their implementation which may necessitate modifications, please advise us of the final location and specifications of the proposed tower, and which of the measures recommended for the protection of migratory birds were implemented. If any of the recommended measures can not be implemented, please explain why they were not feasible."

TOWER SITE EVALUATION FORM

1. Location (Provide maps if possible):

State: _____ County: _____ Latitude/Longitude/GPS Grid: _____
City and Highway Direction (2 miles W on Hwy 20, etc.): _____

2. Elevation above mean sea level: _____

3. Will the equipment be co-located on an existing FCC licensed tower or other existing structure (building, billboard, etc.)? (y/n) _____ If yes, type of structure: _____
If yes, no further information is required.

4. If no, provide proposed specifications for new tower:

Height: _____ Construction type (lattice, monopole, etc.): _____
Guy-wired? (y/n) _____ No. bands: _____ Total No. Wires: _____
Lighting (Security & Aviation): _____

If tower will be lighted or guy-wired, complete items 5-19. If not, complete only items 19 and 20.

5. Area of tower footprint in acres or square feet: _____

6. Length and width of access road in feet: _____

7. General description of terrain - mountainous, rolling hills, flat to undulating, etc. Photographs of the site and surrounding area are beneficial:

8. Meteorological conditions (incidence of fog, low ceilings, etc.): _____

9. Soil type(s): _____

10. Habitat types and land use on and adjacent to the site, by acreage and percentage of total:

11. Dominant vegetative species in each habitat type: _____

12. Average diameter breast height of dominant tree species in forested areas: _____

13. Will construction at this site cause fragmentation of a larger block of habitat into two or more smaller blocks? (y/n) _____ If yes, describe: _____

14. Is evidence of bird roosts or rookeries present? (y/n) _____ If yes, describe: _____

15. Distance to nearest wetland area (forested swamp, marsh, riparian, marine, etc.), and coastline if applicable: _____

16. Distance to nearest telecommunications tower: _____

17. Potential for co-location of antennas on existing towers or other structures: _____

18. Have measures been incorporated for minimizing impacts to migratory birds? (y/n) _____ If yes, describe: _____

19. Has an evaluation been made to determine if the proposed facility may affect listed or proposed endangered or threatened species or their habitats as required by FCC regulation at 47 CFR 1.1307(a)(3)? (y/n) _____ If yes, present findings: _____

20. Additional information required: _____

CALIFORNIA ENERGY COMMISSION

1516 NINTH STREET
SACRAMENTO, CA 95814-5512

September 13, 2002

Mr. Jonathan Brindle
City of Escondido
Planning Department
201 N. Broadway
Escondido, CA 92025

Dear Mr. Brindle:

**RE: Draft EIR Review for the Escondido Research and Technology Center-
SCH #2001121065**

CEC-1

Energy Commission staff have reviewed the Draft Environmental Impact Report (DEIR) for the Escondido Research and Technology Center (ERTC) released on July 26, 2002. Based on our review we offer the attached comments.

We recognize the difficulty in coordinating the review of the overall ERTC project along with the Energy Commission's review of the Palomar Energy Project. Our comments are premised on our understanding of the City's need to analyze the likely environmental impacts of the proposed power plant. In doing so, the City should determine if those impacts can be fully or partially mitigated, yet the authority to condition the construction of the power plant rests with the Energy Commission. In some cases, it appears to us that the DEIR has not accounted for usual and expected conditions of approval that would mitigate the power plant's impacts. We have attempted to call out those instances in our comments.

Thank you for the opportunity to review this draft. If you have any questions or concerns regarding our comments, I would be happy to set up a conference call for our respective project staff team members to discuss their comments.

Sincerely,

ORIGINAL SIGNED BY

BOB ELLER
Project Manager
Systems Assessment and
Facilities Siting Division

Enclosure

LETTER 2 – CALIFORNIA ENERGY COMMISSION

CEC-1 The comment provides an introduction to the attached comments. The California Energy Commission (CEC) has indicated that the DEIR does not account for usual and expected conditions of approval that would mitigate the power plant impacts. It should be recognized that the Memorandum of Understanding (MOU) between the CEC and the City requires close coordination in the development of mitigation measures. Efforts have been made to achieve concurrence on key points, but since many of those measures are not currently codified in existing regulations, complete concurrence is not necessary. A detailed response has been provided for each comment below. The City will further review and consider the recommendations provided by CEC.

**ENERGY COMMISSION STAFF COMMENTS ON THE
ESCONDIDO RESEARCH AND TECHNOLOGY CENTER
DRAFT EIR**

PROJECT DESCRIPTION

CEC-2 The Energy Commission should be added to the list of other agencies taking discretionary action listed in Section 1.5.1.

ALTERNATIVES

CEC-3 Section 3.1.2 discusses the No Project/Existing Entitlement (Adopted Quail Hills Specific Plan) alternative. The analysis, especially the justification for rejection of this alternative, presumes that a power plant would not be allowed under the existing entitlement.

The existing Quail Hills Specific Plan is described as allowing industrial and commercial uses similar to the proposed Specific Plan. It might be possible for the Energy Commission to approve a power plant under the Quail Hills plan. If so, the no project alternative would actually still meet the project objective of providing power.

This section should either explain why a power plant would clearly not be permitted (either as a conditional or permitted use or under a finding of consistency) under the existing plan or give some other reason for rejecting this alternative.

AESTHETICS

The DEIR aesthetics discussion needs to be revised to address the following basic elements required in an EIR, as specified in the CEQA Guidelines:

CEC-4 **Project Description**
The DEIR does not and needs to describe the visual characteristics of the planned facilities, such as their dimensions, color, shape, mass, and expected specific locations.

CEC-5 **Environmental Setting**
The DEIR does not and needs to describe the visual setting of the project, including the visual characteristics of the proposed site and the vicinity. Without such a baseline, readers of the DEIR do not have a valid basis with which to compare the proposed project to determine its visual impacts.

CEC-6 **Environmental Impacts**
The DEIR states only that the project will require substantial grading and that the site will be changed from predominantly rural to urban. This statement is vague

CEC-2 The comment indicates that CEC should be listed as one of the other agencies taking discretionary action in Section 1.5.1 of the DEIR. The proposed project is the approval of the Escondido Research and Technology Center Specific Plan (ERTC Specific Plan), which includes the proposed development of the power plant. Upon approval of the Specific Plan, review and approval of the power plant will need to be determined by CEC; therefore, the document has been revised to indicate additional discretionary actions taken by CEC.

CEC-3 Under the existing Quail Hills Specific Plan, the area referred to as Planning Area 1 of the ERTC Specific Plan is currently designated General Industrial. This designation allows for a limited range of industrial uses, which are specifically permitted by the Quail Hills Specific Plan. Power Plants are not a permitted use; therefore, the No Project/Existing Specific Plan would not include the development of the power plant.

CEC-4 The proposed project is the implementation of the ERTC Specific Plan, which will amend the City's General Plan and supersede the existing Quail Hills Specific Plan. For the purpose of this DEIR, the power plant option for Planning Area 1 has been introduced to identify potential land uses permitted within the Specific Planning Area. The development of the proposed power plant facility will need to undergo separate review by the CEC. The EIR has addressed the bulk and mass architectural treatment and views from numerous viewpoints in Section 2.7 of the EIR. The overall project involves a balanced grading design involving approximately close to 3 million cubic yards. The Specific Plan establishes building envelopes for each Planning Area. A minimum 160-foot landscaped setback occurs along the western boundary, adjacent to residential properties which are developed with single-family residences on half-acre lots. A minimum 10-foot-high berm will be located at the edge of the graded pad to provide an additional buffer. Building heights in the specific plan are generally limited to 60 feet with an additional 10 allowed for ancillary equipment. Buildings higher than 45 feet in Planning Areas 4 and 5 will need to observe a minimum 80-foot setback. The Specific Plan contains detailed design guidelines that have been reviewed by the City's Design Review Board. Future buildings will be reviewed against these criteria. In addition to the slopes along the eastern boundary, a minimum 15-foot landscape buffer will be placed along the eastern boundary of Planning Areas 1 and 2. Developed industrial properties about the site and have views into Planning Areas 1 and 2. Impacts will be further reduced by the Design Review Board's requirement for additional architectural treatment of the mechanical equipment and exterior materials. Detailed design guidelines will be in place which will guide the review of individual projects.

CEC-5 The comment addresses the need to incorporate a description of the visual setting of the power plant, including the visual characteristics of the site and vicinity. The DEIR has provided the project setting and location in Section 1.0 of the document. This section provides the precise location of the ERTC Specific Planning Area, along with a detailed description of the surrounding land uses.

Section 2.7 includes an extensive existing conditions (setting) for the power plant, as well as the remainder of the Specific Plan.

CEC-6

The photographs presented Section 2.7 – Aesthetics allow the public the opportunity to see views of the project site from adjacent properties, before and after implementation of the proposed project. Figure 2.7-11 shows the proposed grading plans in comparison with existing topographic high and low points through portions of the Specific Planning Area. Development within the project area will still be subject to review and approval by the City Planning Director. Additionally, all projects within the ERTC Specific Planning Area will be required to meet the established building codes and requirements of the City. This analysis includes the power plant, as well as the buildout of the Specific Plan. The City's Design Review Board (DRB) reviewed the application on Friday, October 18, 2002. They recommended additional landscaping along the eastern boundary of the Specific Plan (15 feet minimum) and the retention of an architect to design a more attractive exterior surface and minimize views of exposed components. The DRB asked the CEC to coordinate these reviews prior to construction of the plant.

and lacks the detail needed to provide a sufficient basis for understanding the nature of the project's visual impacts or for evaluating the validity of the DEIR's conclusions regarding the significance of those impacts. The FEIR should be revised to address the specific visual impacts of the project.

CEC-7

Significance of Environmental Impacts

The DEIR concludes that the visual impacts of the project will not be significant. However, the only basis that the DEIR provides for this conclusion is the statement that the transformation of the site from predominantly rural to urban will be accomplished in an orderly manner. This statement describes the administrative process by which the site will be transformed, not the severity of the changes that will occur. The DEIR needs to be revised to provide an explicit explanation of how and why the project's visual impacts will not be significant.

AIR QUALITY

CEC-8

Much of the DEIR Section 2.3.3.2 discusses environmental impacts that are considered in the Energy Commission's Preliminary Staff Assessment, and will be addressed in the eventual Energy Commission decision on the Palomar Energy Project. Details on power plant commissioning steps, startup and shutdown emissions, cooling tower emissions, hourly emissions from the turbines, and annual potential emissions may not be resolved until the close of the Energy Commission's licensing process. Additionally, all aspects of the dispersion modeling analysis, including PSD compliance and impacts to Class I areas, will be addressed in the San Diego Air Pollution Control District's (SDAPCD) Determination of Compliance (DOC) and our staff assessment. Power plant emissions and modeling results may be re-quantified or modified in the DOC and staff assessment. It should be noted that, if the Energy Commission certifies the project, our Conditions of Certification should fully offset any expected air quality impacts of the proposed facility.

CEC-9

In lieu of the extensive narrative and figures of DEIR Section 2.3.3.2, the City should simply summarize the impacts that could be anticipated with the power plant, especially in the context of the Thresholds of Significance defined in DEIR Section 2.3.2.

CEC-10

The anticipated impacts from operation of the power plant are most succinctly presented in Tables 2.3-10 (operational emissions), 2.3-13 (potential to violate AAQS), and 2.3-17 (risks from toxics). With these tables, the City adequately demonstrates that the power plant will have potentially significant air quality impacts if left unmitigated. As stated previously, the City should acknowledge in the Final Environmental Impact Report (FEIR) that the Energy Commission strives to fully mitigate the air quality impacts of proposed projects during our regulatory review.

CEC-7

The photographs presented Section 2.7 – Aesthetics allow the public the opportunity to see views of the project site from adjacent properties, before and after implementation of the proposed project. Beginning on Page 2.7-36 of the DEIR, viewshed changes are discussed for each Key Observation Point (KOP) observed during the analysis. The analysis is separated into visual contrast, dominance, and view blockage. The purpose of the ERTC Specific Plan is to provide land use guidance within the project area and establish standards and guidelines for project design in accordance with the City's General Plan.

CEC-8

The comment indicates the authority of CEC to fully offset any expected air quality impact upon completion of their assessment and approval of the power plant facility. The City has assessed air quality impacts in accordance with CEQA and identified the most feasible and practicable mitigation measures to reduce impacts associated with the proposed Specific Plan. However, if CEC assigns specific, detailed measures which will further reduce impacts identified by the City in the DEIR, CEC recommendations will be implemented.

In the event that CEC determines additional or new impacts will result from the development of the power plant, the Conditions of Certification required by CEC will also be implemented. The EIR has concluded that, based upon the analysis included in Section 2.3, air quality emissions from the power plant are considered significant. Mitigation measures have been required during its commission and startups to reduce air quality impacts associated with the power plant operation to less than significant. However, construction of the project, and mobile source emissions at buildout, will result in significant air quality impacts due to the extent to which they exceed the City's EIR preparation thresholds.

CEC-9

The comment suggests that the City should summarize the impacts analysis included under Section 2.3.3.2 of the DEIR for the power plant. The analysis discussed in the DEIR informs the reader of the potential emissions released by a power plant facility, as well as buildout of the Specific Plan. It was the intent of the City to inform the public and decision makers of the extensive amount of analysis conducted for the EIR. To facilitate review of the Final EIR, the air quality section has been revised to include a summary of the findings, while the draft EIR section will be relocated to an appendix for those who would like to read the detail.

CEC-10

The air quality analyses submitted in the DEIR for public review will be included as Appendix C1 of the Final EIR. Because of the technical complexity of the information provided in the DEIR detailing the potential air quality impacts, it was deemed appropriate to include the analysis as an appendix to the document and provide a synopsis of the cumulative findings for the proposed project and the power plant below. While it is recognized that the CEC strives to fully mitigate air quality impacts, in accordance with CEQA, the City assumed conditions without the CEC's conditions, since they could not be assured at the time the Draft EIR was prepared.

COMMENTS ON CONSTRUCTION PHASE IMPACTS

CEC-11

Section 2.3.3.1 – Grading operations require the movement of 3.1 million cubic yards. The FEIR should note the number of internal and external truck trips needed to haul the cut and fill. The distances of these trips should also be discussed. This information would be helpful in demonstrating that limiting the amount of simultaneous activity to avoid impacts would be infeasible, as mentioned on p. 2.3-36.

CEC-12

Table 2.3-4, Section 2.3.3.1 – This table does not clearly identify the impacts that could be anticipated to occur during construction of the power plant after the site has been prepared. Independent of site-preparation impacts, anticipated impacts from power plant construction should be briefly summarized.

COMMENTS ON CUMULATIVE IMPACTS

CEC-13

A discussion of cumulative air quality impacts related to the ERTC project was not provided. This discussion should include the impact of emission sources currently operating, and those proposed for operation, in the area.

COMMENTS ON PROPOSED MITIGATION MEASURES

CEC-14

Section 2.3.4 – Preparation of the power plant site would cause potentially significant impacts from construction emissions of PM₁₀, NO_x, and ROG. Energy Commission staff considers a wider range of mitigation measures to be feasible than those identified in the DEIR. For preparation of the power plant site, please incorporate the mitigation measures recommended by Energy Commission staff in the Preliminary Staff Assessment for the Palomar Energy Project.

CEC-15

Section 2.3.4 – The City concludes that mitigation of power plant emissions through the SDAPCD's offset requirements may not be sufficient to fully reduce the impacts to less than significant levels. The power plant offset discussions (pp. 2.3-37 and 2.3-38) should note that the Energy Commission typically requires a project to provide CEQA mitigation offsets beyond the offsets required by the local air district for LORS compliance. The Energy Commission typically requires CEQA related offsets for emissions from project construction, for example, that are not included in the SDAPCD's requirements.

CEC-16

Section 2.3.5 – The discussion on potential exceedance of the California PM₁₀ standard should be revised by deleting the statement that the predicted exceedances are infrequent and by adding that the Energy Commission staff have identified PM₁₀ exceedances as an issue that would require additional mitigation.

CEC-11

The comment indicates the grading operations for the proposed power plant will require the movement of 3.1 million cubic yards, which would require approximately 221,000 truck trips for exporting and importing of fill. However, because the cut and fill ratio is balanced for the entire project site, there are no additional truck trips to be generated by the transport of cut/fill material.

Impacts associated with construction were determined to be short term. Initial grading for the entire site is to occur in a single phase, further reducing air quality impacts associated with construction. Mitigation measures listed in Section 2.3.4 of the DEIR are intended to lessen the project's significant air quality impacts and will be placed as conditions on the Grading Permit. Additionally, since the project is anticipated to be mass graded in one phase, it was not deemed appropriate to segregate the grading impacts for only the Power Plant site.

CEC-12

The comment indicates the need for the DEIR to summarize potential construction emissions created during construction of the power plant. Text has been inserted into the air quality analysis, as well as tables, summarizing the potential short-term impacts associated with construction. Details of the analysis can be found in Appendix C1 of the document. Requirements for soot filters, low-sulfur diesel fuel, monitoring of dust, and low VOC architectural coverings have also been added as conditions of the ERTC project.

CEC-13

Section 6.2.3 of the DEIR summarizes the cumulative air quality impacts related to the proposed project. The project is considered collectively with related projects within the vicinity of the proposed project. Please refer to Section 6.0 – Cumulative Effects of the EIR for a list of projects reviewed and Figure 6.1-1 for their locations.

CEC-14

Please refer to response to comment CEC-8.

CEC-15

Please refer to response to comment CEC-8.

CEC-16

Please refer to response to comment CEC-8.

BIOLOGICAL RESOURCES

Setting

CEC-17 The ERTC DEIR (page 2.6-11 – drawn from October 2001 Biological Resources and Impact Assessment – Appendix F.1) mentions a 1999 observation (from a Dudek survey report) of a Coronado Skink (*Eumeces skiltonianus interparietalis*). This is both a Federal and California Species of Concern. Although having an extremely restricted range in the US, this skink is not uncommon within good quality native habitats including oak/riparian woodlands, sage scrub, and chaparral. It is not easily detected, however, except for brief periods following seasonal rains when it is often found under logs, wet cardboard, leaf litter, etc. We recommend that the FEIR provide more information on which Planning Areas within the ERTC this was observed along with a discussion of potential impacts to this species and possible mitigation measures. This species is NOT covered in the Escondido Subarea Plan, but if present will need to have potential impacts mitigated accordingly. We believe that the set-aside of coastal sage scrub habitat proposed for mitigation of impacts to the California gnatcatcher will also serve to mitigate impacts to the Coronado Skink.

CEC-18 The discussion of *Wildlife Movement Corridors* should be expanded to address the potential value of the site as a 'stepping-stone' corridor / linkage for California gnatcatchers and possibly other coastal sage scrub bird species. This issue has recently come up on other sites in the immediate Escondido vicinity (along I-15, at Jesmond Dene, etc.). If there is a more direct connection (particularly north-south) or a better stepping-stone linkage candidate area, this should be pointed out in the FEIR. Otherwise, the loss of this site might pose a significant reduction to an already compromised north-south link. Elsewhere in the Multiple Species Conservation Plan (MSCP), the City of Oceanside has had to make significant use of such a stepping-stone connection to link with preserved areas in Carlsbad. Presently, the draft EIR only states that the specific plan area (SPA) does not connect to core conservation areas; presumably this is based on the obvious lack of a contiguous connection. The rest of this section's discussion is of a general nature about corridors/connectivity and not particularly informative about this specific property. Furthermore, referring to the habitat as "fragmented and degraded," while true from a botanical perspective, downplays the site's value as evidenced by the presence of four or more gnatcatcher territories. This appears to represent one of the largest concentrations within the City of Escondido, and should be evaluated as such in combination with any potential stepping-stone considerations. Stepping stone preserves are of much greater value if they are of sufficient size to support one or more pairs of breeding gnatcatchers.

CEC-19
CEC-20
CEC-21 The former agriculture area at the north end of the SPA has been re-mapped as non-native grassland. This is appropriate and is well supported by observations during a site visit on May 21, 2002. In addition, past vegetation mapping utilized a somewhat extreme micro-mapping of sage scrub. Interspacing within broader

CEC-17

No MHCP narrow endemic plant species occur within the ERTC area. The California gnatcatcher was the only "significant" covered species observed onsite. The Coronado Skink was previously observed by Dudek in 1998. Numbers of this species are expected to be low onsite, and would not constitute a significant population, since the ERTC site supports only fair-quality habitat for this animal. This species could potentially occur throughout the site, especially in areas where rocks, logs, leaf-litter, or wood or cardboard debris occur. Populations would be expected to be the highest, on a year to year basis, within the oak/riparian woodlands habitat located within areas to be preserved in Planning Area 7. Exact population numbers and onsite distribution of this animal are presently unknown, but this is a common lizard, and its presence is not considered significant.

Potential impacts to this species could occur as a result of loss of habitat from development of sage scrub and annual grassland habitats located in Planning Areas 1-6. Acquisition of sage scrub habitat, in conjunction with mitigation for impacts to onsite sage scrub vegetation and the Coastal California Gnatcatcher, will adequately address mitigation for the Coronado Skink as well.

Mitigation for habitat loss is proposed to occur on the Bernardo Mountain site in southern Escondido. This site supports intact sage scrub occupied by California gnatcatchers and is an identified FPA for preserve design within the City of Escondido. This mitigation site would address concerns over habitat losses, the federally-listed California gnatcatcher, and impacts to the Coronado skink.

CEC-18

In reviewing both the vegetation and sensitive species within a 1-mile radius of the property (Merkel & Associates) and the Composite North County Subarea Habitat Evaluation Model Results, the subject site is not viewed as necessary as a stepping-stone for movement of gnatcatchers and other sage scrub avian species. This is based on the fact that the site is only tenuously connected through low-density residential areas to the southwest of the plan area. This connection links to limited habitat stands scattered across rural development and agricultural lands further to the southwest. The site itself is a corridor dead-end in that it is surrounded on three sides by developed lands, and neither the San Marcos nor Escondido Subarea Plans have included an attempt at creating a new corridor through the developed areas at this location. Significant blocks of habitat that would comprise 'stepping stone islands' of native vegetation northward and eastward of the proposed project site are now absent from the San Marcos and Escondido valleys north and east of the site. Distances to undeveloped lands in the San Marcos Hills on the northern side of these valleys are considerable, and feasible connectivity in these directions does not exist. This view is validated by the fact that both the City of Escondido and the wildlife agencies, in development of the City of Escondido draft Subarea Plan of the MHCP, did not include the coastal sage scrub habitat within ERTC in the final Focused Planning Area (FPA) designation as preserve areas necessary to ensure long-term conservation goals of the MHCP. Moreover, the coastal sage scrub on the ERTC site was not even

included as a Biological Core and Linkage Area (BCLA) in the North San Diego County MHCP.

- CEC-19 The subject site is located within the Escondido Subarea of the North County MSCP. This plan focuses its recommended conserved habitat within the most important biological core areas and key wildlife corridor linkages. Neither the subject site, nor adjacent undeveloped lands, maintains possible linkages to the north, east, or west due to the presence of tracts of intervening, highly developed urban lands. A potential highly degraded linkage to the south consists of existing well-traveled roadways, various lots featuring ranchette-style homes with large yards and exotic plantings, disturbed grasslands, and a degraded Eucalyptus Woodland. While this area remains a potential low-quality habitat linkage, its long-term viability is questionable. This is reflected in the Subarea Plan preserve plan, which does not identify the subject site nor any of the adjacent or nearby properties as conservation areas under either the Biological Core and Linkage Areas (BCLA), nor the final Focused Planning Areas (FPA). The County of San Diego has not produced either maps or design criteria for linkages on County lands and has withdrawn from the MHCP planning efforts. As a result, there are no certainties as to what the County is planning relative to conservation in the adjacent lands to the west. Given that the City of Escondido has worked through conservation planning issues with the USFWS and CDFG and has prepared a defensible conservation strategy that does not rely on the project site, it would seem inappropriate to begin adjusting conservation boundaries within the City of Escondido based on what the County of San Diego may do in the future.
- CEC-20 Figure 2.6-1 shows the biological resources identified on the project site. The comment indicates support for the revised biological resources map for the project site showing nonnative grasslands at the north end of the project site. The comment has been noted; no changes have been made to the EIR.
- CEC-21 Figure 2.6-1 was obtained from the Biological Resources and Impact Assessment prepared by Merkel and Associates. This graphic was updated and revised in February 2002 and incorporated into the DEIR. Appendices E and F detail the survey methodology used in identifying and mapping biological resources onsite. The text and graphics have not been changed in the Final EIR.

patches of sage scrub were delineated as either disturbed or ruderal areas. In a past site visit, many of these interspaces were noted to contain small seedling shrubs indicative of sage scrub habitat; these would not have been discernable using an aerial photograph for mapping and would have required considerable ground-truthing to verify an absence of seedlings in all the interspaces. The biology section of the DEIR indicates a 3.5 acre decrease in sage scrub acreage from the 57.1 acres contained in the Dudek 1998 report. The DEIR states that this reduction may be due to "refined mapping procedure[s]." Staff wonders whether the vegetation acreage is being slightly underestimated. Also, since these interspaces are so closely associated with the sage scrub, and particularly if they are supporting pioneering sage scrub species, which presumably would mature if subsequent disturbance was eliminated, these areas may be more appropriately called out as sage scrub.

IMPACTS & MITIGATION

California gnatcatcher – Mitigation is indicated at a 2:1 replacement ratio for coastal sage scrub habitat lost in Planning Area 1 (resulting in 13.8 acres for mitigation), as per Escondido Subarea Plan guidance. The DEIR recommends acquisition of these lands "...within the Subarea Plan Focused Planning Areas (FPAs) or in occupied gnatcatcher habitat that has been identified by the MHCP within the unincorporated San Diego County core area, or in other areas approved by the City, State, and Federal jurisdictional agencies." We recommend that all 13.8 acres of mitigation land be acquired as a single block in an area that currently supports nesting gnatcatchers, as conservation of an equal number of gnatcatchers (6 pairs) is also a required mitigation condition. The FEIR should include discussion of specific locations proposed as mitigation and should include a condition that the applicant will coordinate with the Wildlife Agencies and the City of Escondido on the selection of mitigation sites. Final selection must be approved by the both the Wildlife Agencies and the City.

Western spadefoot toad – Mitigation for loss of this species' habitat in the Project Area is vague in the DEIR (page 2.6-34). The DEIR states that "Western spadefoot toad impacts and seasonal basin areas would be mitigated through creation, or restoration, of an equivalent acreage of habitat that supports seasonal ponds in preserve lands within the MHCP FPAs." Mitigation standards (Table 5-2) of the Escondido Subarea Plan indicate a recommended wetland replacement ratio of between 1:1 and 3:1 to achieve the no net loss goal. Though the DEIR states that the three small disturbed artificial pools in the northern portion of Planning Area 1 that support spadefoot loads are isolated waters, not subject to federal regulatory purview, loss of this species' habitat is under the jurisdiction of the California Department of Fish and Game (CDFG). Consequently, the replacement ratio for the habitat lost in Planning Area 1 should be discussed with the CDFG and indicated in the FEIR. Impacts of proposed site development could be offset if this species was known to occur and breed on the selected mitigation site, therefore the applicant should mitigate at a site that is adjacent to a location that currently supports a toad population. We would not

CEC-22 No mitigation sites had been identified at the time that the EIR was prepared. It is recognized that the acquisition of a large block of land would be the best biological solution; however, to meet the requirement of acquisition of six pairs of California gnatcatchers, the City has left open the option for acquiring more than one parcel to meet this criterion.

CEC-23 Spadefoot toad mitigation will be addressed as an element of the project's onsite wetland mitigation program, which is subject to Corps of Engineers' permitting and the development of a streambed alteration agreement with the California Department of Fish & Game. Through these processes, additional input opportunities will be afforded the Wildlife Agencies. A mitigation measure will be added to the EIR to provide an agency review process during the preparation of final design and engineering of the mitigation site.

CEC-22

CEC-23

recommend creating ponds in an area where toads are not already known to occur, or trying to translocate adult toads to a new pond. Restoration of an existing occupied pond could result in impacts to the resident toad population.

CEC-24

Noise impacts – Some discussion of mitigation for the impacts of construction noise on sensitive species (e.g. nesting gnatcatchers) should be added to the FEIR (page 2.6-28).

CULTURAL RESOURCES

CEC-25

The site description provided in the archaeological report from EDAW concludes that sites S1 through S5 do not have a subsurface component, but indicates in the analysis that site S5 may have a subsurface component. If there is a subsurface component, the site should be formally evaluated. If the site were eligible for the California Register of Historic Resources, data recovery would be necessary as mitigation.

The cultural resources located at the project site were not considered significant, although they were not formally evaluated. Since the project plans would require demolition of these resources, the impact would be significant, if any of the sites were significant. Energy Commission staff believes that, at a minimum, site S5 should be formally evaluated.

CEC-26

Page 2.10-3 states that there has been substantial disturbance of the project site from past agricultural activity and that the integrity of any cultural resources has been compromised. It is possible that there are intact deposits below the level of agricultural disturbance.

Several Native Americans groups have expressed concern regarding previously recorded site CA-SDI-12,209/H. Staff agrees with the DEIR conclusion that the site is not likely to be directly impacted by the project. However, staff recommends that the City devise some sort of protection for the site. There may be impacts to the site from the increase of people in the area due to construction.

Since there were 20 previously recorded archaeological sites in the vicinity of the project site and linears and five sites identified within the ERTC footprint, mitigation measures are necessary. Energy Commission staff agrees with the DEIR that a cultural resources monitor should be onsite during all initial clearing and excavation activities. Staff recommends that the qualified archaeologist should meet Secretary of the Interior Standards for archaeology and any determinations of significance should be made by that archaeologist. Appropriate mitigation should be determined in consultation with the responsible agency. Staff recommends including a Native American monitor where there is a potential to encounter Native American artifacts.

CEC-24

Mitigation for biological resources is discussed in Section 2.6.4 of the EIR. In order to reduce impacts to sensitive biological resources associated with construction activities, the following measures shall be implemented:

- “4. Construction activities would be initiated during the nonbreeding season for California gnatcatchers (August 30 through February 14). Work that would be completed during this period includes site boundary demarcation with construction fencing along the edge of retained sage scrub, and all clearing and grubbing. This mitigation shall be placed as a condition on the Tentative Map and Grading Permit.
5. In the event that any nighttime construction is allowed, night construction activities would be initiated prior to the onset of the gnatcatcher breeding season (prior to February 15). Alternatively, prior to conducting any night construction activities, a qualified biologist would determine that no gnatcatcher breeding is occurring within 300 feet of areas that would be lighted. In the event that gnatcatchers are found in proximity to areas to be lighted, a verification of adequate light shielding would be made by a qualified biologist prior to commencing night work. This mitigation shall be placed as a condition on the Tentative Map and Grading Permit.
6. Facility lighting would be shielded such that no direct lighting falls within the adjacent natural habitat. Adequate directional lighting or shielding would be installed to control nighttime illumination at the industrial park in a manner that does not enhance light levels within adjacent native habitat areas. This mitigation shall be placed as a condition on the Specific Plan and Conditional Use Permit.”

These measures reduce excessive lighting and construction noise from disturbing adjacent natural habitat.

CEC-25

The DEIR indicates the potential occurrence of vandalism at Site S5. Appropriate mitigation measures were included in Section 2.10.4 of the DEIR. A cultural resources monitor will be present onsite at all initial clearing and excavation activities, as indicated in Section 2.10.4 of the DEIR. If buried cultural materials or deposits are found, appropriate measures will be implemented to recover, examine, and determine the significance of the findings. No text has been revised or additional text inserted.

CEC-26

The site referenced in the comment is located south of the project site. Implementation of the proposed project will not impact sensitive resources identified at that location. Appropriate mitigation measures have been incorporated into the Final EIR for buried cultural materials or deposits, if they are found. A cultural resources monitor will be present onsite at all initial clearing and excavation activities, as indicated in Section 2.10.4 of the DEIR. No text has been revised or additional text inserted. If the site is privately owned, the

owner/operator of that site will be responsible for implementing appropriate measures to preserve, recover, and archive any significant cultural resource materials found.

CEC-27 Staff agrees with the DEIR that work in the vicinity of a find should halt until an assessment of the find can be made and any mitigation activities can be completed. The DEIR states that suspected or not readily identifiable cultural resources will be considered significant until a qualified archaeologist can make an assessment. It also states that if potentially significant cultural resources are detected and can not be avoided by construction, then impacts must be mitigated through data recovery or other means, in consultation with pertinent agencies and concerned parties. Staff cautions that it is only necessary to mitigate for significant impacts to significant cultural resources.

CEC-28 Cultural resources materials collected as a result of investigations or data recovery should be curated. At the conclusion of the project a cultural resources report regarding cultural resources activities (survey, investigation, monitoring, recording, data recovery) must be provided for review and approval by the responsible agency and after approval, should be submitted to the regional CHRIS by the project owner.

NOISE

BLASTING NOISE AND VIBRATION

CEC-29 The Palomar Energy Application for Certification indicates that blasting may be required to achieve the required grading plan for the ERTC site. The FEIR should discuss whether blasting will be required, the potential noise and vibration from blasting, criteria for acceptable exposures, and any required mitigation measures.

TRAFFIC NOISE

CEC-30 The analysis indicates that the project will result in an increase of 4.6 dBA in traffic noise along one roadway segment. (It is difficult to relate the text to Table 2.4-5, as the street/intersection references are different.) The "baseline" condition will result in a significant increase in traffic noise at Citracado Parkway (15.1 dBA), which will be worsened by the project. The FEIR should clarify the significance criterion as it applies at the affected roadway segment, and recommend appropriate actions. The current text avoids the issue of noise impacts due to the baseline condition, and fails to describe the potential impacts of a further degradation of what appears to be an excessive noise condition.

CEC-31 The project-related change in traffic noise levels in the Citracado Parkway area may or may not be significant, depending upon the locations of sensitive receivers, and whether the Circulation Element of the City of Escondido General Plan or other City policies will provide mitigation for "baseline" traffic noise conditions. If mitigation were to be required, suitable mechanisms would include acoustical requirements for future sensitive land use proposals, or measures such as barriers for existing affected sensitive receivers.

CEC-27 The City concurs with the comment. If buried cultural materials or deposits are found, appropriate measures will be implemented to recover, examine, and determine the significance of the findings. Based on those findings, consultation with pertinent agencies and concerned parties will be scheduled for further advisement. The EIR text is retained as written.

CEC-28 The Final EIR will include the following in Section 2.10.4 under cultural resource mitigation measures: "Findings will be prepared discussing the significance of any materials recovered from the project site. The City will determine, in coordination with responsible agencies, the appropriate repository where the collected materials will be archived."

CEC-29 Blasting is discussed in Sections 2.5 – Hazards and 2.11 – Geologic Hazards of the DEIR. The ERTC Specific Plan further addresses a blasting program to be established by the master developer, which will be approved by the City prior to and executed concurrently with the Master Tentative Subdivision Map. The City's Blasting provisions require preblasting inspections and documentation of existing conditions, notice to surrounding properties, and close supervision by the City's Fire Department and Field Engineering Inspectors. As long as the project complies with City policies regarding blasting, the impacts are not considered significant, due to the transitory and short-term nature of the impact.

CEC-30 The text in the DEIR indicates that future baseline (without project) traffic noise levels would result in noise levels categorized as normally unacceptable within the City's noise compatibility guidelines. Additionally, because existing noise levels are currently in exceedance of the normally acceptable category, the City's General Plan Standard (Noise Policy EI-4) of 5 dB was used as a significance criterion. The text further states that with the addition of the project, the increase in traffic noise would be above the 5-dB significance threshold, therefore resulting in a significant noise impact.

Text has been revised to clarify the reference to Table 2.4-5, as requested by CEC.

CEC-31 As indicated in Section 2.4.4 of the DEIR, mitigation measures will be implemented in accordance with the City's ordinances to further reduce noise impacts associated with construction and operation of the project. Additionally, construction hours and duration of activities will be limited in areas adjacent to sensitive receptors. The mitigation measure in the EIR specifically states:

"The project is responsible for conducting noise monitoring during construction activities (one hour each day whenever construction is occurring within 200 feet of occupied residences) and insuring that mitigation measures are enforced to the degree feasible. Reports shall be provided to the City each week."

These actions are required by the Mitigation Monitoring Report Program.

POWER PLANT NOISE

CEC-32 On page 2.4-16, the second sentence of the last paragraph is not clear. The data presented in Table 2.4-7 actually show that the noise from untreated gas and steam turbines contains objectionable high frequency components, in the range of about 2,000 Hz. These objectionable tones are the focus of the Energy Commission's standard requirements for acoustical treatments to ensure that the treated units produce broad-band noise, which is properly described as "pink" noise.

MITIGATION MEASURES

CEC-33 The FEIR should include recommended mitigation measures to ensure that noise and vibration from construction activities (including blasting) meet the local standards. The DEIR states that construction noise will constitute a significant impact, but no mitigation measures are proposed. CEQA requires that significant noise impacts be mitigated to the extent feasible. If it is not feasible to meet the City construction noise standards, the FEIR should follow CEQA protocol in defining a significant unavoidable impact and assessing the feasibility of noise mitigation. Finally, noise and vibration performance standards should be applied to the project to ensure that construction noise and vibration is mitigated to the extent feasible.

CEC-34 Similarly, the FEIR should consider mitigation measures for the projected increases in traffic noise along Citracado Parkway.

CEC-35 Energy Commission staff will recommend Conditions of Certification for the power plant that would require that noise levels due to the power plant construction and operation satisfy local ordinances, regulations, and standards, and that would ensure that there will be no significant noise impacts as assessed under CEQA. The measures required to achieve these standards may or may not include the measures proposed in the DEIR. The Energy Commission does not ordinarily prescribe specific power plant noise control measures, but instead adopts specific objective noise performance standards as Conditions of Certification for a project. Therefore, it is possible that the specific power plant operational noise mitigation measures, such as those proposed in the DEIR, will not be specifically required by the Energy Commission.

TRAFFIC AND TRANSPORTATION

GENERAL COMMENTS

CEC-36 The DEIR analyzes the effect that the ERTC will have on the area under maximum traffic conditions. The DEIR does not include a schedule for construction or occupancy of the proposed buildings in the different planning areas to be developed in the ERTC. Therefore, it is difficult to directly evaluate the traffic impacts associated with the construction and later the operation of the

CEC-32 The comment requests clarification of a statement made in the DEIR regarding operation of the power plant. The power plant project is planned as a merchant facility dependent on the demand of the consumers and is not proposed to run continuously throughout the year. The sentence referenced in the comment by CEC indicates the potential cycle of operation of the power plant throughout the year. No change in the text has been made.

CEC-33 The comment has been noted. The information provided by CEC in this comment has been incorporated in the Final EIR to further detail the contents of Table 2.4-7. The following statement has been included in the Final EIR: "The table further indicates the noise from untreated gas and steam turbines contains objectionable high-frequency components, in the range of about 2,000 hertz."

CEC-34 Please see response to comment CEC-31. The ERTC Specific Plan further addresses a blasting program to be established by the master developer, which will be approved by the City prior to and executed concurrent with the Master Tentative Subdivision Map. Construction noise impacts have been identified as short-term significant impacts.

CEC-35 Requirements established by City ordinances were incorporated in the DEIR to further reduce impacts associated with increased traffic noise. Additionally, the ERTC Specific Plan details the landscaping and screening to be implemented along Citracado Parkway, which will provide additional buffering from traffic-associated noise. No text has been changed.

CEC-36 The comment indicates the authority of CEC to fully offset any expected noise impacts upon completion of their assessment and approval of the power plant facility. The City has assessed noise impacts in accordance with CEQA and identified the most feasible and practicable mitigation measures to reduce impacts associated with the proposed Specific Plan. However, if CEC assigns specific, detailed measures which will further reduce impacts identified by the City in the DEIR, CEC recommendations will be implemented. It should be recognized that the mitigation measures indicated in the EIR shall be enforced, as well as any additional measures required by CEC or other agencies with regulatory authority.

CEC-37 The development of the ERTC Specific Planning Area will be ongoing until complete buildout. Initial grading for the entire site is to occur in a single phase, reducing the need for rough grading to occur at a later stage of development. The comment states that insignificant traffic impacts were associated with the Palomar Energy Project (PEP). The traffic analysis prepared by LLG assumed the worst-case scenario, with complete industrial buildout of the planning area. On a project impact level, the PEP traffic impact may not be considered significant; however, when cumulatively considered with other land uses in the specific planning area, cumulative traffic impacts would be considered significant.

PEP. If the majority of the building activity in the ERTC occurs after construction of the PEP is completed, the traffic impacts associated with the operation of the PEP facility would be insignificant.

SPECIFIC COMMENTS

CEC-38

- This PEP construction workforce and truck traffic will use what is referred to as a "rough graded" road on an extension of Citracado Parkway that will be constructed on the ERTC site off of Vineyard Avenue. The PEP workforce would enter and leave the using this rough graded road. It will eventually be completed as a paved extension of Citracado Parkway traversing the ERTC site from north to south. The FEIR needs to address the timing of this PEP road construction/grading activity in relation to overall traffic created by ERTC construction.

CEC-39

- The intersection of the rough graded Citracado Parkway with Vineyard Avenue could present a traffic level of service (LOS) and potential safety problem. The problem results from the addition of PEP construction workforce traffic to the existing significant levels of congestion at that intersection. The DEIR has proposed mitigation measures for this intersection that will maintain an acceptable level of service for traffic once the ERTC is built out and occupied. The concern for traffic is that the impact of PEP construction traffic will occur before the mitigation measures recommended in the DEIR are implemented. Therefore, the Energy Commission's Preliminary Staff Assessment (PSA) on the PEP has recommended that the project owner be required to implement condition of certification TRANS-5 during construction to maintain an acceptable level of service and traffic safety at this intersection.

CEC-40

- The DEIR indicates that parts of State Route 78 (SR-78) and Interstate 15 (I-15) are operating at, or will operate at a LOS of F after build-out of the ERTC and PEP facilities. The impact of the PEP facility on these roadways is difficult to determine. This is because the major traffic impact of PEP will be associated with construction, which would be of relatively short duration. Furthermore, the impact of PEP construction on the LOS on SR-78 and I-15 is dependent on the direction of traffic flow during the peak hours, and the distribution of PEP workforce travel routes.

CEC-41

For SR-78 the traffic congestion problems are focused on westbound morning traffic with an LOS of E or F, and eastbound traffic in the evening with an LOS of E. If PEP construction traffic were to travel in the opposite direction, the LOS is D or better. I-15 has the same type of traffic flow. The LOS for southbound traffic is F in the morning, but B or better for northbound morning

CEC-38

Please see response to comment CEC-37. Construction of the power plant is anticipated to occur over a 21-month period concurrent with the development of the entire ERTC Specific Planning Area. Traffic impacts associated with construction activities are considered short term. Traffic Control Plans will be implemented to reduce construction-level impacts.

CEC-39

The potential significant construction impacts of the PEP would be mitigated by the following conditions of certification.

The project owner shall coordinate with the City of Escondido Public Works Department, and prepare and submit for approval a Construction Traffic Control Plan and Implementation Program, which addresses the following issues:

- Measures and incentives to maximize employee ridesharing;
- Timing of heavy equipment and building materials deliveries;
- Redirections of construction traffic with a flagperson;
- Signing, lighting, and traffic control device placement if required;
- Need of construction work hours and arrival/departure times outside of peak traffic periods;
- Methods of insuring access for emergency vehicles to the project site;
- Temporary travel lane closure; and
- Access to adjacent residential and commercial property during the construction of all linear facilities related to the project.

CEC-40

This comment does not address the adequacy of the traffic study. It is acknowledged that a separate standalone analysis of the PEP was not conducted. This is because the PEP is one small component of the 200-acre project. It is also acknowledged that the PEP postconstruction amount of traffic is very small and is substantially less than modeled in the analysis. The traffic study assumed buildout of PA 1 as industrial uses that would generate substantially more traffic.

CEC-41

The first part of this comment does not address the adequacy of the EIR. An analysis of the traffic impacts of the PEP *during* construction was not conducted, due to the short duration of the construction. Construction-level impacts are not considered significant, because of the short duration and requests for Traffic Control Plans to minimize the short-term impacts. The Levels of Service mentioned in the comment are correct.

There is no feasible mitigation to mitigate the significant cumulative traffic impacts on SR 78 and I-15. These segments are out of Escondido's jurisdiction and no regional mechanism is in place that assesses local jurisdictions to expand freeway capacities. Therefore, the impacts were termed significant and unmitigable. Caltrans, not the City of Escondido, would implement mitigation on SR 78 and I-15. However, the project is required to make fair-share contributions for intersection, ramp, and bridge improvements that will address long-term traffic improvement needs for the area.

traffic. In the evening I-15 traffic traveling northbound experiences LOS of F, while the LOS for southbound traffic is D or better¹.

The DEIR indicates that ERTC construction and full occupation will have a significant traffic impact on SR-78 and I-15, which as noted above currently have severe peak hour congestion in some directions. Please discuss the City's traffic mitigation plans and any implications for the PEP.

┌
CEC-42

- Please address the potential traffic impacts and expected construction schedule for the recently proposed commuter rail service at the Nordahl/Citracado intersection, and any implications for the ERTC.

WASTE MANAGEMENT

┌
CEC-43

The DEIR discusses non-hazardous solid waste from facility operation only and finds no significant impacts. The FEIR should also discuss the handling and disposal of non-hazardous wastes generated during construction or of hazardous wastes generated during either construction or operation.

WATER RESOURCES

┌
CEC-44

Page 2.8-7, first line: change 15.0 million gallons per day to 17.5 million gallons per day, as stated on Pg.5.4-8 of the Application for Certification (AFC) for the PEP and confirmed per phone conversation with John Hoagland, Utilities Manager, City of Escondido.

┌
CEC-45

Page 2.8-7, first paragraph, 6th sentence: change "July 2002" to "by the end of 2002." Confirmed per phone conversation with John Hoagland, Utilities Manager, City of Escondido.

┌
CEC-46

Page 2.8-9, the first sentence of the last paragraph states that 1,300 gpd of potable water will be consumed by the project. The AFC, on page 2-30, states that 1,400 gpd of potable water will be consumed. The term "per acre" after "gallons per day" in first sentence, last paragraph of this section should be deleted.

CEC-42

The proposed commuter rail line is scheduled for completion in 2006. The impacts to the Citracado Parkway/Nordahl Road intersection would be in terms of additional delay while a train passes and the gates are down, stopping northbound and southbound traffic. The City's planned improvements at the Citracado Parkway/Nordahl Road intersection would mitigate the impacts of the commuter rail project.

CEC-43

The comment requests that the document discuss the handling and disposal of nonhazardous and hazardous waste created during construction and operation. As indicated in the comment, in Section 2.5.3 of the DEIR, disposal of hazardous waste was found to not be a significant impact during project operations. No acutely hazardous materials are anticipated to be used or stored on the site during construction. This discussion is also provided in the Application for Certification prepared by ENSR for CEC (November 2001).

CEC-44

Since the preparation of the DEIR, CEC has confirmed information with City staff regarding wastewater treatment by the City's HARRF. The change in text has been made in the Final EIR. This modification does not affect the findings of significance in the EIR.

CEC-45

As indicated in the comment, CEC has confirmed with the City the startup date for the ERRWP is expected by the end of 2002. This change has been made in the Final EIR. This modification does not affect the findings of significance in the EIR.

CEC-46

The comment indicates a typographical error which has been corrected in the Final EIR. This modification does not affect the findings of significance in the EIR.

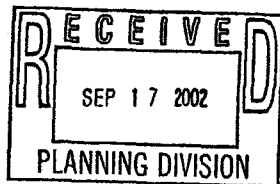
¹ I-15 south of 9th Avenue is forecast to decline to a LOS E in the year 2020.

DEPARTMENT OF TRANSPORTATION

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11-SD-078
 PM 15.49
 (K.P. 24.78)

September 13, 2002

Ms. Becky Frank
 State Clearinghouse
 1400 Tenth Street
 Sacramento, CA 95814

Dear Ms. Frank

Draft EIR for the Escondido Research and Technology Center – SCH 2001121065

The California Department of Transportation (Department) comments are as follows:

- CAL-1 • The Department disagrees with the statements in this Draft EIR and Technical Appendices that freeway mitigation is not available or not required. In addition to the proposed "fair share" contributions towards planned and future improvements at the Nordahl Road interchange with State Route 78 (SR-78) and the Valley Parkway interchange with Interstate Route 15 (I-15), respectively, the City of Escondido could impose a fee for impacts to the State highway system. A fee of \$4,000,000 (approximately \$200 for each of the Project's 19,973 Daily Trip Ends (ADT)) is suggested. The City and State could then enter into a cooperative agreement in which the State accepts and banks this developer impact fee to be used for future improvements to I-15 and/or SR-78. Uses for the mitigation fee could include the planned I-15 auxiliary lanes (northbound and southbound) from Citracado Parkway to Valley Parkway (EA 232650), future auxiliary lanes on SR-78, and/or future I-15 interchange improvements at Auto Parkway/W. 9th Avenue and Citracado Parkway.
- CAL-2 • The planned interchange improvement work at the Nordahl Road interchange with SR-78 should include widening the eastbound exit ramp from 2 lanes to 3 lanes (to allow for a left/straight combination lane and two right turn only lanes). The westbound exit ramp could be widened to three lanes sooner (to begin the third lane farther east).
- CAL-3 • The future interchange improvement work at the Valley Parkway interchange with I-15 should include widening the northbound and southbound exit ramps from 2 lanes to 3 lanes.
- CAL-4 • Please analyze all State-owned signalized intersections affected by this project using the intersecting lane vehicle (ILV) procedure from the Department Highway Design Manual Topic 406, page 400-21.

LETTER 3 - CALTRANS

- CAL-1 The comment calls for the imposition of a \$200 per trip impact fee to offset impacts on Highway 78's Level of Service. No methodology exists for assessing local jurisdictions for freeway improvements. The EIR acknowledges the project's impacts and calls for actual improvements and/or fair-share contributions for intersections, segments, and bridge widenings in the area of the freeway.
- CAL-2 The mitigation recommended in the traffic study results in LOS D or better operations at the SR 78/Nordahl Road exchange. Additionally, funds have been collected from other projects impacting this location, and the applicant for the current proposal has agreed to contributing a fair-share contribution toward mitigation.
- CAL-3 The traffic study recommends that the project contribute towards future improvements at the I-15/Valley Parkway interchange to be determined by the City and Caltrans.
- CAL-4 All intersections were analyzed using the regionally accepted Highway Capacity Manual (HCM) Methodology. The methodology is more detailed than the ILV method, since it accounts for heavy vehicles, signal phasing, and parking impacts and provides a more accurate analysis.

Ms. Becky Frank
September 13, 2002
Page 2

- CAL-5
- For your information we have enclosed the Department's Guide for the Preparation of Traffic Impact Studies, dated January 2001 (TIS guide).
- CAL-6
- The level of service (LOS) for operating State highway facilities is based upon measures of effectiveness (MOE) (see Appendix "C-2" of the TIS Guide). The Department endeavors to maintain a target level of service (LOS) at the transition between LOS "C" and LOS "D" (see Appendix "C-3" of the TIS Guide). If an existing State highway facility is operating at less than this target LOS, the existing MOE should be maintained.

Our contact person for SR-78 and I-15 is Erwin Gojuangco, Route Manager, at (619) 688-6610.

Sincerely,



BILL FIGGE, Chief
Development Review and Public Transportation Branch

CAL-5 This comment does not address the adequacy of the traffic study or EIR; no response is necessary.

CAL-6 This comment does not address the adequacy of the traffic study or EIR. City of Escondido LOS threshold standards were utilized in the traffic study, since they are the lead agency.



GUIDE FOR THE PREPARATION

OF

TRAFFIC IMPACT STUDIES

**STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION**

January 2001

PREFACE

The California Department of Transportation (Caltrans) has developed this "Guide for the Preparation of Traffic Impact Studies" in response to a survey of cities and counties in California. The purpose of that survey was to improve the Caltrans local development review process (also known as the Intergovernmental Review/California Environmental Quality Act or IGR/CEQA process). The survey indicated that approximately 30 percent of the respondents were not aware of what Caltrans required in a traffic impact study (TIS).

In the early 1990s, the Caltrans District 6 office located in Fresno identified a need to provide better quality and consistency in the analysis of traffic impacts generated by local development and land use change proposals that affect State highway facilities. At that time District 6 brought together both public and private sector expertise to develop a traffic impact study guide. The District 6 guide has proven to be successful at promoting consistency and uniformity in the identification and analysis of traffic impacts generated by local development and land use changes.

The guide developed in Fresno was adopted for statewide use by a team of Headquarters and district staff. The guide will provide consistent guidance for Caltrans staff who review local development and land use change proposals as well as inform local agencies of the information needed for Caltrans to analyze the traffic impacts to State highway facilities. The guide will also benefit local agencies and the development community by providing more expeditious review of local development proposals.

Even though sound planning and engineering practices were used to adapt the Fresno TIS guide, it is anticipated that changes will occur over time as new technologies and more efficient practices become available. To facilitate these changes, Caltrans encourages all those who use this guide to contact their nearest district office (i.e., IGR/CEQA Coordinators) to coordinate any changes with the development team.

ACKNOWLEDGEMENTS

The District 6 traffic impact study guide provided the impetus and a starting point for developing the statewide guide. Special thanks is given to Marc Blinbaum for recognizing the need for a TIS guide and for his valued experience and vast knowledge of land use planning to significantly enhance the effort to adapt the District 6 guide for statewide use. Randy Treese from District 6 provided many hours of coordination, research and development of the original guide and should be commended for his diligent efforts. Sharri Bender Ehlert of District 6 provided much of the technical expertise in the adaptation of the District 6 guide and her efforts are greatly appreciated.

A special thanks is also given to all those Cities, Counties, Regional Agencies, Congestion Management Agencies, Consultants, and Caltrans Employees who reviewed the guide and provided input during the development of this Guide for the Preparation of Traffic Impact Studies.

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INTRODUCTION

Caltrans desires to provide a safe and efficient State transportation system for the citizens of California pursuant to various Sections of the California Streets and Highway Code. This is done in partnership with local and regional agencies through procedures established by the California Environmental Quality Act (CEQA) and other land use planning processes. The intent of this guide is to provide a starting point and a consistent basis in which Caltrans evaluates traffic impacts to State highway facilities. The applicability of this guide for local streets and roads (non-State highways) is at the discretion of the effected jurisdiction.

Caltrans reviews federal, state, and local agency development projects¹, and land use change proposals for their potential impact to State highway facilities. The primary objectives of this guide is to provide:

- guidance in determining if and when a traffic impact study (TIS) is needed,
- consistency and uniformity in the identification of traffic impacts generated by local land use proposals,
- consistency and equity in the identification of measures to mitigate the traffic impacts generated by land use proposals,
- lead agency³ officials with the information necessary to make informed decisions regarding the existing and proposed transportation infrastructure (see Appendix A, Minimum Contents of a TIS)
- TIS requirements early in the planning phase of a project (i.e., initial study, notice of preparation, or earlier) to eliminate potential delays later,
- a quality TIS by agreeing to the assumptions, data requirements, study scenarios, and analysis methodologies in advance of beginning the study, and
- early coordination during the planning phases of a project to reduce the time and cost of preparing a TIS.

I. WHEN A TRAFFIC IMPACT STUDY IS NEEDED

The level of service³ (LOS) for operating State highway facilities is based upon measures of effectiveness (MOEs). These MOEs (see Appendix "C-2") describe the measures best suited for analyzing State highway facilities (i.e., freeway sections, signalized intersections, on- or off-ramps, etc.). Caltrans endeavors to maintain a target LOS at the transition between LOS "C" and LOS "D" (see Appendix "C-3") on State highway facilities, however, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS. If an existing State highway facility is operating at less than the appropriate target LOS, the existing MOE should be maintained.

¹"Project" refers to activities directly undertaken by government, financed by government, or requiring a permit or her approval from government as defined in Section 21065 of the Public Resources Code and Section 15376 of the California Code of Regulations.

²"Lead Agency" refers to the public agency that has the principal responsibility for carrying out or approving a project. Defined in Section 21165 of the Public Resources Code, the California Environmental Quality Act, and Section 15367 of the California Code of Regulations.

³"Level of service" as defined in the latest edition of the Highway Capacity Manual, Special Report 209, Transportation Research Board, National Research Council.

A. Trip Generation Thresholds

The following criterion is a starting point in determining when a TIS is needed. When a project:

1. Generates over 100 peak hour trips assigned to a State highway facility
2. Generates 50 to 100 peak hour trips assigned to a State highway facility – and, affected State highway facilities are experiencing noticeable delay; approaching unstable traffic flow conditions (LOS "C" or "D").
3. Generates 1 to 49 peak hour trips assigned to a State highway facility – the following are examples that may require a full TIS or some lesser analysis:
 - a. Affected State highway facilities experiencing significant delay; unstable or forced traffic flow conditions (LOS "E" or "F").
 - b. The potential risk for a traffic incident is significantly increased (i.e., congestion related collisions, non-standard sight distance considerations, increase in traffic conflict points, etc.).
 - c. Change in local circulation networks that impact a State highway facility (i.e., direct access to State highway facility, a non-standard highway geometric design, etc.).

Note: A traffic study may be as simple as providing a traffic count to as complex as a microscopic simulation. The appropriate level of study is determined by the particulars of a project, the prevailing highway conditions, and the forecasted traffic.

B. Exceptions

Exceptions require consultation between the lead agency, Caltrans, and those preparing the TIS. When a project's traffic impact to a State highway facility can clearly be anticipated without a study and all the parties involved (lead agency, developer, and the Caltrans district office) are able to negotiate appropriate mitigation, a TIS may not be necessary.

C. Updating An Existing Traffic Impact Study

A TIS requires updating when the amount or character of traffic is significantly different from an earlier study. Generally a TIS requires updating every two years. A TIS may require updating sooner in rapidly developing areas and not as often in slower developing areas. In these cases, consultation with Caltrans is strongly recommended.

III. SCOPE OF TRAFFIC IMPACT STUDY

Consultation between the lead agency, Caltrans, and those preparing the TIS is recommended before commencing work on the study to establish the appropriate scope. At a minimum, the TIS should include the following:

A. Boundaries of the Traffic Impact Study

All State highway facilities impacted in accordance with the criteria in Section II should be studied. Traffic impacts to local streets and roads can impact intersections with State highway facilities. In these cases, the TIS should include an analysis of adjacent local facilities, upstream and downstream, of the intersection (i.e., driveways, intersections, and interchanges) with the State highway.

⁴ A "lesser analysis" may include obtaining traffic counts, preparing signal warrants, or a focused TIS, etc.

B. Traffic Analysis Scenarios

Caltrans is interested in the effects of general plan updates and amendments as well as the effects of specific project entitlements (i.e., site plans, conditional use permits, subdivisions, rezoning, etc.) that have the potential to impact a State highway facility. The complexity or magnitude of the impacts of a project will normally dictate the scenarios necessary to analyze the project. Consultation between the lead agency, Caltrans, and those preparing the TIS is recommended to determine the appropriate scenarios for the analysis. The following scenarios should be addressed in the TIS when appropriate:

1. When only a general plan amendment or update is being sought, the following scenarios are required:
 - a) Existing Conditions - Current year traffic volumes and peak hour LOS analysis of affected State highway facilities.
 - b) Proposed Project Only with Select Link³ Analysis - Trip generation and assignment for build-out of general plan.
 - c) General Plan Build-out Only - Trip assignment and peak hour LOS analysis. Include current land uses and other pending general plan amendments.
 - d) General Plan Build-out Plus Proposed Project - Trip assignment and peak hour LOS analysis. Include proposed project and other pending general plan amendments.
2. When a general plan amendment is not proposed and a proposed project is seeking specific entitlements (i.e., site plans, conditional use permits, sub-division, rezoning, etc.), the following scenarios must be analyzed in the TIS:
 - a) Existing Conditions - Current year traffic volumes and peak hour LOS analysis of affected State highway facilities.
 - b) Proposed Project Only - Trip generation, distribution, and assignment in the year the project is anticipated to complete construction.
 - c) Cumulative Conditions (Existing Conditions Plus Other Approved and Pending Projects Without Proposed Project) - Trip assignment and peak hour LOS analysis in the year the project is anticipated to complete construction.
 - d) Cumulative Conditions Plus Proposed Project (Existing Conditions Plus Other Approved and Pending Projects Plus Proposed Project) - Trip assignment and peak hour LOS analysis in the year the project is anticipated to complete construction.
 - e) Cumulative Conditions Plus Proposed Phases (Interim Years) - Trip assignment and peak hour LOS analysis in the years the project phases are anticipated to complete construction.
3. In cases where the circulation element of the general plan is not consistent with the land use element or the general plan is outdated and not representative of current or future forecasted conditions, all scenarios from Sections III. B. 1. and 2. should be utilized with the exception of duplicating of item 2.a.

³ Select link³ analysis represents a project only traffic model run, where the project's trips are distributed and assigned along the highway network. This procedure isolates the specific impact on the State highway network.

TRAFFIC DATA

Prior to any fieldwork, consultation between the lead agency, Caltrans, and those preparing the TIS is recommended to reach consensus on the data and assumptions necessary for the study. The following elements are a starting point in that consideration.

A. Trip Generation

The latest edition of the Institute of Transportation Engineers' (ITE) TRIP GENERATION report should be used for trip generation forecasts. Local trip generation rates are also acceptable if appropriate validation is provided to support them.

1. Trip Generation Rates – When the land use has a limited number of studies to support the trip generation rates or when the Coefficient of Determination (R^2) is below 0.75, consultation between the lead agency, Caltrans and those preparing the TIS is recommended.
2. Pass-by Trips⁶ – Pass-by trips are only considered for retail oriented development. Reductions greater than 15% requires consultation and acceptance by Caltrans. The justification for exceeding a 15% reduction should be discussed in the TIS.
3. Captured Trips⁷ – Captured trip reductions greater than 5% requires consultation and acceptance by Caltrans. The justification for exceeding a 5% reduction should be discussed in the TIS.
4. Transportation Demand Management (TDM) – Consultation between the lead agency and Caltrans is essential before applying trip reduction for TDM strategies.

NOTE: Reasonable reductions to trip generation rates are considered when adjacent State highway volumes are sufficient (at least 5000 ADT) to support reductions for the land use.

B. Traffic Counts

Prior to field traffic counts, consultation between the lead agency, Caltrans and those preparing the TIS is recommended to determine the level of detail (e.g., location, signal timing, travel speeds, turning movements, etc.) required at each traffic count site. All State highway facilities within the boundaries of the TIS should be considered. Common rules for counting vehicular traffic include but are not limited to:

1. Vehicle counts should be conducted on Tuesdays, Wednesdays, or Thursdays during weeks not containing a holiday and conducted in favorable weather conditions.
2. Vehicle counts should be conducted during the appropriate peak hours (see peak hour discussion below).
3. Seasonal and weekend variations in traffic should also be considered where appropriate (i.e., recreational routes, tourist attractions, harvest season, etc.).

C. Peak Hours

To eliminate unnecessary analysis, consultation between the lead agency, Caltrans and those preparing the TIS is recommended during the early planning stages of a project. In general, the TIS should include a morning (a.m.) and an evening (p.m.) peak hour analyses. Other peak hours (e.g., 11:30 a.m. to 1:30 p.m., weekend, holidays, etc.) may also be required to determine the significance of the traffic impacts generated by a project.

⁶ "Pass-by" trips are made as intermediate stops between an origin and a primary trip destination (i.e., home to work, home to shopping, etc.).

⁷ "Captured Trips" are trips that do not enter or leave the driveways of a project's boundary within a mixed-use development.

D. Travel Forecasting (Transportation Modeling)

The local or regional traffic model should reflect the most current land use and planned improvements (i.e., where programming or funding is secured). When a general plan build-out model is not available, the closest forecast model year to build-out should be used. If a traffic model is not available, historical growth rates and current trends can be used to project future traffic volumes. The TIS should clearly describe any changes made in the model to accommodate the analysis of a proposed project.

V. TRAFFIC IMPACT ANALYSIS METHODOLOGIES

Typically, the traffic analysis methodologies for the facility types indicated below are used by Caltrans and will be accepted without prior consultation. When a State highway has saturated flows, the use of a micro-simulation model is encouraged for the analysis. Other analysis methods may be accepted, however, consultation between the lead agency, Caltrans and those preparing the TIS is recommended to agree on the information necessary for the analysis.

- A. Freeway Sections – Highway Capacity Manual (HCM)* Chapter 3, operational analysis
- B. Weaving Areas – Caltrans Highway Design Manual (HDM) Chapter 500
- C. Ramps and Ramp Junctions – HCM* Chapter 5, operational analysis or Caltrans HDM Chapters 400 and 500, Caltrans Ramp Metering Guidelines (most recent edition)
- D. Multi-Lane Rural and Urban Highways – HCM* Chapter 7, operational analysis
- E. Two-lane Highways – HCM* Chapter 8, operational analysis
- F. Signalized Intersections⁴ – HCM* Chapter 9, Highway Capacity Software**, operational analysis, TRAFFIX^{TM**}, Synchro**, see footnote 8
- G. Unsignalized Intersections – HCM* Chapter 10, operational analysis, Caltrans Traffic Manual for signal warrants if a signal is being considered
- H. Transit Capacity – HCM* Chapter 12, operational analysis
- I. Pedestrians - HCM* Chapter 13
- J. Bicycles – HCM* Chapters 14, use operational analysis when applying Chapter 9 and 10 HCM methods to bicycle analysis
- K. Caltrans Criteria/Warrants – Caltrans Traffic Manual (stop signs, traffic signals, freeway lighting, conventional highway lighting, school crossings)
- L. Channelization – Caltrans guidelines for Reconstruction of Intersections, August 1985, Ichiro Fukutome

*The most current edition of the Highway Capacity Manual, Special Report 209, Transportation Research Board, National Research Council, should be used.

**NOTE: Caltrans does not officially advocate the use of any special software. However, consistency with the HCM is advocated in most but not all cases. The Caltrans local development review units utilize the software mentioned above. If different software or analytical techniques are used for the TIS then consultation between the lead agency, Caltrans and those preparing the TIS is recommended. Results that are significantly different than those produced with the analytical techniques above should be challenged.

⁴ The procedures in the Highway Capacity Manual "do not explicitly address operations of closely spaced signalized intersections. Under such conditions, several unique characteristics must be considered, including spill-back potential from the downstream intersection to the upstream intersection, effects of downstream queues on upstream saturation flow rate, and unusual platoon dispersion or compression between intersections. An example of such closely spaced intersections is signalized ramp terminals at urban interchanges. Queue interactions between closely spaced intersections may seriously distort the procedures in" the HCM. Scope of Manual, page 1-2, Highway Capacity Manual, Special Report 209, updated December 1997.

VI. MITIGATION MEASURES

The TIS should provide the nexus [Nollan v. California Coastal Commission, 1987, 483 U.S. 825 (108 S.Ct. 314)] between a project and the traffic impacts to State highway facilities. The TIS should also establish the rough proportionality [Dolan v. City of Tigard, 1994, 512 U.S. 374 (114 S. Ct. 2309)] between the mitigation measures and the traffic impacts. One method for establishing the rough proportionality or a project proponent's equitable responsibility for a project's impacts is provided in Appendix "B." Consultation between the lead agency, Caltrans and those preparing the TIS is recommended to reach consensus on the mitigation measures and who will be responsible.

Mitigation measures must be included in the traffic impact analysis. This determines if a project's impacts can be eliminated or reduced to a level of insignificance. Eliminating or reducing impacts to a level of insignificance is the standard pursuant to CEQA and the National Environmental Policy Act (NEPA). The lead agency is responsible for administering the CEQA review process and has the principal authority for approving a local development proposal or land use change. Caltrans, as a responsible agency, is responsible for reviewing the TIS for errors and omissions that pertain to State highway facilities. The authority vested in the lead agency to administer the CEQA process does not take precedence over other authorities in law.

If the mitigation measures require work in the State highway right-of-way an encroachment permit from Caltrans will be required. This work will also be subject to Caltrans standards and specifications. Consultation between the lead agency, Caltrans and those preparing the TIS early in the planning process is strongly recommended to expedite the review of local development proposals and to reduce conflicts and misunderstandings in both the local agency CEQA review process as well as the Caltrans encroachment permit process.

APPENDIX "A"

MINIMUM CONTENTS

OF A

TRAFFIC IMPACT STUDY

MINIMUM CONTENTS OF TRAFFIC IMPACT STUDY REPORT

I. EXECUTIVE SUMMARY

II. TABLE OF CONTENTS

- A. List of Figures (Maps)
- B. List of Tables

III. INTRODUCTION

- A. Description of the proposed project
- B. Location of project
- C. Site plan including all access to State highways (site plan, map)
- D. Circulation network including all access to State highways (vicinity map)
- E. Land use and zoning
- F. Phasing plan including proposed dates of project (phase) completion
- G. Project sponsor and contact person(s)
- H. References to other traffic impact studies

IV. TRAFFIC ANALYSIS

- A. Clearly stated assumptions
- B. Existing and projected traffic volumes (including turning movements), facility geometry (including storage lengths), and traffic controls (including signal phasing and multi-signal progression where appropriate) (figure)
- C. Project trip generation including references (table)
- D. Project generated trip distribution and assignment (figure)
- E. LOS and warrant analyses - existing conditions, cumulative conditions, and full build of general plan conditions with and without project

V. CONCLUSIONS AND RECOMMENDATIONS

- A. LOS and appropriate MOE quantities of impacted facilities with and without mitigation measures
- B. Mitigation phasing plan including dates of proposed mitigation measures
- C. Define responsibilities for implementing mitigation measures
- D. Cost estimates for mitigation measures and financing plan

VI. APPENDICES

- A. Description of how traffic data was collected
- B. Description of methodologies and assumptions used in analyses
- C. Worksheets used in analyses (i.e., signal warrant, LOS, traffic count information, etc.)

APPENDIX "B"

METHODOLOGY FOR

ALCULATING EQUITABLE

MITIGATION MEASURES

METHOD FOR CALCULATING EQUITABLE MITIGATION MEASURES

The methodology below is neither intended as, nor does it establish, a legal standard for determining equitable responsibility and cost of a project's traffic impact, the intent is to provide:

- A starting point for early discussions to address traffic mitigation equitably.
- A means for calculating the equitable share for mitigating traffic impacts.
- A means for establishing rough proportionality [Dolan v. City of Tigard, 1994, 512 U.S. 374 (114 S. Ct. 2309)].

The formulas should be used when:

A project has impacts that do not immediately warrant mitigation, but their cumulative effects are significant and will require mitigating in the future.

A project has an immediate impact and the lead agency has assumed responsibility for addressing operational improvements

NOTE: This formula is not intended for circumstances where a project proponent will be receiving substantial benefit from the identified mitigation measures. In these cases, (e.g., mid-block access and signalization to a shopping center) the project should take full responsibility toward providing the necessary infrastructure.

EQUITABLE SHARE RESPONSIBILITY: Equation C-1

NOTE: $T_E < T_n$, see explanation for T_n below.

$$P = \frac{T}{T_n - T_E}$$

Where:

- P = The equitable share for the proposed project's traffic impact.
- T = The vehicle trips generated by the project during the peak hour of adjacent State highway facility in vehicles per hour, vph.
- T_n = The forecasted traffic volume on an impacted State highway facility at the time of general plan build-out (e.g., 20 year model or the furthest future model date feasible), vph.
- T_E = The traffic volume existing on the impacted State highway facility plus other approved projects that will generate traffic that has yet to be constructed/opened, vph.

EQUITABLE COST: Equation C-2

$$C = P (C_T)$$

Where:

- C = The equitable cost of traffic mitigation for the proposed project, (\$). (Rounded to nearest one thousand dollars)
- P = The equitable share for the project being considered.
- C_T = The total cost estimate for improvements necessary to mitigate the forecasted traffic demand on the impacted State highway facility in question at general plan build-out, (\$).

NOTES

1. Once the equitable share responsibility and equitable cost has been established on a per trip basis, these values can be utilized for all projects on that State highway facility until the forecasted general plan build-out model is revised.
2. Truck traffic should be converted to passenger car equivalents before utilizing these equations (see the Highway Capacity Manual for converting to passenger car equivalents).

APPENDIX "C"

MEASURES OF EFFECTIVENESS

BY

FACILITY TYPE

MEASURES OF EFFECTIVENESS BY FACILITY TYPE

TYPE OF FACILITY	MEASURE OF EFFECTIVENESS
Freeways	
Basic Freeway Segments	Density (pc/mi/ln)
Weaving Areas	Density (pc/mi/ln)
Ramp Junctions	Flow Rates (pcph)
Multi-Lane Highways	Density (pc/mi/ln) Free-Flow Speed (mph)
Two-Lane Highways	Time Delay (percent)
Signalized Intersections	Average Control Delay (sec/veh)
Unsignalized Intersections	Average Control Delay (sec/veh)
Arterials	Average Travel Speed (mph)
Transit	Load Factor (pers/seat, veh/hr, people/hr)
Pedestrians	Space (sq. ft./ped)

Measures of effectiveness for level of service definitions located in table 1-2, Chapter 1, of the 1997 Highway Capacity Manual, Special Report 209, Transportation Research Board, National Research Council.

**Transition between LOS "C" and LOS "D" Criteria
(Reference 1997 Highway Capacity Manual)**

Basic Freeway Sections

LOS	Maximum Density (pc/ml/in)	Minimum Speed (mph)	Maximum Service Flow Rate (pcphpl)	Maximum Volume/Capacity Ratio
	Free-Flow Speed = 70 mph			
A	10.0	70.0	700	0.29
B	16.0	70.0	1120	0.47
C	24.0	68.0	1632	0.68
D	32.0	64.0	2048	0.85
E	45.0	53.0	2400	1.00
F	var	var	var	var

Weaving Areas

LOS	MAXIMUM DENSITY (pc/ml/in)	
	Freeway Weaving Area	Multi-lane and C - D Weaving Areas
A	10	12
B	20	24
C	28	32
D	35	36
E	<= 43	<= 40
F	> 43	>40

Ramp-Freeway Junction Areas of Influence

LOS	Maximum Density (Primary Measure) (pc/ml/in)	Minimum Speed (Secondary Measure) (MPH)
A	10	58
B	20	58
C	28	52
D	35	46
E	> 35	42
F	*	*

* Demand flows exceed limits of table 5-1.

Signalized Intersections

LOS	Control Delay Per Vehicle (sec)
A	10
B	20
C	35
D	55
E	80
F	> 80

..... Dotted line represents the transition between LOS "C" and LOS "D"

Jay Davis
Governor

Maria Contreras-Sweet
Secretary, Business, Transportation and Housing Agency

Jeff Morales
Director, California Department of Transportation

Kim Nystrom
Program Manager, Traffic Operations

For additional copies of these guidelines, please contact Tom Persons at Tom_Persons@dot.ca.gov.



Department of Toxic Substances Control



Edwin F. Lowry, Director
5796 Corporate Avenue
Cypress, California 90630

Gray Davis
Governor

nston H. Hickox
ncy Secretary
ifornia Environmental
rotection Agency

August 14, 2002

Ms. Diana Delgadillo
Associate Planner
Planning Division
City of Escondido
201 North Broadway
Escondido, California 92025-2798

NOTICE OF COMPLETION OF A DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE ESCONDIDO RESEARCH AND TECHNOLOGY CENTER SPECIFIC PLAN PROJECT (SCH #2001121065)

Dear Ms. Delgadillo:

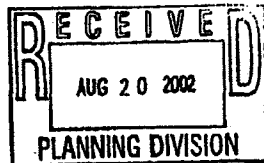
DTSC-1 The Department of Toxic Substances Control (DTSC) has received your Notice of Completion (NOC) of a draft Environmental Impact Report (EIR) for the above-mentioned project.

Based on the review of the document, DTSC's comments are as follows:

- DTSC-2 1) The draft EIR needs to identify and determine whether current or historic uses at the Project site have resulted in any release of hazardous wastes/substances at the Project area.
DTSC-3 2) The draft EIR needs to identify any known or potentially contaminated site within the proposed Project area. For all identified sites, the ND needs to evaluate whether conditions at the site pose a threat to human health or the environment.
DTSC-4 3) The draft EIR should identify the mechanism to initiate any required investigation and/or remediation for any site that may require remediation, and the government agency to provide appropriate regulatory oversight.
DTSC-5 4) Any hazardous wastes/materials encountered during construction should be remediated in accordance with local, state, and federal regulations. Prior to initiating any construction activities, an environmental assessment should be conducted to determine if a release of hazardous wastes/substances exists at the site. If so, further studies should be carried out to delineate the nature and

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our Web-site at www.dtsc.ca.gov.

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LETTER 4 - DEPARTMENT OF TOXIC SUBSTANCES CONTROL

DTSC-1 The comment provides an introduction to the attached comments from the Department of Toxic Substances Control (DTSC). A detailed response has been provided for each comment below.

DTSC-2 A Phase I Environmental Site Assessment was prepared by ENSR International for approximately 130 acres within the Specific Plan area. This report was Appendix H of the Application of Certification submitted to the California Energy Commission in November 2001. A second Phase I Environmental Site Assessment was prepared by Environmental Business Solutions for an additional 20 acres within the Specific Plan area. Based on a review of governmental environmental databases and historical documents, and interviews conducted with selected individuals and public officials, no evidence of recognized environmental conditions was found in connection with the subject property. Furthermore, ENSR did not recommend additional assessment of the project site. Therefore, there is no evidence that current or historic uses on the proposed project site will expose people to existing or past sources of potential health hazards. The Initial Study evaluated the potential impacts and concluded that there was no significant impact.

DTSC-3 Please refer to response to comment DTSC-2.

DTSC-4 Please refer to response to comment DTSC-2.

DTSC-5 The comment indicates the need to have an environmental assessment conducted prior to initiating construction activities. The project site is currently undeveloped, and no existing buildings are proposed to be demolished in order to implement the ERTC Specific Plan. Prior to grading, the developer will be responsible for providing proof that no potential hazards will be released during grading and excavation, to the satisfaction of the City's Director of Planning.

- DTSC-11 Prior to demolition of any buildings, the developer will be responsible for providing proof to the City Planning Director that there are no traces of asbestos or lead-based materials existing onsite. It should be noted that there are no existing buildings within the proposed ERTC Specific Planning Area. The buildings identified in the initial study are located in the residential areas which are part of the existing Quail Hills Specific Plan. These residential areas are to be rezoned and eliminated from the proposed ERTC Specific Plan; therefore, they are not proposed to be removed.
- DTSC-12 Section 2.3 of the DEIR discusses air quality impacts associated with construction and project operations. The DEIR concluded that there were short-term unavoidable construction impacts, and significant mitigable impacts related to the operation phase of the Specific Plan and the power plant.

DTSC-6 extent of the contamination. Also, it is necessary to estimate the potential threat to public health and/or the environment posed by the site. It may be necessary to determine if an expedited response action is required to reduce existing or potential threats to public health or the environment. If no immediate threat exists, the final remedy should be implemented in compliance with state regulations and policies rather than excavation of soil prior to any assessments.

DTSC-7 5) All environmental investigation and/or remediation should be conducted under a Workplan which is approved by a regulatory agency who has jurisdiction to oversee hazardous waste cleanups. Complete characterization of the soil is needed prior to any excavation or removal action.

DTSC-8 6) If the proposed project is located within 2,000 feet from a contaminated site, then the proposed development may fall under the "Border Zone of a Contaminated Property." Appropriate precautions should be taken prior to construction if the proposed project is on a "Border Zone Property."

DTSC-9 7) The draft EIR states that significant portions of the plan area have been disturbed by former agricultural activities. If the site was previously used for vegetation or agricultural, onsite soils could contain pesticide residues and the site may have contributed contamination to soil and/or groundwater. Proper investigation and remedial actions should be conducted at the site prior to the new development. Details should be provided in the draft EIR.

DTSC-10 8) The project construction may require soil excavation and/or soil filling in certain areas. Appropriate sampling is required prior to disposal of the excavated soil. If the soil is contaminated, properly dispose it rather than placing it in another location. Land Disposal Restrictions (LDRs) may be applicable to these soils. Also, if the project is planning to import soil to backfill the areas excavated, proper sampling should be conducted to make sure that the imported soil is free of contamination.

DTSC-11 9) The Initial Study suspects asbestos containing materials (ACMs) of lead paints in the currently existing private residence on the property. If the proposed project is planning to demolish any old buildings during the development, investigate the presence of lead paints and ACMs in the currently existing building structures. If the presence of lead or ACMs is suspected, proper precautions should be taken during any future demolition activities. Additionally, the contaminants should be remediated in compliance with the California environmental regulations.

DTSC-12 10) Air toxics and health risk assessment should be consulted with an appropriate

DTSC-6 The comment indicates the need to estimate the potential threat to public health and/or the environment posed by the site. Based on a review of governmental environmental databases and historical documents, and interviews conducted with selected individuals and public officials, no evidence of recognized environmental conditions was found in connection with the subject property. Furthermore, ENSR did not recommend additional assessment of the project site.

DTSC-7 Any environmental investigations and/or remediation actions taken will be planned in accordance with local and state laws. The applicant will be responsible for drafting a "workplan", in coordination with the City and appropriate local and state agencies.

DTSC-8 Based on the Phase I Environmental Assessment prepared by ENSR, a database report was obtained from Environmental Data Resources, Inc. (EDR) identifying sites located within a mile to a half a mile of the site that were undergoing remedial action for leaking underground storage tanks or hazardous waste spills. The Phase I Environmental Assessment concluded that, based on distance from the subject property and the regulatory status, none of the sites listed in the EDR report were considered environmental conditions of concern.

As a standard condition of grading, the developer will be responsible for having soil samples collected and tested to confirm that there are no contaminated soils on the site. The results of the testing must be documented and presented to the City Engineer for review and approval. If contaminated soils are identified, removal will be required in accordance with established protocol (Land Disposal Restrictions). Appropriate measures will be implemented for disposal, in coordination with the City and appropriate agencies. No further testing is required in Planning Areas 1 through 6, as noted in response to comment DTSC-2.

DTSC-9 The comment indicates concern with previous agricultural uses on the project site and potential soil contamination. As a standard condition of grading, the developer will be responsible for having soil samples collected and tested in Planning Areas 1 through 6, to determine if any contaminated soils exist on the site. The results of the testing must be documented and presented to the City Planning Director for review and approval. If contaminated soils are identified, removal will be required. Appropriate measures will be implemented for disposal, in coordination with the City and appropriate agencies.

DTSC-10 As a standard condition of grading, the developer will be responsible for conducting sampling to confirm that there are no contaminated soils on the site. If contaminated soils are identified, removal will be required in accordance with Land Disposal Restrictions (LDR). Appropriate measures will be implemented for disposal, in coordination with the City and appropriate agencies. It should be noted that no soil is to be imported to or exported from the project site.

regulatory agency and get proper approvals. The mitigation measures provided in the draft EIR should also be consulted. A qualified Toxicologist only may have the expertise to make a decision on this issue. The health effects of electromagnetic forces (EMF) and the risks associated with silica or silica dust should be verified.

- DTSC-13
- DTSC-14 11) If it is determined that hazardous wastes are, or will be, generated by the proposed project, the wastes must be managed in accordance with the California Hazardous Waste Control Law (California Health and Safety Code, Division 20, chapter 6.5) and the Hazardous Waste Control Regulations (California Code of Regulations, Title 22, Division 4.5).
- DTSC-15 12) If it is determined that hazardous wastes are or will be generated and the wastes are (a) stored in tanks or containers for more than ninety days, (b) treated onsite, or (c) disposed of onsite, then a permit from DTSC may be required. The facility should contact DTSC at (818) 551-2171 to initiate pre application discussions and determine the permitting process applicable to the facility.
- DTSC-16 13) If it is determined that hazardous wastes will be generated, the facility should obtain a United States Environmental Protection Agency Identification Number by phoning (800) 618-6942.
- DTSC-17 14) Certain hazardous waste treatment processes may require authorization from the local Certified Unified Program Agency (CUPA). Information about the requirement for authorization can be obtained by contacting Mr. Michael Dorsey, Chief of Hazardous Materials Division of the San Diego County-Department of Environmental Health, the CUPA designated agency at (619) 338-2395.
- DTSC-18 15) If during construction/demolition of the project, soil and/or groundwater contamination is suspected, construction/demolition in the area should cease and appropriate Health and Safety procedures should be implemented. If it is determined that contaminated soil and/or groundwater exist, the draft EIR should identify how any required investigation and/or remediation will be conducted, and the government agency to provide appropriate regulatory oversight.

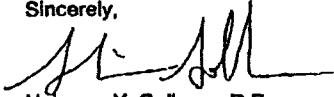
DTSC provides guidance for the Preliminary Endangerment Assessment (PEA) preparation and cleanup oversight through the Voluntary Cleanup Program (VCP). For additional information on the VCP, please visit DTSC's web site at www.dtsc.ca.gov.

- DTSC-13 Section 2.5 of the DEIR discusses the potential effects of EMFs and silica dust. The DEIR concluded that implementation of the Specific Plan would not result in significant exposure of EMFs, generate excessive silica dust, or create hazards associated with the storage of gas or other regulated substances onsite. The information obtained to complete the analysis for this section has been referenced in the document in Section 8.0 under the list of references. The EIR has concluded that there are no significant unmitigated impacts associated with public health and safety.
- DTSC-14 If proposed development within the Specific Planning Area will generate hazardous waste, the waste will be handled and disposed of in accordance with the California Hazardous Waste Control Law (California Health and Safety Code, Division 20, Chapter 6.5) and Hazardous Waste Control Regulations (California Code of Regulations, Title 22, Division 4.5). Compliance with these codes will be regulated by appropriate agencies, in combination with the City.
- DTSC-15 The comment provides a contact number for the DTSC. Upon the determination that hazardous waste will be generated by development within the ERTC Specific Planning Area, the developer will be responsible for contacting DTSC and initiating preapplication discussions. The information will be forwarded to the developer for further consultation.
- DTSC-16 The comment provides a contact number for the United States Environmental Protection Agency to obtain an identification number, in the event hazardous waste is generated by facilities within the ERTC Specific Planning Area. This information will be forwarded to the developer for further consultation.
- DTSC-17 The comment provides information regarding the local Certified Unified Program Agency (CUPA). This information will be forwarded to the developer for further consultation.
- DTSC-18 Prior to the preparation of the EIR, a Phase I Environmental Assessment was prepared for approximately 130 acres within the ERTC Specific Planning Area. A second Phase I Environmental Assessment was prepared on an additional 20 acres of the project site. Neither assessment identified any area of concern. As indicated in previous responses, in the event contaminated soils are identified during grading and excavation, these soils will be collected and disposed of in accordance with applicable state and local laws and ordinances.

Ms. Diana Delgadillo
August 14, 2002
Page 4

If you have any questions regarding this letter, please contact Mr. Johnson P. Abraham,
Project Manager at (714) 484-5476.

Sincerely,



Haissam Y. Salloum, P.E.
Unit Chief
Southern California Cleanup Operations Branch
Cypress Office

cc: Governor's Office of Planning and Research
State Clearinghouse
P.O. Box 3044
Sacramento, California 95812-3044

Mr. Guenther W. Moskat, Chief
Planning and Environmental Analysis Section
CEQA Tracking Center
Department of Toxic Substances Control
P.O. Box 806
Sacramento, California 95812-0806



County of San Diego

JOHN L. SNYDER
DIRECTOR

DEPARTMENT OF PUBLIC WORKS

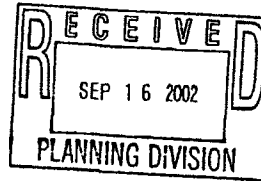
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COUNTY ENGINEER
COUNTY ROAD COMMISSIONER
COUNTY SURVEYOR
COUNTY AIRPORTS
FLOOD CONTROL
WASTEWATER MANAGEMENT

September 13, 2002

Diana Delgadillo
City of Escondido Planning Division
201 North Broadway
Escondido, California 92025



Dear Ms. Delgadillo,

ESCONDIDO RESEARCH AND TECHNOLOGY CENTER SPECIFIC PLAN

SDCO-1 County staff has reviewed the following documents related to the City of Escondido's Research and Technology Center:

- 1) Specific Plan prepared by P&D Environmental Services dated July 16, 2002
- 2) Traffic Impact Analysis (TIA) prepared by Linscott, Law, and Greenspan dated June 24, 2002

The following are our comments:

TIA

- SDCO-2 • The TIA should clarify if any portion of the unincorporated area will need to be annexed in order to implement the Specific Plan.
- SDCO-3 • The TIA should identify what land use and roadway network assumptions were used for the adjacent unincorporated area in the year 2020 scenario. The TIA should state if the County's adopted General Plan/Circulation Element was used or were the assumptions based on the City's sphere of influence plans. The TIA should discuss differences between the County's and City's long-range plans.
- SDCO-4 • The Harmony Grove Road/Andreason Drive corridor is depicted as a through/continuous route in the County's and the City's General Plan Circulation Element. The proposed project, as shown in the Conceptual Site Plan (Figure 3, Pg.5) necessitates an offset (see attachments) of the Harmony Grove Road/Andreason Drive corridor. The realignment of Harmony Grove Road and Andreason Drive should be included in the project description. The TIA should fully assess any on-site and/or off-site impacts that would result from the realignment of the Harmony Grove Road/Andreason Drive corridor.

LETTER 5 - COUNTY OF SAN DIEGO DPW

- SDCO-1 The comment provides an introduction to the letter, indicating the documents reviewed by the County of San Diego Department of Public Works (DPW). Does not address the adequacy or accuracy of the EIR; no response is necessary.
- SDCO-2 The entire project site is located within the jurisdiction of the City of Escondido; therefore, no annexation is necessary to implement the proposed ERTC Specific Plan.
- SDCO-3 The land use assumptions for property outside City of Escondido boundaries were based on the County's adopted General Plan.
- SDCO-4 The traffic study fully analyzes the realigned Harmon Grove/Andreason Drive corridor in Table 2.2-8 and recommends measures to mitigate impacts to this corridor in Table 2.2-12 of the EIR.

- SDCO-5
- The updating of the City's General Plan should be coordinated with the County's General Plan 2020 update. Ivan Holler is the Project Manager of the General Plan 2020 update, and he may be reached at (858) 694-3789.
- SDCO-6
- Citracado Parkway (SA 550) is a County Circulation Element road. The TIA should discuss the consistency between the County's and City's Circulation Element classification and proposed alignment of Citracado Parkway.
- SDCO-7
- The scope of the traffic analysis should be expanded to assess the project's impact to segments of County Circulation Element roads within the City's sphere of influence. These roads would include Country Club Drive (SC 1375), Harmony Grove Road (SC 1370), and Del Dios Highway (SF 727). The roads currently located within the unincorporated area must be assessed based on the County's Public Road Standard and LOS thresholds. For information regarding the County's Circulation Element Plan, Nick Ortiz should be contacted at (858) 495-5488.
- SDCO-8
- City staff and the project consultant should coordinate with the County's Department of Planning and Land Use's (DPLU) in order to confirm that the list of cumulative projects (Section 7.0) is complete and accurate.
- SDCO-9
- The TIA should provide a comparative assessment of the adopted and proposed Specific Plan. In addition, the TIA should provide a comparative assessment of the adopted (with Enterprise Street) and proposed (w/o Enterprise Street) Circulation Element Plan.
- SDCO-10
- The proposed project exceeds the 2,400 ADT threshold identified in the Congestion Management Plan (CMP) for the San Diego Region. An assessment of the project's impacts to regional transportation facilities such as I-15 and SR-78 should be provided. The assessment should utilize the criteria outlined in the CMP.
- SDCO-11
- The project will have a cumulative impact to the Del Dios Highway/Via Rancho Parkway intersection. As mitigation for the cumulative impact, the traffic study is proposing a fair-share contribution towards future intersection improvements. City staff should coordinate with the County Department of Public Works (DPW) Capital Improvement Projects (CIP) section in identify appropriate mitigation measures for the Del Dios Highway/Via Rancho Parkway intersection.
- EIR
- SDCO-12
- The EIR should address comments regarding the TIA that are applicable to the EIR.
- SDCO-13
- The Circulation Element classification of Citracado Parkway is not consistently identified in the EIR. Citracado Parkway is described as both a Major road (Table 2.2-10) and Collector road (Pg 2.2-3).

- SDCO-5
- This comment does not address the adequacy of the EIR; no response is necessary.
- SDCO-6
- The County of San Diego and City of Escondido both classify Citracado Parkway as a Major Road. The project involves a General Plan Amendment to reclassify Citracado from a Major Road to a Collector within the project limits. The text has been revised in the Final EIR to indicate this classification.
- SDCO-7
- County roadways to which greater than 5% of the project traffic would be added were analyzed. The County of San Diego intersection of Del Dios Highway/Via Rancho Parkway was analyzed, a significant cumulative impact was calculated, and mitigation is recommended. The EIR provided a worst-case analysis. The applicant is providing a fair-share contribution as mitigation.
- SDCO-8
- The comment suggests that the City and project consultant coordinate with the County's Department of Planning and Land Use (DPLU) staff to confirm the accuracy and completeness of the list of cumulative projects reviewed for the cumulative impacts analysis of the DEIR. A list of projects within any portion of the unincorporated area surrounding the project site was obtained from DPLU. Projects were selected based on applications that were undergoing environmental review or approved at the time the DEIR was being prepared. Detailed information on each project was then obtained through consultation with assigned Environmental Management Specialist staff within the department.
- SDCO-9
- Section 2.2.1 of the EIR discusses existing conditions. Pages 42 and 76 of the traffic study compare the adopted and proposed specific plans in terms of trip generation. A worst-case network without Enterprise Street was assumed.
- SDCO-10
- A full freeway analysis of I-15 and SR 78 was completed and the results are outlined on Table 2.2-11 of the EIR.
- SDCO-11
- It is agreed that City staff should coordinate with the County regarding the fair share contribution at the County maintained Del Dios Highway/Via Rancho Parkway intersection.
- SDCO-12
- The comment indicates the need for the EIR to address findings of the Traffic Impacts Analysis (TIA) prepared by Linscott, Law, and Greenspan (LLG). Due to the technical complexity of the information provided in the TIA, Section 2.2 of the DEIR provides a summary of the impacts identified in the TIA. The findings indicated in the DEIR were based on the analysis prepared by LLG. The TIA has been included as Appendix B of the EIR and is available for review at the City of Escondido.
- SDCO-13
- The correct current classification of Citracado Parkway is Major Road. This will be stated in the EIR. As noted in response to comment SDCO-6, Citracado

Parkway is proposed to be reclassified to a Collector Road within the project limits.

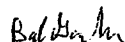
- The correct Circulation Element classification of Citracado Parkway should be correctly and consistently identified in the EIR and TIA.

Flood Control

- SDCO-14
- The proposed project is located in the City of Escondido in the vicinity of Escondido Creek. There are existing County and private facilities downstream of the City currently subject to flooding from project design 100-year flood levels. There are existing County and FEMA Flood Plain Maps for some areas downstream.
- SDCO-15
- The project proposes to convert bare land to mostly industrial and commercial properties. The corresponding increase in runoff factors from such increases in land use is representative of a project's contributory increase in design peak flows, or the peak flow runoff may be expected to approximately double from the proposed Specific Plan area.
- SDCO-16
- Hydrology and hydraulic calculations to identify the current project area peak flow and the developed project peak flow are necessary to analyze the project's impacts on downstream properties. As many properties downstream are already impacted, any increase of peak flow should be accompanied by appropriate mitigation measures to reduce or eliminate flooding impacts downstream. If detention is proposed to mitigate for the increased imperviousness of the site, the outflow hydrograph will need to coincide with the design lag time for Escondido Creek to appropriately analyze peak flow increases to Escondido Creek.

If you have any questions concerning our comments, please call me at (858) 694-3728.

Very truly yours,



BOB GORALKA
Project Manager

Cc: Kent Burnham (DPW); Lee Shick (DPW)

Attachments

SDCO-14 The comment identifies County and private facilities located downstream of the City, which are currently subject to flooding from project design 100-year flood levels. It should be recognized that the City has no authority to control land uses in the County of San Diego. An onsite detention basin will be included as part of the project design to ensure that flows will not be raised above the existing levels.

SDCO-15 The proposed landscaping, which is detailed in the Specific Plan, will serve as a component to the planning area's erosion control program, in addition to providing aesthetic benefits. Storm Water Pollution Prevention Plans (SWPPP) will be developed and implemented to assure no significant increase in erosion from construction and operational activities. Additionally, erosion and sediment controls, surface water pollution prevention measures, and other best management practices (BMPs) will be developed and implemented for project construction and operation.

The SWPPP will be prepared in accordance with Water Quality Order 99-08-DWQ, State Water Resources Control Board National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction Activity, and Water Quality Order No. 97-03-DWQ, NPDES General Permit No. CAS000001, Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities.

Surface drainage systems at the project will handle the flow resulting from a 25-year, 24-hour duration rainfall event. The surface drainage systems also will prevent flooding of permanent project components. The project site will drain in an easterly and southerly direction, and runoff from the site will be directed and discharged to the City of Escondido's storm drain system.

Detention basins will be located at the south end of the project and will be sized according to need. Figures depicting the location of these basins have been included in the Final EIR.

SDCO-16 Figure I.3-2A has been inserted into the Final EIR to illustrate the proposed detention basins which are located strategically at two points along the southern boundary of the project site.

Implementation of this design further reduces potential flooding impacts downstream.

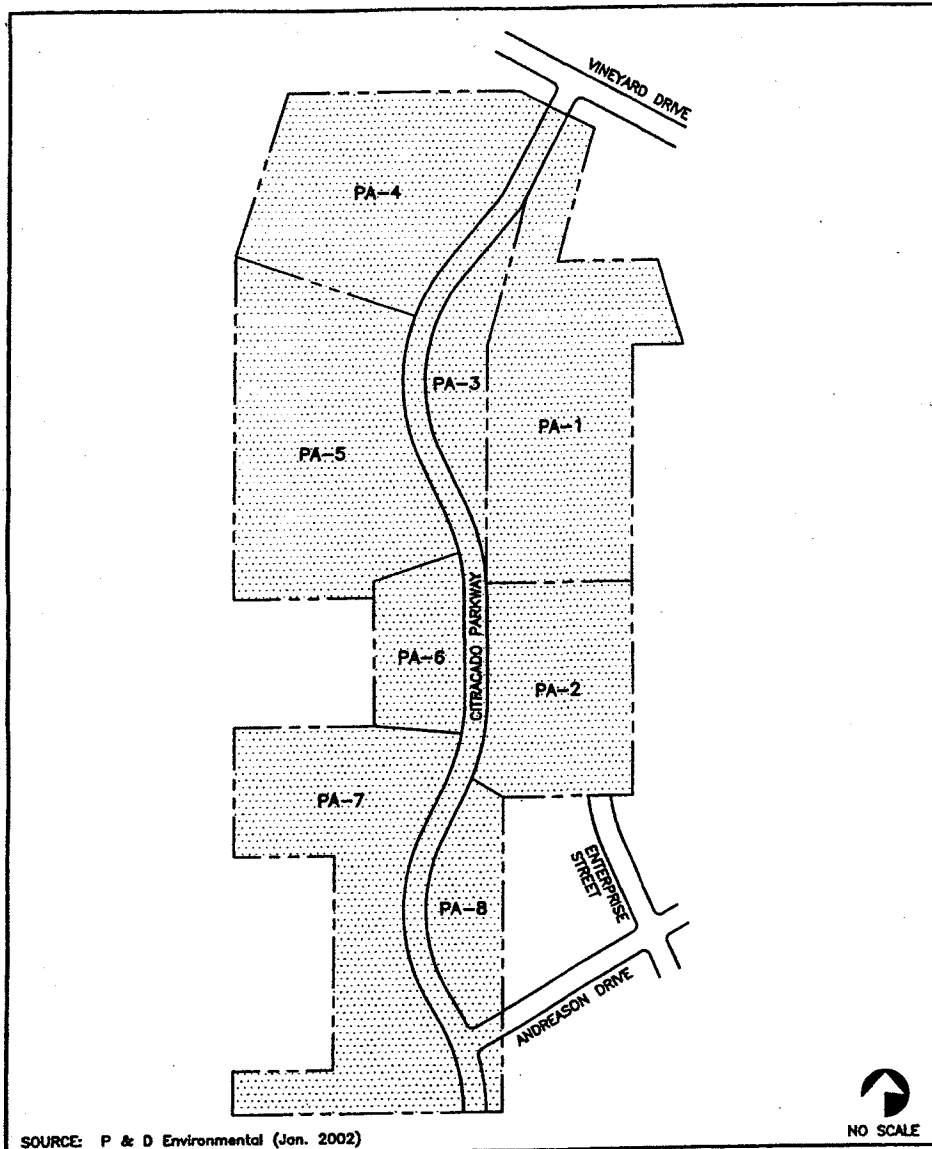


Figure 3

CONCEPTUAL SITE PLAN

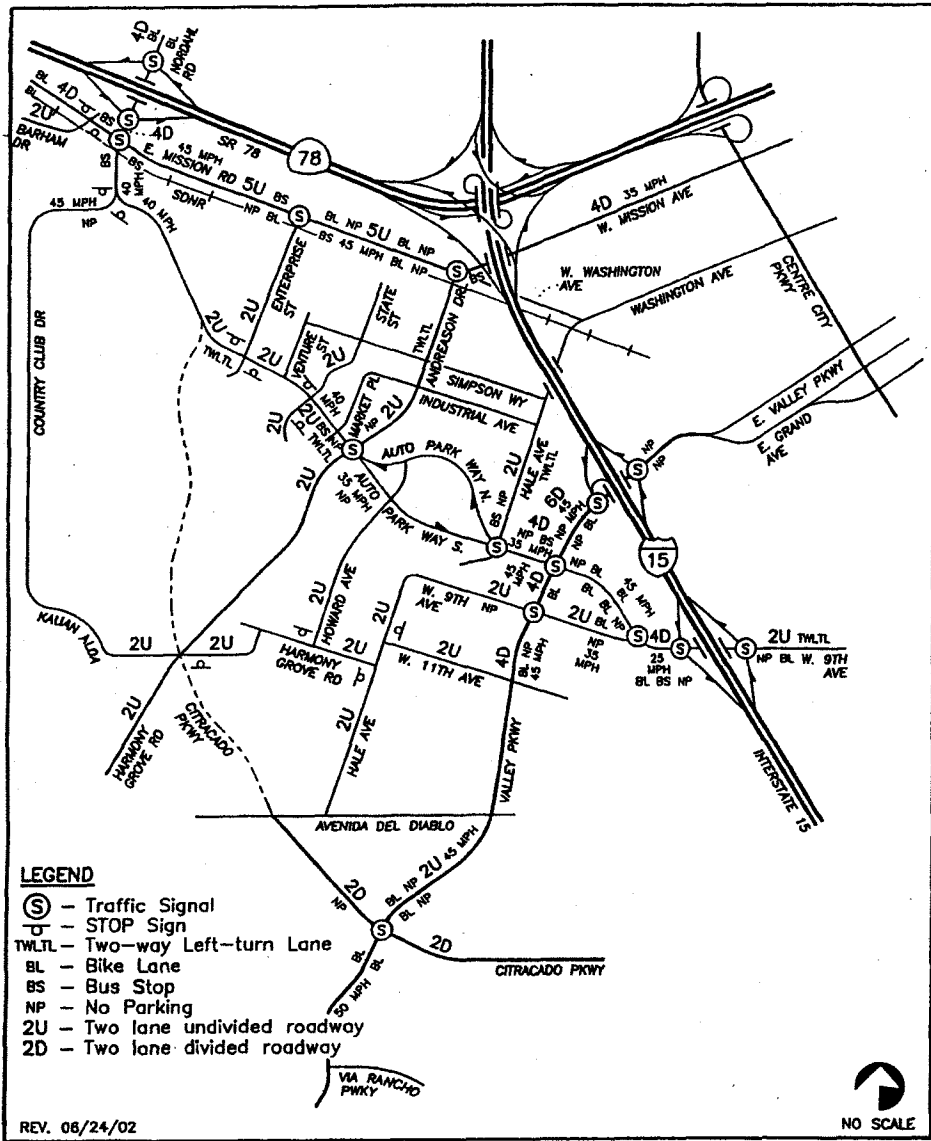
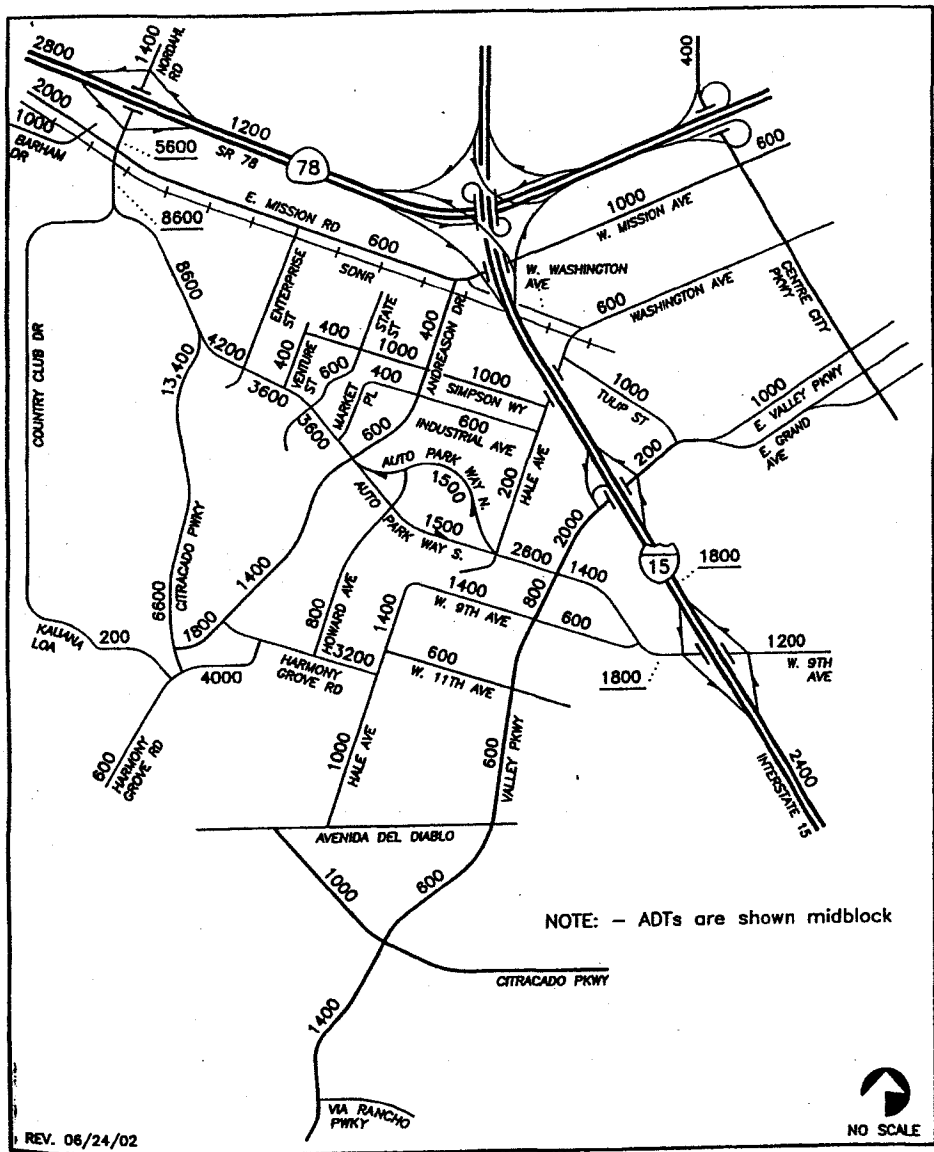


Figure 5

EXISTING CONDITIONS DIAGRAM



LINSCOTT
LAW &
GREENSPAN
ENGINEERS

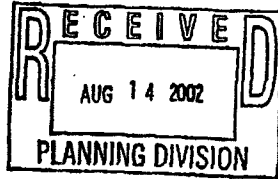
Figure 15

TOTAL PROJECT TRAFFIC VOLUMES
ADT

-59-
ESCONDIDO RESEARCH AND TECHNOLOGY CENTER



August 13, 2002



LETTER 6 – RINCON DEL DIABLO MUNICIPAL WATER DISTRICT

RMWD-1 The comment references letters provided by Rincon del Diablo Municipal Water District (RINCON) dated January 2, 2002 and August 21, 2001. RINCON provided copies of these letters as attachments to the comment letter. No comment was made to address the adequacy or accuracy of the DEIR; therefore, no further response is necessary.

A Public Agency
Serving the Greater
Escondido Valley Since 1954

Ms. Diana Delgadillo
Associate Planner
City of Escondido
Planning Division
201 N Broadway
Escondido CA 92025

Reference: Escondido Research and Technology Center Specific Plan,
Draft Environmental Impact Report

Dear Ms. Delgadillo:

Thank you for the opportunity to review and comment on the above referenced
"Draft Environmental Impact Report".

In your list of references, pg. 8-4, you refer to letters from Rincon del Diablo
Municipal Water District dated January 2, 2002 and August 21, 2001. We
have no other additional comments at this time. For your convenience I have
enclosed copies of those two letters and one additional letter dated January 14,
2002.

If you have any questions or require additional information, please do not
hesitate to call me.

Sincerely,

David L. Keller
Engineering Manager

cc: Annette Hubbell, General Manager

John B. Hinrichs
President
Division III

Gregory M. Quist
Vice President
Division I

Willis G. Cornelius
Treasurer
Division II

Hanno E.C. Ix
Director
Division IV

Diana Towne
Director
Division V

Annette S. Hubbell
General Manager

Redwine and Sherrill
General Counsel

RMWD-1



January 2, 2002

Ms. Sophia Hahl
P&D Environmental
401 West "A" Street
Suite 2500
San Diego, CA 92101

Public Agency
Serving the Greater
Escondido Valley Since 1954

Robert B. Hinrichs
President
III

Reference: Preparation of Environmental Impact Report
Escondido Research and Technology Center

Gregory M. Quist
President
I

Dear Ms. Hahl:

Thomas G. Cornelius
Manager
II

This letter is in response to your recent request for information regarding water service for the above referenced project.

John E.G. Le
Director
IV

1. The entire project is located within the Rincon del Diablo Municipal Water District service area (Improvement District "1"). There are several existing water mains located in the area, including a 14" line in Country Club Drive (west) and a 16" line in Harmony Grove Road (south).

Anna Towne
Director
V

2. Water service will require the installation of onsite improvements and probably some offsite improvements as well.

Annette S. Hubbell
General Manager

3. The water usage for Improvement District "1" (fiscal year 2000-2001) was 7,317.2 acre feet.

William and Sherrill
General Counsel

4. I have included a copy of the "Land Use Water Demand Factors" from the District's Amended Water Master Plan, dated August 1998.

5. The proposed project should not significantly impact water service to the area.

6. Recycled water may be available to serve the project. Please be advised that the District strongly encourages the use of water conservation including water-wise landscaping (i.e. xeriscape).

If you have any questions or require additional information, please call.

Sincerely,

David L. Keller
Engineering Manager

cc: Annette Hubbell/ Rincon



Public Agency
Serving the Greater
Escondido Valley Since 1954

John B. Hinrichs
President
v. III

January 14, 2002

Gregory M. Quist
City President
v. I

Ms. Diana Delgadillo
City of Escondido
Planning Division
201 N. Broadway
Escondido, CA 92025-2798

William G. Cornelius
Insurance
v. II

William E.G. Ix
Director
v. IV

Reference: Notice of Preparation of a Draft Environmental Impact Report
Escondido Research and Technology Center Specific Plan

Anna Towne
Director
v. V

Dear Ms. Delgadillo:

Debbie S. Hubbell
General Manager

This letter is in response to your Notice and request for comments for the above
referenced notice, dated December 12, 2001.

Debbie Swine and Sherrill
General Counsel

- As stated in the report, the entire project is located within the Rincon del Diablo Municipal Water District. Potable water service will be available from Improvement District "I".
- As underlined, the following phrase should be inserted in the sentence on page three, 3rd paragraph of the Initial Study-Part I; "Reclaimed water for the Palomar project will be supplied from the City of Escondido's Hale Avenue Resource Recovery Facility (HARRF), through the Rincon del Diablo Municipal Water District, via a new 1.1 mile, 16-inch supply pipeline extending from an existing reclaimed water main."
- With respect to the 2nd bullet on page two, I'd like to add, specifically, that the EIR will need to address the installation of the water system infrastructure. Some or all of the system may need to be installed before service will be rendered to any part of the proposed development. Water for fire flow service will be critical to this determination. A hydraulic analysis will be required.



August 21, 2001

Public Agency
Serving the Greater
Escondido Valley Since 1954

James B. Hinrichs
Vice President
III

Gary M. Quist
President
I

Les G. Cornelius
Treasurer
II

John E.G. Isidor
Director
IV

Johnna Towne
Director
V

Annette S. Hubbell
General Manager

Johnna Towne and Sherrill
General Counsel

Mr. Ray Kelly
Sempra Energy Resources
101 Ash Street
San Diego, CA 92101

Reference: Palomar Energy Project in Escondido

Dear Mr. Kelly:

Recently you requested that Rincon del Diablo Municipal Water District provide a Will Serve Letter for the above referenced project. As you may be aware, Rincon is working closely with the city of Escondido to provide this proposed project with recycled water in the amount of 3.7 million gallons per day.

The proposed project is located within the Rincon del Diablo Municipal Water District's primary service area, and is eligible for service from Improvement District "1".

Recycled water in the amount of 3.7 million gallons per day will be available to serve this project, in accordance with all District rules and regulations, including, but not limited to, all current fees and charges, and under the following conditions:

1. The flow will be constant throughout each 24-hour period;
2. On-site storage may be required to equalize the flow for Sempra's demand; and
3. There will not be a back-up supply available in the event of catastrophic plant or system failure.

We look forward to working with you. If you have any questions or require additional information, please call Mr. Dave Keller, Engineering Manager, at (760) 745-5522.

Sincerely,

Annette Hubbell
General Manager

cc: Arrie Bachrach/ ENSR
Dave Keller/ Rincon ✓
Clint Baze/ Rincon



20223 Elfin Forest Rd. Elfin Forest, CA 92029

September 16, 2002

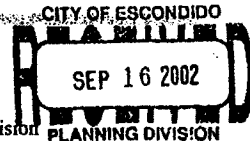
To: Diana Delgadillo, Associate Planner; City of Escondido Planning Division
201 North Broadway; Escondido, CA 92025

Re: Escondido Research and Technology Center Specific Plan Draft EIR (case file No. ER 2001-12)

Dear Ms. Delgadillo:

2002-03 Board Members:

Evelyn Alemaoni
Mid Hoppenrath
Bill Telesco
Nancy Reed
Patti Newton
Eric Anderson
Janet McGurk
Rachel Barnes



LETTER 7 - ELFIN FOREST/HARMONY GROVE TOWN COUNCIL

- EF-1 The Elfin Forest / Harmony Grove Town Council appreciates the opportunity to review the above referenced EIR. We request that a correction be made to the EIR to reflect the barricading of the southeast portion of Citracado Parkway just past the intersection with Andreasen, as promised by Homi Namdari, Asst. City Engineer, at a meeting held August 28, 2002, with Escondido city staff members including yourself and representatives of local civic groups. We suggest correction to, inter alia, the figures depicting projected traffic distributions (Figure 2.2-3, 2.2-7, 2.2-8, and 2.2-9). In addition, the sentence about a southern access point to the project via Citracado Road (page 2.2-3) should be deleted.
- EF-2 The EIR should clearly state that the public recreational trail will accommodate equestrian use (page 4-2). Please also add the location of the proposed trail staging area. This trail should be equipped with equestrian/pedestrian walk signals in certain busy intersections to allow safe access to the trails system. The exit/entrance points for this public trail within the adjacent communities should be clearly marked.
- EF-3 Noise and air quality monitoring should be conducted in the near-by residential areas of Harmony Grove and Eden Valley, and should include CO modeling locations. Baseline measurements should be used for comparison to later measurements taken during both construction and operation of the industrial site. The landscaping in the buffer zones near residential areas should be sufficiently dense to offer a barricade to visual detractors, noise, and dust.
- EF-4 Sediment and storm water run-off should be monitored during and after construction.
- EF-5 The operation of large trucks and heavy machinery should be regulated to avoid disturbing nearby residential areas during nighttime and weekends.
- EF-6 We request that mitigation land be purchased along Escondido Creek and be donated to The

- EF-1 The Final EIR has been revised to clarify that the proposed project will extend Citracado Parkway southward to Andreasen Drive. Please refer to Section 2.2 for revised Figures 2.2-1, 3, 5, 6, and 7.
- EF-2 Details of the natural trail which will be developed within the Specific Planning Area are discussed in the ERTC Specific Plan. The natural trail will meander the circumference of the planning area and is intended for general recreational use. A staging area will be located on the northern end of Planning Area 6. This staging area will include several parking spaces allocated to trail users, and an information kiosk if desired by the developer. The nature trail will be 12 feet wide. The trail alignment is shown in the attached Exhibit E.
- EF-3 Both construction noise and air quality will be monitored during construction. Mitigation measures have been incorporated to reduce noise and air quality impacts to surrounding properties. Noise impacts have been addressed. The EIR concludes implementation of the proposed project would result in significant unmitigable impacts associated with short-term construction noise due to the proximity of the western boundary. The air quality analysis has also been included in Section 2.3. The EIR has concluded there are short-term unmitigable impacts associated with construction activities due to the commissioning of the power plant and emissions from grading and associated construction equipment. It should be noted that a health risk assessment was conducted for the power plant operation that concluded that emissions will not result in any localized health impacts.
- EF-4 Construction monitors will be present during all construction activities to verify compliance with the required mitigation measures. Monitors will also be responsible for verifying that Best Management Practices are being implemented during construction in accordance with the Storm Water Pollution Prevention Plan. Monitoring reports are required to be submitted to the City's Director of Planning for review. No changes have been made to the Final EIR.
- EF-5 As indicated in Section 2.4.4 of the DEIR, mitigation measures will be implemented in accordance with the City's ordinances to further reduce noise impacts associated with construction and operation of the project. Additionally, construction hours and duration of activities will be limited in accordance with City ordinance (five days). A construction monitor will verify that a 200-foot buffer exists between construction activities and sensitive receptors (such as adjacent occupied residences). These actions are required by the Mitigation Monitoring Report Program.
- EF-6 The mitigation site has not been identified at the time of the preparation of the DEIR. The City will review and approve the location of the mitigation site; however, the condition specifies that the mitigation be located within the Subarea

Plan Focused Planning Areas (FPAs) or other areas approved by the City, State, and Federal jurisdictional agencies.

Escondido Creek Conservancy for management of open space conservation land.

EF-7

We request the dedication of a passive community park within the project.

Sincerely,

The Elfin Forest / Harmony Grove Town Council

EF-7

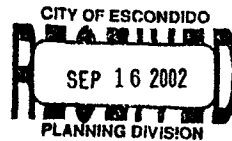
The Specific Plan does not propose a passive community park. Since the land uses are predominantly industrial, there is no nexus for requiring a park. Additionally, the City's General Plan does not designate a park on this site.

Harmony Grove / Eden Valley Citizen's Group

2002-03 Board Members: Kevin Barnard, Diane McMillen, Bob Nickson,
Bill Wilgenburg, Ann Beck-Witte, Betsy Miller, Mid Hoppenrath, Kathy DaSilva, Lali Mitchell

September 16, 2002

To: Diana Delgadillo, Associate Planner
City of Escondido Planning Division
201 North Broadway
Escondido, CA 92025



Re: Escondido Research and Technology Center Specific Plan Draft EIR (case file No. ER 2001-12)

Dear Ms. Delgadillo:

Thank you for the opportunity to review the above referenced EIR. The residents of the surrounding rural, unincorporated communities of Harmony Grove and Eden Valley wish to ensure that traffic generated by the construction and operation of the Escondido Research and Technology Center will remain mostly within the city limits where the circulation elements have been designed for urban traffic loads. At a meeting held August 28, 2002, with Escondido city staff members including yourself and representatives of local civic groups, Homi Namdari, Asst. City Engineer, gave formal assurances that Citracado Parkway would be completely barricaded just southeast of its intersection with Andreason Drive before the opening of the Escondido Research and Technology Center and therefore there would be no intersection at Harmony Grove Road and Citracado in the foreseeable future. In a later telephone conversation, Mr. Namdari said that any resultant berm would be landscaped and irrigated. However, barricade of this road segment is not depicted nor noted in the EIR. We request that these corrections/additions be made to the EIR at all appropriate places, such as the figures depicting projected traffic distributions (Figure 2.2-3, 2.2-7, 2.2-8, and 2.2-9). In addition, remarks concerning a southern access point to the project via Citracado Road (page 2.2-3) should be deleted.

The area surrounding the project site is rural equestrian in character; more than 200 horses in more than 28 residences were surveyed within a half-mile of the project's southern and western borders. None of the many maps of the project contained in the EIR show the proposed multi-use public recreational trail, nor does the EIR clearly state that this trail will be designed to accommodate equestrian use (page 4-2). We request that this information be added to the EIR. The proposed staging area for the trail is not shown and this should be added as well. Because of the expected heavy traffic impacts in the area, equestrian/pedestrian walk signals should be installed where appropriate in selected intersections to allow the residents safe access to the trails system. The multi-use trail should exit into the adjacent communities at a point on the west side (for Eden Valley) and at another on the south side (for Harmony Grove).

According to the project EIR, there will be significant and unmitigable short-term impacts to residents in Harmony Grove and Eden Valley related to excessive noise and air pollution during construction of this project (page 2.3-37). We understand that these are unavoidable, but we wish to ensure that these impacts cease after the six-month construction period. Therefore we believe

LETTER 8 - HARMONY GROVE/EDEN VALLEY CITIZEN'S GROUP

- HG-1 The Final EIR has been revised to clarify that the proposed project will extend Citracado Parkway southward to Andreason Drive. Please refer to Section 2.2 for revised Figures 2.2-1, 3, 5, 6, and 7.
- HG-2 Details of the natural trail which will be developed within the Specific Planning Area are discussed in the ERTC Specific Plan. The natural trail will meander the circumference of the planning area and is intended for general recreational use. A staging area will be located on the northern end of Planning Area 6. This staging area will include several parking spaces allocated to trail users, and an information kiosk if desired by the developer. The nature trail will be 12 feet wide. The trail alignment is shown in the attached Exhibit E.
- HG-3 Both construction noise and air quality will be monitored during construction. Mitigation measures have been incorporated to reduce noise and air quality impacts to surrounding properties. Noise impacts from the power plant have been addressed through noise mitigation measures, as well as measures imposed by the CEC. The EIR concludes implementation of the proposed project would result in significant unmitigable impacts associated with short-term construction noise, due to the need to grade in the proximity of the western boundary. In addition to the vertical separation, the proposed 10-foot berm at the edge of the graded pad will further reduce noise impacts. The air quality analysis has also been included in Section 2.3. The EIR has concluded there are short-term unmitigable impacts associated with construction activities in light of the amount of emissions generated. Watering of the site, use of low-sulfur diesel fuel, use of low-VOC architectural coatings, and use of soot filters in construction equipment will reduce air quality impacts. A health-risk assessment was completed for the power plant operation that concluded that there would be no localized health impacts. A complete discussion is included in the CEC's Preliminary Staff Assessment, available at the City's Planning Department.

that noise and air quality monitoring in the near-by residential areas of Harmony Grove and Eden Valley be implemented so that it can be verified that these impacts have indeed become insignificant during plant operation. According to Figure 2.3-1, there are no local area CO modeling locations within Harmony Grove or Eden Valley. It is well known that air quality impacts are often experienced at regions somewhat remote from the anticipated "hot spots" due to prevailing winds and geographic constraints. Accordingly, baseline measurements should be taken at various locations and elevations within Harmony Grove (to the south of the project site) and Eden Valley (to the west) to be used for comparison to later measurements taken during both construction and operation of the industrial site. In addition, we request concentrated and heavy landscaping for visual, noise, and dust buffering within the 200' designated buffer area.

We request active monitoring of sediment and storm water run-off during construction.

Because of the proximity of the neighboring residential areas, management should set and enforce time limits on large trucks and heavy machinery entering or leaving the site.

Because the neighboring county areas will bear a substantial burden of project impacts, we recommend that mitigation lands be purchased within the communities of Harmony Grove and Eden Valley and donated to The Escondido Creek Conservancy for maintenance as open space in perpetuity. We request that preference be given to purchase of mitigation land along Escondido Creek, which has tributaries within the project site. We request the dedication of a passive community park in addition to mitigation land.

Sincerely,

Mid Hoppentrath

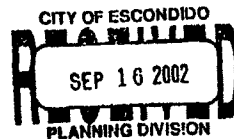
Mid Hoppentrath

Member, Harmony Grove / Eden Valley Citizen's Group

HG-4 Construction monitors will be present during all construction activities to verify compliance with the required mitigation measures. Monitors will also be responsible for verifying that Best Management Practices are being implemented during construction in accordance with the Storm Water Pollution Prevention Plan. Monitoring reports are required to be submitted to the City's Director of Planning for review. No changes have been made to the Final EIR.

HG-5 As indicated in Section 2.4.4 of the DEIR, mitigation measures will be implemented in accordance with the City's ordinances to further reduce noise impacts associated with construction and operation of the project. Additionally, construction hours and duration of activities will be limited in areas adjacent to sensitive receptors, and a construction monitor will verify that a 200-foot buffer exists between construction activities and sensitive receptors (such as adjacent occupied residences). These actions are required by the Mitigation Monitoring Report Program.

HG-6 The mitigation site has not been identified at the time of the preparation of the DEIR. The City will review and approve the location of the mitigation site; however, the condition specifies that the mitigation be located within the Subarea Plan Focused Planning Areas (FPAs) or other areas approved by the City, State, and Federal jurisdictional agencies.



From: "Douglas and Elizabeth Dill" <theddille@worldnet.att.net>
To: <ddegadillo@ci.escondido.ca.us>
Date: 9/17/02 8:36AM
Subject: Research and Technology Center Specific Plan, Case File No. ER 2001-12

San Dieguito Planning Group
P.O. Box 2788
Rancho Santa Fe, CA 92067

September 16, 2002

Diana Delgadillo
Associate Planner
City of Escondido
Planning Division
201 North Broadway
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(760)839-4555

REF: Escondido Research and Technology Center Specific Plan Draft
Environmental Impact Report, Case File No. ER 2001-12

Dear Ms. Delgadillo,

SDPG-1

Thank you for the opportunity to review the Escondido Research and Technology Center Specific Plan Draft Environmental Impact Report, Case File No. ER 2001-12. The San Dieguito Planning Group's concern is regarding the southern terminus of Citracado Parkway within the proposed industrial park and it's relationship to the existing Harmony Grove Road alignment.

We wish the final Escondido Research and Technology Center Specific Plan EIR updated to reflect that there is NO connection of Citracado Parkway to Harmony Grove Road. EIR maps, illustrated diagrams and text are not clear on this matter. EIR documentation suggests that a physical connection is part of the proposed alignment of Citracado Parkway.

As stated at the August 28th, 2002 meeting of the City of Escondido Planning Division representatives and officers of the Harmony Grove/Eden Valley Citizens Group, the draft EIR maps, illustrated diagrams and text were not accurate about this issue and it was acknowledged as an oversight that would be corrected in the final EIR. The corrections will reference that the southern terminus of Citracado Parkway WILL be within the proposed industrial park with access via Enterprise/Andreasen Streets.

SDPG-2

It is of vital interest to the communities of Eden Valley, Harmony Grove and Elfin Forest that any further extension of the alignment of Citracado Parkway south of the proposed Escondido Research and Technology Center must include the completion of the Escondido Creek bridge connecting to the existing Citracado Parkway alignment at Aveinda Del Diablo.

Thank you for the opportunity to comment on the Escondido Research and Technology Center Specific Plan Draft Environmental Impact Report.

Sincerely,
Douglas Dill

LETTER 9 - SAN DIEGUITO PLANNING GROUP

SDPG-1 The EIR will be revised to clarify that the project will extend Citracado Parkway southward to Andreasen Drive. Figures 2.2-1, 3, 5, 6, and 7 have been revised. The connection of Citracado Parkway and Harmony Grove Road is not proposed.

SDPG-2 Please refer to response to comment SDPG-1.

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cc:
Ken King, Chair, SDPG
Margaret Hoppenrath

1. Comments Related to the Transmission Facility Work as Part of the ERTC Project		
Section	Location	Recommendation
<i>(Executive Summary)</i>		
SDGE-3	<i>Figure S-2 (Vicinity Map)</i>	The figure should also show and label the existing SDG&E transmission right-of-way (ROW).
SDGE-4	<i>Page S-4, 2nd Paragraph</i>	The 5 th sentence should be reworded as follows: "A 200-foot wide electrical transmission easement, containing two 230kV circuits and one 138kV circuit on steel lattice tower structures, and five 69kV circuits on wood pole structures bisect the eastern and western portions of the SPA."
SDGE-5	<i>Figure S-3 (Conceptual Site Plan)</i>	The figure should label the existing transmission ROW shown by the dashed line.
SDGE-6	<i>Figure S-4 (Proposed ERTC Land Use)</i>	The figure should show and label the existing transmission ROW.
SDGE-7	<i>Page S-8, Planning Area 1</i>	Replace the 4 th sentence with the following: "As part of the electrical interconnection process of the power plant's new 230kV switchyard, existing 230 kV and 138 kV transmission lines located within the existing 200-foot wide right-of-way will be realigned to position the existing 230 kV line closer to the eastern edge of the right-of-way."
SDGE-8	<i>Page S-13</i>	Immediately following the subsection Radio Tower Relocation (as shown on page S-13), there should be a separate subsection discussing Electric Transmission Line Modifications. As with the Radio Tower Relocation, which is graphically depicted in EIR Figure 1.3-3, the EIR should include a graphic which would show where the 69kV transmission relocations would occur as part of the ERTC Specific Plan. A separate figure should show the 230kV and 138kV transmission relocations needed as part of the power plant in Planning Area 1. The following text is recommended: " ERTC Specific Plan Planning Area 1 is encumbered by an existing 69kV line (TL689) that currently crosses the planning area. To provide an improvement in visual appearance, unencumber Planning Area 1, and, in addition, eliminate potential interference between TL689 and the 230 kV loop-in for the proposed power plant in Planning Area 1, a segment of this 69 kV line would be undergrounded for approximately 1000 feet. This work also
SDGE-9		

- SDG&E-3 Figure S-2 has been modified to include the SDG&E transmission right-of-way (ROW).
- SDG&E-4 The text has been modified to provide a more detailed description of the existing SDG&E transmission lines on the project site. The requested text has been added as follows: "A 200-foot-wide electrical transmission easement, containing two 230-kV circuits and one 138-kV circuit on lattice tower structures, and five 69-kV circuits on wood pole structures bisect the eastern and western portions of the SPA."
- SDG&E-5 Figure S-3 has been modified to indicate the existing SDG&E transmission ROW.
- SDG&E-6 Figure S-4 is included in the EIR to provide an overview of the proposed land uses of the proposed project. The existing SDG&E ROW will be depicted on Figures S-2 and S-3. No change to Figure S-4 was made.
- SDG&E-7 The requested text has been added as follows: "As part of the electrical interconnection process of the power plant's new 230-kV switchyard, existing 230-kV and 138-kV transmission lines located within the existing 200-foot-wide right-of-way will be realigned to position the existing 230-kV line closer to the eastern edge of the right-of-way."
- SDG&E-8 A figure has been added to show the relocation of the transmission lines. Please see Figure 1.3.2A.
- SDG&E-9 Text has been inserted into the project description providing a summary of additional improvements to be implemented upon approval of the power plant project. These improvements include the relocation of existing transmission alignments and the placement of lines underground.

SDGE-10

SDGE-11

SDGE-12

	<p>includes the undergrounding of a segment of an existing 69 kV tie line serving the CalPeak power plant (TL6934). The underground segment of both TL689 and TL6934 would start at the north side of Vineyard Avenue and extend southerly within the existing 200-foot wide right-of-way. The undergrounding of TL6934 would end at an existing duct bank near the CalPeak power plant, while the undergrounding of TL689 would continue within the existing 200-foot wide right-of-way to the southwest corner of Planning Area 1. The undergrounding of TL689 would then continue in the planning area within a new easement to be granted by the property owner. That new easement would extend east to the southeast corner of Planning Area 1 and then north approximately 400 feet along the east edge of Planning Area 1. The proposed 69kV underground work also includes two (2) steel cable poles, one located at each end of the underground segment.</p> <p>Planning Area 4 is encumbered by an existing 69 kV line (TL684) that currently crosses the planning area. To provide an improvement in visual appearance, and unencumber Planning Area 4, a segment of this existing 69 kV line would be undergrounded. The underground segment (approximately 1500 feet in length) would start at the north side of Vineyard Avenue and extend south across Vineyard Avenue. The undergrounding of TL684 would continue within a new easement to be granted by the property owner. That new easement would extend west along the northern perimeter of the ERTC site and south along the western perimeter of the ERTC to the point where the existing overhead line exits the site. The proposed 69kV underground work also includes two (2) steel cable poles, one located at each end of the underground segment.</p> <p>To provide an improvement in visual appearance, two existing 69 kV lines located within the existing 200-foot wide right-of-way (TL679 and TL618) would be rebuilt and/or undergrounded. The existing 69 kV lines would be undergrounded starting at the north side of Vineyard Avenue and extending south within the existing 200-foot wide right-of-way to a point about 1200 feet north of Harmony Grove Road. From this point, the 69kV underground would transition to overhead and continue in an overhead position on replacement double-circuit wooden poles to the south edge of the ERTC site. The replacement double-circuit wood poles would replace existing wood pole structures. To facilitate the 69kV underground, one steel cable pole would be located at each end of the underground segment.</p> <p><i>Power Plant</i> As part of electrical interconnection of a power plant in Planning Area 1, the north-south</p>
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SDG&E-10 Please see response to comment SDG&E-9.

SDG&E-11 Please see response to comment SDG&E-9.

SDG&E-12 The text regarding the electrical interconnection of the power plant (Option B) and the existing grid has been added. Text has been added to summarize the additional improvements to be implemented upon approval of the power plant project. Figure 1.3-2A has been included in the Final EIR showing the proposed relocation of the transmission lines.

		<p>portion of the existing 230 kV and 138 kV transmission lines located inside the existing 200-foot wide right-of-way would be realigned in order to position the existing 230 kV lines closer to the eastern edge of the right-of-way. In place of the existing 230kV and 138kV steel lattice tower structures, the relocated 230 kV lines would be supported on five (5) new tubular steel poles located 35 feet west of the eastern edge of the right-of-way, and the relocated 138 kV line would be supported on five (5) new tubular steel poles located 65 feet west of the new 230 kV poles. Near the southeast corner of the ERTC site, one or two wood pole H-frame structures would be inter-set to cross the 138 kV line back to its original position within the existing right-of-way. One or two additional steel poles would be inter-set for loop-in of the eastern-most 230 kV circuit into the power plant switchyard. Due to the proximity of the existing 230 kV lines to the proposed power plant site (Planning Area 1), there are no other feasible route alternatives for the 230 kV loop-in and interconnection to the proposed power plant in Planning Area 1.</p>
SDGE-13	<p>Page S-13, Residential Uses, 3rd Paragraph</p>	<p>This entire paragraph should be deleted. Reconstruction of the existing high power transmission lines does not require a CUP from the City, nor does it require FCC approval. However, the applicable orders, decisions, and regulations of the CPUC would be followed for the relocation of any transmission lines.</p>
SDGE-14	<p>Page S-32, Power Plant Alternative Site</p>	<p>Add the following sentence to the end of the paragraph: "Although the preferred site in Escondido is adjacent to an existing high-voltage SDG&E transmission line right-of-way and no new transmission lines need to be constructed, this site will require realignment within this right-of-way of existing 230 kV and 138 kV lines to accommodate the power plant."</p>

SDG&E-13 Reference to review and approval by the FCC has been deleted, and reference to the CPUC has been included. Additionally, reference to the requirement of a CUP from the City has been removed.

SDG&E-14 The requested text has been added as follows: "Although the preferred site in Escondido is adjacent to an existing high-voltage SDG&E transmission line right-of-way and no new transmission lines need to be constructed, this site will require realignment within this right-of-way of existing 230-kV and 138-kV lines to accommodate the power plant."

Section 1.0 (Project Description, Location, and Environmental Setting)		
SDGE-15	Page 1-1, Project Setting, 1st Paragraph	Reword the 3 rd sentence as follows: "A 200-foot wide electrical transmission easement, containing two 230kV circuits and one 138kV circuit on steel lattice tower structures, and five 69kV circuits on wood pole structures, runs north/south through the center of the site."
SDGE-16	Figure 1.1-2 (Vicinity Map)	The figure should show and label the existing transmission corridor.
SDGE-17	Figure 1.1-3 (Surrounding Land Uses)	Add text to better describe land uses within 500 feet to the south of the project. The figure should also show and label the transmission ROW.
SDGE-18	Page 1-11, 2 nd Paragraph	Replace the 3 rd sentence with the following: "The power plant project includes a new 230 kV switchyard connecting with an existing SDG&E 230 kV electric transmission line also located adjacent to the project site. The existing 230 kV transmission lines would swap positions with an existing 138kV transmission line within an existing right-of-way in order to facilitate a direct interconnection into the new power plant switchyard. Replacement of existing 230kV and 138kV steel lattice towers with steel poles would allow for the relocation of these transmission lines within the existing right-of-way." Show the proposed 230kV and 138kV transmission line relocations on a site plan figure.
SDGE-19	Page 1-17	Immediately following the subsection Radio Tower Relocation (as shown on page 1-17), there should be a separate subsection discussing Electric Transmission Line Modifications. As with the Radio Tower Relocation, which is graphically depicted in EIR Figure 1.3-3, the EIR should include a graphic, which would show where the 69kV transmission relocations would occur as part of the ERTC Specific Plan. A separate figure should show the 230kV and 138kV transmission relocations needed as part of the power plant in Planning Area 1. The following text is recommended: " ERTC Specific Plan

- SDG&E-15 The requested text has been added as follows: "A 200-foot-wide electrical transmission easement, containing two 230-kV circuits and one 138-kV circuit on steel lattice tower structures, and five 69-kV circuits on wood pole structures, runs north/south through the center of the site."
- SDG&E-16 Figure 1.1-2 has been modified to include the SDG&E transmission ROW.
- SDG&E-17 Section 1.2 of the EIR provides the project setting to the site, describing the surrounding land uses to the north, south, east, and west of the project site. The existing SDG&E transmission alignment has been included in Figure 1.3-2A, which also shows the proposed realignment.
- SDG&E-18 The requested text has been added as follows: "The power plant project includes a new 230-kV switchyard connecting with an existing SDG&E 230-kV electric transmission line also located adjacent to the project site. The existing 230-kV transmission lines would swap positions with an existing 138-kV transmission line within an existing right-of-way in order to facilitate a direct interconnection into the new power plant switchyard. Replacement of existing 230-kV and 138-kV steel lattice towers with steel poles would allow for the relocation of these transmission lines within an existing right-of-way."
- SDG&E-19 Please see response to comment SDG&E-9.

SDGE-20

SDGE-21

		<p>Planning Area 1 is encumbered by an existing 69kV line (TL689) that currently crosses the planning area. To provide an improvement in visual appearance, unencumber Planning Area 1, and, in addition, eliminate potential interference between TL689 and the 230 kV loop-in for the proposed power plant in Planning Area 1, a segment of this 69 kV line would be undergrounded for approximately 1000 feet. This work also includes the undergrounding of a segment of an existing 69 kV line serving the CalPeak power plant (TL6934). The underground segment of both TL689 and TL6934 would start at the north side of Vineyard Avenue and extend southerly within the existing 200-foot wide right-of-way. The undergrounding of TL6934 would end at an existing duct bank near the CalPeak power plant, while the undergrounding of TL689 would continue within the existing 200-foot wide right-of-way to the southwest corner of Planning Area 1. The undergrounding of TL689 would then continue in the planning area within a new easement to be granted by the property owner. That new easement would extend east to the southeast corner of Planning Area 1 and then north approximately 400 feet along the east edge of Planning Area 1. The proposed 69kV underground work also includes two (2) steel cable poles, one located at each end of the underground segment.</p> <p>Planning Area 4 is encumbered by an existing 69 kV line (TL684) that currently crosses the planning area. To provide an improvement in visual appearance and unencumber Planning Area 4, a segment of this existing 69 kV line would be undergrounded. The underground segment (approximately 1500 feet in length) would start at the north side of Vineyard Avenue and extend south across Vineyard Avenue. The undergrounding of TL684 would continue within a new easement to be granted by the property owner. That new easement would extend west along the northern perimeter of the ERTC site and south along the western perimeter of the ERTC to the point where the existing overhead line exits the site. The proposed 69kV underground work also includes two (2) steel cable poles, one located at each end of the underground segment.</p> <p>In order to provide an improvement in visual appearance, two existing 69</p>
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SDG&E-20 Please see response to comment SDG&E-9.

SDG&E-21 Please see response to comment SDG&E-9.

SDGE-22

SDGE-23

SDG&E-22 Please see response to comment SDG&E-9.

SDG&E-23 Please see response to comment SDG&E-9.

		<p>kV lines located within the existing 200-foot wide right-of-way (TL879 and TL816) would be rebuilt and/or undergrounded. The existing 69 kV lines would be undergrounded starting at the north side of Vineyard Avenue and extending south within the 200-foot wide right-of-way to a point about 1200 feet north of Harmony Grove Road. From this point, the 69kV underground would transition to overhead and continue in an overhead position on replacement double-circuit wooden poles to the south edge of the ERTC site. The replacement double-circuit wood poles would replace existing wood pole structures. To facilitate the 69kV underground, one steel cable pole would be located at each end of the underground segment.</p> <p><i>Power Plant</i></p> <p>As part of electrical interconnection of a power plant in Planning Area 1, the north-south portion (approximately 5700 feet) of the existing 230 kV and 138 kV transmission lines located inside the existing 200-foot wide right-of-way would be realigned in order to position the existing 230 kV lines closer to the eastern edge of the right-of-way. The centerline of the six (6) existing 138 kV steel lattice towers is currently 50 feet west of the eastern edge of the right-of-way, and the centerline of the five (5) existing 230 kV steel lattice towers is currently 65 feet west of the 138 kV tower centerline. In place of this existing condition, the 230 kV lines would be supported on five (5) new tubular steel poles located 35 feet west of the eastern edge of the right-of-way, and the 138 kV line would be supported on five (5) new tubular steel poles located 65 feet west of the new 230 kV poles. In order to provide a uniform appearance that maximizes the improvement in visual appearance of the lines, the steel poles supporting the 230 kV and 138 kV lines would be of identical double-circuit design and will be positioned side-by-side (i.e., staggered positioning will be avoided), to the greatest extent feasible. Near the southeast corner of the ERTC site, one or two wood pole H-frame structures would be inter-set to cross the 138 kV line back to its original position within the existing right-of-way. One or two additional steel poles will be inter-set for loop-in of the eastern-most 230 kV circuit into the power plant switchyard. Due to the proximity of the existing 230 kV lines to the proposed power plant site (Planning Area 1), there are no other feasible route alternatives for the</p>
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SDGE-24		<p>230 kV loop-in and interconnection to the proposed power plant in Planning Area 1</p> <p>Temporary realignment of existing overhead 89 kV facilities may be necessary to accomplish the work described above. As part of the proposed utility relocations, SDG&E may sell to the ERTC project developer its fee ownership encompassed within the Specific Plan Area (Assessor Parcel Numbers 232-051-01, 232-040-23, 232-040-24, and 232-512-04). As part of this potential sale, the project developer would concurrently grant an easement for SDG&E's existing and future facilities.</p>
SDGE-25	Page 1-21, Specific Plan	<p>Add another bullet stating:</p> <p>"Relocation/reconfiguration of existing transmission line facilities in a manner that supports the integrity of the development improvements proposed by the Specific Plan."</p>
SDGE-26	Page 1-21, Power Plant, 4 th Bullet Statement	<p>Add the following text to the end of the bullet:</p> <p>"Although no construction of new transmission lines will be needed, the realignment/reconfiguration within the adjacent SDG&E right-of-way of existing 230 kV and 138 kV lines will be necessary to accommodate the power plant."</p>
SDGE-27	Section 1.5.2 (Discretionary Actions by Agencies Other than the City of Escondido)	<p>The California Public Utilities Commission (CPUC) should either be mentioned under the section <u>Other Actions</u>, or under its own section. Under the CPUC heading, include a note specifying that all transmission facility work will follow the applicable orders, decisions, and regulations set forth by the CPUC.</p>
Section 2.0 (Environmental Analysis)		
SDGE-28	Section 2.5.1, Existing Conditions	<p>Reword the 4th sentence as follows:</p> <p>"The lattice towers support the existing 230 kV and 138 kV transmission lines, and the wood poles support the existing 89 kV transmission lines within the existing right-of-way."</p>

- SDG&E-24 Please see response to comment SDG&E-9.
- SDG&E-25 The requested text has been added as follows: "Relocation/reconfiguration of existing transmission line facilities in a manner that supports the integrity of the development improvements proposed by the Specific Plan."
- SDG&E-26 The objective in question describes avoiding the construction of new transmission lines. It does not pertain to realignment or reconfiguration. The text stands as is, and no changes have been made to the EIR.
- SDG&E-27 The CPUC has been added as an agency under discretionary actions.

California Public Utilities Commission (CPUC)

The CPUC regulates privately owned telecommunications, electric, natural gas, water, railroad, rail transit, and passenger transportation companies. The CPUC was formed in 1911. Implementation of Option B, which would develop a power plant in Planning Area 1, would require the replacement and relocation of high-power transmission lines. All transmission facility work will be required to follow the applicable orders, decisions, and regulations set forth by the CPUC.
- SDG&E-28 The requested text has been added as follows: "The lattice towers support the existing 230-kV and 138-kV transmission lines, and the wood poles support the existing 69-kV transmission lines within the existing right-of-way."

SDGE-29

SDGE-30

SDGE-31

SDGE-32

	<p>Page 2.5-1, <i>Electromagnetic Forces (EMF), 1st Paragraph</i></p>	<p>Remove the word "high" from the last phrase of the sentence that begins "The controversy about EMF..."</p>
	<p>Section 2.5.2, <i>Thresholds of Significance</i></p>	<p>The second bullet should read "...an increased rate of a specific disease or adverse health outcome in the human population."</p>
	<p>Page 2.5-6, <i>EMF, 1st Paragraph</i></p>	<p>Modify the 1st paragraph as follows: "The construction of the power plant will not require construction of any new transmission lines. However, as described in Section 1.3.1, modifications will be required to the existing transmission facilities on the SPA site. Proposed improvements to the visual aesthetics of the electrical transmission easement include replacing the steel lattice towers with tubular steel poles. To facilitate the interconnection of the power plant into the SDG&E's regional transmission system, the existing 230 kV and 138 kV lines within the right-of-way will be realigned/reconfigured so that the 230 kV lines are closer to the eastern edge of the right-of-way. As part of the development of the industrial park, the 69 kV transmission lines will be rebuilt and/or undergrounded. These transmission facilities improvements will not alter the power of the electricity carried across the lines. Therefore, from a practical standpoint, no changes are expected from the existing EMF to the proposed EMF conditions. However, in accordance with no- and low-cost guidelines adopted by the CPUC, a field management plan will be prepared for the 230 kV and 138 kV line work."</p>
	<p>Page 2.5-7</p>	<p>Suggest including a discussion of the International Agency for Research on Cancer's (IARC) own 2001 classification of EMF, using the IARC criteria referred to in paragraph 3. The following excerpt from the World Health Organization's fact sheet No. 203, <i>Electromagnetic Fields and Public Health</i>, [October, 2001] is a good summary and could be added at the end of this EMF discussion: In June 2001, an expert scientific working group of IARC reviewed studies related to the carcinogenicity of static and ELF electric and magnetic fields. Using the standard IARC classification that weighs human, animal and laboratory evidence, ELF magnetic fields were classified as possibly</p>

SDG&E-29 The text has been revised as requested. The word "high" has been deleted from Page 2.5-1 of the Final EIR.

SDG&E-30 The EMF threshold of significance has been revised as requested by SDG&E.

SDG&E-31 The text has been modified to state the following: "The construction of the power plant will not require construction of any new transmission lines. However, as described in Section 1.3.1, modifications will be required to the existing transmission facilities on the SPA site. Proposed improvements to the visual aesthetics of the electrical transmission easement include replacing the steel lattice towers with tubular steel poles. To facilitate the interconnection of the power plant into the SDG&E's regional transmission system, the existing 230-kV and 138-kV lines within the right-of-way will be realigned/reconfigured so that the 230-kV lines are closer to the eastern edge of the right-of-way. As part of the development of the industrial park, the 69-kV transmission lines will be rebuilt and/or undergrounded. These transmission facilities improvements will not alter the power of the electricity carried across the lines. Therefore, from a practical standpoint, no changes are expected from the existing EMF to the proposed EMF conditions. However, in accordance with no- and low-cost guidelines adopted by the CPUC, a field management plan will be prepared for the 230-kV and 138-kV line work."

SDG&E-32 Addition of the requested language will not change the analysis or findings for the EMF issue. Therefore, no change is made to the existing text of the EIR.

		<p>carcinogenic to humans based on epidemiological studies of childhood leukemia. Evidence for all other cancers in children and adults, as well as other types of exposures (i.e. static fields and ELF electric fields) was considered not classifiable either due to insufficient or inconsistent scientific information.</p> <p>"Possibly carcinogenic to humans" is a classification used to denote an agent for which there is limited evidence of carcinogenicity in humans and less than sufficient evidence for carcinogenicity in experimental animals. This classification is the weakest of three categories ("is carcinogenic to humans", "probably carcinogenic to humans" and "possibly carcinogenic to humans") used by IARC to classify potential carcinogens based on published scientific evidence. [pp.1-2]</p> <p>(Later in this same document:)</p> <p>While the classification of ELF magnetic fields as possibly carcinogenic to humans has been made, it remains possible that there are other explanations for the observed association between exposure to ELF magnetic fields and childhood leukemia. In particular, issues of selection bias in the epidemiological studies and exposure to other field types deserve to be rigorously examined and will likely require new studies. WHO therefore recommends a follow-up, focused research program to provide more definitive information. Some of these studies are currently being undertaken and results are expected over the next 2-3 years. [pp.2-3]</p>
	<p><i>Section 2.6, Biological Resources</i></p>	<p>There needs to be a discussion of potential impacts to habitats or species resulting from the proposed 69kV underground relocation and the proposed overhead 230kV and 138kV relocations/configurations (including but not limited around poles, lay down areas, staging areas, or conductor pulling areas), and how all 69 kV underground conversions will occur in pre-disturbed areas. Discussion could include the fact that the impact calculations for the industrial park assumed all areas within the park would be disturbed, therefore, any transmission work within the industrial park SPA (Specific Plan Area) would not cause additional environmental impacts. Consideration of areas impacted outside of the park development, such as where the undergrounding crosses north</p>

SDG&E-33 The impact analysis addressing biological resources does not differentiate between project components. Since the mass grading of the site will disturb the biological resources, subsequent construction of the transmission lines will not result in any additional impacts.

SDGE-33

SDGE-34

SDGE-35

SDGE-36

SDGE-37

		across Vineyard Avenue, should be stated, even though some, if not all, of the undergrounding would occur within paved areas.
	Page 2.7-8 thru 2.7-20	The narrative for Key Observation Points 1, 2, 3, 6, and 7, under the heading Visibility, mentions the existing lattice towers. These narratives should also discuss the replacement poles and the 230kV and 138kV relocation/reconfiguration shown in the visual images of the proposed project.
	Page 2.7-26, Transmission Line Routes and Radio Tower	Reword the 1 st paragraph as follows: "An existing electric transmission easement runs north-south through the project site. This easement, which is adjacent to the proposed power plant site, contains six (6) existing 138 kV steel lattice towers, located 50 feet west of the eastern edge of the right-of-way, and five (5) existing 230 kV steel lattice towers, located 65 feet west of the 138 kV tower centerline. These existing lattice tower structures are prominently located along the primary ridgeline trending north/south through the middle of the SPA. In addition, several 69 kV transmission lines supported on wood pole structures run along the ridgeline and/or through the project site. The eleven (11) steel lattice tower structures would be replaced with ten (10) steel pole structures plus an additional two (2) steel poles to facilitate the interconnection of the power plant. As part of the ERTC Specific Plan, the 69 kV structures would be removed, as the transmission line is placed underground."
	Figure 2.7-11, Cross-Sections	Show the SDG&E transmission right-of-way on both the Plan and Profile views.
	Page 2.7-35, Transmission Line Routes	Reword the 1 st paragraph as follows: "As part of the power plant interconnection, eleven existing lattice transmission towers located near the plant site would be replaced with ten tubular steel poles, where one lattice tower would be eliminated. As these existing lattice towers are predominantly located along the primary ridgeline trending north/south through the middle of the SPA, this is thought to provide an aesthetic benefit, and provide visual quality improvements. It should be noted that two new steel poles would be installed immediately adjacent to the proposed plant site to facilitate the

SDG&E-34 The narratives on Pages 2.7-6 through 2.7-20 for KOPs 1, 2, 3, 6, and 7 discuss the existing condition only. The narratives of the proposed project and the impacts are discussed on Pages 2.7-37 through 2.7-46 for KOPs 1, 2, 3, 6, and 7. Therefore, no change is made to the text.

SDG&E-35 The comment requests the description of the transmission line routes to be modified to include more detail provided by SDG&E. The text has been revised to discuss existing design features of the steel lattice towers and their locations on the project site.

SDG&E-36 Figure 2.7-11 is included in the EIR to show the existing and proposed topography at three cross sections. This graphic illustrates changes due to grading. It is not intended to show the location of the SDG&E ROW. No change was made.

SDG&E-37 The discussion relating to the transmission line route and aesthetic implications has been updated. The text has been modified to state the following: "As part of the power plant interconnection, 11 existing lattice transmission towers located near the plant site would be replaced with 10 tubular steel poles, where one lattice tower would be eliminated. As these existing lattice towers are predominantly located along the primary ridgeline trending north/south through the middle of the SPA, this is thought to provide an aesthetic benefit, and provide visual quality improvements. It should be noted that two new steel poles would be installed immediately adjacent to the proposed plant site to facilitate the interconnection of the power plant.

As an additional measure to improve visual aesthetics, existing 69-kV transmission lines running along the ridgeline and/or through the planned industrial park will be rebuilt and/or be placed underground as part of the ERTC Specific Plan. This represents a beneficial aesthetic impact."

SDGE-38		<p>interconnection of the power plant.</p> <p>As an additional measure to improve visual aesthetics, existing 69 kV transmission lines running along the ridge line and/or through the planned industrial park will be rebuilt and/or be placed underground as part of the ERTC Specific Plan. This represents a beneficial aesthetic impact."</p> <p>This section should mention that although final determination of structure design will not be known until on-going engineering design efforts are complete, it is anticipated that the height of the new steel pole structures will be approximately the same height as the existing 230kV steel lattice tower structures.</p>
SDGE-39		<p>The 4th sentence should be modified as follows:</p> <p>"In addition, replacement of the existing lattice transmission towers that currently support 230 kV and 138 kV lines with tubular steel poles..."</p> <p>Also, remove the statement "aesthetically sensitive design".</p>
SDGE-40	<p>Page 2.7-38, Contrast with Structures</p>	<p>The 1st sentence should be modified as follows:</p> <p>"... the existing nearby lattice transmission towers that currently support 230 kV and 138 kV lines and the radio tower ..."</p>
SDGE-41	<p>Page 2.7-38, Scape/Spatial Dominance</p>	<p>The 2nd sentence should be modified as follows:</p> <p>"Replacement of the existing lattice transmission towers that currently support 230 kV and 138 kV lines with tubular steel poles..."</p> <p>Also, remove the statement "aesthetically sensitive design".</p>
SDGE-42	<p>Page 2.7-39, Contrast with Structures</p>	<p>The 4th sentence should be modified as follows:</p> <p>"In addition, replacement of the existing lattice transmission towers that currently support 230 kV and 138 kV lines with tubular steel poles..."</p> <p>Also, remove the statement "aesthetically sensitive design".</p>
SDGE-43	<p>Page 2.7-41, Contrast with Structures</p>	<p>The 4th sentence should be modified as follows:</p> <p>"In addition, replacement of the existing lattice transmission towers that currently support 230 kV and 138 kV lines with tubular steel poles..."</p> <p>Also, remove the statement "aesthetically sensitive design".</p>

SDG&E-38 Please see response SDG&E-37.

SDG&E-39 A statement has been added regarding the anticipated height of the towers. The requested text has been added as follows: "It is anticipated that the height of the new steel pole structures will be approximately the same height as the existing 230-kV steel lattice."

SDG&E-40 The requested text has been added as follows: "In addition, replacement of the existing lattice transmission towers that currently support 230-kV and 138-kV lines with tubular steel poles...". Additionally, the text referencing "aesthetically sensitive design" has been removed.

SDG&E-41 The requested text included in the comment from the CEC has been added as follows: "... the existing nearby lattice transmission towers that currently support 230-kV and 138-kV lines and the radio tower ...".

SDG&E-42 The requested text has been added as follows: "Replacement of the existing lattice transmission towers that currently support 230-kV and 138-kV lines with tubular steel poles...". Additionally, the text referencing "aesthetically sensitive design" has been removed.

SDG&E-43 The requested text has been added as follows: "In addition, replacement of the existing lattice transmission towers that currently support 230-kV and 138-kV lines with tubular steel poles...". Additionally, the text referencing "aesthetically sensitive design" has been removed.

SDGE-44
SDGE-45
SDGE-46
SDGE-47
SDGE-48

	Page 2.7-42, Visual Impact Severity	The 1 st sentence should be modified as follows: "...are the transmission line improvements (replacing the lattice towers with tubular steel), and a small ..."
Section 3.0 (Alternatives)		
	Page 3-7, 3 rd Paragraph	Delete 2 nd and 3 rd sentence starting with "This problem is..." and ending with "...transmission constraints." The 4 th sentence should be reworded as follows: "Addressing this concern is a key objective of the proponent of the proposed power plant project and the "no power plant project" alternative would not meet this objective."
	Page 3-12, Summary, 3 rd Paragraph	Delete 2 nd and 3 rd sentence starting with "This problem is..." and ending with "...transmission constraints." The 4 th sentence should be reworded as follows: "Addressing this concern is a key objective of the proponent of the proposed power plant project and the "no power plant project" alternative would not meet this objective."
	Page 3-16, Summary, 3 rd Paragraph, 2 nd Sentence	The 4 th sentence should be reworded as follows: "Addressing this concern is a key objective of the proponent of the proposed power plant project and the "no power plant project" alternative would not meet this objective."
	Page 3-18, 2 nd Paragraph	Add the following after the 3 rd sentence: "It should be clarified that although no construction of new transmission lines would be needed, the realignment/reconfiguration within the adjacent SDG&E right-of-ways of existing transmission lines may be necessary to accommodate the power plant interconnection."
Section 5.0 (Growth-Inducing Impacts)		

- SDG&E-44 The requested text included in the comment from the CEC has been added as follows: "...are the transmission line improvements (replacing the lattice towers with tubular steel), and a small ...".
- SDG&E-45 The requested text has been deleted. The new language requested, pertaining to the proponent of the power plant, has not been added. The power plant is one option within the Specific Plan, so the EIR will keep the language general, and address it as the Proposed Project. Therefore, no additional changes to the text were made.
- SDG&E-46 The requested text has been deleted. The new language requested, pertaining to the proponent of the power plant, has not been added. The power plant is one option within the Specific Plan, so the EIR will keep the language general, and address it as the Proposed Project. Therefore, no additional changes to the text were made.
- SDG&E-47 The new language requested, pertaining to the proponent of the power plant, has not been added. The power plant is one option within the Specific Plan, so the EIR will keep the language general, and address it as the Proposed Project. Therefore, no additional changes to the text were made.
- SDG&E-48 The requested clarification regarding the potential necessity to relate/reconfigure existing transmission lines with the adjacent ROW has been added. The requested text has been added as follows: "It should be clarified that although no construction of new transmission lines would be needed, the realignment/reconfiguration within the adjacent SDG&E rights-of-way of existing transmission lines may be necessary to accommodate the power plant interconnection."

SDGE-49	Page 5-2, 4 th Paragraph	Delete 2 nd and 3 rd sentence starting with "This problem is..." and ending with "...transmission constraints." The 4 th sentence should be reworded as follows: "Addressing this concern is a key objective of the proponent of the proposed power plant project and the "no power plant project" alternative would not meet this objective."
SDGE-50	<p>Other Comments</p> <p>4) The draft EIR fails to discuss the environmental impacts of the proposed water detention basin anticipated to be installed by the project proponent on SDG&E property in Project Area 8 (off Kauana Loa Drive/Harmony Grove Road). The EIR should, for example, discuss how the water detention basin will be constructed and the potential contaminants of the water that will fill the basin. The EIR should discuss any impacts to groundwater and to nearby water bodies, impacts to underlying or surrounding soil, impacts to wildlife and plants, and any other impacts that may be relevant.</p>	

SDG&E-49 The requested text has been deleted. The new language requested, pertaining to the proponent of the power plant, has not been added. The power plant is one option within the Specific Plan, so the EIR will keep the language general, and address it as the Proposed Project. Therefore, no additional changes to the text were made.

SDG&E-50 The DEIR identifies no potentially significant impacts to water quality. The proposed landscaping, which is detailed in the Specific Plan, will serve as a component to the planning area's erosion control program, in addition to providing aesthetic benefits. Storm Water Pollution Prevention Plans (SWPPP) will be developed and implemented to assure no significant increase in erosion from construction and operational activities. Additionally, erosion and sediment controls, surface water pollution prevention measures, and other best management practices (BMPs) will be developed and implemented for project construction and operation.

The SWPPP will be prepared in accordance with Water Quality Order 99-08-DWQ, State Water Resources Control Board National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction Activity, and Water Quality Order No. 97-03-DWQ, NPDES General Permit No. CAS000001, Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities.

Surface drainage systems at the project will handle the flow resulting from a 25-year, 24-hour duration rainfall event. The surface drainage systems also will prevent flooding of permanent project components. The project site will drain in an easterly and southerly direction, and runoff from the site will be directed and discharged to the City of Escondido's storm drain system.

Because the detention basin is located within the project site, a separate analysis of the impacts associated with the detention basin was not necessary. The EIR assessed impacts associated with development throughout the project site, covering the area in which the detention basins will be located. Figure 1.3-2A has been inserted into the Final EIR to illustrate the proposed detention basins, which are located strategically at two points along the southern boundary of the project site. Implementation of this design further reduces potential flooding impacts downstream.



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September 16, 2002

Ms. Diana Delgadillo
Planning Division
City of Escondido
201 North Broadway
Escondido, CA 92025

Reference: Draft EIR, Escondido Research and Technology Center Specific Plan

Dear Ms. Delgadillo:

Palomar Energy, LLC has reviewed the Draft Environmental Impact Report (EIR) for the Escondido Research and Technology (ERTC) Specific Plan. This letter provides our comments on the Draft EIR.

Overall, the Draft EIR provides an adequate description and impact assessment of the proposed Palomar Energy Project and of the entire ERTC Specific Plan. However, this letter provides a number of specific comments that identify revisions to the Draft EIR that would clarify and sharpen the impact assessment.

- Page S-9 (Executive Summary). To further clarify the relationship of the City review of the ERTC Specific Plan amendment and the California Energy Commission review of the proposed Palomar Energy Project, we suggest the following language be added after the last sentence which precedes "Planning Area 2": "The proponent of the power plant has submitted an application for certification to the California Energy Commission. The state Warren-Alquist Act, establishes a state level licensing process for power plants over 50 megawatts capacity. The Act also designates the California Energy Commission as the lead CEQA agency for projects which require a license. Therefore, the Commission is conducting a detailed review of the potential impacts of the power plant license in compliance with CEQA pursuant to the Commission's regulations.

- As a result of ongoing design work, more detailed information is now available describing the proposed modifications to the existing transmission facilities on the ERTC Specific Plan site. This additional detail is provided as an attachment to this comment letter. The EIR should incorporate this additional information for added clarity. This additional material does not conflict with the Project Description in the

LETTER 11 – SEMPRa ENERGY RESOURCES (PALOMAR ENERGY)

- PE-1 The comment provides introductory comments to the letter. This comment does not raise a significant environmental issue. This comment will, however, be forwarded to the decision makers for consideration when they consider the project. No changes were made to the EIR based on this comment.
- PE-2 The requested text has been added as follows: "The proponent of the power plant has submitted an application for certification to the California Energy Commission. The state Warren-Alquist Act establishes a state level licensing process for power plants over 50 megawatts in capacity. The Act also designates the California Energy Commission as the lead CEQA agency for projects which require a license. Therefore, the Commission is conducting a detailed review of the potential impacts of the power plant license in compliance with CEQA pursuant to the Commission's regulations."
- PE-3 The comment requests the EIR to provide a description of the proposed modification to the existing transmission facilities on the project site. The description provided by Palomar Energy has been summarized and inserted into the project description of the Final EIR.

PE-1

PE-2

PE-3

Draft EIR; the evaluation of the environmental impacts of these modifications in the Draft EIR also is unchanged – the transmission line modifications do not create significant adverse impacts and the primary impacts are aesthetic benefits. The additional material is provided to facilitate the environmental review process of the proposed project.

PE-4

- The Project Description (e.g., page 1-17) states that the “reconstruction of existing high power transmission lines to be done on site.... will also be subject to review and approval by the Federal Communications Commission.” Also, page 1-24 states that the project “would require the replacement and relocation of an existing television antenna and high-power transmission lines to be located on site. Therefore, the project will be reviewed and approved by the FCC.” The California Public Utilities Commission (CPUC) is the agency with regulatory responsibilities for issues related to the relocation of high-voltage transmission lines on the ERTC site. We are unaware of any need for involvement by the Federal Communications Commission (FCC) in addressing modifications to the power transmission facilities. In addition, we believe the reference to an existing “television tower” should be changed to “radio tower”.

PE-5

PE-6

- Page 2.3-5/6 (Air Quality) presents information concerning possible significance thresholds which could be applied to evaluate air emission impacts. For clarification, the following changes should be made to the third sentence on page 2.3-6: “The significance thresholds used in this EIR for regional impacts of the ERTC Specific Plan are summarized in Table 2.3-2.” After the last paragraph on page 2.3-6 the following additional paragraph should be added to complete the description of the significance thresholds used in the balance of the chapter: “Major new stationary sources of air emissions are subject to New Source Review under rules established under the federal Clean Air Act, California Clean Air Act, and the new source review rules of the San Diego Air Pollution Control District. This review and permitting process includes preparation of an air quality impact analysis comparing the effects of the stationary emissions to the state and federal ambient air quality standards. New Source Review also limits emissions by requiring the installation of Best Available Control Technology, and offsets for certain emissions. “

PE-7

- Tables 2.3-7/8/10, pages 2.3-17/18/20. The column titles of these tables should be amended to acknowledge that comparison with the SCAQMD daily emission criteria set forth in Table 2.3-2 establishes potential significance, recognizing that additional air quality analysis and comparison with ambient air quality standards may result in findings of insignificant impact as set forth in this chapter (pages 2.3-23/25/27). Avoidance of confusion in this regard can be accomplished by inserting the word “potential” or “potentially” before “significance” or “significant” in the tables 2.3-7/8/and 10.

PE-4

The reference to the FCC has been changed to the CPUC.

PE-5

The reference to a television tower has been modified to state a radio tower. Additionally, the reference to the FCC as a reviewing and approval agency for the high-power transmission line relocation has been deleted.

PE-6

The following statement has replaced the introductory statement under Section 2.3.2 – Thresholds of Significance: “The significance thresholds used in this EIR for regional impacts of the ERTC Specific Plan are summarized in Table 2.3-2.”

The following paragraph has been inserted under Section 2.3.2: “Major new stationary sources of air emissions are subject to New Source Review under rules established under the federal Clean Air Act, California Clean Air Act, and the new source review rules of the San Diego Air Pollution Control District. This review and permitting process includes preparation of an air quality impact analysis comparing the effects of the stationary emissions to the state and federal ambient air quality standards. New Source Review also limits emissions by requiring the installation of Best Available Control Technology, and offsets for certain emissions.”

PE-7

The words “potentially” or “potential” have been inserted into Tables 2.3-7, 2.3-8, and 2.3-10 as requested.

PE-8

- Pages 2.3-16/17 (Air Quality) discuss air emissions associated with commissioning of the power plant. The analysis shows unrealistically high daily emission values in Table 2.3-7, which is described in the text as summarizing "the anticipated average emission rates over the commissioning period". While stated as presenting "average" emission rates, the emissions shown in Table 2.3-7 are based on the assumption of both power plant turbines operating at the same time for the entire 24-hour period in the commissioning mode at the maximum anticipated hourly emission rate. Although the text states (page 2.3-16) that this is "unlikely to occur", in fact, it will not occur as both turbines will not operate simultaneously for an entire day at this maximum emission rate. Although the Table reflects a gross overestimate of daily commissioning emissions, the Draft EIR correctly concludes (page 2.3-26) that based on air dispersion modeling, no significant air quality impacts are expected during the power plant commissioning phase.

PE-9

- Page 2.3-20 (first paragraph) is part of a subsection that appears to address worst-case daily emissions from the power plant during operations. However, the text says "modeling was conservative in assuming both gas turbines are running at various loads, when in reality, only one gas turbine will most likely be commissioned at a time." Commissioning phase emissions were discussed a few pages earlier. This statement seems to be mixing up emissions during commissioning with emissions during operations.

PE-10

- The Executive Summary Alternatives comparison table (Table S-3) shows the Noise impacts of the Proposed Project as "SU" (Significant Unmitigable), whereas the No Project Existing Entitlement (Adopted Quail Hills Plan) alternative, the Specific Plan with No Power Plant alternative, and Reduced Scale Environmentally Superior alternative all have Noise impacts that are "SM" (Significant Mitigable). This is confusing. Section 2.4 (Noise) of the Draft EIR says that the Proposed Project has significant unmitigable adverse short-term construction phase noise impacts because of construction work near the property boundary that would affect the nearby residents. Essentially the same kinds of construction work would occur near the property boundary under the Existing Entitlement (Adopted Quail Hills Specific Plan) alternative or under the Specific Plan with No Power Plant alternative. The EIR should be revised to clarify why the Proposed Project is characterized as "unmitigable" while the two alternatives are characterized as "mitigable".

PE-11

Section 2.4 of the Draft EIR (but not the Executive Summary) goes on to say that the increased traffic volumes of the Proposed Project would also represent an adverse Noise impact. It is unclear if this is the reason that the Draft EIR finds the Proposed Project with "unmitigable" Noise impacts, while most of the alternatives are "mitigable". For example, Draft EIR Section 3.0, Alternatives, in the discussion of the Existing Entitlement (Current Quail Hills Plan) alternative, says that traffic volumes for the Proposed Project would be "less than 50 percent" of the Quail Hills

PE-8

Until a mitigation measure or condition of approval is adopted, the EIR can only conclude that the event is possible and assess the impacts. The EIR should address the likelihood of occurrence.

PE-9

See response to comment PE-8. Text has been changed: the word "operating" replaces "commissioned".

PE-10

The text in Table S-3 and Table 3.1-1 will be revised to indicate significant unmitigable noise impacts for the No Project/Existing Entitlement Alternative and the Specific Plan with No Power Generating Plant Alternative. Section 3.0 of the DEIR determined significant unmitigable noise impacts associated with short-term construction activities; no changes were made to the existing text.

PE-11

In Section 2.4 of the DEIR, short-term construction noise was determined to be a significant unmitigable noise impact. This is indicated in the Executive Summary section of the DEIR, Table S-2, under the column heading "Significance After Mitigation". Please refer to response to comment PE-10 for further discussion on revisions to text for the Final EIR.

Plan. It is hard to understand how less than half as many vehicles would be expected to create more traffic noise. As described above, this should be clarified.

PE-12 • The Executive Summary Alternatives comparison Table (Table S-3) would be more easily understandable and effective if it summarized separately the EIR's findings (e.g., Significant Unmitigable, Significant Mitigable, Not Significant) for both Construction and Operations phases for each Issue Area and Alternative. The current table is confusing. For example, Table S-3 describes the Air Quality impacts of the Proposed Project (and all the alternatives except No Project/No Development) as Significant and Unmitigable. Section 2.3 appears to say that emissions from ERTC operations phase traffic are the basis for this finding, but Draft EIR Section 7, Unavoidable Significant Adverse Environmental Impacts, does not indicate unavoidable adverse air quality impacts during project operations.

PE-13 • The Draft EIR presents the Reduced Project Scale alternative as "Environmentally Superior", but the analyses presented in the Section 3.0, Alternatives show the differences to be small - in no subject area (Biological Resources, Air, Noise, and Transportation) does an impact change from "significant" to "less than significant" when comparing the Reduced Project Scale alternative to the Proposed Project or the other action alternatives. In Air Quality, the Proposed Project (including the power plant option) should be considered "Environmentally Superior", because the power plant will provide offsets for ozone precursor emissions (at a greater than 1:1 ratio).

PE-14
PE-15 Further, as stated in the summary of why the Reduced Project Scale alternative was rejected, it would not meet numerous project objectives, such as providing infrastructure upgrades and providing electrical generating capacity to meet existing demand. Given the environmental implications of not having sufficient modern, state-of-the art power generating facilities (e.g., greater use of older, more polluting power plants), and the Proposed Project's superior air quality implications as discussed above, it is not clear that Reduced Project Scale alternative is, in fact, "Environmentally Superior" when taking everything into account.

PE-16 • Section 3.0, Alternatives, addresses the electric power supply and demand situation in California as a whole and SDG&E service area, and the relationship of the proposed Palomar Energy facility to this situation. This issue is addressed in the context of the No Project/No Development alternative (page 3-7/8), the Existing Entitlement (Adopted Quail Hills Specific Plan) alternative (page 3-12), and the Specific Plan with No Power Generating Plant alternative (page 3-16).

The following paragraph more accurately describes the situation than the existing text, i.e., the third full paragraph on page 3-7 and the last paragraph on page 3-12 (these two paragraphs are identical):

"In particular, the SDG&E load pocket faces future prospects of inability to serve load, due to insufficient SDG&E import capability combined with insufficient

PE-12 It should be noted that the Executive Summary represents approximate 10% of the EIR and provides a summary of the more extensive analysis included in the main body of the EIR (Section 2.0). Table S-3 is intended to summarize the finding for each issue area, based on implementation of the proposed project and each alternative. All of the alternatives are presented in the table as analyzed in Section 3.0 of the DEIR. The EIR text has been retained as written.

PE-13 The alternatives analysis determined that each alternative would potentially result in similar impacts to those for the proposed project. Although some alternatives would not result in less significant impacts, most impacts were found to be mitigable, with the exception of air and noise impacts. The reduced project alternative was identified as the environmentally superior alternative, because areas of development were reduced to substantially prevent impacts to sensitive biological resources. Furthermore, impacts to traffic, air, and noise would not be of the same magnitude as for the other alternatives.

PE-14 The comment notes that the proposed project should be considered "Environmentally Superior", due to the offsets which will be established to further reduce impacts to air quality. Implementation of any of the alternatives associated with the development of the power plant would require offsets to further prevent air quality impacts. Upon approval of the ERTC Specific Plan, the power plant would undergo separate review by the CEC. The CEC may require additional offsets, based on their findings, to further reduce potential emissions created by the project.

PE-15 The DEIR discusses the potential impacts associated with implementation of each of the proposed alternatives. The DEIR concluded that the Reduced Project Scale Alternative is the Environmentally Superior Alternative, because impacts to traffic, air, noise, and biological resources would be substantially reduced in comparison with the proposed project. Impacts were determined to be significant but mitigable, with the exception of noise and air, due to short-term impacts associated with construction. The Reduced Project Scale Alternative was rejected, because it would not meet the project objectives.

PE-16 The text has been revised as follows: "In particular, the SDG&E load pocket faces future prospects of inability to serve load, due to insufficient SDG&E import capability combined with insufficient local generating capacity. Addressing this concern is a key Sempra Energy Resources objective for the Power Plant, and the 'no power plant' alternative would not meet this objective."

local generating capacity. Addressing this concern is a key Sempra Energy Resources objective for the Power Plant and the "no power plant" alternative would not meet this objective."

PE-17

Similarly, the following paragraph more accurately reflects the objectives than does the next to last paragraph on page 3 -16:

"In particular, the SDG&E load pocket faces future prospects of inability to serve load, due to insufficient SDG&E import capability combined with insufficient local generating capacity. Addressing this concern is a key Sempra Energy Resources objective for the Power Plant and the "no power plant" alternative would not meet this objective."

We appreciate the opportunity to provide these comments on the Draft EIR in support of the City of Escondido's environmental review process for the ERTC Specific Plan.

Sincerely,



Robert C. Jackson

PE-17

The requested text has been revised as follows: "In particular, the SDG&E load pocket faces future prospects of inability to serve load, due to insufficient SDG&E import capability combined with insufficient local generating capacity. Addressing this concern is a key Sempra Energy Resources objective for the Power Plant, and the "no power plant" alternative would not meet this objective."

ATTACHMENT 1

PROJECT DESCRIPTION - ERTC SPECIFIC PLAN SITE
ELECTRIC TRANSMISSION FACILITIES MODIFICATIONS

PE-18

The following paragraphs describe the planned modifications to the electric transmission facilities on the ERTC Specific Plan site. Graphics also are included that show the existing transmission facilities on the site and the transmission facilities on the ERTC site after the modifications are implemented.

As part of electrical interconnection of a power plant in Planning Area 1, the north-south portion of the existing 230 kV and 138 kV transmission lines located inside the existing 200 foot wide right-of-way will be realigned in order to position the existing 230 kV lines closer to the eastern edge of the right-of-way. The centerline of the six (6) existing 138 kV steel lattice towers is currently 50 feet west of the eastern edge of the right-of-way, and the centerline of the five (5) existing 230 kV steel lattice towers is currently 65 feet west of the 138 kV tower centerline (see attached graphic). In place of this existing condition, the 230 kV lines will be supported on five (5) new tubular steel poles located 35 feet west of the eastern edge of the right-of-way, and the 138 kV line will be supported on five (5) new tubular steel poles located 65 feet west of the new 230 kV poles.

In order to provide a uniform appearance that maximizes the improvement in visual appearance of the lines, the steel poles supporting the 230 kV and 138 kV lines will be of identical double-circuit design and will be positioned side-by-side (i.e., staggered positioning will be avoided). Near the southeast corner of the ERTC site, one or two wood pole H-frame structures will be inter-set to cross the 138 kV line back to its original position. One or two additional steel poles will be inter-set for loop-in of the eastern-most 230 kV circuit into the power plant switchyard. Due to the proximity of the existing 230 kV lines to the proposed power plant site (Planning Area 1), there are no feasible route alternatives for the 230 kV loop-in.

In order to eliminate potential interference between the 230 kV loop-in and an existing 69 kV line (TL689), to unencumber Planning Area 1 which TL689 currently crosses, and to provide an improvement in visual appearance, a segment of this 69 kV line will be undergrounded. This work also includes the undergrounding of a segment of an existing 69 kV tie line serving the CalPeak power plant (TL6934). The underground segment of both TL689 and TL6934 will start at the north side of Vineyard Avenue and extend south inside the 200-foot-wide right-of-way. The undergrounding of TL6934 will end at an existing duct bank near the CalPeak power plant, and the undergrounding of TL689 will continue in the 200-foot-wide right-of-way to the southwest corner of Planning Area 1. The undergrounding of TL689 will then continue along a new easement to be granted by the property owner, extending east to the southeast corner of

PE-18

The attachment included with the comment letter from Palomar Energy provides a detailed description of the modifications to the existing electrical transmission facilities. The description provided by Palomar Energy has been summarized and inserted into the project description of the Final EIR.

Ms. Diano Delgadillo
September 16, 2002
Page 7

Planning Area 1 and then north approximately 400 feet along the east edge of Planning Area 1. This work includes two (2) steel cable poles, one located at each end of the underground segment.

In order to unencumber Planning Area 4, which an existing 69 kV line (TL684) currently crosses, and to provide an improvement in visual appearance, a segment of this 69 kV line will be undergrounded. The underground segment will start at the north side of Vineyard Avenue and extend south across Vineyard Avenue. The undergrounding of TL684 will then continue along a new easement to be granted by the property owner, extending west along the northern perimeter of the ERTC site and south along the western perimeter of the ERTC to the point where the existing overhead line exits the site. This work includes two (2) steel cable poles, one located at each end of the underground segment.

In order to provide an improvement in visual appearance, two existing 69 kV lines located inside the 200-foot wide right-of-way (TL679 and TL616) will be rebuilt and/or undergrounded. To the extent 138 kV positions are available on the double-circuit steel poles supporting the 138 kV line described previously (e.g., if the 138 kV circuit has been removed permanently from service), one or both of the 69 kV lines will utilize such positions. To the extent such positions are not available, the 69 kV lines will be undergrounded starting at the north side of Vineyard Avenue and extending south inside the 200 foot wide right-of-way to a point that is about 1200 north of Harmony Grove Road, and will then continue on new double-circuit wooden poles to the south edge of the ERTC site. If the line(s) are undergrounded, this work will include a steel cable pole at each end of the underground segment.

Temporary realignment of 69 kV facilities may be necessary to accomplish the work described above. SDG&E may sell to the ERTC project developer the SDG&E fee ownership encompassed within the Specific Plan Area (Assessor Parcel Numbers 232-051-01, 232-040-23, 232-040-24, and 232-512-04), with the project developer concurrently granting an easement for SDG&E facilities.

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FIGURE 1
ERTC SITE TRANSMISSION FACILITIES - EXISTING CONDITION

(To Follow)



San Diego Gas & Electric
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LETTER 10 – SAN DIEGO GAS AND ELECTRIC COMPANY

A Sempra Energy company

September 19, 2002

Diana Delgadillo
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Planning Division
201 North Broadway
Escondido, CA 92025
PH# (760) 839-4555

Subject: Draft EIR for Escondido Research and Technology Center Specific Plan

Dear Diana,

SDG&E appreciates the opportunity to comment on the subject Draft EIR. The project is of concern to SDG&E since the project area contains a significant amount of SDG&E's electric facilities. Specifically there currently exist 2 circuits of 230 kv transmission, 1 circuit of 138 kv transmission and 4 circuits of 69 kv transmission as well as several circuits of distribution on the project site. Project activities will have substantial impacts to these facilities. Some will need relocation, some will be undergrounded and arrangements must be made for continuous uninterrupted access to all transmission structures before, during and after development of the project.

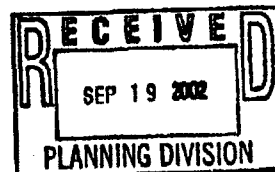
Thorough coverage in the EIR of impacts, mitigations, relocations, etc., regarding the existing electric facilities will reduce the processing time for obtaining the California Public Utilities Commission approvals required to relocate and convert these transmission facilities.

Attached are specific SDG&E comments on the Subject Draft EIR. If you have questions regarding these comments, please contact Charles Eck (Project Manager for SDG&E) at (858) 654-8386 or me at (619) 696-2409.

Sincerely,

Don L. Rose
Land Planning and Natural Resources Manager

Cc:
Charles Eck, SDG&E
James R. McCann, JRMC Real Estate



SDG&E -1 The comment provides introductory comments to the letter. This comment does not raise a significant environmental issue. This comment will, however, be forwarded to the decision makers for consideration when they consider the project. No changes were made to the EIR based on this comment.

SDGE-1

Ms. Diana Delgadillo
September 16, 2002
Page 9

FIGURE 2
ERTC SITE TRANSMISSION FACILITIES - REVISED CONDITION

(To Follow)

From: Duddy, Marty [marty.duddy@viasat.com]
Sent: Sunday, September 15, 2002 7:26 PM
To: 'ddegadillo@ci.escondido.ca.us'
Subject: ERTC EIR Comments

September 14, 2002

To: Diana Delgadillo
City of Escondido Planning Division
201 North Broadway
Escondido, CA 92025

Subject: ERTC EIR Comments

Dear Ms. Delgadillo:

DUD-1 The below comments are submitted in response to the EIR for the proposed Escondido Research and Technology Center Specific Plan. The comments are based on a review of the Executive Summary document provided with that EIR.

DUD-2 1. Transportation/Circulation (2.2) - several significant and unmitigable impacts are identified. Given the current degree of traffic issues in the area, it's inconceivable that a project of this magnitude could be considered without a serious and realistic view towards addressing this issue. On this basis alone, the project is problematic at best. When considered with the reality that "desireable" businesses will not locate to an area with these types of issues (pariticularly when coupled with the current blight that exists along the Vineyard entrance to this area), this project appears to be poorly thought out. The infrastructure required to mitigate traffic impacts should be a driving force behind the project and should be required as a pre-requisite to the initiaiton of any building construction within the ERTC area.

DUD-3 2. Air Quality (2.3) - an errata page was provided that identifies significant and unmitigable impacts to air quality. Assuming that this is the correct information (and not the item in error), it's incumbent upon the City of Escondido to explain what potential impacts this might have on residents/quality of life and why this impact should not result in the termination/modification of the proposed project.

3. Air Quality (2.3) - significant air quality impacts relating to the operation of the power plant have been identified. The mitigation plan is to use offset allowances. This appears to be a facade with respect to mitigation and while apparently legal, it can not and should not be used to justify the allowance of potential harmful air quality impacts. It is incumbent upon the City of Escondido to explain what potential impacts this might have on residents/quality of life and why this impact should not result in the termination/modification of the proposed project.

Sincerely,

Marty & Karen Duddy
2361 Live Oak Road
Escondido, CA 92029
760-741-3888

LETTER 13 - MARTY AND KAREN DUDDY

DUD-1 The comment provides introductory remarks. This comment does not raise a significant environmental issue. This comment will, however, be forwarded to the decision makers for consideration when they consider the project. No changes were made to the EIR based on this comment. It should be recognized that the Executive Summary represents 10% of the EIR and provides a summary of the more extensive analysis included in the main body of the EIR (Section 2.0) and supplemented by technical appendices.

DUD-2 The traffic impact analysis prepared for the EIR determined that the Proposed Project will have significant and unmitigable traffic impacts. Mitigation measures in the form of intersection and roadway improvements are included; however, these measures will not reduce impacts to below a level of significance. The applicant worked cooperatively with the City Engineers in determining the appropriate designs for improvements and fair-share contributions. As per CEQA Section 15093(a), the decision-making agency is required to balance the economic, legal, social, technological, or other benefits of a proposed project with the unavoidable environmental risks when determining whether to approve a project. If the specific economic, legal, social, technological, or other benefits of a proposed project outweigh the unavoidable adverse environmental effects, the adverse environmental effects may be considered "acceptable". No changes were made to the EIR based on this comment. It should also be noted that adoption of the existing Quail Hills Specific Plan would result in significant unmitigable traffic impacts and cumulative impacts.

DUD-3 The EIR adequately analyzed air quality impacts for both construction and operation of the proposed project, including the power plant. Significant and unmitigable short-term air quality impacts were identified related to project construction. Mitigation measures were provided to reduce these impacts; however, they will not be reduced to below a level of significance. Significant and unmitigable air quality impacts were also identified for the operational phase of the specific plan. As discussed in Section 2.3.4 of the EIR, the project will be required to offset emissions of NO_x and VOC [as required by SDAPCD Rule 20.3(d)(8)]. The project will utilize emission reduction credits and/or interpollutant trade of VOC credits, as allowed by SDAPCD Rule 20.3(d)(5)(vi). Additionally, watering of the site, use of low-sulfur diesel fuel, use of low-VOC architectural coatings, and soot filters on construction equipment will reduce air quality impacts.

There are no additional practicable or feasible mitigation measures to reduce the operational impacts to below a level of significance. As per CEQA Section 15093(a), the decision-making agency is required to balance the economic, legal, social, technological, or other benefits of a proposed project with the unavoidable environmental risks when determining whether to approve a project. If the specific economic, legal, social, technological, or other benefits of a proposed

SAN LUIS REY BAND OF MISSION INDIANS

Tribal Council

Russell Romo
Captain

Carmen Mojado
Secretary of Government
Relations

Charlotte Herrera
Secretary of the Treasury

Tom Beltran
Secretary of Economic
Development

Al Cerda
Secretary of Tribal Ethics
and Information

Hubert Foussat
Tribal Elder

Mariene Chilcote
Council Member

Mel Vernon
Council Member

Mary Lou Beltran
Council Member

Carrie Lopez
Tribal Advisor

Merril Lopez
Legal Advisor

Contact Information
2302 Carriage Circle
Oceanside, CA 92056
Tel. 760/724-8505
FAX 760/757-6749

October 5, 2002

Jonathan Brindle, AICP
Assistant Planning Director
Escondido, CA 92025

Dear Mr. Brindle,

The San Luis Rey Band of Mission Indians has some concerns with the Palomar Energy Project. Due to land disturbances from past agriculture operations, surface cultural items are spread over a vast area. Locating the sites will be a hit and miss project.

Therefore, the San Luis Rey Band is asking that you have Native American Monitors on site during initial clearing and excavation activities, in the event that buried cultural artifacts are discovered during construction.

If the pipeline does not stay in it's original spot (in the road), it will affect a sensitive site. In the event that human remains are found they will be handled according to California Public Resources Code, Section 5097.98.

Treatment of ceremonial and cultural items will reflect the traditional religious beliefs and practices of the San Luis Rey Band. We would appreciate all ceremonial and cultural items that may be found on this project to be returned to the San Luis Rey Band for appropriate handling.

We would like to enter into a pre-excavation agreement with the Palomar Energy Project prior to construction. Please contact Mark Mojado for details.

Thank you.

Sincerely,

Mark Mojado

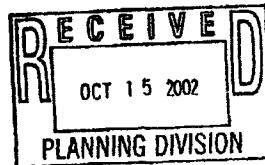
Mark Mojado
Cultural Department
San Luis Rey Band of Mission Indians

SLRMI-1

SLRMI-2

SLRMI-3

SLRMI-4



LETTER 12 – SAN LUIS REY BAND OF MISSION INDIANS

SLRMI-1 The comment indicates concern with the previous agricultural operations which may have disturbed any cultural resources exposed at the surface. The comment requests the presence of a Native American Monitor at the construction site during initial grading and excavation activities.

Appropriate mitigation measures have been incorporated into the Final EIR for buried cultural materials or deposits, if they are found. A cultural resources monitor will be present onsite at all initial clearing and excavation activities, as indicated in Section 2.10.4 of the DEIR. No text has been revised or additional text inserted.

SLRMI-2 A Cultural Resources Survey was prepared by EDAW, Inc. (October 2001) for the Escondido Research and Technology Center Specific Planning Area. This survey was then submitted as Appendix I of the Application for Certification to the California Energy Commission for the proposed power plant facility. Based on this survey, construction activities occurring within the Specific Planning Area would have no adverse impacts on cultural resources. Additionally, construction activities associated with the development of the proposed water and natural gas pipeline routes for the power plant project, which lie outside of the Specific Planning Area, would not result in adverse impacts to cultural resources.

SLRMI-3 The City concurs with the comment. If buried cultural materials or deposits are found, appropriate measures will be implemented to recover, examine, and determine the significance of the findings. Based on those findings, consultation with pertinent agencies and concerned parties will be scheduled for further advisement.

The Final EIR will include the following in Section 2.10.4 under cultural resource mitigation measures: "Findings will be prepared discussing the significance of any materials recovered from the project site. The City will determine, in coordination with responsible agencies, the appropriate repository where the collected materials will be archived."

SLRMI-4 A pre-excavation agreement between the San Luis Rey Band of Mission Indians and Palomar Energy is not within the purview of the City or the CEQA review process. Negotiations between the San Luis Rey Band of Mission Indians and Palomar Energy regarding a pre-excavation agreement are the responsibility of the two parties. The comment does not address the adequacy of the EIR; therefore, no changes have been made to the text.

SDG&E-2 The comment provides introductory comments to the letter. This comment does not raise a significant environmental issue. This comment will, however, be forwarded to the decision makers for consideration when they consider the project. No changes were made to the EIR based on this comment.

INTRODUCTION

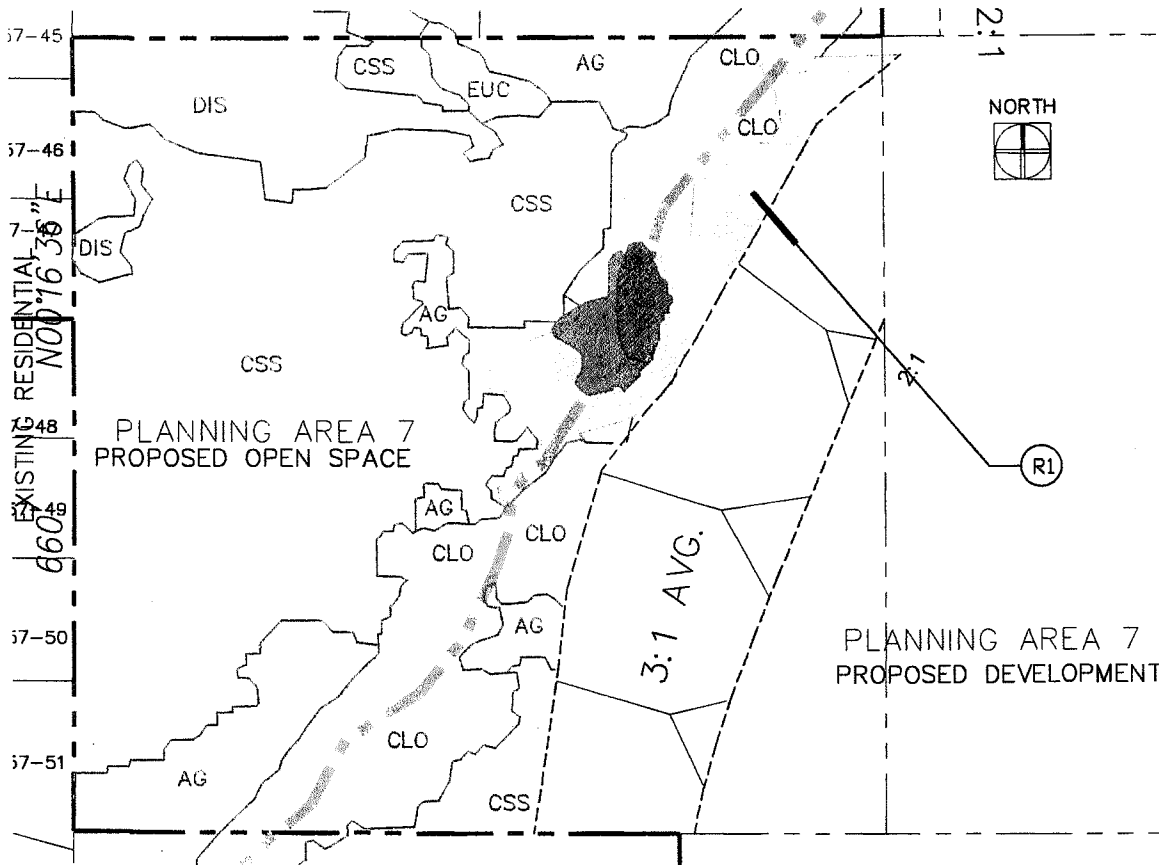
SDGE-2

SDG&E has completed its review of the draft Environmental Impact Report (EIR) for the Escondido Research and Technology Center (ERTC) Specific Plan dated July 16, 2002 and received August 2, 2002. Based on this review, SDG&E recommends that this draft EIR be revised to incorporate the attached comments in order to more completely describe the work related to SDG&E transmission facilities. These recommendations are based upon our experience in complying with the applicable orders, decisions, and regulations of the California Public Utilities Commission (CPUC) which regulates the construction of the transmission facility work requested as part of this project. It is SDG&E's opinion that compliance with these rules requires increased description of the transmission facilities in the EIR. Furthermore, compliance with CPUC review requirements would be facilitated by making a clearer distinction between the transmission facility work related to the ERTC Project and the transmission facility work associated with the power plant project planned as an optional land use for Planning Area #1 of the industrial park.

If you need additional information regarding these comments, please call the contacts named on the cover letter.

**RESPONSE TO COMMENTS
EXHIBITS**

WETLAND REVEGETATION PLAN



OPEN SPACE DESCRIPTION

Wetland mitigation proposed for the Escondido Research and Technology center project includes revegetation of 0.50 acre of Mixed willow series in Planning Area 7. This wetland creation is proposed in a seven acre portion of Planning Area 7 proposed as an Open Space Easement. The revegetation site is presently occupied by Annual grassland series, which will be mitigated through off-site purchase of like habitat if acceptable to resource agencies.

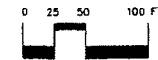
If during the establishment period, southern willow scrub, mulefat scrub, or freshwater marsh, begin establishing on the revegetation site(s), they will be allowed to compete for dominance. The goal of this revegetation is the creation of ACOE jurisdictional habitat. If necessary, Coastal sage scrub will be installed on upland areas disturbed by this revegetation project.

MIXED WILLOW SERIES REVEGETATION

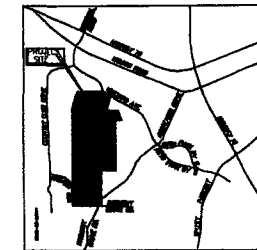
Area	Habitat Revegetated	Size (ac.)
R1	Mixed willow series	0.50
TOTAL		0.50

SOURCE NOTE:

Vegetation mapping and wetland delineation derived from Merkel & Associates, 2001 and 2002. Engineering per Project Design Consultants, 2002. Minor adjustments have been made to source mapping for Concept Plan mapping purposes.



September 16, 2002
SCALE: - 1" = 100'



VICINITY MAP
NOT TO SCALE

LEGEND - PRESERVED / CREATED HABITATS

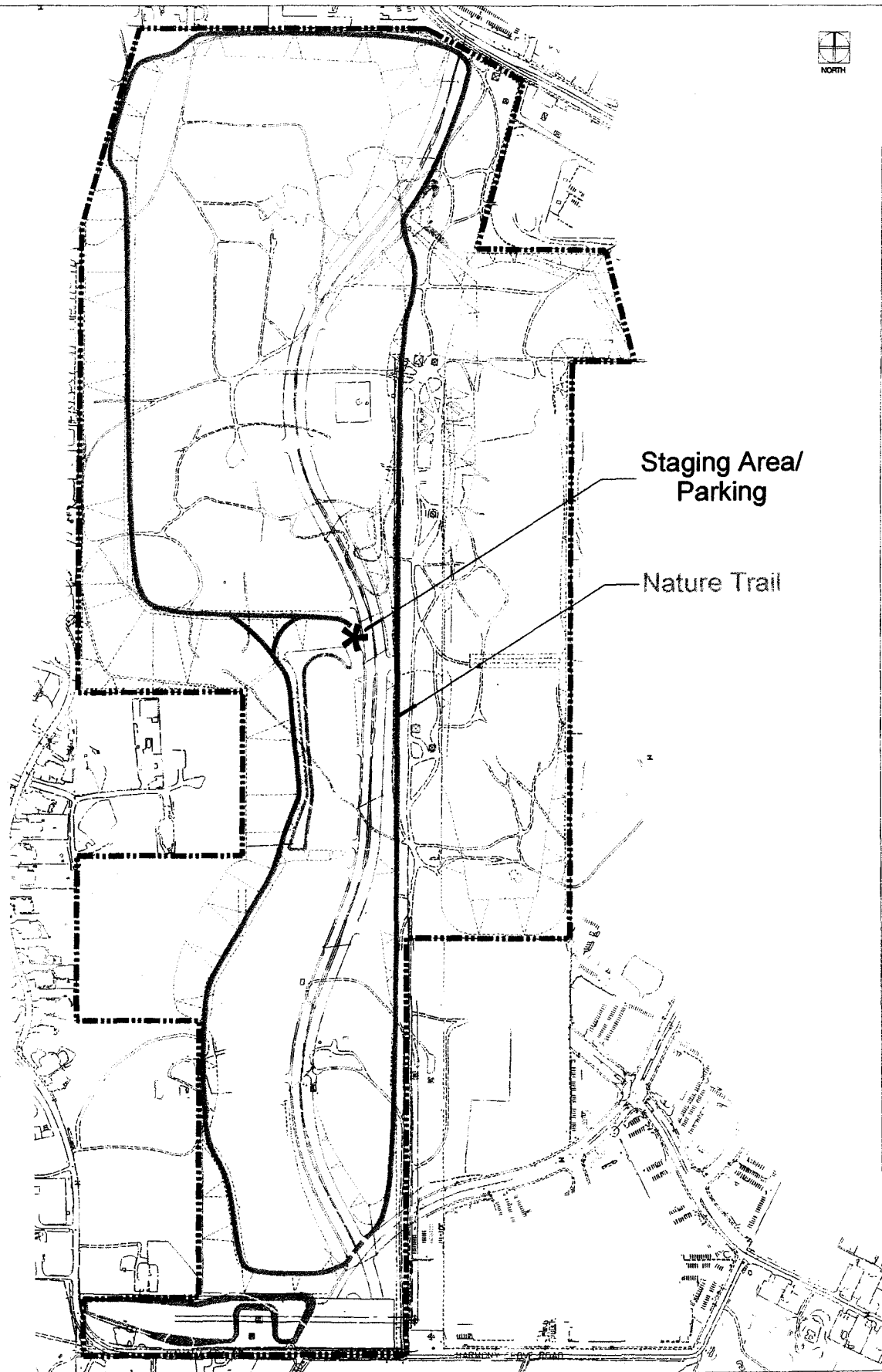
Wetland Habitats

sym	plant community
[White box]	MIXED WILLOW SERIES TO BE CREATED (0.50 ACRE CREATION IN 2 SITES)
[Stippled box]	MIXED WILLOW SERIES - EXISTING, ACOE JURISDICTIONAL
[Dark stippled box]	MIXED WILLOW SERIES - EXISTING, CDFG JURISDICTIONAL ONLY
[Blue hatched box]	"WATERS OF THE U. S."

Upland Habitats

sym	plant community
[CSS box]	CALIFORNIA SAGEBRUSH SERIES - EXISTING
[AG box]	CALIFORNIA ANNUAL GRASSLAND SERIES - EXISTING
[CLO box]	COAST LIVE OAK SERIES - EXISTING
[DIS box]	DISTURBED / RUDERAL LANDS - EXISTING
[EUC box]	EUCALYPTUS SERIES







Staging Area/
Parking

Nature Trail

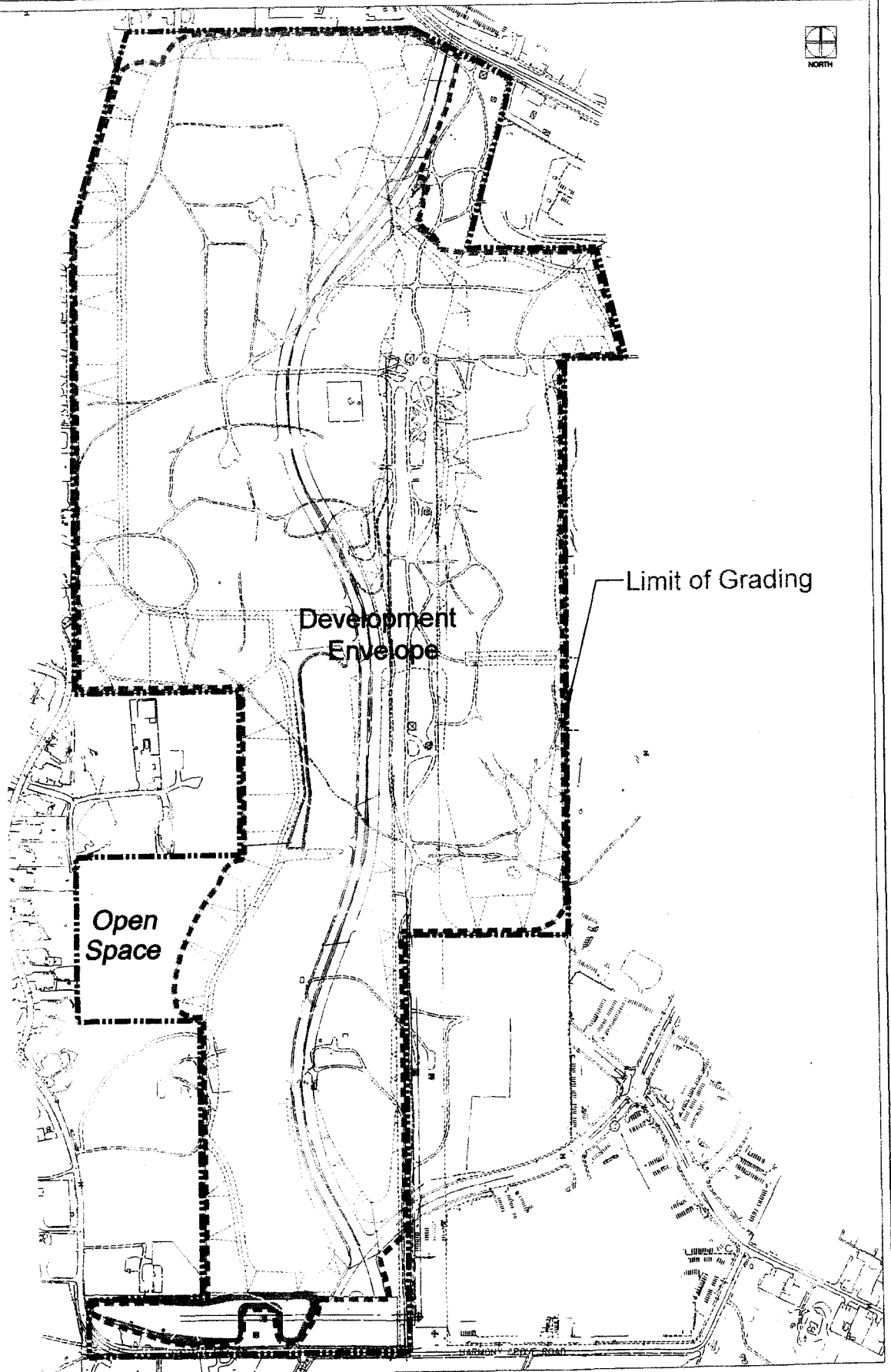
EXHIBIT B
Revised Community Trails Exhibit
Escondido Research and Technology Center
Escondido, California

OCTOBER 2002

 **Project Design Consultants**
PLANNING ENGINEERING SURVEYING
751 "B" Street, Suite 800, San Diego, Ca 92101
619-231-6271 FAX 619-693-1818

 **PLANNING SYSTEMS**
1370 FARLEY AVENUE, SUITE 100, CARLSBAD, CA 92008
7600 901-8700 FAX 760-931-5148

DATE PLOTTED: 10/22/02
DRAWN BY: JLD
CHECKED BY: JLD
SCALE: AS SHOWN



Limit of Grading


Development Envelope

Open Space

EXHIBIT C
Project Limits Of Grading
Escondido Research and Technology Center
Escondido, California

OCTOBER 2002

 **Project Design Consultants**
PLANNING ENGINEERING SURVEYING
100 "F" Street, Suite 800, San Diego, Ca 92101
619-251-6111 FAX 619-251-9378

 **PLANNING SYSTEMS**
1500 FARADAY AVENUE, SUITE 100, CARLSBAD, CA 92008
7602 101-0700 FAX 7602 028-8142

PROJECT NO. 02-002

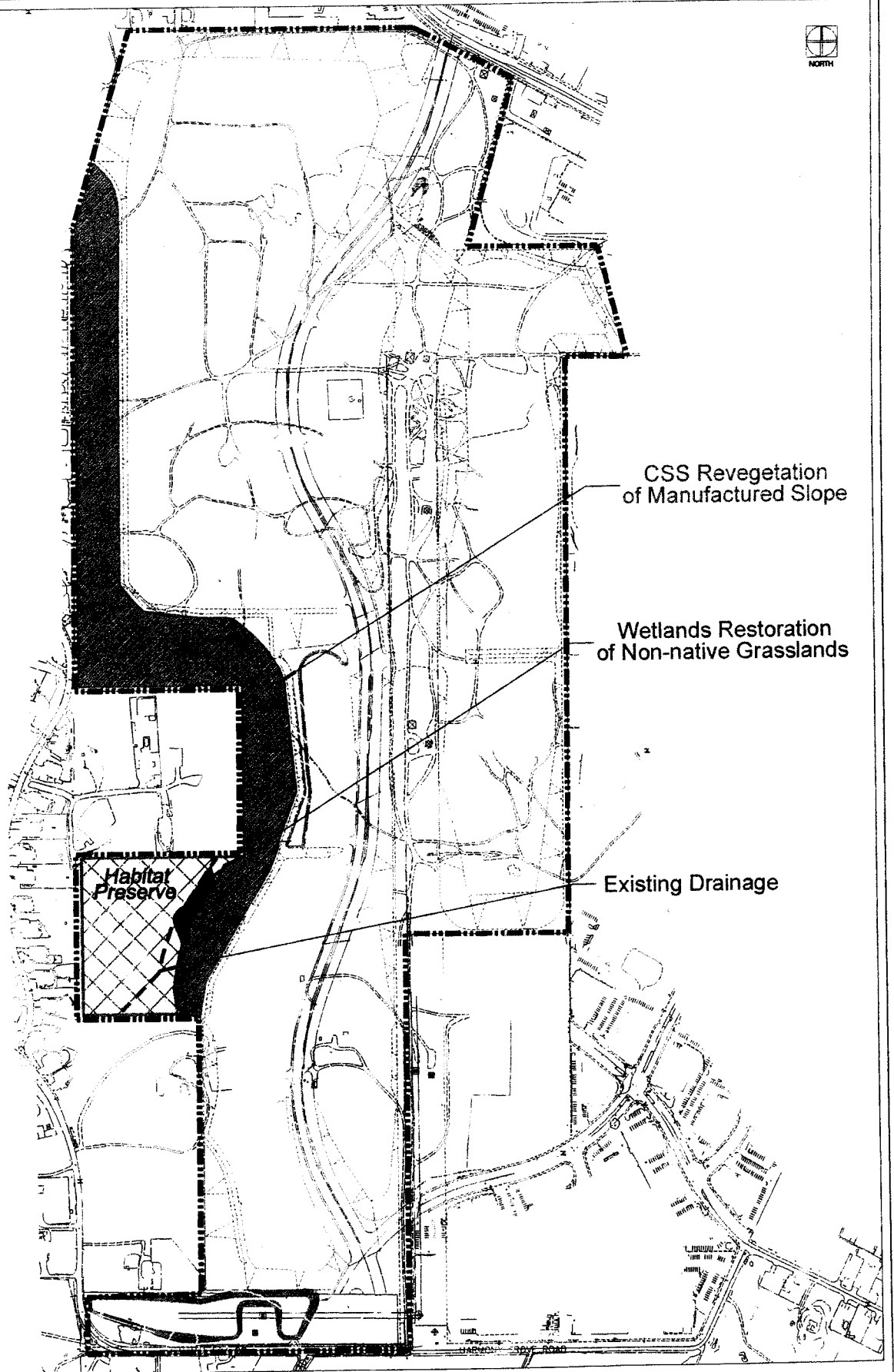


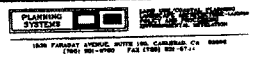
EXHIBIT D
Native Habitat Preserve and Restoration Areas

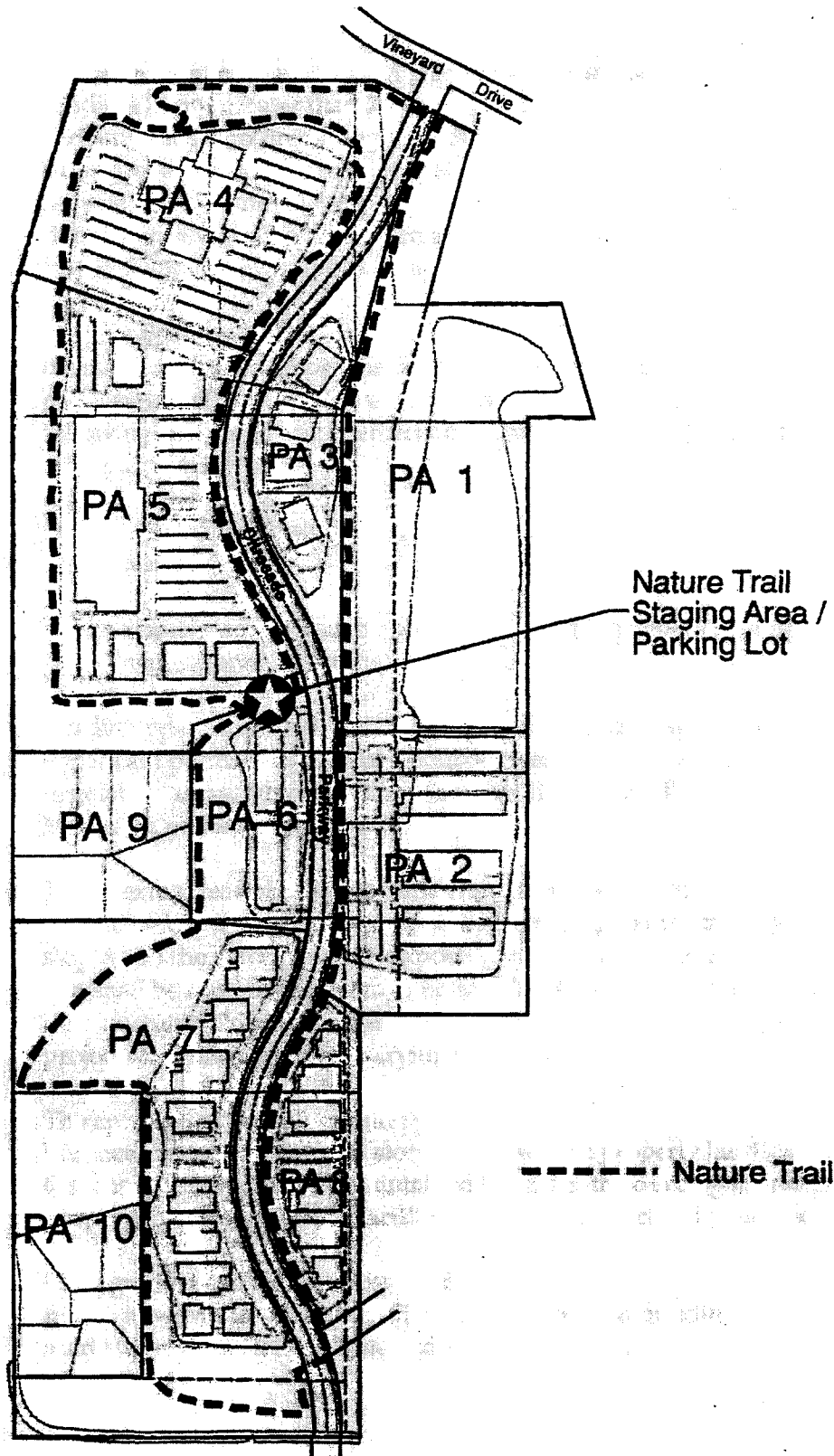
OCTOBER 2002

Escondido Research and Technology Center
Escondido, California




Project Design Consultants
PLANNING ENGINEERING SURVEYING
701 - 3rd Street, Suite 800, San Diego, CA 92101
619-525-6771 FAX 619-525-6789





Source: Planning Systems, 2001

 1 inch = 650 feet

 **P&D Environmental Services**

Proposed Trail Locations

Exhibit E

10/29/02 P:\admin\escondido\c\graphics\trails.frb

**ESCONDIDO RESEARCH AND TECHNOLOGY
CENTER
SPECIFIC PLAN
FINAL ENVIRONMENTAL IMPACT REPORT**

EXECUTIVE SUMMARY

INTRODUCTION

The proposed project is located within the City of Escondido (Figures S-1 and S-2). The City adopted their General Plan in June 1990 to guide the use of private and public lands within the community's boundaries. The General Plan reflects the aspirations and values of its residents and was adopted by their elected representatives. The values reflected in the General Plan policies shape the community and the quality of life sought by its residents.

A set of community goals and objectives was refined through the Growth Management Oversight Committee process in 1989 and subsequently adopted as part of the General Plan. They provide the framework for establishing policies, standards, and guidelines for future growth in the City's Planning Area.

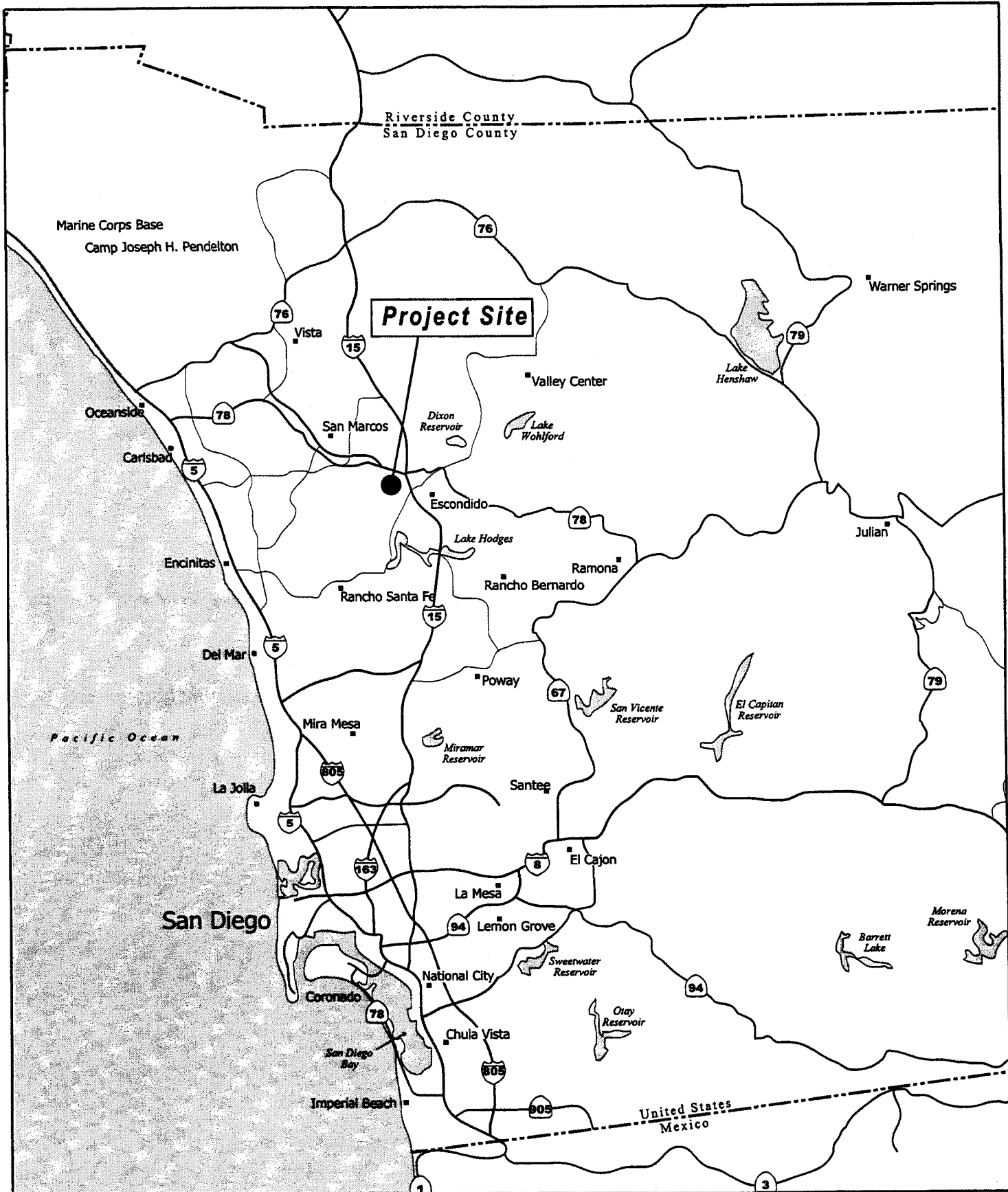
One of the Community Goals and Objectives established for industrial land use, as stated in the General Plan, is:

GOAL 5: Encourage more high-quality industrial, retail, manufacturing, and service-oriented businesses that create and maintain a strong economic base and provide an environment for the full employment of a diverse set of skills.

One of the objectives established by the City is to develop multiple core employment use areas for general, light, high-technology, and office industrial; research and development; and professional office uses.

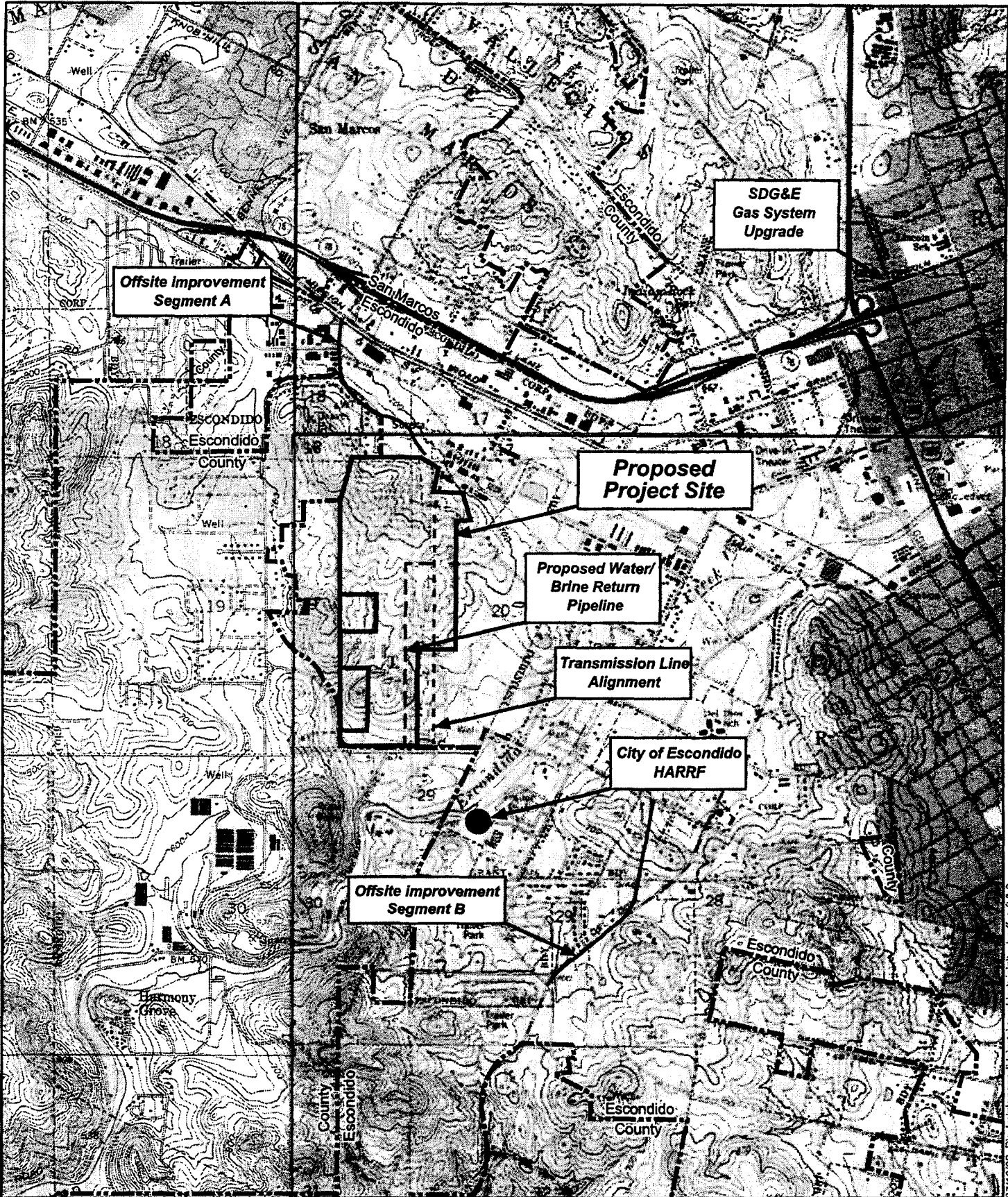
ENVIRONMENTAL SETTING

The Specific Plan Area (SPA) is located in the western portion of the City of Escondido, San Diego County, California. The ERTC project consists of Planning Areas 1 through 8 of the SPA (186 acres); approximately 22 acres are existing and proposed residential areas to be designated as Estate II and rezoned to RE 20, which are not part of the ERTC project. The 186-acre ERTC project includes the 20-acre Planning Area 1, where a 550-megawatt (MW) power plant is proposed (the Power Plant Project). The SPA is located in a region of rapid urban growth, with



02/01/02 P:\admin\es\proj\sd\map\graph\reservoirs\SUM.rtg





Source: USGS Escondido Quadrangle

1 inch = 2000 feet

P&D Environmental Services

Vicinity Map

Figure S-2

07/16/02 P:\admittes\condido\arc\graphics\vicinity_harrif_s-2.tif

industrial development occurring to the north and east. Land use in the project vicinity also includes urban, suburban, and rural residential development.

The SPA exhibits rolling to hilly terrain, with prominent hills located in the northern and southwestern portions of the property. The landscape is cut by a number of shallow gullies, with the most prominent drainage running from the west central portion of the SPA to the southwest. The site drains southward to Escondido Creek. The highest elevation on the property, located in the northwestern corner, is approximately 885 feet above mean sea level (AMSL); the lowest elevation, located in the southeastern corner of the site, is approximately 625 feet AMSL. A 200-foot-wide electrical transmission easement containing two 230-kV circuits and one 138-kV circuit on steel lattice tower structures, and five 69-kV circuits on wooden pole structures bisect the eastern and western portions of the SPA. There is a network of dirt roads and trails on the SPA, some of which are used to access the electrical transmission towers; others are the result of past and continuing recreational off-road vehicle uses.

PROJECT DESCRIPTION

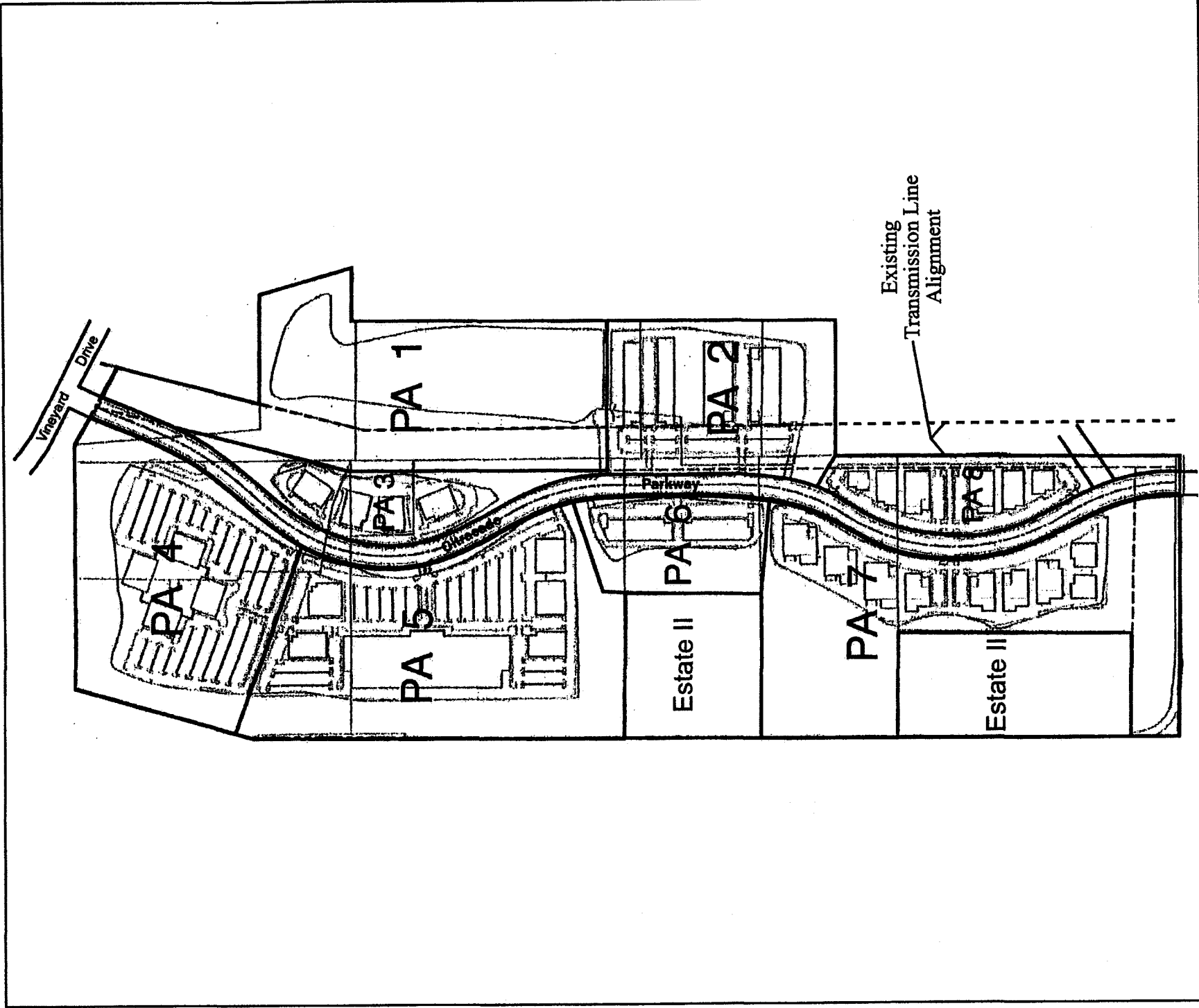
The proposed project is the implementation of the Escondido Research and Technology Center Specific Plan (Figure S-3). The Escondido Research and Technology Center Specific Plan will amend and supersede the existing Quail Hills Specific Plan, which was adopted by the City of Escondido in January 1988, by adoption of Resolution 88-126. The proposed land uses by planning area are presented in Table S-1.

The proposed project will further require modification to the City of Escondido General Plan Circulation Element, including the elimination of a segment of Enterprise Street which traverses the project site, and to the Land Use Element to accommodate residential land uses within designated "Planning Areas" within the Specific Plan area. The Specific Plan will establish permitted land uses for the remaining planning areas (Figure S-4). The proposed Specific Plan will include sections on Plan Conformance with State law and the City of Escondido General Plan, Comprehensive Policies addressing development within the Specific Plan area, Specific Development Standards and Regulations for individual Planning Areas, plan processing including implementation, and the adopted process for amendments to the Specific Plan.

There are a number of general plan provisions that have provided direction for the development of the ERTC Specific Plan. The primary direction has been derived from the Land Use Element, although other element provisions have also been integrated in the Specific Plan.

**Table S-1
Planning Area Permitted Land Use**

<i>Planning Area</i>	<i>Pad Acreage (Approximate)</i>	<i>Permitted Land Use</i>
1	14.1	Option A: Light industrial; and accessory uses Option B: Power Generating Facility; and accessory uses
2	11.5	Light industrial – processing, assembling, manufacturing, warehousing, research and development, and distribution; and accessory uses
3	6.25	Administrative, business, and professional offices; Research activities – development laboratories and compatible light manufacturing; Manufacture, assembly, testing, repair; Light manufacturing, processing; Distribution and/or storage; and accessory uses
4	17.37	Administrative, business, and professional offices; Research activities – development laboratories and compatible light manufacturing; Manufacture, assembly, testing, repair; Light manufacturing, processing; Distribution and/or storage; and accessory uses
5	22.6	Administrative, business, and professional offices; Research activities – development laboratories and compatible light manufacturing; Manufacture, assembly, testing, repair; Light manufacturing, processing; Distribution and/or storage; and accessory uses
6	4.23	Administrative, business, and professional offices; Research activities – development laboratories and compatible light manufacturing; Manufacture, assembly, testing, repair; Light manufacturing, processing; Distribution and/or storage; Service industries; and accessory uses
7	12.45	Administrative, business, and professional offices; Research activities – development laboratories and compatible light manufacturing; Manufacture, assembly, testing, repair; Light manufacturing, processing; Distribution and/or storage; Service industries; Construction industries; Accessory uses; and Open Space
8	6.37	Administrative, business, and professional offices; Research activities – development laboratories and compatible light manufacturing; Manufacture, assembly, testing, repair; Light manufacturing, processing; Distribution and/or storage; Service industries; and accessory uses



Source: PDC



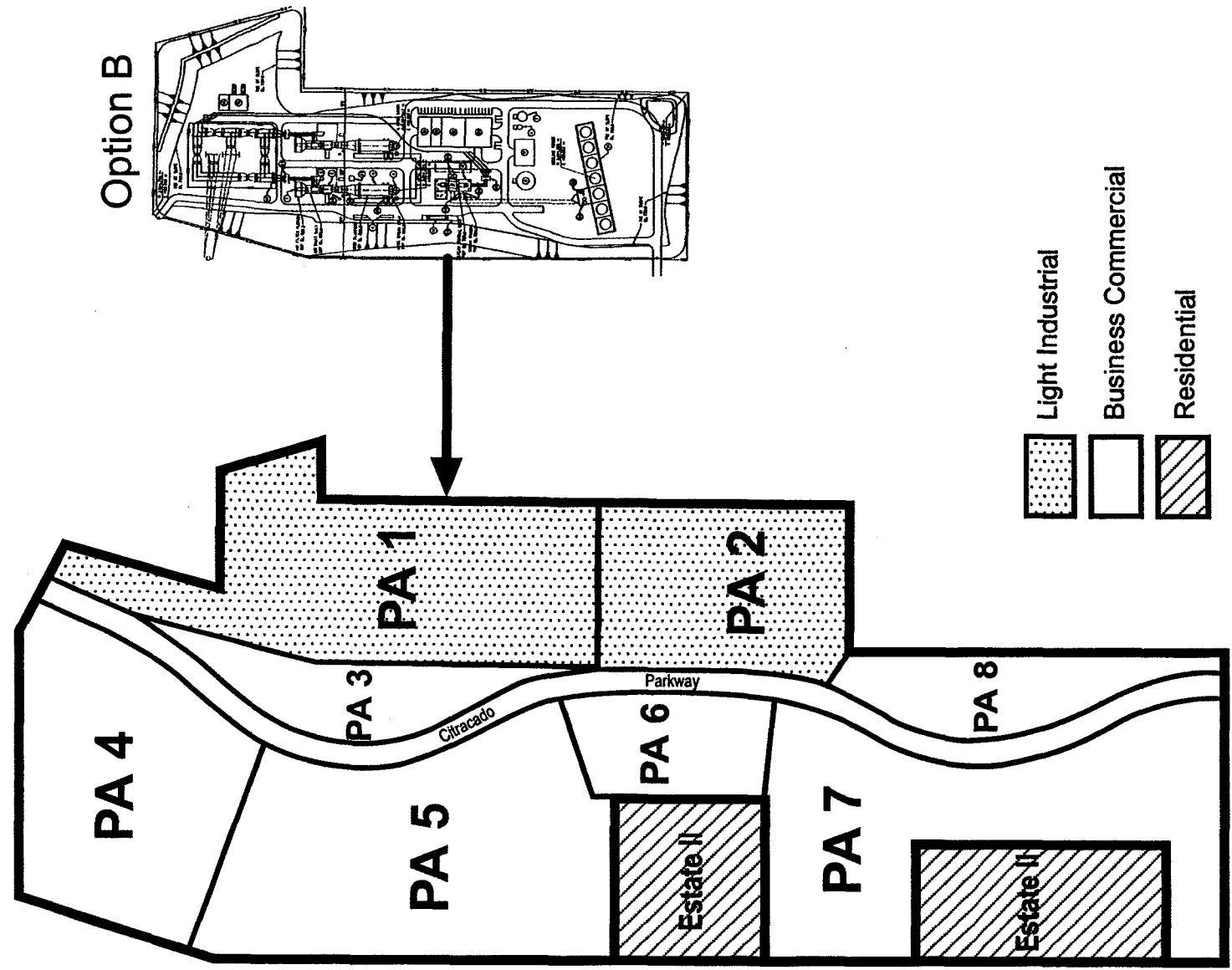
No Scale

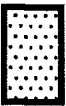




P&D Environmental Services

Conceptual Site Plan

Figure S-3



	Light Industrial
	Business Commercial
	Residential

Source: Planning Systems



No Scale



P&D Environmental Services

Proposed ERTC Land Use

Figure S-4

Planning Area 1

Planning Area 1 consists of approximately 14.1 net acres and is located in the northeast corner of the Specific Plan area. Two options are designated for Planning Area 1. Option A allows for light industrial-type uses, and Option B allows for an electrical power generating facility.

Under Option A, the maximum building height will be 60 feet. Access to this area will be through ingress and egress from Citracado Parkway. Parking shall be provided at a ratio of 2 spaces per 1,000 square feet of gross floor area. Permitted uses under Option A include light industrial uses intended to provide for a variety of industrial firms engaged in processing, assembling, manufacturing, warehousing, research and development, and distribution. Support services are also proposed to include an employee cafeteria, café, restaurant, or auditorium accessory. Accessory uses and structures such as food preparation, food service, and eating facilities are permitted. Restaurants are subject to the review and approval of a conditional use permit.

Sempra Energy Resources intends to develop the proposed Power Plant under the Option B use program. The project consists of a natural-gas-fired combined-cycle power plant with proposed reclaimed water supply and brine return pipelines. The project will have an electrical output of 550 megawatts, and commercial operation is planned for the Spring of 2004. As part of the electrical interconnection process of the power plant's new 230-kV switchyard, existing 230-kV and 138-kV transmission lines located within the existing 20-foot-wide right-of-way will be realigned to position the existing 230-kV line closer to the eastern edge of the right-of-way. SDG&E electric transmission line also located immediately adjacent to the project site. Reclaimed water for the project will be supplied from the City of Escondido's Hale Avenue Resource Recovery Facility (HARRF) via a new 1.1-mile, 16-inch supply pipeline extending from an existing reclaimed water main. Brine from the project will be returned to the HARRF via a new 1.1-mile, 8-inch return pipeline routed alongside the reclaimed water supply pipeline.

Additionally, the project will be fueled with natural gas delivered via the SDG&E gas system. An existing 16-inch SDG&E natural gas pipeline located immediately adjacent to the northeast corner of the project site at the end of Enterprise Street. SDG&E proposes to construct an upgrade, consisting of approximately 2,600 feet of 16-inch pipeline, to be routed along Lincoln Avenue from its intersection with Rock Springs Road to its intersection with Metcalf Street, and then along Metcalf Street to its intersection with Mission Avenue.

Reclaimed water for uses within the ERTC planning area will be supplied from the City of Escondido's Hale Avenue Resource Recovery Facility (HARRF) via a new 1.1-mile, 16-inch supply pipeline extending from an existing reclaimed water main. Brine from ERTC users will ultimately be returned to the HARRF via a new 1.1-mile, 8-inch return line routed along the reclaimed water supply pipeline and connecting to an existing brine return line located in a bridge which spans Escondido Creek. Plans for operation of the HARRF are included in the City's Recycled Water Quality Enhancement Project, which addresses the return of brine to the HARRF from current and prospective industrial dischargers. The Water Quality Enhancement Project covers the City's entire brine collection system including the 900-foot portion of the system between the bridge and the HARRF, the necessary modifications to the HARRF, and any permits necessary to discharge brine into the ocean outfall line.

Brine will be monitored and metered at the Power Plant, then returned to the City's HARRF alongside the reclaimed water supply pipeline. The design of the brine return pipeline will be similar to the reclaimed water supply pipeline to a connection point with an existing City of Escondido brine return line.

As part of electrical interconnection of a power plant in Planning Area 1, the north/south portion of the existing 230-kV and 138-kV transmission lines located inside the existing 200-foot-wide right-of-way would be realigned in order to position the existing 230-kV and 138-kV steel lattice tower structures, the relocated 230-kV lines would be supported on five new tubular steel poles located 35 feet west of the eastern edge of the right-of-way, and the relocated 138-kV line would be supported on five new tubular steel poles located 65 feet west of the new 230-kV poles. Near the southeast corner of the ERTC site, one or two wood pole H-frame structures would be inter-set to cross the 138-kV line back to its original position within the existing right-of-way. One or two additional steel poles would be inter-set for loop-in of the easternmost 230-kV circuit into the power plant switchyard. Due to the proximity of the existing 230-kV lines to the proposed power plant site (Planning Area 1), there are no other feasible route alternatives for the 230-kV loop-in and interconnection to the proposed power plant in Planning Area 1.

The Power Plant is subject to issuance of a license by the California Energy Commission (CEC). That license is separate from and not included among the approvals required for the proposed project. The proponent of the power plant has submitted an application for certification to the CEC. The California Warren-Alquist Act establishes a State-level licensing process for power plants over 50 megawatts in capacity. The Act also designates the CEC as the lead CEQA agency for projects which require a license. Therefore, the CEC is conducting a detailed review

of the potential impacts of the Power Plant license in compliance with CEQA pursuant to the CEC's regulations.

Under Option B, the City and the developer will establish a Development Agreement for a 10-year term that will provide land use assurances, discuss conditions to be met prior to grading, and address utility pricing and availability.

Planning Area 2

Planning Area 2 is approximately 11.5 net acres, located in the eastern portion of the Specific Plan area. Minimum lot size will be 1 acre. Maximum building height will be 60 feet. Access to this area will be through ingress and egress from Citracado Parkway. Parking shall be provided at a minimum ratio of 2 spaces per 1,000 square feet of gross floor area.

Permitted uses for this site include light industrial uses intended to provide for a variety of industrial firms engaged in processing, assembling, manufacturing, warehousing, research and development, and distribution. Support services are also proposed to include a employee cafeteria, café, restaurant, or auditorium accessory. Accessory uses and structures such as food preparation, food service, and eating facilities are permitted. Restaurants or delicatessens are subject to the review and approval of the Planning Director.

Planning Area 3

Approximately 6.25 acres, Planning Area 3 is located in the north/central portion of the Specific Plan area. Minimum lot size will be 1 acre. Maximum building height will be 60 feet. Access to this area will be through two locations of private ingress and egress from Citracado Parkway.

Permitted uses within this area include administrative, business, and professional offices, limited to: (a) offices which are associated with any permitted planned industrial use, or (b) offices which do not attract and are not primarily dependent upon business customers visiting the office, such as medical and dental offices, employment agencies, real estate agencies, and travel agencies.

Other permitted uses are primarily research activities, including developmental laboratories, and compatible light manufacturing such as, but not limited to, the following:

- Biochemical;
- Biotechnology;
- Chemical;
- Communications;
- Computers;
- Electronics;
- Film and photography;
- Medical and dental;
- Metallurgy;
- Pharmaceutical; and
- X-ray.

Additional permitted uses for this Planning Area include restaurants, light manufacturing, processing, and assembly of low-impact products, industries engaged in distribution and/or storage or warehousing operated in conjunction with permitted uses, and accessory uses and structures related and incidental to a permitted use such as food preparation and other food services.

Planning Area 4

Approximately 17.37 net acres, Planning Area 4 is located in the northwest corner of the Specific Plan area. Minimum lot size will be 2 acres. Maximum building height will be 120 feet. Access will be through ingress and egress from Citracado Parkway. Depending on the type of development, parking spaces will be provided at a ratio of 2.4 to 3.3 spaces per 1,000 square feet of gross floor area.

Permitted uses within Planning Area 4 include (1) administrative, business, and professional offices; (2) research activities, including developmental laboratories and compatible light manufacturing; (3) manufacture, assembly, testing, and repair of components, devices, equipment, and systems; (4) light manufacturing; (5) warehousing storage and distribution; and (6) employee support services and accessory structures.

Planning Area 5

Approximately 22.6 net acres, Planning Area 5 is located in the northwest portion of the Specific Plan area. Minimum lot size will be 2 acres. Maximum building height will be 120 feet. Access

will be through ingress and egress from Citracado Parkway. Depending on the type of development, parking spaces will be provided at a ratio of 2.4 to 3.3 spaces per 1,000 square feet of gross floor area.

Permitted uses within Planning Area 5 include (1) administrative, business, and professional offices; (2) research activities, including developmental laboratories and compatible light manufacturing; (3) manufacture, assembly, testing, and repair of components, devices, equipment, and systems; (4) light manufacturing; (5) warehousing storage and distribution; and (6) employee support services and accessory structures.

Planning Area 6

Approximately 4.23 net acres, Planning Area 6 is located in the central portion of the Specific Plan area. Minimum lot size will be 1 acre. Maximum building height will be 60 feet. Access will be through ingress and egress from Citracado Parkway. Depending on the type of development, parking spaces will be provided at a ratio of 2.4 to 3.3 spaces per 1,000 square feet of gross floor area.

Permitted uses within Planning Area 6 include (1) administrative, business, and professional offices; (2) research activities, including developmental laboratories and compatible light manufacturing; (3) manufacture, assembly, testing, and repair of components, devices, equipment, and systems; (4) light manufacturing; (5) warehousing storage and distribution; (6) employee support services and accessory structures; and (7) public trailhead, information kiosk, and trail parking.

Planning Area 7

Approximately 12.45 net acres, Planning Area 7 is located in the southwest portion of the Specific Plan area. Minimum lot size will be 1 acre. Maximum building height will be 60 feet. Access will be through ingress and egress from Citracado Parkway. Depending on the type of development, parking spaces will be provided at a ratio of 2.4 to 3.3 spaces per 1,000 square feet of gross floor area.

Permitted uses within Planning Area 7 include (1) administrative, business, and professional offices; (2) research activities, including developmental laboratories and compatible light manufacturing; (3) manufacture, assembly, testing, and repair of components, devices,

equipment, and systems; (4) light manufacturing; (5) warehousing storage and distribution; (6) construction industries; (7) employee support services and accessory structures; and (8) open space conservation preserve for oak woodland habitat.

Planning Area 8

Approximately 6.37 net acres, Planning Area 8 is located in the southeast corner of the Specific Plan area. Minimum lot size will be 1 acre. Maximum building height will be 60 feet. Access will be through ingress and egress from Citracado Parkway. Depending on the type of development, parking spaces will be provided at a ratio of 2.4 to 3.3 spaces per 1,000 square feet of gross floor area.

Permitted uses within Planning Area 8 include (1) administrative, business, and professional offices; (2) research activities, including developmental laboratories and compatible light manufacturing; (3) manufacture, assembly, testing, and repair of components, devices, equipment, and systems; (4) light manufacturing; (5) warehousing storage and distribution; (6) construction industries; and (7) employee support services and accessory structures.

Residential Uses

Areas previously designated as Planning Areas 9 and 10 will be removed from the Specific Plan. These areas will be designated as Estate II (under the General Plan) and RE 20 (zoning).

There are a number of general plan provisions that have provided direction for the development of the ERTC Specific Plan. The primary direction has been derived from the Land Use Element, although other element provisions have also been integrated in the Specific Plan. Proposed development within the Specific Planning Area will be required to comply with the Land Use, Circulation, and Design Policies established in the ERTC Specific Plan and are subject to review and approval of the Planning Director.

Implementation of the proposed project will require the reconstruction of existing high-power transmission lines to be done onsite. This action will require review and approval by the California Public Utilities Commission (CPUC).

Radio Tower Relocation

The proposed radio tower which may be removed is located within Planning Area 3. The existing tower is about 100 feet tall, which is shorter than optimal for broadcasting purposes. It is triangular (horizontal cross-section) with 8- to 10-inch faces. The tower is painted in bright colors because, years ago, it was moved from another location where Federal Aviation Administration (FAA) rules required bright colors and lighting. The current bright color scheme and lighting are no longer required by the FAA.

If a new tower is to be constructed, it will have a height of approximately 130 to 140 feet (the tower height is unaffected by base elevation). The new tower could be either guyed or self-supporting. A guyed tower would be triangular (horizontal cross-section) with 8- to 10-inch faces, similar to the existing tower (except 30 to 40 feet taller). A self-supporting tower would be either a three-legged design or a monopole ("flagpole") design within the project site. It is uncertain whether technical considerations would allow use of the monopole design. For the three-legged design, the tower would be triangular (horizontal cross-section) with the upper two-thirds tapering to 8- to 10-inch faces at the top, and the bottom one-third spreading to form the three-legged base. The new tower will be colored to help it blend in (e.g., light grey or dull galvanized).

There are two proposed alternative locations for the radio antenna. Alternatively, the tower may remain in its current location.

Offsite Improvements

Due to the traffic generated by the project, impacts to Vineyard Avenue and Valley Parkway were identified. Specifically, Vineyard Avenue will be widened between Mission Road and Alpine Way. West Valley Parkway will be widened between 11th Street and Citracado Parkway. To mitigate these impacts, these street segments will ultimately be widened in accordance with the mitigation measures identified in the Traffic Analysis (Section 2.2). Although these final roadway improvements have not been designed at this time, impacts from their construction are assessed in this EIR.

General Plan Amendment to the Circulation Element

The proposed project will require modification to the City of Escondido General Plan Circulation Element to eliminate Enterprise Street and Citracado Parkway. The project proposes to eliminate a segment of Enterprise Street, amend the existing designation of Citracado Parkway, and eliminate the interconnection of Citracado Parkway and Enterprise Street. Currently, under Policy D2.1 of the Circulation Element of the City's General Plan, "The City shall plan, design, and implement a street system that recognizes the importance of the use and function of each street classification." According to the Circulation Element, Enterprise would serve as a Local Collector, and Citracado Parkway was classified as a Major Road.

Citracado Parkway will connect with Andreasen Drive, diverting project traffic to the east. Future extension of Citracado Parkway to connect with Harmony Grove is being considered. Encroachment of SDG&E right-of-way and property to the south of the proposed project would need to be approved.

Additional improvements to Citracado Parkway have been proposed within the Specific Plan, including north/south connection through the site to connect to Vineyard Avenue, necessary offsite circulation improvements, and the addition of a sufficient bicycle lane width along Citracado Parkway to encourage an alternative mode of transportation. However, implementation of these improvements will require a Circulation Element Amendment to modify the existing Major Road designation to Collector.

The Quail Hills Specific Plan established that Citracado Parkway would be constructed as a Major Road per the City's General Plan and Design Standards. Furthermore, all other roads within the project were to be classified as Local Collector, serving industrial and private driveways. Streets were to be constructed in conformance with City design standards, providing primary access to lots and internal circulation for the tenants.

Upon approval of the proposed ERTC Specific Plan, tentative subdivision maps and site plans will be reviewed prior to initiation of development. At this time, the tentative subdivision map will be processed concurrently with the Specific Plan. The Planning Commission and City Council will review the tentative subdivision map for approval in accordance with the State Subdivision Map Act, the City of Escondido Subdivision Ordinance, and the approved Specific Plan. Following recordation of the Final Subdivision Map, any further parcel maps and

boundary adjustments will be subject to approval of the Planning Director, with appeal rights to the Planning Commission and City Council.

General Plan Amendment to the Specific Planning Area No. 8 Land Use Text

Implementation of the proposed project requires modification to the Specific Planning Area No. 8 Land Use text to achieve consistency with the proposed ERTC Specific Plan.

General Plan Amendment and Rezone for Residential Use

Residential uses are proposed for approximately 22 acres and will be rezoned RE with a minimum lot size of 20,000 square feet. This area will not be incorporated with the ERTC Specific Plan.

ENVIRONMENTAL ANALYSIS

Table S-2 is a summary of the impacts associated with the proposed project, recommended mitigation measures, and the level of significance of the impacts after mitigation.

ALTERNATIVES

A summary of the alternatives and significance of impacts is presented in Table S-3.

No Project/No Development Alternative

The No Project/No Development Alternative would leave the project site in its present condition, without project development or new construction. Implementation of the No Project/No Development Alternative is considered environmentally superior to the proposed project, since no new significant environmental impacts would result. Existing conditions for each environmental resource would remain, and environmental impacts would remain at existing levels. However, this alternative does not meet any of the goals and objectives of the proposed project, nor would any of the environmental benefits of the proposed project occur. Therefore, it is neither feasible nor practical to implement this alternative.

**Table S-2
Summary of Project Impacts and Mitigation Measures**

Impact	Mitigation	Significance After Mitigation
Land Use and Planning (see Section 2.1)		
<p>The proposed project would be inconsistent with the Land Use and Circulation Elements of the City of Escondido General Plan as well as the current adopted Quail Hills Specific Plan for the project area.</p>	<ul style="list-style-type: none"> The City Council will be required to adopt a General Plan Amendment and a Specific Plan Amendment. 	<p>Implementation of this mitigation measure would reduce impacts to land use inconsistencies to below a level of significance.</p>
Transportation/Circulation (see Section 2.2)		
<p>The proposed project would cause project-level traffic impacts to the following intersections, street segments, and access:</p> <ul style="list-style-type: none"> Valley Parkway/Auto Parkway West Ninth Avenue/Auto Parkway 	<ul style="list-style-type: none"> Restripe the third through lane to a shared through/right lane on the southbound approach on Valley Parkway to provide dual left-turn lanes, two through lanes, a shared through/right lane, and a right-turn lane in the southbound direction at the Valley Parkway/Auto Parkway intersection. Contribute a fair share towards the future City project for ultimate intersection improvements. Restripe eastbound West Ninth Avenue at Auto Parkway to a right-turn lane, a shared through/right lane, and a left-turn lane, and provide right-turn overlap phasing in the eastbound approach in the near term. Contribute a fair share towards the future City project for ultimate intersection improvements. 	<p>Implementation of these mitigation measures would reduce project-level traffic impacts to below a level of significance.</p>

Table S-2 (Continued)

Impact	Mitigation	Significance After Mitigation
<ul style="list-style-type: none"> • Citracado Parkway/Vineyard Avenue • Enterprise Street/Andreasen Drive • Citracado Parkway (West Mission Avenue to Myers Avenue) • Hale Avenue (Harmony Grove Road to West Ninth Avenue) • West Ninth Avenue (Hale Avenue to Home Depot Driveway) • Citracado Parkway (Vineyard Avenue to Andreasen Drive) • Andreasen Drive (Citracado Parkway to Enterprise Street) • Harmony Grove Road (Andreasen Avenue to Howard Road) • Harmony Grove Road (Howard Road to Hale Avenue) 	<ul style="list-style-type: none"> • Signalize the Citracado Parkway/Vineyard Avenue intersection and provide the following geometry: <ul style="list-style-type: none"> - Northbound – Dual left-turn lanes and one right-turn lane - Westbound – One left-turn lane and two through lanes - Eastbound – Two through lanes and one right-turn lane • Signalize the Enterprise Street/Andreasen Drive intersection. • Contribute fair share to the City planned widening project on Citracado Parkway between Myers Avenue and the SR 78 Eastbound Ramps, which will mitigate the impacts on Citracado Parkway between East Mission Avenue and Myers Avenue. • Upgrade existing roadway to Local Collector standards. Upgrade unimproved sections of Hale Avenue immediately north of Harmony Grove Road and south of West Ninth Avenue. • Upgrade existing roadway to Local Collector standards or connect Citracado Parkway between Harmony Grove Road and Avenida Del Diablo. • Construct Citracado Parkway to Modified Collector standards. • Construct Andreasen Drive to Modified Collector standards. • Upgrade existing roadway to Local Collector standards. • Upgrade existing roadway to Local Collector standards. 	

Table S-2 (Continued)

Impact	Mitigation	Significance After Mitigation
<ul style="list-style-type: none"> • Project access to Citracado Parkway 	<ul style="list-style-type: none"> • Once the planning-area land uses are better defined, prepare an access plan for Citracado Parkway between Vineyard Avenue and Andreasen Drive that would recommend traffic signals, turn lanes, and other access-related improvements. 	
<p>The proposed project, in combination with the existing conditions and cumulative projects, would cause cumulative impacts to the following intersections, and street and freeway segments:</p> <ul style="list-style-type: none"> • Nordahl Road/SR 78 EB Ramps • Nordahl Road/Mission Road • Del Dios Highway/Via Rancho Parkway • I-15 NB and SB Ramps/Valley Parkway • Barham Drive/East Mission Road • Citracado Parkway/Country Club Drive • Howard Avenue/Auto Parkway South 	<p>Contribute a fair share of funding toward the following planned intersection and road improvements:</p> <ul style="list-style-type: none"> • Widening of Nordahl Road between SR 78 and East Mission Road to six lanes. In addition to the City planned improvements, other mitigation measures are required to meet City LOS standards. • Widening of Nordahl Road between SR 78 and East Mission Road to six lanes. In addition to the City planned improvements, other mitigation measures are required to meet City LOS standards. • Contribute fair share towards the provision of a dedicated right-turn lane in the northbound direction on Del Dios Highway at Via Rancho Parkway. • For future improvements at the Valley Parkway/Interstate 15 interchange, northbound and southbound ramps. • Signalization of Barham Drive/East Mission Road intersection. • Signalization of Citracado Parkway/Country Club Drive intersection. • Signalization of Howard Avenue/Auto Parkway South intersection. 	<p>Implementation of these mitigation measures would partially reduce cumulative traffic impacts; however, there is no feasible way to mitigate freeway impacts to below a level of significance. Therefore, the proposed project will have a significant and unmitigable cumulative traffic impact.</p>

Table S-2 (Continued)

Impact	Mitigation	Significance After Mitigation
<ul style="list-style-type: none"> • Enterprise Street/Vineyard Avenue • Enterprise Street/Harmony Grove Road • Hale Avenue/Harmony Grove Road • Simpson Way/Hale Avenue • Nordahl Road (SR 78 to East Mission Road) • Vineyard Avenue (Country Club Drive to Citracado Parkway) • Vineyard Avenue (Citracado Parkway to Enterprise Street) • Vineyard Avenue (Enterprise Street to Andreasen Drive) • Auto Parkway (Hale Avenue to Valley Parkway) 	<ul style="list-style-type: none"> • Signalization of Enterprise Street/Vineyard Avenue intersection. • Signalization of Enterprise Street/Harmony Grove Road intersection and provide the following intersection geometry: <ul style="list-style-type: none"> - Northbound – One left-turn lane and one right-turn lane - Eastbound – One shared through/right lane - Westbound – One left-turn lane and one through lane • Signalization of Hale Avenue/Harmony Grove Road intersection. • Signalization of Simpson Way/Hale Avenue intersection. • Widening of Nordahl Road between SR 78 westbound ramps and East Mission Road (including the bridge) to six lanes. • Widening of Citracado Parkway between Country Club Drive and Vineyard Avenue to four lanes (Major Road standards). • Widening of Vineyard Avenue between Citracado Parkway and Enterprise Street to four lanes (Major Road standards). • Widening of Vineyard Avenue between Enterprise Street and Andreasen Drive to four lanes (Major Road standards). • Contribute fair share towards the provision of additional capacity along Auto Parkway to the satisfaction of the City Engineer. 	

Table S-2 (Continued)

Impact	Mitigation	Significance After Mitigation
<ul style="list-style-type: none"> • West Ninth Avenue (Auto Parkway to I-15 SB Ramps) • Valley Parkway (11th Avenue to Citracado Parkway) • Valley Parkway (Citracado Parkway to Via Rancho Parkway) • SR 78 east and west of Nordahl Road • I-15 north and south of West Ninth Avenue 	<ul style="list-style-type: none"> • Restripe eastbound West Ninth Avenue at Auto Parkway to a right-turn lane, a shared through/right lane, and a left-turn lane, and provide right-turn overlap phasing at the eastbound approach, in the near term. Contribute fair share towards the future City project for ultimate intersection improvements. • Widening of Valley Parkway between Citracado Parkway and 11th Avenue to four lanes. • Widening of Valley Parkway between Citracado Parkway and Via Rancho Parkway to four lanes. • Mitigation is not available to mitigate SR 78 freeway impacts to below a level of significance. • Mitigation is not available to mitigate I-15 freeway impacts to below a level of significance. 	
<p>Significant access impacts would occur if an access plan is not developed for Citracado Parkway.</p>	<ul style="list-style-type: none"> • Once the planning-area land uses are better defined, prepare an access plan for Citracado Parkway between Vineyard Avenue and Andreasen Drive that would recommend traffic signals, turn lanes, and other access-related improvements. 	<p>Implementation of these mitigation measures will reduce the identified access impacts to below a level of significance.</p>

Table S-2 (Continued)

Impact	Mitigation	Significance After Mitigation
<p>Air Quality (see Section 2.3)</p> <p>Significant short-term Reactive Organic Compounds (ROC), Nitrogen Oxide (NO_x), and Particulate Matter (PM₁₀) impacts related to project construction have been identified for the proposed project.</p>	<p>The following mitigation measures shall be placed as conditions on the Grading Permit.</p> <ul style="list-style-type: none"> • All active sites shall be watered at least twice daily. • All grading activities shall cease during second-stage smog alerts and periods of high winds (i.e., greater than 25 mph) if dust is being transported to offsite locations and cannot be controlled by watering. • All trucks hauling dirt, sand, soil, or other loose materials offsite shall be covered or wetted or shall maintain at least 2 feet of freeboard (i.e., minimum vertical distance between the top of the load and the top of the trailer). • Streets shall be swept hourly if visible soil material has been carried onto adjacent public paved roads. (Reclaimed water shall be used if available.) • Water or nontoxic soil stabilizers shall be applied, according to manufacturers' specifications, as needed to reduce offsite transport of fugitive dust from all unpaved staging areas and unpaved road surfaces. • Traffic speeds on all unpaved roads shall not exceed 15 mph. • The contractor shall use reduced-VOC-content paints and solvents to the maximum extent feasible. Additionally, use of soot filters, low-sulfur diesel fuel, monitoring dust emissions, and installation of low-VOC architectural coverings will be required. 	<p>Implementation of these mitigation measures will partially reduce short-term air quality impacts related to project construction; however, these short-term air quality impacts will not be reduced to below a level of significance. Therefore, the proposed project will have significant and unmitigable short-term air quality impacts related to project construction.</p>

Table S-2 (Continued)

Impact	Mitigation	Significance After Mitigation
	<ul style="list-style-type: none"> • Prior to issuance of grading permit, the applicant will be required to provide verification that construction activities will offset PM₁₀ emissions to the City's Planning Director. 	
Significant air quality impacts related to the operation of the power generation plant have been identified for the proposed project.	<ul style="list-style-type: none"> • San Diego Air Pollution Control District (SDAPCD) Rule 20.3(d)(8) requires major new stationary sources of NO_x and Volatile Organic Compounds (VOC) to offset emissions of these pollutants. Since the NO_x emissions from the project are greater than 50 tons per year, offsets are required for NO_x emissions. The Power Plant will be required to use soot filters, low-sulfur diesel fuel, monitor dust emissions, and install low-VOC architectural coverings to reduce pollutant emissions. 	Implementation of these mitigation measures will reduce air quality impacts related to operation of the power generation facility to below a level of significance. Therefore, the proposed project will not have significant air quality impacts related to project operation.
Significant air quality impacts were identified associated with the operational phase of the Specific Plan (CO, ROC, NO _x , and PM ₁₀).	No mitigation measures are proposed.	Significant and unmitigable impacts would occur.
Noise (see Section 2.4)		
Significant short-term noise impacts related to project construction have been identified for the proposed project.	<ul style="list-style-type: none"> • All construction equipment shall be in proper operating condition and fitted with standard factory noise attenuation features. All equipment shall be properly maintained to assure that no additional noise, due to worn or improperly maintained parts, would be generated. • Stockpiling and vehicle staging areas shall not be located within 200 feet of existing residences. 	Implementation of these mitigation measures will partially reduce short-term noise impacts related to project construction; however, these short-term noise impacts will not be reduced to below a level of significance. Therefore, the proposed project will have significant and unmitigable short-term noise impacts related to project construction.

Table S-2 (Continued)

Impact	Mitigation	Significance After Mitigation
	<ul style="list-style-type: none"> • Approved offsite haul routes should be used to minimize exposure of sensitive receptors to potential adverse noise levels from hauling operations. • The proposed project is responsible for conducting noise monitoring during construction activities (one hour each day whenever construction is occurring within 200 feet of occupied residences) and insuring that mitigation measures are enforced to the degree feasible. Reports shall be provided to the City each week. <p>Upon completion of final design for the building:</p> <ul style="list-style-type: none"> • A site-specific acoustical report shall be submitted to verify that adjacent residential uses are adequately buffered such that noise levels do not exceed City thresholds. 	
<p>Significant noise impacts related to the operation of the power plant facility have been identified for the proposed project.</p>	<ul style="list-style-type: none"> • Incorporate noise attenuation measures into the design of the power plant, including the GE Power Systems 85-dBA noise attenuation package for the combustion turbines, the 90-dBA noise attenuation package for the steam turbine, and exhaust stack silencers that reduce noise from the stacks to a level of 56 dBA or less at 100 feet. • Limit the use of noise-producing signals (horns, whistles, bells, alarms, etc.) to safety warning purposes only. Use hand-held devices rather than public address systems for worker communication. • Incorporate noise attenuation technology (silencers) on steam vents and other components that are noise sources during power plant startup and shutdown activities. 	<p>Implementation of these mitigation measures will reduce project operation noise impacts to below a level of significance.</p>

Table S-2 (Continued)

Impact	Mitigation	Significance After Mitigation
Hazards (see Section 2.5)		
No significant hazard impacts identified.	<ul style="list-style-type: none"> No mitigation measures are required, other than adherence to existing codes and regulations. 	No significant hazard impacts identified.
Biological Resources (see Section 2.6)		
<p>The proposed project will impact 48.4 acres of California sagebrush series which supports up to 14 California gnatcatchers – a federally threatened species (including 6 nesting pairs). This represents a significant impact.</p>	<ul style="list-style-type: none"> Impacts to California sagebrush series shall be mitigated at a 2:1 ratio, for a total of 96.8 acres. This shall include gnatcatcher-occupied sage scrub acreage and conservation of an equal number of gnatcatchers within a preserve system. This acquisition should occur within the Subarea Plan Focused Planning Areas (FPAs), or in occupied gnatcatcher habitat that has been identified by the Multiple Habitat Conservation Program (MHCP) within the unincorporated San Diego County core area, or in other areas approved by the City, State, and Federal jurisdictional agencies. Mitigation shall be in place to the satisfaction of the Planning Director prior to issuance of a grading permit. This will require issuance of a 4(d) permit or approval through Section 7 consultation or Section 10(a) permit of the Endangered Species Act. Direct impacts to California gnatcatchers would be adequately addressed through habitat conservation that also supports an equivalent number of gnatcatchers. For this reason, no additional mitigation is recommended for direct impacts to gnatcatchers. 	<p>Implementation of these site-specific mitigation measures will reduce biological resource impacts to below a level of significance.</p>

Table S-2 (Continued)

Impact	Mitigation	Significance After Mitigation
The proposed project will impact 102.8 acres of annual grasslands. This represents a significant impact.	<ul style="list-style-type: none"> Impacts to annual grasslands shall be mitigated at a 0.5:1 ratio, for a total of 62.4 acres. 	Implementation of this mitigation measure will reduce annual grassland impacts to below a level of significance.
The proposed project will impact 1.2 acres of coast live oak woodland. This represents a significant impact.	<ul style="list-style-type: none"> Impacts to coast live oak woodland shall be mitigated at a 3:1 ratio. 	Implementation of this mitigation measure will reduce coast live oak impacts to below a level of significance.
The proposed project will impact 0.9 acre of mixed willow/mulefat. This represents a significant impact. Note: Section 1603 Agreement (CDFG), Section 404 (USACOE), and Section 401 (RWQCB) permits will be required.	<ul style="list-style-type: none"> Impacts to mixed willow/mulefat shall be mitigated at a 3:1 ratio. 	Implementation of this mitigation measure will reduce mixed willow/mulefat impacts to below a level of significance.
The proposed project will impact a small population of Western spadefoot toads. This represents a significant impact.	<ul style="list-style-type: none"> Western spadefoot toad impacts and seasonal basin areas would be mitigated through creation, or restoration, of an equivalent acreage of habitat that supports seasonal ponds in preserve lands within the Multiple Habitat Planning Area (MHPA) FPAs. This mitigation plan shall be submitted to the Planning Director for approval prior to issuance of any grading permit. 	Implementation of this mitigation measure will reduce impacts to Western spadefoot toad to below a level of significance.
Construction activities related to the proposed project could impact breeding California gnatcatchers. This represents a significant impact.	<ul style="list-style-type: none"> Construction activities would be initiated during the nonbreeding season for California gnatcatchers (Aug. 30 through Feb. 14). Work that would be completed during this period includes site boundary demarcation with construction fencing along the edge of retained sage scrub, and all clearing and grubbing. 	Implementation of these mitigation measures will reduce potential impacts to breeding gnatcatchers to below a level of significance.

Table S-2 (Continued)

Impact	Mitigation	Significance After Mitigation
	<p>A qualified biologist will conduct a preconstruction survey of the project site and surrounding habitat to determine whether there are active raptor nests within that area. If an active nest is observed, a buffer will be established between the construction activities and the nest so that nesting activities are not interrupted. The buffer will be a minimum width of 500 feet and will be in effect as long as construction is occurring and until the nest is no longer active.</p> <p>Prior to construction activities, a qualified biologist will survey the preserved habitat areas adjacent to the project site to determine if any gnatcatcher nests are within a distance potentially affected by noise from these activities. If no nesting gnatcatchers are located, no additional measures will need to be taken to mitigate indirect impacts. However, if nesting gnatcatchers are observed, no activity will occur within 300 feet of active nesting territories unless measures are implemented to minimize the noise and disturbance to those adjacent birds. If nesting birds are located adjacent to the project site with the potential to be affected by noise above 60 dBA Leq, a noise barrier will be erected. This noise barrier should consist of a 20-foot-high continuous plywood fence supported by posts or an earthen berm located at the site boundary that abuts potential offsite habitat.</p> <p>This mitigation shall be placed as a condition on the Tentative Map and Grading Permit.</p>	

Table S-2 (Continued)

Impact	Mitigation	Significance After Mitigation
	<ul style="list-style-type: none"> Night construction activities shall be initiated prior to the onset of the gnatcatcher breeding season (prior to Feb. 15). Or, prior to conducting any night construction activities, a qualified biologist shall determine that no gnatcatcher breeding is occurring within 300 feet of areas that would be lighted. In the event that gnatcatchers are found in proximity to areas to be lighted, a verification of adequate light shielding would be made by a qualified biologist prior to commencing night work. This mitigation shall be placed as a condition on the Tentative Map and Grading Permit. 	
<p>Significant indirect impacts to biological resources from project lighting have been identified for the proposed project.</p>	<ul style="list-style-type: none"> Facility lighting shall be shielded such that no direct lighting falls within the adjacent natural habitat. This mitigation shall be placed as a condition on the Specific Plan and Conditional Use Permit. 	<p>Implementation of this mitigation measure will reduce indirect lighting impacts from the proposed project to below a level of significance.</p>
<p>The proposed project will impact 0.22 acre of jurisdictional wetland habitat. This represents a significant impact.</p>	<p>Jurisdictional wetland habitat impacts shall be mitigated as follows:</p> <ul style="list-style-type: none"> Approximately 0.17 acre of existing wetlands will be preserved within Planning Area 7, and an additional 0.50 acre of wetland will be created in Planning Area 7, which totals 0.67 acre of wetland mitigation. 	<p>Implementation of this mitigation measure will reduce jurisdictional wetland impacts to below a level of significance.</p>

Table S-2 (Continued)

Impact	Mitigation	Significance After Mitigation
	<ul style="list-style-type: none"> • This wetland creation is to be located in a gently sloping, shallow valley, incised only intermittently along the drainage bottom, within Planning Area 7. The creation site is only slightly higher in elevation than the existing adjacent wetland habitat and drainage channel, and presently supports California annual grassland series vegetation, a disturbed upland community suitable for wetland creation. The alluvial soils and proximity to groundwater in the area are favorable to the creation of an expanded wetlands corridor. • The expanded wetlands corridor in Planning Area 7 will be buffered from the urban business park uses by a manufactured perimeter slope a minimum of 100 horizontal feet in depth, and 50 vertical feet in height. This slope adjacent to the wetland restoration area will be planted with a species palette that contains no invasive species (CalEPPC, 1999). This will provide an adequate environmental buffer between the edge effects of the business park, and the existing and created (expanded) wetlands. 	
<p>Impacts associated with short-term construction activities could affect sensitive biological resources identified onsite. This represents a significant impact.</p>	<ul style="list-style-type: none"> • A construction monitor will be present during construction activities to ensure that conservation measures are performed in compliance with any concurrent or subsequent mitigation plans. The biological monitor will instruct construction management to halt all associated project activities, which may be in violation of the conditions of any permits in effect. Any unauthorized impacts or actions, not in compliance with the required mitigation will be immediately brought to the attention of the City and Wildlife Agencies. 	<p>Implementation of this mitigation measure would reduce impacts to biological resources to below a level of significance.</p>

Table S-2 (Continued)

Impact	Mitigation	Significance After Mitigation
Proposed road-widening improvements required as traffic mitigation will impact sensitive biological resources including disturbed coastal sage scrub, disturbed wetland vegetation, and nonnative grassland.	<ul style="list-style-type: none"> For offsite road-widening improvements to Vineyard Avenue and Valley Parkway, upon completion of project-specific engineering, the City shall ascertain the acreage of impacts and implement mitigation in accordance with the ratios above and implement the same mitigation measures as the proposed project. 	Implementation of the project-specific mitigation measures will reduce biological resource impacts to below a level of significance.
Aesthetics (see Section 2.7)		
No significant aesthetics impacts were identified for the proposed project.	No mitigation measures are required.	No significant aesthetics impacts were identified for the proposed project.
Water Quality (see Section 2.8)		
No significant water quality impacts were identified for the proposed project.	No mitigation measures are required, other than adherence to existing codes and regulations.	No significant water quality impacts were identified for the proposed project.
Public Services and Utilities (see Section 2.9)		
<p><i>Fire Protection Services</i></p> <p>The proposed project is located more than 3 miles from Fire Station No. 1, and has an anticipated response time of 8 minutes. This exceeds the standards set forth in the City's Quality of Life Standards. This represents a significant impact.</p>	<ul style="list-style-type: none"> Structures shall be protected by fire sprinkler systems or an equivalent system as approved by the Fire Chief. 	Implementation of this mitigation measure will reduce impacts to fire protection services to below a level of significance.
The potential exists that the light industrial land uses may incorporate hazardous materials, which, in the event of a fire emergency, may require a specialized response from the Escondido Fire Department.	<ul style="list-style-type: none"> In the event that future uses in the planned light industrial areas include hazardous materials, special fire protection systems, training, or other mitigation, as determined by the Fire Marshal, will be required. This measure shall be placed as a condition of the Conditional Use Permit. 	Implementation of this mitigation measure will reduce impacts to fire protection services to below a level of significance.
<p><i>School</i></p> <p>The residential land uses will generate students in excess of the capacity of the middle school.</p>	<ul style="list-style-type: none"> At the time of construction, the developer will be required to pay applicable school fees in effect at the time of building permit issuance. 	Implementation of this mitigation measure will reduce impacts to schools to below a level of significance.

Table S-2 (Continued)

Impact	Mitigation	Significance After Mitigation
Cultural Resources (see Section 2.10)		
<p>Five small late prehistoric period sites, and one isolate, were found at the project site. Additionally, a slight possibility exists that cultural resources could exist at the offsite improvement areas, but were undiscovered due to vegetative cover.</p>	<p>In the event that buried cultural materials or deposits are found during construction or related activities, the following will be implemented, as appropriate:</p> <ul style="list-style-type: none"> • Work in the vicinity shall stop immediately until an assessment of the findings can be made by a qualified archaeologist. In the event that human remains are discovered, work in the vicinity must stop, and the San Diego County Coroner shall be notified immediately. • Questionable materials inadvertently discovered – including suspected or not readily identified cultural resources – must be considered significant until a qualified archaeologist can provide an accurate assessment. If potentially significant cultural resources are detected and cannot be avoided by construction, then impacts must be mitigated through data recovery or other means, in consultation with pertinent agencies and concerned parties. • Findings will be prepared discussing the significance of any materials recovered from the project site. The City will determine, in coordination with responsible agencies, the appropriate repository where the collected materials will be archived. 	<p>Implementation of this mitigation measure will reduce impacts to cultural resources to below a level of significance.</p>
Geology and Soils (see Section 2.11)		
<p>No significant geology and soils impacts were identified for the proposed project.</p>	<p>No mitigation measures are required, other than adherence to existing codes and regulations.</p>	<p>No significant geology and soils impacts were identified for the proposed project.</p>

**Table S-3
Comparison of Alternatives and Significance of Impacts**

Project Area/Issues	Proposed Project <i>Specific Plan (186-acre business park, with option of building a power plant) and 22 acres of residential rezone</i>	No Project/ No Development <i>Retain current conditions</i>	No Project/ Existing Entitlement (Adopted Quail Hills Specific Plan) <i>172 acres of general industrial, 14-acre activity center, 6-acre business commercial, and 6-acre office</i>	Specific Plan with No Power Generating Plant <i>Specific Plan (186-acre business park, without option of building a power plant) and 22 acres of residential rezone</i>	Reduced Project Scale (Environmentally Superior) <i>55 acres of business park and 35 acres of residential rezone</i>
Land Use and Planning	SM	NS	SU	SM	SM
	CS	CNS	CS	CS	CS
Transportation/ Circulation	SU	NS	SU	SU	SU
	CS	CNS	CS	CS	CNS
Air Quality	SU	NS	SU	SU	SU
	CS	CNS	CS	CS	CS
Noise	SU	NS	SU	SU	SM
	CNS	CNS	CNS	CNS	CNS
Hazards	NS	NS	NS	NS	NS
	CNS	CNS	CNS	CNS	CNS
Biological Resources	SM	NS	SM	SM	SM
	CS	CNS	CS	CS	CNS
Aesthetics	NS	NS	NS	NS	NS
	CNS	CNS	CNS	CNS	CNS
Water Quality	NS	NS	NS	NS	NS
	CNS	CNS	CNS	CNS	CNS

Table S-3 (Continued)

Project Area/Issues	Proposed Project	No Project/ No Development	No Project/ Existing Entitlement (Adopted Quail Hills Specific Plan)	Specific Plan with No Power Generating Plant	Reduced Project Scale (Environmentally Superior)
Public Services and Utilities	SM (fire and schools) NS (water, police, wastewater/sewer, solid waste, public maintenance) CNS	NS CNS	SM (fire and schools) NS (water, police, wastewater/sewer, solid waste, public maintenance) CNS	SM (fire and schools) NS (water, police, wastewater/sewer, solid waste, public maintenance) CNS	SM (fire and schools) NS (water, police, wastewater/sewer, solid waste, public maintenance) CNS
Cultural Resources	NS CNS	NS CNS	NS CNS	NS CNS	NS CNS
Geology/Soil	NS CNS	NS CNS	NS CNS	NS CNS	NS CNS
Paleontology	NS CNS	NS CNS	NS CNS	NS CNS	NS CNS
Recreation	NS CNS	NS CNS	NS CNS	SM CNS	SM CNS
Population/ Housing	NS CNS	NS CNS	NS CNS	NS CNS	NS CNS

Notes:

- SU = Significant Unmitigable
 SM = Significant Mitigable
 NS = Not Significant
 CS = Cumulative Significant
 CNS = Cumulative Not Significant

Because the Specific Plan with Power Plant Located on an Alternative Site was rejected as infeasible, it is not summarized in this matrix table.

No Project/Existing Entitlement (Adopted Quail Hills Specific Plan)

Implementation of this alternative would retain the existing entitlement, which would allow the current landowner to develop the project site in accordance with the existing Quail Hills Specific Plan. The Quail Hills Specific Plan has designated 172 acres to general industrial use, 14 acres to an activity center, 6 acres for business commercial, and another 6 acres for office use. No power generating facility or residential development had been intended for this specific planning area. Although this alternative does not include the development of a power generating facility, it would develop the entire project site as with the proposed project, and would result in similar impacts. This alternative, however, does not meet the objectives of the proposed project.

Specific Plan with No Power Generating Plant

Under this alternative, the proposed ERTC Specific Plan would be implemented; however, light industrial land uses would be applied to Planning Area 1 in place of the proposed power generating facility. Although impacts associated with this alternative would result in similar impacts to the proposed project, this alternative would not meet the objectives of the proposed project to provide energy to the southern California region.

Reduced Project Scale Alternative

This alternative was designed to reduce the potential for significant impacts. Significant impacts included biological resources, air, noise, and transportation. This alternative would entail the reduction of uses to approximately 90 acres. Three potential use areas were selected to avoid impacts to sensitive biological resources, particularly coastal sage scrub and wetlands to be retained as open space. With the reduction of areas to be developed, there would be a concomitant reduction in traffic, air, and noise impacts. This alternative would propose approximately 55 acres of industrial (business park) in the northern parcel, 20 acres of residential in the central parcel, and 15 acres of residential in the southern parcel. Although this alternative is considered the environmentally superior alternative, it was rejected because it fails to implement the majority of the project objectives.

Power Plant Alternative Site

Nine alternative locations were investigated for the power generating facility. Locations were postulated that are adjacent to existing, substantial SDG&E transmission lines and/or substation

facilities, to avoid the construction of new transmission lines. Each alternative was evaluated in relation to the proposed project objectives. Of the sites analyzed, the Escondido, San Marcos, and Sycamore Canyon sites were found substantially superior to the remaining six, because each site met particular project objectives. However, each alternative site had approximately the same degree of impact to the surrounding land uses. The Escondido site was the only site found to be feasible within an industrial use area, such as the ERTC.

Although the preferred site in Escondido is adjacent to an existing high-voltage SDG&E transmission line right-of-way and no new transmission lines need to be constructed, this site will require realignment within this right-of-way of existing 230-kV and 138-kV lines to accommodate the power plant.

ENVIRONMENTAL EFFECTS FOUND NOT TO BE SIGNIFICANT

Impacts to paleontology, recreation, population and housing, hazards, aesthetics, water quality, police protection, public facilities maintenance, water service, wastewater/sewer, and solid waste were determined to be less than significant.

GROWTH-INDUCING EFFECTS

Because the project would reduce an impediment to growth (energy) to support existing and future demand, it was determined that the project was not considered growth inducing.

UNAVOIDABLE SIGNIFICANT ADVERSE ENVIRONMENTAL IMPACTS

At the project level, significant and unmitigated impacts were identified for transportation/circulation and air quality. There are significant and mitigable impacts to land use and planning, biological resources, fire and schools. Cumulative impacts were identified for land use, transportation, air quality, and biological resources.

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1.0 PROJECT DESCRIPTION, LOCATION, AND ENVIRONMENTAL SETTING

1.1 PROJECT LOCATION

The Escondido Research and Technology Center Specific Plan area is located in the western portion of the City of Escondido (Figures 1.1-1 and 1.1-2). Elevations on the site range from approximately 630 feet to 880 feet above mean sea level. Generally the property slopes downward toward the southwest, from a high point in the midnorthern section of the plan area.

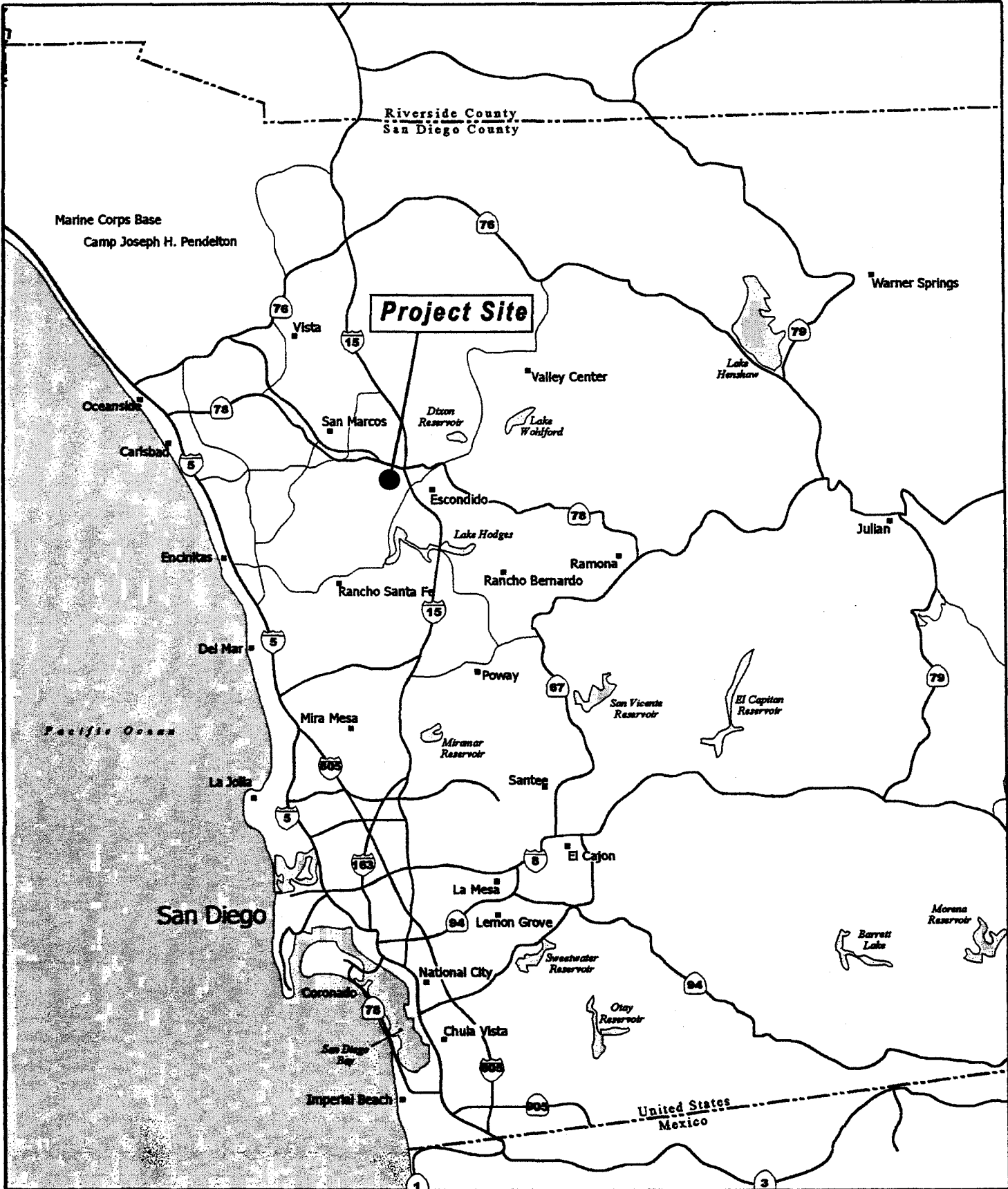
Regional access to the project site is from State Route 78 (SR-78) and Interstate 15 (I-15). Local access is via the Nordahl Drive exit off SR-78, via future Citracado Parkway, and the Ninth Avenue and Valley Parkway exits off I-15 to Vineyard Avenue from the southeast. Future Citracado Parkway is proposed as a "Major Road", and it will bisect the Specific Plan area traveling from north to south. Other streets in the area include Enterprise Street and Andreasen Drive, which serve the existing industrial park to the east, and Harmony Grove Road, which provides access from the south.

1.2 PROJECT SETTING

The property is essentially vacant, with the exception of eight existing single-family dwellings in the southwest portion of the site. Significant portions of the plan area have been disturbed by former agricultural activities, off-road vehicles, and grading. A 200-foot-wide electrical transmission easement containing two 230-kV circuits and one 138-kV circuit on steel lattice towers and five 69-kV circuits on wooden pole structures runs north/south through the center of the site. This easement turns westerly at the southerly boundary. Numerous other utility easements traverse the site.

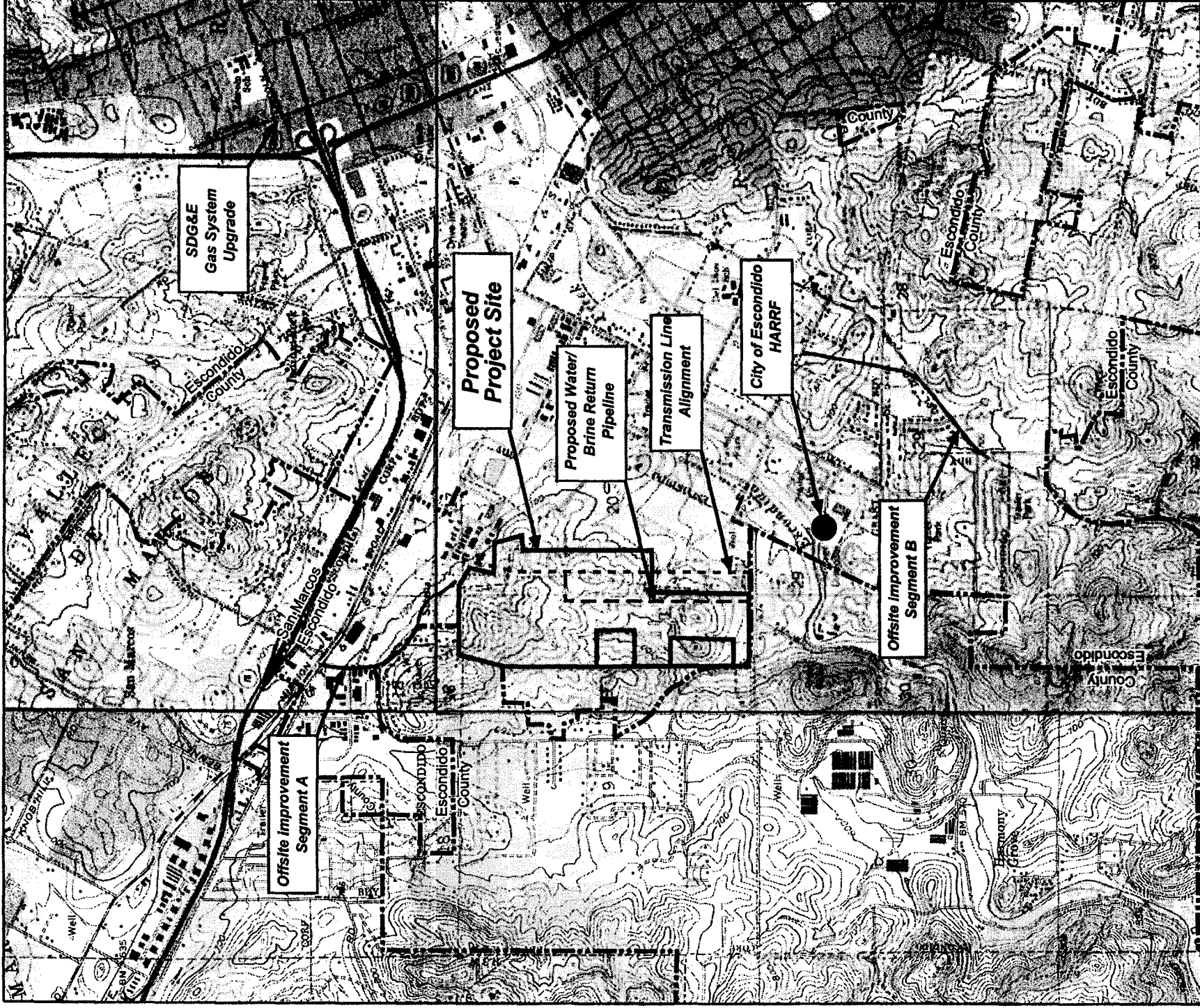
Drainage onsite flows toward the lower elevations in the southern and western portions of the site. An ephemeral drainage, in which wetland vegetation exists, flows over some lower elevations in the southwest portion of the site.

Vegetation over the site is predominantly disturbed habitat, nonnative grassland, and disturbed coastal sage scrub communities. There exists a riparian woodland habitat along the southwestern portion of the site.



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Source: USGS Escondido Quadrangle



1 inch = 2000 feet



P&D Environmental Services

Vicinity Map

Figure 1.1-2

Adjacent existing uses include industrial and office uses to the north and east, and single-family subdivisions to the west. To the northwest, there are vacant and developed residential uses within the County of San Diego's jurisdiction. Property to the south of the project area is generally vacant, with sporadic single-family homes on large lots.

The project vicinity is dominated by urban development. Industrial parks and other heavily urbanized landscapes occupy the area immediately to the east of the SPA. This urban landscape extends for several miles towards the center of the City of Escondido. The most notable urban feature in the project vicinity is the I-15/SR 78 interchange to the northeast. The areas to the north and northwest are also dominated by urban land uses (Figure 1.1-3).

Land uses to the south and southwest of the SPA are dominated by rural development, eucalyptus groves, and fallow agricultural fields. Patches of coast live oaks, chaparral, and willows are also present in this area. Decades of understory disturbance and development have degraded much of the coast live oak habitat in this area.

The most prominent drainage in the vicinity of the SPA is Escondido Creek, which traverses an area southeast and south of the SPA. Most of the creekbed to the southeast of the SPA is restricted to a concrete-lined channel. Downstream of the channel habitat, fragmentation and invasive nonnative plant species have degraded the riparian habitats, but there is an Escondido Creek Enhancement Project in process under the auspices of the City of Escondido.

1.3 PROJECT DESCRIPTION AND OBJECTIVES

The proposed project is the implementation of the Escondido Research and Technology Center Specific Plan. The Escondido Research and Technology Center Plan will amend and supersede the existing Quail Hills Specific Plan, which was adopted by the City of Escondido in January 1988, by adoption of Resolution 88-126. The proposed project will further require modification to the City of Escondido General Plan Circulation Element to modify the plans for Enterprise Street, and to the Land Use Element to accommodate residential land uses within designated "Planning Areas" within the Specific Plan area. The proposed Specific Plan will include sections on Plan Conformance with State law and the City of Escondido General Plan, Comprehensive Policies addressing development within the Specific Plan area, Specific Development Standards and Regulations for individual Planning Areas, plan processing including implementation, and the adopted process for amendments to the Specific Plan.



Source: Eagle Aerial, 2001

1 inch = 600 feet

The proposed Escondido Research and Technology Center business park (“ERTC Business Park”) encompasses 186 acres within the Specific Plan area. The Specific Plan creates the regulatory processing and implementation framework to allow large business parks such as the proposed project to be developed. Development of the project will occur over a number of years, and operations will continue throughout and past the development of the project site (Figure 1.3-1). A General Plan Amendment and Rezone are also proposed on approximately 22 acres. This area is not part of the Specific Plan.

1.3.1 Detailed Description of Proposed Project

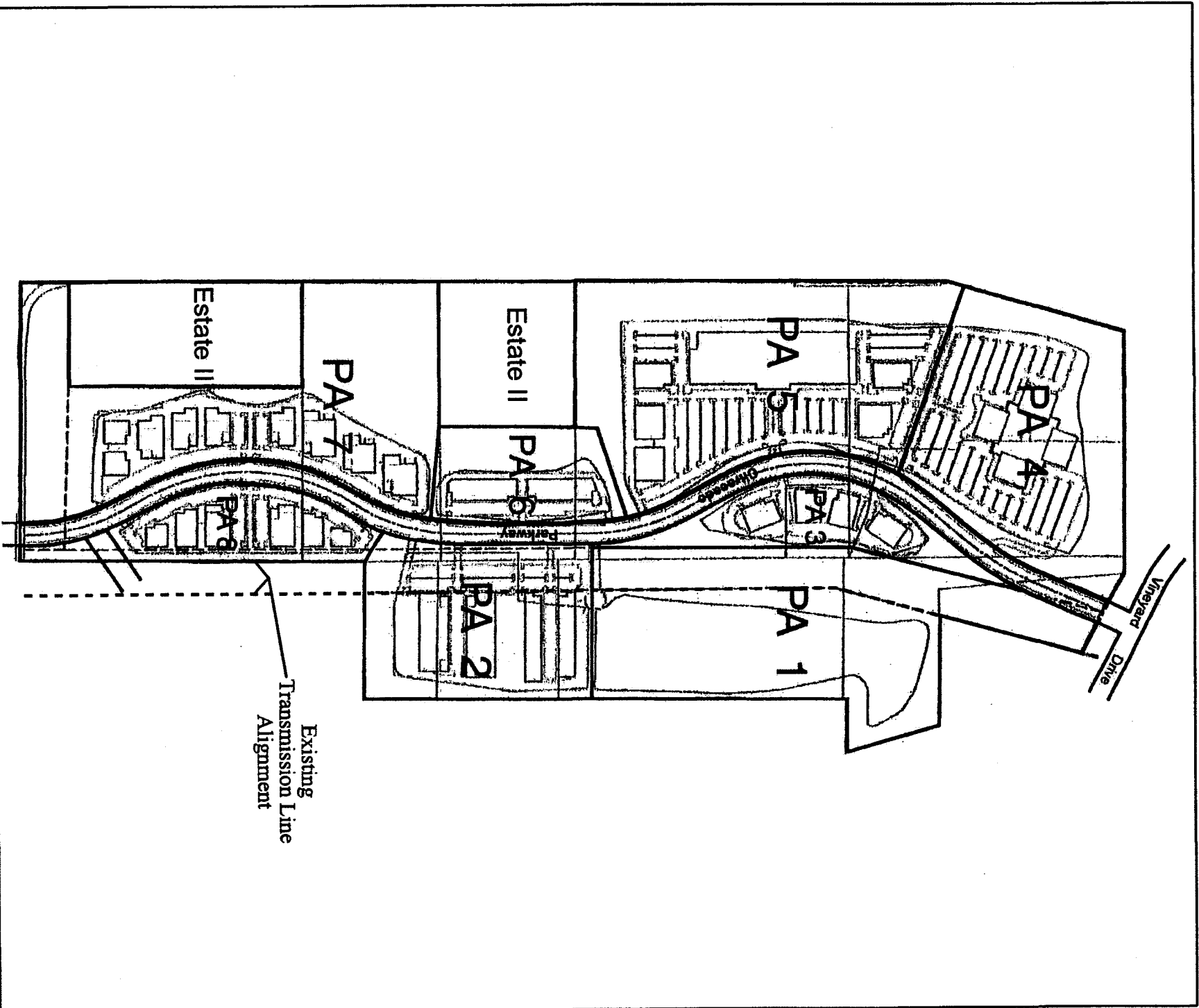
The Escondido Research and Technology Center Specific Plan provides for the orderly and coordinated development of the property consistent with Section 65451 of the California Code and Article 18 of the City of Escondido Zoning Ordinance. This Specific Plan will act as a bridge between the policies of the General Plan and individual projects within the Specific Plan area. It is a comprehensive zoning document, which establishes detailed regulatory controls and implementation programs. The use of a tailor-made site-specific ordinance is necessary to regulate development of the specialized industrial and office uses that are included within the ERTC Business Park. The Specific Plan will act as a mechanism to ensure overall coordination in the planning and execution of the project. The Specific Plan is intended to provide design guidelines to be implemented with project development.

The Specific Plan will clearly indicate how the variety of land uses must be located and designed to be consistent with community goals and Specific Plan intent. Refinements to the proposed land uses may occur as a result of the entitlement process. The City shall evaluate any modifications to the land uses to ensure that the environmental impacts have been adequately disclosed. The project is divided into eight Planning Areas, each with a description of use types and development standards. Initial grading for the entire site is to occur in a single phase.

The Planning Areas are summarized in Table 1.3-1. Table 1.3-2 indicates the proposed building space and square footage for each Planning Area.

Planning Area 1

Planning Area 1 consists of approximately 14.1 net acres and is located in the northeast corner of the Specific Plan area. Two options are designated for Planning Area 1. Option A allows for light industrial-type uses, and Option B allows for an electrical power generating facility.



Source: Planning Systems



No Scale



P&D Environmental Services

Conceptual Site Plan

Figure 1.3.1

**Table 1.3-1
Planning Area Permitted Land Use**

Planning Area	Pad Acres (Approximate)	Permitted Land Use
1	14.1	Option A: Light industrial; and accessory uses Option B: Power Generating Facility; and accessory uses
2	11.5	Light industrial – processing, assembling, manufacturing, warehousing, research and development, and distribution; and accessory uses
3	6.25	Administrative, business, and professional offices; Research activities – development laboratories and compatible light manufacturing; Manufacture, assembly, testing, repair; Light manufacturing, processing; Distribution and/or storage; and accessory uses
4	17.37	Administrative, business, and professional offices; Research activities – development laboratories and compatible light manufacturing; Manufacture, assembly, testing, repair; Light manufacturing, processing; Distribution and/or storage; and accessory uses
5	22.6	Administrative, business, and professional offices; Research activities – development laboratories and compatible light manufacturing; Manufacture, assembly, testing, repair; Light manufacturing, processing; Distribution and/or storage; and accessory uses
6	4.23	Administrative, business, and professional offices; Research activities – development laboratories and compatible light manufacturing; Manufacture, assembly, testing, repair; Light manufacturing, processing; Distribution and/or storage; Service industries; and accessory uses
7	12.45	Administrative, business, and professional offices; Research activities – development laboratories and compatible light manufacturing; Manufacture, assembly, testing, repair; Light manufacturing, processing; Distribution and/or storage; Service industries; Construction industries; Accessory uses; and Open Space
8	6.37	Administrative, business, and professional offices; Research activities – development laboratories and compatible light manufacturing; Manufacture, assembly, testing, repair; Light manufacturing, processing; Distribution and/or storage; Service industries; and accessory uses

**Table 1.3-2
Building Data for the Escondido Research and Technology Center Specific Plan**

<u>Planning Area 1</u>			
Building A	(1 Floor)		
Building B	(1 Floor)		
Building C	(1 Floor)		
Building D	(1 Floor)		
Total Building Area	Maximum 90,000 SF		To be determined*
<u>Planning Area 2</u>			
Building A	33,000 SF (1 Floor)		31,400 SF
Building B	33,000 SF (1 Floor)		33,000 SF
Building C	54,000 SF (1 Floor)	+ 4,000 SF (Mezzo)	56,000 SF
Building D	49,800 SF (1 Floor)	+ 4,000 SF (Mezzo)	53,800 SF
Total Building Area			174,200 SF
<u>Planning Area 3</u>			
Building A	18,600 SF (1 Floor)		18,600 SF
Building B	18,600 SF (1 Floor)		18,600 SF
Building C	18,600 SF (1 Floor)		18,600 SF
Building D	18,600 SF (1 Floor)		18,600 SF
Total Building Area			74,400 SF
<u>Planning Area 4</u>			
Building A	20,000 SF (2 Floors)		40,000 SF
Building B	20,000 SF (3 Floors)		60,000 SF
Building C	20,000 SF (4 Floors)		80,000 SF
Building D	20,000 SF (5 Floors)		100,000 SF
Total Building Area			280,000 SF
<u>Planning Area 5</u>			
Building A	24,000 SF (2 Floors)		48,000 SF
Building B	20,600 SF (3 Floors)		41,200 SF
Building C	200,000 SF (1 Floor)		200,000 SF
Building D	18,900 SF (1 Floor)		18,900 SF
Building E	22,400 SF (1 Floor)		22,400 SF
Building F	21,400 SF (1 Floor)		21,400 SF
Total Building Area			351,900 SF
<u>Planning Area 6</u>			
Building A	33,000 SF (1 Floor)		28,000 SF
Building B	33,000 SF (1 Floor)		28,000 SF
Total Building Area			56,800 SF
<u>Planning Area 7</u>			
Building A	26,600 SF (2 Floors)	+ 2,000 SF (Mezzo)	28,600 SF
Building B	24,300 SF (3 Floors)	+ 2,000 SF (Mezzo)	26,300 SF
Building C	30,700 SF (1 Floor)	+ 2,000 SF (Mezzo)	32,700 SF
Building D	19,600 SF (1 Floor)	+ 2,000 SF (Mezzo)	21,600 SF
Building E	19,600 SF (1 Floor)	+ 2,000 SF (Mezzo)	21,600 SF
Building F	21,400 SF (1 Floor)	+ 2,000 SF (Mezzo)	23,400 SF
Building G	22,400 SF (1 Floor)	+ 2,000 SF (Mezzo)	24,400 SF
Building H	21,200 SF (1 Floor)	+ 2,000 SF (Mezzo)	23,200 SF
Total Building Area			201,800 SF

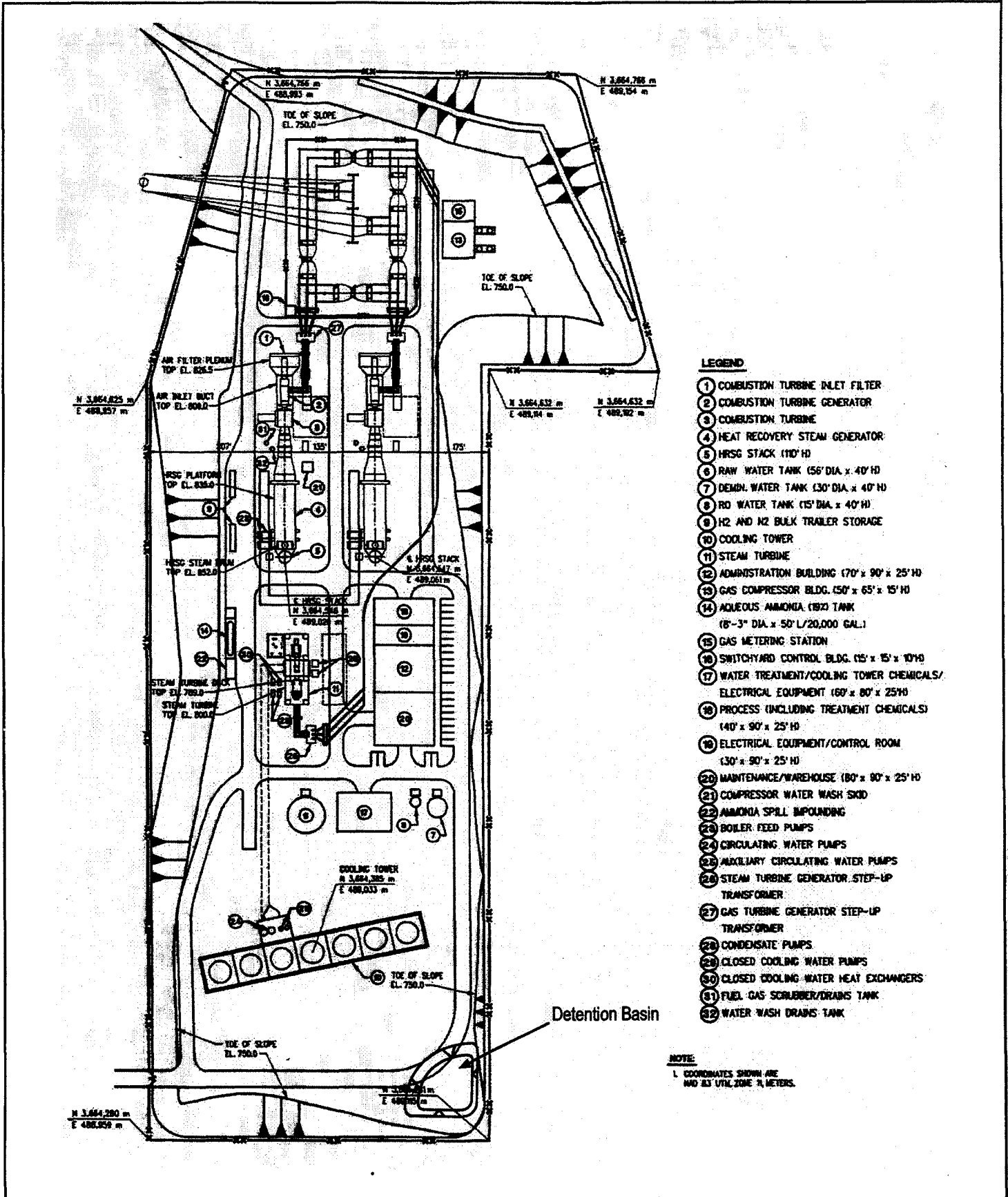
<u>Planning Area 8</u>			
Building A	8,400 SF (1 Floor)		8,400 SF
Building B	15,400 SF (1 Floor)		15,400 SF
Building C	23,400 SF (1 Floor)	+ 2,000 SF (Mezzo)	25,400 SF
Building D	23,400 SF (1 Floor)	+ 2,000 SF (Mezzo)	25,400 SF
Building E	15,100 SF (1 Floor)		<u>15,100 SF</u>
Total Building Area			89,700 SF

Notes:

- * The Specific Plan indicates buildings may cover any area not required by the Specific Plan for setbacks, landscaping, or parking.

Under Option A, the maximum building height will be 60 feet. Access to this area will be through ingress and egress from Citracado Parkway. Parking shall be provided at a ratio of 2 spaces per 1,000 square feet of gross floor area. Permitted uses under Option A include light industrial uses intended to provide for a variety of industrial firms engaged in processing, assembling, manufacturing, warehousing, research and development, and distribution. Support services are also proposed to include an employee cafeteria, café, restaurant, or auditorium accessory. Accessory uses and structures such as food preparation, food service, and eating facilities are permitted. Restaurants are subject to the review and approval of a conditional use permit.

Sempra Energy Resources intends to develop the proposed Power Plant under the Option B use program (Figure 1.3-2). The project consists of a natural-gas-fired combined-cycle power plant with proposed reclaimed water supply and brine return pipelines. The project will have a nominal electrical output of 550 megawatts, and commercial operation is planned for the Spring of 2004. The project will be fueled with natural gas delivered via the San Diego Gas and Electric Company (SDG&E) gas system, and an existing SDG&E natural gas pipeline located immediately adjacent to the project site. The power plant project includes a new 230-kV switchyard connecting with an existing SDG&E 230-kV electric transmission line also located adjacent to the project site. The existing 230-kV transmission lines would swap positions with an existing 138-kV transmission line within an existing right-of-way in order to facilitate a direct interconnection into the new power plant switchyard. Replacement of existing 230-kV and 138-kV steel lattice towers with steep poles would allow for the relocation of these transmission lines within the existing right-of-way. Reclaimed water for the project will be supplied from the City of Escondido's Hale Avenue Resource Recovery Facility (HARRF) via a new 1.1-mile, 16-inch supply pipeline extending from an existing reclaimed water main. Brine from the project will be returned to the HARRF via a new 1.1-mile, 8-inch return pipeline routed alongside the reclaimed water supply pipeline.



Source: Burns & McDonnell

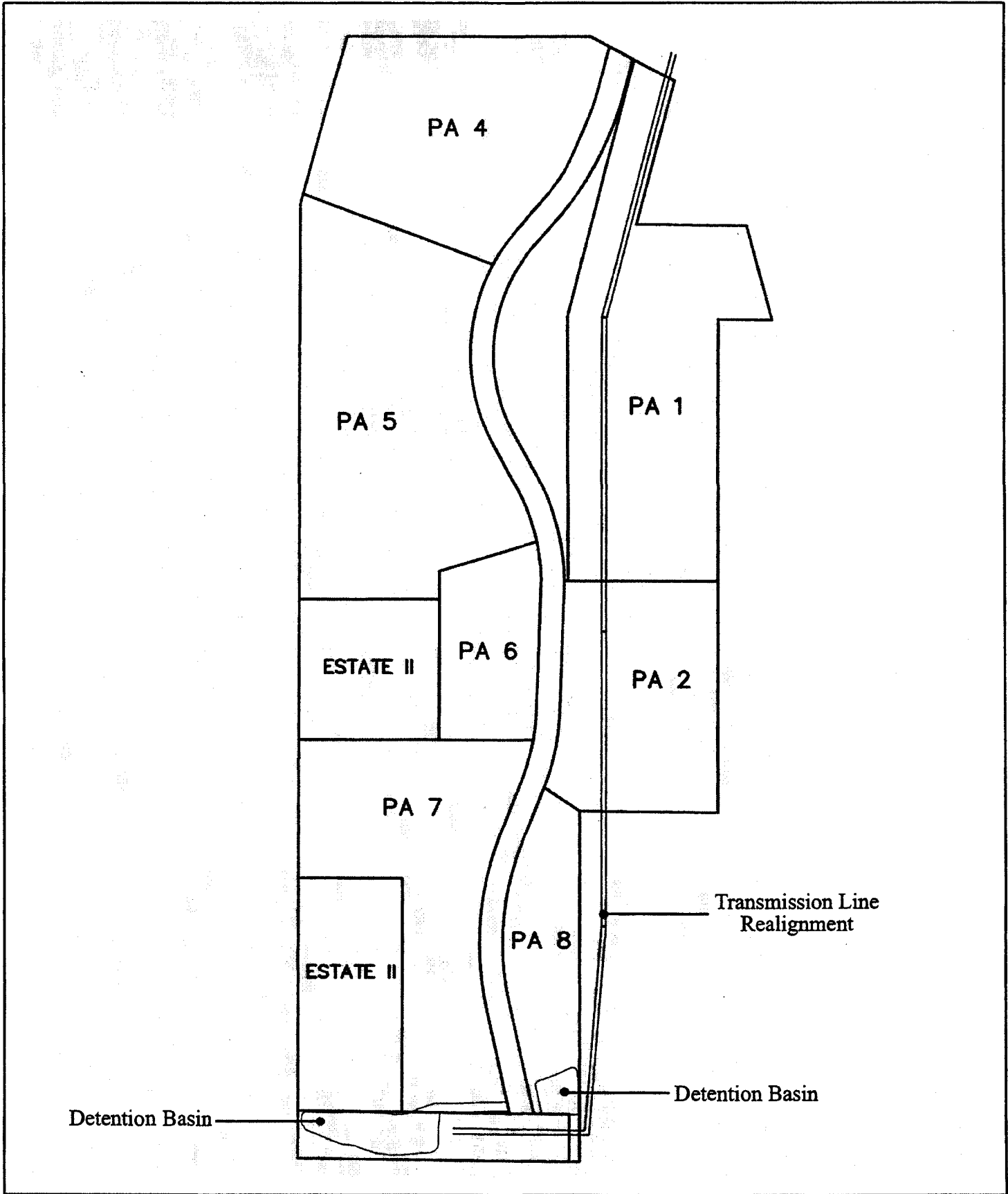
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Additionally, the project will be fueled with natural gas delivered via the SDG&E gas system. An existing 16-inch SDG&E natural gas pipeline is located immediately adjacent to the northeast corner of the project site at the end of Enterprise Street. SDG&E proposes to construct an upgrade, consisting of approximately 2,600 feet of 16-inch pipeline, to be routed along Lincoln Avenue from its intersection with Rock Springs Road to its intersection with Metcalf Street, and then along Metcalf Street to its intersection with Mission Avenue.

Reclaimed water for users within the ERTC will be supplied from the City of Escondido's Hale Avenue Resource Recovery Facility (HARRF) via a new 1.1-mile, 16-inch supply pipeline extending from an existing reclaimed water main. Brine from ERTC users will ultimately be returned to the HARRF via a new 1.1-mile, 8-inch return line routed along the reclaimed water supply pipeline and connecting to an existing brine return line located in a bridge which spans Escondido Creek. Plans for operation of the HARRF include the City's Brine Master Plan, which addresses the return of brine to the HARRF from current and prospective industrial dischargers. The City's Brine Master Plan covers the City's entire brine collection system including the 900-foot portion of the system between the bridge and the HARRF, the necessary modifications to the HARRF, and any permits necessary to discharge brine into the ocean outfall line.


As part of electrical interconnection of a power plant in Planning Area 1, the north/south portion of the existing 230-kV and 138-kV transmission lines located inside the existing 200-foot-wide right-of-way would be realigned in order to position the existing 230-kV and 138-kV steel lattice tower structures, the relocated 230-kV lines would be supported on five new tubular steel poles located 35 feet west of the eastern edge of the right-of-way, and the relocated 138-kV line would be supported on five new tubular steel poles located 65 feet west of the new 230-kV poles. Near the southeast corner of the ERTC site, one or two wood pole H-frame structures would be inter-set to cross the 138-kV line back to its original position within the existing right-of-way. One or two additional steel poles would be inter-set for loop-in of the easternmost 230-kV circuit into the power plant switchyard. Due to the proximity of the existing 230-kV lines to the proposed power plant site (Planning Area 1), there are no other feasible route alternatives for the 230-kV loop-in and interconnection to the proposed power plant in Planning Area 1. Please see Figure 1.3-2A.

Under Option B, the City and the developer will establish a Development Agreement for a 10-year term that will provide land use assurances, discuss conditions to be met prior to grading, and address utility pricing and availability.



Source: PDC

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 No Scale

Proposed Transmission Line Realignment

 **P&D Environmental Services**

Figure 1.3.2 A

The Power Plant is subject to issuance of a license by the California Energy Commission. That license is separate from and not included among the approvals required for the proposed project.

Planning Area 2

Planning Area 2 is approximately 11.5 net acres, located in the eastern portion of the Specific Plan area. Minimum lot size will be 1 acre. Maximum building height will be 60 feet. Access to this area will be through ingress and egress from Citracado Parkway. Parking shall be provided at a minimum ratio of 2 spaces per 1,000 square feet of gross floor area.

Permitted uses for this site include light industrial uses intended to provide for a variety of industrial firms engaged in processing, assembling, manufacturing, warehousing, research and development, and distribution. Support services are also proposed to include a employee cafeteria, café, restaurant, or auditorium accessory. Accessory uses and structures such as food preparation, food service, and eating facilities are permitted. Restaurants or delicatessens are subject to the review and approval of the Planning Director.

Planning Area 3

Approximately 6.25 acres, Planning Area 3 is located in the north/central portion of the Specific Plan area. Minimum lot size will be 1 acre. Maximum building height will be 60 feet. Access to this area will be through two locations of private ingress and egress from Citracado Parkway.

Permitted uses within this area include administrative, business, and professional offices, limited to: (a) offices which are associated with any permitted planned industrial use, or (b) offices which do not attract and are not primarily dependent upon business customers visiting the office, such as medical and dental offices, employment agencies, real estate agencies, and travel agencies.

Other permitted uses are primarily research activities, including developmental laboratories, and compatible light manufacturing such as, but not limited to, the following:

- Biochemical;
- Biotechnology;
- Chemical;
- Communications;
- Computers;

- Electronics;
- Film and photography;
- Medical and dental;
- Metallurgy;
- Pharmaceutical; and
- X-ray.

Additional permitted uses for this Planning Area include restaurant, light manufacturing, processing, and assembly of low-impact products, industries engaged in distribution and/or storage or warehousing operated in conjunction with permitted uses, and accessory uses and structures related and incidental to a permitted use such as food preparation and other food services.

Planning Area 4

Approximately 17.37 net acres, Planning Area 4 is located in the northwest corner of the Specific Plan area. Minimum lot size will be 2 acres. Maximum building height will be 120 feet. Access will be through ingress and egress from Citracado Parkway. Depending on the type of development, parking spaces will be provided at a ratio of 2.4 to 3.3 spaces per 1,000 square feet of gross floor area.

Permitted uses within Planning Area 4 include (1) administrative, business, and professional offices; (2) research activities, including developmental laboratories and compatible light manufacturing; (3) manufacture, assembly, testing, and repair of components, devices, equipment, and systems; (4) light manufacturing; (5) warehousing storage and distribution; and (6) employee support services and accessory structures.

Planning Area 5

Approximately 22.6 net acres, Planning Area 5 is located in the northwest portion of the Specific Plan area. Minimum lot size will be 2 acres. Maximum building height will be 120 feet. Access will be through ingress and egress from Citracado Parkway. Depending on the type of development, parking spaces will be provided at a ratio of 2.4 to 3.3 spaces per 1,000 square feet of gross floor area.

Permitted uses within Planning Area 5 include (1) administrative, business, and professional offices; (2) research activities, including developmental laboratories and compatible light

manufacturing; (3) manufacture, assembly, testing, and repair of components, devices, equipment, and systems; (4) light manufacturing; (5) warehousing storage and distribution; and (6) employee support services and accessory structures.

Planning Area 6

Approximately 4.23 net acres, Planning Area 6 is located in the central portion of the Specific Plan area. Minimum lot size will be 1 acre. Maximum building height will be 60 feet. Access will be through ingress and egress from Citracado Parkway. Depending on the type of development, parking spaces will be provided at a ratio of 2.4 to 3.3 spaces per 1,000 square feet of gross floor area.

Permitted uses within Planning Area 6 include (1) administrative, business, and professional offices; (2) research activities, including developmental laboratories and compatible light manufacturing; (3) manufacture, assembly, testing, and repair of components, devices, equipment, and systems; (4) light manufacturing; (5) warehousing storage and distribution; (6) employee support services and accessory structures; and (7) public trailhead, information kiosk, and trail parking.

Planning Area 7

Approximately 12.45 net acres, Planning Area 7 is located in the southwest portion of the Specific Plan area. Minimum lot size will be 1 acre. Maximum building height will be 60 feet. Access will be through ingress and egress from Citracado Parkway. Depending on the type of development, parking spaces will be provided at a ratio of 2.4 to 3.3 spaces per 1,000 square feet of gross floor area.

Permitted uses within Planning Area 7 include (1) administrative, business, and professional offices; (2) research activities, including developmental laboratories and compatible light manufacturing; (3) manufacture, assembly, testing, and repair of components, devices, equipment, and systems; (4) light manufacturing; (5) warehousing storage and distribution; (6) construction industries; (7) employee support services and accessory structures; and (8) open space conservation preserve for oak woodland habitat.

Planning Area 8

Approximately 6.37 net acres, Planning Area 8 is located in the southeast corner of the Specific Plan area. Minimum lot size will be 1 acre. Maximum building height will be 60 feet. Access will be through ingress and egress from Citracado Parkway. Depending on the type of development, parking spaces will be provided at a ratio of 2.4 to 3.3 spaces per 1,000 square feet of gross floor area.

Permitted uses within Planning Area 8 include (1) administrative, business, and professional offices; (2) research activities, including developmental laboratories and compatible light manufacturing; (3) manufacture, assembly, testing, and repair of components, devices, equipment, and systems; (4) light manufacturing; (5) warehousing storage and distribution; (6) construction industries; and (7) employee support services and accessory structures.

Residential Uses

Areas previously designated as Planning Areas 9 and 10 will be removed from the Specific Plan. These areas will be designated as Estate 2 (under the General Plan) and RE 20 (zoning).

There are a number of general plan provisions that have provided direction for the development of the ERTC Specific Plan. The primary direction has been derived from the Land Use Element, although other element provisions have also been integrated in the Specific Plan. Proposed development within the Specific Planning Area will be required to comply with the Land Use, Circulation, and Design Policies established in the ERTC Specific Plan and are subject to review and approval of the Planning Director.

Implementation of the proposed project will require the reconstruction of existing high-power transmission lines to be done onsite. This action will require review and approval by the California Public Utilities Commission (CPUC).

Radio Tower Relocation

The proposed radio tower which may be removed is located within Planning Area 3. The existing tower is about 100 feet tall, which is shorter than optimal for broadcasting purposes. It is triangular (horizontal cross-section) with 8- to 10-inch faces. The tower is painted in bright colors because, years ago, it was moved from another location where Federal Aviation

Administration (FAA) rules required bright colors and lighting. The current bright color scheme and lighting are no longer required by the FAA.

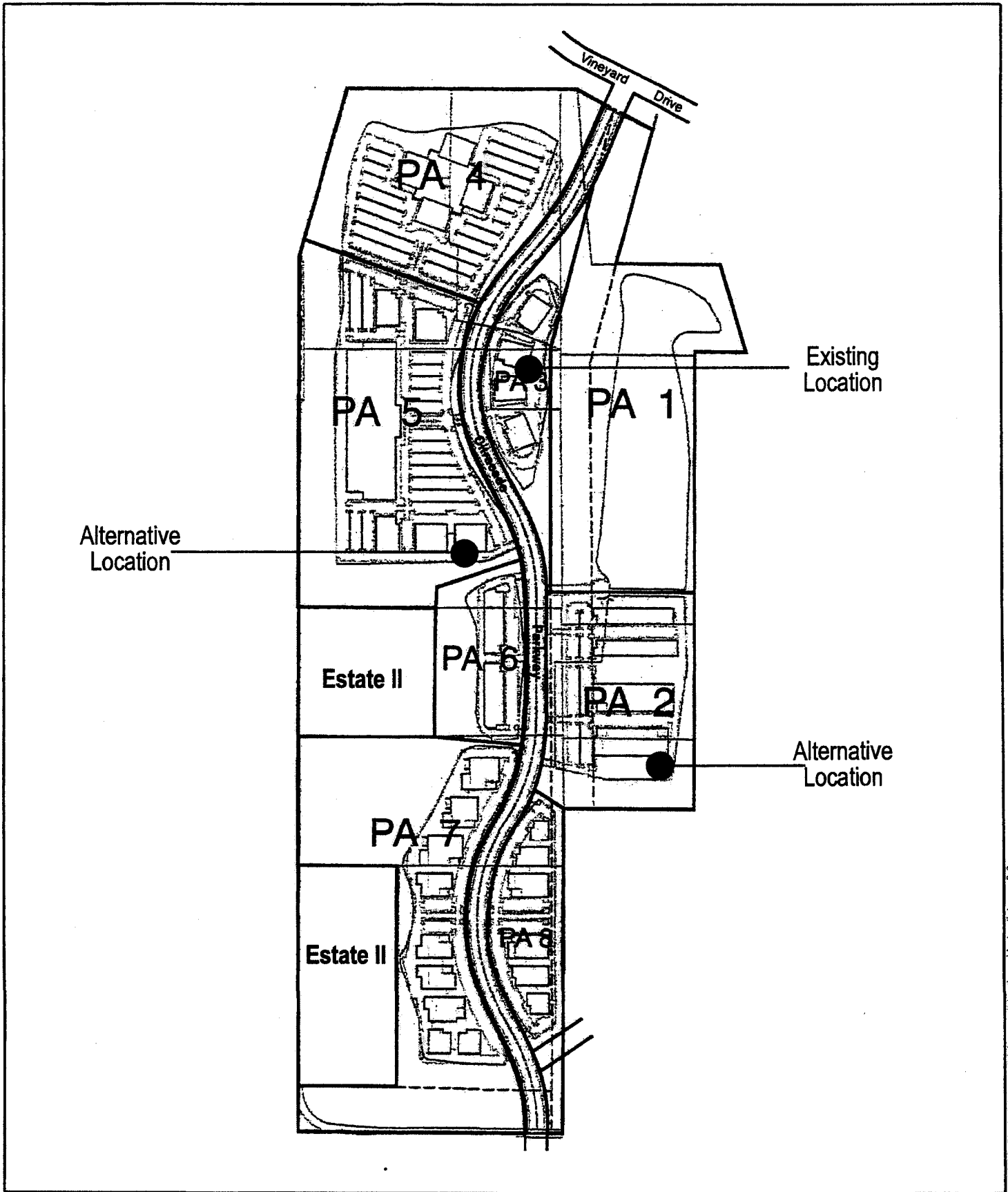
If a new tower is constructed, it will have a height of approximately 130 to 140 feet (the tower height is unaffected by base elevation). The new tower could be either guyed or self-supporting. A guyed tower would be triangular (horizontal cross-section) with 8- to 10-inch faces, similar to the existing tower (except 30 to 40 feet taller). A self-supporting tower would be either a three-legged design or a monopole ("flagpole") design within the project site. It is uncertain whether technical considerations would allow use of the monopole design. For the three-legged design, the tower would be triangular (horizontal cross-section) with the upper two-thirds tapering to 8- to 10-inch faces at the top, and the bottom one-third spreading to form the three-legged base. The new tower will be colored to help it blend in (e.g., light grey or dull galvanized).

Ground radials are required for either design. Ground radials are unseen, buried wires radiating out from the base of the tower in all directions (a total of 120 ground radials are required, spaced evenly at 3 degrees apart). The length of the ground radials is the same as the tower height, 130 to 140 feet. At both of the alternative tower locations the ground radials may extend downhill away from the tower (following slopes downhill at an angle of 2:1 horizontal:vertical). The remaining ground radials would extend under flat ground.

There are two proposed locations for the radio antenna as shown in Figure 1.3-3. One of the proposed sites to relocate the radio tower is approximately 2,100 feet south/southeast of the existing location within Planning Area 2. This site is located approximately 340 feet east of the SDG&E transmission corridor property and 770 feet from the nearest electric transmission tower. The nearest residential property is located 1,170 feet to the southeast. The elevation at this location is 745 feet average mean sea level (amsl).

The second relocation site is located approximately 880 feet south/southwest of the existing location within Planning Area 5. This location would position the radio tower approximately 550 feet west of the SDG&E transmission corridor property and approximately 820 feet from the nearest electric transmission tower. The radio tower would be approximately 370 feet from the nearest residential property. At this alternative site, the elevation is 790 feet amsl.

Alternatively, the tower may remain in its current location.



Source: Planning Systems

 No Scale

 P&D Environmental Services

Alternative Radio Tower Locations

Figure 1.3-3

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General Plan Amendment to the Circulation Element

The proposed project will require modification to the City of Escondido General Plan Circulation Element to eliminate Enterprise Street and Citracado Parkway. Currently, under Policy D2.1 of the Circulation Element of the City's General Plan, "The City shall plan, design, and implement a street system that recognizes the importance of the use and function of each street classification." According to the Circulation Element, Enterprise would serve as a Local Collector, and Citracado Parkway was classified as a Major Road.

Citracado Parkway will connect with Andreasen Drive, diverting project traffic to the east. Future extension of Citracado Parkway to connect with Harmony Grove is being considered. Encroachment of SDG&E right-of-way and property south of the proposed project would need to be approved.

Additional improvements to Citracado Parkway have been proposed within the Specific Plan, including north/south connection through the site to connect to Vineyard Avenue, necessary offsite circulation improvements, and the addition of a sufficient bicycle lane width along Citracado Parkway to encourage an alternative mode of transportation. However, implementation of these improvements will require a Circulation Element Amendment to modify the existing Major Road designation to Collector.

The Quail Hills Specific Plan established that Citracado Parkway would be constructed as a Major Road per the City's General Plan and Design Standards. Furthermore, all other roads within the project were to be classified as Local Collector, serving industrial and private driveways. Streets were to be constructed in conformance with City design standards, providing primary access to lots and internal circulation for the tenants.

Upon approval of the proposed ERTC Specific Plan, tentative subdivision maps and site plans will be reviewed prior to initiation of development. At this time, the tentative subdivision map will be processed concurrently with the Specific Plan. The Planning Commission and City Council will review the tentative subdivision map for approval in accordance with the State Subdivision Map Act, the City of Escondido Subdivision Ordinance, and the approved Specific Plan. Following recordation of the Final Subdivision Map, any further parcel maps and boundary adjustments will be subject to approval of the Planning Director, with appeal rights to the Planning Commission and City Council.

General Plan Amendment to the Specific Planning Area No. 8 Land Use Text

Implementation of the proposed project requires modification to the Specific Planning Area No. 8 Land Use text to achieve consistency with the proposed ERTC Specific Plan.

General Plan Amendment and Rezone for Residential Use

Residential uses are proposed for approximately 22 acres. This area will be rezoned RE with a minimum lot size of 20,000 square feet.

Offsite Improvements

Due to the traffic generated by the project, impacts to Vineyard Avenue and Valley Parkway were identified. Specifically, Vineyard Avenue will be widened between Mission Road and Alpine Way. West Valley Parkway will be widened between 11th Street and Citracado Parkway. To mitigate these impacts, these street segments will ultimately be widened in accordance with the mitigation measures identified in the Traffic Analysis (Section 2.2). Although these final roadway improvements have not been designed at this time, impacts from their construction are assessed in this EIR.

1.3.2 Project Objectives

The following objectives establish the direction for implementing the Escondido Research and Technology Center Specific Plan and additional criteria for the Power Plant:

Specific Plan

- Concentration of a variety of office, research and development, industrial (multi-tenant, corporate, and distribution) uses which serve the community.
- Enhanced economic benefits to the community, by providing increased employment opportunities and tax base.
- Creation of an industrial business park through the concentration of business uses which will be comprehensively planned to ensure community compatibility, adequacy of access, parking, landscaping, and other features which are characteristic of a quality development.

- The integrity of the Specific Plan document will ensure consistent, well-planned development within the plan requirements.
- Initiation of physical development on the site will be undertaken in a manner which ensures adequate public infrastructure to support uses as they transition into public use.
- Relocation/reconfiguration of existing transmission line facilities in a manner that supports the integrity of the development improvements proposed by the Specific Plan.

Power Plant

- Provide energy to meet the existing demand for the Southern California region.
- Add an efficient, reliable, dispatchable, and environmentally sound power generating facility of substantial size to the SDG&E load pocket.
- Interconnect the facility at a location within the SDG&E load pocket that results in a megawatt-for-megawatt addition to the load-serving capability of the SDG&E transmission grid (i.e., avoid the displacement of existing SDG&E import capability, avoid the displacement of existing generating capacity, and avoid intrazonal congestion). Generally, this objective translates to locating the facility near electrical load.
- Avoid the construction of new transmission lines (i.e., locate the facility adjacent to existing transmission lines and/or substation facilities that will accommodate interconnection of the project).
- Locate the facility in a portion of the SDG&E gas system that minimizes the need for system upgrades.

- Locate the facility in an area with readily available nonpotable water of sufficient quantity and quality to meet the facility's process water requirements.
- Locate the facility at a site with compatible adjacent land uses.

1.4 INTENDED USE OF THE EIR

The Escondido Research and Technology Center Specific Plan EIR is an informational document for decision makers and the public for their review of potentially significant environmental impacts of the proposed project, as well as their evaluation of alternatives and mitigation measures which may minimize, avoid, or eliminate those impacts [State CEQA Guidelines Section 15121(a)].

1.5 DISCRETIONARY ACTIONS

1.5.1 Discretionary Actions by the City of Escondido

The following discretionary actions are required to be taken by the City of Escondido for the implementation of the Proposed Project:

1. Adoption of General Plan Amendments:
 - Eliminate the extension of Enterprise Street through Project.
 - Redesignate 22 acres from Industrial to Residential (maximum 2 DU/acre).
 - Amend Circulation Element to redesignate Citracado Roadway from a Major Road to Collector.
2. Amendment of the Specific Plan by implementing the proposed ERTC Specific Plan.
3. Approval of a Conditional Use Permit for the relocation of an existing radio antenna.
4. Approval of a Tentative Parcel Map to reflect modification to the existing Specific Plan (including deletion of Subareas 9 and 10 and Rezone to RE 20).
5. Statutory Development Agreement to reflect the adoption of the ERTC Specific Plan.
6. Specific Plan of Alignment for Vineyard Avenue between the project entrance and Mission, including the removal of on-street parking.

7. Service Agreement with the Rincon Del Diablo Water District for the provision of reclaimed water.

1.5.2 Discretionary Actions by Agencies Other than the City of Escondido

U.S. Army Corps of Engineers (ACOE)

The ACOE has jurisdiction over development pursuant to the Clean Water Act, as amended. Projects that include potential dredge or fill impacts to the “Waters of the U.S.” (including wetlands) are subject to Section 404 of the Clean Water Act and require a permit. All permits issued by the ACOE are subject to consultation and/or review by the USFWS and the Environmental Protection Agency (EPA).

U.S. Fish and Wildlife Service (USFWS)

The USFWS is responsible for providing input to the U.S. Army Corps of Engineers as part of the Section 404 process. Acting under the Federal Endangered Species Act (ESA), the U.S. Fish and Wildlife Service is also responsible for ensuring that any action authorized, funded, or carried out by a federal agency (such as the Army Corps of Engineers) is not likely to jeopardize the continued existence of listed species or modify their critical habitat. The Proposed Project will require a 404 permit for any fill of jurisdictional waters or wetlands; therefore, the USFWS would provide consultation during the permitting process. Due to the impacts to coastal sage scrub habitat associated with the California coastal gnatcatcher (a federally threatened species), take authorization must be obtained from the Service. Accordingly, the mitigation proposed would require USFWS approval through adoption of a proposed subregional Habitat Conservation Plan or approval of a project-specific Section 10a or Section 7 consultation. In the event a Section 7 consultation is not deemed appropriate, a 4d Habitat Loss Permit under the County of San Diego’s jurisdiction may be obtained.

Federal Communications Commission (FCC)

The FCC is an independent United States government agency, directly responsible to Congress. The FCC was established by the Communications Act of 1934 and is charged with regulating interstate and international communications by radio, television, wire, satellite and cable. Implementation of the proposed project would require the replacement and relocation of an

existing radio tower on the project site. Therefore, the project will be reviewed and approved by the FCC.

California Public Utilities Commission (CPUC)

The CPUC regulates privately owned telecommunications, electric, natural gas, water, railroad, rail transit, and passenger transportation companies. The CPUC was formed in 1911. Implementation of Option B, which would develop a power plant in Planning Area 1, would require the replacement and relocation of high-power transmission lines. All transmission facility work will be required to follow the applicable orders, decisions, and regulations set forth by the CPUC.

Regional Water Quality Control Board (RWQCB)

The San Diego RWQCB is one of nine regional boards under the California "State Water Resources Control Board" (SWRCB). Under the direction of the SWRCB, the RWQCB exercises authority under the Federal Clean Water Act and correlative state statutes to regulate the discharge of "waste" into waters of the United States within its San Diego region of influence. Regulation in part is through a Section 401 Water Quality Certification. Section 401 Certification is based on a finding that the Proposed Project Section 404 discharge will comply with all pertinent water quality standards as established by the RWQCB. As part of Section 401 Certification, conditions may be required by the RWQCB to mitigate potential impacts to water quality standards.

Additionally, the RWQCB will review and approve the Storm Water Pollution Prevention Plan (SWPPP) which will be implemented for project construction and operational activities. The SWPPP will be prepared in accordance with Water Quality Order 99-08DWQ, State Water Resources Control Board National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction Activity.

California Department of Fish and Game (CDFG)

The CDFG has the authority to reach an agreement with an agency or private party proposing to affect intermittent or permanent wetlands habitat, pursuant to Section 1603 of the State Fish and Game Code. In the event that the project affects any jurisdictional "streambed", CDFG has a "*no net loss of wetland habitats*" policy that will be addressed in future permitting. Where a State-listed threatened or endangered species occurs on a project site, the CDFG would be responsible for the issuance of a Memorandum of Understanding (MOU, Section 2081) to ensure the

conservation, enhancement, protection, and restoration of State-listed threatened or endangered species and their habitats.

Other Actions

Reclaimed water for the ERTC will be supplied from the City of Escondido's Hale Avenue Resource Recovery Facility (HARRF) via a new 1.1-mile, 16-inch supply pipeline extending from an existing reclaimed water main. Brine from the project will ultimately be returned to the HARRF via a new 1.1-mile, 8-inch return line routed along the reclaimed water supply pipeline and connecting to an existing brine return line located in a bridge which spans Escondido Creek. Plans for operation of the HARRF include the City's Recycled Water Quality Enhancement Project, which addresses the return of brine to the HARRF from current and prospective industrial dischargers. The Recycled Water Quality Enhancement Project covers the City's entire brine collection system including the 900-foot portion of the system between the bridge and the HARRF, the necessary modifications to the HARRF, and any permits necessary to discharge brine into the ocean outfall line. The RWQCB will ensure that discharge of brine (following monitoring and metering) into the outfall will not result in impacts to water resources.

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2.0 ENVIRONMENTAL ANALYSIS

An Initial Study was prepared for the proposed Escondido Research and Technology Center Specific Plan by the City of Escondido Planning Department. As a result of the Initial Study, the City determined that implementation of the Proposed Project would potentially impact the following issues:

- Land Use and Planning;
- Transportation/Circulation;
- Air Quality;
- Noise;
- Hazards;
- Biological Resources;
- Aesthetics;
- Water Quality;
- Public Services and Utilities;
- Cultural Resources; and
- Geology/Soils.

A Notice of Preparation (NOP) for the Proposed Project, dated December 12, 2001, was prepared and distributed to all Responsible and Trustee Agencies, as well as other agencies and members of the public who may have an interest in the project. Appendix A includes a copy of the NOP and the Initial Study.

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2.1 LAND USE AND PLANNING

2.1.1 Existing Conditions

The proposed project is located within the City of Escondido. The City adopted their General Plan in June 1990 to guide the use of private and public lands within the community's boundaries. The General Plan reflects the aspirations and values of its residents and was adopted by their elected representatives. The values reflected in the General Plan policies shape the community and the quality of life sought by its residents.

A set of community goals and objectives was refined through the Growth Management Oversight Committee process in 1989 and subsequently adopted as part of the General Plan. They provide the framework for establishing policies, standards, and guidelines for future growth in the City's Planning Area.

One of the Community Goals and Objectives established for industrial land use, as stated in the General Plan, is:

GOAL 5: Encourage more high-quality industrial, retail, manufacturing, and service-oriented businesses that create and maintain a strong economic base and provide an environment for the full employment of a diverse set of skills.

One of the objectives established by the City is to develop multiple core employment use areas for general, light, high-technology, and office industrial; research and development; and professional office uses.

Industrial Policy B5.1 of the General Plan has divided industrial land uses into three categories: General Industrial, Light Industrial, and Industrial Office. The proposed project site is designated as Light Industrial according to the General Plan and is zoned Industrial Park (I-P). The Light Industrial land use designation provides for manufacturing, warehousing/distribution, assembling, and wholesaling in a more restrictive setting than the General Industrial land use designation. This includes sites for lighter industrial and office type uses which can comply with the stricter development requirements of the Light Industrial and Industrial Park zones which are intended to implement this land use designation.

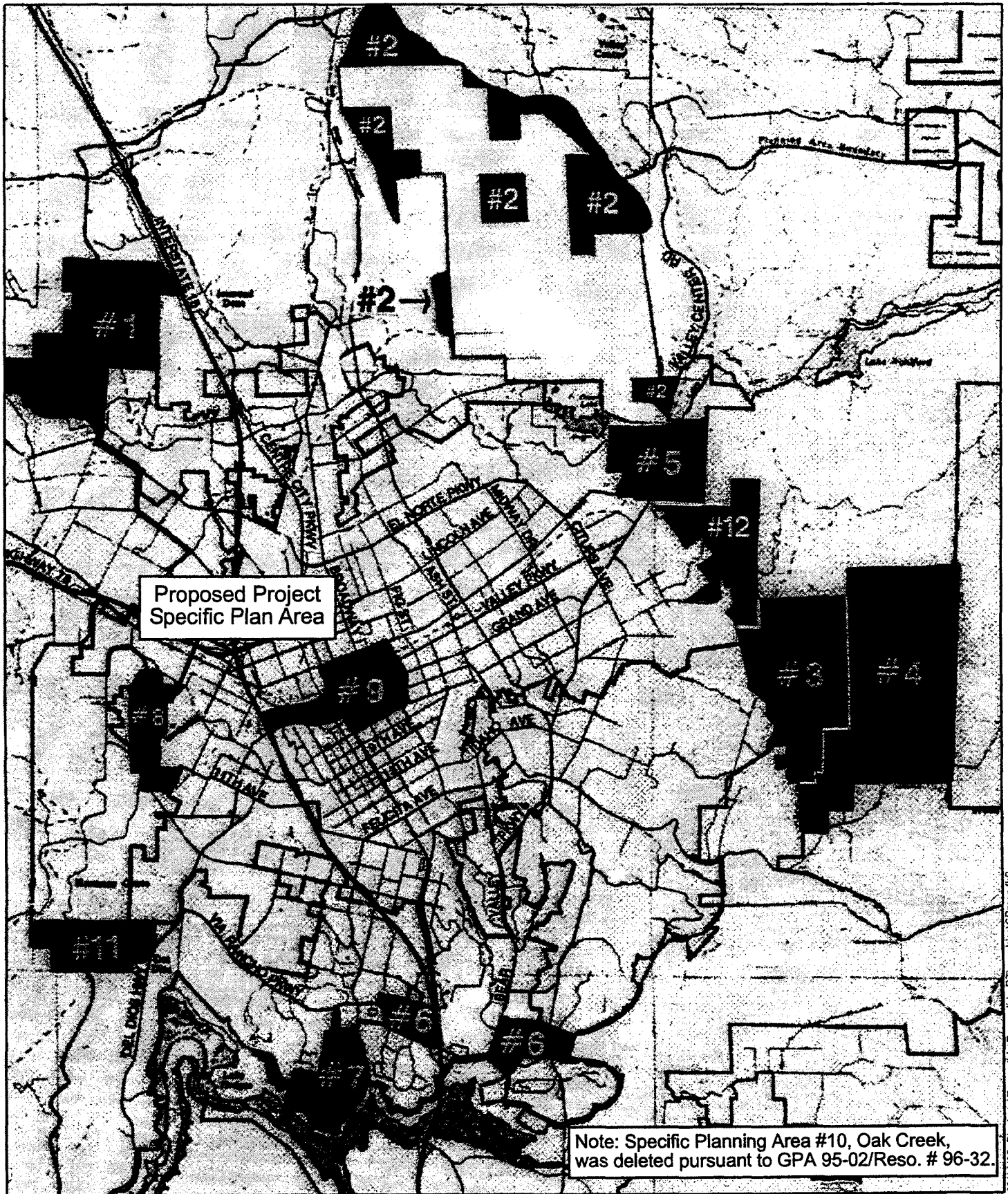
The site is located within a Specific Plan (SP) zoning designation. Therefore, as stated in the General Plan, Specific Planning Area Policy B7.1 indicates that Specific Planning Areas (SPAs) are intended for areas which require submittal of specific plans prior to development, as described in California Government Code Sections 65450 through 65507.

The Land Use Plan identified 11 SPAs, of which SPA No. 10 had been deleted pursuant to City Council action (Figure 2.1-1). Each SPA is to have developed general guidelines to describe the intended land use(s) and special provisions that should govern development within a SPA. These general guidelines are then to be embodied and refined in a much more detailed Specific Plan for each SPA. However, refinements established in the Specific Plan shall not include changes to the basic land uses or the character of development envisioned in the SPAs defined in the General Plan.


The proposed project is currently within an area designated as Specific Planning Area No. 8 of the Escondido General Plan as shown in Figure 2.1-2. Specific Planning Area No. 8, known as the Harmony Grove Specific Planning Area, or Quail Hills, was anticipated by the General Plan to be developed into “a high-quality industrial park, encouraging clean industrial uses to expand Escondido’s industrial and employment base. At the same time, the physical setting of the area requires a comprehensive evaluation of the needs of the public facilities to serve this area. The aesthetic attributes of this site are to be maintained and enhanced through the development process in the area.” Specific Planning Area No. 8 extends south past Harmony Grove Road and consists of approximately 160 acres. The proposed ERTC Specific Plan consists of 150 acres within the Quail Hills Planning Area.

As indicated in the Quail Hills Specific Plan, land use designations within the project area were intended to include areas devoted to General Industrial, a Mixed-Use Activity Center, Business Commercial, and offices as shown in Figure 2.1-3. The development of these areas was to be guided by the following standards:

1. **General Industrial:** Approximately 172 acres under this designation would be permitted a limited range of industrial uses including processing, assembling, manufacturing, warehousing, and research and development in a campuslike setting. The uses allowed would be similar to those contained in the Industrial Park (I-P) zone. Uses involving hazardous materials will be subject to the City’s Hazardous Materials Ordinance and applicable State and Federal regulations.



Source: City of Escondido General Plan, 1990

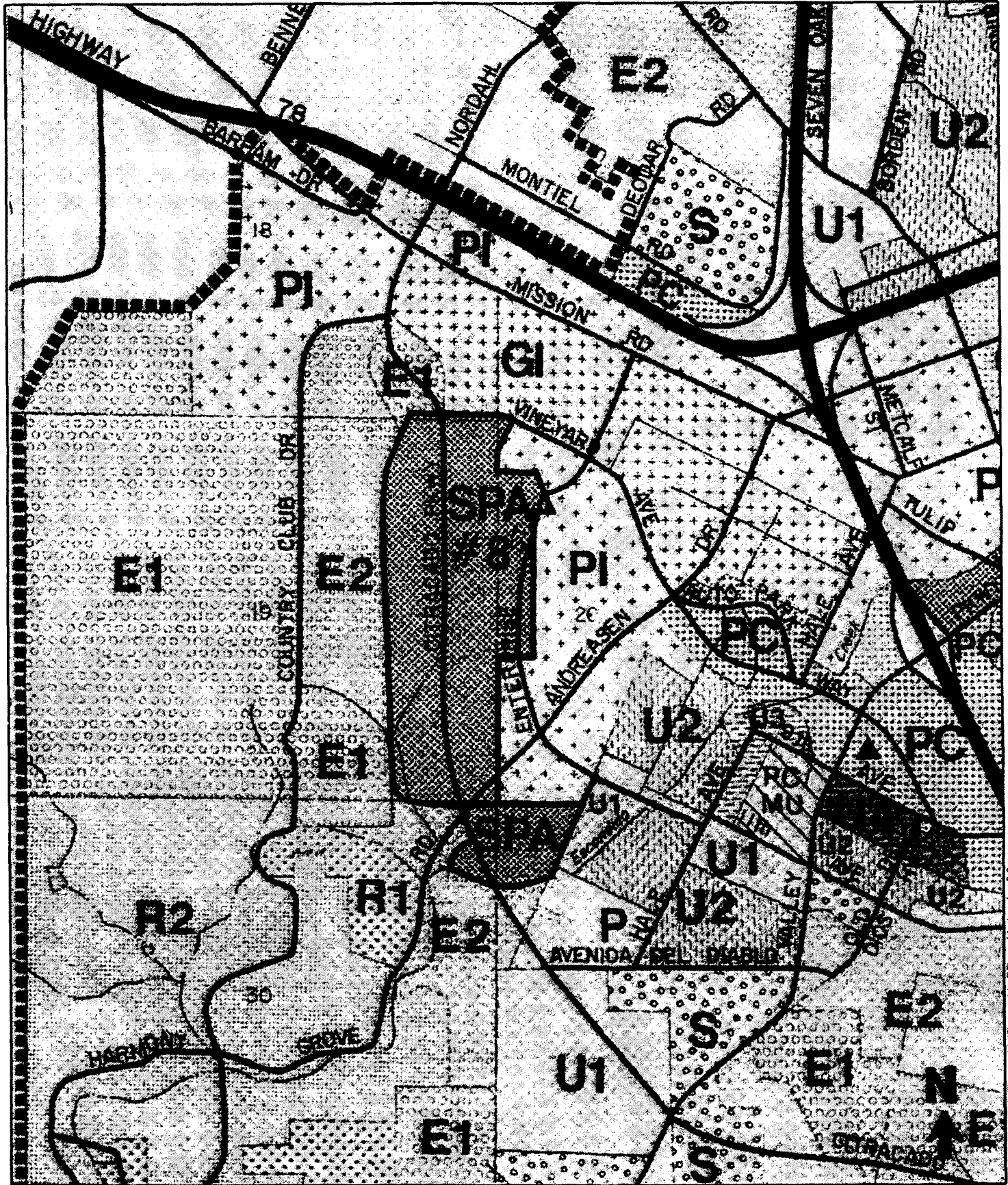
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Specific Planning Areas for the City of Escondido

 P&D Environmental Services

Figure 2.1-1

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Source: City of Escondido General Plan, 1990



No Scale

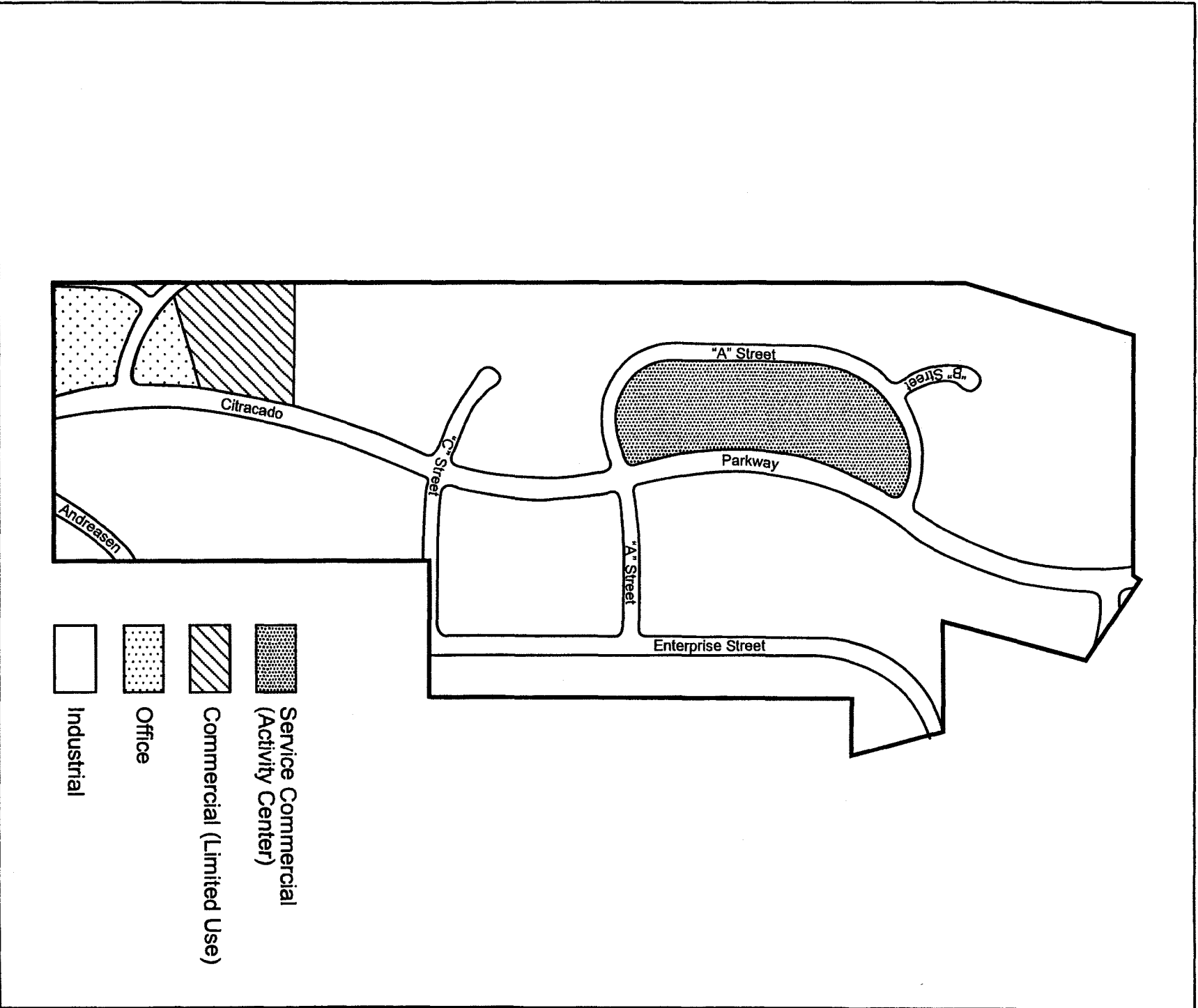
Existing Specific Planning Area Designation



P&D Environmental Services

Figure 2.1-2

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Source: Quail Hills Specific Plan



No Scale

Existing Land Use Designations

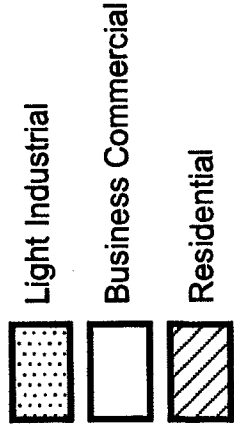
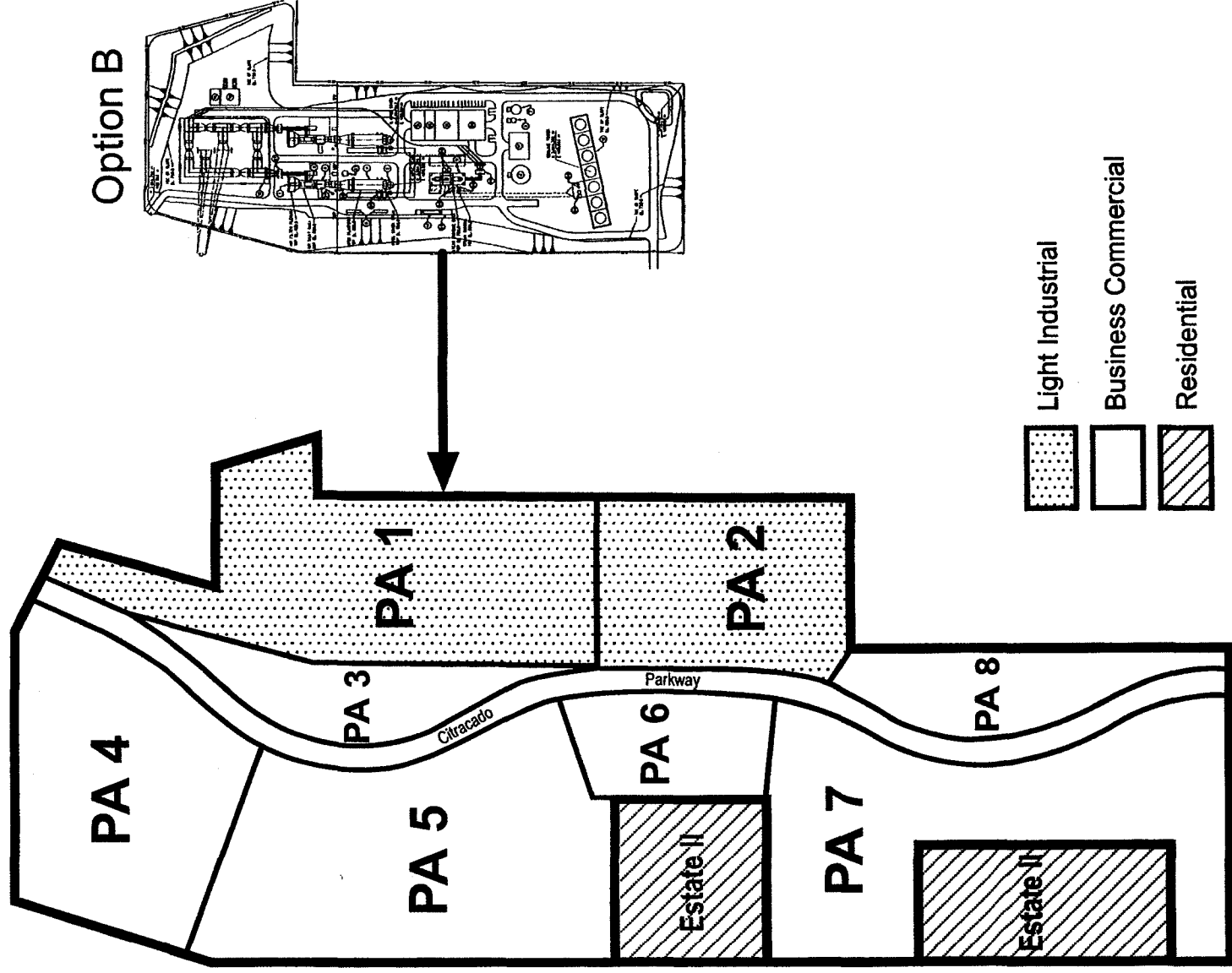
Figure 2.1-3

2. **Activity Center:** This designation establishes a focal point for the industrial development of approximately 14 acres within the Specific Plan along Citracado Parkway. This area will have more specific design guidelines and permit a variety of service commercial, industrial/office, and research and development uses; no manufacturing would be allowed in this designation. Uses which are primarily outdoor in nature shall not be permitted.
3. **Business Commercial:** The intended uses within this land use classification are uses such as restaurants and corporate headquarters which occupy less land area and require less grading than general industrial uses. Development is required to be sensitive to the natural topography and residential uses to the west. Approximately 6 acres shall be developed with business commercial.
4. **Office:** This designation is intended to provide approximately 6 acres for corporate headquarters and offices related to industrial activities with the same grading and design sensitivities as the Business Commercial area to the north. The office uses should create the least possible impact upon the adjacent residential uses through compatible design and buffers, as well as complete screening of roof equipment.

The Escondido Research and Technology Center Specific Plan proposes to amend and supersede the Quail Hills Specific Plan, which was adopted by the City in January 1988, by Resolution 88-126. The proposed Specific Plan designates 10 planning areas, land uses, and the circulation system for the project area (Figure 2.1-4). The proposed project will provide for orderly and coordinated development of the property consistent with Section 65451 of the California Government Code and Article 18 of the City of Escondido Zoning Ordinance. The Specific Plan will act as a bridge between the policies of the General Plan and individual projects within the specific plan area. It will be a comprehensive zoning document which will establish detailed regulatory controls necessary to regulate development of the specialized industrial and office uses which will be included within the proposed project area.

2.1.2 Thresholds of Significance

Appendix G to the State CEQA Guidelines defines significant project impacts as those which would result in the following:



Source: Planning Systems



No Scale



P&D Environmental Services

Proposed ERTC Land Use

Figure 2.1-4

- Conflict with general plan designation or zoning;
- Conflict with applicable environmental plans or policies adopted by agencies with jurisdiction over the project;
- Be incompatible with existing land uses in the vicinity;
- Affect agricultural resources or operations (e.g., impacts to soils or farmlands, or impacts from incompatible land uses); and
- Disrupt or divide the physical arrangement of an established community (including a low-income or minority community).

2.1.3 Analysis of Environmental Effects and Determination of Significance

As identified in the Initial Study, the proposed project would not conflict with applicable environmental plans or policies, nor affect agricultural resources or operations, and would not disrupt or divide the physical arrangement of an established community. Implementation of the proposed project would result in less than significant impacts.

The Escondido Research and Technology Center Specific Plan will amend and supersede the existing Quail Hills Specific Plan that was adopted by the City of Escondido in January 1988, by adoption of Resolution 88-126. The proposed project will further require modification to the City of Escondido General Plan Circulation Element to modify the plans for Enterprise Street.

The City has prepared the Escondido Subarea Plan to contribute to the maintenance of biodiversity and ecosystem health in the region while maintaining quality of life and economic growth opportunities. The Subarea Plan addresses how the City will conserve natural biotic communities and sensitive plant and wildlife species pursuant to the California Natural Community Conservation Planning (NCCP) Act of 1991 and the California and U.S. Endangered Species Acts (CESA and ESA).

Escondido is one of seven cities in northwestern San Diego County which together comprise an NCCP subregion. As such, the City has been involved in the subregional Multiple Habitat Conservation Program (MHCP) from its inception in 1991. This subarea plan represents the City of Escondido's contribution to the MHCP and to regional NCCP conservation goals. The

planning process for Escondido is an outgrowth of the evolving subregional plan and is completely integrated with and consistent with the MHCP.

As identified in the MHCP Escondido Subregional Plan, the SPA lacks connectivity to core conservation areas and contains fragmented and degraded habitat. For these reasons, the SPA is not expected to be an important element in regional habitat connectivity. The SPA is not recognized in the Escondido Subregional Plan as an important core conservation area or corridor. Birds of various species undoubtedly pass through the SPA and vicinity during migration periods; however, the SPA is not expected to provide important stop-over habitat for migrants. Therefore, no known conflicts with existing environmental plans are anticipated.

Adjacent existing uses include industrial and office uses to the north and east, and single-family subdivisions to the west. Property to the south of the project area is generally vacant, with sporadic single-family homes on large lots.

The project vicinity is dominated by urban development. Industrial parks and other heavily urbanized landscapes occupy the area immediately to the east of the SPA. This urban landscape extends outward for several miles towards the center of the City of Escondido. The most notable urban feature in the project vicinity is the Interstate 15/State Route 78 (I-15/SR 78) interchange to the northeast. The areas to the north and northwest are also dominated by urban land uses (Figure 1.1-2). Land uses to the south and southwest of the SPA are dominated by rural development, eucalyptus groves, and fallow agricultural fields. Therefore, the project is an extension of the existing urbanized area of Escondido, and has located compatible uses adjacent to existing residential and industrial uses.

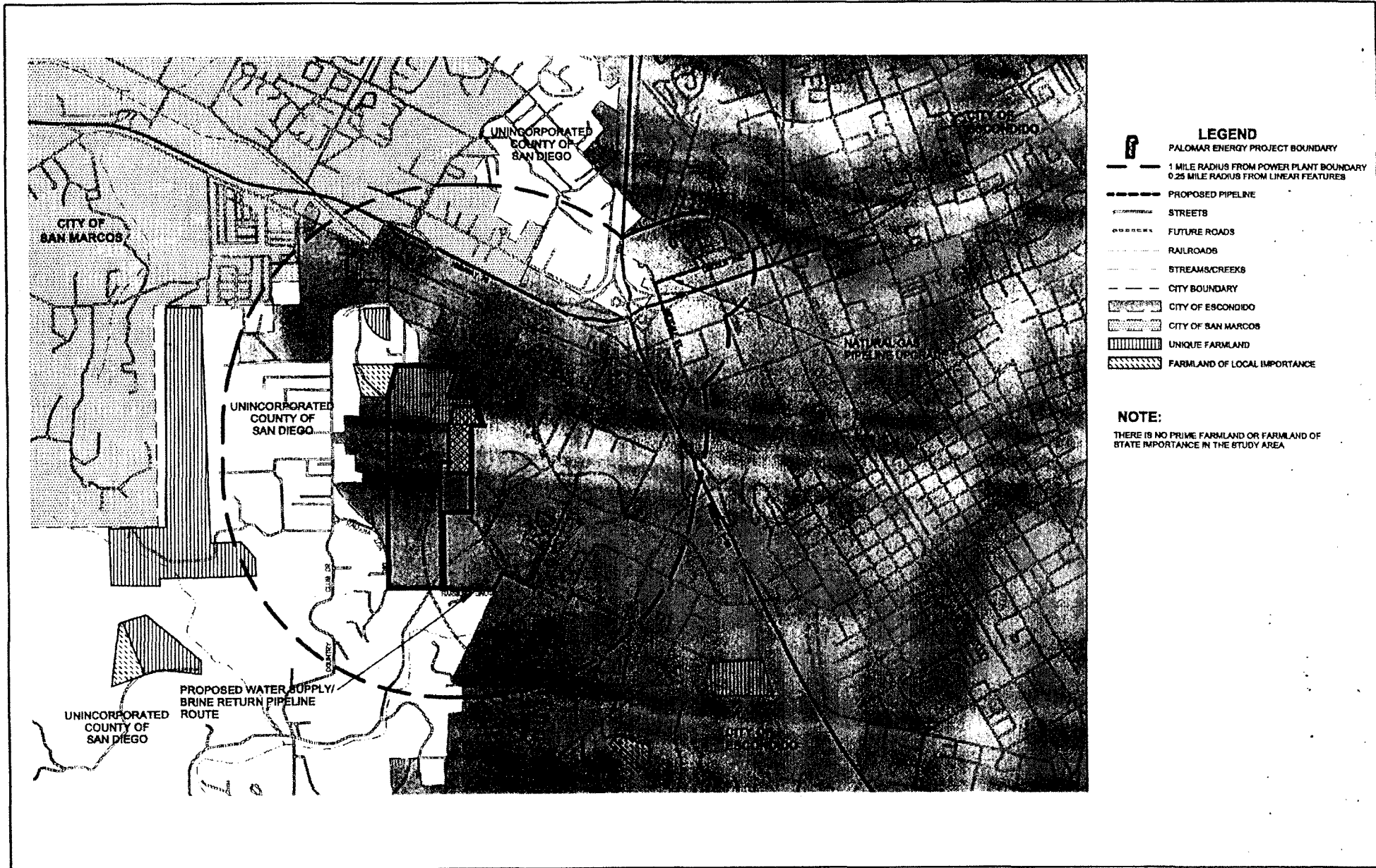
Currently, the agricultural lands found in the northern portion of the site have been abandoned and are no longer in operation. According to Section 5 of the General Plan, Community Open Space/Conservation, there are no prime agricultural lands designated within any portion of the project boundary. However, there were avocado and citrus orchards in the past on approximately 6 acres of the northern portion of Planning Area 1; a few untended avocado trees remain, and farming operations have since been abandoned. These trees will be removed during the initial phases of development. Approximately 30 acres of Unique Farmlands were identified within the project site.

As illustrated on Figure 2.1-5, areas of Unique Farmland and Farmland of Local Importance are identified within the project site. Unique Farmland is land used for production of the state's major crops, but that does not qualify for Prime or Statewide Importance status (California Department of Conservation, 1998). Farmland of Local Importance is land that meets the characteristics of Prime Farmland or Farmland of Statewide Importance, but is not irrigated, and for that reason, does not qualify for the Prime or Statewide Importance status. Farmlands of Local Importance are identified as economically important to the county. The 1998 Important Farmland Map of San Diego County identifies the area where the orchards were located as Unique Farmland (Figure 2.1-5). Therefore, implementation of the proposed project would not impact any existing agricultural resources, nor will the project impact prime agricultural lands. Although there are approximately 30 acres of designated Unique Farmland within the project site, these lands are considered to be less sensitive. Furthermore, no Prime Farmland or Farmland of Statewide Importance will be affected, because none are present in the area. Therefore, no significant impacts to prime agricultural lands are anticipated. Although previously used for agricultural activities, no farming has occurred recently.

As shown in Figure 1.1-3, the site is surrounded by development. The existing surrounding land uses consist of industrial and office uses to the north and east, and single-family subdivisions to the west. Property to the south of the project area is generally vacant, with sporadic single-family homes on large lots. Land uses to the south and southwest of the SPA are dominated by rural development, eucalyptus groves, and fallow agricultural fields.

Implementation of the proposed project will extend the existing pattern of development in the area. Furthermore, the proposed land uses within the Specific Plan will be consistent with the City's General Plan. Therefore, the proposed project will not disrupt or divide the physical arrangement of the surrounding established community.

The ERTC Business Park Specific Plan will be consistent with enabling legislation found in the California Government Code and the goals, policies, and objectives of the Escondido General Plan. Three distinct references to General Plan requirements are compared for conformance in the following analysis: (1) State Planning Law requirements; (2) City of Escondido General Plan - Land Use Element, Industrial section and the General Implementation Techniques section; and (3) the "Harmony Grove Specific Planning Area" designation and text description, found in the Land Use Element text.



Source: ENSR, 2001.

↑ one inch = 3000 feet

6/13/02 Padmm:escandido:eur:\graphics\farmland.tif

Conformance With State Government Code 65450 et. Seq.

State Law Requirements	Specific Plan Conformance
“The distribution, location, and extent of the uses of land, including open space, within the area covered by the plan.”	The ERTC Specific Plan map and text will define the location and acreage of uses within its boundaries, including open space areas.
“The proposed distribution, location, and extent and intensity of major components of public and private transportation sewerage, water, drainage, solid waste disposal, energy and other essential facilities proposed to be located in the area covered by the Plan and needed to support the land uses described in the Plan.”	Through the planning process, public facility services necessary to serve the ERTC will be identified. In the Specific Plan and analysis in the EIR, public facility needs will be projected and provided.
“Standards and criteria by which development will proceed, and standards for the conservation, development, utilization of natural resources, where applicable.”	The purpose of the ERTC Specific Plan is to provide development standards and design criteria, which will be incorporated into the document.

Therefore, the proposed Specific Plan does not conflict with State Environmental Code (65450 et seq.).

City of Escondido General Plan - Land Use Element, Industrial Land Use

The General Plan sets the guidelines for development of Escondido at buildout of the City, and as a result, Specific Plan objectives should directly relate to the guidelines articulated in the General Plan. In order to properly guide the community through years of development decisions, implementation of general plan concepts must be addressed through various land use control mechanisms, such as the proposed Escondido Research and Technology Center Specific Plan. The Specific Plan addresses and reflects the intent of the Escondido General Plan.

There are a number of general plan provisions which have provided direction for the development of the Escondido Research and Technology Center Specific Plan. The primary direction has been derived from the Land Use Element, although other element provisions have also been integrated in the Specific Plan.

The fundamental goal of the Specific Plan is to address the following key General Plan provisions incorporated here as the Specific Plan Objectives:

- Concentration of a variety of office, research and development, industrial (multitenant, corporate, and distribution) uses which serve the community;
- Enhanced economic benefits to the community, by providing increased employment opportunities and tax base; and
- Creation of a business park through the concentration of business uses which will be comprehensively planned to ensure community compatibility, adequacy of access, parking, landscaping, and other features which are characteristic of a quality development.

There are five Industrial policies contained within the Land Use Element, as follows:

Industrial Policies	Specific Plan Conformance
Concentrate industry in specific areas rather than scattered around the planning area. Encourage well-designed industrial development for this area.	The ERTC Specific Plan proposes to adjoin an existing industrial park on the east side of the boundaries of the project. The development standards adopted in this Specific Plan will result in well-designed and coordinated industrial development.
The danger of pollution to the environment being recognized and acknowledged, for example, by the City's Hazardous Waste Ordinance, industries requiring large quantities of water or industries creating noxious or nuisance conditions shall be prohibited.	The ERTC Specific Plan recognizes the need to regulate and minimize noxious and/or nuisance conditions within industrial areas or uses that require large quantities of water. These types of uses will be controlled by the City, State, and Federal regulations concerning hazardous materials.
Locate industrial areas (especially freight terminals) close to freeway and thoroughfare interchanges to minimize heavy industrial traffic through urbanized areas. Access points to sites will be designed to minimize	The ERTC business park will be located immediately adjacent to an existing industrial area and will have direct access to major freeways (I-15 and SR 78) through Citracado Parkway, which bisects the site.

Industrial Policies	Specific Plan Conformance
interruption of interchanges, and shall be attractively designed and landscaped.	
Provisions shall be adopted by the City to require that industrial development be appropriately screened and landscaped to achieve an attractive and desirable industrial area.	Detailed screening and landscaping guidelines will be included in the ERTC Specific Plan. Conformance to these guidelines will promote the development of an attractive and desirable industrial area.
Permit industrial development and related land uses through Specific Plans pursuant to Government Code Section 65450 and consistent with the Property Suitability Criteria and the mandatory Specific Plan requirement enumerated in the "General Implementation Techniques" section of the implementation chapter of the Land Use Element.	The proposed ERTC Specific Plan will fulfill the intent of this policy.

Based upon the analysis, the proposed project does not conflict with any Industrial Policies other than the Land Use Element.

City of Escondido Land Use Element Property Suitability Criteria

The Property Suitability Criteria portion of the Implementation Section of the City of Escondido Land Use Element states that property suitable for land planning and zoning pursuant to a Specific Plan meets the five criteria listed below.

Property Suitability Criteria	Specific Plan Conformance
The property is sufficiently large so as to take advantage of transfers of densities where appropriate, thereby preserving significant open space areas within the Specific Plan area.	The ERTC is 186 acres in size and, therefore, complies with this criteria.

<p>The property has unique physical characteristics such as uneven terrain or hillside areas that, without a Specific Plan, would effectively preclude development pursuant to existing land use designations and zoning ordinances.</p>	<p>The ERTC property does contain uneven terrain and hillsides.</p>
<p>The area is of sufficient size that it lends itself to a comprehensive site design utilizing a combination of attractive landscaping and open space amenities.</p>	<p>The ERTC is 186 acres in size, and efficiently lends itself to a comprehensive planning approach.</p>
<p>The nature of the project is sufficiently long-term that it lends itself to development phasing which can be effectively monitored and controlled by the Specific Plan.</p>	<p>The ERTC is of such size and scale that it will be developed over several years.</p>
<p>The applicants have sufficient financial resources to perform the requisite studies and to satisfy the mandatory Specific Plan requirements.</p>	<p>The ERTC will be required to comply with this criteria.</p>

In accordance with the above property suitability analysis, the proposed project is consistent.

Mandatory Specific Plan Requirements

The City of Escondido General Plan states that no Specific Plan shall be adopted by the City Council until the Council has reviewed the proposed plan for compliance with the following requirements which are in addition to the requirements imposed by State Law (Government Code Section 65451 et seq.).

<p>General Plan Policies</p>	<p>Specific Plan Conformance</p>
<p>Residential, industrial, and commercial structures built within the Specific Plan area shall be constructed under rigorous quality control programs and safeguards (e.g., appropriate restrictive covenants running with the land).</p>	<p>The Project Development Standards for the Escondido Research and Technology Center Specific Plan identified in Chapters III and IV of this Specific Plan control eventual land development by imposing development guidelines, landscape screening, and grading</p>

General Plan Policies	Specific Plan Conformance
	requirements that will generate a quality development within the Escondido Research and Technology Center Specific Plan area.
Appropriate protection against soil erosion, particularly where hillside development is involved, shall be assured.	The project will conform to the Escondido Grading Ordinance and all other necessary City regulations relating to soil erosion.
Assurances shall be provided that any hillside grading will be minimized or appropriately landscaped so that visible scarring will be mitigated to the extent feasible.	The project Development Standards sections of the Escondido Research and Technology Center Specific Plan Text provide landscape screening to mitigate visible scarring.
All open space areas shall be identified and the appropriate measures taken to preserve them.	In those cases where there are open space areas or corridors, the Specific Plan requires easements, dedication, or other measures to preserve them.
Design criteria, design regulations, and building standards shall be provided sufficient to ensure that residential, industrial, and commercial structures are compatible with the surrounding environment.	Project Development Standards have been developed (see Chapter III) for industrial and commercial structures in the project area to ensure compatibility with the surrounding environment and residential neighborhoods to the west and north.
Adequate assurance shall be provided that the circulation and access needs of the project residents and the surrounding community are properly addressed.	Citracado Parkway will provide access and circulation for the industrial community and segregation of traffic from residential areas.
Appropriate arrangement to ensure that public facilities and services adequate to serve the project residents are available shall be described.	All arrangements and public facilities and services will have been defined in both the Specific Plan and supporting Environmental Impact Report.

The proposed project is, therefore, consistent with the mandatory Specific Plan requirements.

Harmony Grove Specific Planning Area

The “Harmony Grove Specific Planning Area, ” also known as “Quail Hills” designation of the Escondido General Plan has specific guidelines, goals, and policies that relate to preparation and adoption of this Specific Plan. The following discussion describes how the Specific Plan will meet the established criteria.

SPA Policies	Specific Plan Conformance
<p>The Specific Plan shall include a program to ensure that industrial uses are adequately screened from existing residential uses through the use of existing and constructed slopes and ridges in conjunction with treed landscape buffer zones. Specific criteria and standards will be developed to ensure land use compatibility with surrounding land uses, particularly the semirural residential uses to the west.</p>	<p>The Specific Plan includes criteria and standards for slope, ridge, and landscape screening for most of the western and southern ridge lines. There are areas in the southwest portion of the project that extend into the viewshed of the residential areas; however, these interface areas will incorporate extensive setbacks, and will also include landscaping and architectural design controls.</p>
<p>Industrial land uses shall be located in the flatter areas of the Specific Planning Area; grading for industrial uses shall be minimized. The Specific Plan text shall include criteria and standards for proposed grading to avoid adverse visual impacts.</p>	<p>Criteria and standards for grading to avoid adverse visual impacts are found in the Project Development Standards section (see Chapter III) of the Specific Plan, including standards of the “Hillside Development” section of the City’s Grading Ordinance. The cumulative effect of standards for grading, screening, landscaping, and land use will accomplish this objective.</p>
<p>The drainage area running north and south through the center of the Specific Planning Area represents a desirable visual amenity. The Specific Plan shall include provisions for the enhancement of this riparian area and incorporating this resource into the ultimate development plans.</p>	<p>Much of the riparian area form will be retained and enhanced. The ravine north of the riparian area shall be retained or mitigation will be provided in terms of grovelike landscaping on the slopes west of the ravine and additional specimen trees throughout building sites on which the ravine is located.</p>

SPA Policies	Specific Plan Conformance
<p>A high-quality industrial park setting is anticipated in this area. The Specific Plan shall include a program for encouraging attractive structures and landscape features, as well as establishing permitted industrial uses. General guidance for these development standards may be similar to and derived from the I-P (Industrial Park) zone.</p>	<p>The Plan Description Section (see Chapter III) of the Specific Plan details extensive design and landscape requirements that would be imposed to ensure a high-quality industrial park setting.</p>
<p>Extensive public improvements are required for the development of this Specific Planning Area. The Specific Plan shall include a comprehensive analysis and phasing program for the following public facilities: (1) Streets, particularly those designated on the Circulation Element; (2) Sewer and water facilities, as projected by the City's Master Plan or any amendment thereof; and (3) Drainage facilities.</p>	<p>The Environmental Impact Report will include an analysis of the project's impacts on all of the public facilities mentioned in this policy. The details of the improvements necessary for drainage, sewer, and water facilities will be addressed when a tentative map is submitted. The details for street improvements are addressed in the Specific Plan.</p>
<p>The benefit of a Specific Plan is that major development issues can be addressed and resolved on a comprehensive basis, rather than incrementally. The Specific Plan map and text shall be prepared incorporating the above concerns, prior to submission of development plan for any portion of the Specific Planning Area.</p>	<p>The Specific Plan Map and Text have been prepared on a comprehensive basis addressing all of these concerns. A demonstration of this can be seen in the Project Development Standards and Implementation Sections (see Chapters III and IV). Site-specific environmental studies have been performed as part of the Specific Plan preparation process.</p>

Based on this analysis, the project is consistent with the Harmony Grove Planning Area.

Power Plant

The Power Plant represents a long-term (30 years) commitment of the site to electric power generation. The site is located in Planning Area 1, adjacent to existing and planned industrial

uses, including the newly developed 49-MW CalPeak power plant adjacent to the northern boundary of the Palomar site. Elevated terrain separates the project site from residential uses in the project vicinity. This elevated terrain provides effective visual screening, as well as substantial noise attenuation. The existing industrial uses located east of the project site will be separated from the generating facilities by a combination of terrain and strategic placement of the 220-foot-long, 25-foot-high operations building with its architectural treatment. The power plant project will use state-of-the-art emission control technologies to assure minimal impacts to air quality or public health. The project has access to nearby Highway 78 without travel through residential areas. Therefore, there are no significant operations-related land use impacts.

Offsite Improvements

The power plant project's linear facilities (predominantly offsite) will also have no significant land use impacts. The water supply, brine return, and natural gas pipelines all will be installed below ground. Except for the segment of the water supply and brine return pipeline route that traverses the ERTC industrial park property, the various pipelines all will be installed within the rights-of-way of existing roadways.

The power plant project will have a small operating workforce of 20 people, and thus produce minimal additional traffic volumes. Because of this small workforce, the project will have no significant indirect land use impacts.

Vineyard Avenue (between East Mission Road and Alpine Way) and Valley Parkway (between 11th Street and Citracado Parkway) will be widened. These projects are consistent with the circulation network designation; thus, from a land use perspective, there are no significant impacts. Impacts related to noise, air quality, biological resources, and cultural resources are addressed in their respective sections.

2.1.4 Mitigation Measures

Based on the current Land Use designation assigned to the proposed project site under the Quail Hills Specific Plan, implementation of the Escondido Research and Technology Center Specific Plan would be inconsistent with the General Plan. A General Plan Amendment has been incorporated in the proposed project to ensure the consistency with the City's General Plan goals and objectives established within the Land Use Element and Circulation Element. Specifically, a General Plan Amendment has been proposed for the elimination of the extension of Enterprise

Avenue, the redesignation of Citracado Parkway to a collector, and the redesignation of Planning Areas 9 and 10 to residential land uses. Additionally, there are no significant impacts to environmental planning or policies.

The proposed Specific Plan will implement the General Plan, the City's Zoning Ordinances, and provide guidelines for development of all aspects of the property. For circumstances that are not addressed within the specific plan, existing City ordinances, policies, and procedures shall apply.

2.1.5 Conclusion

Significant impacts are identified with the conflict with the general plan designation. The General Plan Amendments proposed as part of the project will mitigate these impacts to below a level of significance. No significant impacts were identified for conflicts with environmental plans or policies, incompatibility with existing land uses in the vicinity, affecting agricultural resources, or disrupting an established community.

2.2 TRANSPORTATION/CIRCULATION

The following analysis is based upon a traffic report prepared by Linscott, Law & Greenspan (2002). The complete traffic analysis is included in Appendix B of this EIR.

2.2.1 Existing Conditions

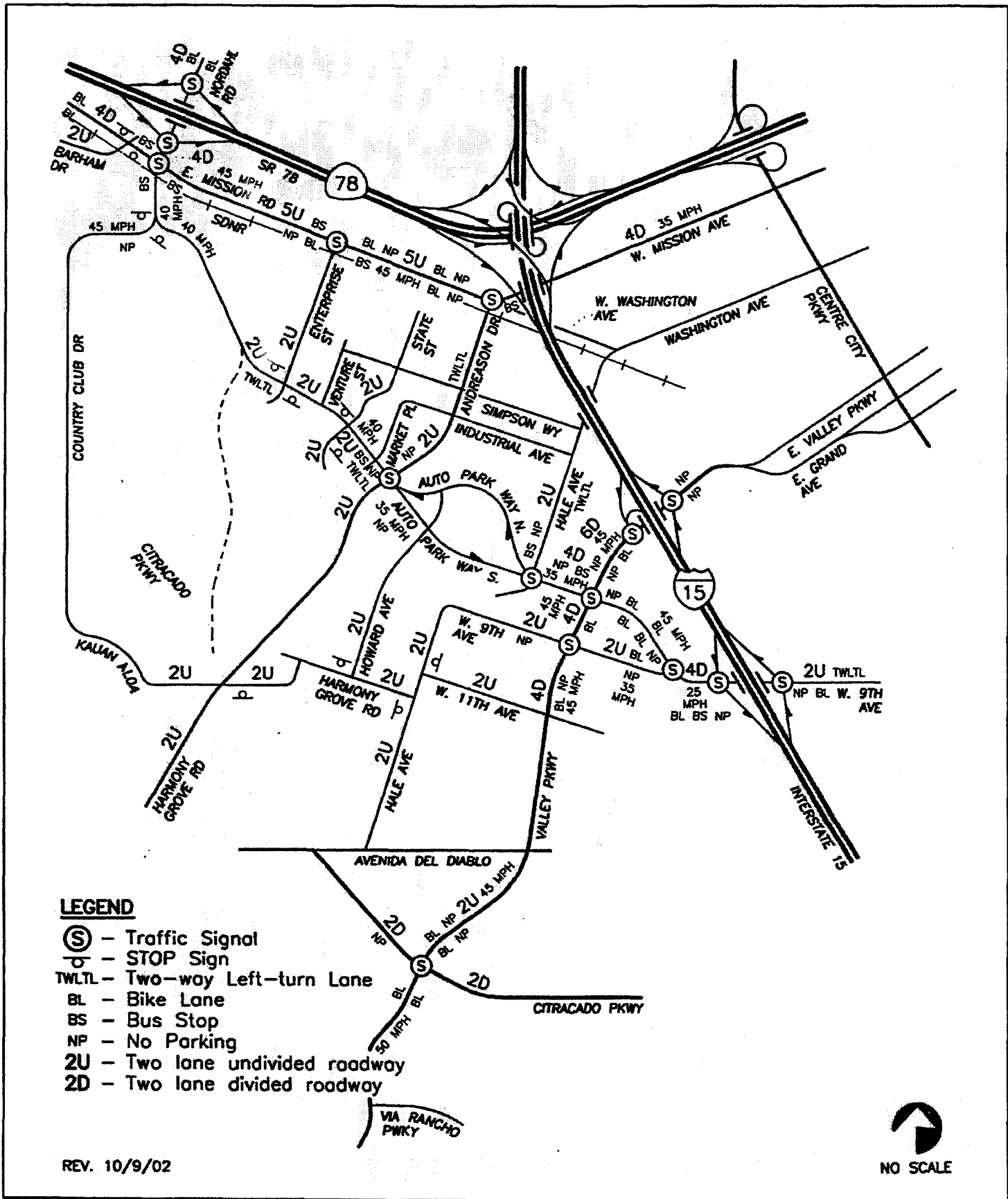
The project study area was determined from the select zone assignments conducted for this project. The select zone assignments depict the project trip assignments on the street network. Segments and key intersections with 50 or more peak-hour trips were included in the study area.

Network

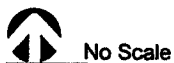
According to City of Escondido Street Design Standards, Prime Arterials should be 116 feet wide in 136 feet of right-of-way (R/W) for eight travel lanes and 106 feet wide in 126 feet of R/W for six travel lanes, providing a raised median/left-turn lane and no curbside parking. They are intended to have very limited access. Major Roads should be 90 feet wide in 110 feet of R/W for six travel lanes and 82 feet wide in 102 feet of R/W for four travel lanes, providing a raised median/left-turn lane and generally no curbside parking. Collectors should be 64 feet wide in 84 feet of R/W, providing up to four through lanes, a raised median/left-turn lane, and curbside parking. Local Collectors should be 42 feet wide in 66 feet of R/W, providing two travel lanes and curbside parking. Rural Collectors should be 42 feet wide in 57 to 66 feet of R/W, providing two travel lanes and generally no on-street parking.

The following is a brief description of the existing roadway system in the project area. Figure 2.2-1 shows an existing conditions diagram for the key street segments.

- **Nordahl Road** is classified as a four-lane Major Road north of State Route 78 (SR 78) in the City of San Marcos and a six-lane Major Road south of SR 78. Currently, it is a four-lane divided road from Mission Road to north of SR 78 in the study area. Curb, gutter, sidewalk, and a raised median are provided. Parking is not permitted and bike lanes are provided.



Source: Linscott, Law & Greenspan



Existing Conditions

The City plans to widen Nordahl Road/Citracado Parkway between Country Club Drive and the SR 78 Eastbound Ramps from the current four lanes to six lanes. In the northbound direction, the third lane will end in a northbound right-turn lane at the Nordahl Road/SR 78 Eastbound Ramps. In the southbound direction, the third lane will end in a southbound right-turn lane at the Citracado Parkway/County Club Drive intersection.

- **Citracado Parkway** is classified as a four-lane Major Road from East Mission Road to Country Club Drive and south from Vineyard Avenue to Interstate 15 (I-15). Currently, it is a four-lane road from East Mission Road to Country Club Drive. As explained above, the City plans to widen this segment to a six-lane section. Curb, gutter, and sidewalk are provided. The posted speed limit is 40 miles per hour (mph). The sections of Citracado Parkway from Vineyard Road to Avenida Del Diablo and from Scenic Trail to Gamble Lane are not built.

The project plans to construct Citracado Parkway between Vineyard Avenue and Harmony Grove Road, providing an access point to the south of the project site.

- **East Mission Road/West Mission Avenue** is classified as a six-lane Major Road from Nordahl Road/Citracado Parkway to Andreasen Drive and a four-lane Major Road east of Andreasen Drive. Currently, it is a four-lane road with a two-way left-turn lane, in the study area. Curb, gutter, and sidewalk are provided. Bike lanes are also provided and parking is not provided. The posted speed limit in the study area is 45 mph.
- **Vineyard Avenue** is classified as a four-lane Collector. Currently, it is a two-lane road with a center two-way left-turn lane and parking along both curbs. The posted speed limit on Vineyard Avenue is 40 mph.
- **Auto Parkway North/South** are classified as Collectors. This is a two-lane one-way pair of streets with curb, gutter, and sidewalk. The posted speed limit in the study area is 35 mph.
- **West Ninth Avenue** is classified as a four-lane Collector. Currently, it is a two-lane road west of Valley Parkway.

- **West 11th Avenue** is classified as a two-lane Local Collector. This is a two-lane residential street.
- **Howard Avenue** is a two-lane Local Collector with curb, gutter, and sidewalk, and parking on both sides. This street serves several residential driveways.
- **Harmony Grove Road** is a two-lane Local Collector with dirt shoulders.
- **Valley Parkway** is classified as a Prime Arterial between I-15 and Ninth Avenue, and as a Major Road south of Ninth Avenue. Valley Parkway generally provides six lanes north of Ninth Avenue, four lanes between Ninth Avenue and 11th Avenue, and two lanes between Via Rancho Parkway and 11th Avenue. The posted speed limit in the vicinity of the project is 35 mph north of 11th Avenue, 45 mph north of Citracado Parkway, and 50 mph south of Citracado Parkway. Bike lanes exist for both directions of travel on West Valley Parkway. Curbside parking is generally not permitted. Bus stops are located intermittently.
- **Simpson Way** is a two-lane collector with curb, gutter, sidewalk, and parking on both sides. This street services several driveways.

Existing Traffic Volumes

Existing AM and PM peak-hour intersection and 24-hour segment counts were conducted in December 2001 and March 2002.

Peak-Hour Intersection Turning Movement Volumes

AM and PM peak-hour intersection turning movement counts were conducted manually. Figure 2.2-2 depicts the existing AM and PM peak-hour intersection turning movement volumes. Appendix B contains the manual turning movement volume count sheets.

Daily Segment Volumes

Twenty-four-hour segment counts were conducted at 10 locations in the study area for a period of three days in 2001 and 2002, and the average daily traffic (ADT) volume was determined.

Other available ADT counts from the City of Escondido are also included in Table 2.2-1, which lists the daily segment volumes on key segments in the project area and the year the counts were conducted.

Intersections

The following intersections and segments are analyzed in this report:

- Nordahl Road/SR 78 Westbound Ramps
- Nordahl Road/SR 78 Eastbound Ramps
- Barham Drive/East Mission Road
- Nordahl Drive/East Mission Road
- Enterprise Street/West Mission Road
- Andreasen Drive/West Mission Road
- Citracado Parkway/Country Club Drive
- Citracado Parkway/Vineyard Avenue ⁽¹⁾
- Enterprise Street/Vineyard Avenue
- State Place/Vineyard Avenue
- Andreasen Drive/Vineyard Avenue
- Howard Avenue/Auto Parkway South
- Hale Avenue/Auto Parkway
- Harmony Grove Road/Kauana Loa Drive ⁽¹⁾
- Andreasen Drive/Enterprise Street
- Citracado Parkway/Harmony Grove Road⁽¹⁾
- Citracado Parkway/Andreasen Drive⁽¹⁾
- Harmony Grove Road/Enterprise Street
- Harmony Grove Road/Howard Avenue
- Harmony Grove Road/Hale Avenue
- Hale Avenue/West 11th Avenue
- Valley Parkway/Citracado Parkway
- Valley Parkway/West 11th Avenue
- Valley Parkway/West Ninth Avenue
- Valley Parkway/Auto Parkway
- I-15 Southbound Ramps/Valley Parkway
- I-15 Northbound Ramps/Valley Parkway
- West Ninth Avenue/Auto Parkway

**Table 2.2-1
Existing ADT Volumes**

Segment	Year of Count	Source	ADT
Nordahl Road			
North of SR 78	2001	(1)	16,900
SR 78 to East Mission Avenue	2001	LLG	33,300
Citracado Parkway			
West Mission Avenue to Country Club Drive	2001	LLG	22,700
South of Vineyard Avenue	DNE	DNE	DNE
East Mission Road			
West of Barham Road to Nordahl Road	2001	(1)	20,000
Nordahl Road to Enterprise Street	2001	LLG	19,300
Enterprise Street to Andreasen Drive	2001	(1)	20,300
West Mission Avenue			
Andreasen Drive to Rock Springs Road	2002	LLG	16,200
Rock Springs Road to Centre City Parkway	2002	LLG	21,500
Vineyard Avenue			
County Club Drive to Citracado Parkway Alignment	2000	City of Escondido	16,700
Citracado Parkway Alignment to Enterprise Street	2000	City of Escondido	16,700
Enterprise Street to Andreasen Drive	2000	City of Escondido	20,000
Auto Parkway			
Hale Avenue to Valley Parkway	2001	LLG	27,800
Valley Parkway to Ninth Avenue	2001	LLG	18,800
Auto Parkway South			
Andreasen Drive to Hale Avenue	2001	LLG	12,100
Auto Parkway North			
Hale Avenue to Andreasen Drive	2002	LLG	11,600
Harmony Grove Road			
Andreasen Drive to Howard Road	2002	LLG	8,400
Howard Road to Hale Avenue	2002	(1)	8,700
Hale Avenue			
Harmony Grove Road to Auto Parkway South	2002	(1)	7,600
West Ninth Avenue			
Hale Avenue to Home Depot Driveway	2002	(1)	7,600
Home Depot Driveway to Valley Parkway	2002	(1)	9,400
Valley Parkway to Auto Parkway	2002	(1)	9,800
Auto Parkway to I-15 SB Ramps	2001	LLG	32,800
West 11th Avenue			
Hale Avenue to Valley Parkway	2002	LLG	1,200

Segment	Year of Count	Source	ADT
Howard Avenue			
Harmony Grove Road to Auto Parkway South	2002	LLG	2,900
Valley Parkway			
Auto Parkway to I-15	2002	(1)	33,800
Auto Parkway to West Ninth Avenue	2002	(1)	27,700
West Ninth Avenue to 11 th Avenue	2002	(1)	22,100
11 th Avenue to Citracado Parkway	2002	(1)	18,600
South Citracado Parkway	2002	(1)	20,900
Simpson Way			
Andreasen Drive to Hale Avenue	2002	(1)	5,800

Notes:

- (1) ADT calculated using Year 2001/2002 AM and PM peak hour intersection turning movement counts at adjacent intersections (assuming peak hour volumes comprise 10% of ADT).
DNE = Does Not Exist.

West Ninth Avenue/I-15 Southbound Ramps
West Ninth Avenue/I-15 Northbound Ramps

Note: (1) Intersections that will be modified in the future.

Segments

- **Nordahl Road**
North of SR 78
SR 78 Eastbound Ramps to East Mission Avenue
- **Citracado Parkway**
East Mission Avenue to Vineyard Avenue
South of Myers Avenue
- **East Mission Road**
West of Barham Drive to Citracado Parkway
Nordahl Road to Enterprise Street
Enterprise Street to Andreasen Drive

- **West Mission Avenue**
 - Andreasen Drive to Rock Springs Road
 - Rock Springs Road to Centre City Parkway

- **Vineyard Avenue**
 - County Club Drive to Citracado Parkway
 - Citracado Parkway to Enterprise Street
 - Enterprise Street to Andreasen Drive

- **Auto Parkway**
 - Hale Avenue to Valley Parkway
 - Valley Parkway to Ninth Avenue

- **Auto Parkway South**
 - Andreasen Drive to Hale Avenue

- **Auto Parkway North**
 - Hale Avenue to Andreasen Drive

- **Harmony Grove Road**
 - Andreasen Drive to Howard Road
 - Howard Road to Hale Avenue

- **Hale Avenue**
 - Harmony Grove Road to West Ninth Avenue

- **West Ninth Avenue**
 - Hale Avenue to Home Depot Driveway
 - Home Depot Driveway to Valley Parkway
 - Valley Parkway to Auto Parkway
 - Auto Parkway to I-15 Southbound Ramps

- **West 11th Avenue**
 - Hale Avenue to Valley Parkway

- **Howard Avenue**
Harmony Grove Road to Auto Parkway South

- **Valley Parkway**
I-15 to Auto Parkway
Auto Parkway to West Ninth Avenue
West Ninth Avenue to 11th Avenue
11th Avenue to Citracado Parkway
South of Citracado Parkway

- **Simpson Way**
Andreasen Drive to Hale Avenue

Level of Service (LOS) is one standard by which the operating conditions of a given roadway segment or intersection are evaluated. Level of service is defined on a scale of A to F, where:

- LOS A represents free-flowing traffic conditions with no restrictions on maneuvering or operating speeds, low traffic volumes, and high speeds;
- LOS B represents stable flow, more restrictions, and operating speeds beginning to be affected by traffic volumes;
- LOS C represents stable flow, more restrictions, and speed and maneuverability more closely controlled by higher traffic volumes;
- LOS D represents conditions approaching unstable flow, with traffic volumes profoundly affecting arterials;
- LOS E represents unstable flow, and some stoppages; and
- LOS F represents forced flow, many stoppages, and low operating speeds.

2.2.2 Thresholds of Significance

Appendix G to the State CEQA Guidelines defines project traffic impacts as those which “cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of

the street system". Additionally, it must be determined if the project would "exceed, either individually or cumulatively, a level of service standard established by the county congestion/management agency for designated roads and highways".

Street Segments

The City of Escondido has adopted a standard for determining traffic impacts that states that an impact is considered to be a direct significant impact on a street segment when a project degrades the LOS to worse than midlevel D and increases the volume/capacity (v/c) by more than 0.02. If the segment already operates at mid-LOS D or worse, a cumulative impact is calculated if the project increases the v/c by more than 0.02.

Signalized Intersections

A signalized intersection is directly significantly impacted when project traffic degrades the LOS to worse than midlevel D (delay of 45.1 seconds or more). If the intersection is already operating at a LOS worse than midlevel D, a cumulative impact would occur if the project increases the delay by more than 2 seconds.

Unsignalized Intersections

An unsignalized intersection is directly significantly impacted when the project traffic degrades the LOS to worse than midlevel D (a delay of 30.1 seconds or more). If the intersection is already worse than midlevel D, a cumulative impact would occur if the project increases the delay by more than 2 seconds.

Freeway Segments

For freeways, the project is considered to have a direct impact if both the following criteria are met:

1. Freeway segment is LOS E or LOS F.
2. Project comprises 5% or more of the total forecasted ADT on that freeway segment.

If only Criterion 1 is met, the impact is considered to be cumulative.

2.2.3 Analysis of Project Effects and Determination of Significance

Peak-Hour Intersection Levels of Service

Tables 2.2-2 and 2.2-3 summarize the existing AM and PM peak-hour intersection analysis results at the key signalized and unsignalized intersections, respectively.

Signalized Intersections

The analysis of the Nordahl Road/Mission Road intersection accounts for the railroad crossing on the south leg of the intersection. As seen in Table 2.2-2, all signalized intersections are calculated to currently operate at mid-LOS D or better except the following:

- Nordahl Road/SR 78 Eastbound Ramps (LOS E in the PM peak hour)
- Nordahl Road/Mission Road (worse than mid-LOS D in the AM peak hour and LOS E in the PM peak hour)
- I-15 Southbound Ramps/Valley Parkway (LOS F in the PM peak hour)
- I-15 Northbound Ramps/Valley Parkway (worse than mid-LOS D in the PM peak hour)

Unsignalized Intersections

As seen in Table 2.2-3, the critical movements at the following unsignalized intersections are calculated to currently operate at LOS E or worse. The critical movements at the remaining unsignalized intersections are calculated to operate at LOS C or better.

- Barham Drive/East Mission Road (northbound right-turn movement – LOS E in the PM peak hour)
- Citracado Parkway/Country Club Drive (eastbound left-turn movement – LOS F in the AM and PM peak hours)

Table 2.2-2
Existing AM and PM Peak-Hour Intersection Analysis
Signalized Intersections⁽¹⁾⁽²⁾

Intersection	Peak Hours	Existing	
		Delay	LOS
Nordahl Road/WB Ramps	AM	31.8	C
	PM	33.8	C
Nordahl Road/EB Ramps	AM	29.6	C
	PM	57.4	E
Nordahl Road/Mission Road	AM	51.0	D
	PM	72.8	E
Enterprise Street/Mission Road	AM	17.7	B
	PM	19.3	B
Andreasen Drive/Mission Road	AM	32.4	C
	PM	33.2	C
Andreasen Drive/Vineyard Avenue	AM	35.6	D
	PM	36.4	D
Hale Avenue/Auto Parkway	AM	26.5	C
	PM	35.9	D
Valley Parkway/Citracado Parkway	AM	27.7	C
	PM	25.0	C
Valley Parkway/West 11 th Avenue	AM	17.8	B
	PM	18.1	B
Valley Parkway/West Ninth Avenue	AM	37.1	D
	PM	37.2	D
Valley Parkway/Auto Parkway	AM	37.2	D
	PM	40.7	D
I-15 SB Ramps/Valley Parkway	AM	44.2	D
	PM	79.7	F
I-15 NB Ramps/Valley Parkway	AM	32.9	C
	PM	51.3	D
West Ninth Avenue/Auto Parkway	AM	35.5	D
	PM	38.8	D
I-15 SB Ramps/West Ninth Avenue	AM	16.2	B
	PM	20.8	C
I-15 NB Ramps/West Ninth Avenue	AM	27.0	C
	PM	26.3	C
Valley Parkway/Via Rancho Parkway	AM	44.8	D
	PM	63.4	E

Notes:

(1) Delay and LOS worse than mid-LOS D shown in **bold**.

(2) LOS thresholds shown in Section 4.0, Analysis Approach and Methodology, of the Technical Report.

Table 2.2-3
Existing AM And PM Peak-Hour Intersection Analysis
Unsignalized Intersections⁽¹⁾⁽²⁾

Intersection	Peak Hours	Movement	Existing	
			Delay	LOS
Barham Drive/East Mission Road	AM	WBL	12.1	B
		NBR	14.8	B
	PM	WBL	22.1	C
		NBR	36.0	E
Citracado Parkway/Country Club Drive	AM	NBL	12.4	B
		EBL	>100.0	F
	PM	NBL	9.4	A
		EBL	51.2	F
Enterprise Street/Vineyard Avenue	AM	NBL	>100.0	F
		WBL	11.1	B
	PM	NBL	>100.0	F
		WBL	9.5	A
State Place/Vineyard Avenue	AM	NBL	82.2	F
		WBL	10.5	B
	PM	NBL	>100.0	F
		WBL	9.6	A
Howard Avenue/Auto Parkway South	AM	All-Way	11.4	B
	PM	All-Way	30.5	D
Harmony Grove Road/Kauana Loa Drive	AM	WBL	7.4	A
		NBLTR	9.5	A
	PM	WBL	7.3	A
		NBLTR	11.6	B
Andreasen Drive/Enterprise Street	AM	All-Way	10.5	B
	PM	All-Way	11.4	B
Harmony Grove Road/Enterprise Street	AM	NBL	36.7	E
		WBL	7.6	A
	PM	NBL	17.8	C
		WBL	7.8	A
Harmony Grove Road/Howard Avenue	AM	SBLTR	14.7	B
		EBL	8.5	A
	PM	SBLTR	12.0	C
		EBL	7.8	A
Harmony Grove Road/Hale Avenue	AM	NBL	8.8	A
		EBL	25.8	D
	PM	NBL	7.9	A
		EBL	38.2	E

Intersection	Peak Hours	Movement	Existing	
			Delay	LOS
Hale Avenue/West 11 th Avenue	AM	SBL	7.8	A
		WBL	12.7	B
	PM	SBL	8.3	A
		WBL	13.7	B
Simpson Way/Hale Avenue	AM		23.4	C
	PM		30.4	D

Notes:

- (1) Delay and LOS worse than mid-LOS D shown in bold.
- (2) LOS thresholds shown in Section 4.0, Analysis Approach and Methodology, of the Technical Report.

- Enterprise Street/Vineyard Avenue (northbound left-turn movement – LOS F in the AM and PM peak hours)
- State Place/Vineyard Avenue (northbound left-turn movement – LOS F in the AM and PM peak hours)
- Harmony Grove Road/Enterprise Drive (northbound left-turn movement – LOS E in the AM peak hour)
- Harmony Grove Road/Hale Avenue (northbound left-turn movement – worse than mid-LOS D in the AM peak hour and eastbound left-turn movement – LOS E in the PM peak hour)

Daily Segment Levels of Service

Table 2.2-4 summarizes the daily segment levels of service on key segments. All key segments are calculated to currently operate at mid-LOS D or better, except the following:

- Nordahl Road from SR 78 Eastbound Ramps to East Mission Road (worse than mid-LOS D)
- Vineyard Avenue from Citracado Parkway to Enterprise Street (LOS F)
- Vineyard Avenue from Enterprise Street to Andreasen Drive (LOS F)

**Table 2.2-4
Existing Daily Segment Analysis**

Segment	Existing Roadway Class	LOS D Capacity	Existing		
			ADT	V/C	LOS
Nordahl Road					
North of SR 78	Major Road	33,400	16,900	0.51	B
SR 78 EB Ramps to East Mission Avenue	Major Road	33,400	33,300	1.00	D
Citracado Parkway					
West Mission Avenue to Myers Avenue	Major Road	33,400	22,700	0.68	B
South of Vineyard Avenue	Collector	30,800	DNE	DNE	DNE
East Mission Road					
West of Barham Road to Nordahl Road	Major Road	33,400	20,000	0.60	B
Nordahl Road to Enterprise Street	Major Road	33,400	19,300	0.58	B
Enterprise Street to Andreasen Drive	Major Road	33,400	20,300	0.61	B
West Mission Avenue					
Andreasen Drive to Rock Springs Road	Major Road	33,400	16,200	0.49	B
Rock Springs Road to Centre City Parkway	Major Road	33,400	21,500	0.64	B
Vineyard Avenue					
Country Club Drive to Citracado Parkway	Local Collector	12,500	16,700	1.34	F
Citracado Parkway to Enterprise Street	Local Collector	12,500	16,700	1.34	F
Enterprise Street to Andreasen Drive	Local Collector	12,500	20,000	1.60	F
Auto Parkway					
Hale Avenue to Valley Parkway	Collector	30,800	27,800	0.90	D
Valley Parkway to Ninth Avenue	Collector	30,800	18,800	0.61	B
Auto Parkway South					
Andreasen Drive to Hale Avenue	Collector	20,000 ⁽¹⁾	12,100	0.61	C
Auto Parkway North					
Hale Avenue to Andreasen Drive	Collector	20,000 ⁽¹⁾	11,600	0.58	C
Harmony Grove Road					
Andreasen Drive to Howard Road	Rural Collector	8,500	8,400	0.99	D
Howard Road to Hale Avenue	Rural Collector	8,500	8,700	1.02	E
Hale Avenue					
Harmony Grove Road to West Ninth Street	Rural Collector	8,500	7,600	0.89	D
West Ninth Avenue					
Hale Avenue to Home Depot Driveway	Rural Collector	8,500	7,600	0.89	D
Home Depot Driveway to Valley Parkway	Local Collector	12,500	9,400	0.75	C
Valley Parkway to Auto Parkway	Local Collector	12,500	9,800	0.78	C
Auto Parkway to I-15 SB Ramps	Major Road	33,400	32,800	0.98	E
West 11th Avenue					
Hale Avenue to Valley Parkway	Rural Collector	8,500	1,200	0.14	A
Howard Avenue					
Harmony Grove Road to Auto Parkway South	Rural Collector	8,500	2,900	0.34	A

Segment	Existing Roadway Class	LOS D Capacity	Existing		
			ADT	V/C	LOS
Valley Parkway					
Auto Parkway to I-15	Prime Arterial	51,000	33,800	0.66	C
West Ninth Avenue to Auto Parkway	Prime Arterial	51,000	27,700	0.54	B
11th Avenue to West Ninth Avenue	Major Road	33,400	22,100	0.66	B
Citracado Parkway to 11th Avenue	Local Collector	12,500	18,600	1.49	F
South of Citracado Parkway	Local Collector	12,500	20,900	1.67	F
Simpson Way					
Andreasen Drive to Hale Avenue	Rural Collector	8,500	5,800	0.68	C

Note:

⁽¹⁾ Assumed capacity of two-lane, one-way collector.

DNE = Does not exist.

Source: *Proposed Level of Service Standards, Street Segment Average Daily Vehicle Trip Thresholds, City of Escondido.*

CITY ROADWAY CAPACITIES

Roadway	Lanes/Parking	LOS D	Mid LOS D
Prime Arterial	Six-Lane	51,000	46,500
	Eight-Lane	59,500	54,300
Major Road	Four-Lane	33,400	31,500
	Six-Lane	42,500	38,800
Collector	Four-Lane (With Parking)	30,800	29,100
	Four-Lane (Without Parking)	17,000	15,500
Local Collector	Two-Lane	12,500	11,300
Rural Collector	Two-Lane	8,500	7,800

- West Ninth Avenue from Auto Parkway to I-15 Southbound Ramp (LOS E)
- Harmony Grove Road from Howard Avenue to Andreasen Drive (worse than mid-LOS D)
- Valley Parkway, south of Citracado Parkway (LOS F)
- Valley Parkway, from Citracado Parkway to West 11th Avenue (LOS F)

Trip Generation/Distribution/Assignment

Trip Generation

Table 2.2-5 summarizes the trip generation for the Escondido Research and Technology Center. Based on a review of potential land uses for each planning area and consultations with City staff, Office Park Uses were assumed for all planning areas except Planning Areas 4 and 5, where Business Park Uses were assumed.

As seen on Table 2.2-5, the Escondido Research and Technology Center is calculated to generate a total of 19,973 daily project trips. The project is calculated to generate 2,496 trips (2,125 inbound and 371 outbound trips) in the AM peak hour and 2,496 trips (499 inbound and 1,997 outbound trips) in the PM peak hour. Table 2.2-5 also indicates the trip generation by planning area.

PA-1 may be developed with a power plant, but an office park development was assumed to provide a conservative trip generation assumption. The trip generation accounts for truck trips (i.e., passenger car equivalence) associated with industrial/business/office park type land uses.

A total ADT of 40,736 was assumed in the Final Environmental Impact Report for the Quail Hills Specific Plan dated September 4, 1986, prepared by Mooney-Levine and Associates. The current proposed land use plan is calculated to generate under 20,000 ADT, which is less than 50% of the adopted Specific Plan.

Trip Distribution

The trip distribution was developed based on a Select Zone assignment obtained by SANDAG. If Citracado Parkway is not extended southward, all project traffic must use Vineyard Avenue.

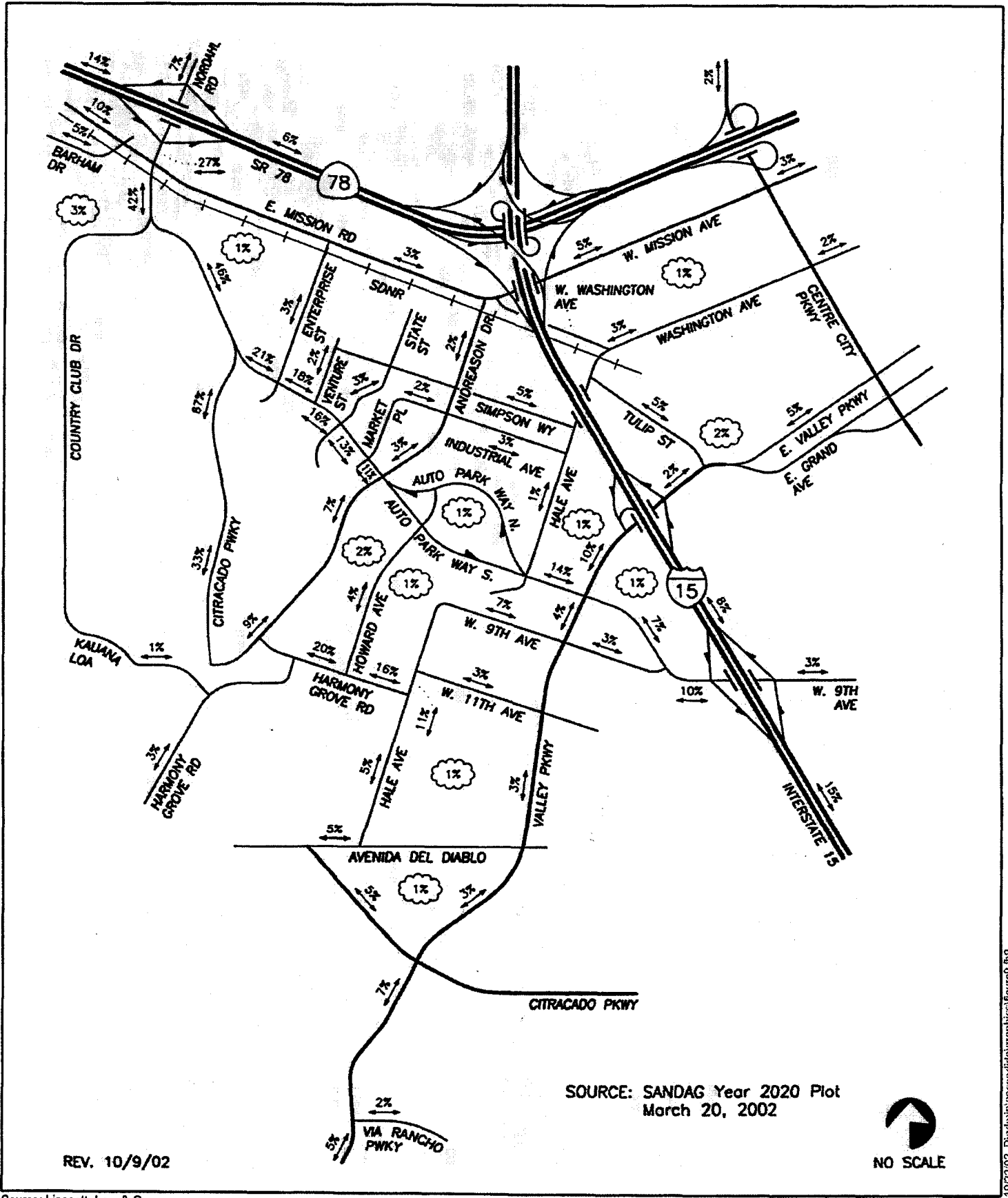
Figure 2.2-3 depicts the regional project traffic distribution percentages.

**Table 2.2-5
Project Trip Generation**

Planning Area	Land Use	Size	Daily Trip Ends (ADT)		AM Peak Hour					PM Peak Hour				
			Rate ⁽¹⁾	Volume	% of ADT	In: Out Split	Volume			% of ADT	In: Out Split	Volume		
							In	Out	Total			In	Out	Total
PA-1 ⁽²⁾	Office Park	225,000 SF	12.0	2,700	13%	9:1	316	35	351	13%	2:8	70	281	351
PA-2	Office Park	174,200 SF	12.0	2,090	13%	9:1	245	27	272	13%	2:8	54	217	271
PA-3	Office Park	74,400 SF	12.0	893	13%	9:1	104	12	116	13%	2:8	23	93	116
PA-4	Business Park	280,000 SF	16.0	4,480	12%	8:2	430	108	538	12%	2:8	108	430	538
PA-5	Business Park	351,900 SF	16.0	5,630	12%	8:2	541	135	676	12%	2:8	135	541	676
PA-6	Office Park	56,800 SF	12.0	682	13%	9:1	80	9	89	13%	2:8	18	71	89
PA-7	Office Park	201,800 SF	12.0	2,422	13%	9:1	283	31	314	13%	2:8	63	252	315
PA-8	Office Park	89,700 SF	12.0	1,076	13%	9:1	126	14	140	13%	2:8	28	112	140
				19,973			2,125	371	2,496			499	1,997	2,496

Notes:

- (1) Rates obtained from the *(Not so) Brief Guide of Vehicular Traffic Generation Rates For The San Diego Region*, July 1998, by SANDAG.
- (2) Traffic rates assumed worst-case uses in PA-1. Power generating plant would generate 60 ADT.

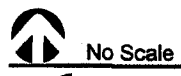


SOURCE: SANDAG Year 2020 Plot
March 20, 2002

REV. 10/9/02



Source: Linscott, Law & Greenspan



P&D Environmental Services

Regional Trip Distribution

Figure 2.2-3

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Trip Assignment

The project-related ADT and peak-hour trips were assigned to the study area segments and intersections based on the distribution percentages in Figures 2.2-3.

Cumulative Projects

There were 15 projects within the City of Escondido that were considered during this evaluation. Their locations are shown on Figure 2.2-4. Table 2.2-6 summarizes the trip generation for each cumulative project.

A total of 22,542 daily trips are calculated to be generated by the cumulative projects. In the AM peak hour, 1,762 trips will be generated with 1,297 inbound trips and 465 outbound trips and in the PM peak hour, 2,485 trips will be generated with 946 inbound trips and 1,540 outbound trips.

Figure 2.2-5 depicts the total ADT and the AM and PM peak-hour intersection volumes for the cumulative projects.

Analysis of Future Scenarios

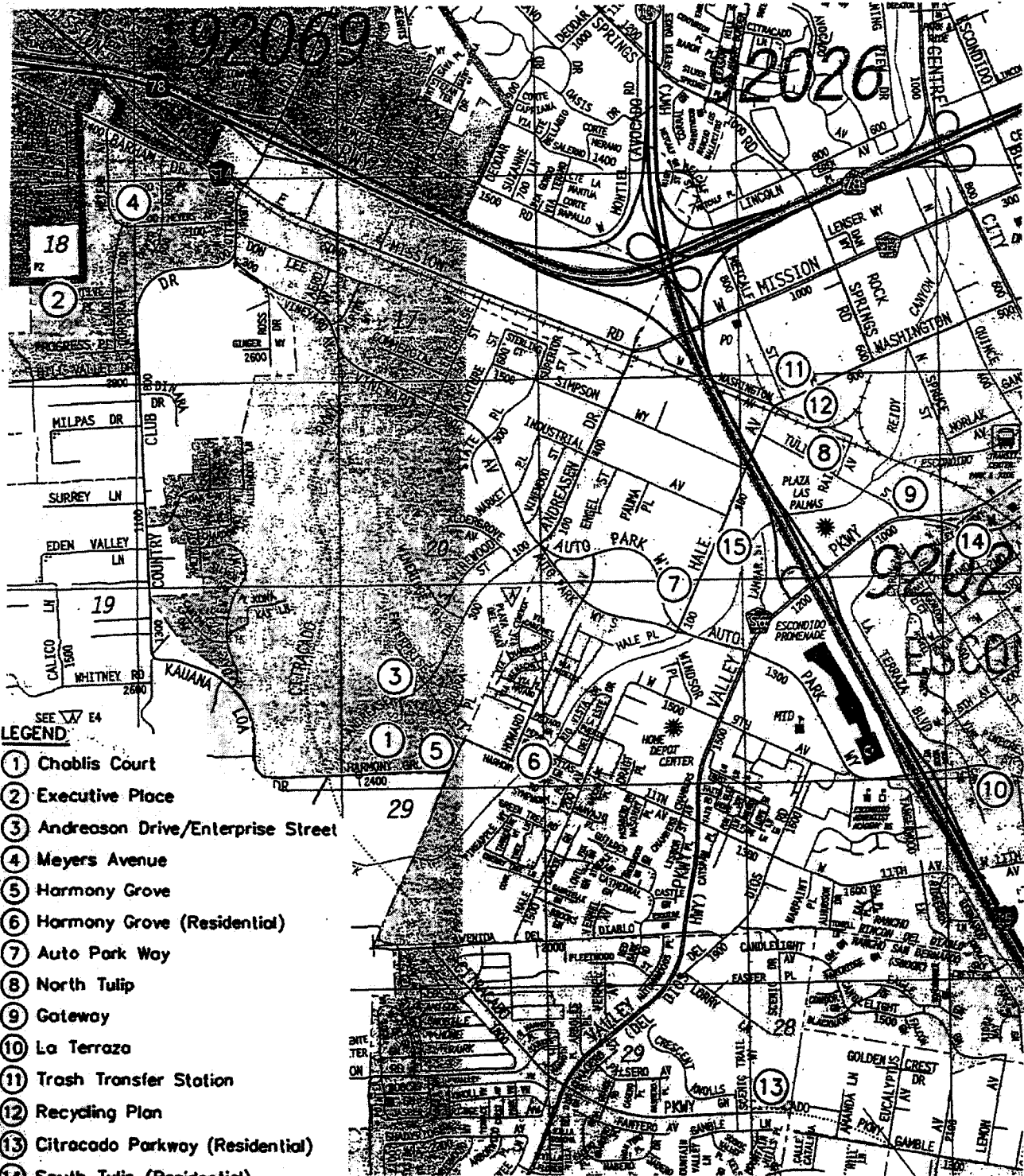
The following future scenarios were analyzed in this report:

- Existing + Cumulative Projects
- Existing + Cumulative Projects + Project
- Year 2020

Existing + Cumulative Projects

Traffic Volumes. Figure 2.2-6 depicts the total ADT and the AM and PM peak-hour intersection volumes respectively for existing + cumulative projects scenario.

Intersection Analysis. The analysis of the Nordahl Road/Mission Road intersection accounts for the railroad crossing on the south leg of the intersection. Tables 2.2-7 and 2.2-8 summarize the existing AM and PM peak-hour intersection analysis results at the key signalized and unsignalized intersections respectively under existing with cumulative projects traffic volumes.



SEE V E4
LEGEND

- ① Choblis Court
- ② Executive Place
- ③ Andreason Drive/Enterprise Street
- ④ Meyers Avenue
- ⑤ Harmony Grove
- ⑥ Harmony Grove (Residential)
- ⑦ Auto Park Way
- ⑧ North Tulip
- ⑨ Gateway
- ⑩ La Terraza
- ⑪ Trash Transfer Station
- ⑫ Recycling Plan
- ⑬ Citracado Parkway (Residential)
- ⑭ South Tulip (Residential)
- ⑮ North HALE

Source: Linscott, Law & Greenspan



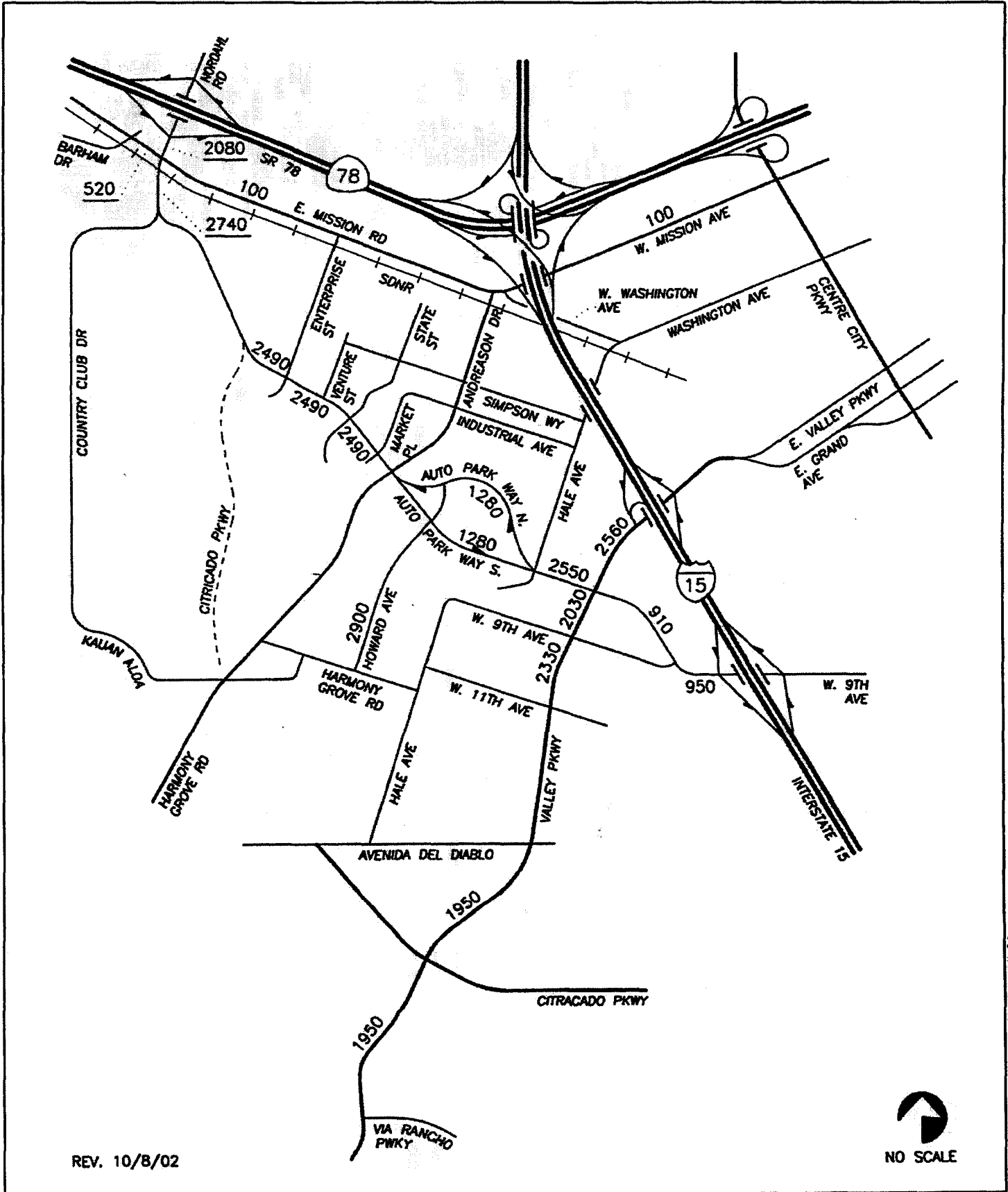
No Scale



P&D Environmental Services

Cumulative Projects Locations

Figure 2.2-4



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NO SCALE

Source: Linscott, Law & Greenspan

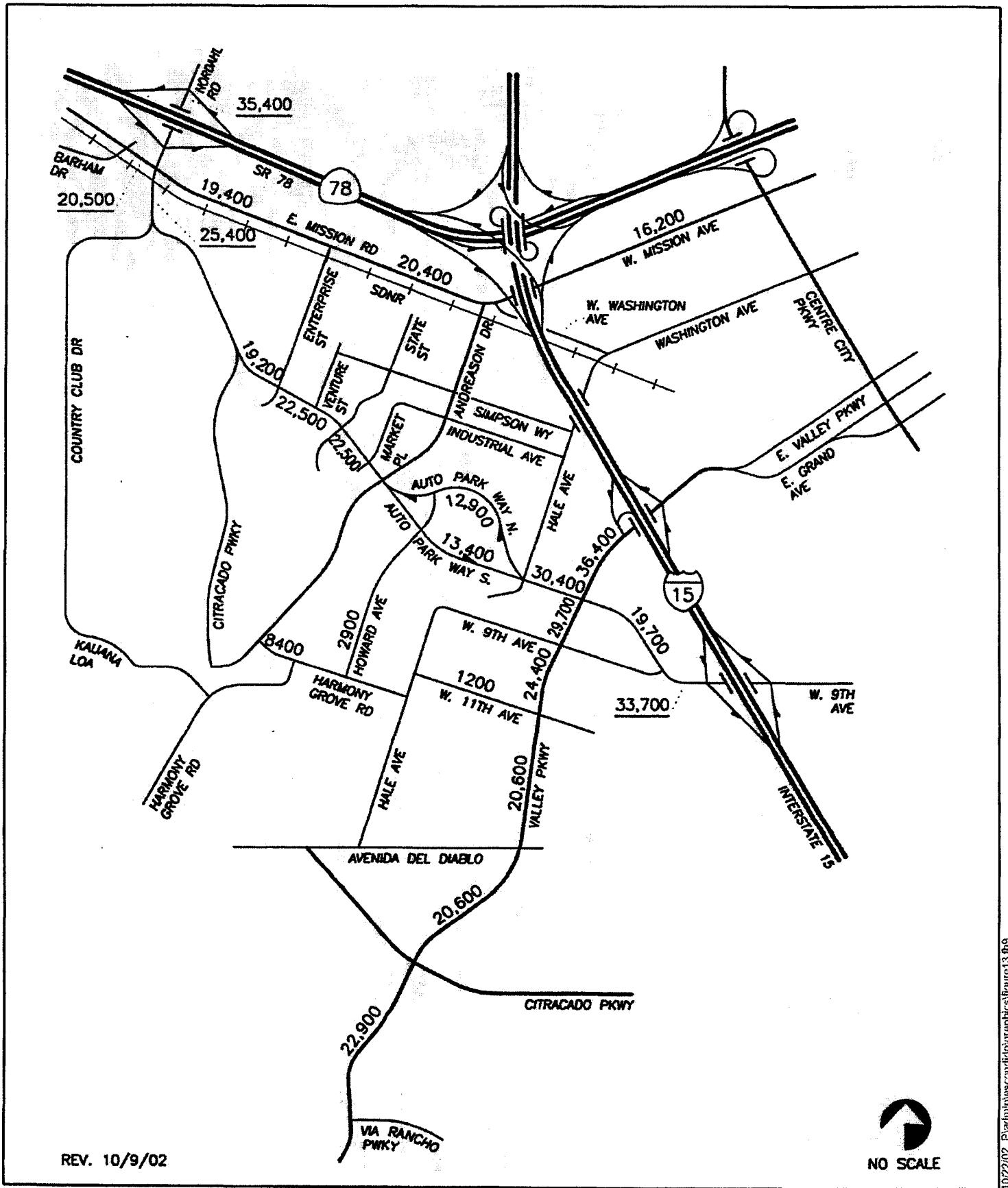
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Cumulative Projects Traffic Volumes

P&D Environmental Services

Figure 2.2-5

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Source: Linscott, Law & Greenspan



Existing & Cumulative Projects Traffic Volumes

**Table 2.2-6
Cumulative Projects Traffic Generation**

Project	Land Use	Size	Daily Trip Ends (ADT) ⁽¹⁾		AM Peak Hour					PM Peak Hour					
			Rate ⁽²⁾	Volume	% of ADT	In: Out Split	Volume			% of ADT	In: Out Split	Volume			
							In	Out	Total			In	Out	Total	
1. Chablis Court	Industrial Building	37,500 SF	16.0	600	12%	8:2	58	14	72	12%	2:8	14	58	72	
2. Executive Place	Industrial Building	49,419 SF	16.0	791	12%	8:2	76	19	95	12%	2:8	19	76	95	
3. Andreason/Enterprise	Industrial Building	56,974 SF	16.0	912	12%	8:2	88	22	109	12%	2:8	22	88	109	
4. Meyers Avenue	Industrial (Addition)	6,000 SF	16.0	96	12%	8:2	9	2	12	12%	2:8	2	9	12	
5. Harmony Grove	Industrial	13.81 Acres	200.0	2,762	12%	8:2	265	66	331	12%	2:8	66	265	331	
6. Harmony Grove (Residential)	Single Family	16 Units	10.0	160	8%	3:7	4	9	13	10%	7:3	11	5	16	
7. Auto Parkway	Commercial (Addition)	8,000 SF	50.0	400	5%	7:3	14	6	20	8%	4:6	13	19	32	
8. North Tulip	Asphalt Batch Plant			300	8%	9:1	22	2	24	8%	2:8	5	19	24	
9. Gateway	Commercial	100,000 SF		10,000	4%	6:4	240	160	400	11%	5:5	550	550	1,100	
10. La Terraza	Office	140,000 SF	20.0	2,800	14%	9:1	353	39	392	13%	2:8	73	291	364	
	Hotel	154 Rooms	10.0	1,540	6%	6:4	55	37	92	8%	6:4	74	49	123	
11. Trash Transfer Station	Modify (Increase Capacity)	1,000 Tons		1,430			94	70	164			75	89	164	
12. Recycling Plant				252			14	4	18			4	14	18	
13. Citracado Parkway (Residential)	Single Family	12 Units	10.0	120	8%	3:7	3	7	10	10%	7:3	8	4	12	
14. South Tulip (Residential)	Single Family	13 Units	10.0	130	8%	3:7	3	7	10	10%	7:3	9	4	13	
15. North Hale ⁽³⁾	Concrete Recycling		-	250	0%		-	-	-	0%		-	-	-	
GRAND TOTAL					22,542			1,297	465	1,762			946	1,540	2,485

Notes:

- (1) Trip-ends are one-way traffic movements, either entering or leaving.
- (2) Rate is a trip-end 1,000 square feet for retail.
- (3) Facility closed during peak hours.

Source: Trip Generation Rate derived from City of San Diego *Trip Generation Manual*, September 1998.

**Table 2.2-7
Signalized Intersections**

Intersection	Peak Hour	Existing		Existing + Cumulative Projects		Existing + Cumulative Projects + Project		Increase in Delay
		Delay	LOS	Delay	LOS	Delay	LOS	
Nordahl Road/WB Ramps	AM	31.8	C	32.5	C	34.8	C	2.3
	PM	33.8	C	34.9	C	43.6	D	8.7
Nordahl Road/EB Ramps	AM	29.6	C	40.9	D	45.4	D	4.5
	PM	57.4	E	69.6	E	>100.0	F	>10.0
Nordahl Road/Mission Road	AM	46.0	D	59.5	E	>100.0	F	>10.0
	PM	67.8	E	85.1	F	>100.0	F	>10.0
Enterprise Street/Mission Road	AM	17.7	B	17.7	B	19.1	B	1.4
	PM	19.3	B	19.3	B	20.8	B	1.5
Andreasen Drive/Mission Road	AM	32.4	C	32.8	C	33.9	C	1.1
	PM	33.2	C	33.6	C	34.2	C	0.6
Andreasen Drive/Vineyard Avenue	AM	35.6	D	39.7	D	44.0	D	4.3
	PM	36.4	D	41.1	D	42.7	D	1.6
Hale Avenue/Auto Parkway	AM	26.5	C	26.8	C	27.2	C	0.4
	PM	35.9	D	36.6	D	40.1	C	3.5
Valley Parkway/Citracado Parkway	AM	27.7	C	29.0	C	36.6	D	7.6
	PM	25.0	C	27.2	C	29.2	C	2.0
Valley Parkway/West 11 th Avenue	AM	17.8	B	18.3	B	19.6	B	1.3
	PM	18.1	B	18.6	B	19.2	B	0.6
Valley Parkway/West Ninth Avenue	AM	37.1	D	40.9	D	41.3	D	0.4
	PM	37.2	D	38.4	D	43.7	D	5.3
Valley Parkway/Auto Parkway	AM	37.2	D	42.0	D	58.9	E	16.9
	PM	40.7	D	43.0	D	48.3	D	5.3
I-15 SB Ramps/Valley Parkway	AM	44.2	D	46.4	D	48.3	D	1.9
	PM	79.7	F	>100.0	F	>100.0	F	>10.0

Table 2.2-7 (Continued)

Intersection	Peak Hour	Existing		Existing + Cumulative Projects		Existing + Cumulative Projects + Project		Increase in Delay
		Delay	LOS	Delay	LOS	Delay	LOS	
I-15 NB Ramps/Valley Parkway	AM	32.9	C	36.0	C	38.7	C	2.7
	PM	51.3	D	73.0	E	84.7	F	11.7
West Ninth Avenue/Auto Parkway	AM	35.5	D	35.9	D	38.7	D	2.8
	PM	38.8	D	40.1	D	52.3	D	12.2
I-15 SB Ramps/West Ninth Avenue	AM	16.2	B	16.5	B	17.5	B	1.0
	PM	20.8	C	23.5	C	33.1	C	9.6
I-15 SB Ramps/West Ninth Avenue	AM	27.0	C	27.9	C	30.0	C	2.1
	PM	26.3	C	26.7	C	27.4	C	0.7
Del Dios Highway/Via Rancho Parkway	AM	44.8	D	45.6	D	47.5	D	2.1
	PM	63.4	E	>100.0	F	>100.0	F	>10.0

Notes:

- (1) No mitigation required.
- (2) Recommended mitigation described in text.

**Table 2.2-8
Unsignalized Intersections**

Intersection	Peak Hour	Movement	Existing		Existing + Cumulative Projects		Existing + Cumulative Projects + Projects		Increase in Delay
			Delay	LOS	Delay	LOS	Delay	LOS	
Barham Drive/East Mission Road	AM	WBL	12.1	B	12.6	B	16.2	C	3.6
		NBR	14.8	B	15.4	C	>100.0	F	>10.0
	PM	WBL	22.1	C	22.6	C	44.6	E	22.0
		NBR	36.0	E	37.0	E	51.0	F	14.0
Citracado Parkway/Country Club Drive	AM	NBL	12.4	B	15.8	B	53.8	F	38.0
		EBL	>100.0	F	>100.0	F	>100.0	F	>10.0
	PM	NBL	9.4	A	9.8	A	11.1	B	1.3
		EBL	51.2	F	>100.0	F	>100.0	F	>10.0
Citracado Parkway/Vineyard Avenue	AM	NBR	DNE	DNE	DNE	DNE	>100.0	F	NA
		WBL	DNE	DNE	DNE	DNE	>100.0	F	NA
	PM	NBR	DNE	DNE	DNE	DNE	>100.0	F	NA
		WBL	DNE	DNE	DNE	DNE	11.2	B	NA
Enterprise Street/Vineyard Avenue	AM	NBL	>100.0	F	>100.0	F	>100.0	F	>10.0
		WBL	11.1	B	12.7	B	13.3	B	0.6
	PM	NBL	>100.0	F	>100.0	F	>100.0	F	>10.0
		WBL	9.5	A	9.8	A	11.9	B	2.1
State Place./Vineyard Avenue	AM	NBL	82.2	F	>100.0	F	>100.0	F ⁽²⁾	>10.0
		WBL	10.5	B	11.9	B	12.3	B	0.4
	PM	NBL	>100.0	F	>100.0	F	>100.0	F ⁽²⁾	>10.0
		WBL	9.6	A	10.0	B	11.8	B	1.8
Howard Avenue/Auto Parkway South	AM	All-Way	11.4	B	12.1	B	12.7	B	0.6
	PM	All-Way	30.5	D	66.7	F	94.7	F	28.0
Harmony Grove Road/ Kauana Loa Drive	AM	WBL	7.4	A	7.4	A	8.3 ⁽³⁾	A	0.9
		NBLTR	9.5	A	10.0	B	15.8 ⁽⁴⁾	B	5.8
	PM	WBL	7.3	A	7.3	A	7.3 ⁽³⁾	A	0.0
		NBLTR	11.6	B	11.6	B	12.0 ⁽⁴⁾	B	0.4
Andreasen Drive/Enterprise Street	AM	All-Way	10.5	B	10.5	E	41.8	E	31.3
	PM	All-Way	11.4	B	11.4	B	12.3	B	0.9

Table 2.2-8 (Continued)

Intersection	Peak Hour	Movement	Existing		Existing + Cumulative Projects		Existing + Cumulative Projects + Projects		Increase in Delay
			Delay	LOS	Delay	LOS	Delay	LOS	
Harmony Grove Road/Enterprise Street	AM	NBL	36.7	E	36.7	E	>100.0 ⁽⁶⁾	F	>10.0
		WBL	7.6	A	7.6	A	7.8	A	0.2
	PM	NBL	17.8	C	17.8	C	52.2 ⁽⁶⁾	F	34.4
		WBL	7.8	A	7.8	A	9.1	A	1.3
Harmony Grove Road/Howard Avenue	AM	SBLTR	14.7	B	14.7	B	30.9	D	17.9
		EBL	8.5	A	8.5	A	9.9	A	1.4
	PM	SBLTR	12.0	C	12.0	C	16.2	C	28.2
		EBL	7.8	A	7.8	A	8.1	A	0.3
Harmony Grove Road/Hale Avenue	AM	NBL	8.8	A	8.8	A	8.9	A	0.1
		EBL	25.8	D	25.8	D	>100.0	F	>10.0
	PM	NBL	7.9	A	7.9	A	8.1	A	0.2
		EBL	38.2	E	38.2	E	>100.0	F	>10.0
Hale Avenue/West 11 th Avenue	AM	SBL	7.8	A	7.8	A	9.0	A	1.2
		WBL	12.7	B	12.7	B	19.3	C	6.6
	PM	SBL	8.3	A	8.3	A	9.0	A	0.7
		WBL	13.7	B	13.7	B	19.3	C	5.6
Hale Avenue/Simpson Avenue	AM	NBL	11.7	B	11.7	B	12.6	B	0.9
		EBL	37.4	E	37.4	E	45.3	E	7.9
	PM	NBL	8.6	A	8.6	A	8.7	A	0.1
		EBL	>100.0	F	>100.0	F	>100.0	F	>10.0

Notes:

- (1) Mitigated by installing a new traffic signal and appropriate modifications to current intersection geometry.
 - (2) Not significant/mitigated, since adjacent signalized intersections provide ample opportunities to execute turns.
 - (3) EBL, since the configuration of this intersection changes with the extension of Citracado Parkway.
 - (4) NBR, since the configuration of this intersection changes with the extension of Citracado Parkway.
 - (5) Mitigation not required.
 - (6) NBR, since the configuration of this intersection changes with the extension of Citracado Parkway.
- DNE – Does not exist currently.
 NA – Not applicable, since either the intersection does not exist currently, or the intersection has a new configuration with Citracado Parkway.

Signalized Intersections. As seen in Table 2.2-7, with the addition of cumulative projects traffic volumes, the following signalized intersections are calculated to operate at mid-LOS D. The remaining signalized intersections are calculated to operate at worse than mid-LOS D:

- Nordahl Road/SR 78 Eastbound Ramps (LOS E in the PM peak hour)
- Nordahl Road/Mission Road (LOS E in the AM and LOS F in the PM peak hours)
- I-15 Southbound Ramps/Valley Parkway (worse than mid-LOS D during the AM peak hour and LOS F in the PM peak hour)
- I-15 Northbound Ramps/Valley Parkway (LOS E in the PM peak hour)

Unsignalized Intersections. Table 2.2-8 summarizes the AM and PM peak hour intersection operations for the existing and cumulative impacts scenario at the key signalized intersections. As seen in Table 2.2-8, the critical movements at the following unsignalized intersections are calculated to continue to operate at LOS E or worse with cumulative projects traffic. The critical movements at the remaining unsignalized intersections are calculated to operate at LOS C or better.

- Barham Drive/Mission Road (northbound right-turn movement - LOS E in the PM peak hour)
- Citracado Parkway/Country Club Drive (eastbound left-turn movement - LOS F in the AM and PM peak hours)
- Enterprise Street/Vineyard Avenue (northbound left-turn movement - LOS F in the AM and PM peak hours)
- State Place/Vineyard Avenue (northbound left-turn movement - LOS F in the AM and PM peak hours)
- Howard Avenue/Auto Parkway South (LOS F in the PM peak hour)
- Harmony Grove Road/Enterprise Drive (northbound left-turn movement – LOS E in the AM peak hour)

- Harmony Grove Road/Hale Avenue (northbound left-turn movement - worse than mid-LOS D in the AM peak hour and eastbound left-turn movement – LOS E in the PM peak hour)

Segment Operations. Table 2.2-9 summarizes the daily segment levels of service on key segments for the existing + PA-1 conditions. All key segments are calculated to operate at mid-LOS D or better, except the following:

- Nordahl Road from SR 78 Eastbound Ramps to East Mission Road (LOS E)
- Vineyard Avenue from Citracado Parkway to Enterprise Street (LOS F)
- Vineyard Avenue from Enterprise Street to Andreasen Drive (LOS F)
- Auto Parkway South from Hale Avenue to Valley Parkway (worse than mid-LOS D)
- West Ninth Avenue from Auto Parkway to I-15 Southbound Ramps (LOS E)
- Harmony Grove Road from Howard Avenue to Andreasen Drive (worse than mid-LOS D)
- Valley Parkway, South of Citracado Parkway (LOS F)
- Valley Parkway, from Citracado Parkway to 11th Avenue (LOS F)

Existing + Cumulative Projects + Project

Traffic Volumes. Figure 2.2-7 depicts the total ADT and the AM and PM peak hour intersection volumes respectively for the entire project. Figure 2.2-8 depicts the total ADT and the AM and PM peak hour intersection volumes, respectively, for the existing and cumulative projects and project scenario.

**Table 2.2-9
Street Segment Operations**

Segment	Existing Roadway Class	LOS D Capacity	Existing			Existing + Cumulative Projects			Existing + Cumulative Projects + Project			Increase in V/C
			ADT	V/C	LOS	ADT	V/C	LOS	ADT	V/C	LOS	
Nordahl Road												
North of SR 78	Major Road	33,400	16,900	0.51	B	16,900	0.51	B	18,300	0.55	B	0.04
SR 78 EB Ramps to East Mission Road	Major Road	33,400	33,300	1.00	D	35,400	1.06	E	41,000	1.23	F	0.17
Citracado Parkway												
East Misslon Road to Myers Avenue	Major Road	33,400	22,700	0.68	B	25,400	0.76	C	34,000	1.02	E	0.26
South of Vineyard Avenue	Collector	30,800	DNE	(1)	(1)	(1)	(1)	(1)	13,400	0.44	A	-
East Mission Road												
West of Barham Road to Nordahl Road	Major Road	33,400	20,000	0.60	B	20,500	0.61	B	22,500	0.67	B	0.06
Nordahl Road to Enterprise Street	Major Road	33,400	19,300	0.58	B	19,400	0.58	B	19,400	0.58	B	-
Enterprise St. to Andreasen Drive	Major Road	33,400	20,300	0.61	B	20,400	0.61	B	21,000	0.63	B	0.02
West Mission Avenue												
Andreasen Drive to Rock Springs Road	Major Road	33,400	16,200	0.49	B	16,200	0.49	B	17,200	0.51	B	0.03
Rock Springs Road to Centre City Parkway	Major Road	33,400	21,500	0.64	B	21,500	0.64	B	22,500	0.67	B	0.03
Vineyard Avenue												
County Club Drive to Citracado Parkway	Local Collector	12,500	16,700	1.34	F	19,200	1.54	F	28,400	2.27	F	0.74
Citracado Parkway to Enterprise Street	Local Collector	12,500	16,700	1.34	F	19,200	1.54	F	23,400	1.87	F	0.34
Enterprise Street to Andreasen Drive	Local Collector	12,500	20,000	1.60	F	22,500	1.80	F	26,100	2.09	F	0.29
Auto Parkway												
Hale Avenue to Valley Parkway	Collector	30,800	27,800	0.90	D	30,400	0.99	D	33,000	1.07	E	0.08
Valley Parkway to Ninth Avenue	Collector	30,800	18,800	0.61	B	19,700	0.64	B	21,100	0.69	B	0.05
Auto Parkway South												
Andreasen Drive to Hale Avenue	Collector	20,000 ⁽³⁾	12,100	0.61	C	13,400	0.67	C	14,900	0.75	C	0.08
Auto Parkway North												
Hale Avenue to Andreasen Drive	Collector	20,000 ⁽³⁾	11,600	0.58	C	12,900	0.65	C	14,400	0.72	C	0.08
Harmony Grove Road												
Andreasen Drive to Howard Road	Rural Collector	8,500	8,400	0.99	D	8,400	0.99	D	12,400	1.46	F	0.47
Howard Road to Hale Avenue	Rural Collector	8,500	8,700	1.02	E	8,700	1.02	E	11,900	1.40		0.38
Hale Avenue												
Harmony Grove Road to West Ninth Avenue	Rural Collector	8,500	7,600	0.89	D	7,600	0.89	D	9,000	1.06	E	0.16

Table 2.2-9 (Continued)

Segment	Existing Roadway Class	LOS D Capacity	Existing			Existing + Cumulative Projects			Existing + Cumulative Projects + Project			Increase in V/C
			ADT	V/C	LOS	ADT	V/C	LOS	ADT	V/C	LOS	
West Ninth Avenue												
Hale Avenue to Home Depot Driveway	Rural Collector	8,500	7,600	0.89	D	7,600	0.89	D	9,000	1.06	E	0.16
Home Depot Driveway to Valley Parkway	Local Collector	12,500	9,400	0.75	C	9,400	0.75	C	10,800	0.86	D	0.11
Valley Parkway to Auto Parkway	Local Collector	12,500	9,800	0.78	C	9,800	0.78	C	10,400	0.83	D	0.05
Auto Parkway to I-15 SB Ramps	Major Road	33,400	32,800	0.98	E	33,700	1.01	E	35,100	1.05	F	0.04
West 11th Avenue												
Hale Avenue to Valley Parkway	Rural Collector	8,500	1,200	0.14	A	1,200	0.14	A	1,800	0.21	A	0.07
Howard Avenue												
Harmony Grove Road to Auto Parkway South	Rural Collector	8,500	2,900	0.34	A	2,900	0.34	A	3,700	0.44	A	0.09
Valley Parkway												
I-15 to Auto Parkway	Prime Arterial	51,000	33,800	0.66	C	36,400	0.71	C	38,400	0.75	C	0.04
Auto Parkway to West Ninth Avenue	Prime Arterial	51,000	27,700	0.54	B	29,700	0.58	B	30,500	0.60	C	0.02
West Ninth Avenue to 11 th Avenue	Major Road	33,400	22,100	0.66	B	24,400	0.73	B	24,400	0.73	C	-
11 th Avenue to Citracado Parkway	Local Collector	12,500	18,600	1.49	F	20,600	1.65	F	21,200	1.70	F	0.05
South of Citracado Parkway	Local Collector	12,500	20,900	1.67	F	22,900	1.83	F	24,300	1.94	F	0.11
Simpson Way												
Andreasen Drive to Hale Avenue	Rural Collector	8,500	5,800	0.68	C	5,800	0.68	C	6,400	0.75	C	0.07

Notes:

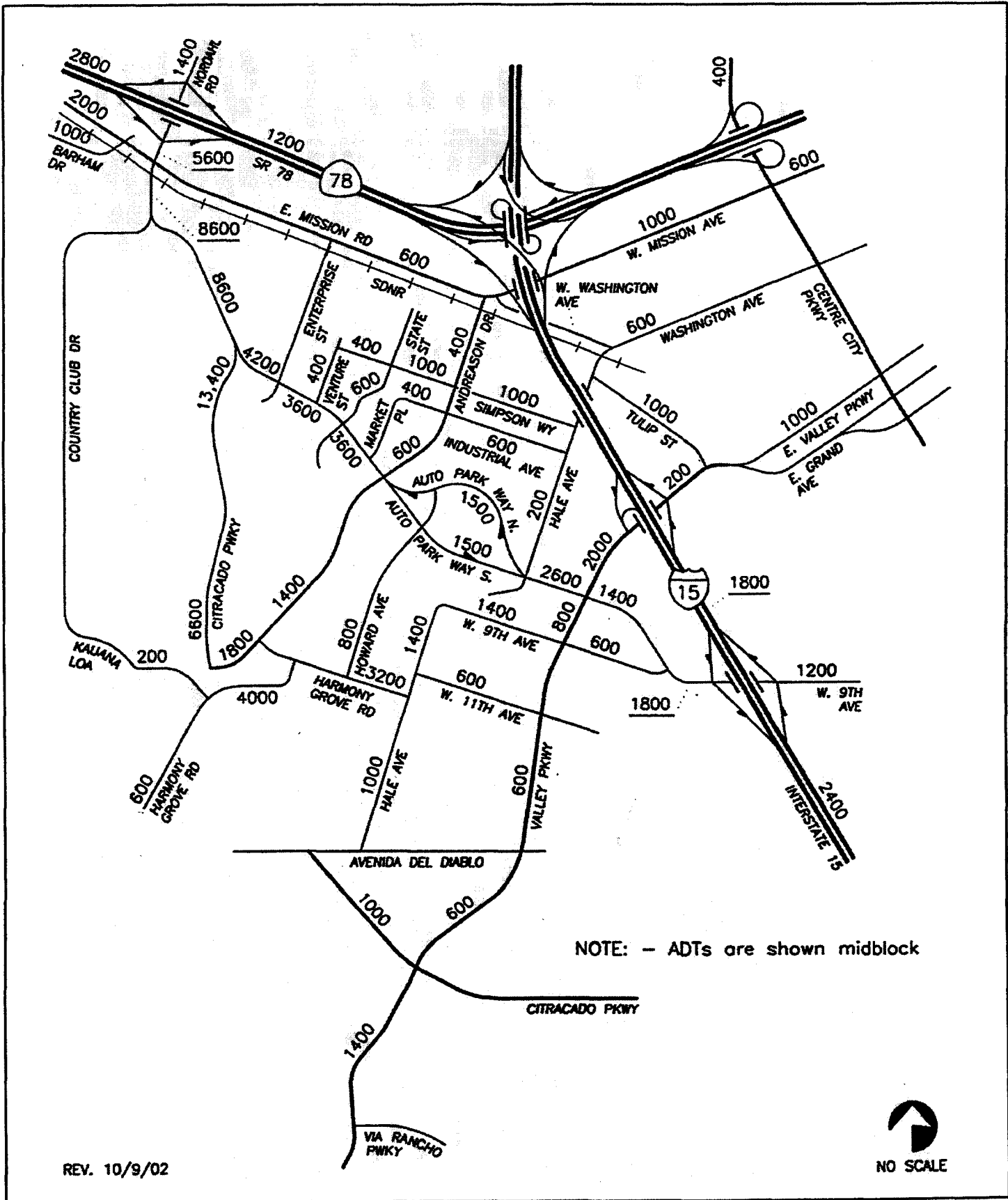
- (1) This street segment does not exist currently. Project access is provided by this street segment.
- (2) No mitigation required.
- (3) Assumed capacity of two-lane, one-way collector.
- (4) Mitigation described in text.

BOLD indicates significant impacts.

Source: *Proposed Level of Service Standards, Street Segment Average Daily Vehicle Trip Thresholds, City of Escondido.*

Table 2.2-9 (Continued)

CITY ROADWAY CAPACITIES			
Roadway	Lanes/Parking	LOS D	Mid LOS D
Prime Arterial	Six-Lane	51,000	46,500
	Eight-Lane	59,500	54,300
Major Road	Four-Lane	33,400	31,500
	Six-Lane	42,500	38,800
Collector	Four-Lane (With Parking)	30,800	29,100
	Four-Lane (Without Parking)	17,000	15,500
Local Collector	Two-Lane	12,500	11,300
Rural Collector	Two-Lane	8,500	7,800



Source: Linscott, Law & Greenspan



No Scale

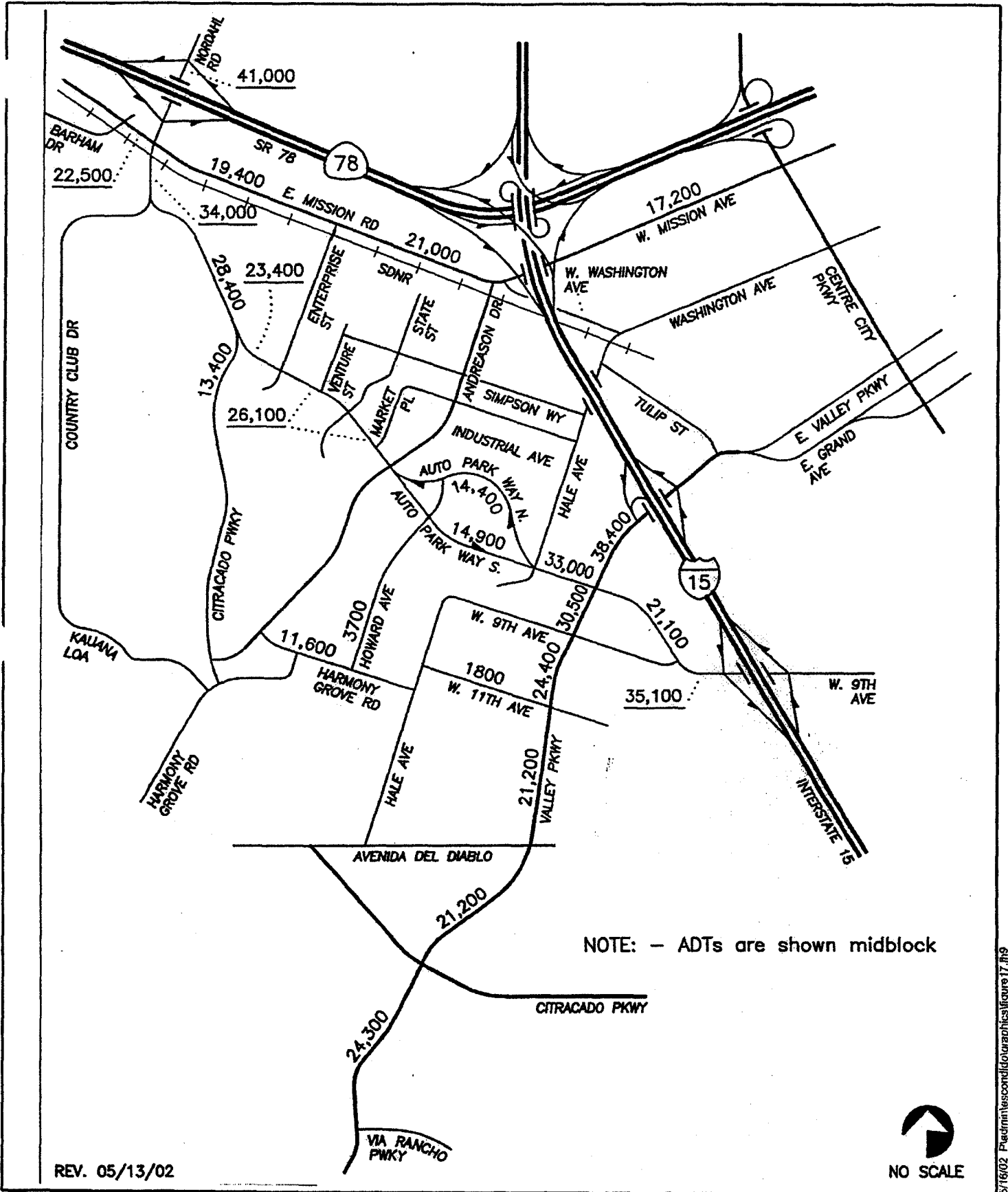


P&D Environmental Services

Total Project Traffic Volumes

Figure 2.2-7

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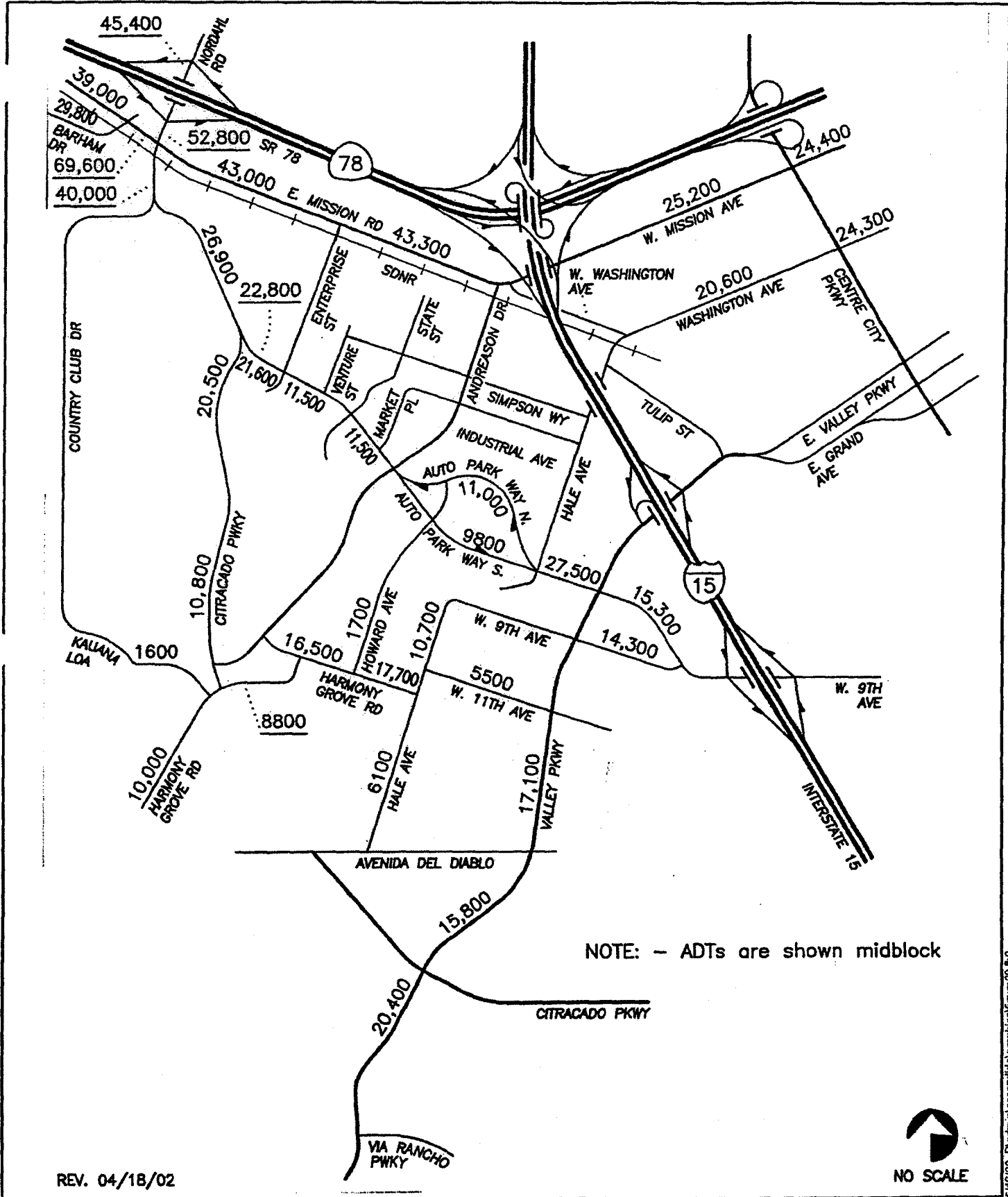


Source: Linscott, Law & Greenspan



Existing, Cumulative & Total Project Traffic Volumes

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Year 2020 ADT Volumes

**Table 2.2-10
Year 2020 Street Segment Operations**

Segment	Year 2020 Roadway Class	LOS E Capacity	ADT	V/C	LOS
Nordahl Road					
North of SR 78	Major Road	50,000	45,400	0.91	E
SR 78 EB Ramps to East Mission Road	Major Road	50,000	52,800	1.06	F
Citracado Parkway					
East Mission Road to Country Club Drive	Major Road	50,000	40,000	0.80	D
South of Vineyard Avenue	Major Road	37,000	20,500	0.55	B
North of Kauana Loa Drive/Harmony Drive	Major Road	37,000	10,800	0.29	A
East Mission Road					
West of Barham Drive	Major Road	37,000	39,000	1.05	F
Barham Drive to Nordahl Road	Major Road	37,000	69,600	1.88	F
Nordahl Road to Enterprise Street	Major Road	50,000	43,000	0.86	E
Enterprise Street to Andreasen Drive	Major Road	50,000	43,300	0.87	E
West Mission Avenue					
Andreasen Drive to Rock Springs Road	Major Road	37,000	25,500	0.69	C
Rock Springs Road to Centre City Parkway	Major Road	37,000	41,400	1.12	F
Vineyard Avenue					
North Citracado Parkway to South Citracado Parkway	Collector	34,200	26,900	0.79	C
Citracado Parkway South to Enterprise Street	Collector	34,200	20,500	0.60	B
Enterprise Street to Andreasen Drive	Collector	34,200	10,800	0.32	A
Auto Parkway South					
Andreasen Drive to Hale Avenue ⁽¹⁾	Collector	20,000	9,800	0.49	B
Auto Parkway North					
Hale Avenue to Andreasen Drive ⁽¹⁾	Collector	20,000	11,000	0.55	B
Auto Parkway					
Hale Avenue to Valley Parkway	Collector	34,200	27,500	0.80	D
Valley Parkway to Ninth Avenue	Collector	34,200	15,300	0.45	B
West Ninth Avenue					
Hale Avenue to Valley Parkway	Collector	34,200	16,800	0.49	B
Valley Parkway to Auto Parkway	Collector	34,200	14,300	0.42	B
Auto Parkway to I-15 SB Ramps	Collector	34,200	23,100	0.68	C
West 11th Avenue					
Hale Avenue to Valley Parkway	Local Collector	15,000	5,500	0.37	B
Harmony Grove Road					
Andreasen Avenue to Howard Road	Collector	34,200	16,500	0.48	B
Howard Road to Hale Avenue	Collector	34,200	17,700	0.52	B
Valley Parkway					
South of Citracado Parkway	Major Road	50,000	20,400	0.41	B
Citracado Parkway to West 11th Avenue	Major Road	50,000	17,100	0.34	B
West 11th Avenue to West Ninth Avenue	Major Road	50,000	24,000	0.48	C
West Ninth Avenue to Auto Parkway	Prime Arterial	60,000	35,100	0.59	C
Auto Parkway to I-15 SB Ramps	Prime Arterial	60,000	38,700	0.65	C

Segment	Year 2020 Roadway Class	LOS E Capacity	ADT	V/C	LOS
Enterprise Street					
East Mission Avenue to Vineyard Avenue	Local Collector	15,000	1,700	0.11	A
Andreasen Drive to Harmony Grove Road	Local Collector	15,000	5,900	0.39	B
Simpson Way					
Andreasen Drive to Hale Avenue			27,600		

Note:

(1) Assumed capacity of two-lane, one-way collector.

Source: Proposed Level of Service Standards, Street Segment Average Daily Vehicle Trip Thresholds, City of Escondido.

- Nordahl Road north of SR 78 to East Mission Road (LOS F/E)
- East Mission Road west of Barham Drive to Andreasen Drive (LOS F/E)
- East Mission Avenue from Rock Springs Road to Centre City Parkway (LOS F)

Freeway Analysis

Table 2.2-11 summarizes the existing and forecasted freeway operations on SR 78 east and west of Nordahl Road and on I-15 north and south of Ninth Avenue. As seen in Table 2.2-11, the operations on SR 78 and I-15 are as follows:

SR 78

The two segments of SR 78 that were analyzed are calculated to generally operate at LOS C or better in the eastbound direction in the AM peak hour and LOS F or better in the PM peak hours under all scenarios. In the westbound direction, the two segments are calculated to operate at LOS F in the AM peak hour and at LOS D or better in the PM peak hour under all scenarios. Field observations indicate LOS E/F in the westbound direction in the AM peak hour and in the eastbound direction in the PM peak hour.

Interstate 15

The two segments of I-15 that were analyzed are calculated to generally operate well in the northbound direction in the AM peak hour and in the southbound direction in the PM peak hour and poorly in the southbound direction in the AM peak hour and in the northbound direction in

**Table 2.2-11
Freeway Operations**

Direction	Peak Hour	Existing		Existing + Cumulative Projects		Existing + Cumulative Projects + Project		Year 2020	
		V/C	LOS	V/C	LOS	V/C	LOS	V/C	LOS
SR 78 East of Nordahl Road									
Eastbound	AM	0.60	B	0.61	B	0.62	B	0.64	C
	PM	0.97	E	0.99	E	1.00	F(0)	1.03	F(0)
Westbound	AM	1.10	F(0)	1.11	F(0)	1.13	F(0)	1.17	F(0)
	PM	0.80	D	0.82	D	0.82	D	0.85	D
SR 78 West of Nordahl Road									
Eastbound	AM	0.60	B	0.61	B	0.62	C	0.58	B
	PM	0.97	E	1.00	F(0)	1.00	F(0)	0.94	E
Westbound	AM	1.10	F(0)	1.13	F(0)	1.13	F(0)	1.06	F(0)
	PM	0.80	D	0.83	D	0.82	D	0.77	C
I-15 South of Ninth Avenue									
Northbound	AM	0.40	A	0.42	B	0.43	B	0.51	B
	PM	1.15	F(0)	1.20	F(0)	1.22	F(0)	1.46	F(2)
Southbound	AM	1.11	F(0)	1.17	F(0)	1.18	F(0)	1.42	F(2)
	PM	0.78	C	0.82	D	0.83	D	1.00	E
SR 78 North of Ninth Avenue									
Northbound	AM	0.38	A	0.39	A	0.39	A	0.50	B
	PM	1.08	F(0)	1.11	F(0)	1.12	F(0)	1.42	F(2)
Southbound	AM	1.05	F(0)	1.07	F(0)	1.09	F(0)	1.38	F(2)
	PM	0.74	C	0.76	C	0.76	C	0.97	E

the PM peak hour. In the southbound direction, the two segments are calculated to operate at LOS F in the AM peak hour and at LOS C in the PM peak hour under all scenarios except Year 2020, when it is calculated to operate at LOS E.

Freeway LOS thresholds are as follows:

LOS	v/c
A	<0.41
B	0.62
C	0.8
D	0.92
E	1
F(0)	1.25
F(1)	1.35
F(2)	1.45
F(3)	>1.45

Access

Citracado Parkway will provide the primary access to and from Planning Areas 1 through 10. If warranted, traffic signals on Citracado Parkway between Vineyard Avenue and Andreasen Drive should be spaced no closer than 0.25 mile. Right-in/right-out driveways should be provided between signals. Dual inbound left-turn lanes should be considered for planning areas with expected inbound volumes greater than 300 vehicles per hour. A specific Citracado Parkway access plan should be conducted once more-detailed plans are finalized for each planning area.

Based on the forecasted volumes on Citracado Parkway, a full major road configuration is not necessary. This facility could be designed to Collector Road standards. Four lanes should be provided regardless of the classification.

All of the analysis other than Year 2020 assumes Citracado Parkway does not connect between Harmony Grove Road and Avenida Del Diablo. If this connection was provided, some project traffic would be diverted to this portion of Citracado Parkway from the Harmony Grove Road, Hale Avenue, and West Ninth Avenue roadways. Specifically, the connection of Citracado Parkway between Harmony Grove Road and Avenida Del Diablo would potentially reduce impacts at the following street segments:

- Harmony Grove Road (Andreasen Drive to Hale Avenue)
- Hale Avenue (Harmony Grove Road to West Ninth Avenue)
- West Ninth Avenue (Hale Avenue to Home Depot Driveway)
- Valley Parkway (11th Avenue to Citracado Parkway)

Significance of Impacts and Mitigation Measures

The following is a list of significant impacts calculated at the signalized intersections, unsignalized intersections, street segments and freeway segments, based on the established significance criteria. Impacts are divided into direct and cumulative. An impact is considered cumulative if the intersection or segment already operates below City standards.

The traffic impact analysis assumes a total trip generation for the project of just under 20,000 ADT. Therefore, if the overall trip generation remains under this amount, the traffic study remains valid. If the total trip generation exceeds this amount, additional studies would be necessary. Individual Planning Area trip generation could exceed the assumed trip generation in this report. However, if the trip generation of an individual Planning Area exceeds the assumed trip generation by more than 10%, the impact of this additional amount of trips should be analyzed.

Direct Project

Signalized Intersections: Valley Parkway/Auto Parkway
 West Ninth Avenue/Auto Parkway

Unsignalized Intersections: Citracado Parkway/Vineyard Avenue
 Enterprise Street/Andreasen Drive

Street Segments: Citracado Parkway (West Mission Avenue to Myers Avenue)
 Hale Avenue (Harmony Grove Road to West Ninth Avenue)
 West Ninth Avenue (Hale Avenue to Home Depot Driveway)
 Citracado Parkway (Vineyard Avenue to Andreasen Drive)
 Andreasen Drive (Citracado Parkway to Enterprise Street)
 Harmony Grove Road (Andreasen Drive to Howard Road)
 Harmony Grove Road (Howard Road to Hale Avenue)

Freeways: No direct impacts

Access: Project access to Citracado Parkway

Cumulative

Signalized Intersections: Nordahl Road/ SR 78 EB Ramps
Nordahl Road/Mission Road
Del Dios Highway/Via Rancho Parkway
I-15 SB Ramps/Valley Parkway
I-15 NB Ramps/Valley Parkway

Unsignalized Intersections: Barham Drive/East Mission Road
Citracado Parkway/Country Club Drive
Howard Avenue/Auto Parkway South
Enterprise Street/Harmony Grove Road
Enterprise Street/Vineyard Avenue
Hale Avenue/Harmony Grove Road
Simpson Way/Hale Avenue

Street Segments: Nordahl Road (SR 78 to East Mission Road)
Vineyard Avenue (Country Club Drive to Citracado Parkway)
Vineyard Avenue (Citracado Parkway to Enterprise Street)
Vineyard Avenue (Enterprise Street to Andreasen Drive)
Auto Parkway (Hale Avenue to Valley Parkway)
West Ninth Avenue (Auto Parkway to I-15 SB Ramps)
Valley Parkway (11th Avenue to Citracado Parkway)
Valley Parkway (Citracado Parkway to Via Rancho Parkway)

Freeways: SR 78 east and west of Nordahl Road
I-15 north and south of West Ninth Avenue

Table 2.2-12 summarizes the impacts and mitigation measures. Appendix G of the traffic analysis contains AM/PM peak hour intersection analysis worksheets with the recommended

**Table 2.2-12
Significance of Impacts and Mitigation Measures**

Impact	Mitigation Measures
DIRECT PROJECT	
1. Signalized Intersections	
a. Valley Parkway/Auto Parkway	Restripe the third through lane to a shared through/right lane on the southbound approach on Valley Parkway to provide dual left-turn lanes, two through lanes, a shared through/right lane, and a right-turn lane in the southbound direction at the Valley Parkway/Auto Parkway intersection. Contribute a fair share towards the future city project for ultimate intersection improvements.
b. West Ninth Avenue/Auto Parkway	Restripe eastbound West Ninth Avenue at Auto Parkway to a right-turn lane, a shared through/right lane, and a left-turn lane, and provide right-turn overlap phasing in the eastbound approach, in the near-term. Contribute a fair share towards the future city project for ultimate intersection improvements.
2. Unsignalized Intersections	
a. Citracado Parkway/Vineyard Avenue	Signalize the Citracado Parkway/Vineyard Avenue intersection and provide the following geometry: Northbound – Dual left-turn lanes and one right-turn lane. Westbound – One left-turn lane and two through lanes. Eastbound – Two through lanes and one right-turn lane.
b. Enterprise Street/Andreasen Drive	Signalize the Enterprise Street/Andreasen Drive intersection.
3. Street Segments	
a. Citracado Parkway West Mission Avenue to Myers Avenue	Contribute fair share to the City planned widening project on Citracado Parkway between Myers Avenue and the SR 78 Eastbound Ramps, which will mitigate the impacts on Citracado Parkway between East Mission Avenue and Myers Avenue.
b. Hale Avenue Harmony Grove Road to West Ninth Avenue	Upgrade existing roadway to Local Collector standards. Upgrade unimproved sections of Hale Avenue immediately north of Harmony Grove Road and south of West Ninth Avenue.
c. West Ninth Avenue Hale Avenue to Home Depot Driveway	Upgrade existing roadway to Local Collector standards or connect Citracado Parkway between Harmony Grove Road and Avenida Del Diablo.
d. Citracado Parkway Vineyard Avenue to Andreasen Drive	Construct Citracado Parkway to Modified Collector standards.
e. Andreasen Drive Citracado Parkway to Enterprise Street	Construct Andreasen Drive to Modified Collector standards.
f. Harmony Grove Road Andreasen Drive to Howard Road	Upgrade existing roadway to Local Collector standards.

Table 2.2-12 (Continued)

Impact	Mitigation Measures
g. Harmony Grove Road Howard Road to Hale Avenue	Upgrade existing roadway to Local Collector standards.
4. Freeways (No direct impacts)	No mitigation is required.
5. Access	
a. Project access to Citracado Parkway	Once the planning-area land uses are better defined, prepare an access plan for Citracado Parkway between Vineyard Avenue and Andreasen Drive that would recommend traffic signals, turn lanes, and other access-related improvements.
CUMULATIVE	
1. Signalized Intersections	
a. Nordahl Road/SR 78 EB Ramps	Contribute a fair share towards the City planned widening of Nordahl Road between SR 78 and East Mission Road to six lanes. In addition to the City planned improvements, other mitigation measures are required to meet City LOS standards. Figure 21 of the technical report shows the lane configuration necessary to meet City Standards.
b. Nordahl Road/Mission Road	Contribute a fair share towards the City planned widening of Nordahl Road between SR 78 and East Mission Road to six lanes. In addition to the City planned improvements, other mitigation measures are required to meet City LOS standards. Figure 21 of the technical report shows the lane configuration necessary to meet City Standards.
c. Del Dios Highway/Via Rancho Parkway	Contribute a fair share towards the provision of a dedicated right-turn lane in the northbound direction on Del Dios Highway at Via Rancho Parkway.
d. I-15 SB Ramps/Valley Parkway	Contribute a fair share towards future improvements at the Valley Parkway/Interstate 15 interchange.
e. I-15 NB Ramps/Valley Parkway	Contribute a fair share towards future improvements at the Valley Parkway/Interstate 15 interchange.
2. Unsignalized Intersections	
a. Barham Drive/East Mission Road	Contribute a fair share towards installing a traffic signal at the Barham Drive/East Mission Road intersection.
b. Citracado Parkway/Country Club Drive	Contribute a fair share towards installing a traffic signal at the Citracado Parkway/Country Club Drive intersection.
c. Howard Avenue/Auto Parkway South	Contribute a fair share towards installing a traffic signal at the Howard Avenue/Auto Parkway South intersection.
d. Enterprise Street/Vineyard Avenue	Contribute a fair share towards installing a traffic signal at the Enterprise Street/Vineyard Avenue intersection.

Table 2.2-12 (Continued)

Impact	Mitigation Measures
e. Enterprise Street/Harmony Grove Road	Contribute a fair share towards signalizing the Enterprise Street/Harmony Grove Road intersection and provide the following intersection geometry: Northbound – One left-turn lane and one right-turn lane. Eastbound – One shared through/right lane. Westbound – One left-turn lane and one through lane.
f. Hale Avenue/Harmony Grove Road	Contribute a fair share towards installing a traffic signal at the Hale Avenue/Harmony Grove Road intersection.
g. Simpson Way/Hale Avenue	Contribute a fair share towards installing a traffic signal at the Simpson Way/Hale Avenue intersection.
3. Street Segments	
a. Nordahl Road SR 78 to East Mission Road	Contribute a fair share towards the widening of Nordahl Road between SR 78 westbound ramps and East Mission Road (including the bridge) to six lanes.
b. Vineyard Avenue Country Club Drive to Citracado Parkway	Contribute a fair share towards the widening of Citracado Parkway between Country Club Drive and Vineyard Avenue to four lanes (Major Road standards).
c. Vineyard Avenue Citracado Parkway to Enterprise Street	Contribute a fair share towards the widening of Vineyard Avenue between Citracado Parkway and Enterprise Street to four lanes (Major Road standards).
d. Vineyard Avenue Enterprise Street to Andreasen Drive	Contribute a fair share towards the widening of Vineyard Avenue between Enterprise Street and Andreasen Drive to four lanes (Major Road standards).
e. Auto Parkway Hale Avenue to Valley Parkway	Contribute a fair share towards the provision of additional capacity along Auto Parkway to the satisfaction of the City Engineer.
f. West Ninth Avenue Auto Parkway to I-15 SB Ramps	Restripe eastbound West Ninth Avenue at Auto Parkway to a right-turn lane, a shared through/right lane, and a left-turn lane, and provide right-turn overlap paving in the eastbound approach, in the near term. Contribute fair share towards the future City project for ultimate intersection improvements.
g. Valley Parkway 11 th Avenue to Citracado Parkway	Contribute a fair share towards the widening of Valley Parkway between Citracado Parkway and 11 th Avenue to four lanes.
h. Valley Parkway Citracado Parkway to Via Rancho Parkway	Contribute a fair share towards the widening of Valley Parkway between Citracado Parkway and Via Rancho Parkway to four lanes.
Freeways	
a. SR 78 east and west of Nordahl Road	Mitigation is not available to mitigate SR 78 freeway impacts to below a level of significance.
b. I-15 north and south of West Ninth Avenue	Mitigation is not available to mitigate I-15 freeway impacts to below a level of significance.

mitigation measures. Individual Planning Area trip generation could exceed the assumed trip generation in this report. However, if the trip generation of an individual Planning Area exceeds the assumed trip generation by more than 10%, the impact of this additional amount of trips should be analyzed.

2.2.4 Mitigation Measures

The project will construct improvements at all intersections and segments impacted directly by the project. In addition, the project will contribute a fair share towards improvements at intersections and segments that have cumulative impacts. With the implementation of the recommended mitigation measures, all project direct and cumulative impacts are mitigated to below a level of significance, except on the freeways. Feasible mitigation is not available on the freeways.

Table 2.2-12 summarizes the impacts and recommended mitigation measures.

2.2.5 Conclusions

Significant unmitigable cumulative impacts were identified for the SR 78 freeway and I-15 freeway. Direct impacts to the intersection of West Ninth Avenue and Auto Parkway will occur in the near term; however, the applicant will contribute a fair share towards the future City projects for ultimate intersection improvements. Implementation of the above measures will mitigate significant project or cumulative impacts to a level below significance for the following:

Intersections

- Valley Parkway/Auto Parkway
- West Ninth Avenue/Auto Parkway
- Citracado Parkway/Vineyard Avenue
- Enterprise Street/Andreasen Drive
- Nordahl Road/SR 78
- Nordahl Road/Mission Road
- Del Dios Highway/Via Rancho Parkway
- Valley Parkway/I-15 Northbound
- Valley Parkway/I-15 Southbound
- Barham Drive/East Mission Road

- Citracado Parkway/Country Club Drive
- Howard Avenue/Auto Parkway South
- Enterprise Street/Vineyard Avenue
- Enterprise Street/Harmony Grove Road
- Hale Avenue/Harmony Grove Road
- Simpson Way/Hale Avenue

Segments

- Citracado Parkway (West Mission Avenue to Myers Avenue and Vineyard Avenue to Andreasen Drive)
- Hale Avenue (Harmony Grove Road to West Ninth Avenue)
- West Ninth Avenue (Hale Avenue to Home Depot Driveway and Auto Parkway to I-15 SB Ramps)
- Andreasen Drive (Enterprise Street to Citracado Parkway)
- Auto Parkway (Hale Avenue to Valley Parkway)
- Harmony Grove Road (Andreasen Drive to Hale Avenue)
- Nordahl Road (SR 78 to East Mission Road)
- Vineyard Avenue (Citracado Parkway to Andreasen Drive)
- Valley Parkway (11th Avenue to Via Rancho Parkway)

2.3 AIR QUALITY

The air quality analyses submitted in the Draft EIR for public review has been included as Appendix C1 of the Final EIR. Because of the technical complexity of the information provided in the Draft EIR detailing the potential air quality impacts, it was deemed appropriate to include the analysis as an appendix to the document and provide a synopsis of the cumulative findings for the proposed project and the power plant below.

2.3.1 Existing Conditions

The project site is located within the San Diego Air Basin. The distinctive climate of this area is determined primarily by its terrain and geographical location. Regional meteorology is largely dominated by a persistent high-pressure area which commonly resides over the eastern Pacific Ocean. Seasonal variations in the strength and position of this pressure cell cause changes in the weather patterns of the area. Local climatic conditions are characterized by warm summers, mild winters, infrequent rainfall, moderate daytime on-shore breezes, and moderate humidity.

Currently, the air basin is in compliance with ambient air quality standards for all criteria pollutants except ozone and PM₁₀. Over the past 30 years, substantial progress has been made in reducing air pollution levels in San Diego. Progress has been achieved in the reduction of pollution that leads to ozone formation, and the San Diego air basin has been below the NAAQS for ozone for the last five years. The San Diego Air Pollution Control District (SDAPCD) is currently petitioning for a redesignation of status from nonattainment to attainment of the national ozone ambient air quality standard.

Existing Pollutant Levels at Nearby Monitoring Stations

The SDAPCD maintains a network of air quality monitoring stations located throughout the San Diego Air Basin. Air quality is monitored at a station in the City of Escondido. The most recent criteria pollutants data available from this monitoring station encompasses the years from 1996 to 2000. These data, shown in Table 2.3-1, show the pollutant trends for ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, particulate matter (PM₁₀), fine particulates (PM_{2.5}) and lead.

Table 2.3-1
Pollutant Standards and Escondido Monitoring Station Ambient Air Quality Data⁽¹⁾

	1996	1997	1998	1999	2000
Ozone (O₃)					
<i>California Standard (1-hr avg. > 0.09 ppm)</i>					
<i>National Standard (1-hr avg. > 0.12 ppm)</i>					
<i>National Standard (8-hr avg. > 0.08 ppm)</i>					
Maximum Concentration, 1-hr period (ppm)	0.12	0.11	0.12	0.10	0.12
Days California 1-hr standard exceeded	12	5	9	1	6
Days national 1-hr standard exceeded	0	0	0	0	0
Days national 8-hr standard exceeded	NA	NA	NA	0	3
Carbon Monoxide (CO)					
<i>California Standard (1-hr avg. > 20 ppm)</i>					
<i>California Standard (8-hr avg. > 9 ppm)</i>					
<i>National Standard (1-hr avg. > 35 ppm)</i>					
<i>National Standard (8-hr avg. > 9 ppm)</i>					
Maximum concentration, 1-hr period (ppm)	11.2	9.3	10.2	9.9	9.3
Maximum concentration, 8-hr period (ppm)	7.1	4.9	4.5	5.3	4.9
Days California 1-hr standard exceeded	0	0	0	0	0
Days national 1-hr standard exceeded	0	0	0	0	0
Days California 8-hr standard exceeded	0	0	0	0	0
Days national 8-hr standard exceeded	0	0	0	0	0
Nitrogen Dioxide (NO₂)					
<i>California Standard (1-hr avg. > 0.25 ppm)</i>					
<i>National Standard [Annual Arithmetic Mean (AAM) > 0.05334 ppm]</i>					
Maximum 1-hr concentration (ppm)	0.103	0.121	0.092	0.100	0.083
AAM (ppm)	0.020	0.021	0.018	0.023	0.021
Days California standard exceeded	0	0	0	0	0
Percent national standard exceeded	0	0	0	0	0
Sulfur Dioxide (SO₂)⁽²⁾					
<i>California Standard (1-hr avg. > 0.25 ppm)</i>					
<i>National Standard (AAM > 0.03 ppm)</i>					
Maximum 1-hr concentration (ppm)	0.05	0.05	0.04	0.04	0.04
AAM (ppm)	0.003	0.003	0.003	0.002	0.004
Days California standard exceeded	0	0	0	0	0
Days national standard exceeded	0	0	0	0	0

	1996	1997	1998	1999	2000
Particulate Matter (PM₁₀)					
California standard (24-hr avg. or AAM > 50 µg/m ³)					
California standard [Annual Geometric Mean (AGM) > 30 µg/m ³]					
National standard (24-hr avg. > 150 µg/m ³)					
Maximum 24-hr concentration (µg/m ³)	53	63	51	52	65
AAM (µg/m ³)	27	29	24	30	30
AGM (µg/m ³)	25	27	21	29	28
Days California standard exceeded (calculated) ⁴	12	18	3	6	12
Days national standard exceeded	0	0	0	0	0
Particulate Matter (PM_{2.5})					
National standard (24-hr avg. > 65 µg/m ³)					
Maximum 24-hr concentration (µg/m ³)	N/A ⁽³⁾	N/A ⁽³⁾	N/A ⁽³⁾	64.3	65.9
AAM (µg/m ³)	N/A ⁽³⁾	N/A ⁽³⁾	N/A ⁽³⁾	18.0	15.8

Notes:

- (1) Ambient data for airborne lead is not included in this table, since the Basin is currently in compliance with state and national standards for lead.
- (2) The Escondido Ambient Air Quality Monitoring Station does not monitor SO₂ concentrations. SO₂ from the Downtown San Diego Monitoring Station has been provided for informational purposes.
- (3) The Escondido Air Quality Monitoring Station started monitoring for PM_{2.5} concentrations in 1999.
- (4) Measured days are those days that an actual measurement was greater than the level of the state daily standard (50 micrograms per cubic meter) or the national daily standard (150 micrograms per cubic meter). Measurements are typically collected every six days. Calculated days are the estimated number of days that a measurement would have been greater than the level of the standard, had measurements been collected every day. The number of days above the standard is not necessarily the number of violations of the standard for the year.

ppm = parts per million; µg/m³ = micrograms per cubic meter; mg/m³ = milligrams per cubic meter.

Source: San Diego Air Pollution Control District, Air Quality Data 1996-2000

Sensitive Receptors

Some population groups, such as children, the elderly, and acutely ill and chronically ill persons, especially those with cardio-respiratory diseases, are considered more sensitive to air pollution than others. Sensitive land use receptors in the vicinity of the project site include residential uses.

2.3.2 Thresholds of Significance

The significance thresholds used in this EIR for regional impacts of the ERTC Specific Plan are summarized in Table 2.3-2.

**Table 2.3-2
Significance Thresholds**

	Construction (Pounds per Day)	Construction (Tons per Annual Quarter)	Postconstruction Operations (Pounds Per Day)
Carbon Monoxide	550	24.75	550
Nitrogen Oxides	100	2.50	55
Reactive Organic Compounds (ROC)	75	2.50	55
Particulate Matter	150	6.75	150
Sulfur Oxides	150	6.75	150

Source: South Coast Air Quality Management District, CEQA Air Quality Handbook, November 1999

A standardized methodology has also been developed by Caltrans to quantify CO pollutant concentrations from vehicle traffic. Pollutant concentrations refer to the amount of pollution per volume of air (micrograms/cubic meter). Project-related vehicle traffic would be modeled using the Caltrans Caline4 pollutant dispersion model. A project would have a significant impact upon local area air quality if it causes a new exceedence or a "measurable increase" in an existing exceedence of an NAAQS or CAAQS.

Based on the types of fuels consumed during project construction and operations, emissions of sulfates, hydrogen sulfide, or vinyl chloride are expected to be negligible. These pollutants, while regulated by CAAQS, are therefore not analyzed in this DEIR.

Additional standards for most of the criteria and other pollutants have been set by the state of California. Table 2.3-3 also shows the California ambient air quality standards currently in effect for criteria pollutants. Major new stationary sources of air emissions are subject to New Source Review under rules established under the federal Clean Air Act, California Clean Air Act, and the new source review rules of the San Diego Air Pollution Control District. This

**Table 2.3-3
Ambient Air Quality Standards**

Pollutant	Averaging Time	California Standards ⁽¹⁾	National Standards ⁽¹⁾	Pollutant Health Effects	Major Pollutant Sources
Ozone (O ₃)	1 Hour	0.09 ppm (180 µg/m ³)	0.12 ppm (235 µg/m ³)	High concentrations can directly affect lungs, causing irritation. Common effects are damage to vegetation and cracking of untreated rubber.	Motor vehicles.
	8 Hour		0.08 (157 µg/m ³)		
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m ³)	35 ppm (40 mg/m ³)	Interferes with the transfer of fresh oxygen to the blood and deprives sensitive tissues of oxygen.	Internal combustion engines, primarily gasoline-powered motor vehicles.
	8 Hour	9 ppm (10 mg/m ³)	9 ppm (10 mg/m ³)		
Nitrogen Dioxide (NO ₂)	Annual Average		0.05 ppm (100 µg/m ³)	Irritating to eyes and respiratory tract. Colors atmosphere reddish-brown.	Motor vehicles, petroleum refining operations, industrial sources, aircraft, ships, and railroads.
	1 Hour	0.25 ppm (470 µg/m ³)			
Sulfur Dioxide (SO ₂)	Annual Average		80 µg/m ³ (0.03 ppm)	Irritates upper respiratory tract; injurious to lung tissue. Can yellow the leaves of plants; destructive to marble, iron, and steel. Limits visibility and reduces sunlight.	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
	24 Hour	0.05 ppm (131 µg/m ³)	365 µg/m ³ (0.14 ppm)		
	1 Hour	0.25 ppm (655 µg/m ³)			
Particulate Matter (PM ₁₀)	AGM	30 µg/m ³		May irritate eyes and respiratory tract. Absorbs sunlight, reducing amount of solar energy reaching the earth. Produces haze and limits visibility.	Dust and fume-producing industrial and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities such as wind-raised dust and ocean spray.
	24 Hour	50 µg/m ³	150 µg/m ³		
	AAM		50 µg/m ³		
Fine Particulate Matter (PM _{2.5})	AAR		15 µg/m ³	May increase respiratory symptoms and diseases and decrease lung function.	Vehicle exhaust, industrial combustion.
	24 Hour		65 µg/m ³		

Note:

⁽¹⁾ mg/m³ = milligrams per cubic meter.

µg/m³ = micrograms per cubic meter.

Source: California Air Resources Board, 1996, and the USEPA, 1997

review and permitting process includes preparation of an air quality impact analysis comparing the effects of the stationary emissions to the state and federal ambient air quality standards. New Source Review also limits emissions by requiring the installation of Best Available Control Technology, and offsets for certain emissions.

2.3.3 Analysis of Project Effects and Determination of Significance

The following summary of the impacts analysis (Appendix C1) discusses impacts associated with the construction activities (including all elements of the Specific Plan, land use compatibility issues, and traffic air) and the site-specific impacts associated with the operation of the power plant.

2.3.3.1 Construction/Land Use Compatibility/Traffic Analysis for the ERTC Specific Planning Area

An analysis of the potential air quality impacts of the Proposed Project were conducted for both construction and postconstruction operation phases of the project. For each of these phases, the analysis included the estimates for regional emissions. For the operational phase, the analysis also addresses local area concentrations of a specific pollutant, carbon monoxide (CO). CO is the only pollutant for which standardized modeling methodologies for estimating localized concentrations have been developed and approved by SCAQMD. Therefore, localized concentrations of CO emissions generated from mobile sources during the operational phase of the project were evaluated.

Construction Phase

Construction of the proposed project would generate pollutant emissions from the following activities: (1) grading and excavation; (2) travel by construction workers to the sites; (3) delivery and hauling of construction materials and supplies to and from the project sites; (4) fuel combustion by on-site construction equipment; and (5) the application of architectural coatings and other building materials that release reactive organic compounds (ROC).

The site will require blasting during the initial construction phase of the project site. Emissions from this activity can be influenced by many factors such as explosive composition, product expansion, and confinement. These factors are difficult to measure and control; therefore, impacts associated with blasting are considered significant short-term construction impacts.

However, the ERTC Specific Plan further addresses a blasting program to be established by the master developer, which will be approved by the City prior to and executed concurrently with the Master Tentative Subdivision Map. The City's Blasting provisions (Section 11-16 of the City's Municipal Code) require preblasting inspections and documentation of existing conditions, notice to surrounding properties, and close supervision by the City's Fire Department and Field Engineering Inspectors.

Daily and quarterly construction-related regional emissions for the Proposed Project are presented in Table 2.3-4. Construction-related daily emissions would be above significance thresholds for the analyzed criteria pollutants. During the different phases of construction, daily quarterly emissions of NO_x, PM₁₀, and ROC are considered to represent a significant short-term regional air quality impact, since levels of these emissions would be above the air pollutant significance thresholds.

**Table 2.3-4
Project-Related Daily Construction Emissions**

	CO	ROC	NO _x	PM ₁₀	SO _x
Daily Emissions⁽¹⁾					
Site Preparation Emissions (lb/day)	97	21	188	497	18
Building Construction (lb/day)	72	216	173	43	11
Combined Emissions (lb/day)	169	237	361	540	28
SCAQMD Daily Threshold (lb/day)	550	75	100	150	150
Difference (lb/day)⁽²⁾					
Site Preparation Emissions (lb/day)	(473)	(54)	88	347	(132)
Building Construction (lb/day)	(478)	141	73	(107)	(139)
Combined Emissions (lb/day)	(381)	162	261	390	(122)
Quarterly Emissions					
Site Preparation Emissions (tons/quarter)	3.27	0.69	6.34	16.77	0.60
Construction Emissions (tons/quarter)	2.43	7.30	5.85	1.46	0.36
Combined Emissions (tons/quarter)	5.7	8.0	12.2	18.2	1.0
SCAQMD Quarterly Threshold (tons/quarter)	24.75	2.5	2.5	6.75	6.75

Notes:

(1) Bolded numbers are significant.

(2) Numbers in parenthesis indicate the amount of the pollutant that is below SCAQMD emissions thresholds.

Operations Phase

Air pollutant emissions associated with project occupancy and operation would be generated by both consumption of electricity and natural gas and by the operation of on-road vehicles.

Emissions modeled for the operational phase of the project were compiled using the URBEMIS7G emission inventory model. Project-related operational emissions for on-road mobile sources and stationary sources are summarized below in Table 2.3-5.

**Table 2.3-5
Operational Phase Regional Emissions (lb/day)**

	CO	ROC	NO _x	PM ₁₀	SO _x ⁽²⁾
Stationary Sources (Electricity/natural gas consumption)	7	2	41	0	0
Mobile Sources ⁽¹⁾	2,807	202	252	215	2
Total ⁽¹⁾	2,814	204	293	215	2
SCAQMD Standard	550	55	55	150	150

Notes:

⁽¹⁾ Bolded numbers are significant.

⁽²⁾ SO_x emissions from mobile sources are not quantified by the CARB's URBEMIS7G model. Stationary sources contributes less than 1 pound of SO_x emissions due to energy consumption.

As illustrated in Table 2.3-5, regional emissions from the operation of the proposed project would produce air pollutant emissions in excess of the significance thresholds for all the analyzed criteria pollutants except SO_x. The primary source of emissions attributable to the proposed project is motor vehicles. The proposed project is estimated to generate 19,972 trips per day; therefore, the proposed project would result in a significant impact to air quality.

Local Impacts

During the operational phase of the project, project traffic would have the potential for local area impacts. An analysis at selected intersections was performed to determine the potential for the presence or the creation of CO hot spots attributable to the Proposed Project. The following intersections were selected based on their Level of Service (LOS), the project's traffic contribution to the intersection, and the proximity of project traffic to sensitive receptors. These intersections selected have the highest potential for hot spot formation due to the poor LOS and

high project traffic contributions. Thus, the intersections listed below and depicted in Figure 2.3-1 have the highest potential for CO hot spot formation at sensitive receptors.

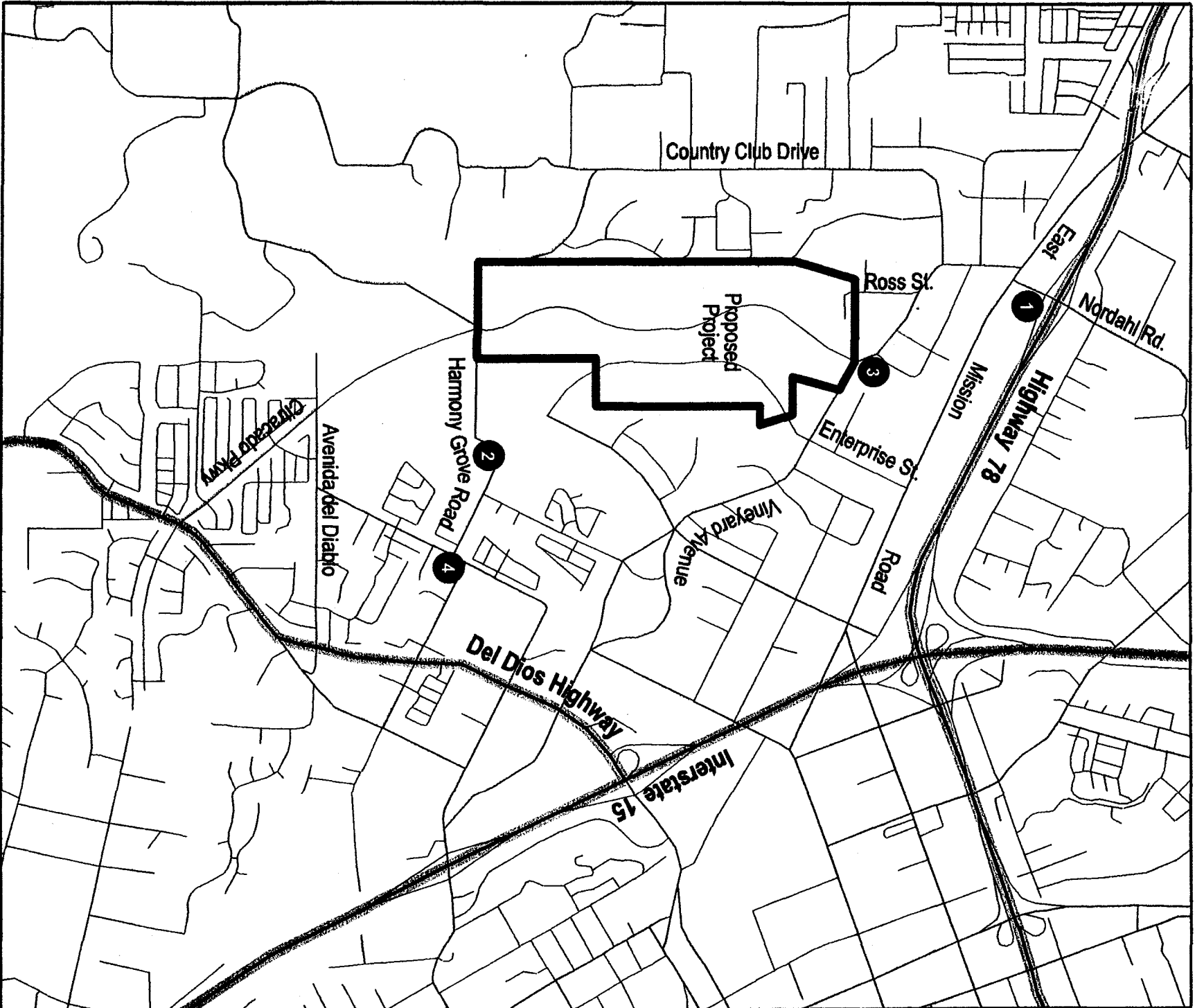
- Nordahl Road and Mission Road
- Enterprise Street and Harmony Grove Road
- Citracado Parkway and Vineyard Avenue
- Harmony Grove Road and Hale Avenue

The CALINE-4 model generates results of CO concentrations averaged over a one-hour time period under worst-case atmospheric conditions for the area, which include low wind speeds and low atmospheric circulation. Eight-hour concentrations were calculated by converting one-hour concentrations to eight-hour equivalents.

Table 2.3-6 lists the baseline and project-related CO concentrations that would occur at the selected intersections. Based on the CALINE-4 analyses, project-related traffic is not anticipated to result in any exceedences of the state and federal 1-hour ambient air quality standards for CO at any of the study intersections. Similarly, 8-hour concentrations at the analyzed intersections would remain below the state and federal ambient air quality standards. Since significant impacts would not occur at the intersections with the highest traffic volumes that are located adjacent to sensitive receptors, no significant impacts are anticipated to occur at any other locations in the study area. Consequently, sensitive receptors in the area would not be significantly affected by CO emissions generated by the net increase in traffic which would occur under the proposed project. Localized air quality impacts related to mobile source emissions would therefore be less than significant for the Proposed Project.

Offsite Improvements

There are two locations offsite that will require road-widening improvements as part of traffic mitigation. One segment located on Vineyard Avenue, between Mission Road and Alpine Way, and the other located on West Valley Parkway, between 11th Street to the north and Citracado Parkway to the south, involve roadway widenings, which would reduce traffic congestion through the improvement in the level of service (LOS) for those roadway segments and intersections. Improvements in the LOS would reduce the average time that a vehicle would be idling due to traffic congestion and increase the average vehicle speed.



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Approximate scale: one inch equals 1,800 feet

Local Area CO Modeling Locations

Figure 2.3-1

**Table 2.3-6
On-Road Carbon Monoxide Dispersion Analysis Full Development**

Intersection	One-Hour Ambient Concentration	Maximum Increment	Maximum One-Hour Concentration	Eight-Hour Ambient Concentration	Maximum Project Impact	Maximum Eight-Hour Concentration
Nordahl Road and Mission Road	9.3	1.2	10.5	4.5	0.7	5.2
Enterprise Street and Harmony Grove Road	9.3	2.4	11.7	4.5	1.4	5.9
Citracado Parkway and Vineyard Avenue	9.3	2.5	11.8	4.5	1.4	5.9
Harmony Grove Road and Hale Avenue	9.3	1.8	11.1	4.5	1.0	5.5
Citracado Parkway and Harmony Grove Road	9.3	0.3	9.6	4.5	0.2	4.7

Because the offsite roadway improvements would result in decreased emissions of vehicle exhaust pollutants, no significant air quality impacts are expected from the operation of the offsite roadway improvements.

2.3.3.2 Power Plant

Emissions

This section provides a discussion of the criteria pollutant emissions from the Power Plant project. Emissions have been estimated for construction, commissioning, and operation.

Construction

During construction of the power plant, there will be emissions similar to those associated with any large industrial construction project. Onsite emissions will arise primarily from heavy-duty vehicles and equipment. Onsite fugitive dust emissions also will be generated during site preparation and during construction. Offsite emissions will occur from construction worker vehicles and material delivery trucks. The construction related emissions are transient in nature, and may cause some localized short-term PM₁₀ impacts, since the area already exceeds the California 24-hour AAQS.

Table 2.3-7 summarizes peak and annual average hourly onsite emissions during construction, and Table 2.3-8 summarizes annual offsite motor vehicle emissions. Construction emissions will include fugitive dust and exhaust from equipment, which result from construction activities and vehicle traffic. This represents a significant short-term regional air quality impact which exceeds the City's thresholds.

**Table 2.3-7
Worst Case Onsite Construction Activity Emissions for the Power Plant**

Measurements are in pounds per hour.

Location	CO		VOC		NO _x		SO _x		PM ₁₀	
	Peak	Ann. Avg.	Peak	Ann. Avg.	Peak	Ann. Avg.	Peak	Ann. Avg.	Peak	Ann. Avg.
Power Plant	81	40	6.0	2.4	27	9.1	0.6	0.2	2.4	1.2

**Table 2.3-8
Offsite Construction Motor Vehicle Emissions for the Power Plant**

Measurements are in tons per year.

Location	CO	VOC	NO _x	PM ₁₀
Power Plant	45	7.1	9.4	2.0

Commissioning

Following construction of the power plant and prior to commercial operation, the combustion turbine generators (CTGs), steam turbine generator (STG), emissions control equipment, heat recovery steam generators (HRSGs), and other plant equipment will be tested and tuned.

The initial period of power plant operation is commissioning operations, which require operation of the CTGs at loads from 0% to 100% of full load. During much of this period, the emissions from the plant will be higher than the normal operating and start-up emissions, because the CTG burners may not yet be tuned for optimal emissions, and the postcombustion emissions control equipment will not yet be in operation.

Table 2.3-9 summarizes the anticipated average emission rates over the commissioning period. Significant air quality impacts are anticipated to exceed the City's thresholds for commissioning; however, steps will need to be taken to minimize these one-time, short-term emissions.

**Table 2.3-9
Emissions During Commissioning Period**

Location	CO	VOC ⁽¹⁾	NO _x
Maximum Hourly per CTG (lb/hr)	159	14.7	118
Total for two CTGs (lb/day)	7,600	700	5,640
Potential Significance Threshold (lb/day)	550	55	55
Potentially Significant Determination	Yes	Yes	Yes

Note:

⁽¹⁾ Assumes all VOCs are ROCs.

Operational Emissions

The Power Plant project will be operated as a merchant power plant. This means that it will respond to the marketplace as needed, and hence may start up and shut down frequently throughout the year. The plant will also employ duct firing for peaking capacity. Therefore, normal operating emissions must account for emissions during startup and shutdown, as well as base and maximum load operations.

Emission characteristics during startup periods (last from about 2 to 4 hours each) will be different than those during normal operation. This is because during startups, the CTG combustors mix fuel and air in a different manner than during normal operation, and also because the postcombustion emission control equipment is not at its proper operating temperature.

Table 2.3-10 summarizes startup and shutdown emissions, based on a review of the performance data contained in Appendix C1 and the operating parameters detailed in that same analysis. PM₁₀ and SO₂ emissions are not included, because emissions of these pollutants during startup and shutdown would not be significantly different from normal operations.

**Table 2.3-10
Combustion Turbine Startup and Shutdown Emissions
(Both Turbines)**

Pollutant	Extended Startup (ES) [lb/event]	Regular Startup (RS) [lb/event]	Shutdown (SD) [lb/event]	Potential Significance Threshold [lb/day]	Potential Significance Determination ES/RS/SD
NO _x	200	140	25	55	Y/Y/N
CO	1,000	920	160	550	Y/Y/N
VOC	100	74	12	55	Y/Y/N

Based on daily emissions of one startup or shutdown event per day, both extended and normal startup events would exceed the City's significant impact thresholds for NO_x, CO, and VOC (ROC). Shutdown emissions would be below significant thresholds for NO_x, CO, and VOC (ROC).

Performance data were developed for the CTGs to assess the expected hourly emissions during various load and temperature conditions. The performance data are presented in ENSR 2001 and summarized in Table 2.3-11.

Table 2.3-11
Emission Estimates [Each Turbine (pounds per hour)]

Load	Pollutant	Ambient Temperature		
		20°F	62°F	110°F
100% (With Duct Firing)	NO _x	14.9	13.9	13.2
	CO	18.1	16.9	16.1
	VOC	7.3	6.8	6.8
	SO ₂	4.5	4.2	4.0
	PM ₁₀	14.0	13.8	14.0
100% (Without Duct Firing)	NO _x	13.4	12.5	11.7
	CO	16.3	15.3	14.3
	VOC	4.0	3.8	3.6
	SO ₂	4.1	3.8	3.6
	PM ₁₀	11.1	11.1	11.1
75% (Without Duct Firing)	NO _x	10.7	10.2	9.6
	CO	13.1	12.4	11.7
	VOC	3.1	3.0	2.9
	SO ₂	3.3	3.1	2.9
	PM ₁₀	11.1	11.1	11.1
50% (Without Duct Firing)	NO _x	8.5	8.1	7.6
	CO	10.3	9.9	9.3
	VOC	2.6	2.5	2.5
	SO ₂	2.6	2.5	2.3
	PM ₁₀	11.1	11.1	11.0

Worst-case daily emissions for both turbines and cooling towers have been calculated on a pollutant-by-pollutant basis by assuming the worst-case hourly operating scenario for any of the four load points and three ambient temperatures. The estimated daily emissions for both turbines and cooling towers are shown in Table 2.3-12 and were determined to be significant.

Facility Potential to Emit

The Power Plant project's potential to emit (PTE) is shown in Table 2.3-13. These emissions have been used to determine the various permitting requirements including the amount of emission offsets required.

**Table 2.3-12
Power Plant Daily Maximum Emissions (Both Turbines and Cooling Tower)**

Pollutant	Maximum Daily (lb/day)	Potential Significance Threshold (lb/day)	Potential Significance Determination
NO _x	796	55	Yes
CO	1,720	550	Yes
VOC	392	55	Yes
SO _x	216	150	Yes
PM ₁₀	687	150	Yes

**Table 2.3-13
Power Plant Annual PTE (Both Turbines and Cooling Tower)**

Pollutant	Annual Average (tons/year)
NO _x	124
CO	254
VOC	47
SO _x	33
PM ₁₀	105

Air Quality Dispersion Analysis

This section addresses criteria pollutant ground level concentrations at selected receptor locations from operation of the Power Plant project. An assessment of predicted criteria pollutant ground level concentrations was performed with respect to the ambient air quality in the project vicinity, the air quality in protected "Class I" areas, and Air Quality Related Values (AQRVs) such as visibility in the Class I areas.

Modeling Methodology used to determine ground level concentrations is detailed in Appendix C1 of the EIR. Details pertaining to the model selection, modeling methodology, meteorological data, receptors, land use, background air quality data, and postprocessing of NO₂ ground level concentrations are provided in the modeling protocol for the project (ENSR 2001).

Significant Impact Analysis and Class II Prevention of Significant Deterioration Increments

Federal Prevention of Significant Deterioration (PSD) regulations require that proposed major sources, such as the Power Plant project, not contribute to air pollutant concentrations in excess of the PSD increments. Attainment areas are divided into Class I and Class II areas for the PSD increment analysis. More sensitive Class I areas (e.g., formally designated wilderness areas, national parks and monuments) are protected by the most stringent PSD increments, with the remainder of the attainment areas evaluated in terms of Class II PSD increments. The Power Plant project vicinity is classified as a Class II area.

Table 2.3-14 shows the results of the analysis with respect to the federal significance impact levels (SILs) and PSD Class II increments. Note that the federal SIL is an air quality threshold for requiring additional air quality modeling analysis, and is not considered to be a significance threshold under CEQA. Similarly, impact refers to an air pollutant ground level concentration. A significant impact under CEQA would be a predicted exceedence of the Class II increment shown in Table 2.3-14.

Table 2.3-14 shows that all project ground level concentrations are below the respective SIL for each pollutant and averaging period. Since the results are below the applicable SILs, no further PSD Class II increment analysis is required. Table 2.3-14 shows the PSD Class II increments for comparison purposes. Thus, no significant impacts would occur.

Ambient Air Quality Standards Analysis

In this analysis, modeled maximum ground level concentrations from the project during normal operations are added to maximum background concentrations monitored in the area. Table 2.3-15 summarizes the results of this analysis.

As shown in Table 2.3-15, when modeled project ground level concentrations are added to ambient background levels, in all cases the sum was found to be below the National AAQS, with the exception of California 24-hour PM₁₀ AAQS.

Table 2.3-14
Significant Impact and Class II PSD Increment Results for the Power Plant

Pollutant	Averaging Period	Maximum Modeled Ground Level Conc. ($\mu\text{g}/\text{m}^3$)	Significant Impact Level ($\mu\text{g}/\text{m}^3$)	Class II Increment ($\mu\text{g}/\text{m}^3$)
NO ₂	Annual	0.7	1	25
PM ₁₀	Annual	0.8	1	17
	24-hour	4.8	5	30
SO ₂	Annual	0.2	1	20
	24-hour	1.4	5	91
	3-hour	5.4	25	512
CO	8-hour	388 ⁽¹⁾	500	-- ⁽²⁾
	1-hour	1,250 ⁽¹⁾	2,000	-- ⁽²⁾

Notes:

⁽¹⁾ CO modeling based on startup emissions lasting for the entire averaging period.

⁽²⁾ PSD increments have not been enacted for CO by the federal Clean Air Act.

Table 2.3-15
Maximum Ambient Air Quality Impact During Normal Operations for the Power Plant

Pollutant	Averaging Period	Maximum Modeled Impact ($\mu\text{g}/\text{m}^3$)	Background ($\mu\text{g}/\text{m}^3$)	Total Impact ⁽¹⁾ ($\mu\text{g}/\text{m}^3$)	Ambient Air Quality Standard ⁽²⁾
NO ₂	1-hour	24.8 ⁽³⁾	191	216	470
	Annual	0.7 ⁽³⁾	44	45	100
CO	1-hour	30.1	11,870	11,900	23,000
	8-hour	10.6	6,123	6,030	10,000
SO ₂	1-hour	7.5	397	405	655
	3-hour	5.4	397	402	1300
	24-hour	1.4	53	54	105
	Annual	0.2	8	8.2	80
PM ₁₀	24-hour	4.8	65	69.8	50
	Annual	0.8	28.5	29.3	30

Notes:

⁽¹⁾ All total impacts rounded to three or fewer significant figures.

⁽²⁾ Most stringent of federal or state ambient air quality standard for each pollutant and averaging period.

⁽³⁾ Assumes 100% conversion of NO_x to NO₂.

However, pursuant to SDAPCD Rule 20.3(d)(2), further analysis was performed with respect to the California 24-hour PM₁₀ AAQS. To perform this analysis for the Power Plant Project, modeling was performed using the meteorology on specific days when monitored background PM₁₀ concentrations were between 45 and 50 µg/m³ (the California standard is 50 µg/m³). The results from this additional analysis concluded that the Power Plant Project will not cause additional exceedences of the California 24-hour PM₁₀ AAQS.

When the modeled impacts at the monitoring station (or anywhere else in the Escondido urban area) are added to the ambient background levels measured on the six days, the result does not exceed the California 24-hour PM₁₀ AAQS, as shown in Table 2.3-16.

Table 2.3-16
Maximum Total PM₁₀ Impacts During Normal Operations for the Power Plant

Date	Background (µg/m ³)	Project Impact (µg/m ³)	Total Impact (µg/m ³)
3/1/99	48	0.08	48
5/12/99	47	0.23	47
11/2/99	47	0.05	47
11/14/99	50	0.03	50
12/20/99	48	0.13	48
11/20/00	49	0.003	49

Commissioning and Startup Impacts

An analysis was conducted of commissioning and startup emissions, which will be short-term-duration events. However, hourly emissions of NO_x and CO will be higher than those expected during normal operations, because the SCR and oxidation catalyst pollution control devices will not yet be optimized during the power plant commissioning and not operated at optimum conditions during startup.

Based upon this analysis, emissions during the commissioning of the Power Plant Project are not expected to produce an exceedence of either California or federal AAQS for NO₂ or CO. Dispersion modeling results, therefore, do not predict significant impacts (CEQA definition) from commissioning activities.

Results of the startup modeling analysis results are provided in Table 2.3-17. The startup results show that the maximum predicted impacts during turbine startup events will be well below the AAQS and, therefore, are not significant under CEQA.

**Table 2.3-17
Estimated Ambient Air Quality Impacts During Startup of the Power Plant**

Pollutant	Averaging Period	Maximum Modeled Impact ($\mu\text{g}/\text{m}^3$)	Background ⁽¹⁾ ($\mu\text{g}/\text{m}^3$)	Total Predicted Concentration ⁽²⁾ ($\mu\text{g}/\text{m}^3$)	Ambient Air Quality Standard ⁽³⁾
NO ₂	1-hour	266 ⁽⁴⁾	191 ⁽⁵⁾	457	470
CO	1-hour	1,250	11,870	13,100	23,000
	8-hour	388	6,123	6,510	10,000

Notes:

- (1) Background air quality data for NO₂ and CO obtained from the Escondido monitoring station during the period 1998-2000.
- (2) All total impacts rounded to three or fewer significant figures.
- (3) Most stringent of federal or state ambient air quality standard for each pollutant and averaging period.
- (4) Assumes 100% conversion of NO_x to NO₂.
- (5) Maximum 1-hour NO₂ measured at the Escondido monitoring station.

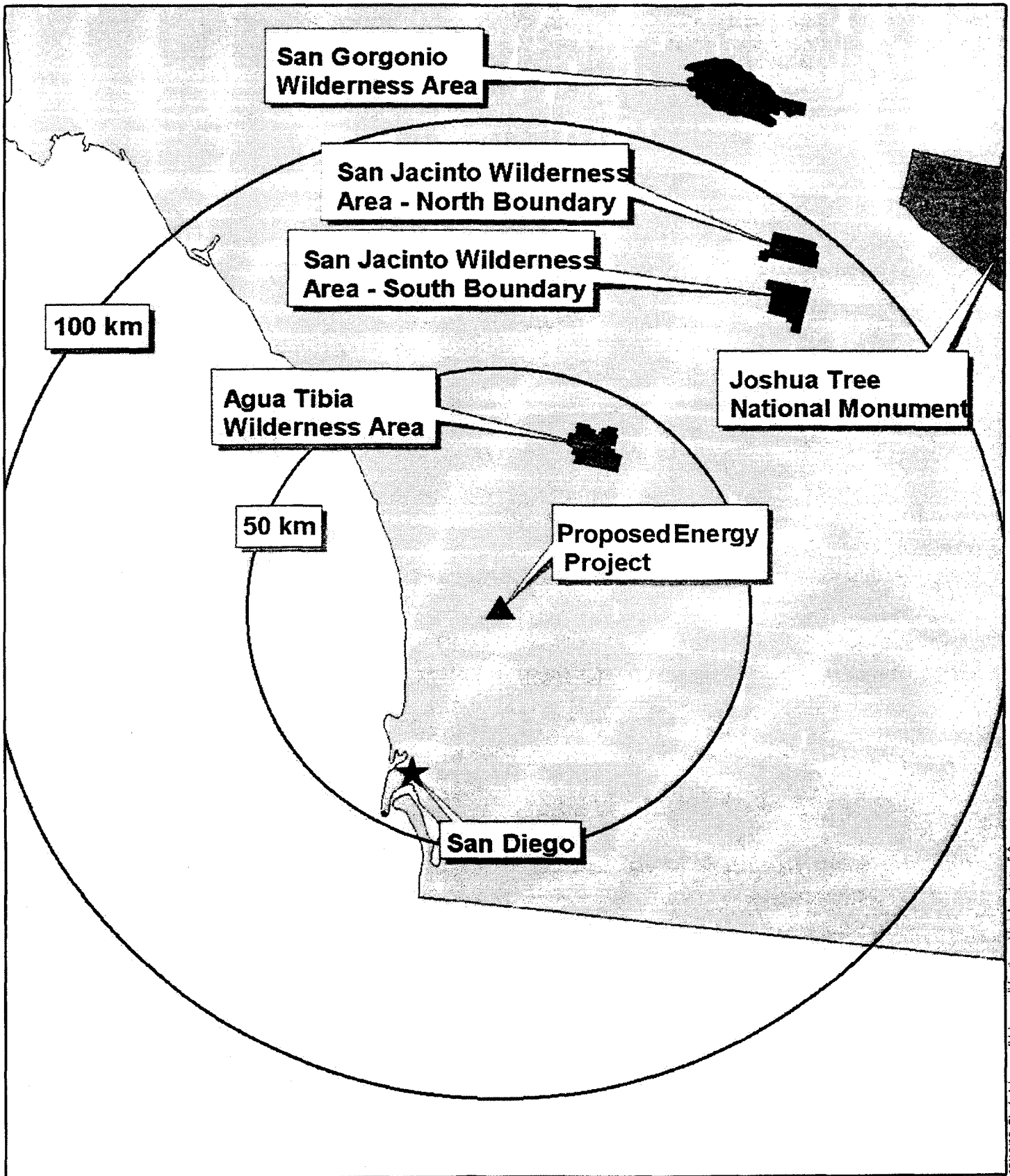
PSD Class I Analyses for the Power Plant

An analysis of the potential project impacts with respect to the PSD Class I increments was performed. There are two Class I areas (Agua Tibia and San Jacinto Wilderness Areas) within 62 miles (100 km) of the Power Plant site. The locations of these areas with respect to the project are shown in Figure 2.3-2.

The results of this analysis are provided in Table 2.3-18. The results are well below the Class I increments, and are also below the proposed Class I significant impact levels (SILs).

Air Toxics and Health Risk Assessment

This section summarizes the health risk assessment prepared for the power plant application (ENSR 2001). The potential impacts associated with airborne emissions from operation of the Power Plant Project at sensitive receptors are assessed. Sensitive receptors are defined as groups



Source: ENSR, 2001



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**Table 2.3-18
Class I PSD Increment Results for the Power Plant**

Pollutant	Averaging Period	Agua Tibia Maximum Modeled Impact ($\mu\text{g}/\text{m}^3$)	San Jacinto Maximum Modeled Impact ($\mu\text{g}/\text{m}^3$)	Proposed Class I Area Significant Impact Levels ⁽¹⁾ ($\mu\text{g}/\text{m}^3$)	Class I Area Increment ($\mu\text{g}/\text{m}^3$)
SO ₂	Annual	0.002	0.005	0.1	20
	24-hour	0.027	0.040	0.2	91
	3-hour	0.170	0.138	1.0	512
PM ₁₀	Annual	0.005	0.018	0.2	17
	24-hour	0.091	0.139	0.3	30
NO ₂	Annual	0.006	0.008	0.1	25

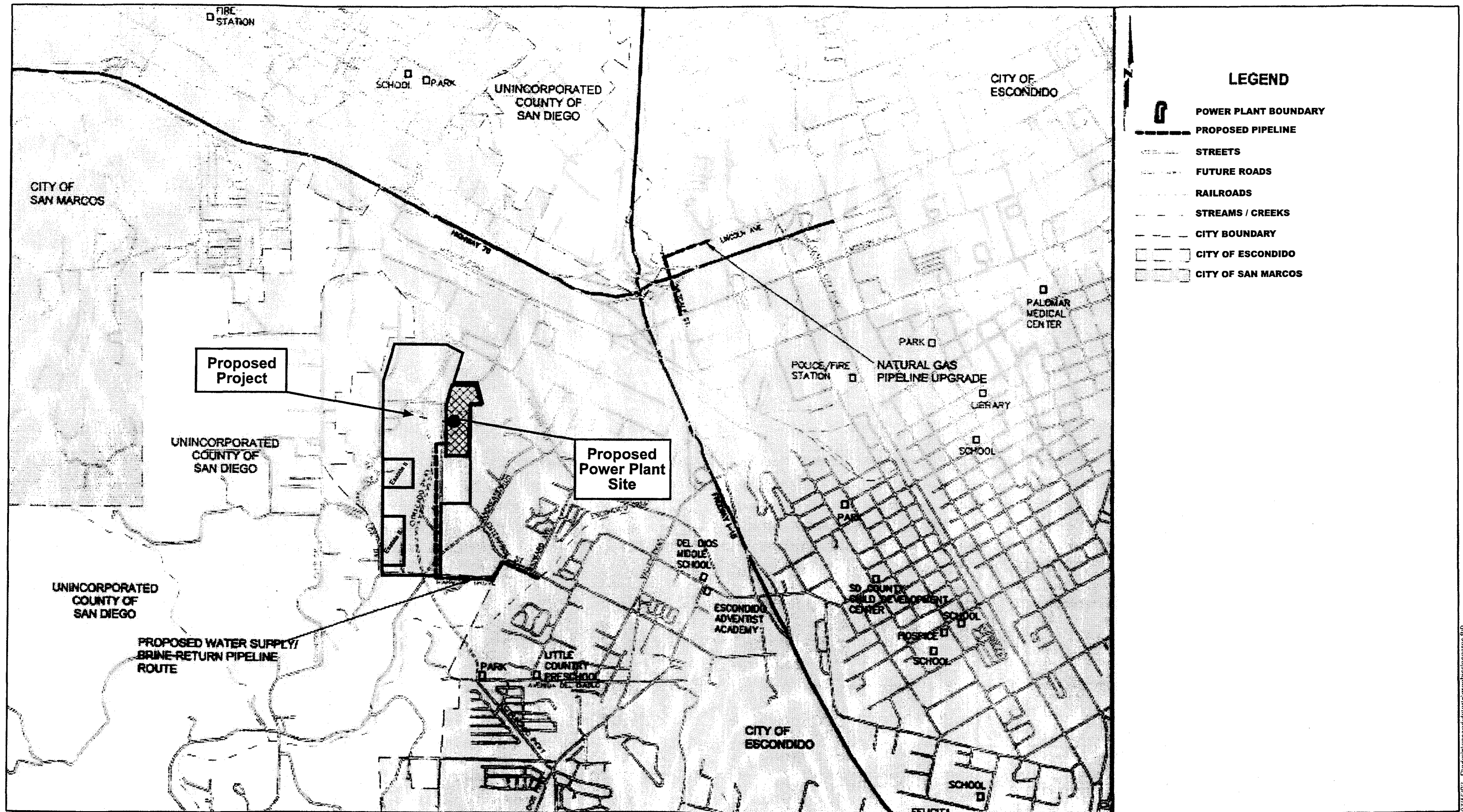
Source: EPA proposed New Source Review reform, FR 7/23/96

of individuals that may be more susceptible to health risks due to chemical exposure. Specific health risks discussed their significance is defined in the Air Quality Impacts analysis included as Appendix C1. Schools (public and private), day care facilities, convalescent homes, and hospitals are of particular concern. Parks, and emergency response facilities, including fire and police stations, were also included as sensitive receptors. The modeled sensitive receptors are shown in Figure 2.3-3.

Risk Assessment Results

Project Operation. The exposure assessment portion of the analysis was performed for the worst-case simple terrain receptor domain and elevated terrain receptor domains. Maximum 1-hour and annual impacts due to facility normal operations occur in the nearby elevated terrain. Sensitive receptors also were included in the analysis.

Table 2.3-19 presents the estimated lifetime cancer risks (i.e., the 70-year residential excess cancer risk) for project operation at the maximum impact points attributable to all carcinogenic contaminants within each receptor domain. The estimates indicate that the project poses an insignificant cancer risk.



Source: ENSR, 2001

one inch = 4000 feet

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1. All active sites shall be watered at least twice daily.
2. All grading activities shall cease during second-stage smog alerts and periods of high winds (i.e., greater than 25 mph) if dust is being transported to offsite locations and cannot be controlled by watering.
3. All trucks hauling dirt, sand, soil, or other loose materials offsite shall be covered or wetted or shall maintain at least 2 feet of freeboard (i.e., minimum vertical distance between the top of the load and the top of the trailer).
4. Streets shall be swept hourly if visible soil material has been carried onto adjacent public paved roads. (Reclaimed water shall be used if available.)
5. Water or nontoxic soil stabilizers shall be applied, according to manufacturers' specifications, as needed to reduce offsite transport of fugitive dust from all unpaved staging areas and unpaved road surfaces.
6. Traffic speeds on all unpaved roads shall not exceed 15 mph.
7. The contractor shall use reduced-VOC-content paints and solvents to the maximum extent feasible. Additionally, use of soot filters, low-sulfur diesel fuel, monitoring of dust emissions, and installation of low-VOC architectural coverings will be required.
8. Prior to issuance of grading permit, the applicant will be required to provide verification that construction activities will offset PM₁₀ emissions to the City's Planning Director.

The mitigation measures identified above implement measures associated with grading/excavation activities and construction equipment travel on unpaved roads which are consistent the SDAPCD's intent to control fugitive dust emissions associated with construction activity. Consequently, mitigation measures prescribed would reduce air pollutant emissions to the degree technically feasible, but would still result in a temporary significant adverse air quality impact from construction activities.

A Memorandum of Understanding between the City and California Energy Commission (CEC) requires close coordination in the development of measures to further reduce air quality impacts associated with the power plant. Therefore, in coordination with CEC, specific and detailed measures will be implemented to further reduce impacts identified by the City during the preparation of this EIR.

Power Plant

Offsets

SDAPCD Rule 20.3(d)(8) requires major new stationary sources of NO_x and VOC to offset emissions of these pollutants. Since the NO_x emissions from the project are greater than 50 tons per year, offsets are required for NO_x emissions. The Power Plant will be required to use soot filters, low-sulfur diesel fuel, monitor dust emissions, and install low-VOC architectural coverings to reduce pollutant emissions. To further offset PM₁₀ emissions, prior to issuance of building permits, the applicant will provide the City Planning Director verification that operations will offset PM₁₀ emissions.

Significant and mitigable adverse impacts on air quality are anticipated as a result of power plant operation. These include:

- Exceedence of the City's significance thresholds for emissions of criteria air pollutants NO_x, VOC, and CO during commissioning and startup. These are short-term impacts that do not result in the violation of any air quality standards.
- Exceedence of significance thresholds for emissions of criteria air pollutants NO_x, VOC, CO, PM₁₀, and SO_x during operation. These are based on emission rates and do not result in the violation of any air quality standards. For nonattainment pollutants NO_x and VOC (ozone precursors), offsets will be required that will reduce emissions of these pollutants from existing sources.

The applicant for the power plant has also proposed to provide additional mitigation for PM₁₀ emissions as part of the CEC license review process, although not required to do so under SDAPCD rules.

2.3.5 Conclusions

Specific Plan

After implementation of all feasible mitigation measures as described above, construction operations would generate emissions exceeding daily construction emissions thresholds and quarterly emissions thresholds for NO_x and PM₁₀. Therefore, construction of the project would have a significant and unavoidable short-term adverse impact on regional air quality.

In the operational phase, the project would result in a net increase in daily emissions which exceed emissions thresholds for the operation of the Proposed Project. Mitigation measures identified above would reduce the potential air quality impacts of the project to the degree technically feasible, but emissions would remain above significance thresholds. Regional air quality impacts associated with the Proposed Project would therefore be significant and unavoidable.

Power Plant

The project is not seeking to waive the AQIA requirement for PM₁₀, and has demonstrated that the proposed project is not expected to cause or contribute to a violation of the California AAQS [Rule 20.3(d)(2)(i)]. Since the area is in attainment for CO and SO₂, offsets for these pollutants are not required.

The SDAPCD licensing and permit review processes will require the power plant to adopt best available control technology and lowest achievable emission rates as required by state and federal law. These requirements, along with permitted emission limits, will ensure compliance with ambient air quality standards as demonstrated by the modeling. Further, as discussed above, the applicant for the power plant will provide offsets to mitigate impacts on ozone as required by SDAPCD requirements. Therefore, there will be no significant unmitigable adverse impacts on air quality as a result of power plant operation.

2.4 NOISE

The following analyses are compiled from the Acoustical Technical Report prepared for the Specific Plan (Appendix D) and data provided as part of the CEC Application for the site-specific analysis of the power plant operation (ENSR, November 2001).

Noise is most often defined as unwanted sound. Although sound can be easily measured, the perceptibility is subjective, and the physical response to sound complicates the analysis of its impact on people. People judge the relative magnitude of sound sensation in subjective terms such as “noisiness” or “loudness”. Sound pressure magnitude is measured and quantified using a logarithmic ratio of pressures, the scale of which gives the level of sound in decibels (dB).

The human hearing system is not equally sensitive to sound at all frequencies. Therefore, to approximate this human, frequency-dependent response, a filtering system is used to adjust measured sound levels. When sound is measured for distinct time intervals, the statistical distribution of the overall sound level can be obtained. The energy-equivalent sound level (L_{eq}) is the most common parameter associated with such measurements. The L_{eq} metric represents the average sound level over a given period of time.

Change in Sound Pressure Level (dB) (Change in Apparent Loudness)

± 3	Threshold of human perceptibility
± 5	Clearly noticeable change in noise level
±10	Half or twice as loud
±20	Much quieter or louder

Source: Engineering Noise Control, Bies and Hansen, 1988

To account for the increased sensitivity of people to noise occurring at night, a number of noise metrics have been developed. Two of the more commonly used metrics are the Day-Night Sound Level (L_{dn}) and the Community Noise Equivalent Level (CNEL). The L_{dn} is a 24-hour average sound level (similar to a 24-hour L_{eq}) in which a 10-dB penalty is added to any sounds occurring between the hours of 10:00 PM and 7:00 AM. The CNEL is similar to the L_{dn} , except that a 5-dB penalty is also added for noise occurring during evening hours from 7:00 PM to 10:00 PM. For noise generated from vehicle traffic, CNEL and L_{dn} could be used

interchangeably, because noise levels would differ between the two noise descriptors by less than 1 dB. Typical noise levels and common outdoor/indoor activities are presented in Table 2.4-1.

**Table 2.4-1
Typical Noise Levels**

Common Outdoor Activities	Noise Level (dBA)	Common Indoor Activities
	110	Rock band
Jet flyover at 1000 feet		
	100	
Gas lawn mower at 3 feet		
	90	
Diesel truck at 50 feet, at 50 mph		Food blender at 3 feet
	80	Garbage disposal at 3 feet
Noisy urban area, daytime		
Gas lawn mower at 3 feet	70	Vacuum cleaner at 10 feet
Commercial area		Normal speech at 3 feet
Heavy traffic at 300 feet	60	
		Large business office
Quiet urban daytime	50	Dishwasher, next room
Quiet urban nighttime	40	Theater, large conference room (background)
Quiet suburban nighttime		
	30	Library
Quiet rural nighttime		Bedroom at night, concert hall (background)
	20	
		Broadcast/recording studio
	10	
Lowest threshold of human hearing	0	Lowest threshold of human hearing

Source: Table N-2136.2 of California Department of Transportation's Traffic Noise Analysis Protocol, October 1998

2.4.1 Existing Conditions

To assess the existing noise environment for the existing setting, noise monitoring for the project site was conducted in January 2002. Noise monitoring was also conducted for the Power Plant Project in accordance with the California Energy Commission's guidelines. The Power Plant Project is proposed to be located in Planning Area 1 of the ERTC Specific Plan. Noise measurements of existing noise levels at locations in proximity to the Power Plant Project site are included in this analysis. In general, the noise monitoring study at noise-sensitive receptors for the Power Plant Project consisted of two monitoring locations on the western border of the ERTC and two monitoring locations to the east of the project site. While these monitoring locations were sufficient to analyze potential noise impacts from the Power Plant Project, additional noise monitoring locations located to the north and south of the site were deemed necessary to characterize potential noise increases from ERTC project-related traffic, which would access the industrial park primarily from the north, south, and eastern portions of the site. Noise monitoring was conducted in accordance with guidelines established by the City of Escondido's Municipal Code. The monitoring locations were selected based on noise-sensitive land use locations which have the highest potential for being affected by project-related noise sources. Monitoring was performed over 24 hours for the following noise-sensitive receptor sites:

- Location 1: Single-family residences along Live Oak Road, Chardonnay Way, and Allenwood Lane west of the project site.
- Location 2: Single-family residences located on elevated lots along Oak View Way southwest of the project site.
- Location 3: Mobile homes along Via Chardonnay southeast of the project site.
- Location 4: Existing industrial land uses adjacent to the east boundary of the project site. These existing uses take access from the cul-de-sac at the west end of Aldergrove Avenue.
- Location 5: The intersection of Citracado Parkway and Avenida Del Diablo, which is south/southeast of the project site.

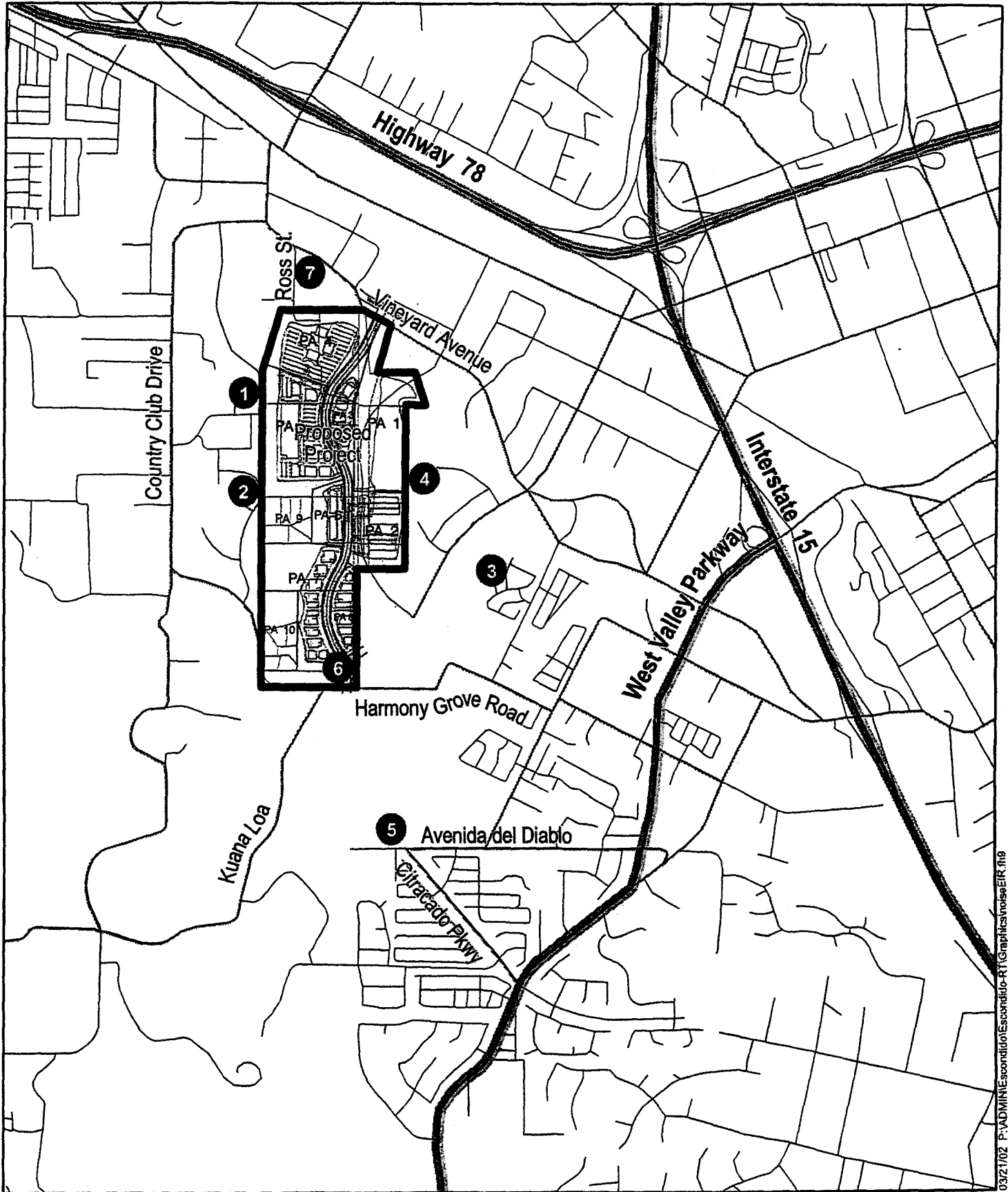
- Location 6: The intersection of Harmony Grove Road and Kauana Loa Road, which borders the southern boundary of the project site.
- Location 7: Single-family residences at the intersection of Vineyard Avenue and Ross Drive.

Figure 2.4-1 depicts the monitoring locations for the noise monitoring study. Table 2.4-2 lists the monitored ambient traffic-generated noise levels. Location 5 (Citracado Parkway and Avenida del Diablo) experienced noise levels of 43 to 67 dBA hourly L_{eq} during a 24-hour period. Location 6 (Harmony Grove Road and Kauana Loa Road) experienced comparable levels of noise that ranged from 44 to 62 dBA hourly L_{eq} during a 24-hour period. Noise levels at these two locations are characteristic of suburban areas with fairly low noise levels throughout the day and night, with the exception of the morning and evening peak traffic periods, where noise levels are at their highest. Location 6 (Vineyard Avenue and Ross Drive) exhibits noise levels that range from 50 to 68 dBA hourly L_{eq} . Noise levels are characteristically low during the late evening and early morning periods, but are consistently in the high 60-dBA range throughout the day, due to constant roadway traffic along Vineyard Avenue.


2.4.2 Thresholds of Significance

Under CEQA Guidelines (Appendix G), an impact would normally be considered significant if there is:

- Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
- Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.
- A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.
- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.



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 Approximate scale: one inch equals 1,800 feet

Noise Monitoring Locations

**Table 2.4-2
Ambient Noise Monitoring Summary (dBA)**

Measurement	Location 1 ⁽¹⁾ SFRs to W		Location 2 ⁽²⁾ SFRs to SW		Location 3 ⁽¹⁾ MHP to SE		Location 4 ⁽¹⁾ Industrial to E		Location 5 Citracado Parkway	Location 6 Kauana Loa Road	Location 7 Vineyard Avenue
	Hours 01-24	Hours 25-48	Hours 01-24	Hours 25-48	Hours 01-24	Hours 25-48	Hours 01-24	Hours 25-48	Hours 01-24	Hours 01-24	Hours 01-24
Peak 1-hour level (L_{eq})	55 ⁽³⁾	51	57	56	58	57	59	59	67	62	68
Minimum 1-hour level (L_{eq})	36	40	40	40	45	45	50	51	43	44	50
1-second maximum	72	70	74	76	71	74	78	82	57	70	69
1-second minimum	30 ⁽⁴⁾	30 ⁽⁴⁾	30 ⁽⁴⁾	30 ⁽⁴⁾	34	36	40	40	32	31	37
90 th percentile (L_{90})	37	38	44	42	46	44	48	49	41	37	47

Notes:

- ⁽¹⁾ Locations 1, 3, and 4: Hour 00-01 is Midnight to 1:00 AM on April 24, 2001; Hour 47-48 is 11:00 PM to Midnight on April 25, 2001.
- ⁽²⁾ Location 2: Hour 00-01 is Midnight to 1:00 AM on September 24, 2001; Hour 47-48 is 11:00 PM to Midnight on September 25, 2001.
- ⁽³⁾ Possibly noise from water sprinklers.
- ⁽⁴⁾ Level could be lower; meter noise "floor" is about 30 dB.

For this project, the significance criteria will be measured against the Escondido Noise Element or the Municipal Code.

The City of Escondido has established noise limits through the noise ordinances in the Municipal Code and noise standards in the Noise Element of the General Plan. These noise limits are designed to maintain the quality of life for noise-sensitive land uses such as residences, hospitals, and schools. The City has established both 1-hour average L_{eq} and 24-hour CNEL noise limits. One-hour average sound level limits based on land use types established by the City of Escondido are detailed in Table 2.4-3.

**Table 2.4-3
City of Escondido One-Hour Sound Level Limits**

Zone	Time	Applicable Limit, 1-Hour Average Sound Level (dBA)
Residential Zones	7 AM to 10 PM	50
	10 PM to 7 AM	45
Multiresidential Zones	7 AM to 10 PM	55
	10 PM to 7 AM	50
Commercial Zones	7 AM to 10 PM	60
	10 PM to 7 AM	55
Light Industrial		
- Industrial Park Zones	Anytime	70
- General Industrial Zones	Anytime	75

Source: City of Escondido Municipal Code Section 17-229, Sound Level Limits

To limit population exposure to physically and/or psychologically damaging noise levels, the City of Escondido has adopted local guidelines based on and consistent with the community noise compatibility guidelines established by the State Department of Health Services for assessing the compatibility of various land use types with a range of noise levels. CNEL standards are typically applied to the receptor location. Figure 2.4-2 illustrates the City guidelines, which are expressed in terms of L_{dn} or CNEL. The CNEL (or L_{dn}) noise levels for specific lands uses are classified into four categories: (1) clearly acceptable, (2) normally acceptable, (3) normally unacceptable, and (4) clearly unacceptable. Lower CNEL values have been adopted for those land uses which require low noise levels, such as residential uses. A CNEL value or L_{dn} of 60 dBA is considered the dividing line between a normally acceptable and

LAND USE CATEGORY	COMMUNITY NOISE EXPOSURE L _{dn} OR CNEL, dB					
	55	60	65	70	75	80
RESIDENTIAL	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Normally Unacceptable	Clearly Unacceptable
TRANSIENT LODGING - MOTELS, HOTELS	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Normally Unacceptable	Clearly Unacceptable
SCHOOLS, LIBRARIES, CHURCHES, HOSPITALS, NURSING HOMES	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Normally Unacceptable	Clearly Unacceptable
AUDITORIUMS, CONCERT HALLS, AMPHITHEATERS	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
SPORTS ARENA, OUTDOOR SPECTATOR SPORTS	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
PLAYGROUNDS, NEIGHBORHOOD PARKS	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Clearly Unacceptable	Clearly Unacceptable
GOLF COURSES, RIDING STABLES, WATER RECREATION, CEMETERIES	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Normally Unacceptable	Clearly Unacceptable
OFFICE BUILDINGS - BUSINESS, COMMERCIAL AND PROFESSIONAL	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Normally Unacceptable	Clearly Unacceptable
INDUSTRIAL, MANUFACTURING, UTILITIES, AGRICULTURE	Normally Acceptable	Normally Acceptable	Normally Acceptable	Normally Unacceptable	Normally Unacceptable	Clearly Unacceptable

Interpretation (For Land Use Planning Purposes)

NORMALLY ACCEPTABLE
Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

CONDITIONALLY ACCEPTABLE
New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements are made and needed noise insulation features included in the design.

NORMALLY UNACCEPTABLE
New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

CLEARLY UNACCEPTABLE
New construction or development clearly should not be undertaken.



conditionally acceptable noise environment for the most noise-sensitive land uses, which include single-family residences, schools, and hospitals. For less-sensitive office and professional uses, the dividing line between the normally acceptable and conditionally acceptable is set at 65 dBA CNEL.

- As per Sections 17-233 and 17-238 of the Escondido Municipal Code, no construction equipment or combination of equipment, regardless of age or date of acquisition, shall be operated so as to cause noise in excess of a 1-hour average sound level limit of 75 dB at any time when measured at or within the property lines of any property which is developed and used in whole or in part for residential purposes, unless a variance has been obtained in advance from the city manager.

2.4.3 Analysis of Project Effects and Determination of Significance

The following impact analysis includes a discussion of the impacts associated with the construction activities (including all elements of the Specific Plan, land use compatibility issues, and traffic noise) and a discussion of the site-specific impacts associated with the operation of the power plant.

2.4.3.1 Construction/Land Use Compatibility/Traffic Analysis

To evaluate the increase in noise over the existing ambient conditions due to construction activities, the construction noise levels reported in Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances (USEPA, 1971) were used to estimate future construction noise levels. The accuracy of this estimate is directly related to the accuracy of the equipment list, published time-usage parameters, and building construction noise levels. Typically, the estimated construction noise level is governed primarily by the high-noise-producing pieces of equipment. To obtain a worst-case estimate of noise from construction activities associated with the development of the Specific Plan, noise levels for construction activities were assumed to include all applicable construction equipment in use as per Table 2.4-4.

The Escondido Noise Ordinance (Section 17-238 of the Escondido Municipal Code) states that grading (construction) equipment shall not be operated so as to cause noise in excess of a one-hour sound level limit of 75 dB at any time when measured at or within residential property

**Table 2.4-4
Typical Noise Levels at Construction Sites (dBA)**

Construction Phase	Minimum Required Equipment in Use		All Applicable Equipment in Use	
	At 50 Feet ⁽¹⁾	At 100 Feet ⁽²⁾	At 50 Feet ⁽¹⁾	At 100 Feet ⁽²⁾
Ground Clearing/Demolition	84	75	84	75
Excavation	79	70	89	80
Foundation Construction	78	69	78	69
Building Construction	76	67	85	76
Finishing and Site Cleanup	76	67	89	80

Notes:

- (1) Source: Bolt, Beranek and Newman, "Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances", prepared for the U.S. Environmental Protection Agency, December 31, 1971.
- (2) Calculated based on an assumption that construction activities will occur at a distance of 100 feet from the property line of the nearest residences to the project site.

lines. As shown on Table 2.4-4, noise levels under worst-case conditions with all applicable equipment in use would produce 89 dBA at a distance of 50 feet from excavation as well as finishing and site cleanup activities. The only existing residences that would be likely be affected by construction noise are located to the west and south of the project site. Construction activities would occur adjacent to residential uses in Planning Areas 4, 5, 7, 9, and 10. Noise levels attenuate with distance from the noise source. If noise levels reach 89 dBA as illustrated in Table 2.4-4, construction activities would have to be at least 250 feet away from the residences to sufficiently attenuate noise levels to 75 dBA at the property line of the nearest residences to the project site.

Due to the lack of project-specific data on the distance of the residences to the planned development, it was assumed that the property lines of the nearest residences are 100 feet away from construction activities. Taking into account noise attenuation from the increased distance of the construction activities from the residential uses, distance-attenuated noise levels at the property line of the nearest residential uses are illustrated in Table 2.4-4 and would range from 69 to 80 dBA, due to the various phases of construction activity. Due to the proximity of the construction activities to the noise-sensitive receptors, noise generated by the various construction phases is anticipated to exceed the City's 75-dB threshold as calculated at the property line of noise-sensitive receptors. Because of the anticipated proximity of construction activities to the nearest residences to the west of the project site, noise produced during the

construction of portions of the Escondido Research and Technology Center nearest to the residences will intermittently exceed the noise limits established in Section 17-238 (Grading Noise) of the City's Municipal Code and will represent a significant short-term noise impact from construction activities. Following the completion of construction of the Specific Plan, noise produced from construction activities associated with the Specific Plan would cease.

In addition, truck-hauling operations and deliveries can generate noise levels as high as 86 dBA at a distance of 50 feet from the source. Due to the relatively small contribution of truck trips to the overall traffic volume occurring at selected haul routes, truck operations associated with construction activities would not be expected to significantly increase the CNEL along haul routes and would not be expected to yield a significant noise impact. The noise from truck movements would result in a short-term increase in noise levels to residences and noise-sensitive receptors located along the roadways.

The site will require blasting during the initial construction phase of the project site. It is difficult to measure and control blasting noise to adjacent land uses; therefore, impacts associated with blasting are considered significant short-term construction impacts. However, the ERTC Specific Plan further addresses a blasting program to be established by the master developer, which will be approved by the City prior to and executed concurrently with the Master Tentative Subdivision Map. The City's Blasting provisions (Section 11-16 of the City's Municipal Code) require preblasting inspections and documentation of existing conditions, notice to surrounding properties, and close supervision by the City's Fire Department and Field Engineering Inspectors.

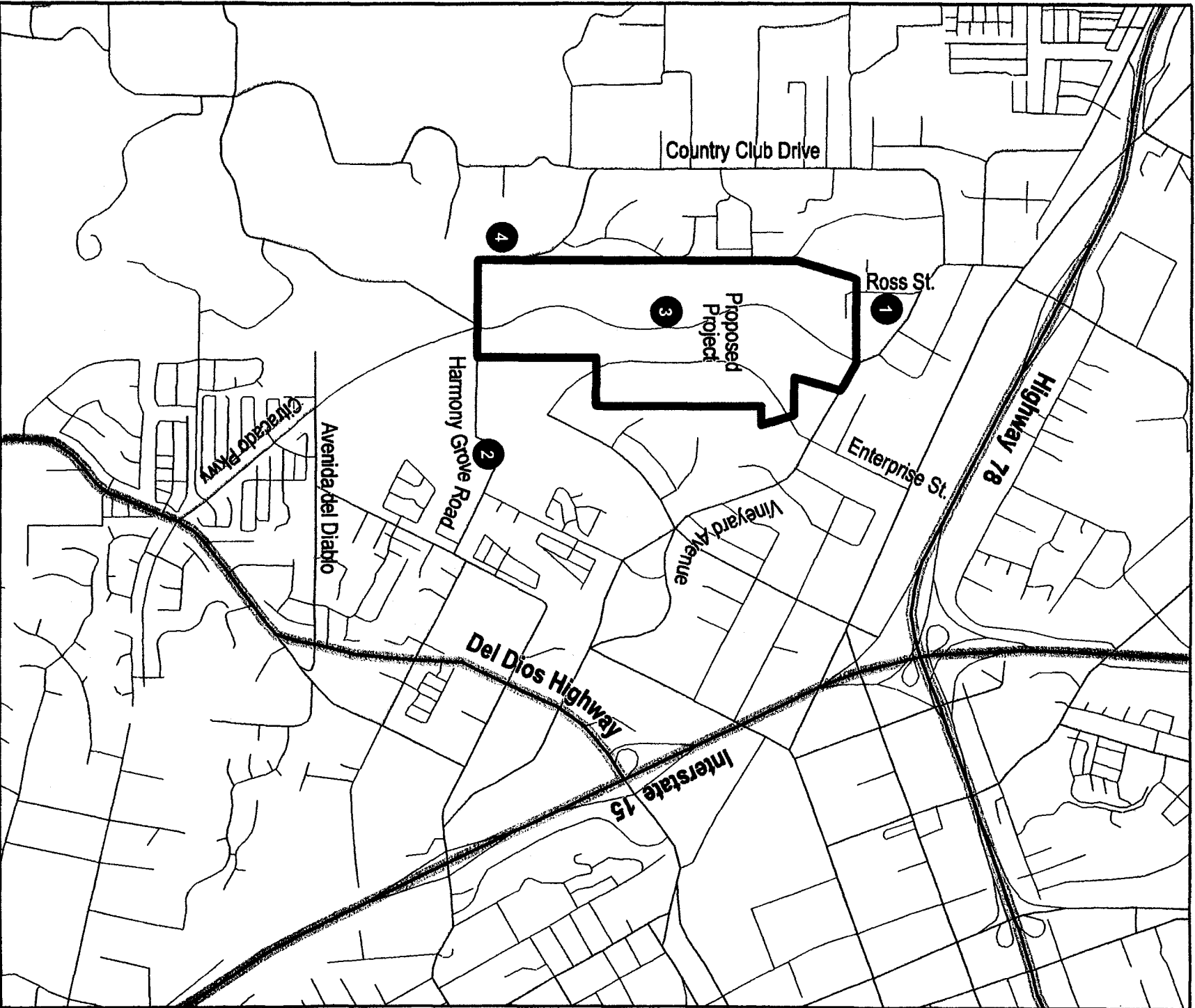
Project Related Traffic Noise

Potential noise impacts from traffic-generated noise are evaluated in relation to changes in the noise environment as a result of additional project-related traffic traveling on offsite roadways. To quantify incremental traffic noise impacts, noise levels from existing traffic data were determined and compared to estimates of traffic noise to be generated by (1) future estimated traffic volumes without the Specific Plan and (2) future estimated traffic volumes including the Specific Plan. Project-generated and cumulative traffic volumes were estimated using the Caltrans Sound32 traffic noise model. Selection of modeled roadway links and noise-sensitive receptor locations is based on those roadways which have the highest potential to trigger an exceedance of the noise increase criterion and City's Land Use Compatibility Guidelines. The potential for exceedance of the City's noise criterion is based on those roadways that have the

highest contribution of project traffic distribution, the largest change in net traffic volume, and the closest noise-sensitive receptors. Figure 2.4-3 depicts the modeling locations for traffic noise. These locations represent those areas for which there is the greatest potential for exceedance of the City's noise criteria by project related vehicle traffic.

The modeling of traffic noise levels is based upon data pertaining to traffic volumes, traffic speeds, and the types of vehicles traveling on area roadways. The modeling input was developed from the Project's traffic engineer, government documentation, and field observations. The results of the noise modeling are presented in Table 2.4-5. As shown by the noise modeling results, future baseline (without project) traffic noise levels would result in noise levels that are categorized as normally unacceptable within the City's noise compatibility guidelines at the property lines of the closest residential uses to the modeled roadways. Noise Policy E1.4 of the City's Element considers noise increases of 5 dB or greater to represent a significant impact when noise levels are within the range of noise levels that are normally acceptable. Because noise levels are currently in exceedance of the normally acceptable category, an industry standard of a 3 dB increase will be used as a significance criterion. A 3-dB change in noise levels is considered to be the minimum change in noise levels that is discernable by human hearing. Traffic noise produced by only Project related roadway vehicles are expected to increase noise levels from 1.0 to a maximum of 4.6 dBA above future baseline conditions. This increase in traffic noise attributable to the proposed project is above the 3-dB significance threshold and would result in a significant noise impact from the addition of project related roadway traffic.

Increases in traffic at the offsite improvements for Vineyard Avenue between Mission Road and Alpine Way would result in an increase of 1.0 dB with the proposed project at 2020 and 1.8 dB with the proposed project and cumulative traffic growth at 2020. This would not result in a perceptible (less than 3 dB) or a significant increase in noise. Project-related traffic utilizing offsite improvements at Valley Parkway between Citracado Parkway and 11th Avenue would result in an increase of 600 ADT. An additional 600 ADT, or approximately 60 peak-hour trips, represents an increase in traffic of less than 4%. This small increase in traffic would not result in changes in traffic noise which are perceptible to human hearing (less than 3 dB) and therefore would not result in a significant noise impact. However, the roadway widening associated with these offsite roadway improvements would bring the roadway closer to the structures of noise-sensitive residences. As such, before construction of these offsite improvements commences, an



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Approximate scale: one inch equals 1,800 feet

Noise Modeling Locations

Figure 2.4-3

**Table 2.4-5
Modeled Existing and Predicted Future Traffic Noise Levels (Ldn)⁽¹⁾**

Receptors	Location	Existing (A)	Baseline (B)	With Project (C)	Project Contribution (C-B)	Cumulative Contribution (C-A)
1	Vineyard Avenue at Ross	70.8	71.6	72.6	1.0	1.8
2	Harmony Grove Road/Enterprise Street	70.1	72.1	73.1	1.0	3.0
3	Citracado Parkway/South of Vineyard Avenue	54.4 ⁽²⁾	69.5	74.1	4.6	19.7
4	Kauana Loa Road	54.4	54.5	55.2	0.7	0.8

Notes:

- (1) Estimated noise level using a vehicle mix of 89% automobiles, 6% 2-axle trucks, and 5% 3-axle or heavier trucks.
- (2) Noise monitoring data taken at Kauana Loa Road was used at this location, due to a lack of monitoring data at this site. Noise levels at this site would be lower than the noise levels monitored at Citracado Parkway and Kauana Loa Road, due to the absence of traffic noise at this undeveloped site.

assessment of potential noise impacts would need to be completed to determine the change in noise levels from both the increase in traffic from the project and cumulative development as well as the roadway widening.

Project-Related Noise from Stationary Sources

Noise produced from development of the proposed specific plan would include onsite noise sources such as from heating, ventilation, and air conditioning (HVAC) units as well as activities associated with the operations of the specific land use. HVAC units and other equipment will be acoustically engineered with mufflers and barriers to insure that the City's noise standards are not exceeded. Noise would also be produced from activities associated with the actual use of the site that may include construction-related industrial uses. Due to the lack of information regarding the specific location and nature of uses proposed on the site, it was assumed that noise levels associated with the proposed construction-related industrial uses would generate as much noise as the noisiest construction phase, which produces 89 dBA at a distance of 50 feet. As such, the proposed construction-related industrial use would have to be situated at a minimum distance of 500 feet from noise-sensitive land uses to not exceed the City's noise standards for residential uses. Noise-intensive land uses would also need to be situated at a minimum distance of 300 feet from office uses to remain below the City's noise standards. These estimates of the

distance required to attenuate noise levels are based on an assumption that there is primarily soft ground (grass) between the source and the receiver which reduces noise. For locations where noise is propagated over primarily asphalt or concrete, the distance between the source and receptor would be greater. Due to the large size of the project site, it appears viable that uses that have the potential for noise generation could be sited away from noise-sensitive uses. Consequently, with proper siting of noise-intensive land uses noise away from noise-sensitive receivers, the operation of the project is not anticipated to result in noise levels exceeding the City's land use compatibility guidelines.

Project-Related Vibration from Stationary Sources

The proposed project consists of land uses which include residential, office, research, industrial, and power generation. These land uses typically do not involve vibration-intensive activities. In light of this, future project operations are not expected to generate perceptible ground vibration at the nearest residential or commercial uses. Vibration impacts would be considered less than significant from future project operations.

2.4.3.2 Power Plant Operation

Power plant operational noise emanates from a variety of sources, including the combustion of fuel in the two combustion turbines, the flow of air through the combustion turbine inlet and exhaust ducts, the flow of steam through the two heat recovery steam generators (HRSGs) and steam turbine, the flow of air and water through the cooling tower, and the operation of various plant auxiliary systems. Noise attenuation measures are incorporated into the design of the Palomar plant to minimize both onsite and offsite noise levels.

Noise Sources and Onsite Noise Levels

Table 2.4-6 presents noise level data for the individual major components of the power plant. Based on this data, and accounting for the shielding that is inherent in the plant layout (i.e., one plant component interrupting the line of sight to another plant component), the overall noise level is estimated at 77 dBA L_{eq} at 100 feet from the noise centroid of the plant. The approximate location of the noise centroid is midway between the inlet transition ducts of the two HRSGs (i.e., midway between the exhaust ducts of the two combustion turbines).

Noise from the power plant may be distinguishable (depending upon the receptor location); however, with appropriate noise attenuation as proposed for this project, it is not expected to be perceived as an offensive whine, screech, hum, or hammering. As shown in Table 2.4-6, the power plant's loudest noise sources are the combustion turbines and steam turbine. These sources have fairly broad-band characteristics (i.e., "white noise") without very specific tone dominance (i.e., the noise is "atonal"). These sources also have a very strong low-frequency dominance, but the human ear does not hear low frequencies very well. The combination of all of the plant's noise sources is multispectral without a very strong frequency peak.

**Table 2.4-6
Noise Levels for Major Components of the Power Plant**

Component	Number of Units	Noise Level per Unit at 100 feet (dBA)
GE 7FA Combustion Turbine Generators ⁽¹⁾	2	74
Steam Turbine ⁽²⁾	1	72
HRSG Inlet Transition Ducts	2	67
HRSG	2	67
HRSG Exhaust Stacks ⁽³⁾	2	56
Main Step-Up Transformers	3	66
Cooling Tower	1	70
Boiler Feed Pumps	4	64
Condensate Pumps	3	60

Notes:

(1) With 85 dBA near-field noise attenuation package.

(2) With 90 dBA near-field noise attenuation package.

(3) With exhaust stack silencers that reduce noise level from 69 dBA to 56 dBA at 100 feet.

Source: Burns & McDonnell

Table 2.4-7 presents the frequency characteristics of the combustion turbines and steam turbine. This table shows that the total noise levels discernable to the human ear are lower than the noise energy levels. Further, it shows that the noise level peaks perceived by the human ear occur at a different frequency band than that of the maximum noise energy. The combustion turbines produce unweighted maximum sound at 63 hertz, but the human ear response shifts the apparent loudest octave band to 2,000 hertz. Similarly, the steam turbine produces unweighted maximum sound at 31.5 to 63 hertz, but the apparent maximum is at 500 to 1,000 hertz. The table further indicates the noise from untreated gas and steam turbines contains objectionable high-frequency components, in the range of about 2,000 hertz. Noise attenuation will be incorporated to reduce

the unmitigated turbine noise totals to the levels shown in Notes 1 and 2 of Table 2.4-7 for the gas and steam turbines, respectively.

**Table 2.4-7
Turbine Frequency Characteristics – Octave Band Center Frequency (Hertz)**

Source	31.5	63	125	250	500	1,000	2,000	4,000	8,000	Total
Unweighted Noise Level (dB)										
Gas Turbine ⁽¹⁾	113	114	110	107	105	103	106	101	95	118
Steam Turbine ⁽²⁾	112	112	109	107	110	107	104	101	100	118
A-Weighted Human Hearing Noise Level (dBA)										
Gas Turbine ⁽¹⁾	74	88	94	98	102	103	107	102	94	111
Steam Turbine ⁽²⁾	73	86	93	98	107	107	105	102	99	111

Notes:

⁽¹⁾ With 85 dBA near-field noise attenuation package.

⁽²⁾ With 90 dBA near-field noise attenuation package.

The power plant is planned as a merchant power plant. This means it may cycle on and off as many as 200 times per year. Intermittent noises associated with startup and shutdown include venting of steam, and opening and closing of valves. Noises of this nature have the potential to be a nuisance, mainly from the sharp tonal nature of steam venting. Noise mitigation will be provided to achieve acceptable noise levels.

Offsite Noise Levels

In addition to the attenuation due to measures incorporated into the design of the power plant, offsite noise levels are subject to further attenuation due to distance, atmospheric absorption, intervening structures, and intervening terrain.

- Distance – Based on the normal geometrical spreading of sound waves in a direct line of sight, noise levels decay at a rate of 6 dB for each doubling of distance.
- Atmospheric absorption – Attenuation due to atmospheric absorption results from imperfect collisions between air molecules transmitting the sound.
- Intervening structures – Attenuation from a solid barrier can be as high as 20 dB, while partial barriers with intervening gaps may result in only a 3-dB reduction. The

attenuating effect of structures is of significance primarily for receptors to the east and southeast of the plant site. The 220-foot-long, 25-foot-high operations building has been placed along the east boundary of the site as a partial barrier separating the power block from receptors to the east and southeast. In addition, a number of offsite industrial buildings separate the project site from the mobile home park to the southeast.

- Intervening terrain – Attenuation may be calculated for the path length difference between a direct sound wave versus one refracted around intervening terrain. A detailed noise attenuation calculation was performed for the major noise-producing components of the power plant. The noise emission heights range from 750 feet above mean sea level (amsl) for equipment located at grade to 860 feet amsl for the top of the HRSG exhaust stacks. Intervening terrain ranges from 800 to 830 feet amsl immediately west of the power block, and 760 to 800 feet amsl immediately east of the power block. In addition, a large berm is included in the design of the buffer area that separates the west edge of the planned industrial park from the single-family residences to the west and southwest. There would be no line of sight between the residences to the west and any portion of the power plant. Several residences located on elevated lots to the southwest would have a line of sight with an upper portion of the HRSG exhaust stacks. Calculations were performed for the single-family residences to the west and southwest of the plant site, for the mobile home park to the southeast, and for the nearest existing industrial land uses to the east.

Table 2.4-8 presents the results of the analysis of offsite noise levels. A comparison is provided with the significance threshold for each location, and the results show that the thresholds are not exceeded.

Transmission Line and Switchyard Noise Impacts

Noise impacts from a power generation facility can also occur offsite as the result of new switchyards and new transmission lines. The proposed onsite switchyard has been included in the noise analysis, and no new offsite switchyards are required to serve the project. No new transmission lines are required, since the project will tie into the existing transmission lines adjacent to the plant site. The “hiss” associated with transmission lines is caused by a corona discharge effect related to transmission line voltage, and the project will not change the existing voltage. Therefore, there are no impacts associated with transmission lines or switchyards.

**Table 2.4-8
Results of Analysis of Offsite Noise Levels (dBA L_{eq})**

Location	Distance Attenuation		Other Attenuation			Attenuated Noise Level ⁽¹⁾	Significance Threshold
	Distance (Feet)	Noise Level	Atmospheric Absorption	Intervening Structures	Intervening Terrain		
Onsite	100	77	--	--	--	77	--
Industrial Land Uses to the East	245	69	0	5	0	64	70
Single-Family Residences to the West	1,800	52	4	0	18	30	41
Single-Family Residences to the Southwest	2,300	50	4	0	9	37	45
Mobile Homes to the Southeast	2,800	48	5	10	0	33	45

Note:

- (1) Varies with individual noise sources within the facility; values shown are averages for the entire facility.
- (2) A few mobile homes may experience a slightly higher level than 48 dBA due to line-of-sight conditions; however, the resultant noise levels will still be below a level of significance.

2.4.4 Mitigation Measures

Specific Plan and Power Plant

It is assumed that the project will be required to conduct all operations (construction and operation) in accordance with established City of Escondido ordinances. The following measures are required above adherence to existing codes. These measures will be placed as conditions on all grading plans.

1. All construction equipment shall be in proper operating condition and fitted with standard factory noise attenuation features. All equipment shall be properly maintained to assure that no additional noise, due to worn or improperly maintained parts, would be generated.

2. Stockpiling and vehicle staging areas shall not be located within 200 feet of existing residences.
3. Approved haul routes should be used to minimize exposure of sensitive receptors to potential adverse noise levels from hauling operations.
4. Truck routes should be planned to minimize truck-related noise at noise-sensitive receivers.
5. The Project is responsible for conducting noise monitoring during construction activities (one hour each day whenever construction is occurring within 200 feet of occupied residences) and insuring that mitigation measures are enforced to the degree feasible. Reports shall be provided to the City each week.
6. Upon completion of final design for the buildings, a site-specific acoustical report shall be submitted to verify that adjacent residential uses are adequately buffered (e.g., distance or incorporating barriers) such that noise levels do not exceed City thresholds.

Power Plant

1. Incorporate noise attenuation measures into the design of the power plant, including the GE Power Systems 85-dBA noise attenuation package for the combustion turbines, the 90-dBA noise attenuation package for the steam turbine, and exhaust stack silencers that reduce noise from the stacks to a level of 56 dBA or less at 100 feet.
2. Limit the use of noise-producing signals (horns, whistles, bells, alarms, etc.) to safety warning purposes only. Use hand-held devices rather than public address systems for worker communication.
3. Incorporate noise attenuation technology (silencers) on steam vents and other components that are noise sources during power plant startup and shutdown activities.

These measures shall be placed as conditions of the Specific Plan.

2.4.5 Conclusions

After implementation of all feasible mitigation measures as described above, construction operations would potentially generate noise levels in excess of the City 75-dBA noise standard for construction activities at the nearest noise-sensitive receivers to the project site. Noise levels at these noise-sensitive land uses are short term and of limited geographical area. However, because noise levels exceed the City noise standard for construction activities, the project would have a significant and unavoidable short-term adverse noise impact.

In the operational phase, the project would result in noise generated by project-related vehicle traffic and onsite sources. These sources of noise were found to result in significant increases in noise after mitigation at Citracado Parkway. This is due to the change in the noise environment from rural conditions before the extension of Citracado Parkway on the project site and the addition of traffic on the project site after project buildout.

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2.5 HAZARDS

2.5.1 Existing Conditions

The property is essentially vacant, with the exception of eight existing single-family dwellings in the southwest portion of the site. Significant portions of the plan area have been disturbed by former agricultural activities, off-road vehicles, and grading. A 200-foot-wide electrical transmission easement with steel lattice towers and wooden poles runs north/south through the center of the site. The lattice towers support the existing 230-kV and 138-kV transmission lines, and the wood poles support the existing 69-kV transmission lines within the existing right-of-way. This easement turns westerly at the southern boundary. Numerous other utility easements traverse the site.

Silica

Silica is a naturally occurring mineral that is present in soil and rock. A description of the regional geology prepared for the Power Plant Project describes the project area as a complex series of granitic intrusions. The intrusions are Cretaceous in age and include granodiorites, tonalites, diorites, leucograndiorites, and grabbos. Granodiorites, tonalites, and leucograndiorites are comprised of quartz and therefore contain silica. The diorites and grabbos do not contain quartz.

Areas where bedrock is exposed on the project site consist of Cretaceous-aged Green Valley Tonalite. Surface soils at the site consist primarily of colluvium composed of silty to clayey sand. Colluvium is soil that was formed in place by weathering of the underlying bedrock. Since tonalites are comprised of quartz, it is expected that the soil which has formed from the weathering of Green Valley Tonalite contains silica.

Electromagnetic Forces (EMF)

The controversy about EMF health effects derives from: (1) the fact that many scientists believe power line magnetic fields emit little energy and are therefore too weak to have any effect on cells; (2) the inconclusive nature of laboratory experiments; and (3) the fact that epidemiological studies of people exposed to EMF are inconclusive.

EMF exist everywhere there is electricity. According to the California Department of Health Services (DHS), “Manmade fields are found wherever people use electricity, such as near power lines and electrical appliances. Like sound, electric and magnetic fields are made of a mixture of components and so can be described in many different ways. Both have wavelike properties such as strength and ‘frequency’ (how often they cycle back and forth). Sound can be loud (strong) or soft (weak), high or low pitched (different frequencies), suddenly loud or constant in tone, and pure or jarring. Similarly, electric and magnetic fields are a mixture of components. They can be strong or weak, have a high or low frequency, have sudden increases in strength (‘transients’) or a constant strength, and consist of one pure frequency or several (called ‘harmonics’). For example, the *strength* of a field can be weak and constant, as in most nighttime home environments, or it can be strong and vary from high to low every few seconds, as from an electric blanket set on high.

“Power lines and wiring in buildings and appliances generate 50 and 60 hertz fields, sometimes referred to as ‘power frequency’ fields. Hertz is the unit for measuring the frequency of fields in the number of wave cycles each second. The lower the frequency of a field, the lower its energy. Power frequency fields are low frequency fields and have low energy levels. Microwave and x-ray fields are high frequency fields and have high energy levels.” (DHS 1999)

EMF are associated with power lines and with wiring in buildings and appliances. Electric fields are easily blocked by buildings, vegetation, and the earth. However, magnetic fields are not readily blocked by objects. Research on the effects of EMF has focused on 50 and 60 hertz (Hz) magnetic fields (fields which alternate 50 to 60 times a second). Although the public tends to focus on exposure from transmission lines, for most people magnetic field exposure comes from appliances and household wiring.

Currently, neither the Federal government nor the State of California regulates EMF levels. An electric field is measured in volts or kilovolts per meter (V/m or kV/m). Magnetic field strength is normally measured in milligauss (mG). The strength of both electric and magnetic fields decreases as one moves away from the source of these fields. A milligauss (mG) is a thousandth of a gauss, and a microtesla (μ T) is a millionth of a tesla (one milligauss is the same as 0.1 microtesla). The magnetic field strength in the middle of a typical living room measures about 0.7 milligauss or 0.07 microtesla.

Table 2.5-1
Examples of Magnetic Fields at Particular Distances from Appliance Surfaces

Source	Magnetic Field Strength (Milligauss, mG)	
	At 1 foot	At 3 feet
Aquarium pump	0.35-18.21	0.01-1.17
Band saw	0.51-14.24	0.05-0.75
Can opener	7.19-163.02	1.30-6.44
Clock	0.34-13.18	0.03-0.68
Clothes iron	1.66-2.93	0.25-0.37
Coffee machine	0.09-7.30	0-0.61
Computer monitor	0.20-134.7	0.01-9.37
Copier	0.05-18.38	0-2.39
Desktop light	32.81	1.21
Dishwasher	4.98-8.91	0.84-1.63
Drill press	0.21-33.33	0.03-8.35
Fax machine	0.16	0.03
Food processor	6.19	0.35
Garbage disposal	2.72-7.79	0.19-1.51
Hairdryer	0.1-70	0.1-2.8
Microwave oven	0.59-54.33	0.11-4.66
Mixer	0.49-41.21	0.09-3.93
Portable heater	0.11-19.60	0-1.38
Printer	0.74-43.11	0.18-2.45
Portable fan	0.04-85.64	0.03-3.12
Radio	0.43-4.07	0.03-0.98
Range	0.60-35.93	0.05-2.83
Refrigerator	0.12-2.99	0.01-0.60
Scanner	2.18-26.91	0.09-3.48
Sewing machine	3.79-7.70	0.35-0.45
Tape player	0.13-6.01	0.01-1.66
Television	1.80-12.99	0.07-1.11
Toaster	0.29-4.63	0.01-0.47
Vacuum	7.06-22.62	0.51-1.28
VCR	0.19-4.63	0.01-0.41
Vending machine	0.46-5.05	0.02-0.59

Source: Department of Health Services, 1999

The National Institute of Environmental Health Sciences (NIEHS), in conjunction with the U.S. Department of Energy (DOE), has collected data on the magnetic field strength near power lines similar to those crossing the project site. The following table summarizes the mean magnetic field strength at a given distance from 115-kV and 230-kV power lines.

Table 2.5-2
Magnetic Field Strengths at Designated Distances from Power Lines

Location	Mean Magnetic Field Strength (mG)	
	115-kV Power Lines	230-kV Power Lines
Directly beneath power line	29.7	57.5
50 feet from power line	6.5	19.5
100 feet from power line	1.7	7.1
200 feet from power line	0.4	1.8
300 feet from power line	0.2	0.8

Source: NIEHS and DOE, 1995

2.5.2 Thresholds of Significance

The project would cause a significant impact to public health and safety if one or more of the following conditions exist:

- Excavation and grading activities result in the emission of silica dust above the Permissible Exposure Limit (PEL);
- EMF exposure is conclusively shown to cause an increased rate of a specific disease or adverse health outcome in the human population.
- Storage, transport, or use of gas or regulated substances that result in adverse health or safety impacts.

2.5.3 Analysis of Project Effects and Determination of Significance

Coarse particles (PM₁₀) are generally emitted from sources such as windblown dust, vehicles traveling on unpaved roads, and crushing and grading operations (also referred to as fugitive dust). Fine particles (PM_{2.5}) can come from fuel combustion (motor vehicles, power generation,

industrial facilities) and fugitive dust. $PM_{2.5}$ is formed primarily in the atmosphere from gases such as sulfur oxides, NO_x , and VOCs. Silica, in the form of coarse particulates, will be generated as a result of blasting, rock crushing, earth movement, and vehicles traveling on unpaved surfaces. A detailed discussion on PM_{10} is provided in Air Quality (Section 2.3), including mitigation measures. The following is a discussion of the silica component of fugitive dust.

Silica Dust

PELs have been established for employee exposure. There are no other guidelines for silica exposure. Currently, the PEL for silica dust is 6 milligrams per cubic meter (mg/m^3) and the PEL for respirable dust from crystalline silica found in quartz is $0.1 mg/m^3$. Title 8 of the California Code of Regulations Section 5155 (8 CCR 5155) requires contractors to monitor employee exposure to airborne contaminants including silica dust.

Title 8 CCR 5141 requires that harmful exposures to silica dust be prevented by engineering controls whenever feasible. An example of an engineering control is spraying water for dust suppression. Whenever engineering controls are not feasible or do not achieve full compliance, administrative controls shall be implemented. An example of an administrative control is to limit the amount of time any employee is exposed to the hazard. If engineering controls and/or administrative controls fail to achieve full compliance, then respiratory protective equipment shall be used in accordance with 8 CCR 5144.

Based on a personal communication with the San Diego Air Pollution Control District (SDAPCD), the SDAPCD does not have a specific regulation for silica (SDAPCD, January 30, 2002). Contractors who are sandblasting must use an SDAPCD-certified abrasive and spray water during blasting. When these two requirements are followed, there is very low to no dust emission. For blasting (e.g., during grading operations), the SDAPCD has Rule 50, which regulates visible emissions, and Rule 51, which addresses nuisance if a group of citizens raises a concern about too much dust from a project site.

Fulfilling the requirements of both the California Code of Regulations and the SDAPCD regulations would adequately mitigate potential impacts to public health and safety posed by site blasting and grading activities. An additional discussion of air quality emissions and associated mitigation measures for fugitive dust is included in Section 2.3.4.

EMF

The construction of the power plant will not require construction of any new transmission lines. However, as described in Section 1.3.1, modifications will be required to the existing transmission facilities on the SPA site. Proposed improvements to the visual aesthetics of the electrical transmission easement include replacing the steel lattice towers with tubular steel poles. To facilitate the interconnection of the power plant into the SDG&E's regional transmission system, the existing 230-kV and 138-kV lines within the right-of-way will be realigned/reconfigured so that the 230-kV lines are closer to the eastern edge of the right-of-way. As part of the development of the industrial park, the 69-kV transmission lines will be rebuilt and/or undergrounded. These transmission facilities improvements will not alter the power of the electricity carried across the lines. Therefore, from a practical standpoint, no changes are expected from the existing EMF to the proposed EMF conditions. However, in accordance with no- and low-cost guidelines adopted by the CPUC, a field management plan will be prepared for the 230-kV and 138-kV line work.

The Specific Plan Area will have only commercial and industrial uses adjacent to the electrical transmission easement. At their closest points, residential developments would be located approximately 350 to 450 feet west of the easement..

DHS (1999) presented data on exposure of adults to EMF during a typical day. Exposure assessment studies of adults who wore measurement meters for a 24- to 48-hour period suggest that the average magnetic field level encountered during a typical 24 hours is about 1 mG. About 40% of magnetic field exposures found in homes come from nearby power lines, while 60% come from other sources such as stray currents running back to the electrical system through the grounding on plumbing and cables, current "loops" due to incorrect internal wiring in the home, and brief exposure to appliances and electrical tools.

Based upon reports prepared to date, it is uncertain as to whether exposure to 50- and 60-hertz fields is a health risk (DHS 1999). Three kinds of studies have been done to explore this:

1. Laboratory studies that expose human or animal cells or organs to fields, looking for biological changes;

2. Laboratory studies that expose animals to fields, looking for changes in body function, chemistry, behavior, or general health; and
3. Epidemiological studies that observe people's health and evaluate whether groups that have high or unusual EMF exposure have a greater chance for developing a disease like cancer than groups with "normal" or usual exposures.

The California EMF Program managed by DHS is in the process of completing a risk evaluation of EMF exposure. The results of the risk evaluation are currently in a draft document entitled Draft 3 of *The Risk Evaluation: An Evaluation of Possible Risks From Electric and Magnetic Fields (EMFs) From Power Lines, Internal Wiring, Electrical Occupations and Appliances*. Public review period on Draft 3 of *The Risk Evaluation* was completed in September 2001. The California EMF Program has not yet published a response to this recent round of comments.

The Risk Evaluation reviewed evidence from four research areas including biophysical arguments, mechanistic and physiological evidence, experimental animal pathology, and epidemiology. The California EMF Program relied on evidence presented by the 1998 National Institute of Environmental Health Sciences (NIEHS) Working Group and relevant studies published since 1998. Based on their review of the data, the DHS staff scientists could not say with a high level of confidence that there was a direct correlation (epidemiological associations) between EMF and various diseases.

In May 1999, the NIEHS Working Group presented their findings to Congress in a report entitled *NIEHS Report on Health Effects from Exposure to Power-Line Frequency Electric and Magnetic Fields*. Using criteria developed by the International Agency for Research on Cancer (IARC), none of the Working Group considered the evidence strong enough to label EMF exposure as a "known human carcinogen" or "probable human carcinogen". However, a majority of the members of the Working Group (19 of the 28 members) concluded that exposure to power line frequency EMF is a "possible human carcinogen" (IARC Class 2B). This decision was based largely on "limited evidence of an increased risk for childhood leukemias with residential exposure and an increased occurrence of chronic lymphocytic leukemia associated with occupational exposure". For other cancers and for noncancer health endpoints, the Working Group categorized the experimental data as providing much weaker evidence or no support for effects from exposure to EMF. But the Working Group's opinion was that weak scientific evidence indicating a possible problem was not sufficient to warrant aggressive regulatory

concern. NIEHS suggested that the power industry continue its current practice of siting power lines to reduce exposures and continue to reduce the creation of magnetic fields around transmission and distribution lines without creating new hazards. San Diego Gas & Electric has an EMF Services Program in place to monitor EMF exposure and design power lines to minimize EMF levels. As discussed above, no new power lines are required for construction of the new power plant.

The conclusions from DHS (1999) were: Public concern about possible health hazards from the delivery and use of electric power is based on data that give cause for concern, but which are still incomplete and inconclusive and in some cases contradictory. A good deal of research is underway to resolve these questions and uncertainties. So far, in the absence of conclusive scientific evidence, there is no sufficient basis for enacting laws or regulations to limit people's exposure to EMF.

Gas Storage

Hydrogen will be used as a generator coolant for the power plant project. Hydrogen is a flammable gas and has an NFPA hazard rating of 4. A maximum of 175,000 cubic feet of compressed hydrogen (two 60,000-cubic-foot trailer-mounted tanks and another 55,000 cubic feet inside generators and distribution piping), may be stored onsite at any one time. These hydrogen tanks will be located outside, in close proximity to the combustion turbine generators, away from electrical lines and other potential ignition sources, as required by applicable building and fire codes. The hydrogen tank also will be protected from vehicular impact by installation of crash posts or other protective measures. Location of the hydrogen tank as described above, coupled with operations consistent with electric power industry safety standards, present a manageable risk of explosion or fire.

Other compressed gases to be stored and used at the facility may include gases typically used for maintenance activities, such as shop welding and emissions monitoring. These gases include acetylene, argon, carbon monoxide, nitric oxide, nitrogen, and oxygen. The potential impacts presented by the use of these gases at the facility are not significant based on the following facts:

- Gases will be stored in small quantities at the facility (200 cubic feet per gas cylinder).

- The compressed gases will be delivered and stored in DOT-approved safety cylinders, and secured by chains to prevent tipping and physical damage.
- The compressed gases will be stored in an isolated storage area surrounded by crash posts to minimize potential for accidents or upset.
- Incompatible gases (e.g., flammable gases and oxidizers) will be stored in separate, isolated areas.

Storage of compressed gases in standard portable cylinders, rather than a single larger cylinder, will limit the maximum quantity released from an individual cylinder to less than 200 cubic feet in the unlikely event of a cylinder failure.

Regulated Substances

Aqueous ammonia (less than 20% concentration of ammonia) will be the only chemical stored in sufficient quantities at the site to be classified as a regulated substance subject to the requirements of the California Accidental Release Prevention (CalARP) Program. Aqueous ammonia will be stored in a 20,000-gallon aboveground storage tank and used for NO_x emissions control at the site. Although hydrogen gas, sulfuric acid, and cyclohexylamine (neutralizing amine) also can be classified as regulated substances under certain conditions, they are not considered regulated substances for the power plant project because they do not exceed threshold quantities. Up to 175,000 cubic feet (or 925 pounds) of hydrogen, 7,500 gallons of sulfuric acid, and 250 gallons (1,812 pounds) of cyclohexylamine will be stored at the plant site.

The CalARP Program regulations were developed by the California Office of Emergency Services (CCR Title 19, Division 2, Chapter 4.5) to merge the federal and state programs for the prevention of accidental release of regulated toxic and flammable substances. The CalARP Program is designed to streamline the permitting requirements for applicants and eliminate the need for two chemical risk management programs. The following is a summary of the federal and state regulated substances to be used at the project:

- Section 2770.5 – Tables 1 and 2 of CCR Section 2770.5 list Federal Regulated Substances and threshold quantities for accidental release prevention, including flammable substances. Hydrogen and cyclohexylamine are on the list; however,

aqueous ammonia (less than 20% concentration) and sulfuric acid are not. The proposed maximum quantity of hydrogen (approximately 925 pounds) does not exceed the threshold quantity on the list (10,000 pounds). The proposed quantity of cyclohexylamine (1,812 pounds) does not exceed the threshold value of 15,000 pounds. Therefore, neither hydrogen nor cyclohexylamine are considered Federal Regulated Substances.

- Section 2770.5 – Table 3 of CCR Section 2770.5 lists State Regulated Substances and threshold quantities for accidental release prevention. Aqueous ammonia, sulfuric acid, and cyclohexylamine are included on this list. The maximum quantity of aqueous ammonia proposed for the power plant facility (20,000 gallons or approximately 31,000 pounds as ammonia) exceeds the threshold quantity on the list (500 pounds); therefore, aqueous ammonia is considered a State Regulated Substance for which a State Risk Management Plan (RMP) is required. Based on the proposed use and storage of sulfuric acid and the proposed quantity of cyclohexylamine, they are not considered State Regulated Substances. Sulfuric acid is a state Regulated Substance only if: (1) it is concentrated with greater than 100 pounds of sulfuric trioxide; (2) the acid meets the definition of oleum; or (3) the sulfuric acid is in a container with flammable hydrocarbons. Cyclohexylamine is a State Regulated Substance only if the proposed maximum quantity exceeds the threshold value of 10,000 pounds.

SCR systems (including aqueous ammonia injection) will be used to control NO_x emissions in the stack exhaust. Monitoring equipment will include sensors to control injection rates. The aqueous ammonia storage and handling facilities will be equipped with continuous tank level monitors, temperature and pressure monitors and alarms, excess flow and emergency island valves, and a steel-reinforced concrete containment structure surrounding the tank and piping. Only trained technicians will conduct system maintenance and repairs.

Aqueous ammonia will be stored onsite in a 20,000-gallon tank. As with bulk storage of other hazardous materials, the ammonia storage tank will be surrounded by spill containment walls to hold the entire capacity of the tank plus an additional volume to contain a 25-year, 24-hour rainfall event. For this analysis, 10% excess capacity is used to approximate a 25-year, 24-hour rainfall event in the project area. Any spilled ammonia in the storage tank berm area will be

collected and drained to a covered collection sump. An ammonia vapor detection system will be installed to allow rapid detection and quick response to any accidental spill of ammonia.

The aqueous ammonia typically will be delivered to the facility in 6,100-gallon tank trucks. Tank trucks will be unloaded in a tank truck unloading area paved with concrete and surrounded by a berm. The unloading area and storage tank bermed area will be connected to a collection sump by a concrete-lined trench with sufficient capacity to contain the entire contents of the tanker truck. The trench will have approximately 12 square feet of metal grate opening to allow for collection of any ammonia that may spill during an unloading accident.

According to CCR Title 19, Division 2, Chapter 4.5, the owner or operator of a facility that handles more than a threshold quantity of a Regulated Substance shall submit an RMP that reflects all covered processes. The CalARP Program defines three program levels for a RMP, depending on the complexity, accident history, and potential impact of releases of regulated substances. For this project, an RMP will be prepared that will include an ammonia hazard analysis, an offsite consequences analysis, a seismic assessment, an emergency response plan, and training procedures.

No significant impacts have been identified for onsite gas storage issues.

2.5.4 Mitigation Measures

Since no significant exposure to silica, EMF, gas, or regulated substances impacts are identified, no mitigation measures are being recommended.

2.5.5 Conclusion

With the implementation of the mitigation measures listed in Section 2.3.4 and adherence to existing codes established by SDAPCD, DOT, and CalARP, all impacts to public health and safety will be reduced to below a level of significance.

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2.6 BIOLOGICAL RESOURCES

This section identifies the existing biological resources on the project site and surrounding area. General mitigation measures for potential impacts to sensitive resources are also identified. In addition to the 208-acre Specific Plan, there are two offsite elements of the Power Plant Project that are included in this investigation. These are an offsite natural gas pipeline to be upgraded approximately 1 mile to the northeast of the SPA, and offsite water pipelines that extend to the southeast of the SPA. The Biological Resources and Impact Assessment for the Escondido Technology Center Specific Plan Area (SPA) was prepared on October 12, 2001 by Merkel and Associates, Inc. and is included as Appendix E. Additionally, a jurisdictional Wetland Delineation Report was prepared by Merkel and Associates (2002) and is also included as Appendix F. Other resources used in the preparation of this section include Dudek 1998 and the City of Escondido Draft Subarea Plan (2000). An independent verification was conducted by P&D Consultants. P&D Consultants also conducted a survey of the offsite improvements proposed at Vineyard Avenue and Valley Parkway (P&D Consultants 2002).

2.6.1 Existing Conditions

A mosaic of rural development, abandoned orchards, and degraded natural habitats dominates the 208-acre SPA (Figure 2.6-1).

The prominent natural habitat on the SPA is the California Sagebrush Series. However, off-road vehicle use, trash dumping, and invasive alien plant species have degraded this habitat. Open areas in the north and northwest portion of the SPA once supported avocado and citrus orchards, but apparently maintenance of these orchards has been abandoned and the large majority of the trees are currently dead stumps. Weedy vegetation now dominates these fallow orchard lands.

The specific botanical and wildlife resources of the SPA are discussed in more detail below. In this discussion, resources are identified and impacts are tabulated in accordance with the following breakdown of the SPA:

- Planning Area 1 Portion of the ERTC project site (proposed power plant location) and offsite improvements (gas and water pipelines)

- Planning Areas 2-8 Remainder of the ERTC project site

- Residential Area (not part of the ERTC Specific Plan)

- Residential Area (not part of the ERTC Specific Plan)

2.6.1.1 Botanical Resources

Vegetation Communities and Habitats

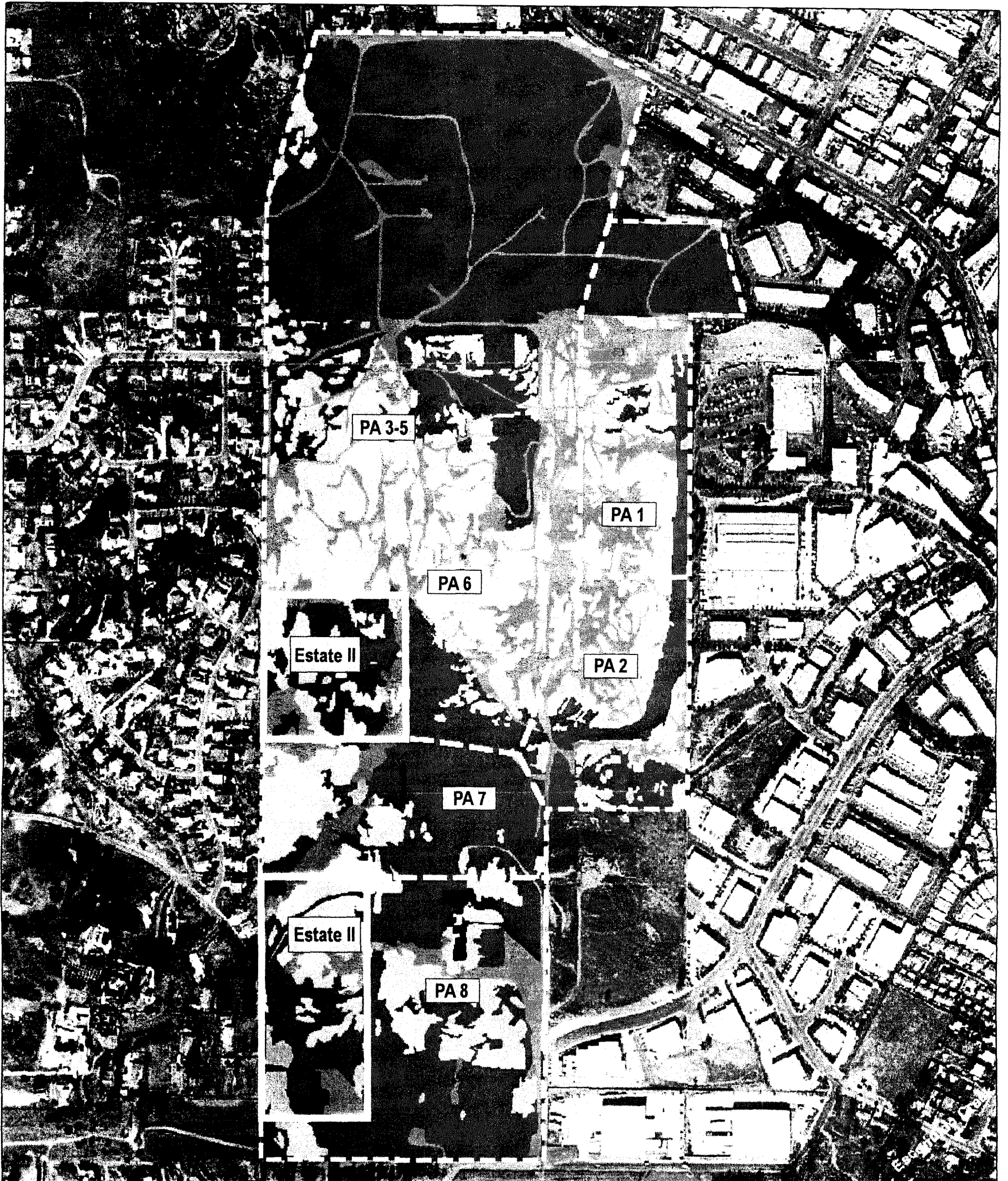
The Sawyer and Keeler-Wolf (1995) classification system is used in this report; however, the equivalent Holland types (1996) as modified by Oberbauer (1996) and associated numeric codes are noted as well.

Eight vegetation series and two disturbed habitats were identified within the SPA. All vegetation series and other habitat areas are described below and are mapped on Figure 2.6-2 at a scale of 1 inch = 500 feet. Table 2.6-1 indicates how vegetation types are distributed among the Planning Areas and the Residential Areas.











California Sagebrush Series (includes the Holland type Diegan Coastal Sage Scrub, Code 32500)

The California Sagebrush Series is a low-growing native plant community dominated by drought-deciduous aromatic shrubs. This vegetation is typical of low-elevation areas of San Diego County and often grows on south-facing slopes. This community was historically the dominant habitat type on the lower coastal slopes of San Diego County, including the lands within the vicinity of the SPA, but its extent has been greatly reduced by urban and agricultural development.

Characteristic shrub species of the California Sagebrush Series that are present in the project vicinity and on the SPA include California sagebrush, flat-top buckwheat, white sage, San Diego monkeyflower, and laurel sumac. Examples of herbaceous plants typical of this habitat and present on the SPA include everlasting nest straw, witch's hair, and dot-seed plantain. The latter species occurs in several large patches in the north central portion of the SPA. Dot-seed plantain is the host plant of the federally endangered Quino checkerspot butterfly. (A discussion of this species is found elsewhere in this report.)

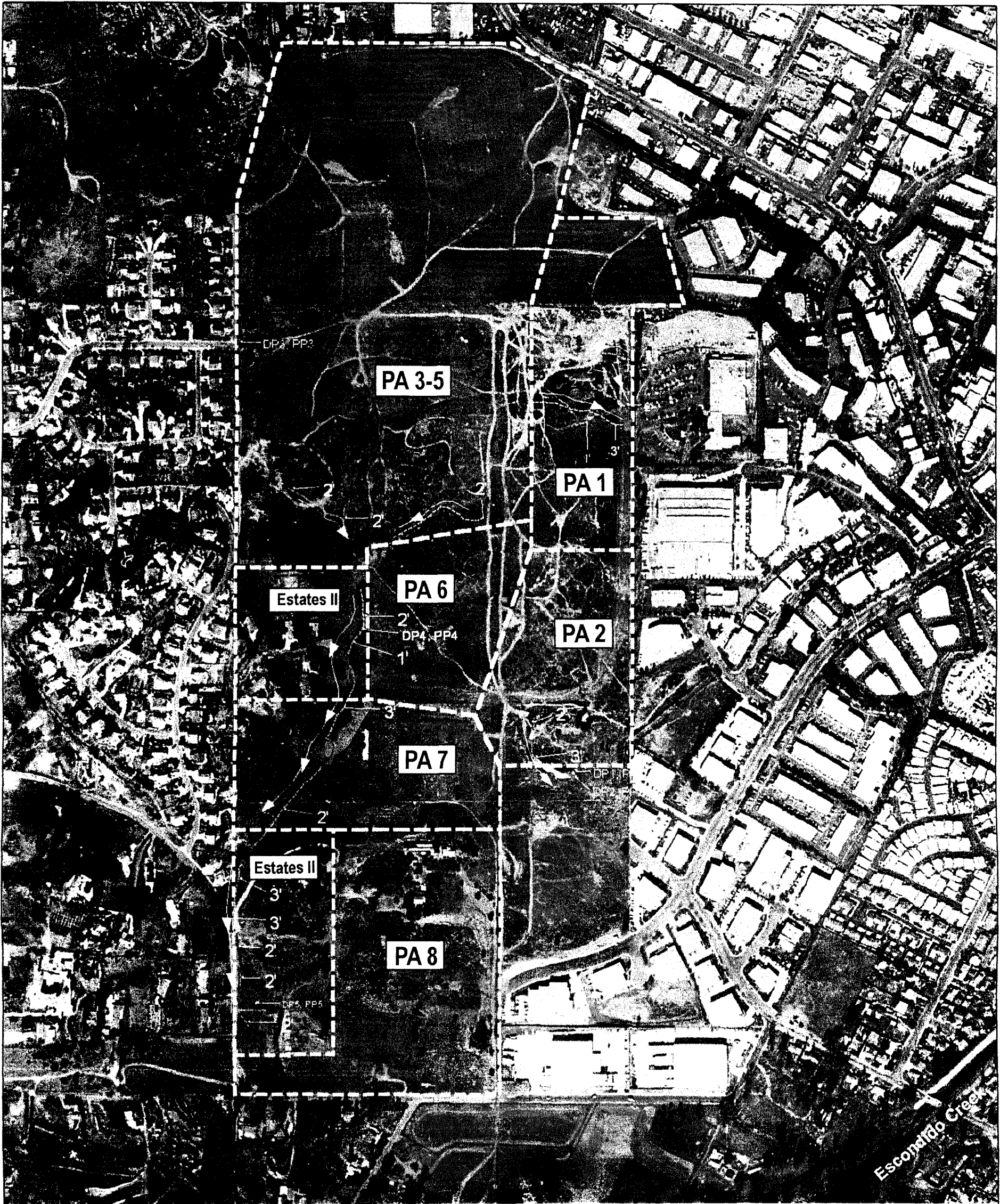


PA # Planning Areas








-  ERTC Project Boundary
-  Agricultural
-  California Annual Grassland Series
-  California Sagebrush Series
-  Coast Live Oak Series
-  Disturbed Habitat
-  Eucalyptus Series
-  Mixed Willow Series
-  Mulefat Series
-  Urban
-  Estate II Boundary

Source: Merkel and Associates, 2001

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ACOE and CDFG Jurisdictional Waters/Streambeds

-  Non-wetland Waters of the U.S.
- # ' = Channel Width
- PP = Photo Point
- DP = Data Point
-  Mixed Willow Series
-  Mulefat Series
-  Mixed Willow Series (CDFG Only)
-  Proposed Wetland Mitigation Area (approx. 0.50 acres)
-  Escondido Research and Technology Center Specific Plan Area
-  Direction of Drainage Flow

Source: Merkel and Associates, 2001



07/2002 Environmental Services, Inc. 07/2002

Table 2.6-1
Distribution of Vegetation Types Among Planning Areas (Acres)⁽¹⁾

Vegetation Types	1	2-8	Residential Areas⁽²⁾	SPA Totals
California Sagebrush	6.9	42.0	3.3	52.2
Annual Grassland	7.5	88.0	7.3	102.8
Coast Live Oak	-	1.9	1.1	3.0
Mixed Willow	0.05	0.22	0.9	1.17
Mulefat	-	0.02	0.002	0.02
Disturbed/Ruderal Land	5.5	26.0	2.4	33.9
Seasonal Ponds and Drainages	0.1	-	-	0.1
Eucalyptus	-	6.4	4.5	10.9
Rural Home Sites	-	1.5	2.6	4.1
Totals	20.0	166.0	22.0	208.0

Note:

⁽¹⁾ Approximately 3,000 feet of the proposed 1.1-mile water line alignment is within the SPA and is included within the Planning Area totals; the remainder of the water line and the entire 0.5-mile natural gas pipeline are within paved roadways and are not included in the table.

⁽²⁾ Vegetation within the two residential zones has been combined.

A quantitative study of the vegetation structure and density on the SPA was not conducted; however, from a qualitative standpoint, the vegetation stands of this series that are present are structurally typical of this community elsewhere in the region. Canopy height varies from approximately 2 to 4 feet and density ranges from fairly open to dense coverage in some areas. Shrub diversity on the SPA is relatively low for this series, and the vegetation has been degraded in many places by invasive nonnative plant species, trash dumping, and off-road vehicle use. It is possible that this habitat has been historically impacted by fire, heavy grazing, or brushing in the distant past, since the plant community diversity is abnormally low. However, there is no evidence that the sagebrush area has been extensively tilled for agricultural uses.

This habitat dominates the SPA and is the best represented native vegetation series within the vicinity of the SPA. The coverage of this habitat on the SPA has decreased slightly from 57.1 acres (Dudek 1998) to 53.6 acres in 2001. This difference may be accounted for by refined mapping procedures, made possible through the use of high-quality aerial photographs in the current study.

California Annual Grassland Series (includes the Holland type Nonnative Grassland, Code 42200)

The California Annual Grassland Series is dominated by nonnative plant species; however, various native annuals such as the California poppy and dove lupine are often present. In the SPA vicinity this vegetation occurs on disturbed lands such as fallow agricultural fields. Characteristic grasses and other plants that are present in the SPA vicinity and within the SPA itself include slender wild oats and various species of bromes, black mustard, radish, and bull thistle.

Coast Live Oak Series (includes the Holland types Coast Live Oak Woodland, Code 71160; and Southern Coast Live Oak Riparian Forest, Code 61310)

Coast live oak is the dominant tree of this vegetation type. Dense stands of coast live oak woodland with a closed canopy often have little or no understory. Most of the stands within the SPA are more open and have a disturbed understory where various annual nonnative grasses are abundant. Much of the oak woodland has been degraded by construction of rural residences and associated yard uses within the shade of the tree canopies. The Coast Live Oak Series is prominent along the largest drainage on the SPA, which occurs in Planning Areas 2-8, 9, and 10 (Figure 2.6-1).

Mixed Willow Series (includes the Holland type Southern Willow Scrub, Code 63320)

The Mixed Willow Series is dominated by species such as Goodding's willow, arroyo willow, and narrow-leaved willow. Fremont cottonwood may be present as scattered individuals. This vegetation series is typically found on seasonally flooded or saturated soils along streams and in broader canyon bottoms; however, small patches are sometimes present on the slopes below irrigated orchards and in other areas where human-created runoff occurs. This series is present along Escondido Creek and along the drainage in the extreme southwestern corner of the SPA in Planning Areas 2-8 and 10. There are also scattered localities on the SPA where individual willows occur.

Mulefat Series (includes the Holland type Mule Fat Scrub, Code 63310)

The Mulefat Series is typically found in canyon bottoms, along washes, and near streams where there is seasonal flooding or the substrate is saturated. This vegetation is also found on the drier

benches along stream systems and is often dominated by a single shrub species, mule fat; however, various species of willows are sometimes present. Several small linear areas of this series are present along a drainage in Planning Areas 2-8, but this series is not well developed.

Eucalyptus Series (includes the Oberbauer Modification of Holland type Eucalyptus Woodland, Code 11100)

Many species of *Eucalyptus* have been introduced into California from Australia, and several of these have become naturalized and often form large monotypic groves. One of the tallest and most common species is blue gum. This species is present in the SPA vicinity and forms large groves along Escondido Creek in the southern part of the SPA vicinity study area. Various groves are at present throughout Planning Areas 2-8 and an open grove occurs in the central western portion of the SPA in Planning Area 9. Blue gum and various other species of *Eucalyptus* are present at scattered localities throughout the SPA. Many of the individual *Eucalyptus* trees on the SPA are infested with the insect redgum lerp, which has resulted in significant defoliation and an unhealthy appearance of many trees.

Seasonal Ponds and Drainages

Seasonal ponds and drainages are defined as those hydrologic features that support intermittent or ephemeral water, but which fail to sustain enough pooling or flow to develop a vegetated plant community. These features vary in their importance to natural communities. Some, such as small ephemeral drainages, simply serve as collectors and conveyance systems for rainwater drainage. Other features may hold water for longer periods and serve important functions as breeding habitat for insects and amphibians.

Within the SPA, there are several small ephemeral drainages that course through the hilly terrain. These generally support no riparian-associated biota and carry water only for brief periods following rainfall events. In addition, three small seasonal pools are present in the north central portion of Planning Area 1. These features are artificial basins created by sheet flow drainage from a cleared and artificially scraped area of the site in association with adjacent watershed areas. They are highly degraded by vehicular damage and trash dumping.

Disturbed/Ruderal Lands (includes the Oberbauer Modification of Holland type Unvegetated Habitat, Code 13000)

Disturbed Lands are areas in which the floral assemblage has been substantially degraded by opportunistic herbaceous exotic species or is nonexistent; thus, assignment of a vegetation series is impossible. They are distinguished from agricultural lands, urban areas, or other nonvegetation series habitats by virtue of the lack of a recognized long-term human-associated land use attributable to these areas. This category is applied to informal dirt roads and trails, scraped areas, abandoned quarries, and other heavily disturbed locations that do not have a clearly developed or developing vegetation component. Fallow agricultural lands and other lands where high disturbance land-use practices are abandoned will frequently become ruderal lands.

Within the SPA, Disturbed/Ruderal Lands primarily consist of informal dirt roads and trails, and scraped lands. In addition, the proposed offsite water pipelines follow some disturbed lands along Harmony Grove Road.

Rural Home Sites (includes the Oberbauer Modification of Holland type Urban/Developed, Code 12000)

Several rural homes occur within Planning Areas 2-8, 9, and 10. The vegetation in these areas is characterized by a combination of native and exotic plants, often including coast live oaks.

Flora

The SPA supports a notably low diversity of native plant life. Given a long period of historic disturbance, and high degrees of urban encroachment, the proportion of exotic species relative to native species is relatively high, with 176 total species being identified of which 64 (36%) are nonnative. All plant species identified on the SPA are listed in the Biological Resources and Impact Assessment Report (Appendix E). There are no unique floristic assemblages recognized on the SPA.

2.6.1.2 Wildlife Resources

Fauna

The SPA supports a subset of the fauna typical of habitats dominated by California sagebrush in coastal Southern California. A number of species often found in this habitat were not observed during the survey work and probably have a low potential of occurrence. This is primarily due to the isolation of the SPA from other areas supporting extensive stands of this vegetation, and the degraded nature of the onsite habitat and lands in the vicinity.

Butterflies

Butterfly species that were observed on the SPA include the funereal duskywing, anise swallowtail, Sara orangetip, silvery blue, Behr's metalmark, and common buckeye. A focused survey for the endangered Quino checkerspot was conducted, but none were found (RECON 2001).

Amphibians

Three species of amphibians, the garden slender salamander, Pacific chorus frog, and western spadefoot toad were observed on the SPA. Small populations of the western toad may also be present on the SPA and in the SPA vicinity.

Reptiles

The western fence lizard and the side-blotched lizard were observed on the SPA. Coastal whiptail may be present on the SPA as well. Biologists from Dudek (1999) observed a western rattlesnake and a Coronado skink during their survey of the SPA. Other species, such as the common kingsnake, gopher snake, and southern alligator lizard – that are often present in rural areas – are expected to occur on the SPA. Two tracks of large snakes were observed in the dust along the dirt roads in Planning Areas 2-8; however, snake populations are not expected to be large on the SPA, due to the nearby presence of heavily traveled roads and the extensive human use of the area.

Birds

Most of the bird species observed on the SPA are typical of California sagebrush dominated habitats in coastal San Diego County. The California quail, greater roadrunner, wren, Bewick's wren, California gnatcatcher, California thrasher, and California towhee were observed. A killdeer was observed at the edge of the temporary pool in Planning Area 1 in the northeastern portion of the SPA. This shorebird is a common species associated within open areas and wetlands.

Red-tailed hawks, turkey vultures, and a single Cooper's hawk were seen soaring over the SPA. A pair of Cassin's kingbirds, which breed locally in tall trees and forage over open habitats, was also observed. See Biological Resources and Impact Assessment Report (Appendix E) for a complete list of the bird species seen on the SPA.

Mammals

Relatively few mammalian species were observed on the SPA. This is mainly because most mammal species are nocturnal and not easily observed during daytime surveys. The California ground squirrel, Dulzura kangaroo rat, brush rabbit, and coyote were seen or detected on the SPA. These mammals are all common species in California sagebrush or chaparral dominated habitats in San Diego County. The isolation of the SPA from other expanses of native habitat would be expected to limit or even preclude the occurrence of larger wide-ranging species such as the mountain lion.

Wildlife Movement Corridors

Many species of wildlife move through the landscape during their daily and/or seasonal activities. Many resident sedentary species move only short distances within their home ranges or territories. Others, such as migratory birds, may move great distances during the year. Large mammalian predators often traverse extensive areas of the landscape over the course of their activities. Because predation is a key process in sustaining biodiversity, it is important to maintain connectivity between large core areas of preserved habitat in order to accommodate a spectrum of native species (Soulé and Terborgh 1999).

Corridors are often defined as linear habitats that differ from the extensive surrounding landscape in which they are embedded. Both Soulé and Terborgh (1999) point out that this

definition is vague and has multiple meanings. Extensive data on the natural history, movement patterns, and dispersal behavior of specific species is needed to define a corridor, and this type of data is unavailable for most of the species in San Diego County. The key concept in regional conservation efforts is landscape connectivity. Core areas need to be connected, and the more fragmented and isolated a patch of habitat becomes, the less value it has for regional conservation efforts. This concept of connectivity is an important component of the Multiple Habitat Conservation Plan (MHCP) process.

As identified in the MHCP Escondido Subregional Plan, the SPA lacks connectivity to core conservation areas and contains fragmented and degraded habitat. For these reasons, the SPA is not expected to be an important element in regional habitat connectivity. The SPA is not recognized in the Escondido Subregional Plan as an important core conservation area or corridor. Birds of various species undoubtedly pass through the SPA and vicinity during migration periods; however, the SPA is not expected to provide important stop-over habitat for migrants.

The SPA may be a focused foraging area for local raptor populations. The open nature of the expansive habitat and the presence of small mammal populations on the SPA are characteristics of raptor foraging areas in the region.

2.6.1.3 Special Status Biological Resources

For purposes of this report, special status biological resources include species listed under the state or federal Endangered Species Act, species listed by the state as species of special concern, species covered under the Multiple Species Conservation Program (MSCP), those considered sensitive under the California Environmental Quality Act (CEQA), resources defined in Sections 1702(q) and (v) of Title 20 of the California Code of Regulations, or species and habitats identified by legislative acts as requiring protection.

Special Status Habitats

The California Sagebrush Series (Diegan Coastal Sage Scrub) is considered a special status habitat in San Diego County. Land conversion to urban and agricultural use has claimed over 90% of the historical coverage of this vegetation type in San Diego County. Losses of this habitat have surpassed thresholds of cumulative significance wherein even minor additional losses can result in continued fragmentation that threatens the long-term survival of several dependent species, absent a concerted effort at strategic conservation of key habitat areas and

associated linkages. The California Sagebrush Series is the primary habitat of the California gnatcatcher and a host of other special status species. These species are becoming rare because of habitat loss. The loss of this vegetation is the driving force behind the NCCP process in coastal San Diego County.

Land conversion to agricultural use and urbanization has been focused on flat, open lands historically dominated by native grasslands. As a result, most of these grassland habitats have been lost from coastal regions of Southern California, including the coastal plain of San Diego County. In addition, with an increase in agriculture and grazing, highly competitive Eurasian annual grasses have been introduced and substantially displaced native grasslands, and encroached into disturbed upland habitats. Grasslands in coastal Southern California, whether dominated by native or nonnative grasses, are important for foraging raptors such as the barn owl, white-tailed kite, and red-tailed hawk. Grasslands also provide wintering habitat for raptors such as the ferruginous hawk and the northern harrier. As a result, large contiguous areas of California Annual Grassland (Nonnative Grassland), although dominated by nonnative plant species, are considered a special status habitat in San Diego County, because they have largely replaced native grasslands and other open habitats on coastal mesas and within valleys as the supporting habitat for native species dependent upon grassland resources. While the grasslands found within the SPA are generally too limited and fragmented to serve an important regional habitat function, the regional conservation plans such as the Escondido Subarea Plan require mitigation of such lands as a means to finance acquisition and preservation of larger tracts of functional habitat.

Special Status Flora

Data from the California Natural Diversity Data Base (CNDDDB) was compiled to investigate the presence of special status plant and animal species in the Escondido region. The potential of special status species occurring in the SPA vicinity was addressed by analyzing the CNDDDB data in conjunction with observations on the habitats present in the project vicinity. A full list of special status species that may occur within the project vicinity is provided in Appendix E, along with their listing status, habitat affiliations, the probability for occurrence on the SPA, and whether the species is a covered species in the draft Escondido Subarea Plan.

No special status plant species were identified within the SPA, and no MSCP narrow endemic species or critical populations of MSCP-covered species occur within the project vicinity.

While no special status plants were observed on the SPA, the project vicinity is capable of supporting a limited number of special status plants; however, many of these are associated with unique soils that are not found on the SPA. No significant impacts to these special status plants, if present, are expected from the proposed ERTC project development. For a complete list of special status plants and their likelihood of occurrence within the project vicinity and on the SPA, please refer to Appendix E.

Special Status Wildlife Species

Special status wildlife species include those carrying a listing status by the USFWS (1999), CDFG (2000), those considered to be covered species under the draft Escondido Subarea Plan. Table 2.6-2 lists the special status species known to exist on the SPA. A number of other special status species are known from the Escondido region, but were not detected on the SPA during the current survey. These are described in detail in Appendix E.

**Table 2.6-2
Special Status Species Observed on the SPA**

Species Name	Planning Area	Federal Status	California Status	Escondido Subarea Plan
California Gnatcatcher	1, 2-8	Threatened	SSC	Covered
Western Spadefoot Toad	1	FSC	SSC	Covered
Cooper's Hawk	2-8	None	SSC	Covered

Notes:

Threatened = Listed Threatened Species Under Federal Endangered Species Act.

FSC = Federal Special Concern Species.

SSC = California Species of Special Concern.

Covered = Covered species under the Multiple Habitat Conservation Plan, Escondido Subarea.

During April 2001, two pairs of California gnatcatchers were observed on Planning Area 1 of the SPA. These pairs both included a black-capped male, and breeding/nesting was assumed. During August 2001, a California gnatcatcher survey was conducted in all appropriate habitat on the entire SPA. During these surveys, up to 14 individual gnatcatchers were observed, including three adult males, with the remaining birds being females and juveniles. Due to seasonal constraints, the surveyors were unable to precisely assess age or gender beyond inference on all nonadult male birds. It is estimated that four pairs of gnatcatchers established nesting territories

on the SPA in 2001. Dudek (1998) reported six pairs of gnatcatchers on the SPA. While speculative, it is possible that the difference in numbers between the 1998 and 2001 surveys is due to population dynamics. Animal populations in general are cyclic in nature, and this phenomenon has been apparent in California gnatcatcher populations throughout San Diego County, particularly in areas of low-quality habitat, as on the SPA. Therefore, the apparent decrease in numbers of breeding gnatcatcher pairs on the SPA over a three-year period does not necessarily indicate a long-term downward trend in the gnatcatcher population. Future gnatcatcher populations on the SPA could increase or decrease.

The California Gnatcatcher is found in habitats supporting California sagebrush in coastal southern California southward into Baja California, Mexico. The majority of the historical habitat occupied by this species within the United States has been converted for agriculture or urban development. As a result, the species has been listed as a threatened species under the federal Endangered Species Act. This bird is considered a Species of Special Concern by the California Department of Fish and Game and is a covered species under the draft Escondido Subarea Plan.

Seven juvenile western spadefoot toads were found under surface trash around the temporary pool in the northern portion of Planning Area 1. Dudek (1998) noted approximately 250 western spadefoot tadpoles in this area at the time of their spring 1998 survey. This amphibian occupies valleys and foothill areas in the Central Valley and along the central and southern coast of California. This amphibian has greatly declined in San Diego County, due to the extensive agricultural and urban development along the coast and in inland valleys. The Western Spadefoot toad is considered a Species of Special Concern by the CDFG (Jennings and Hayes 1994) and is a covered species under the draft Escondido Subarea Plan.

The Cooper's hawk is a midsized hawk that frequents wooded habitats. Even though this hawk is considered a species of special concern by the CDFG, recent data accumulated by the San Diego County Bird Atlas project, from 1997 to the present, indicate that this raptor is aggressively colonizing suburban areas in San Diego County where adequate nesting trees (e.g., *Eucalyptus*) are available (Phil Unitt, pers. comm. 2001). The potential for nesting of this species in the area of the SPA is considered medium to high. The Cooper's hawk is a covered species under the draft Escondido Subarea Plan.

Other species that have the potential to occur on the SPA include species with cryptic coloration that occur in naturally low densities such as the coastal (San Diego) horned lizard. Other

sensitive reptile species that are known from the Escondido area and could conceivably occur on the SPA include the orange-throated whiptail and the red diamond rattlesnake.

The northwestern San Diego pocket mouse may occur on the SPA; this small mammal is strictly nocturnal, leaves few distinguishing signs, and is difficult to detect unless a trapping program is undertaken. In addition, several special status birds may make seasonal or intermittent low-level use of the SPA for foraging and, in some cases, breeding. The southern California rufous-crowned sparrow has been recorded on the SPA (Dudek 1998) and may intermittently occupy the SPA as a breeding species, while the western bluebird is possible as a winter visitor to the SPA. Other species which may make intermittent use of the SPA include a number of raptors, such as the northern harrier, and the white-tailed kite.

The occurrence of any of these species within the SPA would be notable, but would not substantially alter the assessment of impacts relative to established significance criteria. This is because these species are generally less sensitive to human disturbances and are considered habitat associates that are not distributed in narrowly defined populations. Rather, these species have declined in association with a loss of suitable habitat. Because impacts to habitats in which these species are associated are being evaluated for significance, they are considered to be adequately addressed through this habitat-based assessment.

Nesting Species

With the exception of the California gnatcatcher, no special status bird species are currently known to nest on the SPA. Several species of raptors are expected to use the tall eucalyptus and coast live oaks in the project vicinity. An active red-tailed hawk nest containing three young birds was located in a large blue gum at the north end of the SPA during the field surveys. Even though nest sites were not found, the red-shouldered hawk probably nests in the vicinity of the SPA or in the SPA itself, because several individuals were heard calling in the area. A single Cooper's hawk was observed in Planning Areas 2-8 during August. This woodland species may nest in the project vicinity and could conceivably use the oak woodland on the SPA. The white-tailed kite and the great horned owl are two other raptor species that could potentially nest within the SPA vicinity as well.

2.6.2 Thresholds of Significance

Impacts to biological resources are assessed pursuant to the California Environmental Quality Act (CEQA) review process and through the review of the project's consistency with applicable local and regional conservation and resource protection plans or ordinances. There would be a significant effect on biological resources if the project would:

- Significantly adversely affect a rare, threatened, or endangered species or the habitat of such a species;
- Interfere substantially with the movement of any resident or migratory fish or wildlife species;
- Substantially diminish habitat for fish, wildlife, or plants;
- Result in substantial loss of an important example of unique intact native biological communities; or,
- Conflict with provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

The direct, indirect, and cumulative impacts of a project must be analyzed for significance. Impacts must be evaluated on a case-by-case basis. It is important to note that significance of a given activity is variable according to the setting. Resources generally considered significant include vegetation series or types that support special status plant or animal species and unique vegetation types that are limited in distribution and have a critical ecological role. Habitats supporting species considered rare or threatened by the agencies that enforce the California and Federal Endangered Species Act are also regarded as significant resources.

To determine the extent of impacts, the acreage of each habitat type impacted should be quantified. When possible the "take" of individuals of special status species should also be quantified. Significance of impacts to habitat is based upon habitat value and the amount of habitat that would be impacted. Significance thresholds for vegetation series will vary based on the regional and local coverage of the series in relation to historical occurrence. California Sagebrush Series (Diegan Coastal Sage Scrub), native grasslands, and wetlands are examples of

vegetation communities that have been severely depleted in southern California. Impacts to these communities are almost always considered significant in that losses have exceeded cumulative thresholds. These communities are the focus of multispecies conservation plans and/or resource agency regulatory permits.

Impacts to individual species, in addition to impacts to habitat, may be considered significant based upon the rarity and extent of impacts. Impacts to state- or federally-listed species are considered significant. A determination of significance for other species is based on species distribution (e.g., impacts to regional core populations would be significant), regional, and range-wide rarity (impacts to endangered or threatened species are always significant unless appropriately mitigated), and conservation afforded the species and its habitat under any applicable conservation plan.

Significant impacts to native, special status floral or faunal species and their habitats, either directly or indirectly, from project-related construction or operation activities would require mitigation that satisfies the resource agencies.

2.6.3 Analysis of Project Effects and Determination of Significance

Direct Impacts

For the purposes of this assessment, all current biological resources within the limits of the proposed project are anticipated to be removed by project development, with the exception of those resources within an area to be preserved in Planning Areas 6 and 7. This area to be preserved consists of 3.8 acres of coastal sage scrub, 1.7 acres of oak woodland, and an incised ephemeral channel. Thus, direct impacts occurring as a result of industrial park implementation would include removal of all vegetation and habitat elements within the project footprint except for the area planned for preservation. Direct impacts also include loss or displacement of special status species, and other associated flora and fauna that occupy habitats within the project area. Clearing of vegetation or other initial construction work could potentially disrupt important life history activities, such as avian nesting that is occurring at the same time. Disruption of such activities could potentially result in direct mortality of individual animals.

Direct Impacts to Vegetation

Development of the project will result in direct impacts to native vegetation communities. These impacts are outlined in Table 2.6-3a and Table 2.6-3b.

**Table 2.6-3a
Vegetation and Habitat Impacts of the ERTC Project⁽¹⁾**

	PA 1	PA 2-8	Total	Pipeline
California Sagebrush Series	6.9	38.2	45.1	⁽²⁾
California Annual Grassland Series	7.5	88.0	95.5	⁽²⁾
Coast Live Oak Series	-	0.1	0.1	-
Mixed Willow Series	-	-	-	-
Mulefat Series	-	0.1	0.1	-
Disturbed/Ruderal Lands	5.5	26.0	31.5	0.6
Seasonal Ponds and Drainages	0.1	-	0.1	-
Eucalyptus Series	-	6.4	6.4	0.1
Urban Lands	-	1.5	1.5	1.1
Total	20.0	160.3	180.3	1.8

Notes:

- ⁽¹⁾ Totals reflect only native vegetation communities; rural home sites and eucalyptus groves are excluded. The entire natural gas pipeline route occurs in urban lands and is not included in this table.
⁽²⁾ Included in PA 1 impacts.

**Table 2.6-3b
Vegetation and Habitat Impacts of Residential Areas⁽¹⁾**

	Residential Areas
California Sagebrush Series	3.3
California Annual Grassland Series	7.3
Coast Live Oak Series	1.1
Mixed Willow Series	0.8
Mulefat Series	-
Disturbed/Ruderal Lands	2.4
Seasonal Ponds and Drainages	-
Eucalyptus Series	4.5
Urban Lands	2.6
Total	22.0

Note:

- ⁽¹⁾ There are no current development plans for these areas. However, impacts to habitats are assumed in this analysis.

California Sagebrush Series

There has been a significant loss of this native vegetation type throughout San Diego County. This vegetation type is the primary habitat of the California gnatcatcher, a federally-listed threatened species, as well as a host of other regionally or locally special status species. Impacts to this habitat would be considered significant on a cumulative basis, as well as an individual project basis.

California Annual Grassland Series

Grasslands of all kinds are disappearing rapidly in Southern California, because they generally occur on relatively flat ground that has been the focus of agricultural and urban development, or been degraded by grazing pressures and invasion by nonnative plant species. What remains of the once widespread native grassland communities are generally small patches of stipa grassland that support a high occurrence of nonnative grasses. While considerable type conversion of native perennial grasslands to annual grassland has occurred, these replacement grasslands sometimes continue to support much of the wildlife habitat values and some of the floristic resource values of the original native grasslands. While few projects would result in impacts of a scale that would individually be considered significant due to loss of grassland habitat, cumulatively significant losses within rapidly developing regions are not uncommon.

Grasslands are commonly used by various raptor species as foraging habitat. The proposed project will contribute to the regional loss of grasslands; thus, raptor foraging habitat. This could potentially have an impact on local raptor species such as the American kestrel, red-tailed hawk, red-shouldered hawk, and white-tailed kite. While the loss of raptor foraging habitat in association with the project would not be an individually significant impact, it would contribute to the ongoing cumulative loss of this resource in the Escondido region. The City of Escondido has determined these losses to be cumulatively significant when contemplated under the auspices of regional habitat conservation planning and the draft Escondido Subarea Plan.

Coast Live Oak Series

Coast live oak woodlands are an important habitat and are relatively limited in the Escondido region. An unusually high diversity of wildlife species use oak woodlands (Pavlik et al. 2000). Many species of insects occur on California oaks, including the larva of such strikingly colored

butterflies as California sister. A number of bird species forage among oak foliage or feed on acorns. The understory of oak woodland provides relatively mesic microhabitats for a variety of invertebrates, amphibians, reptiles, and small mammals. Loss of oak woodlands on the ERTC project site would be considered significant. However, approximately 60% of the oak woodlands present on the project site are located within the area to be preserved in Planning Areas 6 and 7.

Mixed Willow Series

This vegetation type is regionally limited and is considered an important habitat for wildlife, particularly birds. The stands of willows present on the project site are small and are not expected to be an important resource to the sensitive birds typically associated with this habitat. California gnatcatchers may use willows occurring adjacent to their more-typical scrub habitat during the late summer. Impacts to the Mixed Willow Series would be considered significant and would need to be mitigated as well as permitted by the California Department of Fish and Game (Streambed Alteration Agreement) and the U.S. Army Corps of Engineers (Section 404 Clean Water Act). However, all of the stands of willows present on the ERTC project site are located within the area to be preserved in Planning Areas 6 and 7.

Mulefat Series

This habitat is used by a number of the bird species typically associated with mixed willows and other riparian habitats. The stands present on the project site are scattered and isolated from high-quality riparian areas, and are therefore of low value to local wildlife. California gnatcatchers may use this vegetation during the late summer for foraging. Due to the low quality of this habitat on the project site, impacts would not be considered significant, although its loss would also require permitting by the resource agencies.

Eucalyptus Series

Eucalyptus Series habitats are comprised of exotic plant species that provide vertical structure to some habitats and can provide a nectar source to birds and insects, as well as nesting opportunities to raptors and some passerine birds. Given the abundance of eucalyptus woodland present in the region, this resource is not considered to be significant.

Seasonal Ponds and Drainages

Seasonal ponds and drainages on the project site are restricted to three small disturbed artificial pools in the northern portion of Planning Area 1, and ephemeral channels between 2 and 3 feet wide within the SPA (Figure 2.6-2). While the artificial seasonal pond areas in Planning Area 1 support higher resource values than the ephemeral channels (including providing breeding habitat for the special status western spadefoot toad), these areas are isolated waters not subject to federal regulatory purview. The isolated ponds, while not Waters of the U.S., would be considered waters of the state and would be regulated through Water Discharge Requirements under the Porter-Cologne Act (California Water Code 1300 *et seq.*). The ponds, although heavily disturbed, do provide a habitat element to special status breeding spadefoot toads, a covered species under the draft Escondido Subarea Plan. These small pools also provide a seasonal water supply to some of the wildlife onsite; however, due to the lack of surrounding cover at the pool areas, this use is not expected to be substantial. Loss of the onsite pools would be considered significant in the context of the values these resources provide to the western spadefoot toad.

The ephemeral channels constitute federal and State of California jurisdictional waters under Sections 404 and 401 of the Clean Water Act and/or Section 1603 of the California Fish & Game Code. The area of these jurisdictional waters is estimated to be less than ½ acre and is encompassed within the sagebrush, oak, and willow acreages shown in Table 2.6-1a. Other than the oak woodland, the resources associated with the drainage are relatively minimal and are not dissimilar from those found in the surrounding landscape. Except for the oak woodlands, no unique biological functions or resources are supported by this drainage; however, since these resources provide a water quality function and the goals of the Escondido Subarea Plan dictate no net loss of wetlands, these impacts are significant. A major portion of the ephemeral channel is located within the oak woodland to be preserved in Planning Area 7; therefore, permits would only be required for Waters of the U.S. in other planning areas (excluding the residential uses), under Sections 404 and 401 of the Clean Water Act (less than 1 acre). Currently, no development has been proposed for the residential areas to be rezoned. Therefore, permits for those areas are not required until development is proposed.

Disturbed/Ruderal Lands, Urban Lands

Disturbed areas on the project site and within the offsite pipeline construction corridors that do not support vegetation generally have low biological value; however, they may provide basking

sites for reptiles and local travel routes for mammals. Regardless of this use, impacts to these highly disturbed habitats onsite would not be significant. The onsite disturbed habitats do not provide essential functions for wildlife and likely receive little use by wildlife in comparison to neighboring vegetation communities. Impacts to this habitat are not considered significant.

Wildlife Migration Routes and Movement Corridors

As discussed previously, the SPA is not located on lands that are considered important in terms of regional landscape connectivity as evaluated in the City's Subarea Plan. The section of Escondido Creek within the study area and near the proposed offsite waterlines is used as a foraging area for local mid-sized mammals, such as the raccoon; raccoon tracks were observed in the creek bed. However, this section of the creek is not expected to be important in the regional movements of large mammal species, due to the lack of connectivity through the extensive concrete-lined sections of channel that traverse the urbanized core of Escondido upstream of the project vicinity. Furthermore, the proposed pipeline construction work would not impact the Escondido Creek channel area, thus further reducing any concerns relative to wildlife movement in this area. As a result, the proposed development activities are not anticipated to result in significant impacts to wildlife movement patterns.

Direct Impacts to Special Status Species

Direct Impacts to Special Status Plants

No special status plant species were identified within the project site; therefore, no impacts are anticipated to occur as a result of the development.

Direct Impacts to Special Status Animals

Development at the project site would directly impact as many as 14 individual California gnatcatchers, including six breeding pairs and associated offspring. If initial clearing work was conducted during the breeding season of the gnatcatcher, such activity could also adversely impact nesting success and could even lead to direct mortality of young or adult birds. A substantial adverse effect, either directly or through habitat modifications, on a listed species is considered significant under CEQA.

A small population of western spadefoot toads would be directly impacted by the project. The population estimates of breeding adults on the project site are unknown. However, they are likely to be limited, based on the number of tadpoles observed by Dudek (1998), and the few young toads detected during the present survey season.

It is not known to what extent Cooper's hawks use the project site; however, no potential nests for this species were found during the survey, so there do not appear to be any direct impacts to this raptor.

Indirect Impacts

Indirect impacts may be permanent or temporary in nature and may persist following project construction. Indirect impacts may include:

- Temporary artificial lighting during construction periods that deters nocturnal wildlife activity or artificially increases predation rates on vulnerable species;
- Temporary activity, noise, and vegetation dusting impacts that reduce suitability of adjacent habitats as a direct result of disturbance or reduced food supply associated with impacts to insect populations as a direct result of dust accumulation on plants;
- Alteration of runoff patterns that detrimentally change surface runoff;
- Permanent noise impacts to resident species; and,
- Long-term artificial lighting of adjacent habitats.

Indirect impacts to resident wildlife, including some special status species, are expected to occur as a result of activities at the project site. Construction has the potential to result in short-term indirect impacts associated with noise, activities, dust, and lighting. These temporary impacts are discussed below. In addition, more permanent indirect impacts associated with facility operational environments could also result. These include impacts related to noise and light emissions; as well as potential modifications to the drainage discharge from the ERTC project site.

Construction Activity, Dust, Lighting, and Noise

During construction, various stages of work have the potential to generate high activity levels of disturbance in proximity to remaining habitat to the northwest of the project site and adjacent to the offsite waterline alignment. Noise has often been identified as a “barometer” for activity levels and may possibly result in measurable influences on some wildlife. In addition, some dust generated within the project area is expected to drift outward and settle on adjacent vegetation. This can reduce plant vigor, alter insect population levels, and affect plant reproduction. In general, construction activities would be expected to result in a temporary reduction in some wildlife usage on adjacent lands, and it may have a moderate effect on reproduction in plants. In general, construction-related impacts would not be considered significant unless they impaired an important life-history activity of a special status species in a regionally significant way.

Impacts to California gnatcatcher breeding could result from construction adjacent to California gnatcatcher habitat areas. The potential for these impacts would be greatest if construction in adjacent areas is initiated following commencement of nesting by gnatcatchers in the adjacent habitat areas. Gnatcatchers that proceed to nest, after construction has begun in the adjacent lands, have the capacity to select a nest site under an affected environmental condition; and thus are less likely to choose a site that would be abandoned as a result of indirect disturbance associated with construction. Because of the existence of suitable gnatcatcher habitat in various Planning Areas of the ERTC project site, significant indirect impacts to California gnatcatchers could occur if construction were to be initiated within 300 feet of an active gnatcatcher nest during the breeding season of this species.

Construction activities could disrupt the future breeding pair of red-tailed hawks, which were nesting in a tall eucalyptus at the north end of the ERTC during the Spring 2001 surveys.

Drainage

Potential adverse impacts to upland habitat could occur as a result of inadequate controls in routing of onsite drainage that result in discharges to upland areas. Uncontrolled discharges can result in erosion and deposition of sediments, damaging vegetation and smothering aquatic communities downstream. The design of drainage systems to meet current engineering standards and storm-water discharge requirements would be expected to adequately protect areas downstream of the discharge point. As a result, these impacts are ultimately not considered to be significant.

Lighting

Lighting during construction periods is viewed much the same way as other construction-associated impacts. Construction lighting would result in temporary illumination of adjacent lands and could result in some avoidance of these lighted areas by some species or may promote success of predators on other species. These impacts would not be considered significant, unless they exposed California gnatcatchers to greater risk of predation by nocturnal predators. This would be the case if proximate nesting were to occur prior to initiation of nighttime work, and lighting was not adequately shielded or oriented away from nest-occupied habitat areas.

Similar concerns exist for long-term facility lighting. Overillumination of adjacent habitats can result in avoidance of the areas by some wildlife and an increased success level by some twilight and nocturnal predators. These impacts could be significant if they adversely impact California gnatcatchers.

Offsite Improvements

There are two locations offsite that will require road-widening improvements as part of traffic mitigation. Segment A is located on Vineyard Avenue, between East Mission Road to the north and Alpine Way to the south (Figure 2.6-3). Segment B is located on Valley Parkway, between 11th Street to the north and Citracado Parkway to the south (Figure 2.6-4).

Vineyard Avenue

Commercial development occupies both sides of Vineyard Avenue and through the entire length of the segment where road widening will take place. No sensitive species were identified during a field reconnaissance or the literature search. There is, however, a small area of nonnative grassland and Diegan Coastal Sage Scrub occurring within a staging area located at the south end of the proposed widening area. Approximately 0.06 acre of Disturbed Coastal Sage Scrub and 1.44 acres of nonnative grassland would be impacted, should the staging area be fully utilized. Additionally, several eucalyptus trees as part of the street landscape. These trees can provide perching and nesting habitat for a variety of raptor species such as red-tailed and Cooper's hawks (*Buteo jamaicensis* and *Accipiter cooperi*).

Valley Parkway

This area is surrounded by residential development. There are, however, areas that contain native vegetation, including disturbed coastal sage scrub, southern mixed chaparral, and wetland vegetation. There are also small areas that are dominated by nonnative grasses, as well as landscape trees such as eucalyptus and pepper trees.

Final roadway improvements have not been determined at this time. The proposed road improvements will impact sensitive biological resources including disturbed coastal sage scrub, wetland vegetation, southern mixed chaparral, and nonnative grassland. Impacts to these habitats will need to be mitigated.

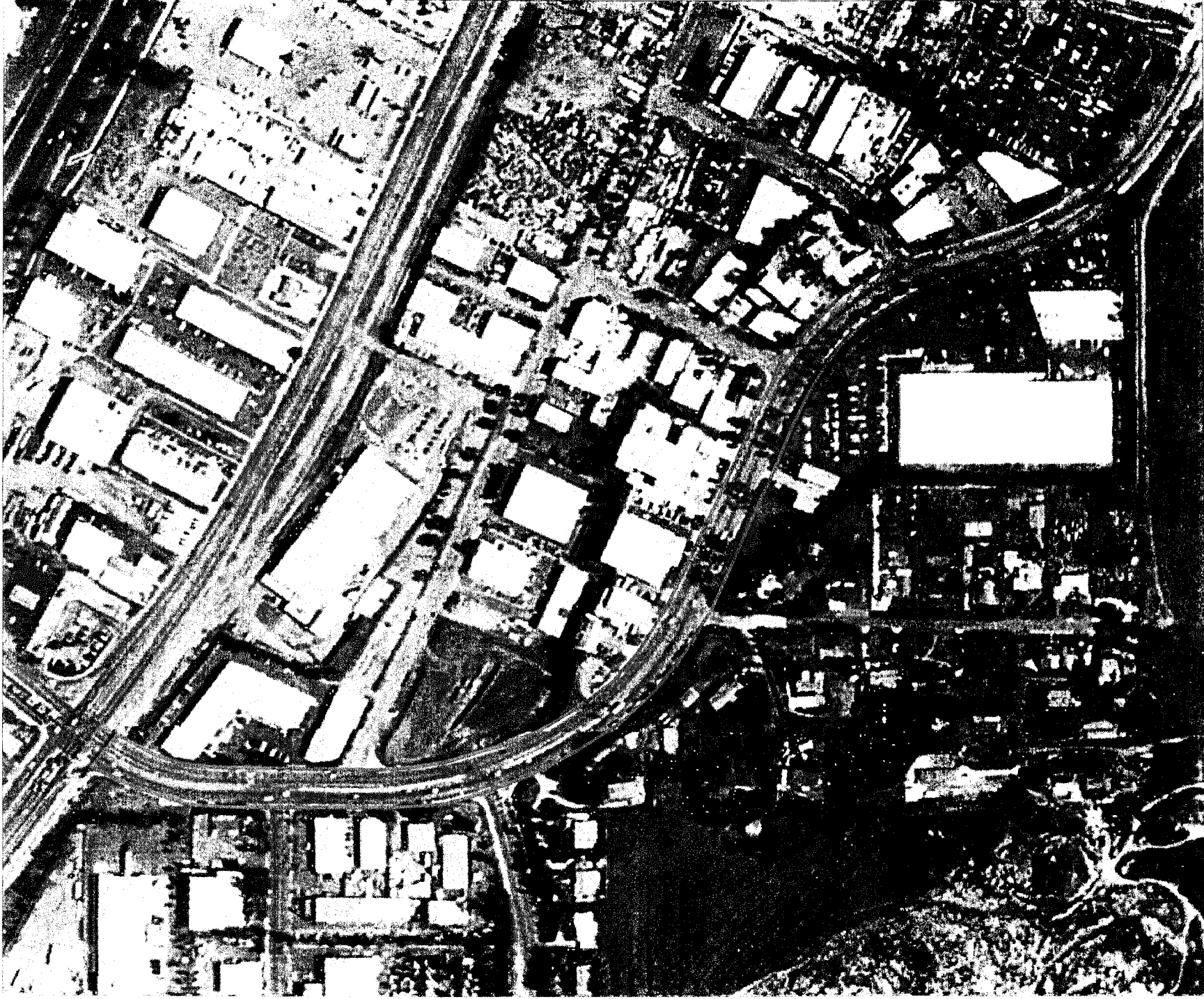
2.6.4 Mitigation Measures

The recommendations and mitigation references stated herein are intended to establish standards for application subsequent to approval of the project. If the project design undergoes a change that may significantly alter the impact analysis contained herein, additional mitigation measures would be developed to further mitigate impacts as necessary. In the event that additional species or habitats are listed as special status prior to project construction, alterations in the aforementioned significance determinations would be made in accordance with these changes.

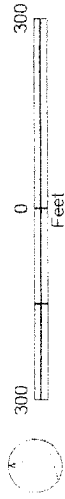
Prior to commencement of grading or clearing, mitigation measures will be reviewed and approved by the Wildlife Agencies and the City. These should include, but are not limited to, mitigation for impacts to Diegan coastal sage scrub and the western spadefoot toad.

As indicated in the above analysis, direct onsite biological impacts, as well as indirect impacts, would result from project development activities. The biological impacts described above can be mitigated through the implementation of the following recommended measures:

1. Based on project impact estimates (including impacts to vegetation associated with the proposed offsite waterlines), the habitat-based mitigation that would be required is identified in Table 2.6-4a and Table 2.6-4b and follows the standards established by the City of Escondido in its draft Escondido Subarea Plan. While the Subarea Plan has not yet been adopted, it provides a framework for addressing impacts to resources



Source: Eagle Aerial



Segment A of Proposed Road Widening



Source: Eagle Aerial



Segment B of Proposed Road Widening

**Table 2.6-4a
Habitat-Based Mitigation for Impacts of ERTC Project Implementation**

Vegetation Community	Mitigation Ratio	Impacts/Mitigation (Acres)					
		PA 1	PA 2-8	PA 2-8		Total	
Coastal Sage Scrub	2:1 ⁽¹⁾	6.9	13.8	38.2	76.4	45.1	90.2
Annual Grassland	0.5:1	7.5	3.8	88.0	44.0	95.5	47.8
Coastal Live Oak Woodland	3:1 ⁽²⁾	0	0	0.1	0.3	6.1	0.3
Mixed Willow/Mulefat	3:1	0	0	0.1	0.3	0.22	0.66
Disturbed, Agricultural Land, Eucalyptus, Homes	None	5.5	0	26.0	0	31.5	0

Notes:

- ⁽¹⁾ Required ratios for gnatcatcher-occupied coastal sage scrub; preserve area will need to support six pairs of California gnatcatcher, in accordance with population numbers identified by Dudek in 1998 (Redlitz, B., pers. comm., 2001).
- ⁽²⁾ Includes 10:1 ratio for replacement of individual trees that meet minimum size requirements.

**Table 2.6-4b
Habitat-Based Mitigation for Impacts in Residential Areas (Acres)⁽¹⁾**

Vegetation Community	Mitigation Ratio	Impacts	Mitigation
Coastal Sage Scrub	2:1 ⁽¹⁾	3.3	6.6
Annual Grassland	0.5:1	7.3	14.6
Coastal Live Oak Woodland	3:1 ⁽²⁾	1.1	3.3
Mixed Willow/Mulefat	3:1	0.8	2.4
Disturbed, Agricultural Land, Eucalyptus, Homes	None	9.5	0

Note:

- ⁽¹⁾ There are no current development plans for these areas; however, impacts to habitats are assumed in this analysis, and mitigation is provided.

within the City. It does not yet fully address the permitting and conservation obligations associated with listed species; however, it does provide a foundation for making mitigation recommendations that are consistent with implementation of the City's Subarea Plan conservation objectives.

Mitigation would require a 2:1 requirement ratio for gnatcatcher-occupied sage scrub acreage and conservation of an equal number of gnatcatchers within a preserve system. This acquisition should occur within the Subarea Plan Focused Planning Areas (FPAs), or in occupied gnatcatcher habitat that has been identified by the

MHCP within the unincorporated San Diego County core area, or in other areas approved by the City, State, and Federal jurisdictional agencies.

Mitigation for coastal sage scrub habitat would adhere to the acreage requirements cited in Table 2.6-4. These mitigation requirements should also be fulfilled within the FPAs. Mitigation shall be in place to the satisfaction of the Planning Director prior to issuance of a grading permit.

2. Direct impacts to California gnatcatchers would be adequately addressed through habitat conservation that also supports an equivalent number of gnatcatchers. For this reason, no additional mitigation is recommended for direct impacts to gnatcatchers.
3. Western spadefoot toad impacts and seasonal basin areas would be mitigated through creation, or restoration, of an equivalent acreage of habitat that supports seasonal ponds in preserve lands within the MHPA FPAs. This mitigation plan shall be submitted to the Planning Director for approval prior to issuance of any grading permit.
4. Construction activities would be initiated during the nonbreeding season for California gnatcatchers (August 30 through February 14). Work that would be completed during this period includes site boundary demarcation with construction fencing along the edge of retained sage scrub, and all clearing and grubbing. A qualified biologist will conduct a preconstruction survey of the project site and surrounding habitat to determine whether there are active raptor nests within that area. If an active nest is observed, a buffer will be established between the construction activities and the nest so that nesting activities are not interrupted. The buffer will be a minimum width of 500 feet and will be in effect as long as construction is occurring and until the nest is no longer active. This mitigation shall be placed as a condition on the Tentative Map and Grading Permit.
5. Prior to construction activities, a qualified biologist will survey the preserved habitat areas adjacent to the project site to determine if any gnatcatcher nests are within a distance potentially affected by noise from these activities. If no nesting gnatcatchers are located, no additional measures will need to be taken to mitigate indirect impacts.

However, if nesting gnatcatchers are observed, no activity will occur within 300 feet of active nesting territories unless measures are implemented to minimize the noise and disturbance to those adjacent birds. If nesting birds are located adjacent to the project site with the potential to be affected by noise above 60 dBA L_{eq} , a noise barrier will be erected. This noise barrier should consist of a 20-foot-high continuous plywood fence supported by posts or an earthen berm located at the site boundary that abuts potential offsite habitat.

6. In the event that any nighttime construction is allowed, night construction activities would be initiated prior to the onset of the gnatcatcher breeding season (prior to February 15). Alternatively, prior to conducting any night construction activities, a qualified biologist would determine that no gnatcatcher breeding is occurring within 300 feet of areas that would be lighted. In the event that gnatcatchers are found in proximity to areas to be lighted, a verification of adequate light shielding would be made by a qualified biologist prior to commencing night work. This mitigation shall be placed as a condition on the Tentative Map and Grading Permit.
7. Facility lighting would be shielded such that no direct lighting falls within the adjacent natural habitat. Adequate directional lighting or shielding would be installed to control nighttime illumination at the industrial park in a manner that does not enhance light levels within adjacent native habitat areas. This mitigation shall be placed as a condition on the Specific Plan and Conditional Use Permit.
8. Jurisdictional wetland impacts and mitigation for the proposed ERTC project are as follows:

Jurisdictional Wetland Habitat	Total Impacts	Mitigation Ratio	Mitigation Total
Mixed Willow Series	3,920 SF	3:1	11,760 SF
Mulefat Series	870 SF	3:1	2,610 SF
Nonwetland Waters	5,001 SF	3:1	15,003 SF
Total Impacts	9,791 SF (0.22 ac)		29,373 SF (0.67 ac)
Credit for mixed willow habitat to be preserved and enhanced in PA 7			- 6,970 SF (0.17 ac)
Additional Mitigation Requirement (Wetland Creation, PA 7)			22,403 SF (0.50 ac)

The ERTC is proposing 0.17 acre of existing wetlands preservation within Planning Area 7, and an additional 0.50 acre of wetland creation in Planning Area 7, which totals 0.67 acre of wetland mitigation. The wetland creation area is shown on Figure 2.6-5.

This wetland creation is to be located in a gently sloping, shallow valley, incised only intermittently along the drainage bottom, within Planning Area 7. The creation site is only slightly higher in elevation than the existing adjacent wetland habitat and drainage channel, and presently supports California annual grassland series vegetation, a disturbed upland community suitable for wetland creation. The alluvial soils and proximity to groundwater in the area are favorable to the creation of an expanded wetlands corridor.

The expanded wetlands corridor in Planning Area 7 will be buffered from the urban business park uses by a manufactured perimeter slope a minimum of 100 horizontal feet in depth, and 50 vertical feet in height. This slope adjacent to the wetland restoration area will be planted with a species palette that contains no invasive species (CalEPPC, 1999). This will provide an adequate environmental buffer between the edge effects of the business park, and the existing and created (expanded) wetlands.

9. For offsite improvements (i.e., Vineyard Avenue and Valley Parkway), when project-specific engineering has been completed, the City shall implement mitigation in accordance with the ratios above and implement the same mitigation measures as previously indicated.
10. A construction monitor will be present during construction activities to ensure that conservation measures are performed in compliance with any concurrent or subsequent mitigation plans. The biological monitor will instruct construction management to halt all associated project activities, which may be in violation of the conditions of any permits in effect. Any unauthorized impacts or actions not in compliance with the required mitigation will be immediately brought to the attention of the City and Wildlife Agencies.

WETLAND REVEGETATION PLAN

OPEN SPACE DESCRIPTION

Wetland mitigation proposed for the Escondido Research and Technology center project includes revegetation of 0.50 acre of Mixed willow series in Planning Area 7. This wetland creation is proposed in a seven acre portion of Planning Area 7 proposed as an Open Space Easement. The revegetation site is presently occupied by Annual grassland series, which will be mitigated for through off-site purchase of like habitat if acceptable to resource agencies.

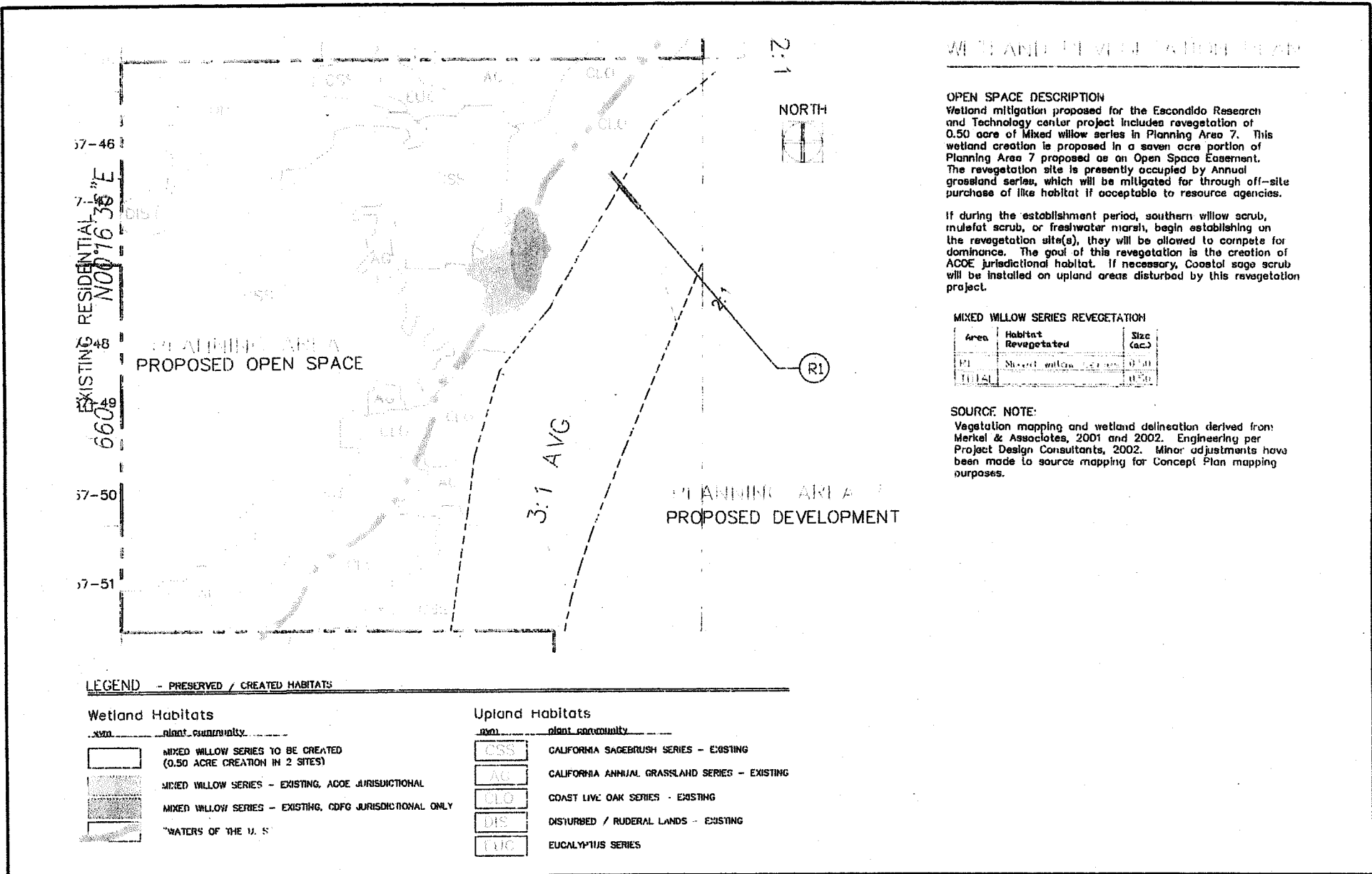
If during the establishment period, southern willow scrub, mulefat scrub, or freshwater marsh, begin establishing on the revegetation site(s), they will be allowed to compete for dominance. The goal of this revegetation is the creation of ACOE jurisdictional habitat. If necessary, Coastal sage scrub will be installed on upland areas disturbed by this revegetation project.

MIXED WILLOW SERIES REVEGETATION

Area	Habitat Revegetated	Size (ac.)
P1	Mixed willow	0.50
TOTAL		0.50

SOURCE NOTE:

Vegetation mapping and wetland delineation derived from Merkel & Associates, 2001 and 2002. Engineering per Project Design Consultants, 2002. Minor adjustments have been made to source mapping for Concept Plan mapping purposes.



LEGEND - PRESERVED / CREATED HABITATS

Wetland Habitats

- MIXED WILLOW SERIES TO BE CREATED (0.50 ACRE CREATION IN 2 SITES)
- MIXED WILLOW SERIES - EXISTING, ACOE JURISDICTIONAL
- MIXED WILLOW SERIES - EXISTING, CDFG JURISDICTIONAL ONLY
- "WATERS OF THE U. S."

Upland Habitats

- CALIFORNIA SAGEBRUSH SERIES - EXISTING
- CALIFORNIA ANNUAL GRASSLAND SERIES - EXISTING
- COAST LIVE OAK SERIES - EXISTING
- DISTURBED / RUDERAL LANDS - EXISTING
- EUCALYPTUS SERIES

Source: Planning Systems

No Scale

Due to the impacts to the California sagebrush series, this habitat will be mitigated at a 2:1 ratio.

Because this habitat is occupied by the California gnatcatcher, a federally threatened species, impacts shall be required to be permitted under the federal Endangered Species Act. This may be accomplished via one of the following:

- 4(d) Take Authorization: If the City has available 4(d) credits, the project may be able to receive authorization through this process. This process requires concurrence by the USFWS and CDFG. Alternatively, the project may be able to obtain 4(d) authorization through the County of San Diego.
- Section 7 Consultation or 10(a)(1)(B) Incidental Take Permit: In the event that the City does not have 4(d) credits available or the USFWS or CDFG do not concur, the project may need to obtain an individual take permit. This would require preparation of a Habitat Conservation Plan that would be approved by the USFWS.
- Authorization under the City's Subarea Plan (Multiple Habitat Conservation Plan): In the event that the City receives approval of their Subarea Plan prior to project implementation, take authorization could be obtained through this process.

2.6.5 Conclusions

With implementation of site-specific mitigation measures, impacts to biological resources will be mitigated to below a level of significance.

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2.7 AESTHETICS

Visual resources are the natural and cultural features of the landscape that can be seen and contribute to the public's appreciative enjoyment of the environment. Visual resource or aesthetic impacts are generally defined in terms of a project's physical characteristics and potential visibility and the extent to which the project's presence will change the perceived visual character and quality of the environment in which it will be located.

This section summarizes the findings of the Visual Resource Analysis that was prepared by RBF Consulting for the proposed project. The complete technical study is included in Appendix G. Additionally, the land use section also addresses policy conformance.

2.7.1 Existing Conditions

General Project Setting

The project area contains varying topography, ranging from moderately steep, hilly terrain, to ravine and associated riparian vegetation, to relatively flat terrain served by existing streets. The dominant topographical features of this area include two ridgelines, including a primary ridgeline trending north/south through the middle of nearly the entire Specific Plan Area (SPA), and a secondary ridgeline trending east/west in the southerly third of the area. A drainage course runs northeast to southwest through the area. The climate is arid, and the hills are covered with a mantle of low-growing annual grasses and shrubs.

The SPA is planned for industrial and residential land uses and is located in the transitional area between the industrial urban core of Escondido and semirural and rural areas to the south and west. The area is bounded on the north and east by existing industrial land uses, and there are residences scattered around the west and south perimeter of this area. The landscape within the SPA is open, with disturbed lands, natural vegetation, dirt roads, and power lines as the most visually prominent elements.

Sensitive Viewing Areas and Key Observation Points (KOP)

To structure the analysis of the project effects on visual resources, existing view areas were identified that would be most sensitive to the project's potential visual impacts. In evaluating the sensitivity of the viewing areas potentially affected by the project, consideration was given to

distance from the proposed project, numbers of viewers, and the presence of residential or recreational uses. The sensitive viewing areas selected for analysis and the views from the KOPs selected as the basis for development of visual simulations are described below.

To assess the existing visual quality of the landscapes potentially affected by the proposed project, the discussion of the existing views from the KOPs includes ratings of the visual quality of the landscapes that they represent. The visual ratings fit within the rating scale summarized in Table 2.7-1. Each existing KOP was evaluated for the following visual elements: visual quality, visual sensitivity, visibility, and viewer exposure. The following provides an explanation of each of these visual elements.

Visual Quality

The visual quality of a setting is the value of visual resources, such as landscapes, that are visually pleasing or that are assigned a high public value. The visual quality associated with each KOP was rated in accordance with the scale provided in Table 2.7-1.

Visual Sensitivity

This is a measure of the level of interest or concern of viewers regarding the visual resources in an area. One of the main indicators of viewer sensitivity is land use. Uses associated with parks, wilderness areas, scenic highways/corridors, recreation, or residences are considered highly sensitive, while commercial uses are considered moderately sensitive. Industrial uses are generally considered the least sensitive. The visual sensitivity associated with each KOP was rated as High, Moderately High, Moderate, Moderately Low, or Low.

Visibility

The degree of visibility is a function of screening. Screening may be provided by terrain, vegetation, and/or buildings, and the degree of screening may be affected by angle of view, distance, meteorological conditions, and the time of day. The analysis took into account whether views were open, partially screened (filtered), or screened (i.e., presence of hillside terrain, vegetation, and/or buildings blocking the view). The visibility associated with each KOP was rated as High, Moderately High, Moderate, Moderately Low, or Low.

**Table 2.7-1
Landscape Visual Quality Rating Scale**

Rating	Explanation
Outstanding Visual Quality	A rating reserved for landscapes with exceptionally high visual quality. These landscapes will be significant regionally and/or nationally. They usually contain exceptional natural or cultural features that contribute to this rating. They will be what we think of as "picture postcard" landscapes. People will be attracted to these landscapes to be able to view them.
High Visual Quality	Landscapes that have high-quality scenic value. This may be due to cultural or natural features contained in the landscape or to the arrangement of spaces contained in the landscape that cause the landscape to be visually interesting or a particularly comfortable place for people. These are often landscapes which have high potential for recreational activities or in which the visual experience is important.
Moderately High Visual Quality	Landscapes which have above-average scenic value, but are not of high scenic value. The scenic value of these landscapes may be due to man-made or natural features contained within the landscape, to the arrangement of spaces in the landscape, or to the two-dimensional attributes of the landscape.
Moderate Visual Quality	Landscapes which have average scenic value, usually lacking significant man-made or natural features. Their scenic value is primarily a result of the arrangement of spaces contained in the landscape and the two-dimensional visual attributes of the landscape.
Moderately Low Visual Quality	Landscapes that have below-average scenic value, but not low scenic value. They may contain visually discordant man-made alterations, but the landscape is not dominated by these features. They often lack spaces that people will perceive as inviting and provide little interest in terms of two-dimensional visual attributes of the landscape.
Low Visual Quality	Landscapes with low scenic value. The landscape is often dominated by visually discordant man-made alterations, or they are landscapes that do not include places that people will find inviting and lack interest in terms of two-dimensional visual attributes.

Viewer Exposure

This is a measure of the degree to which viewers are exposed to a view. The value is affected by distance, number of viewers, and duration of view. The viewer exposure associated with each KOP was rated as High, Moderately High, Moderate, Moderately Low, or Low.

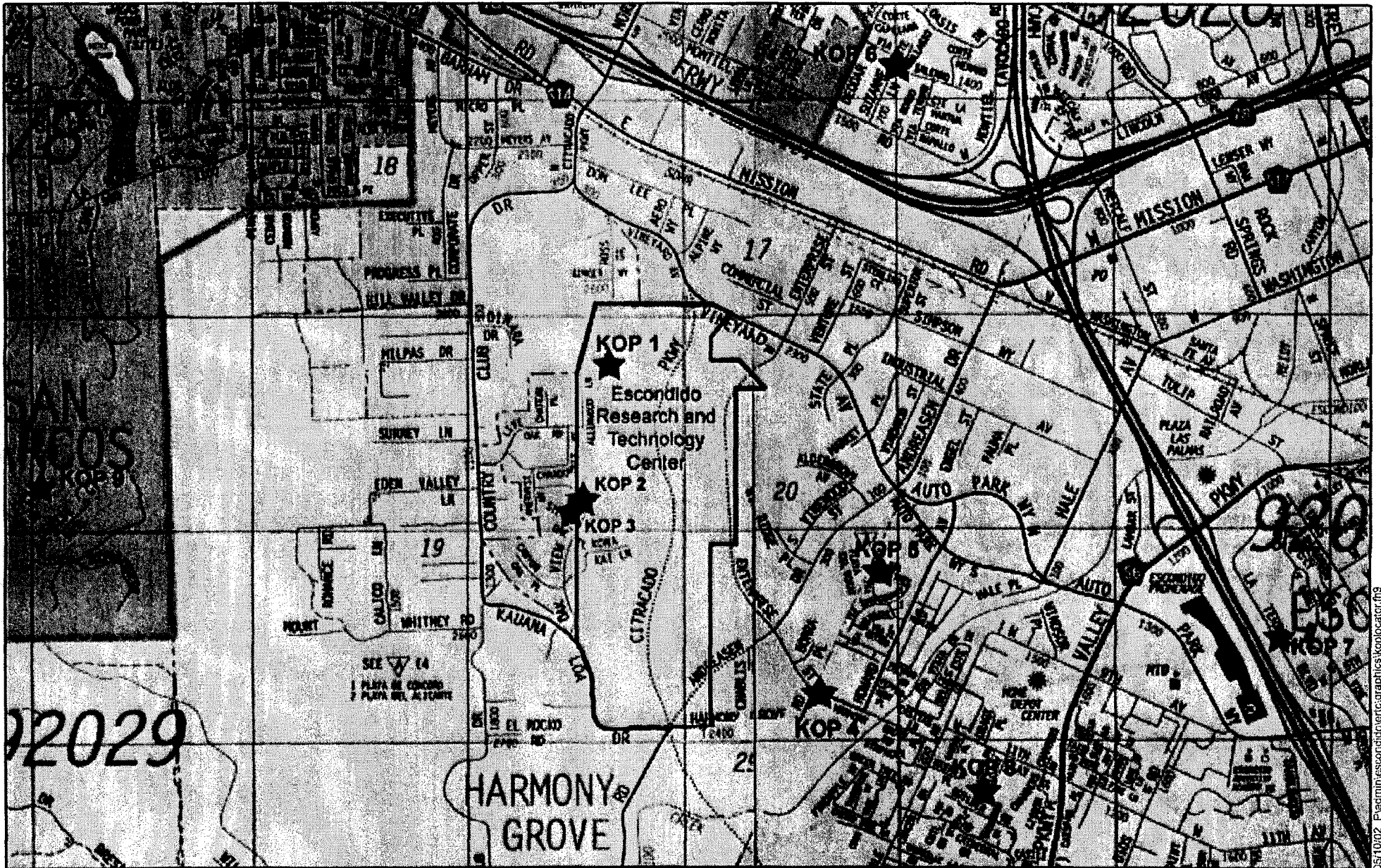
The visual resources analysis included in Appendix G of this EIR produced a total of seven visual simulations to represent the change in view from various locations due to the construction

of the proposed project. For many of the simulation viewpoints, a time series is presented, including an existing conditions view, an intermediate view (showing the site with development of the power plant only), and the cumulative image (adoption of Specific Plan), which shows the view at project buildout. For the purposes of this EIR, all nine of the viewpoints are discussed from the existing and the project buildout conditions. The complete analysis is provided in Appendix G of this EIR. Two additional time series were created (KOPs 8 and 9) to incorporate views from residences to the west and southeast of the project site.


Figure 2.7-1 depicts the location of the KOPs 1 through 9, and Table 2.7-2 summarizes the existing visual attributes of the KOPs. The existing conditions of each KOP are discussed in detail below.

**Table 2.7-2
Existing Visual Attributes of Project Views**

KOP	Visual Quality	Visual Sensitivity	Visibility	Viewer Exposure	Overall Susceptibility
1	Moderately Low	Low	Moderate	Low	Moderately Low
2	Moderately Low	Moderate	Moderately Low	Moderate	Moderately Low
3	Moderately Low	Moderate	Moderate	Moderate	Moderate
4	Low	Moderately Low	Low	Low	Low
5	Moderately Low	Moderately Low	Low	Low	Low
6	Moderate	Moderate	Moderate	Moderate	Moderate
7	Moderate	Moderately Low	Moderate	Moderate	Moderate
8	Moderate	Moderate	Moderately Low	Moderate	Moderate
9	Moderate	Moderate	Moderately Low	Moderate	Moderate



Source: RBF

 No Scale

 P&D Environmental Services

KOP Locator Map

Figure 2.7-1

05/10/02 Picadmin@escondido.civicgraphics.com/koplocat.rtf

Key Observation Point 1

KOP 1 was selected to represent the views looking east toward the project site from within the planned industrial park portion of the proposed project. This observation point is located approximately 1,100 feet west of the future location of the project site. Figure 2.7-2a depicts the existing condition at this KOP.

Visual Quality – The visual quality of the landscape is considered Moderately Low. The landscape includes mostly shrubbery, knee-high in some areas. The landscape has an arid, open character altered by the construction of barren dirt roads throughout the area. Transmission lines on lattice towers extend through the area, and wooden poles supporting power and telephone lines are scattered throughout the area. Debris is another element of the landscape scene.

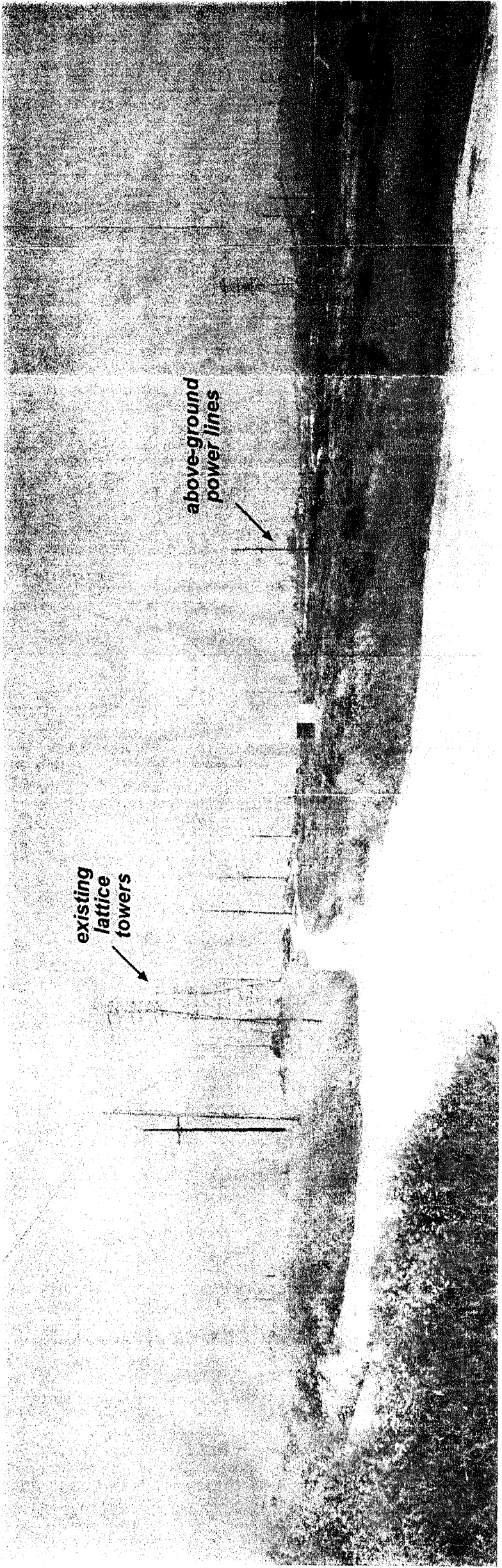
Visual Sensitivity – The views in this KOP are open and rural, and bordered by residential and industrial uses. The area is planned as a mixed-use industrial park and, therefore, will have an industrial character. Since there are no designated sensitive areas, the visual sensitivity is considered Low.

Visibility – The most visually prominent existing features in the area are the existing lattice transmission towers and the radio tower with its control building. The area is primarily open, with no residences or recreational users. The elevation of KOP 1 is approximately 812 feet above mean sea level (amsl), and a north/south ridgeline ranging from 832 to 770 feet amsl provides partial screening of the plant site as viewed from this KOP. Overall, visibility is considered Moderate.

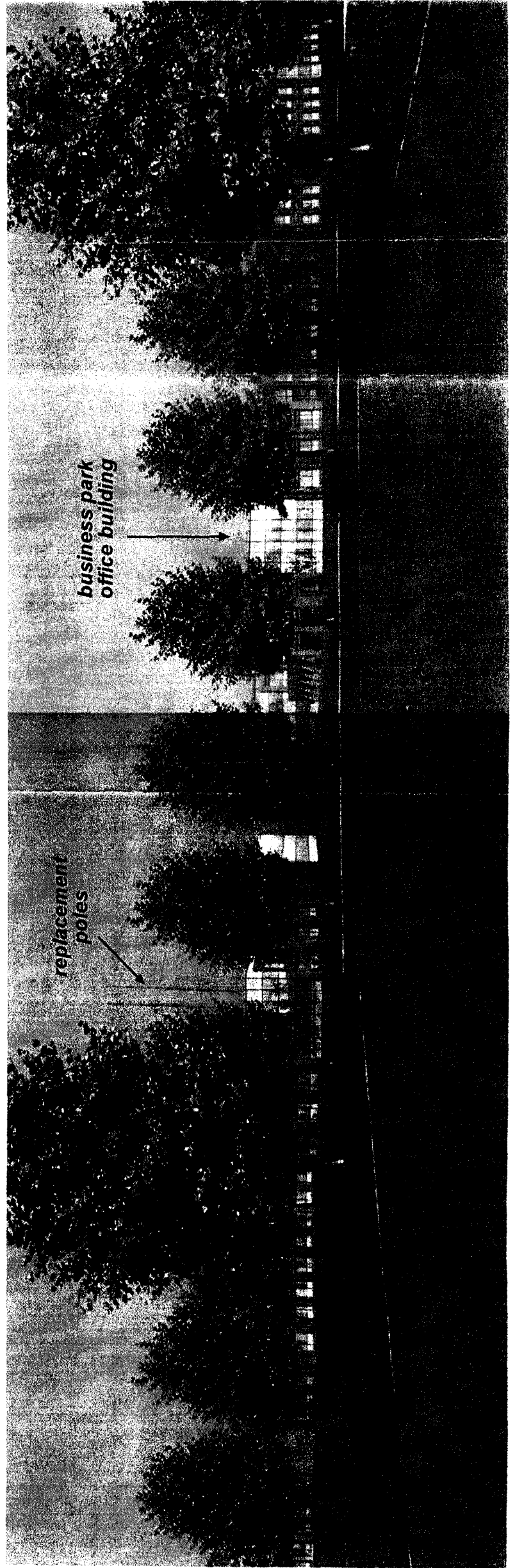
Viewer Exposure – Due to the low number of viewers and the partial screening, viewer exposure is considered Low.

Key Observation Point 2

KOP 2 was selected to represent the views looking east toward the proposed project from typical residences located along the west boundary of the project site. This view represents the residences closest to the project site. KOP 2 is located along Oak View Way, where the street makes the closest approach to the project site. Figure 2.7-3a depicts the existing condition at this KOP.



A Existing Conditions



B With Proposed Project

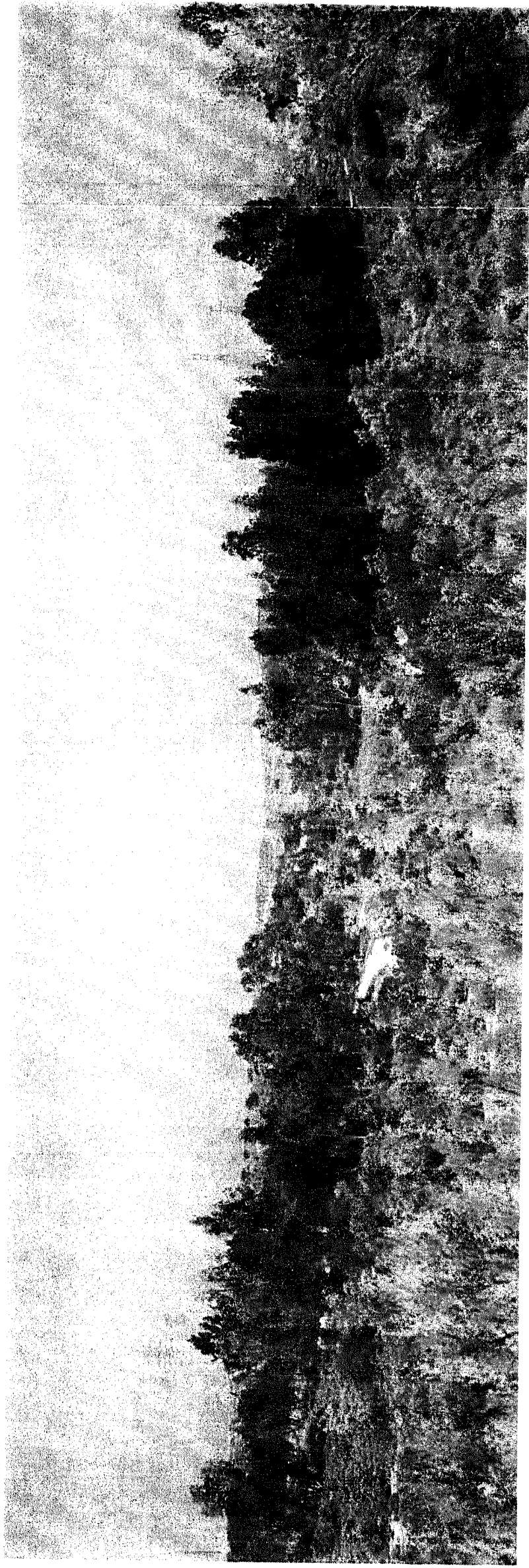
Source: RBF Consulting

No Scale

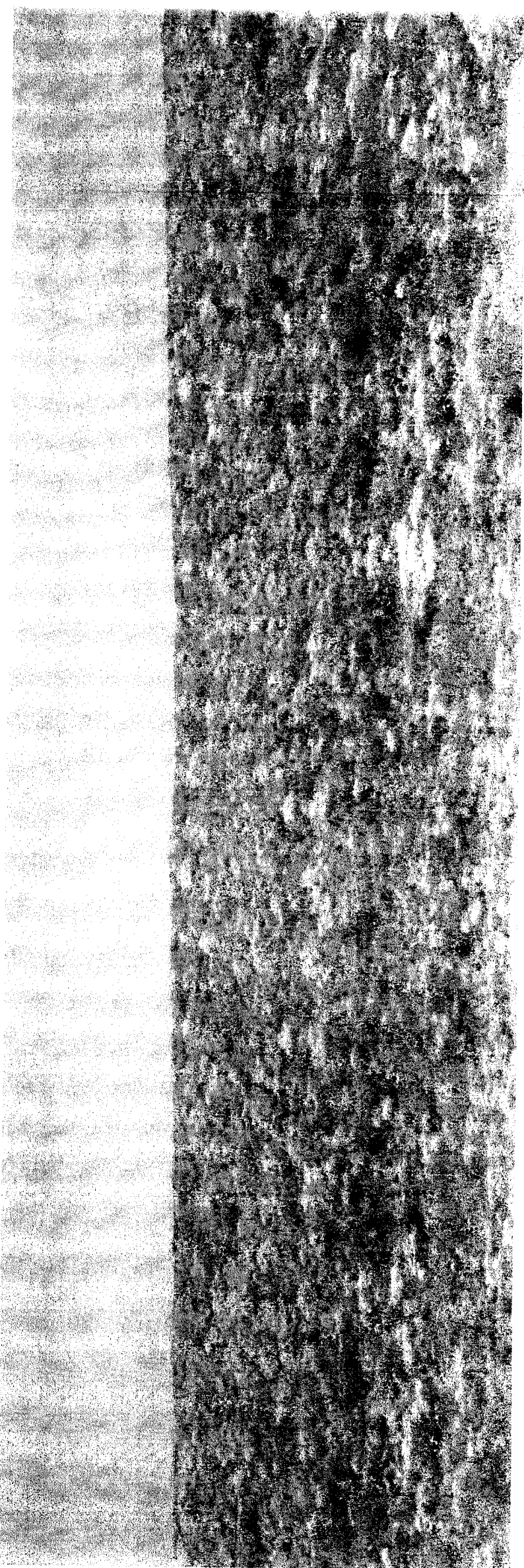
P&D Environmental Services

Key Observation Point 1

Figure 2.7-2




A Existing Conditions



B With Proposed Project

Source: RBF Consulting

No Scale

 P&D Environmental Services

Key Observation Point 2

Figure 2.7-3

Visual Quality – Due to its disturbed nature, the visual quality of the landscape is considered Moderately Low. The landscape includes trees and shrubs throughout, with transmission lines and power poles visible in the background.

Visual Sensitivity – The rear yard of the residence next to KOP 2 faces the direction of the project site, and the overall visual sensitivity is considered Moderate.

Visibility – The most visually prominent existing features are the existing transmission and telephone lines that are scattered throughout the hillside and the radio tower with its control building. The elevation of KOP 2 is approximately 768 feet amsl, and a north/south ridgeline ranging from 832 to 770 feet amsl provides substantial screening of the proposed project. Overall, visibility is considered Moderately Low.

Viewer Exposure – This KOP is adjacent to the residences along Oak View Way and Chardonay Way, but accompanied by substantial screening. Overall, viewer exposure is considered Moderate.

Key Observation Point 3

KOP 3 was selected to represent the views looking east toward the proposed project from elevated lots along the west boundary of the planned industrial park. This observation point is approximately 2,100 feet west-southwest of the principal structures comprising the power plant portion of the proposed project. Figure 2.7-4a depicts the existing condition at this KOP.

Visual Quality – Due to its disturbed nature, the visual quality of the landscape is considered Moderately Low. The landscape includes trees and shrubs throughout, with transmission lines and power poles visible in the background.

Visual Sensitivity – The residence at KOP 3 faces the direction of the proposed project, and the overall visual sensitivity is considered Moderate.

Visibility – The most visually prominent existing features are the existing transmission lines and telephone lines that are scattered throughout the hillside and the radio tower with its control building. The elevation of KOP 2 is approximately 787 feet amsl, and a north/south ridgeline ranging from 832 to 770 feet amsl provides partial screening of the plant site as viewed from this

KOP. Distance from the site provides additional screening. Overall, visibility is considered Moderate.

Viewer Exposure – This KOP is adjacent to residences along Oak View Way, but the view toward the plant site is partially screened, and the nontypical nature of this elevated vantage point represents a low number of viewers. Overall, viewer exposure is considered Moderate.

Key Observation Point 4

KOP 4 represents the view looking toward the project site from a vacant lot along Harmony Grove Road. This observation point is located southeast of the project site. Figure 2.7-5a depicts the existing condition at this KOP.

Visual Quality – The view from KOP 4 is considered Low in visual quality. The views include a previously disturbed vacant lot in the foreground, and several industrial buildings.

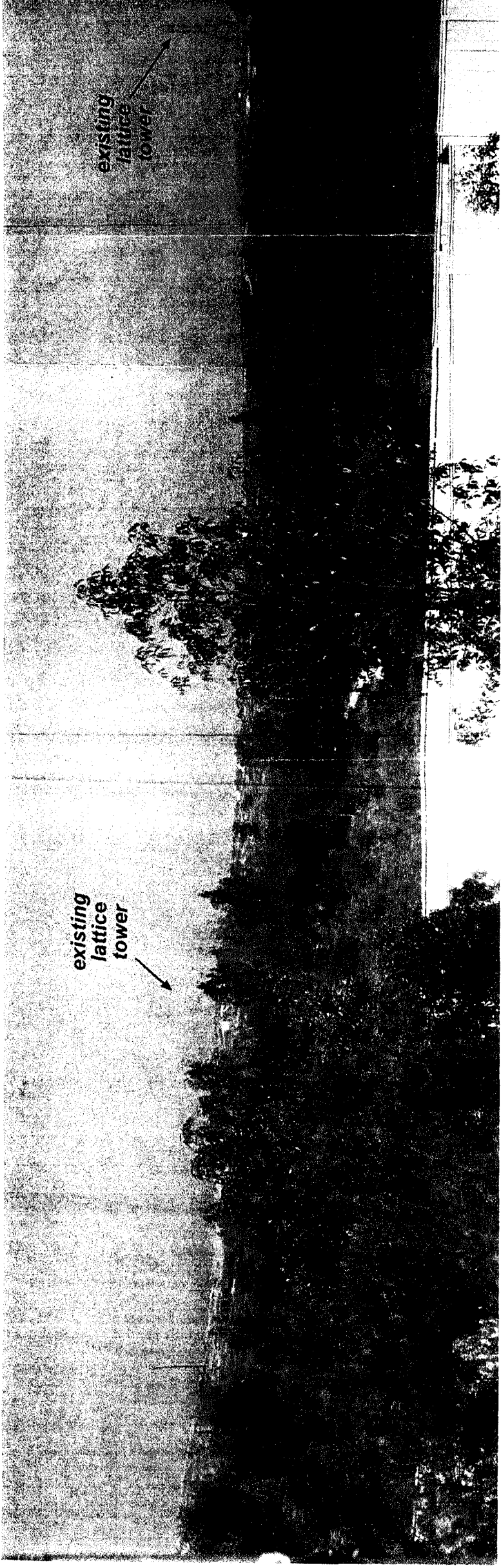
Visual Sensitivity – KOP 4 is near both residential and industrial uses, and the overall visual sensitivity is considered Moderately Low.

Visibility – In the background, several existing transmission lines on the hilltop are visible between two buildings. However, due to the relatively low elevation of this vantage point at 620 feet amsl, the extent of view blockage by the buildings in the middle ground, and additional screening provided by distance, visibility is considered Low.

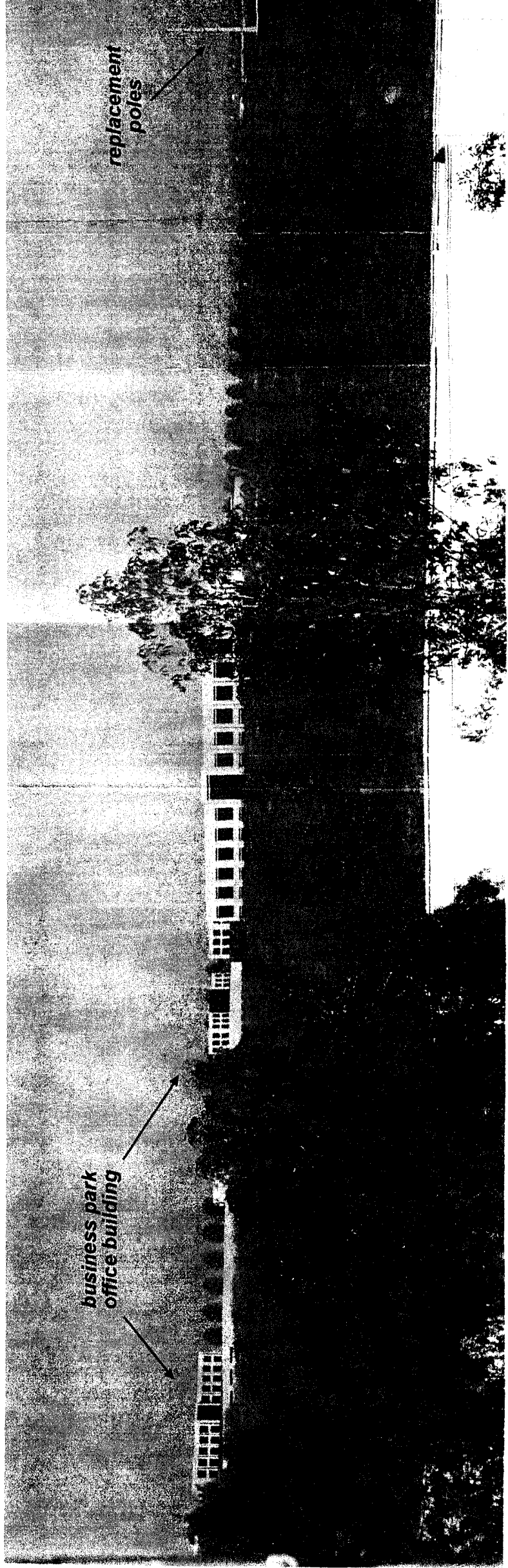
Viewer Exposure – Although traffic along Harmony Grove Road represents a substantial number of potential viewers, this KOP is accompanied by extensive screening. Views from residences in the vicinity would have even more screening. The resulting viewer exposure is considered Low.

Key Observation Point 5

KOP 5 was selected to represent the views looking northwest toward the project site from a mobile home park that borders on existing industrial uses. This observation point is located in the parking lot of the mobile home park's resident community center, southeast of the project site. Figure 2.7-6a depicts the existing condition at this KOP.



A Existing Conditions

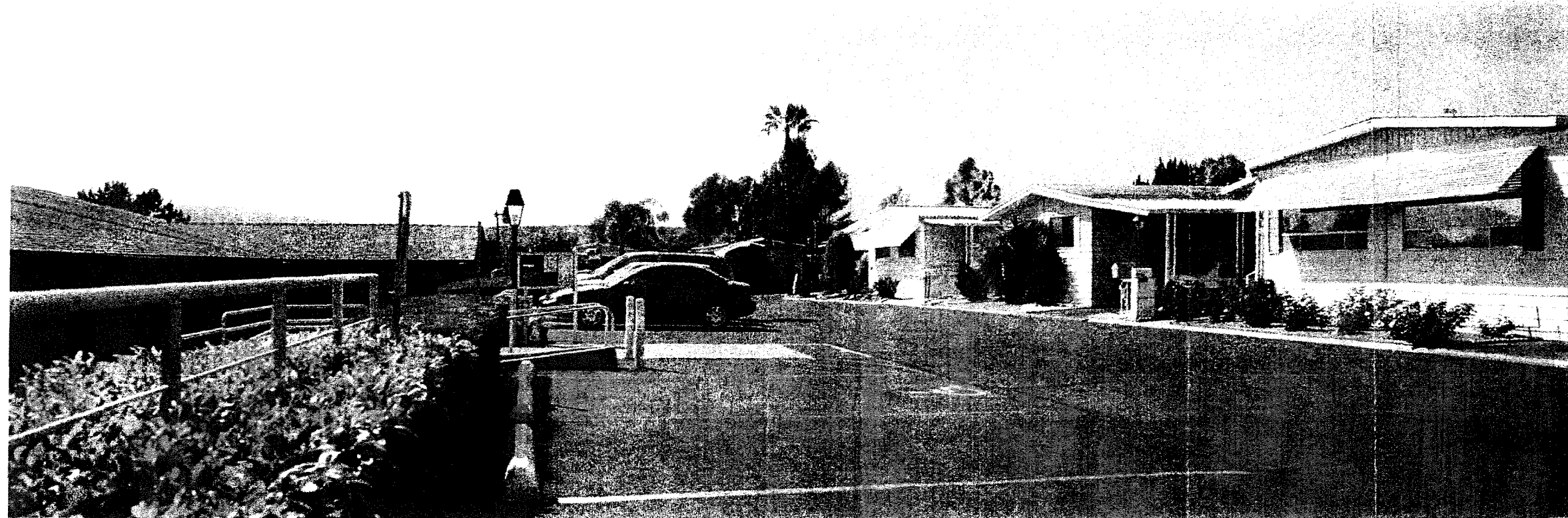


B With Proposed Project

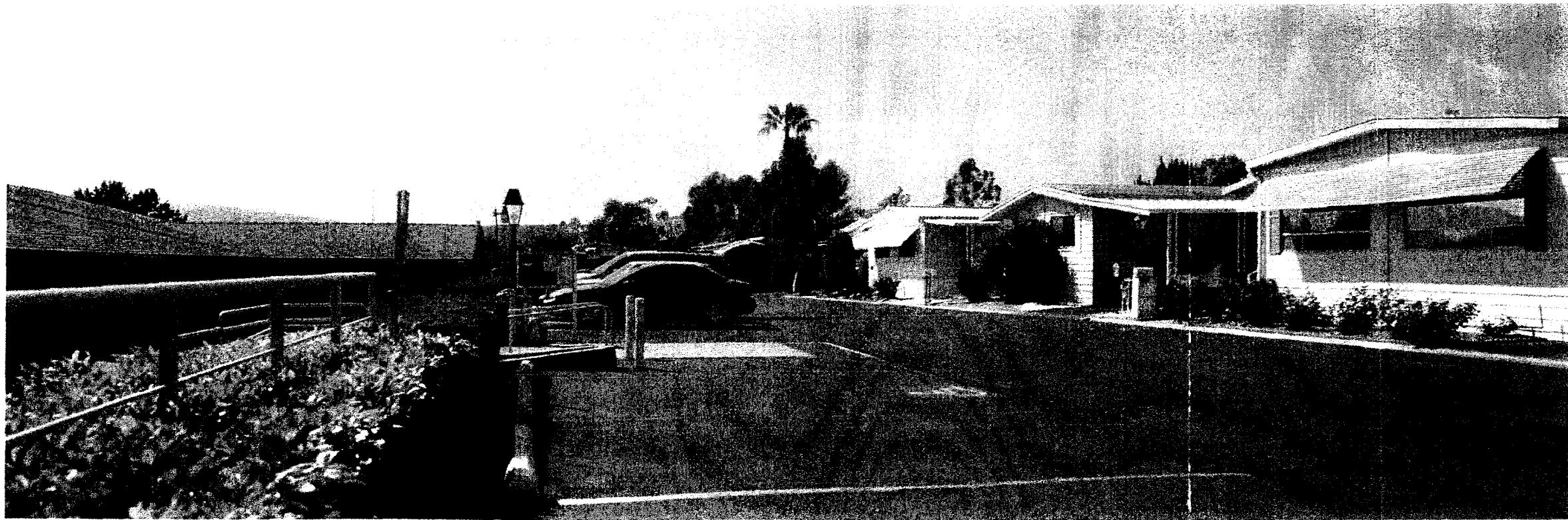
Source: RBF Consulting

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A Existing Conditions



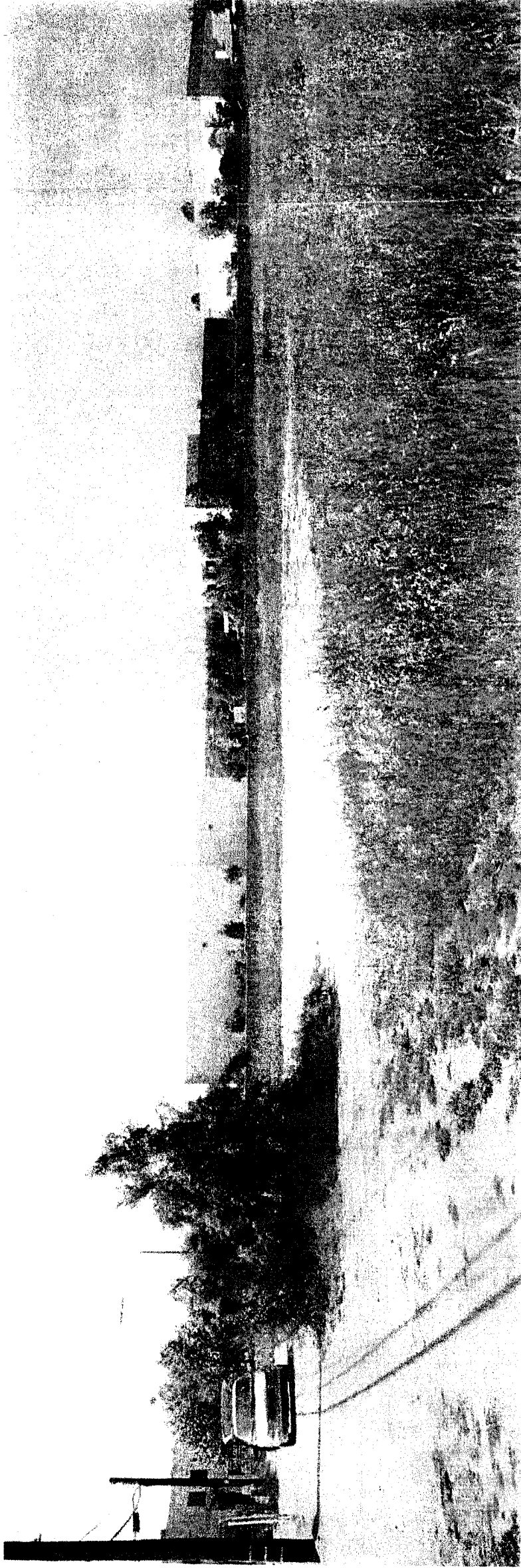
B With Proposed Project

Source: RBF Consulting

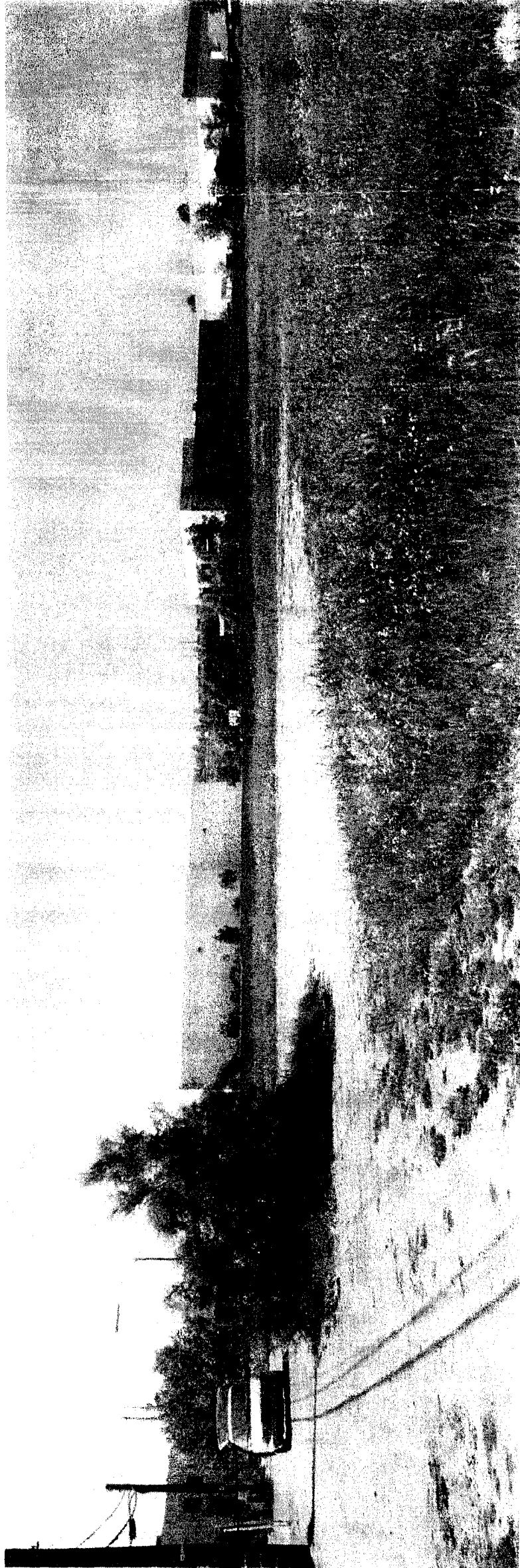


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A Existing Conditions



B With Proposed Project

Source: RFB Consulting

No Scale

P&D Environmental Services

Key Observation Point 4

Figure 2.7-5

Visual Quality – The view from KOP 5 includes several mobile homes, a parking lot, and the resident community center. Based on the nature of the KOP location and the lack of significant views toward the project site, the visual quality is considered Moderately Low.

Visual Sensitivity – Because of the presence of both residences and industrial uses and the lack of significant views, the visual sensitivity is considered Moderately Low.

Visibility – This is a northwest view that takes in the existing transmission lines and portions of developed industrial property in the middle ground. Although KOP 5 is somewhat elevated at 694 feet amsl, it does not provide a clear view of the site, due to several trees and mobile homes that substantially screen the view. As a result, visibility is considered Low.

Viewer Exposure – Because of the extensive screening and relatively low number of viewers, the viewer exposure is considered Low.

Key Observation Point 6

KOP 6 was selected to represent the views looking south toward the project site from residences located in a new housing development off of Deodar Road and Via Salerno that is currently under construction. This observation point is located approximately 1.0 mile north of the plant site and about 1,300 feet north of State Highway 78, an eight-lane freeway in this vicinity. Figure 2.7-7a depicts the existing condition at this KOP.

Visual Quality – The view from KOP 6 includes the plant site in the distance adjacent to several lattice transmission towers, behind and among existing industrial uses. The view includes industrial uses and a freeway in the middle ground, and graded pads for future residences in the foreground. Due to the lack of any scenic resources or designated viewsheds, as well as the inclusion of substantial industrial elements, the visual quality is considered Moderate.

Visual Sensitivity – Although KOP 6 is located among residences, the visual sensitivity of this view is considered Moderate, due to the lack of scenic resources and the predominance of industrial uses in the middle ground and background.

Visibility – KOP 6 is somewhat elevated at 762 feet amsl and shows a view that is relatively clear of obstruction towards the proposed project site, with a haze on the distant views of the hilltop near the plant site. The completion of construction of residential structures at and around this KOP will result in intervening structures screening the view from most nearby vantage points. Overall, the visibility is considered Moderate.

Viewer Exposure – Based on the expected number of viewers, screening due to completion of the residential structures currently under construction, and distance to the project site, viewer exposure is considered Moderate.

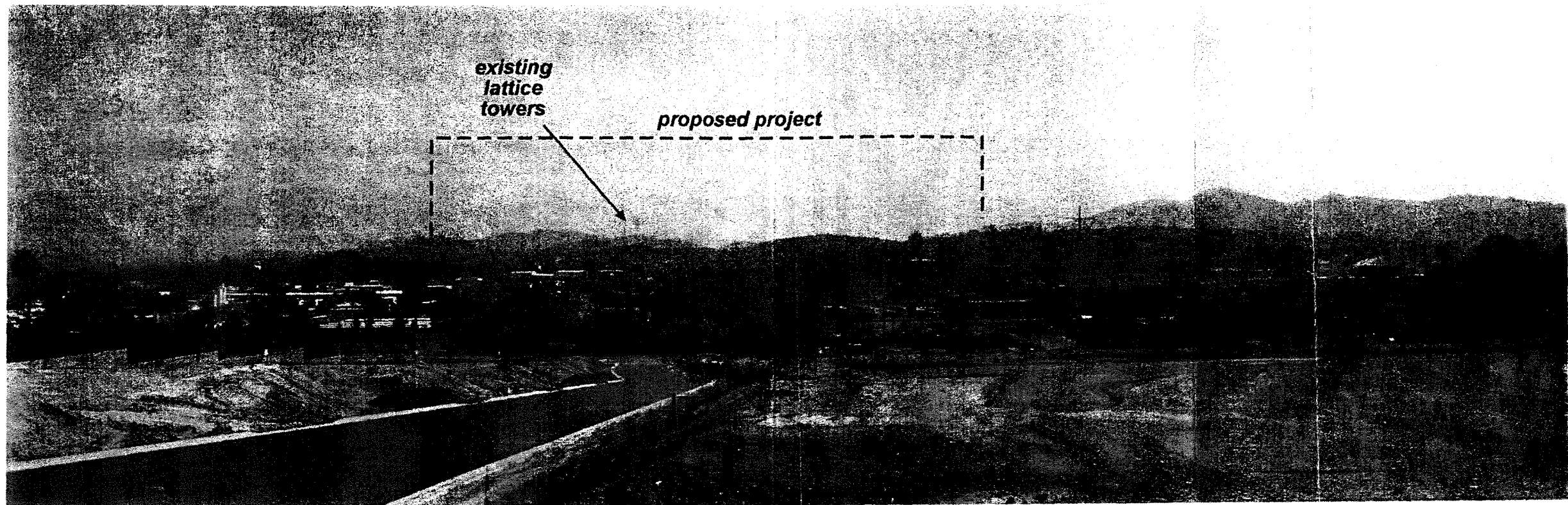
Key Observation Point 7

KOP 7 was selected to represent the views looking west toward the project site from residences overlooking Interstate 15 (I-15) in a neighborhood adjoining a commercial area. KOP 7 is located at 345 Vine Street adjacent to a construction storage area. This observation point is located approximately 1.4 miles east of the project site and about 700 feet east of I-15. Figure 2.7-8a depicts the existing condition at this KOP.

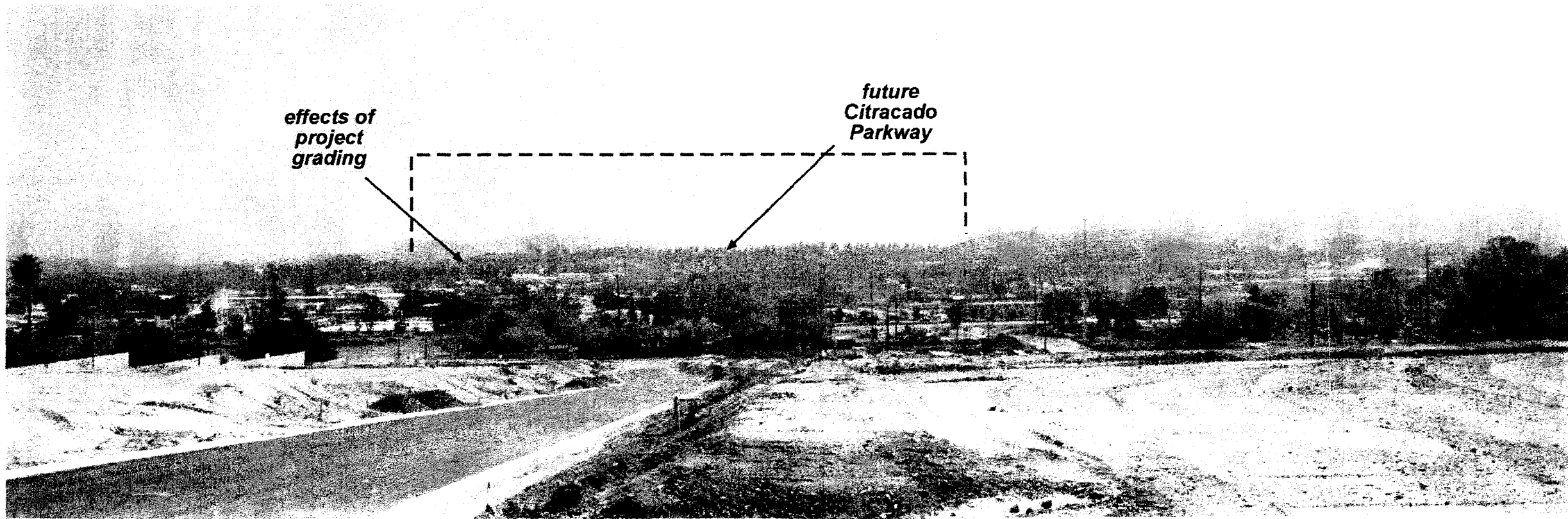
Visual Quality – KOP 7 affords a vantage point looking towards the project site without intervening structures. The plant site is in the background, with industrial uses, commercial uses, and I-15 in the middle ground. Due to the lack of any scenic resources or designated viewsheds, as well as the inclusion of substantial commercial and industrial elements, the visual quality is considered Moderate.

Visual Sensitivity – The character of KOP 7 is influenced by both residential and nearby commercial uses, and is also substantially influenced by unscreened views of I-15. Overall, the visual sensitivity of this view is considered Moderately Low.

Visibility – KOP 7 is an elevated vantage point at 802 feet amsl and affords a view of the project site without significant structures to impede the view. However, because of screening due to distance from this KOP to the plant site, the existing lattice transmission towers adjacent to the plant site are not seen clearly. Overall, largely because of screening due to distance from the site, the visibility of this KOP is considered Moderate.



A Existing Conditions



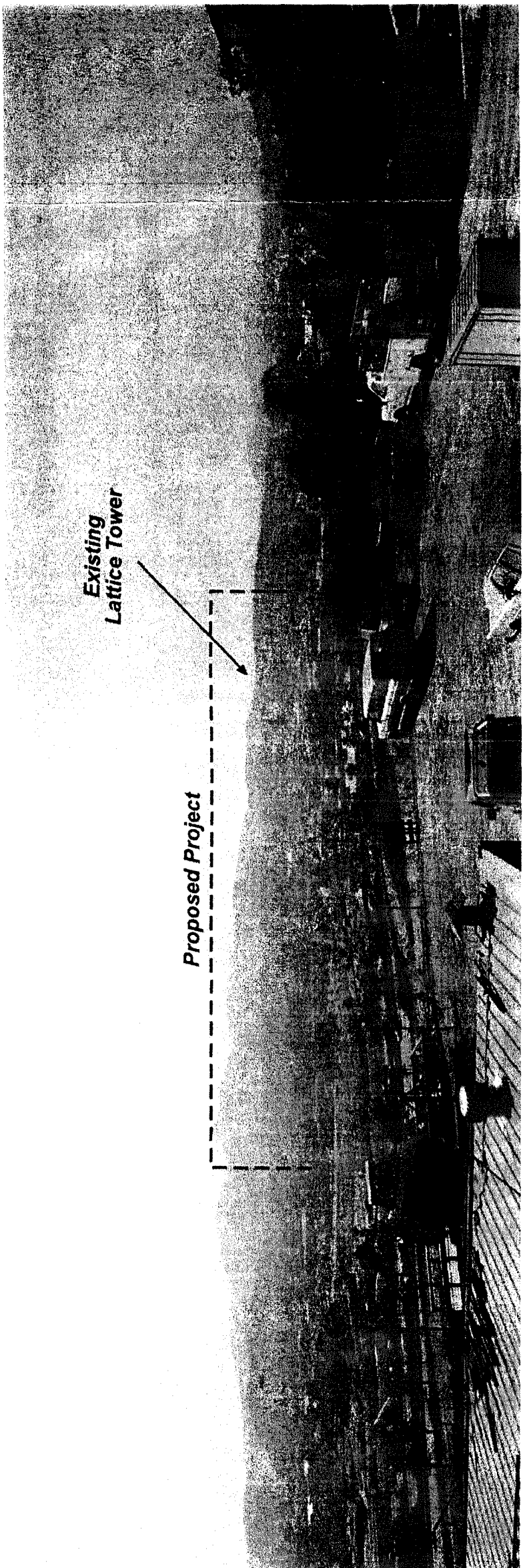
B With Proposed Project

Source: RBF Consulting

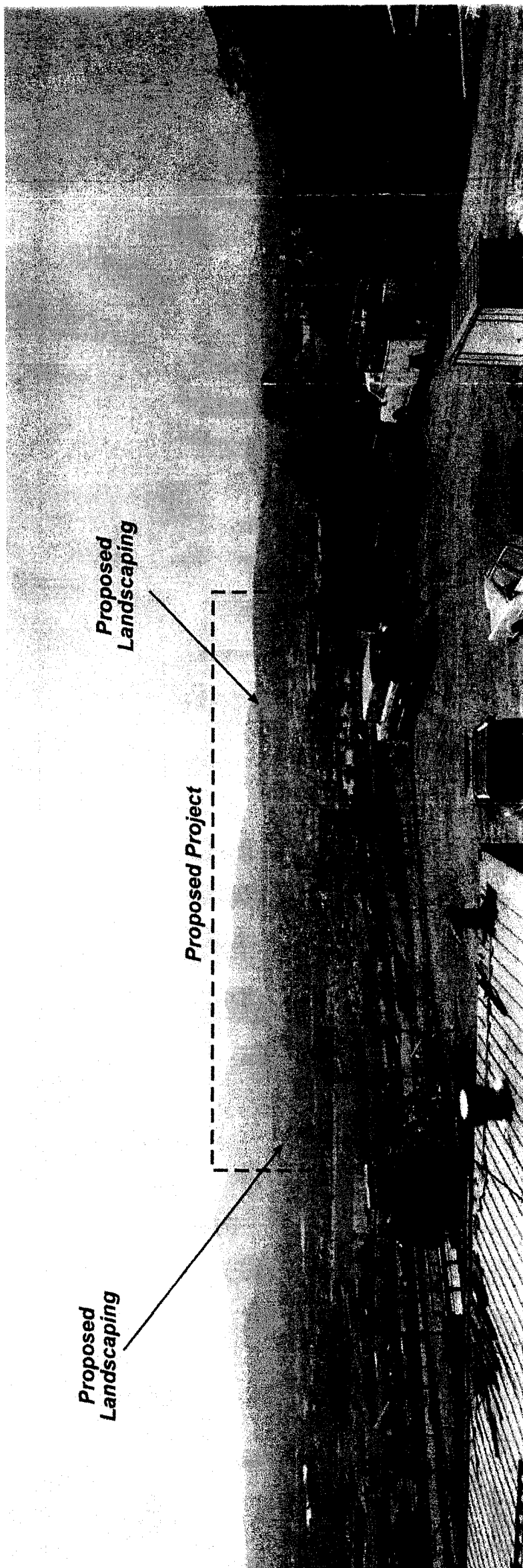


No Scale

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A Existing Conditions



B With Proposed Project

Source: RBF Consulting

No Scale

Viewer Exposure – The majority of residences in the Vine Street neighborhood are not afforded the view represented by KOP 7, and Vine Street is lightly trafficked. Based on the number of viewers, the lack of intervening structures, and screening due to distance, the viewer exposure is considered Moderate.

Key Observation Point 8

KOP 8 was selected to represent the views looking west toward the project site from a residential neighborhood near Valley Parkway. KOP 8 is located at 1134 Pasadero. This observation point is located approximately 0.8 mile southeast of the project site. Figure 2.7-9a depicts the existing condition at this KOP.

Visual Quality – From KOP 8, short- and middle-range views consist of urban development. Antennas are evident in the long-range view. Due to the lack of any scenic resources or designated viewsheds, the visual quality is considered Moderate.

Visual Sensitivity – The character of KOP 8 is influenced by the existing urban development. Overall, the visual sensitivity is considered Moderate.

Visibility – KOP 8 is at an elevation of 716 feet amsl and affords a view of the site with limited intervening structures; however, near-range trees obstruct the view. Overall, due to the screening due to distance and intervening vegetation, the visibility of the KOP is Moderately Low.

Viewer Exposure – Due to the screening distance, limited number of viewers, and obstruction of the vegetation, viewer exposure is Moderate.

Key Observation Point 9

KOP 9 was selected to represent the views looking east toward the plant site from hilltop residences located west of the proposed project site. KOP 9 is located at 919 Cycad Drive, about 1 mile from the project site. Figure 2.7-10a depicts the existing conditions of this KOP.

Visual Quality – KOP 9 presents long-range views of the site. Intervening land uses include urban development. This KOP has less influence in the near-range view of landscaping. Overall, the visual quality is Moderate.

Visual Sensitivity – The views from the KOP are of near- and mid-range urban development. Long-range views are more open and undeveloped. Overall, the visual sensitivity is Moderate.

Visibility – Visibility is substantially influenced by the distance and intervening development. Overall, the visibility is Moderately Low.

Viewer Exposure – Based on the number of viewers, screening due to distance, and intervening development, the viewer exposure is Moderate.

Transmission Line Routes and Radio Tower

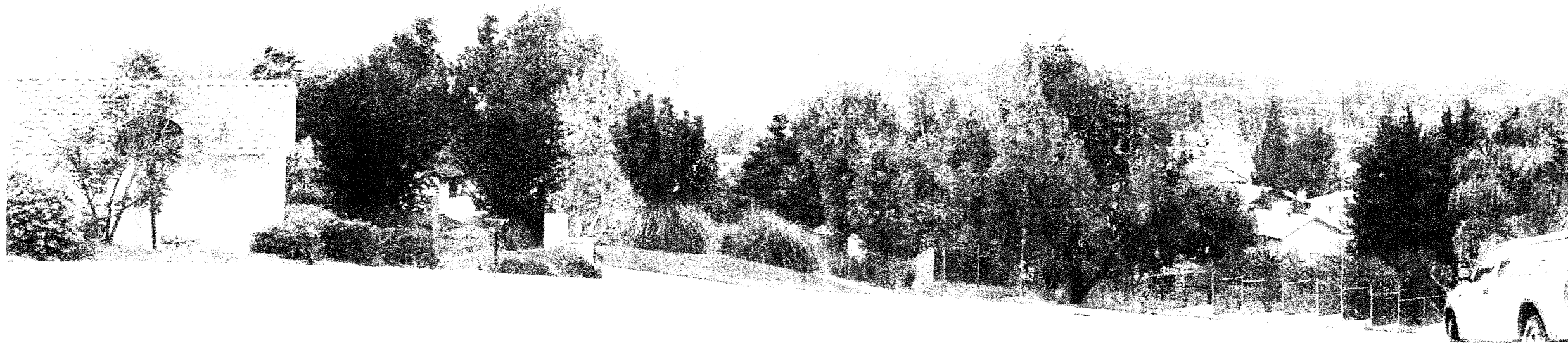
The project site currently supports six lattice transmission towers located near the proposed plant site. These existing lattice towers are prominently located along the primary ridgeline trending north/south through the middle of the SPA. A 69-kV transmission line runs along the ridgeline and/or through the project site.

Additionally, a radio broadcast tower currently exists at the project site. The existing tower is about 100 feet tall, and triangular (horizontal cross-section) with 8- to 10-inch faces. The tower is currently painted a bright color, as was required by the FAA when the tower was in its previous location.

2.7.2 Thresholds of Significance

As per State CEQA Guidelines (Appendix G), a proposed project would have a significant aesthetic impact if it would:

- Have a substantial adverse effect on a scenic vista;
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
- Substantially degrade the existing visual character or quality of the site and its surroundings; or



A Existing Conditions



B With Proposed Project

Source: RBF






A Existing Conditions



B With Proposed Project

Source: RBF

 No Scale

 P&D Environmental Services

Key Observation Point 9

Figure 2.7-10

Source: P&D Environmental Services, Inc.

- Create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area.

Additionally, the proposed project would have a significant aesthetic impact if it would conflict with the Viewsheds Protection section of the Community Open Space and Conservation Element of the City of Escondido General Plan.

2.7.3 Analysis of Project Effects and Determination as to Significance

The proposed specific plan includes a power generation plant (Planning Area 1), light industrial land uses (Planning Areas 2 through 8) and residential land uses. Figure 1.3-1 shows the location of planning areas within the overall specific plan. The aesthetic impacts related to the proposed project are analyzed in several ways. First is a discussion of the impact of grading associated with the proposed project. Second is an analysis of the architectural and landscape requirements of the specific plan. Third is a discussion of individual project components, including the proposed lighting, transmission line routes, and the power plant. Fourth is an analysis of the viewshed change from each of the KOPs discussed in the existing conditions section. Finally, there is an analysis of consistency of the proposed project and the Viewshed Protection Section of the Community Open Space and Conservation Element of the City of Escondido General Plan.

Project Grading

Substantial grading of the project site will be required to create level lots for building construction. Figure 2.7-11 shows three grading cross sections at three locations in the proposed project. For each individual profile, the dashed line represents the existing topography, and the solid line represents the elevation after grading. Grading for future Citracado Parkway in the southern portion of the project site will reduce existing topography by up to 50 feet in some places (see Profile Section C on Figure 2.7-11). Within the central portion of the project site (see Profile Section B), a knoll will be eliminated.

Visual quality impacts related to grading are considered to be less than significant. Much of the area surrounding the proposed project is already developed, and the grading and construction associated with the proposed project could be considered an extension of existing uses.

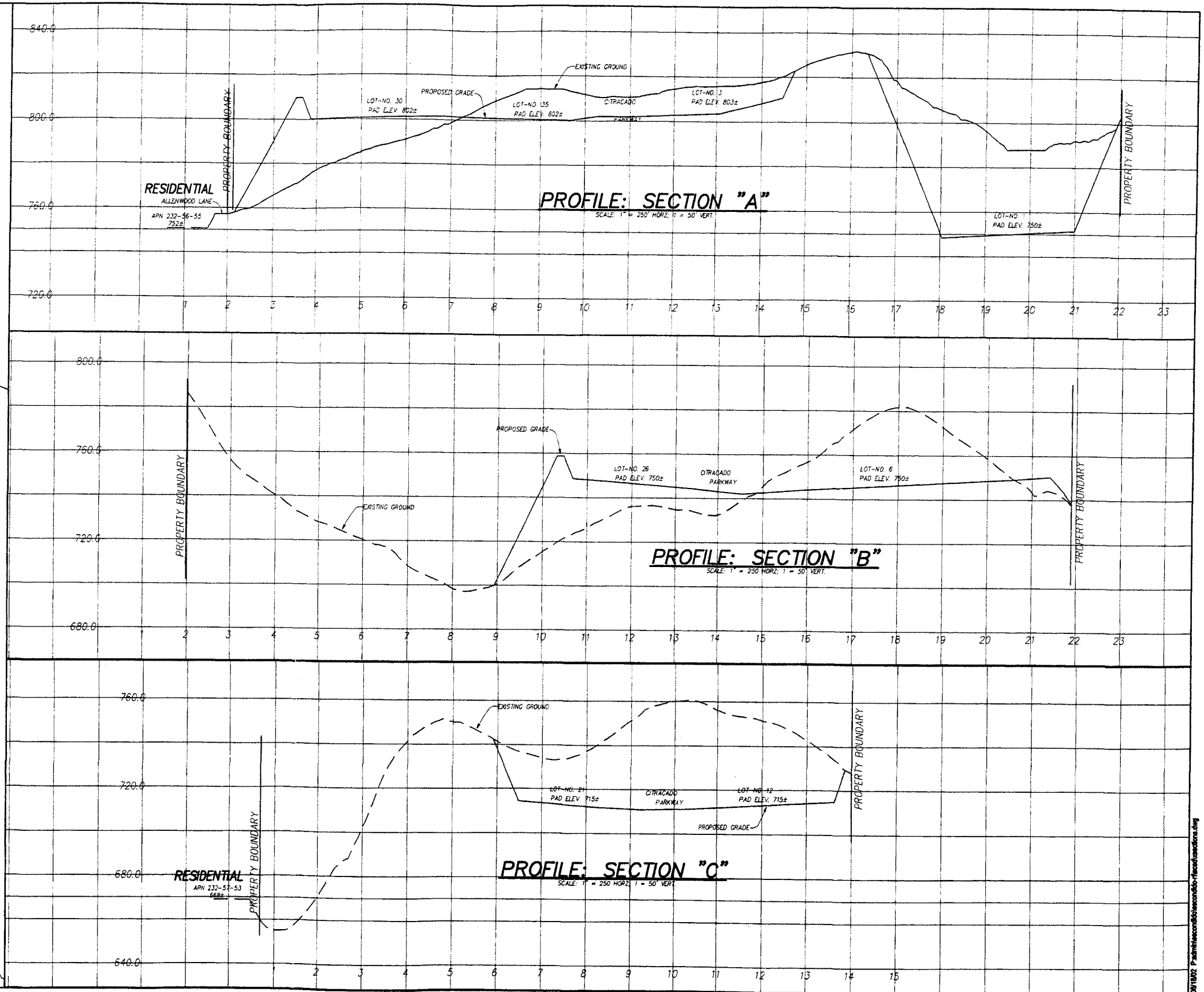
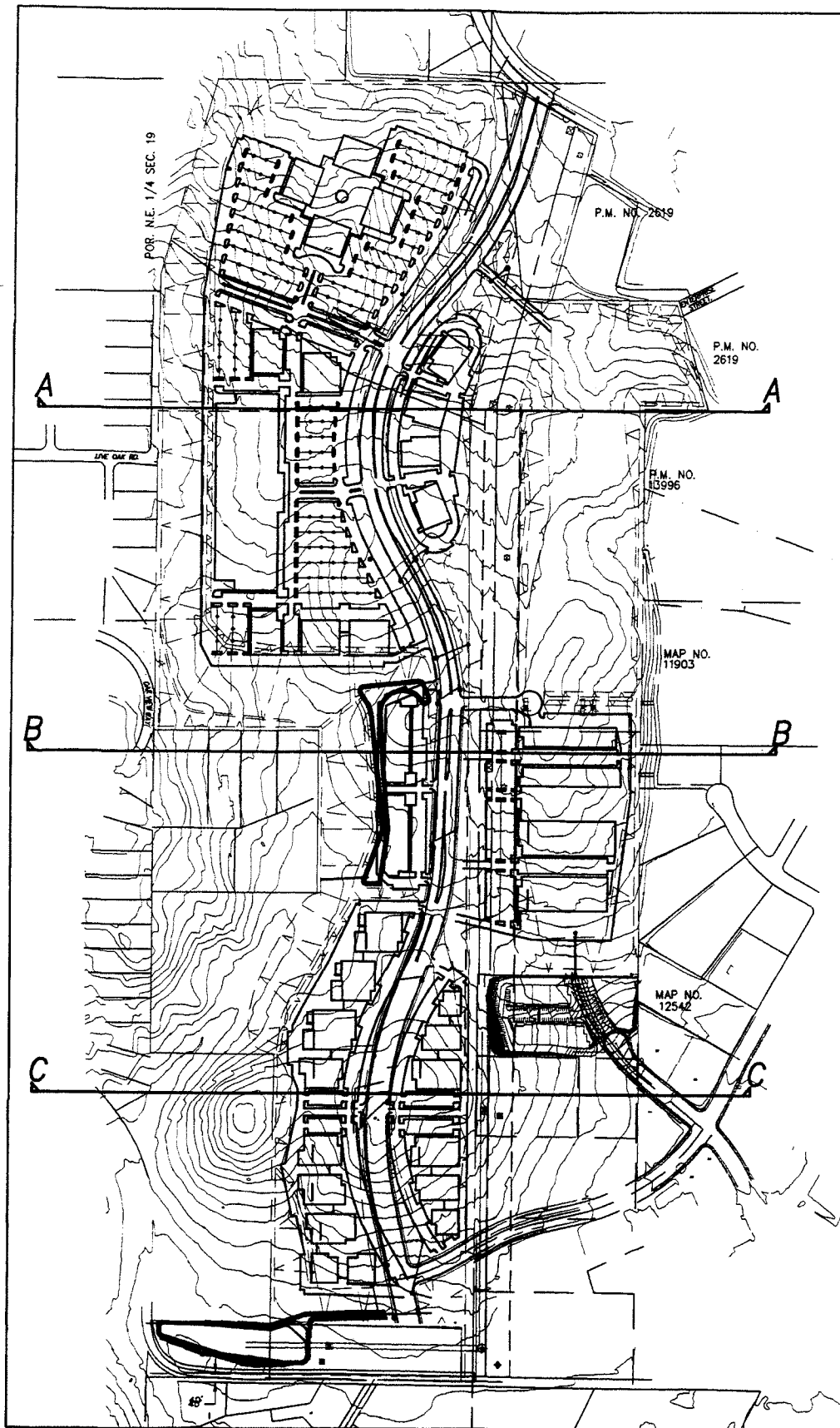
Specific Plan

The Specific Plan ensures that the proposed project will be built in a cohesive and harmonious manner with respect to the placement and mass of structures, architectural elements, and color. Architectural design elements that shall be incorporated into the project include arcades, parapets, pergolas, plazas, recessed windows and entry openings, surfaced textures, and the use of color. The color schemes for the project buildings are designed to enhance the design concept of each building and to provide for overall color coordination across the project area. Color schemes focus on muted and natural tones in a palette of tans, off-whites, and grays. Natural-colored stone and light-colored earth tones will be carried through in any stonework incorporated into the building facades. Through the incorporation of architectural features, the apparent mass of buildings will be reduced.

The Specific Plan specifies height maximums for the light industrial and residential land uses. Planning Areas 2 through 8 will be utilized for light industrial uses. Chapter 1 of the Specific Plan provides a detailed description of potential uses in the Planning Areas. Planning Areas 4 and 5 have a building height maximum of 120 feet on 2-acre-minimum lots. Planning Areas 2, 3, 6, 7, and 8 have a building height maximum of 60 feet on 1-acre-minimum lots. Planning Areas 9 and 10, which are proposed residential areas, have a height limit of 35 feet on approximate 0.5-acre lots.

A comprehensive landscape plan is included in the proposed project, which will both enhance views on the project site, as well as serve as a buffer and transition to the adjacent residential land uses. Future Citracado Parkway will be enhanced with parkway trees and turf. Streetscape slopes will be covered in a palette of low-water ornamental plantings. Landscaping will be combined with signage and water features at entry points to create a feeling of arrival at the project site. A portion of the project site will be revegetated with native plant species.

The architectural design, height maximums, and landscape plan proposed within the Specific Plan will ensure that the proposed project is developed in a cohesive and aesthetically sensitive manner, and will not cause a significant visual quality impact.



Source: Project Design Consultants



No Scale

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Project Lighting

The power plant will require nighttime lighting for operational safety and security. To minimize any offsite impacts, lighting at the facility will be restricted to areas required for safety and security. In addition, lights will be directed onsite so that significant offsite light or glare will not be created.

Lighting associated with Planning Areas 2 through 8 is described in the Lighting Standards portion of the proposed Specific Plan. Onsite lighting includes lighting for parking areas, vehicular and pedestrian circulation, building exteriors, outdoor display areas, service areas, landscaping, security, and special effects. As per the Lighting Standards of the Specific Plan, all outdoor lighting facilities or fixtures shall be shielded, be equipped with automatic timing devices, and be limited to the amount of light necessary to illuminate the intended objects. Lighting which will remain on after 11:00 PM shall be low-pressure sodium.

Since the proposed project includes shielded and low-sodium lighting for night illumination, no significant lighting impacts were identified for the proposed project.

Transmission Line Routes

As part of the power plant interconnection, 11 existing lattice transmission towers located near the plant site would be replaced with 10 tubular steel poles, where one lattice tower would be eliminated. As these existing lattice towers are predominantly located along the primary ridgeline trending north/south through the middle of the SPA, this is thought to provide an aesthetic benefit, and provide visual quality improvements. It should be noted that two new steel poles would be installed immediately adjacent to the proposed plant site to facilitate the interconnection of the power plant.

As an additional measure to improve visual aesthetics, existing 69-kV transmission lines running along the ridgeline and/or through the planned industrial park will be rebuilt and/or be placed underground as part of the ERTC Specific Plan. It is anticipated that the height of the new steel pole structures will be approximately the same height as the existing 230-kV structure. This represents a beneficial aesthetic impact.

Power Plant

The features of the proposed power plant (Planning Area 1) are presented in Table 2.7-3. The proposed power plant will reach a maximum of 110 feet, and the maximum length of any plant feature is 320 feet. It will be visible from various locations onsite, with most views occurring from the east and north.

**Table 2.7-3
Major Power Plant Features**

Feature	Height (Feet)	Length (Feet)	Width (Feet)	Diameter (Feet)
HRSG Units ⁽¹⁾	85	150	30	--
HRSG Stacks ⁽¹⁾	110	--	--	17
Combustion Turbine-Generator (Two)	75	135	30	--
Cooling Tower (Seven Cells)	65	320	50	--
Raw Water Storage Tank	45	--	--	55
Demineralized Water Storage Tank	40	--	--	30
Operations Building	25	220	90	--

Note:

⁽¹⁾ HRSG = Heat Recovery Steam Generators.

The power plant and switchyard structures will have a flat, neutral, gray-tan finish that will be consistent with the color of the site area's soil and dry-season vegetation and the colors of many of the surrounding facilities. Use of a flat finish will reduce the reflectivity of the structures' surfaces, and the gray-tan tone will not contrast substantially with the backdrop in the more distant views. The ERTC Specific Plan will provide additional guidelines and requirements specifying exterior color surface, screening equipment, and appropriate landscaping in accordance with the City's Design Review Board Standards.

KOP Viewshed Change

Figures 2.7-2a through 2.7-10a present the existing conditions as viewed from KOPs 1 through 9. Figures 2.7-2b through 2.7-10b illustrate the "after conditions" as viewed from each KOP. The visual impact assessment was based on an evaluation of the changes to the existing visual resources that will result from construction of the proposed project. In making the determination of the extent and implications of the visual changes, consideration was given to:

- The specific changes in the affected visual environment's composition, character, and any specially valued qualities.
- The affected visual environment's context.
- The extent to which the affected visual environment contains places or features that have been designated in plans and policies for protection or special consideration.
- The numbers of viewers, their activities, and the extent to which these activities are related to the aesthetic qualities affected by the likely visual changes.

There are a number of factors that are used to evaluate the effects of project changes in the visual environment. For each of the following evaluation factors, the effects of project changes as viewed from each KOP were rated as High, Moderately High, Moderate, Moderately Low, or Low.

Contrast

This is a measure of the contrast with structures, vegetation, and land/water in regard to color, form, line, texture, and scale. The degree of contrast can range from high to low. As there are no bodies of water in the project vicinity, contrast with water was not an evaluation factor.

Dominance

This is a measure of the apparent size of an object relative to the visible expanse of the total field of view and the dominance of an object in relation to its location in the landscape. Dominance can range from subordinate to dominant.

View Blockage

This is the blockage of view or elimination by the project of any previously visible components. Blockage of higher-quality visual elements with lower-quality visual elements would be a significant impact. The degree of view blockage can range from strong to none.

Key Observation Point 1

Figures 2.7-2a and 2.7-2b represent the view from KOP 1 before and after construction of the proposed project. KOP 1 was selected to represent the views looking east toward the project site from within the planned industrial park. This observation point is located approximately 1,100 feet west of the principal structures comprising the power plant.

Contrast with Structures

The power plant structures are mostly screened by intervening terrain, with an upper portion of the exhaust stacks and cooling towers still visible in the middle ground of the view from KOP 1. This visible portion of the plant is partially screened by trees. The screening provided by terrain and trees substantially mitigates the potential for contrast with industrial park structures. In addition, replacement of the existing lattice transmission towers that currently support 230-kV and 138-kV lines with tubular steel poles with tubular steel poles of an aesthetically sensitive design, together with undergrounding of the 69-kilovolt (kV) lines currently supported on wooden poles, results in an improved visual quality that is more consistent with a modern industrial park. Due to the lack of significant existing structures near the project site, the contrast of the proposed project with existing structures is considered Low.

Contrast with Vegetation

Existing vegetation in this view consists mainly of scattered shrubs and low-lying grass. The presence of the partially screened, visible portion of the power plant structures does not significantly alter the existing landscape scene's character or quality, and therefore the contrast of the proposed project with vegetation is considered Moderate.

Contrast with Land

Because the screened, visible portion of the project structures presents a degree of contrast with the open nature of the project area, the contrast of the proposed project with land is considered Moderate.

Scale/Spatial Dominance

Because the structures associated with the proposed project are more distant and much shorter than the existing nearby lattice transmission towers that currently support 230-kV and 138-kV lines and radio tower, the scale dominance of the proposed project is considered Moderate. Given the relatively small portion of the project-related structures that is visible above the intervening terrain, and considering the openness of the general area, the spatial dominance of the proposed project is considered Moderate.

View Blockage

Because the project site is at a low elevation relative to this KOP, the upper portions of the tallest project-related structures impose a view blockage. Based on the form and mass of the visible portions of the plant structures, the view blockage imposed by the proposed project is considered Moderate.

Visual Impact Severity

Because this area is not visually sensitive and the presence of the power plant will not appreciably change the character and quality of the landscape visible from this KOP, the aesthetic impact of the proposed project as viewed from KOP 1 is considered less than significant.

Key Observation Point 2

Figures 2.7-3a and 2.7-3b are simulations that represent the view from KOP 2 before and after construction of the proposed project. Because of an intervening landform created as part of grading of the industrial park, the proposed project is not visible from this observation point.

Contrast with Structures

Other than towers and/or poles supporting existing transmission lines, there are no structures in the view from KOP 2. Replacement of the existing lattice transmission towers that currently support 230-kV and 138-kV lines with tubular steel poles of an aesthetically sensitive design, together with undergrounding of the 69-kilovolt lines currently supported on wooden poles,

provides an improvement in visual quality. Therefore, the contrast of the proposed project with existing structures is considered Low.

Contrast with Vegetation

Other than the steel poles that replace the existing lattice transmission towers, no project structures are visible from this KOP. Therefore, the contrast of the proposed project with vegetation is considered Low.

Contrast with Land

Other than the steel poles that replace the existing lattice transmission towers, no project structures are visible from this KOP. Therefore, the contrast of the proposed project with land is considered Low.

Scale/Spatial Dominance

Because of an intervening landform created as part of grading of the industrial park, the power plant is not visible from this KOP. Therefore, the scale and spatial dominance of the proposed project are considered Low.

View Blockage

The landform in the middle ground is the result of grading of the industrial park and is not attributable to the proposed project. Because no project structures are visible from this KOP, the view blockage imposed by the proposed project is considered Low.

Visual Impact Severity

The only project effects visible from this KOP are the transmission line improvements. As the transmission line improvements are included with the proposed project for the sole purpose of enhancing visual quality, the visual impact severity of the proposed project as viewed from KOP 2 is considered Low.

Key Observation Point 3

Figures 2.7-4a and 2.7-4b represent the view from KOP 2 before and after construction of the proposed project. KOP 3 was selected to represent the views looking east toward the project site from several residences located on elevated lots along the west boundary of the planned industrial park. This observation point is located in the front patio area of 1189 Oak View Way, approximately 2,100 feet west-southwest of the proposed project. The view from KOP 3 is representative of the views from about 12 residences.

Contrast with Structures

The power plant structures are mostly screened by intervening terrain, with an upper portion of the exhaust stacks and cooling towers still visible in the view from KOP 3. This visible portion of the plant is partially screened by trees. The screening provided by terrain and trees substantially reduces the potential for contrast with industrial park structures. In addition, replacement of the existing lattice transmission towers that currently support 230-kV and 138-kV lines with tubular steel poles of an aesthetically sensitive design, together with undergrounding of the 69-kV lines currently supported on wooden poles, provides an improvement in visual quality. Due to the lack of significant existing structures near the project site, the contrast of the proposed project with existing structures is considered Low.

Contrast with Vegetation

In addition to the steel poles that replace the existing lattice transmission towers, a small portion of the power plant is visible, but partially screened by trees. Therefore, the contrast of the proposed project with vegetation is considered Low for KOP 3.

Contrast with Land

The small portion of the power plant that is visible in the background presents a minor degree of contrast with the landform in the middle ground created as part of grading of the industrial park. Therefore, the contrast of the proposed project with land is considered Moderately Low.

Scale/Spatial Dominance

Due to the project's unobtrusive appearance in the background, the scale and spatial dominance of the proposed project is considered Moderately Low.

View Blockage

The landform in the middle ground is the result of grading of the industrial park and is not attributable to the proposed project. The residences will have the current views altered by the fill slope, intended to buffer the plant from offsite land uses visually. Because the small portion of the power plant that is visible in the background presents an insignificant degree of view blockage, the view blockage imposed by the proposed project is considered Low.

Visual Impact Severity

The project elements visible from this KOP are the transmission line improvements (replacing the lattice towers with tubular steel) and a small, tree-screened portion of the power plant. As the transmission line improvements are included with the proposed project for the sole purpose of enhancing visual quality, and as the visible portion of the power plant is a minor presence in the background, no significant aesthetic impact is identified for KOP 3.

Key Observation Point 4

Figures 2.7-5a and 2.7-5b are simulations that represent the view from KOP 4 before and after construction of the proposed project. KOP 4 is a view looking northwest toward the project site from a vacant lot along Harmony Grove Road. This observation point is located approximately 0.7 mile southeast of the plant site. The view from KOP 4 is representative of the views from about eight residences. Other residences in the same vicinity have little or no views toward the project site, due to screening by existing industrial structures, residential structures, and vegetation.

Contrast with Structures

The view from KOP 4 is dominated by existing industrial buildings in the middle ground, which screen views toward the project site. Due to the lack of significantly visible project features in

relation to existing buildings, the contrast of the proposed project with existing structures is considered Low.

Contrast with Vegetation

Given this view composition, the project will not substantially alter the existing character or visual quality of the landscape scene, and therefore the contrast of the proposed project with vegetation is considered Low.

Contrast with Land

Due to the minor amount of project features that are visible, the contrast of the proposed project with land is considered Low.

Scale/Spatial Dominance

Due to the project's unobtrusive appearance in the background, the scale and spatial dominance of the proposed project are considered Moderately Low.

View Blockage

The project facilities appear as background elements, and their apparent size is greatly reduced by their distance from the observation point. Therefore, the view blockage imposed by the proposed project is considered Low.

Visual Impact Severity

Due to the lack of significantly visible project features and because the view's existing visual character and quality will not be substantially changed, the visual impact severity of the proposed project as viewed from KOP 4 is considered Moderately Low.

Key Observation Point 5

Figures 2.7-6a and 2.7-6b are simulations that represent the view from KOP 5 before and after construction of the proposed project. KOP 5 was selected to represent the views looking northwest toward the plant site from a mobile home park that borders on existing industrial uses.

Contrast with Structures

The view from KOP 5 is dominated by existing residential mobile home buildings in the foreground, which screen most views to the project site. Due to the lack of significantly visible project features in relation to existing buildings, the contrast of the proposed project with existing structures is considered Low.

Contrast with Vegetation

Most of the vegetation in the view from this KOP is nonnative landscaping. The project will not substantially alter the existing character or visual quality of the landscape scene, and therefore the contrast of the proposed project with vegetation is considered Low.

Contrast with Land

Due to the minor amount of project features that are visible, the contrast of the proposed project with land is considered Low.

Scale/Spatial Dominance

Due to the project's unobtrusive appearance in the background, the scale and spatial dominance of the proposed project are considered Moderately Low.

View Blockage

The project facilities appear as background elements, and their apparent size is greatly reduced by their distance from the observation point. Therefore, the view blockage imposed by the proposed project is considered Low.

Visual Impact Severity

Due to the lack of significantly visible project features and because the view's existing visual character and quality will not be substantially changed, the visual impact severity of the proposed project as viewed from KOP 5 is considered Moderately Low.

Key Observation Point 6

Figures 2.7-4a and 2.7-4b represent the view from KOP 6 before and after construction of the proposed project. KOP 6 was selected to represent the views looking south toward the project site from residences located in a new housing development off of Deodar Road and Via Salerno that is currently under construction. This observation point is located approximately 1.0 mile north of the plant site and about 1,300 feet north of State Highway 78, an eight-lane freeway in this vicinity.

Contrast with Structures

There are many existing structures in the middle ground and background of the view from KOP 6. The color treatments and size of the project help it blend into the background. The contrast of the proposed project with existing structures is considered Moderate.

Contrast with Vegetation

The project will not substantially alter the existing character or visual quality of the landscape scene, and therefore the contrast of the proposed project with vegetation is considered Low.

Contrast with Land

The project structures blend with the landscape and developed areas in the view from this KOP. However, due to the project's slightly elevated position along its backdrop, the contrast of the proposed project with land is considered Moderate.

Scale/Spatial Dominance

Due to its slightly elevated position along the background of the view, the scale dominance of the proposed project is considered Moderately High. Due to the project's compact appearance within its sector of the view, the spatial dominance of the proposed project is considered Moderate.

View Blockage

The project facilities appear as background elements, and their apparent size is greatly reduced by their distance from the observation point. Therefore, the view blockage imposed by the proposed project is considered Low.

Visual Impact Severity

The proposed project is currently within a direct line of site of KOP 6, but the completion of construction of residential structures at and around this KOP will result in intervening structures screening the view from most nearby vantage points. Although the scale of the project is somewhat dominant in the background, the project is spatially proportionate with the other elements in this view. Given the overall view composition, including industrial uses and a freeway in the middle ground, the project will not substantially alter the existing character or visual quality of the landscape scene, and therefore there is no significant aesthetic impact from KOP 6.

Key Observation Point 7

Figures 2.7-8a and 2.7-8b are simulations that represent the view from KOP 7 before and after construction of the proposed project. KOP 7 was selected to represent the views looking west, toward the plant site, from residences overlooking Interstate 15 in a neighborhood adjoining a commercial area. KOP 7 is located at 345 Vine Street, adjacent to a construction storage area. This observation point is located approximately 1.4 miles east of the plant site and about 700 feet east of Interstate 15. The view from KOP 7 is representative of the views from about 30 residences, with up to another 30 residences having similar but less unobstructed views toward the project site. Other residences in the same vicinity have little or no views toward the project site, due to screening by existing residential structures, vegetation, and terrain within the neighborhood.

Contrast with Structures

There are many existing structures in the middle ground and background of the view from KOP 7. The color treatments and size of the project help it blend into the background. The contrast of the proposed project with existing structures is considered Moderate.

Contrast with Vegetation

The landscape visible in the foreground is disturbed and of low visual quality. The project will not substantially alter the existing character or visual quality of the landscape scene, and therefore the contrast of the proposed project with vegetation is considered Low.

Contrast with Land

The project structures blend with the landscape and developed areas in the view from this KOP. However, due to the project's slightly elevated position along its backdrop, the contrast of the proposed project with land is considered Moderate.

Scale/Spatial Dominance

Due to its apparent small size and mass as viewed from the distance, the scale and spatial dominance of the proposed project are considered Moderate.

View Blockage

The project facilities appear as background elements, and their apparent size is greatly reduced by their distance from the observation point. Therefore, the view blockage imposed by the proposed project is considered Low.

Visual Impact Severity

Due to its small size and mass as viewed from the distance to this KOP, the project will not substantially alter the existing character or visual quality of the landscape scene, and therefore the visual impact severity of the proposed project as viewed from KOP 7 is considered Moderate.

Key Observation Point 8

Figures 2.7-9a and 2.79-b are simulations that represent the view from KOP 8 before and after construction of the proposed project.

Contrast with Structures

There are existing structures and vegetation in the middle ground and background of the view from KOP 8. The color treatments and size of the project help it blend into the background. The contrast of the proposed project with existing structures is considered Moderate.

Contrast with Vegetation

The landscape visible in the foreground is ornamental and provides some screening from existing land uses. The project will not substantially alter the existing character or visual quality of the landscape scene, and therefore the contrast of the proposed project with vegetation is considered Low.

Contrast with Land

The project structures blend with the landscape and developed areas in the view from this KOP. However, due to the project's slightly elevated position along its backdrop, the contrast of the proposed project with land is considered Moderate.

Scale/Spatial Dominance

Due to its apparent small size and mass as viewed from the distance, the scale and spatial dominance of the proposed project are considered Moderate.

View Blockage

The project facilities appear as background elements, and their apparent size is greatly reduced by their distance from the observation point. Therefore, the view blockage imposed by the proposed project is considered Low.

Visual Impact Severity

Due to its small size and mass as viewed from the distance to this KOP, the project will not substantially alter the existing character or visual quality of the landscape scene, and therefore the visual impact severity of the proposed project as viewed from KOP 8 is considered Moderate.

Key Observation Point 9

Figures 2.7-10a and 2.7-10b are simulations that represent the view from KOP 9 before and after construction of the proposed project. KOP 9 was selected to represent the views looking east.

Contrast with Structures

There are many existing structures in the middle ground and background of the view from KOP 9. The color treatments and size of the project help it blend into the background. The contrast of the proposed project with existing structures is considered Moderate.

Contrast with Vegetation

The landscape visible in the foreground is disturbed and of low visual quality. The project will not substantially alter the existing character or visual quality of the landscape scene, and therefore the contrast of the proposed project with vegetation is considered Low.

Contrast with Land

The project structures blend with the landscape and developed areas in the view from this KOP. However, due to the project's slightly elevated position along its backdrop, the contrast of the proposed project with land is considered Moderate.

Scale/Spatial Dominance

Due to its apparent small size and mass as viewed from the distance, the scale and spatial dominance of the proposed project are considered Moderate.

View Blockage

The project facilities appear as background elements, and their apparent size is greatly reduced by their distance from the observation point. Therefore, the view blockage imposed by the proposed project is considered Low.

Visual Impact Severity

Due to its small size and mass as viewed from the distance to this KOP, the project will not substantially alter the existing character or visual quality of the landscape scene, and therefore the visual impact severity of the proposed project as viewed from KOP 9 is considered Moderate.

Table 2.7-4 summarizes project facilities that will not produce effects that could be considered significant. This result is primarily due to selection of a site that affords substantial screening by terrain and is located in an area with an existing industrial visual character. The use of colors that blend with the existing setting also contributes to this result. Implementation of design measures to minimize project lighting effects will ensure that nighttime lighting is not a source of significant visual impacts. Table 2.7-4 summarizes the visual impacts of project facilities.

**Table 2.7-4
Assessment of Visual Impacts With Proposed Project**

KOP	Contrast with Structures	Contrast with Vegetation	Contrast with Land	Scale Dominance	Spatial Dominance	View Blockage	Visual Impact Severity
1	Low	Moderate	Moderate	Moderate	Moderate	Moderate	Moderately Low
2	Low	Low	Low	Low	Low	Low	Low
3	Low	Low	Moderately Low	Moderately Low	Moderately Low	Low	Moderately Low
4	Low	Low	Low	Moderately Low	Moderately Low	Low	Moderately Low
5	Low	Low	Low	Moderately Low	Moderately Low	Low	Moderately Low
6	Moderate	Low	Moderate	Moderately High	Moderate	Low	Moderate
7	Moderate	Low	Moderate	Moderate	Moderate	Low	Moderate
8	Moderate	Low	Moderate	Moderate	Moderate	Low	Moderate
9	Moderate	Low	Moderate	Moderate	Moderate	Low	Moderate

The combined effects of the various visual elements associated with each KOP result in a visual impact severity that ranges from Low to Moderate.

Consistency with General Plan Policies

The Viewshed Protection Section of the Community Open Space and Conservation Element of the City of Escondido General Plan includes policies regarding viewshed protection. The primary objectives of the viewshed protection policies are to preserve and protect existing internal and external view corridors in Escondido, with particular emphasis on ridgelines, unique landforms, and visual gateways and edges of the community. The project proposes ridgeline development.

Viewshed Policies E1.1 and E1.2 address projects within the Interstate 15 scenic corridor (defined as the area within 1,750 feet of the highway). Projects within this corridor are subject to specific guidelines. The proposed project is located more than 1 mile from Interstate 15; therefore, the project is not subject to the scenic corridor requirements, and will not conflict with these requirements.

Viewshed Policy E1.3 discusses the relationship between a proposed project and the contrast with undeveloped natural settings. The proposed project will be adjacent to an existing industrial park and a residential development. Industrial uses at the park can be considered an extension of existing industrial uses to the east of the project site. The residential uses proposed on the southwestern portion of the project site can be considered an extension of the residential land uses to the west. The Specific Plan includes design requirements to ensure that buildings are placed within the project area to minimize visual quality impacts, including paint selections and building designs that blend with the surrounding environment. Therefore, the proposed project does not conflict with Policy E1.3.

Viewshed Policy E1.4 states that buildings should not be permitted on top of or on the upper side of unique landforms, such as steep hills and rock outcroppings. The topography at the project site is varied, but shows evidence of past disturbance, including grading for agricultural operations in the northern portion of the project site. The project does not support significantly unique landforms or outcroppings. Proposed uses at the project site have been sited to make use of the topography as a visual buffer. The proposed project does not conflict with Policy E1.4.

Viewshed Policy E1.5 states that development proposals shall maintain public views of creeks, lakes, their shorelines, and their adjoining riparian features as much as possible. The proposed project will not interrupt public views to creeks, lakes, or shorelines; therefore, the project does not conflict with this policy.

In summary, the proposed project will not conflict with the adopted viewshed policies of the Escondido General Plan.

Alternative Location for Radio Tower

The radio tower is proposed to be moved, and two potential locations are under consideration. Alternatively, the tower may remain in its current location. Figure 1.3-3 shows the location of the existing tower and the two alternative locations under consideration. Figure 2.7-12 depicts the view with the proposed tower.

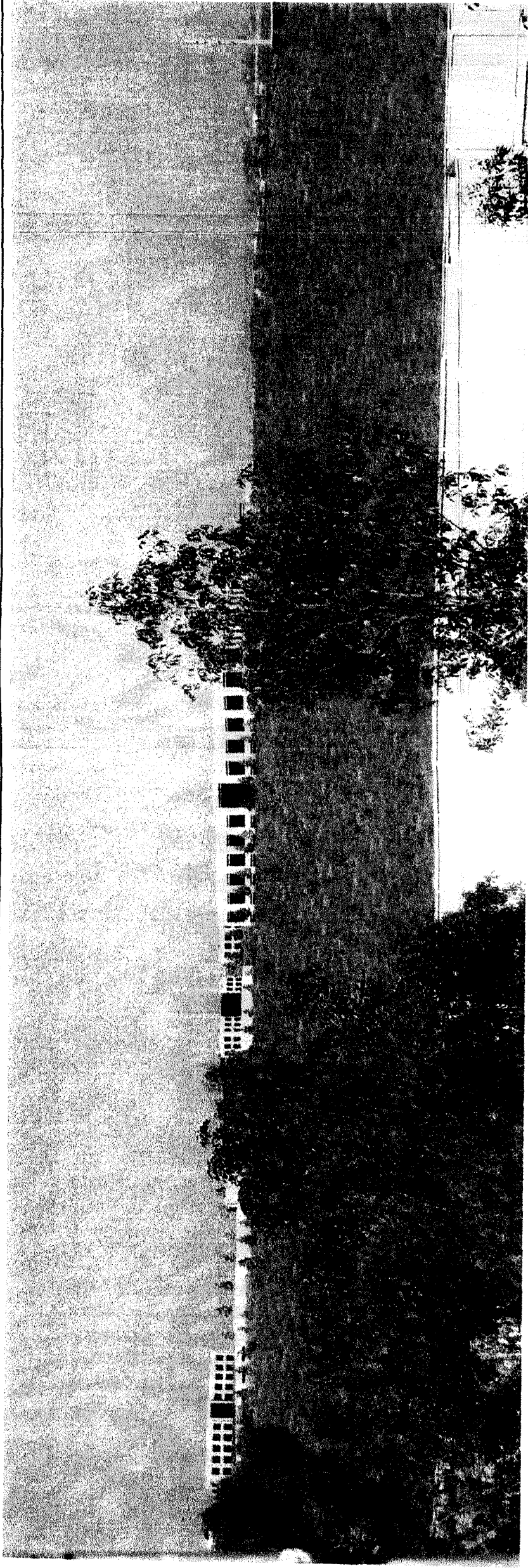
To provide better broadcasting capabilities, the new radio tower would be 30 to 40 feet taller than the existing 100-foot tower. The new tower could either be guyed or self-supporting. A guyed tower would be triangular with 8- to 10-inch faces, similar to the existing tower. A self-supporting tower would be either a three-legged design or a monopole design. Final technical considerations will determine the final pole design.

The majority of the viewsheds from the KOPs analyzed in this section will not be impacted from the alternative location of the radio tower. Figure 2.7-12 depicts KOPs 2 and 3, in which the location of the radio tower will be substantially visible; however, in-fill slopes on these locations will provide a visual barrier. The alternative location of the radio tower is not anticipated to be a significant visual quality impact.

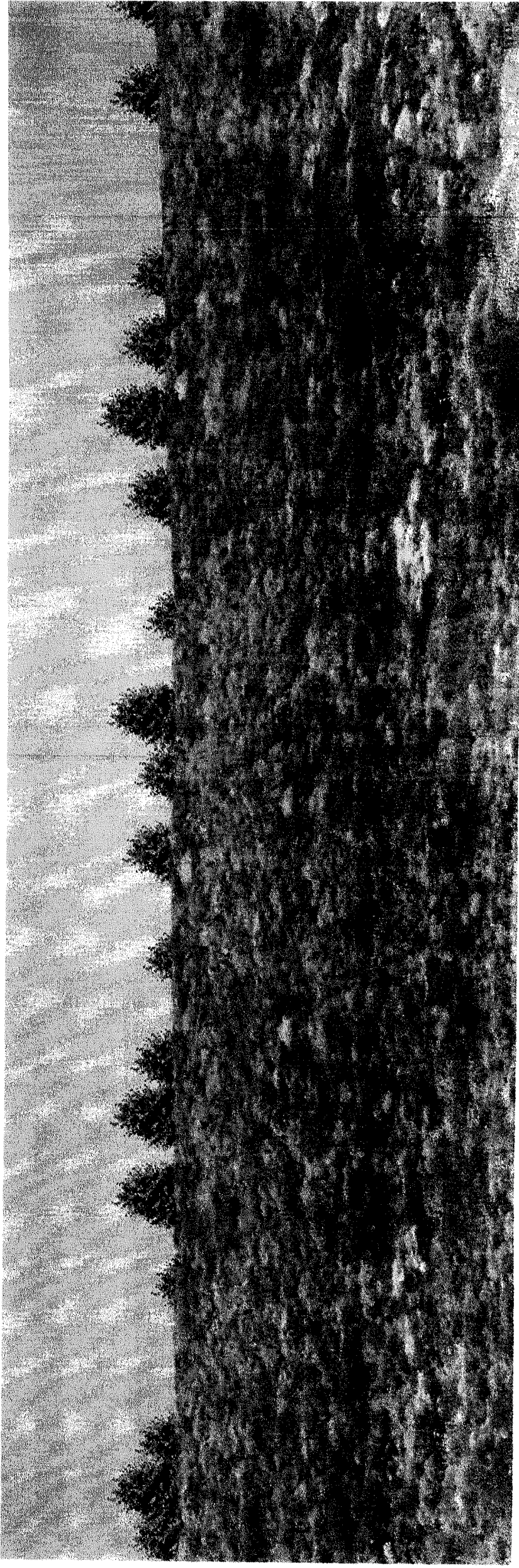
A self-supporting tower would be either a three-legged design or a monopole (“flagpole”) design. It is uncertain whether technical considerations would allow use of the monopole design. For the three-legged design, the tower would be triangular (horizontal cross-section) with the upper two-thirds tapering to 8- to 10-inch faces at the top, and the bottom one-third spreading to form the three-legged base. The new tower will be colored to help it blend in (e.g., light grey or dull galvanized).

Project Design Measures

Design measures which have been included as part of the project design will reduce potential visual quality impacts.



KOP 2



KOP 3

Source: RRF

No Scale

 P&D Environmental Services

Select KOP Views with Tower-Alternative Location

Figure 2.7-12

The following measures have been included in the project design to avoid visual impacts.

Specific Plan

All proposed development shall incorporate a variety of design features such as landscaping, signage, lighting, and streetscape treatments to establish a strong sense of identity throughout the entire ERTC Specific Plan. These design measures may include but are not limited to the following:

- Parking areas shall conform to the City's Parking Ordinance (Article 1077) and shall be designed to be convenient, safe, and unobtrusive from neighboring residential areas and all streets within the project. Adequate landscaping shall be placed throughout the parking areas.
- Buildings should vary in setback from the street to provide variety in streetscapes.
- Signs in the ERTC Specific Plan should blend with the business/industrial community, architecture, and streetscape themes.
- All exterior lighting shall conform with the City's Lighting Ordinance. In addition, all freestanding light standards in parking areas shall be limited as indicated in the Specific Plan.
- A Master Landscape Concept Plan will be developed for the ERTC Specific Plan. The following standards will be included but not limited to the Master Landscape Concept Plan:
 - There shall be two or three dominant tree species used throughout the specific plan area which shall be fast growing, evergreen, and possess heavy screen foliage. These tree species shall be determined in conjunction with the final streetscape/buffer area landscape plan subject to review by the Design Review Committee.
 - Trees and other heavy planting shall dominate the entry areas and public corridors.

- Street landscaping shall be uniform through the specific plan area in style, density, and species.
 - Drought tolerant plant materials shall be used throughout the project development.
 - One tree per 30 feet of property adjacent to a street, and one tree per five parking stalls in parking areas, shall be planted for every individual parcel. Street trees along Citracado shall be *Platanus acerifolia* (London Plane Sycamore). Median trees shall be approved by the Design Review Committee.
 - Separate irrigation systems shall be installed for each individual parcel.
 - All graded slopes shall be promptly revegetated with groundcover, shrubs, and trees. Groundcover shall possess moderate to high erosion control properties. Performance deposits shall be made to the City if revegetation cannot be completed in a timely manner to the satisfaction of the Community Development Director.
 - Large walls and/or fences shall be softened with vines, large shrubs, and/or small trees. Specimen trees shall be predominant near buildings.
 - The Master Landscape Plan will include detailed and coherent processing requirements for each individual to ensure that these policy directions are incorporated into each building site.
- Building height, as defined in the City zoning code, shall be designed to be as unobtrusive as possible to adjacent residential communities.
 - Building materials shall be selected which are attractive, unobtrusive, and interrelated to the rest of the buildings in the ERTC Specific Planning Area.
 - Walls and buildings which front on, or are visible from, public streets should be given upgraded aesthetic treatments. Utilitarian functions such as loading docks, fire escapes, and service delivery zones shall be screened and oriented away from public streets. In addition to substantial architectural treatment on frontage elevations, the

remaining walls and fascia should avoid blankness through architectural and landscaping treatment.

- No equipment, materials, or goods shall be placed on the roof of any building unless screened from offsite views to the satisfaction of the Planning Department and Design Review Committee.
- The Design Review Committee shall consider the building scale in relation to topography, surrounding developments and properties, and overall visual impacts. Setbacks, building height, orientation, landscaping, and architectural requirements may be used to ensure high quality development.
- Any building(s) proposed within the Southwest Buffer Sensitive Overlay area shall orient away from residential areas to the west and southwest.
- Offices in the southwest project area should be oriented in such a manner to account for compatibility with residential areas to the west. Particular attention shall be given to screening of roof equipment.

Power Plant

- The power plant structures will be arranged to make maximum use of the visual screening afforded by site topography. The plant site will incorporate berms, trees, and other landscaping that provides further visual screening in order to minimize visual impacts on the surrounding area, in accordance with the ERTC Specific Plan criteria for Planning Area 1.
- All power plant structures, exhaust stacks, buildings, and tanks will be constructed of materials that limit glare, and they will be finished with flat, neutral tones that blend with the surrounding environment.
- The perimeter of the plant site shall be secured with aesthetic steel fencing or screen walls, selected as appropriate for specific visual settings along the perimeter. The site perimeter fencing will be treated or painted to blend with the surrounding environment.

- Signs at the entrances to the plant site will be constructed of materials that minimize glare, and will be painted using colors that are unobtrusive.
- Lighting at the plant site will be limited to areas required for safety and security, and will be directional to minimize spillover onto adjacent properties.

2.7.4 Mitigation Measures

No significant aesthetics impacts were identified for the proposed project; therefore, no mitigation measures are required.

2.7.5 Conclusion

No significant aesthetic impacts were identified for the proposed project. The proposed project will not have an adverse impact on a scenic vista. The project will not substantially degrade scenic resources or substantially degrade the existing visual character or quality of the site and its surroundings, nor will it create substantial light or glare which would adversely affect daytime or nighttime views in the areas. The proposed project does not conflict with adopted viewshed policies of the City of Escondido General Plan.

2.8 WATER QUALITY

This section presents the environmental effects associated with the proposed project and of the construction and operation of the power plant on water resources, which include flood hazards, surface water, and groundwater.

2.8.1 Existing Conditions

Western San Diego County, where the project site is located, is an area of warm, dry summers and mild winters. The topography of this region consists of narrow winding valleys and rolling to hilly uplands that are traversed by several rivers and associated small creeks. The creeks flow for only a short period of time after heavy rainstorms (U.S. Soil Conservation Service and Forest Service, 1973).

Precipitation

Most precipitation occurs during the months of December through April and is infrequent in summer. Runoff in the area results primarily from rainfall. However, the melting of snowpack and surfacing groundwater springs also contribute small additional amounts of runoff. The flow of surface water and groundwater in the area is in an east-to-west direction toward the Pacific Ocean.

Temperatures in the project area range from an average of 57°F in December and January to 72°F in August. Precipitation in the vicinity of Miramar averages approximately 10.6 inches per year, with most of the precipitation occurring during winter.

Groundwater Resources

Groundwater is defined as subsurface water that occurs beneath the water table in soils and geologic formations that are fully saturated. Geologic formations sufficiently permeable to allow substantial quantities of water to be withdrawn are called aquifers.

Regional Hydrogeology

The site is located in the San Diego Hydrologic Basin, which occupies approximately 3,900 square miles of San Diego County and portions of Orange and Riverside counties in

southwestern California. This hydrologic basin lies within the Peninsular Ranges physiographic province of California. The Peninsular Ranges physiographic province is a geographic area that is characterized by a relatively narrow coastal plain on the west, and rugged mountains and steep-walled, narrow valleys inland that generally trend from east to west.

The federal Clean Water Act and California's Porter-Cologne Water Quality Control Act (Porter-Cologne) require that Water Quality Control Plans (Basin Plans) be prepared to protect water resources for the designated hydrologic basins in California. The San Diego Region Basin Plan was approved by the State Water Resources Control Board in 1975 and updated in 1994. The San Diego Region Basin Plan identifies water quality objectives and beneficial uses for groundwater and surface waters located in the San Diego Region.

All major drainage basins within the San Diego Hydrologic Basin contain groundwater basins. These basins are relatively small in area and usually shallow. Although the groundwater basins are limited in size, their groundwater yield has been historically important to the development of the area. However, most of the groundwaters in the area have been extensively developed, and the availability of potential future uses is limited.

Groundwaters in the San Diego area can have as many as six designated beneficial uses including: Municipal and Domestic; Agricultural; Industrial Service Supply; Industrial Process Supply; Groundwater Recharge; and Freshwater Replenishment. Nearly all of the groundwater development in the area has been for the purpose of Municipal and Agricultural supply. Groundwaters that meet the criteria mandated by the Sources of Drinking Water Policy are designated municipal (MUN). Unless otherwise designated by the San Diego Regional Water Quality Control Board (SDRWQCB), all groundwaters in the area are considered suitable or potentially suitable as sources of drinking water. Beneficial uses for the groundwater of Carlsbad Hydrologic Unit, Escondido Creek Hydrologic Area, include Municipal and Domestic, Agricultural, and Industrial Service Supply. Table 2.8-1 presents water quality objectives for Escondido Creek Hydrologic Area groundwater (SDRWQCB, 1994).

Local Groundwater

Groundwater within the project site would likely be encountered within 20 feet of the ground surface (Giesick, 2001). However, bedrock was encountered at 6 to 11 feet below ground surface during the site-specific geotechnical investigation; therefore, the borings were terminated

Table 2.8-1
Water Quality Objectives for Escondido Creek Hydrologic Area Groundwater

Constituent	Concentration (mg/L)
Total Dissolved Solids	750
Chlorides	300
Sulfate	300
% Sodium	60
Nitrate	10
Iron	0.3
Manganese	0.05
Foaming Agents (MBAS) ⁽¹⁾	0.5
Boron	0.75
Odor	None
Turbidity	5
Color	15
Fluoride	1.0

Note:

⁽¹⁾ MBAS is Methol Blue Active Substances.

at that depth. Groundwater was not encountered during the investigation (Geocon, 2001). Groundwater flow direction is in the general direction of flow of Escondido Creek, to the southwest (Giesick, 2001).

Surface Water Resources

Surface water is the water exposed at the earth's surface. It includes the ocean, lakes, rivers, streams, reservoirs, and similar water bodies.

Surface Water Drainage

The project site is located within the San Diego Drainage Province, which corresponds with the San Diego Hydrologic Basin. The San Diego Drainage Province is under the jurisdiction of the SDRWQCB. The site is located within the Carlsbad Hydrologic Unit, Escondido Creek Hydrologic Area. The Carlsbad Hydrologic Unit is a 210-square-mile, roughly triangular-shaped strip which includes unique coastal lagoons, three major creeks, three lakes, urban and natural drainage, native vegetation, open space, agriculture, fisheries, and beaches.

Local Surface Water

Escondido Creek flows through Lake Wohlford northeast of Escondido, and then through the City of Escondido, eventually emptying into the Pacific Ocean at San Elijo Lagoon. Most of the 13 miles of the creek that flows through the City of Escondido have been contained within a concrete channel since the late 1960s. In the project area, the creek extends in a northeasterly to southwesterly direction approximately 0.75 mile south of the site. The portion of the creek near the project site is concrete lined. A creek improvement project is underway to restore the unlined portion of the creek to a more natural state (Escondido Creek Conservancy, 2000).

Existing beneficial uses for Escondido Creek include Municipal and Domestic Supply, Agricultural Supply, Contact Water Recreation, Noncontact Water Recreational, Warm Freshwater Habitat, Cold Freshwater Habitat, and Wildlife Habitat. Industrial Service Supply is a potential beneficial use for Escondido Creek. Water quality objectives (SDRWQCB, 1994) for Escondido Creek are presented in Table 2.8-2.

Wetlands

As shown on Figure 2.6-1, there are wetlands in the western portions of the project site. Figure 2.6-1 identifies a number of areas on the site as nonjurisdictional waters of the United States. These are ephemeral channels between 2 and 3 feet wide. These ephemeral channels constitute federal and State of California jurisdictional waters under Sections 401 and 404 of the Clean Water Act and/or Section 1603 of the California Fish and Game Code. The total area of these jurisdictional waters is estimated to be 1.22 acres throughout the entire site.

Floodplains

Based on Federal Emergency Management Agency (FEMA) Map 06073C, Community 060290, Panel 1076F, dated June 19, 1997, the site is located in Zone X, which is outside the 500-year floodplain. Therefore, the project is not considered to have the potential for flooding.

**Table 2.8-2
Water Quality Objectives for Escondido Creek**

Constituent	Concentration (mg/L)
Total Dissolved Solids	500
Chlorides	250
Sulfate	250
% Sodium	60
Nitrogen & Phosphorous	-- ⁽¹⁾
Iron	0.3
Manganese	0.05
Foaming Agents (MBAS)	0.5
Boron	0.75
Odor	None
Turbidity	20
Color	20
Fluoride	1.0

Note:

⁽¹⁾ Concentrations of nitrogen and phosphorus must be maintained at levels below those which stimulate algae and emergent plant growth. Threshold total phosphorus concentrations must not exceed 0.05 mg/L in any stream at the point where it enters standing water. Analogous threshold values have not been set for nitrogen.

Water Supply

Depending on local weather conditions, typically 75 to 95% of San Diego County's water is imported. In 2000, imported water sources contributed 84% of the total water used. Imported water is currently obtained from the Metropolitan Water District of Southern California (MWD). Colorado River water is imported by MWD via the 242-mile Colorado River Aqueduct. Water from northern California is imported via the 444-mile California Aqueduct.

Local water sources (16% of the total water used in 2000), include surface water (66.8%), wells (17.6%), recycled (11.7%), and brackish groundwater desalination (3.9%) (San Diego County Water Authority, 2001).

Reclaimed water is an important and growing component of the area's water supply. Reclaimed water is obtained through treatment of municipal wastewater to produce a safe and reliable water supply for nonpotable uses. The San Diego County Water Authority (Authority) reported that in

1993, the total volume of reclaimed water used in their service area was 9,713 acre-feet, which represented a 24% increase in reclaimed water use over the previous year. The Authority estimates that the total reclaimed water use volume in their service area will increase to 50,000 acre-feet per year when planned water reclamation projects are completed in the year 2010 (SDRWQCB, 1994).

2.8.2 Thresholds of Significance

When evaluating the hydrology and drainage-related issues of a proposed project, Appendix G of the State CEQA Guidelines defines when a project will normally have a significant effect on the environment. The Initial Study eliminated all issues, with the exception of:

- Changes in absorption rates, drainage patterns, or the rate and amount of surface runoff.
- Discharge into surface waters or other alteration of surface water quality (e.g., temperature, dissolved oxygen, or turbidity).

2.8.3 Analysis of Project Effects and Determination of Significance

The potential impacts of the project on water resources have been evaluated based on:

- Hale Avenue Resource Recovery Facility (HARRF) water reclamation facility,
- State water policy,
- Surface water quality and flood hazards, and
- Groundwater degradation.

Project Water Use and Discharge Characteristics

Potable water for domestic and sanitary use will be provided to the project site by the Rincon del Diablo Municipal Water District.

To conserve water, reclaimed water will be used for power-generating activities. Approximately 3.6 million gallons per day of reclaimed water will be provided by the City of Escondido's HARRF (see Appendix G of AFC for "will serve" letters). Reclaimed water may also be provided by the HARRF to the project site for landscape watering. Currently, the HARRF

provides secondary treatment of 15.0 million gallons per day of wastewater from the City of Escondido and from the Rancho Bernardo area. Effluent is discharged from the HARRF to the Pacific Ocean via a 14-mile pipeline that connects to an ocean outfall pipeline near San Elijo Lagoon. The effluent exits the outfall pipeline approximately 2.0 miles offshore through diffuser ports 132 feet deep in the Pacific Ocean.

The ongoing Escondido Regional Recycled Water Project (ERRWP) involves upgrading existing HARRF treatment facilities to produce tertiary treated recycled water and construction of approximately 24 miles of 4-inch to 24-inch-diameter pipeline and one underground storage reservoirs. One of these pipelines is a 24-inch reclaimed water supply main extending northeast from the HARRF along Escondido Creek. The power plant's recycled water supply pipeline will connect with this ERRWP pipeline at Harmony Grove Road just north of Escondido Creek. The power plant's brine return pipeline will connect with an ERRWP brine return line at the same location as the supply line at Harmony Grove Road and Escondido Creek. Upon full completion of the ERRWP, it is expected that the HARRF will provide approximately 9 million gallons per day of reclaimed water. Startup for the ERRWP is expected by the end of July 2002 (City of Escondido, 2000). As a portion of this water will be used throughout the City of Escondido for irrigation purposes (e.g., sprinkling of golf courses, parks, and landscaped medians), this water will meet the applicable regulatory requirements for such uses involving potential human contact.

Water Conveyance

Potable water will be supplied via a connection with existing water lines. Reclaimed water will be conveyed to the site via a new 1.1-mile, 16-inch reclaimed water supply pipeline extending from the existing City of Escondido reclaimed water main. Brine created from the proposed project will be returned to the HARRF via a new 1.1-mile, 8-inch return pipeline routed alongside the reclaimed water supply pipeline and connecting to the City of Escondido's brine return line. There will be no discharge of wastewater from the project to surface waters or groundwater.

Power Plant Water Treatment

Water treatment varies according to the quality required for each of the plant's water uses. The circulating water, Heating Recovery Steam Generator (HRSG) makeup, and Combustion Turbine

Generator (CTG) evaporative cooler makeup require treatment. The service water, potable water, and fire protection water do not require treatment.

If the power plant project discharges to the wastewater system, the following impacts would occur. In the event that the plant would discharge to the outfall, more stringent discharge requirements would be necessary. The City of Escondido requires that industrial dischargers obtain an Industrial User Permit, develop a Management Plan for toxic and prohibited organic chemicals, and complete a Baseline Monitoring Report. In addition, the power plant is subject to the wastewater pretreatment standards defined in 40 CFR Part 403 (general pretreatment standards) and Part 423 (categorical standard) and the City of Escondido industrial wastewater ordinance. The general standards prohibit introducing:

- Pollutants that create a fire or explosion hazard;
- Pollutants that may cause corrosive structural damage to a publicly owned treatment works (POTW), but in no case discharges with a pH lower than 5.0, unless the POTW is specifically designed to accommodate such discharges;
- Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW;
- Any pollutant, including oxygen-demanding pollutants, released at a flow rate and/or pollutant concentration which will cause interference with the POTW (in this case the HARRF);
- Heat in amounts that will inhibit biological activity in the POTW;
- Petroleum oil; and
- Pollutants that result in the presence of toxic gases, vapors, or fumes.

The standards defined in 40 CFR 423 are applicable to facilities primarily engaged in the generation of electricity for distribution and sale, whose wastewater results from a process utilizing fossil fuel in conjunction with a thermal cycle employing a steam water system as the thermodynamic medium. For new sources discharging to a publicly owned treatment works, these standards include:

- There may be no discharges of polychlorinated biphenyl compounds.
- Discharges of chemical metal cleaning wastes (wastewater resulting from cleaning any metal process equipment, including boiler tube cleaning) may not contain total copper in concentrations that exceed 1.0 mg/l maximum for one day.
- The quantity of pollutants discharged in cooling tower blowdown may not exceed the concentrations listed in Table 2.8-3.

**Table 2.8-3
Pretreatment and Categorical Standards**

Pollutant	Pretreatment Standards Maximum for 1 Day (mg/l)
126 Priority Pollutants ⁽¹⁾ contained in chemicals added for cooling tower maintenance, except:	Nondetectable
Chromium, total	0.2
Zinc, total	1.0

Note:

⁽¹⁾ Contained in 40 CFR 423.

At the permitting authority's discretion, instead of the monitoring in 40 CFR 122.11(b), compliance with the limitations for the 126 priority pollutants may be determined by engineering calculations which demonstrate that the regulated pollutants are not detectable in the final discharge by the analytical methods in 40 CFR Part 136.

Table 2.8-4 summarizes the types and quantities of operational wastewater to be generated by the power plant.

The 1,400 gallons per day of potable water supplied to the project by the Rincon del Diablo Municipal Water District is a minimal amount of water and will have no impact on the availability of water for other users. In addition, the project will require an average of 3.6 million gallons of reclaimed water per day. With completion of the ERRWP in 2002, well

**Table 2.8-4
Power Plant Project Wastewater Volumes**

Wastewater Type	Estimated Quantity (Gallons per Day)	Operational Process
Cooling Tower Blowdown	889,000	Blowdown from cooling tower, evaporative cooler, HRSG units, and deionization system ⁽¹⁾
Sanitary Wastewater	15,840	Sanitary wastewater, potable water drains, and discharge from oil/water separator

before the power plant comes online in 2004, the HARRF will have ample capacity to provide the necessary source water to the project (Rowlen, 2001). As the expected ultimate capacity of the ERRWP will be approximately 9 million gallons of reclaimed water per day, the power plant's requirements will not impact other potential users of ERRWP reclaimed water.

Because reclaimed water is available for cooling use, fresh water is not needed for that purpose. State Water Code Section 13551 prohibits use of potable water for nonpotable sources if suitable recycled water is available. It also states that any use of recycled water in lieu of potable water is deemed to constitute a reasonable beneficial use of that water. In addition, State Water Resources Control Board Resolution 75-58 sets forth policies concerning the use and disposal of inland water used for power plant cooling. As the Power Plant is using reclaimed water as its primary water source, the project complies with the State Water Code and Resolution 75-58. Thus, no discussion of alternative water sources is required.

Landscaping throughout the Specific Planning Area will be a component of the project erosion control program, in addition to its aesthetic benefits. These measures will be required as indicated in the Specific Plan and must be reviewed and approved by the City's Engineer. Based upon current requirements by the City and SDRWQCB, a Storm Water Pollution Prevention Plan (SWPPP) will be developed and implemented to assure that there are no significant increases in erosion from construction and operational activities. Additionally, erosion and sediment controls, surface water pollution prevention measures, and other best management practices (BMPs) will be developed and implemented for project construction and operation. The SWPPP will be prepared in accordance with Water Quality Order 99-08-DWQ, State Water Resources Control Board National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction Activity, and Water Quality Order No.

97-03-DWQ, NPDES General Permit No. CAS000001, Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities.

Surface drainage systems at the project will handle the flow resulting from a 25-year, 24-hour-duration rainfall event. The surface drainage systems also will prevent flooding of permanent project components. The project site will drain in an easterly and southerly direction, and runoff from the site will be directed and discharged to the City of Escondido's storm drain system.

2.8.4 Mitigation Measures

Because no impacts were identified, there are no mitigation measures.

2.8.5 Conclusions

Because the project will be built in accordance with all applicable codes pertaining to runoff volumes, velocity, and quality, there are no significant impacts to water quality standards or waste discharge requirements. The project will not utilize any groundwater; thus, no impacts would occur. The project will comply with all applicable stormwater plans in effect at the time of development; therefore, there is no impact to water quality.

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2.9 PUBLIC SERVICES AND UTILITIES

The proposed project includes power generation, light industrial, business commercial, and residential land uses. This section discusses the potential impacts associated with the provision of public services and utilities to the proposed project. Specifically, this section discusses fire protection, police protection, schools, public facilities maintenance, water, wastewater/sewer, and solid waste services.

2.9.1 Existing Conditions

Fire Protection

The proposed project will be serviced by the City of Escondido Fire Department. The Department provides fire protection services, advanced and basic life support, emergency medical services, and transport. Hazardous materials emergencies are handled by the Escondido Fire Department, with assistance from the San Diego County Hazardous Incident Response Team.

The proposed project is located within the Fire Department's Jurisdiction 6. The primary response to the project site would be provided by Engine Company 6 (1 Captain, 1 Engineer, and 1 Paramedic Fire Fighter). A secondary response would be provided from Engine Company 1 (1 Captain, 1 Engineer, and 1 Paramedic Fire Fighter). A tertiary response would be provided from Truck Company 1 (1 Captain, 1 Engineer, and 2 Firefighters). Paramedic service is provided through the Fire Department by contract with Medic One. All of the response units are housed at Fire Station No. 1, located at 310 North Quince Street. The anticipated response time to the project site is approximately 8 minutes (City of Escondido Fire Department, 2002.)

Police Protection

The proposed project will be serviced by the City of Escondido Police Department. The Police Department Station is located at 700 West Grand Avenue, approximately 2 miles from the proposed project. The Department currently employs 162 sworn officers and has a support staff of 100 employees. Specialized law enforcement units include Crime Lab, K-9, Hostage Negotiations, Special Weapons Team, Collision Investigations, Community Policing, and Mobile Crime Incident Command.

A new 71,000-square-foot police facility is in the design stage. The new facility will be located in the northwestern portion of the City at City Center Parkway/Decatur Avenue. The project has an estimated completion date of 2004.

Schools

The proposed project, which includes two residential areas, is located within the service boundaries of the Escondido Union High School District (EUHSD) and the Escondido Union School District (EUSD).

District facilities include three high school campuses, one continuation campus, and one independent study campus. The District also maintains an adult education program. Future Citracado Parkway serves as a boundary line between two of the high schools within the District. The proposed residential planning areas are west of future Citracado Parkway, so high school students from these residential units would be assigned to San Pasqual High School (SPHS). Table 2.9-1 summarizes the current enrollment, capacity, and available capacity of the high school. As of January 2002, the current enrollment of SPHS is 2,177 students, with the ability to accommodate 47 more students.

**Table 2.9-1
School District Current Enrollment and Capacity**

School	Current Enrollment	Capacity	Available Capacity
Rock Springs Elementary 1155 Deodar Road	1,058 ⁽¹⁾	1,094	36
Rincon Middle School 935 Lehner Avenue	1,511 ⁽¹⁾	1,484	-27
San Pasqual High School 3300 Bear Valley Parkway	2,177 ⁽²⁾	2,224	47

Notes:

(1) CBEDS Enrollment, October 2001.

(2) January 2002 enrollment.

Source: Escondido Union High School District and Escondido School District, January 2002.

EUSD services over 18,000 students in grades K-8. District facilities include 13 elementary schools (K-5), four middle schools (6-8), one combined school (K-8), and one special needs

school. Students generated by the residential land uses will be served by Rock Springs Elementary School (K-5) and Rincon Middle School (6-8).

As of October 2001, Rock Springs Elementary has a current enrollment of 1,058 students, with the ability to accommodate 36 more students. Rincon Middle School has a current enrollment of 1,511 students, which exceeds the current capacity of the school by 27 students. EUSD is actively seeking funds for construction of new schools, both through a proposed bond issue on the March 2002 ballot, and through participation in the State of California Facilities Program (Escondido Union School District, 2002).

Public Facilities Maintenance

Public facilities within the project area are maintained by the City of Escondido Public Work Maintenance Division. Division responsibilities include maintaining City-owned assets and the public rights-of-way: the streets, pavement, traffic signals, street signs, striping, and pavement legends, street sweeping, sidewalks, storm drains, and drainage channels. Additionally, the Maintenance Division cares for and maintains the City's parks, medians, and parkway landscaping, open spaces, and street trees.

Water Service

The entire project is located within Improvement District 1 of the Rincon del Diablo Municipal Water District (RDMWD) service area. RDMWD purchases 100% of the potable water supply for Improvement District 1 from the San Diego County Water Authority (SDCWA). The SDCWA in turn purchases its water from the Metropolitan Water District of Southern California (MWD). MWD is a wholesaler that provides water to over 17 million people living in Southern California. RDMWD will provide potable water for the proposed project.

Planning Area 1 may include a power generation facility. To conserve potable water, reclaimed water is proposed for use by the power generating activities. Escondido's Hale Avenue Resource Recovery Facility (HARRF) will provide the reclaimed water for the power generating facility, as well as reclaimed water for landscape watering. A complete discussion of HARRF is provided below in the Wastewater/Sewer section.

There are several existing water mains located in the project vicinity, including a 14-inch line in Country Club Drive (west) and a 16-inch line in Harmony Grove Road (south). However, in

accordance with Senate Bill 610, RDMWD has prepared an assessment of whether the total projected water supplies will meet the projected water demand associated with the proposed project. The water supply assessment concluded that the proposed project would be required to construct needed facilities to distribute water throughout the development area, and the RDMWD will be able to provide an adequate and sufficient water supply to the proposed project site for the next 20 years, in accordance with the standards established by SB 610.

Wastewater/Sewer Service

Sewer services for the proposed project are coordinated by the City of Escondido, with treatment provided by the Hale Avenue Resource Recovery Facility (HARRF) in southern Escondido. Currently, the HARRF provides secondary treatment of 15 million gallons per day (mgd) of wastewater from the City of Escondido and from the Rancho Bernardo area. Effluent is discharged from the HARRF to the Pacific Ocean via a 14-mile pipeline that connects to an ocean outfall pipeline near San Elijo Lagoon. The effluent exits the outfall pipeline approximately 2 miles offshore through diffuser ports 132 feet deep in the Pacific Ocean.

The ongoing Escondido Regional Recycled Water Project (ERRWP) involves upgrading existing HARRF treatment facilities to produce tertiary treated recycled water and construction of approximately 24 miles of 4-inch to 24-inch-diameter pipeline and one underground storage reservoir. One of these pipelines is a 24-inch reclaimed water supply main extending northeast from the HARRF along Escondido Creek. The proposed power generation facility water supply pipeline will connect with this ERRWP pipeline at Harmony Grove Road, just north of Escondido Creek.

Existing facilities consist of an 8-inch PVC sewer line in Andreasen Drive, a 10-inch line in Vineyard Avenue, and an 8-inch line in Enterprise Street.

Solid Waste

The discussion of solid waste in this section pertains to nonhazardous waste generated by the proposed project. Solid waste services to industrial and residential uses in the project area are provided by Escondido Disposal. All nonhazardous waste generated by the proposed project will be disposed of at the Sycamore Sanitary Landfill located in City of Santee, approximately 20 miles from the project site. As of June 2001, the Sycamore Landfill has a remaining capacity

of 23.7 million cubic yards, with an anticipated closure in 2015 (California Integrated Waste Management Board, 2002a).

Escondido Disposal implemented a Single Stream Recycling program in February 2000. Items currently accepted curbside for recycling include newspaper, paper, cardboard, cans, glass, and plastic.

2.9.2 Thresholds of Significance

As per CEQA State Guidelines Appendix G, a proposed project would have a significant impact on public services if it would require the provision of new or physically altered governmental facilities in order to maintain acceptable service ratios, response times, or other performance objectives for the given public service.

The Escondido General Plan includes Quality of Life Standards. These standards have been developed to establish minimum thresholds of service levels for various public improvements. Below is a discussion of the applicable thresholds for public services.

Fire Protection

Impacts to fire protection services would be considered significant if the proposed project would be located in an area outside the City Fire Department's 7½-minute emergency response time service area. This response time is based on Standard 3 of the City's Quality of Life Standards, which targets a 7½-minute initial response time for all structure fire and emergency Advanced Life Support (ALS) calls and a maximum response time of 10 minutes for supporting companies.

Additionally, structures that are beyond a 5-minute travel time or further than 3 miles from the nearest fire station must be protected by the fire sprinkler system or an equivalent system as approved by the Fire Chief.

Police Protection

Impacts to police protection services would be considered significant if the proposed project would be located outside specified response time areas. Standard 4 of the City's Quality of Life Standards sets a 5-minute response time for Priority 1 calls (defined as crimes in progress or life

threatening) and 6½-minute response time for Priority 2 calls (defined as serious calls requiring rapid response, but not life-threatening incidents).

Schools

Impacts to the school districts would be considered significant if the projected enrollment from the residential land uses of the proposed project would exceed the existing and planned facility capacities as determined by the affected school district. The affected school districts for the proposed project are EUHSD and EUSD.

Public Facilities Maintenance

Impacts to public facilities maintenance would be considered significant if the proposed project would conflict with the City's ability to maintain public facilities, including roadways and traffic signals.

Water Service

Impacts to water service would be considered significant if the proposed project would impact the ability of the Rincon del Diablo Water District to adequately serve the District Service Area, or require the construction of new water pipelines.

Wastewater/Sewer Service

Standard 5 of the City's Quality Life Standards states that the City sewer system shall have adequate trunkline, pumping facilities, outfall capacities, and secondary treatment to meet both normal and emergency demand. The system shall provide sewage capacity able to treat a minimum of 250 gpd for each residence. Impacts to wastewater services would be considered significant if the project would exceed the capacity.

Solid Waste

Impacts to solid waste services would be considered significant if the proposed project would generate solid waste that exceeds present or planned landfill capacity.

2.9.3 Analysis and Determination As to Significance

Fire Protection

The proposed project is located over 3 miles from Fire Station No. 1, and has an anticipated response time of 8 minutes. This exceeds the standards set forth in the City's Quality of Life Standards. This represents a significant impact.

Since the proposed project is a specific plan, tenant-level details within the proposed light industrial land uses are unknown. Potential uses that could occur in the light industrial planning areas are numerous and include, but are not limited to: manufacturing, medical laboratory, biochemical, biotechnology, computer, metallurgy, chemical and allied product, and x-ray uses. The potential exists that these uses may incorporate hazardous materials, which, in the event of a fire emergency, may require a specialized response from the Escondido Fire Department. The Escondido Fire Department (2002) has indicated that a special fire protection system, training, or measures would be required for special hazard occupancies.

A fire protection and prevention program has been developed for the power generating facility which may occupy Planning Area 1. The program discusses general requirements, fire hazard inventory, housekeeping, alarm system, portable fire extinguishers, fixed fire fighting equipment, fire control/emergency response, flammable and combustible liquid use and storage, and training.

Additionally, fire protection systems are provided at the power generating facility. This system includes a fire prevention water system, carbon dioxide fire suppression system, and portable fire extinguishers.

Police Protection

The proposed project is located approximately 2 miles from the police station. Based on information provided by the City of Escondido Police Department (2002), the response time for a Priority One call will be 3½ minutes. This response time meets the thresholds set forth by the City of Escondido Quality of Life Standards. Therefore, no significant impact is identified.

Schools

The proposed project could develop a maximum of 46 single-family dwelling units. The EUHSD uses a student generation rate of 0.1363 for single-family dwelling units. Therefore, approximately 7 high school students would be generated from the residential land uses. Since SPHS has an available capacity for 47 students, the proposed project would not cause a significant capacity impact to the school. California state law requires that a developer pay school fees prior to the issuance of building permits.

The EUSD is currently reviewing their student generation rates. Most recent studies generated from single-family homes built in the last five years have yielded a generation rate of 0.23; however, these rates tend to increase as homes mature. Based on conversation with EUSD, a rate of 0.23 was suggested (Escondido Union School District, 2002). Therefore, the project would generate a total of 11 students for the district (approximately 4 for the middle school and 7 for the elementary school.)

Rock Springs Elementary School has an available capacity of 36 students; therefore, the generation of approximately 7 students would not be considered a significant capacity impact. Rincon Middle School is currently over capacity. The addition of 4 students would further exacerbate the overcapacity condition, and is therefore considered a significant impact. As noted in the high school discussion above, California state law requires that a developer pay school fees prior to the issuance of building permits.

Public Facilities Maintenance

The proposed project includes the approximate 1-mile extension of Citracado Parkway from Avenida del Diablo to Vineyard Avenue. Additionally, a traffic signal will be installed at the future intersection of Citracado Parkway and Vineyard Drive. The City of Escondido Public Works Division will be responsible for the maintenance of the roadway and traffic signals, as well as lighting along the roadways.

Funding for the maintenance of roadways, traffic signals, and street lighting will come from the allocation of taxes, including taxes generated from the proposed project. Therefore, no significant impacts related to the maintenance of public assets, including roadways and traffic signals, was identified for the proposed project.

A comprehensive landscape plan is included with the specific plan. As per the specific plan, owners of any lot shall have the duty of maintaining the landscaping, including the grounds, utility easements, drainage easements, or other right-of-ways incidental to their property. It is not anticipated that the Public Works Division will be required to maintain landscaping; therefore, no significant impact is identified.

Water Service

The project proposes a power-generating land use, light industrial, business commercial, and residential. Table 2.9-2 summarizes the anticipated potable water demand from the proposed project. The discussion of potable water service impacts will be divided into three sections: Planning Area 1 (proposed power generation facility), Planning Areas 2 through 8 (light industrial and business land uses), and the two residential areas).

**Table 2.9-2
Projected Potable Water Demand**

Land Use	Generation Rate	Estimated Quantity
Power Plant (Planning Area 1)	--	1,400 gallons/day ⁽¹⁾
Light Industrial (Planning Area 1)	1,300 gallons/day/acre ⁽²⁾	18,330 gallons/day
Light Industrial and Business Commercial (Planning Areas 2 through 8)	1,300 gallons/day/acre ⁽²⁾	105,000 gallons/day
Residential Uses	1,250 gallons/day/acre ⁽²⁾	25,000 gallons/day
Total		131,400 to 148,330 gallons/day⁽³⁾

Notes:

(1) ENSR, 2001.

(2) RDMWD, 2002.

(3) If a power plant is approved for PA1, the potable water demand would be 131,400 gpd, and if light industrial is approved, it would be 148,330 gpd.

Planning Area 1

Power Generation Facility Scenario

A power generation facility may occupy Planning Area 1. Potable water for the power plant will be supplied via a connection with an existing water line in Enterprise Street, adjacent to the northeast border of the plant site. ENSR (2001) estimates the daily needs for potable water at the power generation facility to be 1,400 gpd. This water will be provided by RDMWD.

Power generation activities will require the use of approximately 3.6 mgd of reclaimed water. Reclaimed water will be conveyed to the site via a new 1.1-mile, 16-inch reclaimed water supply pipeline extending from the existing City of Escondido reclaimed water main. Based on correspondence from RDMWD (2001), the District has been working closely with the City to provide the power generation facility with recycled water in the amount of 3.7 mgd, and the recycled water will be available to service the power plant with completion of the Escondido ERRWP in 2002, which is two years before the anticipated construction and operation of the power generation facility in 2004. The HARRF will have ample capacity to provide necessary source water to the project. The initial capacity of the ERRUP will be 9 mgd, with provisions for expansion to 18 mgd. Therefore, no significant impacts related to the provision of water to the power generation facility are identified for the proposed project.

Light Industrial Land Use Scenario

Planning Area 1 could be developed with light industrial land uses. Generation rates provided by RDMWD (1998) estimate the water demand for this use to be 1,300 gpd per acre. Planning Area 1 contains 14.1 acres, for a water demand of 18,330 gpd.

Planning Areas 2 through 8

Light industrial and business commercial land uses are proposed in Planning Areas 2 through 8. Generation rates provided by RDMWD estimate the water demand for the Specific Plan Area to be 1,300 gpd per acre. The developed area of Planning Areas 2 through 8 represents 80.77 acres, for a generation rate of 105,000 gpd.

Residential Uses

Estate residential land uses are proposed through a rezone in the southwest portion of the project area. The RDMWD estimates water demand for single-family residential at 1,250 gpd/acre. Proposed residential uses encompass 20 acres, for a projected water demand of 25,000 gpd.

In summary, under the power generation facility scenario, the project will generate a water demand of 131,400 gpd. Alternatively, under the light industrial scenario, the project will have a water demand of 148,300 gpd. Correspondence with RDMWD (2002) states that the District will not be significantly impacted by the proposed project.

The District encourages the use of water conservation techniques where possible, including “water wise” landscaping (xeriscapes) to reduce the amount of water needed for landscaping. Landscaping associated with the proposed project will be watered with reclaimed water.

Wastewater/Sewer Service

The project proposes a power plant, light industrial, business commercial, and residential land uses. Table 2.9-3 summarizes the anticipated wastewater generation for the proposed project. The discussion of wastewater/sewer service impacts will be divided into three sections: Planning Area 1 (power generation facility or light industrial), Planning Areas 2 through 8 (light industrial and business commercial land uses), and the two residential areas.

Planning Area 1

Power Plant Scenario

Planning Area 1 may be developed with a power plant. Wastewater generation for the proposed power plant includes sanitary wastes from sinks, toilets, and other sanitary facilities, as well as wastewater produced from the plant equipment, including the cooling towers, heat recovery steam generators (HRSG), combustion turbine generator (CTG) evaporative coolers, water treatment system, chemical feed area drains, and general plant drains. Blowdown from the cooling tower, and no other wastewater, will be discharged to a brine pipeline that will transport the wastewater back to the HARRF. Based on analysis by ENSR (2001), the sanitary wastes

**Table 2.9-3
Projected Wastewater Generation**

Land Use	Generation Rate	Estimated Quantity
Power Plant (Planning Area 1)	--	904,840 gallons/day ⁽¹⁾⁽²⁾
Light Industrial (Planning Area 1)	1,500 gallons/day/acre ⁽³⁾	21,150 gallons/day
Light Industrial and Business Commercial (Planning Areas 2 – 8)	1,500 gallons/day/acre ⁽³⁾	121,155 gallons/day
Residential Uses	250 gallons/day/unit ⁽³⁾	11,500 gallons/day
Total		153,805 to 1,037,495 gallons/day⁽⁴⁾

Notes:

(1) ENSR, 2001.

(2) This figure includes 889,000 gpd for cooling tower blowdown and 15,840 for sanitary wastewater, potable water drains, and discharge from oil/water separator.

(3) City of Escondido Public Works Division, 2002.

(4) If light industrial uses are approved in PA1, wastewater generation would be 153,805 gpd. If power plant is approved in PA1, generation would be 1,037,495 gpd.

generated by the power plant will be 15,840 gpd, and cooling activities will generate approximately 889,000 gpd, for a combined total of 904,840 gpd.

Light Industrial Land Use Scenario

Planning Area 1 could be developed with light industrial land uses, instead of a power generation facility. Generation rates provided by the City of Escondido Department of Public Works Division (2002) estimate a wastewater generation rate of 1,500 gpd per acre. Planning Area 1 contains 14.1 acres, and therefore, would generate approximately 21,150 gpd of wastewater.

Planning Areas 2 through 8

Light industrial and business commercial land uses are proposed for Planning Areas 2 through 8. Generation rates provided by the City of Escondido Public Works Division (2002) estimate the wastewater generation for light industrial and business commercial uses at 1,500 gpd per acre. Planning Areas 2 through 8 will be developed with 80.77 acres, for a wastewater generation of 121,155 gpd.

Residential Uses

The generation rate for the residential land uses is 250 gpd per residential unit. Since the proposed residential areas could be developed with a maximum of 46 residential units, approximately 11,500 gpd of wastewater would be generated by residential land uses.

In summary, the proposed project under the power generation facility in Planning Area 1 scenario will generate 1,037,495 gpd of wastewater. If Planning Area 1 is developed with light industrial uses, the project will generate 153,805 gpd of wastewater. Based on the information provided by the City of Escondido Public Works Division (2002), the City will be able to handle the capacity generated by the proposed project; however, additional infrastructure will be required. The project includes the construction of a new brine pipeline. Blowdown from the cooling tower, and no other wastewater, will be discharged to a new brine pipeline and transported back to the HARRF. The new brine pipeline will be a 1.1-mile-long, 8-inch pipeline that will be routed alongside the reclaimed water supply pipeline and connected to an existing City of Escondido brine return line. The design of the brine line will be similar to that of the reclaimed water supply line.

Sanitary wastewater will be collected and discharged to the HARRF via connections to an existing City sanitary sewer line in Enterprise Street adjacent to the northeast of the site.

Solid Waste

The analysis presented in this section focuses on the generation of nonhazardous waste by the proposed project. Table 2.9-4 summarizes the anticipated solid waste generation for the proposed project. A detailed discussion by land use, including assumptions used in the solid waste assessment, is presented below.

Planning Area 1

Power Plant Scenario

Planning Area 1 may be developed with a power plant. Nonhazardous solid waste generated during operation of the power plant will include solid waste from routine maintenance, office

**Table 2.9-4
Projected Solid Waste Generation**

Land Use	Generation Rate	Total Volume
Power Plant (Planning Area 1)	---	100 Tons/Year ⁽¹⁾
Light Industrial (Planning Area 1)	1.32 Tons/Year/Employee ⁽²⁾	878 Tons/Year
Light Industrial and Business Uses (Planning Areas 2 – 8)	1.32 Tons/Year/Employee ⁽²⁾	5,677 Tons/Year
Residential Uses	0.78 Ton/Year/DU	36 Tons/Year
Total		5,813 to 6,590 Tons/Year⁽³⁾

Notes:

(1) ENSR, 2001.

(2) CIWMB, 2002a.

(3) If power plant is approved in PA1, solid waste generated would be 5,813 tons/years. If light industrial uses are approved in PA1, 6,590 tons per year of waste would be generated.

wastes, and oily rags (ENSR, 2001). Oily rags will be laundered on a regular basis by an offsite industrial cleaning service. Office paper, newsprint, aluminum cans, plastic and glass containers, and other nonhazardous solid waste will be recycled to the extent practicable. It is anticipated that 100 tons per year of solid waste will be generated from the operating facility (ENSR, 2001).

Light Industrial Land Use Scenario

Generation rates for industrial land uses vary by the specific type of industry. Solid waste volumes generated by light industrial uses are typically estimated using a combination of the type of activity, based on business types identified by the California Integrated Waste Management Board (CIWMB), and the typical number of employees. Waste disposal rates developed by the CIWMB were used to calculate projected waste generation from the proposed project's light industrial/business park uses. Because end uses of the proposed project's light industrial areas have not been identified, an average generation rate was used to evaluate the impacts associated with a worse-case scenario. Disposal rates listed for high employment generation in the industrial and office land use categories range from 0.62 ton per employee per year (for medical services) to 2.04 tons/employee/year (for finance and real estate offices). For the purposes of estimating generation rates for the light industrial and business commercial land uses, an average of 1.32 tons/employee/year is used in this analysis.

The specific site plans for Planning Area 1 under the light industrial land use scenario have not been developed. Based on the light industrial development proposed in the other planning areas, this analysis assumes a worst-case buildout of 190,000 square feet for Planning Area 1. Using an estimated 3.5 employees per 1,000 square feet and 190,000 square feet of light industrial land uses, solid waste volume is estimated at 878 tons per year.

Planning Areas 2 through 8

For the purposes of analyzing the estimated solid waste volumes generated by the light industrial and business commercial land uses, this analysis assumes a buildout of 1,228,800 square feet for Planning Areas 2 through 8 (Planning Systems, 2001). Using an estimated 3.5 employees per 1,000 square feet and 1,228,800 square feet of light industrial uses, solid waste volume is estimated at 5,677 tons per year.

Residential Uses

Waste generation rates for the proposed project vary by the type of land use. Escondido Disposal (2002) uses a generation rate of 0.78 ton per year (4.28 pounds per day) per dwelling unit for residential land uses. Since the proposed residential uses could be developed with a maximum of 46 dwelling units, residential waste for the proposed project would be approximately 36 tons per year.

In summary, the proposed project will generate 5,812.9 tons per year of solid waste under the power plant scenario. Alternatively, under the light industrial land use scenario, the proposed project will generate 6,555 tons per year of solid waste. However, this does not take into account the diversion of materials (recyclable items) from the waste stream prior to placement in the Sycamore Landfill. Diversion rates tend to vary by land use. The City of Escondido currently has an overall diversion rate of approximately 44% (CIWMB, 2002b).

It is anticipated that disposal of solid waste from the proposed project will represent only a minimal increase (a small fraction of 1%) relative to the current disposal quantities at the Sycamore Landfill. The solid waste generated by the proposed project will not exceed current or planned landfill capacities; therefore, there is no significant impact to solid waste services.

2.9.4 Mitigation Measures

Fire Protection

- Structures shall be protected by fire sprinkler systems, or an equivalent system, as approved by the Fire Chief.
- In the event that future uses in the planned light industrial areas includes hazardous materials, special fire protection systems, training, or other mitigation, as determined by the Fire Marshal, will be required. This measure shall be placed as a condition of the Conditional Use Permit.

Police Protection

No significant impacts to police protection services were identified for the proposed project; therefore, there are no mitigation measures.

Schools

- At the time of construction, the developer will be required to pay applicable school fees in effect at the time of building permit issuance.

Public Facilities Maintenance

No significant impacts to public facilities maintenance were identified for the proposed project; therefore, there are no mitigation measures.

Water Service

No significant impacts to water services were identified for the proposed project; therefore, there are no mitigation measures.

Wastewater/Sewer

No significant impacts to wastewater/sewer were identified for the proposed project; therefore, there are no mitigation measures.

Solid Waste

No significant impacts to solid waste services were identified for the proposed project; therefore, there are no mitigation measures.

2.9.5 Conclusion

No significant impacts related to police protection services, public facilities maintenance, water, wastewater/sewer, or solid waste were identified for the proposed project.

The proposed project would have a significant impact with regard to fire protection services and schools. The installation of sprinklers will be required to mitigate impacts to fire protection services. Additionally, depending on future tenant uses in the light industrial area, special fire protection systems, training, or other mitigation, as determined by the Fire Marshal, will be required.

To mitigate school capacity impacts, the developer will be required to pay school fees at the time of construction. With the incorporation of these mitigation measures, all public service and utility impacts will be mitigated to below a level of significance.

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2.10 CULTURAL RESOURCES

A cultural resources survey for the proposed project was conducted by EDAW in October 2001. A technical review was conducted by Brian Smith and Associates in December 2001. The complete report is included in Appendix H of the EIR. Brian Smith and Associates also conducted a site reconnaissance of the area adjacent to the proposed "offsite" improvements to Vineyard Avenue and Valley Parkway (2002)

2.10.1 Existing Conditions

A records search was conducted at the South Coastal Information Center and at the San Diego Museum of Man. The archival research revealed that no cultural resources had been previously recorded at the project site. One previously recorded site, CA-SDI-12,209/H, is located south of the proposed project.

An intensive pedestrian survey of the project area revealed five small Late Prehistoric period sites, along with an isolated piece of historic farm equipment. A brief discussion of the sites is presented below.

Site S1

This site is located on a low rounded hilly area covered with a dense growth of grasses, mustard, thistle, and occasional oaks. The site is on an east-facing slope broken by occasional granite boulders and exposed granite bedrock. The site contains three slicks on small, low-lying granite boulder outcrops. The boulders are also smoothed by erosion, making positive identification of milling slicks difficult. Minor amounts of pecking and roughing may also be present. Presuming the slicks are cultural, the site appears typical of Late Prehistoric period milling sites.

Site S2

The site is located in a former avocado orchard among disturbed vegetation. The site is on a slope broken by granite boulders and exposed granite bedrock. The site is composed of one slick on a low-lying granite boulder. It appears typical of Late Prehistoric milling sites recorded in the region.

Site S3

The site is located in a former avocado orchard among disturbed vegetation. The site is on a slope broken by granite boulders and exposed granite bedrock. The site consists of two possible slicks on a low-lying, rounded granite boulder. It appears typical of small, Late Prehistoric period milling sites.

Site S4

The site is in a former eucalyptus grove. The site contains two possible slicks on a low-lying granite boulder. It appears typical of small, Late Prehistoric period milling sites.

Site S5

This site is located in a small canyon and consists of three possible milling slicks on a low-lying granite boulder. The site appears typical of small, Late Prehistoric period milling sites. Basin-shaped metates were also found at the site, and were likely used to process small seeds. The lithic assemblage observed on the site consisted of quartz flakes, and fine-grained metavolcanics and chert. No tools were noted; however, the site had probably been visited by vandals. Examination of rodent holes and other disturbed areas suggest that the site may have a subsurface component.

Isolate S11

Isolate S11 consists of one piece of abandoned farm equipment found on the central portion of the project area. Based on the 1902 Sears, Roebuck, and Co. Catalog, it appears to be a hay press, a horse- or mule-drawn piece of equipment that pressed hay into bales.

Offsite Improvements

A site reconnaissance for the proposed improvement area at Vineyard Avenue and Valley Parkway did not identify potential impacts to cultural resources (Brian Smith and Associates 2002).

2.10.2 Thresholds of Significance

The determination of significance is based on the CEQA State Guidelines (Appendix G). Impacts to cultural resources would be significant if the project would:

- Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5.
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5.

2.10.3 Analysis of Project Effects and Determination as to Significance

The proposed project will remove surface vegetation, grade, and excavate in preparation for roadways, building pads, and parking areas. This would include the disturbance of Sites S1 through S5 and the isolate, S11, identified in the existing conditions section.

Sites S1 through S5 are all possible Late Prehistoric milling sites. All consist exclusively of possible milling slicks and lack any evidence of portable surface artifacts or subsurface materials. Additionally, there is evidence of previous agricultural disturbance to all five sites. Previously conducted archaeological test excavations at 15 of 36 similar sites at Olivenhain Reservoir, west of the project area, found the sites to be devoid of subsurface materials. A cultural resource survey by the Bureau of Land Management to evaluate five milling sites at the San Vicente Reservoir found those too lacked subsurface materials and significant informational potential.

The cultural resource analysis determined that Sites S1 through S5 are not considered significant resources under CEQA and are not eligible for the California Register of Historic Resources (CRHR) because of the lack of significant materials observed at the surface. Additionally, similar sites in inland San Diego County have produced negative testing results. Finally, due to the substantial disturbance of the project site from past agricultural operations, the integrity of any cultural resources has been compromised.

Therefore, the proposed project will not result in a significant cultural resources impact with regard to Sites S1 through S5.

Isolate S11 lacks any qualities that would make it eligible for the CRHR. Therefore, the proposed project would not result in a significant impact to Isolate S11.

It should be noted that vegetation obscured ground visibility in some areas during the cultural resources survey. Consequently, there is a possibility, although it is not considered high, that unanticipated cultural material could be encountered during initial clearing and grading of the ERTC project site. This represents a potential significant impact.

2.10.4 Mitigation Measures

A cultural resources monitor will be onsite during all initial clearing and excavation activities. In the event that buried cultural materials or deposits are found during construction or related activities, the following mitigation measures will be implemented, as appropriate:

- Work in the vicinity shall stop immediately until an assessment of the findings can be made by a qualified archaeologist. In the event that human remains are discovered, work in the vicinity must stop, and the San Diego County Coroner shall be notified immediately.
- Questionable materials inadvertently discovered – including suspected or not readily identifiable cultural resources – must be considered significant until a qualified archaeologist can provide an accurate assessment. If potentially significant cultural resources are detected and can not be avoided by construction, then impacts must be mitigated through data recovery or other means, in consultation with pertinent agencies and concerned parties.
- Findings will be prepared discussing the significance of any materials recovered from the project site. The City will determine, in coordination with responsible agencies, the appropriate repository where the collected materials will be archived.

2.10.5 Conclusions

Five small Late Prehistoric period sites, and one isolate, were found at the project site. Impacts to the resources were not considered significant. A slight possibility exists that additional cultural resources could exist at the offsite improvement areas, but were undiscovered due to vegetative cover. In the event that obscured cultural resources are discovered, mitigation

measures have been provided. The proposed project will not have any significant, unmitigated cultural resource impacts.

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2.11 GEOLOGICAL HAZARDS

2.11.1 Existing Conditions

Geocon Incorporated (Geocon) prepared a Preliminary Geotechnical Study for the proposed project site (October 1999). The following summarizes the existing seismic/geologic conditions of the project area and assessed potential impacts.

Soil and Geologic Conditions

Four surficial soil types and one geologic formation were encountered or mapped during the site investigation conducted by Geocon. The surficial deposits consist of undocumented fill, topsoil, colluvium, and alluvium. These deposits are underlain by granitic rock of Green Valley Tonalite in varying stages of decomposition. The approximate areal extent of the surficial deposits (excluding topsoil) and granitic rock is indicated on the Geologic Map (Figure 2.11-1). Each of the units is described below.

Undocumented Fill (Q_{udf})

Undocumented fill associated with prior usage of the property (egg ranch) exists in the south-central portion of the property. The undocumented fill generally consists of dry, loose, reddish-brown, silty, fine to medium sands with a maximum observed thickness of 7 feet. Other undocumented fills occur as embankments associated with a network of unimproved dirt roads across the property as well as shallow, inactive irrigation lines and terraced hillsides for former orchards.

Topsoil (Unmapped)

Topsoils blanket the majority of the site. The average topsoil thickness, based upon observations and trench excavations, is estimated to be 2 to 3 feet. The topsoil is characterized as dry, loose, humid, brown to dark brown, silty to clayey sand.

Colluvium (Q_c)

Colluvial materials were found to overlay the granitic bedrock adjacent to drainages throughout the site. The thicker colluvium (on the order of 6 feet) appeared to be in the west-central and

southern portions of the property. These deposits typically consist of porous, loose, dry to humid, dark brown to reddish brown silty to clayey sand.

Alluvium (O_{al})

Alluvial soils occur within the major drainages, primarily in the central and southwest portions of the site. Excavations within the alluvium could not be performed during the field investigation, as the majority of the alluvium is in the wetland area. Alluvial deposits are typically young (recently deposited), loose, compressible, and subject to settlement from additional fill or structural loading.

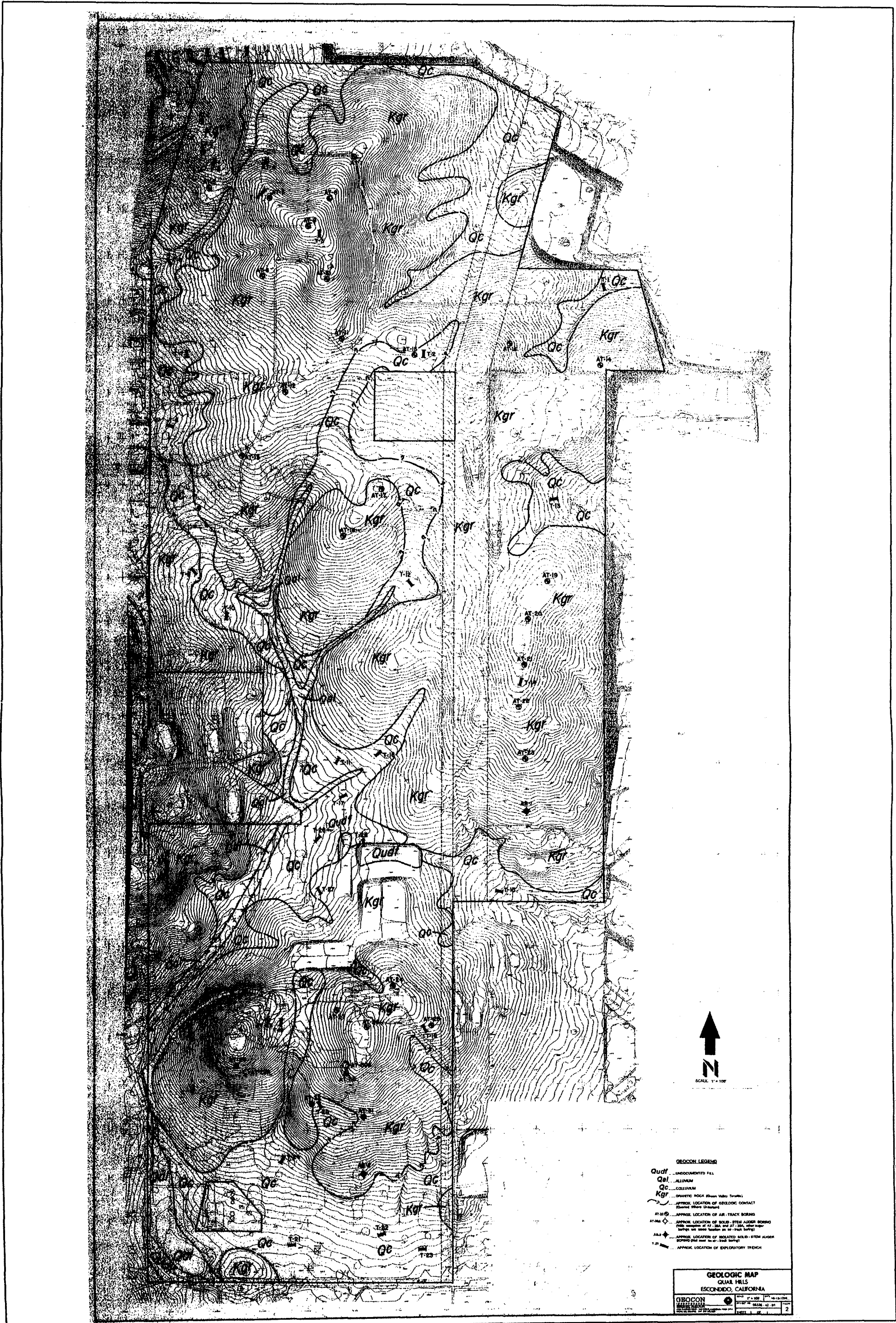
Green Valley Tonalite (K_{gt})

Igneous granitic rocks resembling the Green Valley Tonalite were observed to underlie the surficial deposits throughout the site. This geologic name is consistent with the published geologic map of the region. The granitic rock consists of relatively deeply weathered tonalite (also known as quartz-monolite and quartz diorite), generally appearing to be light brown to gray-brown where encountered in excavations. Some steep joints and fractures occur; however, the Green Valley Tonalite typically exhibits strong to very strong density characteristics even though uniformly weathered.

Granitic rock exhibits a high bearing capacity in a natural condition. When excavated, the weathered materials typically disintegrate to a silty, medium to coarse granular material. The decomposed granite (DG) material make excellent capping soils for lots and streets, and for the outer zones of fill slopes. Cut slopes in granitic rock are typically stable at inclinations as steep as 1.5:1 (horizontal:vertical) if free from adversely oriented fractures or joints.

Groundwater

Groundwater in the area of the project site would generally be encountered within 20 feet of the ground surface (Giesick 2001). However, groundwater or seepage was not encountered during this study within the surficial deposits or at the contact with the underlying granitic rock. Perched groundwater and/or seepage in topsoil, colluvial soils, and alluvial soils could vary during periods of precipitation. Groundwater flow direction is in the general direction of flow of Escondido Creek, to the southwest (Giesick, 2001).



Source: Geocon, Inc.



Observations of the residences along the northwestern property line indicated a minor seepage condition near the toe of the slope at the rear of their property. The seepage appeared to be flowing through decomposed granite. This condition suggests that excavations along portions of the western property line may encounter seepage.

Geologic Hazards

Regional Faulting and Seismicity

The site is not located on any known active or potentially active fault trace. The nearest known active fault in the Rose Canyon Fault, located approximately 14 miles to the west. A major earthquake occurring on the Rose Canyon Fault, or other active regional faults in the southern California/northern Baja California area, could subject the site to moderate to severe ground shaking.

To determine the distance of known active faults to the site, the computer program EQFAULT (Blake, 1989 updated 1997) was used. In addition to fault location, EQFAULT also calculates estimated ground accelerations for the Maximum Credible and Maximum Probable earthquake events. Attenuation relationships by Geomatrix (1994) were used in the analysis.

The results of the analysis indicate that the Rose Canyon Fault Zone is the dominant source for potential ground motion occurring at the site, due to its proximity. The Rose Canyon Fault is postulated as having the potential to generate a Maximum Credible magnitude earthquake of 6.9 and a Maximum Probable magnitude earthquake of 5.7. Estimated maximum credible and maximum probable ground accelerations were determined to be approximately 0.18g and 0.10g, respectively.

Liquefaction

Liquefaction is a phenomenon where loose saturated and relatively cohesionless soil deposits lose shear strength during strong ground motions. Primary factors controlling the development of liquefaction include intensity and duration of ground accelerations, gradation characteristics of the subsurface soils, in situ stress conditions, and depth to groundwater. Due to the very dense nature of the granitic rock and the lack of a shallow groundwater table, the potential for liquefaction occurring at the site is minimal.

2.11.2 Thresholds of Significance

When evaluating the geology and soil issues of a proposed project, Appendix G of the State CEQA Guidelines indicates that a project will normally have a significant effect on the environment if it would:

- a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
 - Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault.
 - Strong seismic ground shaking.
 - Seismic-related ground failure, including liquefaction.
 - Landslides.
- b) Result in substantial soil erosion or the loss of topsoil.
- c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse.
- d) Be located on expansive soils creating substantial risks to property.

2.11.3 Analysis of Project's Effects and Determination as to Significance

General

No soil or geologic conditions were encountered which, in the opinion of Geocon Incorporated, would preclude the development of the industrial subdivision as planned, provided that the recommendations of this report are followed. These recommendations are generally accepted construction measures and have been incorporated as part of the Plans.

The site is predominately underlain by decomposed granite and granitic hardrock of Green Valley Tonalite. Rippability studies generally indicated that excavations deeper than 15 feet in the higher elevations will likely require blasting and will generate a significant amount of oversize rock.

Groundwater was not encountered during the field investigation and is not anticipated to adversely impact the proposed project development. Isolated areas within the granitic rock formation may expose seeps or wet soil conditions during grading. Where this condition occurs, subdrains may be required to intercept and divert the seepage. In addition, dependent upon planned grading and the time of year grading is performed, seepage may be encountered at the base of canyon cleanouts.

Soil and Excavation Characteristics

The surficial soils (undocumented fill, topsoil, colluvium, and alluvium) can be excavated with a light to moderate effort with conventional heavy-duty earth-moving equipment. Excavation of the weathered portion of the granitic rock (decomposed granite) is anticipated to require a moderate to heavy effort. As the excavations proceed in depth, a very heavy effort will be required.

Excavations with marginally rippable to nonrippable material will require blasting to efficiently excavate the fresh hard rock. Line blasting would also be performed in street areas where planned utilities encounter hardrock.

Grading

All grading would be performed in accordance with the recommended grading specifications contained in the Preliminary Geotechnical Report (Appendix I of this EIR). Where the recommendations of this section conflict with those presented in the geotechnical report, the recommendations of this section take precedence. All earthwork would be observed and all fills tested for proper compaction by a qualified geologist.

Based on the results indicated in the report prepared by Geocon, the project site is not located on any known active or potentially active fault trace. The nearest known active fault is the Rose Canyon Fault, located approximately 14 miles west of the site. Because of the location of the site, and no known active faults were identified, no impacts associated with regional faulting is

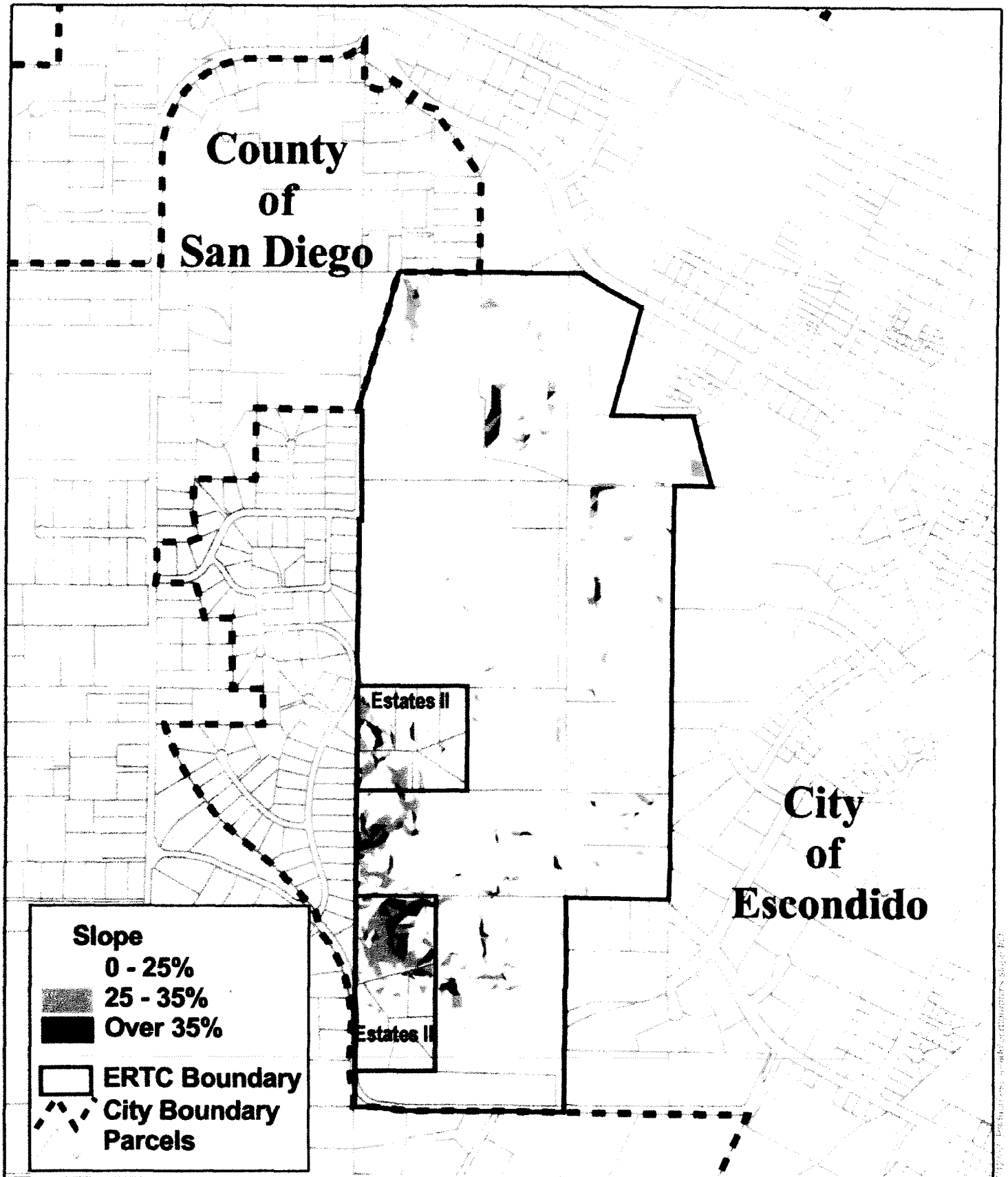
anticipated. The potential for ground shaking, ground failure, and landslides to occur is unlikely, due to the distance of the Rose Canyon Fault. However, motion associated with the fault may be experienced from distances away, but not to a level of concern to expose people or structures to substantially adverse effects. Furthermore, due to the very dense nature of the granitic rock and the lack of a shallow groundwater table, the potential for liquefaction occurring at the site is very low.

Potential subsidence as a result of seismic settlement on the site is considered unlikely. This is because the near-surface bedrock and the coarse-grained soils generally are not prone to subsidence or collapse (U.S. Soil Conservation Service and Forest Service, 1973).

Landslides and mudflows will not occur on the portion of the site that is composed of bedrock. The potential for landslides in soil-covered areas depends on a variety of factors, including soil properties and slopes. The soil survey conducted at the site did not identify a high risk of landslides, but it did identify the potential for erosion and gully formation in the areas where soil cover remains, following grading (Geocon, 1999). The geologic conditions conducive to the formation of a mudflow are not present at the site.

The potential for erosion in most bedrock areas of the project site is low. Where colluvium is present on steep slopes, the potential for soil erosion is high (U.S. Soil Conservation Service and Forest Service, 1973). There are slopes over 35%, as shown on Figure 2.11-2. As stated in the City's General Plan, land areas with steep topography (generally over 25%) shall be protected from intensive urban development and shall be included within the overall open space system. A system of open space corridors, easement and acquisition programs, and trails shall be established. Because sensitive areas, where slopes with over 35% inclination occur, have been preserved, there are no significant impacts.

Rough grading for the entire site will be performed in an integrated manner, with earth materials from Planning Area 1 used as fill material elsewhere in the industrial park. A mass grading operation of approximately 2.5 million cubic yards will be involved over 186 acres. Cut volumes of approximately 2.0 million cubic yards are anticipated which, when bulked (to account for the volume of compacted fill versus the existing granite formation) will provide approximately 2.5 million cubic yards of fill. An onsite balance of earthwork is planned.



Source: City of Escondido



The specific planning area will be subject to City of Escondido grading, drainage, and erosion control requirements, as well NPDES construction stormwater requirements. These requirements have been established so that development can occur without resulting in significant impacts to soils, erosion, and runoff. Earthmoving activities will utilize design and construction procedures (grading, drainage and erosion control, SWPPP, etc.) that will adequately address soil erosion and sedimentation, stormwater control, and other issues relevant to the protection of soils resources.

Overall, implementation of the proposed project will not cause or contribute to a significant impact to soil resources during either construction or operation.

2.11.4 Mitigation Measures

The geotechnical engineer and engineering geologist would review the grading plans prior to finalization to verify their compliance with the recommendations of the Geocon report and determine the necessity for additional recommendations and/or analysis. This measure shall be placed as a condition on all grading plans.

No additional mitigation measures are required.

2.11.5 Conclusion

With implementation of the findings of the geotechnical report, no unmitigable impacts were identified. The project would not expose people or structures to substantial adverse effects, result in substantial soil erosion, be located on any unstable geologic units or soil, or have expansive soils not remediated. The project would not propose septic; therefore, there are no significant impacts.

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3.0 ALTERNATIVES

Section 15126.6 of the CEQA Guidelines states that the EIR shall “describe a range of potential alternatives to the Proposed Project, or to the location of the Proposed Project, which could feasibly attain the basic objectives of the Proposed Project but would avoid or substantially reduce any of the significant impacts of the project, and evaluate the comparative merits of the alternatives.” The range of alternatives evaluated in the EIR is governed by the “rule of reason” that requires the EIR set forth only those alternatives necessary to permit a reasoned choice. An EIR need not consider an alternative whose effects cannot be reasonably ascertained and whose implementation is remote and speculative [Section 15126.6(a) of the CEQA Guidelines].

In developing the alternatives to be addressed in this EIR, the potential alternatives were evaluated in terms of their ability to meet the basic objectives of the project, while reducing or avoiding the environmental impacts of the project identified in Section 2.0, Environmental Analysis, of this EIR. Based on the results of the environmental impacts analysis contained in Section 2.0 of the EIR, alternatives were identified and evaluated on the basis of their ability to eliminate or substantially reduce significant impacts associated with the following issues:

- Land Use and Planning;
- Transportation/Circulation;
- Air Quality;
- Noise;
- Hazards;
- Biological Resources;
- Aesthetics;
- Water Quality;
- Public Services and Utilities;
- Cultural Resources; and
- Geology/Soil.

ALTERNATIVES REJECTED

Several alternatives for the power plant component were evaluated, but subsequently rejected. These included a variety of technological responses to power plant design.

The first objective of the Power Plant Project is to add an efficient, reliable, dispatchable, and environmentally sound power generating facility of substantial size to the SDG&E load pocket. The power generation technology selected to meet this objective is a natural gas-fired combined cycle utilizing "F" class combustion turbines.

Alternative power generation technologies were considered to determine if any could more effectively meet the project objectives. However, several technologies were not considered because they would clearly not meet the project objectives. For example, some of the project objectives led to siting of the facility in or near an urban area, and coal-based technologies were not considered suitable for such an environmental setting. This eliminated technologies such as pulverized coal, fluidized bed combustion, and integrated gasification combined cycle. Another project objective is dispatchability, which is a power plant's ability to respond to power output levels and ramp rates dictated by the Independent System Operator or by market conditions. This objective, together with the essential requirement of producing power at a competitive price, eliminated technologies such as nuclear, wind, and solar. Other technologies, such as geothermal and hydroelectric, were eliminated because the required energy resource is not available in the San Diego load pocket.

Power generation technologies that have at least some possibility of meeting the project objectives were considered and are discussed below. These technologies are all fueled with natural gas, and include conventional combined cycle (the proposed technology), simple cycle, steam cycle, Kalina combined cycle, advanced combustion turbine cycles, and combustion turbine types other than the proposed "F" class machines.

Simple Cycle

This technology uses a combustion turbine to drive a generator, and the high-temperature exhaust is released directly to the atmosphere. Simple cycle combustion turbines have relatively low capital cost and rapid startup capability. However, this technology is relatively inefficient, and the most efficient combustion turbines (aeroderivative machines) have efficiencies up to only about 38%. As a result, this technology is typically used for meeting peak demand for short periods of time, where efficiency is not of primary concern. This technology produces more air emissions than more efficient technologies, because the high exhaust temperature makes it difficult to apply postcombustion emission controls, and because more fuel must be burned to produce a given amount of electricity. Due to its relatively low efficiency and less than optimal environmental performance, this technology was eliminated from consideration.

Steam Cycle

This technology burns fuel in a boiler to produce high-pressure steam that is used to drive a steam turbine-generator. The low-pressure steam leaving the turbine is condensed and returned to the boiler. This technology is relatively inefficient, and is able to achieve efficiencies up to only about 36% when burning natural gas fuel. As a result, this technology produces more air emissions than more efficient technologies, because more fuel must be burned to produce a given amount of electricity. Due to its relatively low efficiency and less than optimal environmental performance, this technology was eliminated from consideration.

Kalina Combined Cycle

This technology is similar to conventional combined cycle technology, except the heat recovery steam generator utilizes an ammonia/water mixture instead of pure water. The overall efficiency of this technology is potentially several percent greater than conventional combined cycle technology. However, because this technology is still in the development phase and is not commercially available, it was eliminated from consideration.

Advanced Combustion Turbine Cycles

In addition to conventional combined cycle technology, there are a number of advanced combustion turbine technologies that have been conceived to enhance the efficiency of combustion turbines. These include the humid air turbine (HAT) cycle, the chemically recuperated gas turbine (CRGT) cycle, and the intercooled steam recuperated gas turbine (ISRGT) cycle. However, none of these technologies are commercially available. Another technology, the steam injected gas turbine (STIG), is commercially available, but it is less efficient and produces more air emissions than conventional combined cycle technology. Based on the above factors, these technologies were eliminated from consideration.

Alternative Combustion Turbine Types

The latest generation of commercially proven combustion turbine technology, commonly referred to as "F" technology, was selected for the power plant project. Selection of this class of combustion turbines was based on economies of scale, fuel efficiency, operational flexibility, and status of commercial demonstration.

For an overall combined cycle output of 500 megawatts (MW), total combustion turbine output is in the range of 300 to 350 MW. Given the magnitude of this output, combustion turbine selection focused on models larger than 80 MW in order to take advantage of economies of scale. In addition, many of such larger combustion turbine models offer fuel efficiencies and emissions performance that are equivalent or superior to those of smaller models.

Currently available, large combustion turbine models can be grouped into three classes: conventional, advanced, and next generation. Conventional combustion turbines operate at firing temperatures in the range of 2000°F to 2100°F, and are available in sizes up to about 110 MW. Advanced combustion turbines operate at firing temperatures above 2300°F, and are available in sizes up to about 170 MW. Next-generation combustion turbines have higher firing temperatures than the advanced turbines and have additional features that provide greater output and somewhat higher efficiencies. Next-generation turbines represent models that have been announced by the manufacturers as commercially available, with advertised outputs in the range of 230 to 240 MW.

3.1 ALTERNATIVES EVALUATED

Based on the environmental analysis, the alternatives analysis discusses the following alternatives:

- No Project/No Development;
- No Project/Existing Entitlement (Adopted Quail Hills Specific Plan);
- Specific Plan with No Power Generating Plant;
- Specific Plan with Power Plant Located on Alternative Site; and
- Reduced Project Scale Alternative.

A comparison of alternatives and significance of impacts is presented in Table 3.1-1.

3.1.1 No Project/No Development

According to CEQA Section 15126(d)(1), the No Project/No Development Alternative shall be evaluated along with the proposed project. The No Project/No Development Alternative assumes that no development would occur on the project site, and the site would remain in its

**Table 3.1-1
Comparison of Alternatives and Significance of Impacts**

Project Area/Issues	Proposed Project <i>Specific Plan (186-acre business park, with option of building a power plant) and 22 acres of residential rezone</i>	No Project/ No Development <i>Retain current conditions</i>	No Project/ Existing Entitlement (Adopted Quail Hills Specific Plan) <i>172 acres of general industrial, 14-acre activity center, 6-acre business commercial, and 6-acre office</i>	Specific Plan with No Power Generating Plant <i>Specific Plan (186-acre business park, without option of building a power plant) and 22 acres of residential rezone</i>	Reduced Project Scale (Environmentally Superior) <i>55 acres of business park and 35 acres of residential rezone</i>
Land Use and Planning	SM CS	NS CNS	SU CS	SM CS	SM CS
Transportation/ Circulation	SU CS	NS CNS	SU CS	SU CS	SU CNS
Air Quality	SU CS	NS CNS	SU CS	SU CS	SU CS
Noise	SU CNS	NS CNS	SU CNS	Su CNS	SM CNS
Hazards	NS CNS	NS CNS	NS CNS	NS CNS	NS CNS
Biological Resources	SM CS	NS CNS	SM CS	SM CS	SM CNS
Aesthetics	NS CNS	NS CNS	NS CNS	NS CNS	NS CNS
Water Quality	NS CNS	NS CNS	NS CNS	NS CNS	NS CNS

Table 3.1-1 (Continued)

Project Area/Issues	Proposed Project	No Project/ No Development	No Project/ Existing Entitlement (Adopted Quail Hills Specific Plan)	Specific Plan with No Power Generating Plant	Reduced Project Scale (Environmentally Superior)
Public Services and Utilities	SM (fire and schools) NS (water, police, wastewater/sewer, solid waste, public maintenance) CNS	NS CNS	SM (fire and schools) NS (water, police, wastewater/sewer, solid waste, public maintenance) CNS	SM (fire and schools) NS (water, police, wastewater/sewer, solid waste, public maintenance) CNS	SM (fire and schools) NS (water, police, wastewater/sewer, solid waste, public maintenance) CNS
Cultural Resources	NS CNS	NS CNS	NS CNS	NS CNS	NS CNS
Geology/Soil	NS CNS	NS CNS	NS CNS	NS CNS	NS CNS
Paleontology	NS CNS	NS CNS	NS CNS	NS CNS	NS CNS
Recreation	NS CNS	NS CNS	NS CNS	SM CNS	SM CNS
Population/ Housing	NS CNS	NS CNS	NS CNS	NS CNS	NS CNS

Notes:

- SU = Significant Unmitigable
- SM = Significant Mitigable
- NS = Not Significant
- CS = Cumulative Significant
- CNS = Cumulative Not Significant

Because the Specific Plan with Power Plant on Alternative Site was rejected as infeasible, it is not summarized in this matrix table.

undeveloped natural state. Therefore, none of the project-specific environmental effects identified in this EIR (land use, biological, transportation, air quality, noise, public services and utilities, etc.) would occur. The project would remain undeveloped at this time.

The No Project Alternative would not be consistent with the City's General Plan, which designates the project area for future urban development. The beneficial effects of providing public facilities that would also serve offsite properties, such as the circulation element, would not be realized under this alternative. The No Project/No Development Alternative would also not achieve most of the basic objectives of the project, such as the provision of industrial and residential opportunities and additional energy facilities to the citizens of Escondido and the surrounding communities.

Over the past decade, the population growth and economic growth in California has created a steadily increasing demand for electrical power. However, the growth in electrical generating capacity serving California has not kept pace with the growth in demand. This imbalance has led to a shortfall in generating capacity, with potentially serious consequences for California's residents and businesses. Such consequences started to appear in 2000. Electrical demand forecasts predict continuing growth over the coming years, making the need for additional generating capacity even more acute.

In particular, the SDG&E load pocket faces future prospects of inability to serve load, due to insufficient SDG&E import capability combined with insufficient local generating capacity. Addressing this concern is a key Sempra Energy Resources objective for the power plant, and the "no power plant project" alternative would not meet this objective.

The Power Plant Project is among those resources that have been identified as potential suppliers of electricity under a contract between Sempra Energy Resources and the California Department of Water Resources for the sale of 1,900 MW. The proposed project will provide competitively priced electrical power to help meet California's growing demand, and it will help replace nuclear and fossil fuel generation resources that are retired due to age or cost of producing power. The "no power plant project" alternative would not meet these objectives.

Given the need for additional generating capacity, and even with the various other power plants under construction and proposed, the "no power plant project" alternative likely would result in more energy production from existing power plants than otherwise would occur with the new power plant in operation. Because the proposed project will employ advanced combustion

turbine technology and state-of-the-art emissions control systems, existing power plants operating in place of the new plant most likely would consume more fuel and emit more air pollutants per kilowatt-hour generated.

According to the CEQA Guidelines, in addition to considering existing environmental conditions, the “no project” analysis is to consider what would be reasonably expected to occur in the foreseeable future if the project were not approved [14 CCR Sec. 15126.6(e)(3)]. The Guidelines state that the analysis is to consider predictable actions such as the proposal of some other project. The 20-acre area proposed as the power plant project site is within a 186-acre area planned as an industrial park, pursuant to the 1988 Quail Hills Specific Plan as well as the draft Escondido Research and Technology Center Specific Plan currently under review by the City of Escondido. It is therefore foreseeable that grading and other improvements of an industrial park will take place, including the area proposed as the power plant project site. However, if the power plant project were not constructed, the site would be instead improved with other industrial land uses, and the objectives of the power plant project would not be met.

Summary

In summary, the “no power plant project” alternative would not serve the growing needs of residents and businesses in California, and in the San Diego load pocket in particular, for efficient, reliable, and environmentally sound power generation resources.

3.1.2 No Project/Existing Entitlement (Adopted Quail Hills Specific Plan)

CEQA Section 15126.6(e)(3)(A) states that when a project is a revision to an existing land use or regulatory plan, the “No Project” alternative will be the continuation of the existing plan, policy, or operation into the future. In accordance with CEQA, the following discussion provides a comparison of the environmental effects associated with implementation of the Approved Specific Plan and the Specific Plan Amendment.

Under this alternative, the site would be developed in accordance with the land uses of the approved Specific Plan. As indicated in the Quail Hills Specific Plan, land use designations within the project area were intended to include areas devoted to General Industrial, a Mixed Use Activity Center, Business Commercial, and offices, as shown in Figure 2.1-3. The development of these areas was to be guided by the following standards:

1. **General Industrial:** Approximately 172 acres under this designation would be permitted a limited range of industrial uses including processing, assembling, manufacturing, warehousing, and research and development in a campuslike setting. The uses allowed would be similar to those contained in the Industrial Park (I-P) zone. Uses involving hazardous materials will be subject to the City's Hazardous Materials Ordinance and applicable State and Federal regulations.
2. **Activity Center:** This designation establishes a focal point for the industrial development of approximately 14 acres within the Specific Plan along Citracado Parkway. This area will have more specific design guidelines and permit a variety of service commercial, industrial/office, and research and development uses; no manufacturing would be allowed in this designation. Uses which are primarily outdoor in nature shall not be permitted.
3. **Business Commercial:** The intended uses within this land use classification are uses such as restaurants and corporate headquarters which occupy less land area and require less grading than general industrial uses. Development is required to be sensitive to the natural topography and residential uses to the west. Approximately 6 acres shall be developed with business commercial.
4. **Office:** This designation is intended to provide approximately 6 acres for corporate headquarters and offices related to industrial activities with the same grading and design sensitivities as the Business Commercial area to the north. The office uses should create the least possible impact upon the adjacent residential uses through compatible design and buffers, as well as complete screening of roof equipment.

Land Use and Planning

The 1986 EIR identified significant and unmitigated impacts to land use. Although the plan provided some self-mitigating features, they were not sufficient to reduce the impacts to below a level of significance.

Transportation/Circulation

The impacts associated with implementing the adopted Specific Plan would be essentially the same as those identified for the proposed project; however, the current Quail Hills Specific Plan

is estimated to generate approximately 40,736 ADT. The current proposed Specific Plan is calculated to generate under 20,000 ADT, which is less than 50% of the Quail Hills Specific Plan. Significant and unmitigated project and cumulative impacts were identified.

Air Quality

Similar to the proposed project, after implementation of all feasible mitigation measures as described in Section 2.3, construction operations would generate emissions exceeding South Coast Air Quality Management District (SCAQMD) daily construction emissions thresholds and quarterly emissions thresholds for NO_x and PM₁₀. This would occur due to similar grading operations needed to develop the site to allow the Quail Hills Specific Plan to be constructed. Therefore, construction of the project would have a significant and unavoidable short-term adverse impact on regional air quality.

This alternative has been incorporated in the Regional Air Quality Standards (RAQS); therefore, the emissions from this alternative have been assumed in the regional planning efforts. Because the emissions have been assumed, there would not be any significant impacts associated with cumulative regional impacts.

Noise

Similar to the proposed project, after implementation of all feasible mitigation measures as described in Section 2.4, construction operations for this alternative would potentially generate noise levels in excess of the City 75-dBA noise standard at the noise-sensitive receivers closest to the project site. Noise levels at these noise-sensitive land uses would be short term and of limited geographical area. However, because noise levels would exceed the City noise standard for construction activities, the project would have a significant and unavoidable short-term adverse noise impact.

In the operational phase, the project would result in noise generated by project-related vehicle traffic and onsite sources. These sources of noise would not result in significant levels of noise after mitigation.

Hazards

Similar to the proposed project, potential hazards associated with silica have been reduced to below a level of significance. Since there would not be a power plant associated with the adopted Specific Plan, additional electromagnetic forces (EMF) would not be generated by the project. As noted in Section 2.5, Hazards, EMF is generated everywhere there is electricity. Under this alternative, no additional transmission lines would be incorporated. Thus, there would be no hazards associated with EMF.

Biological Resources

Similar to the proposed project, significant impacts to the biological resources would occur. With implementation of site-specific mitigation measures identified in Section 2.6, impacts to biological resources would be mitigated to below a level of significance.

Aesthetics

The 1986 EIR identified significant and unmitigated impacts to visual quality. Although the plan provided some self-mitigating features, they were not sufficient to reduce the impacts to below a level of significance.

Water

With implementation of standard construction and design measures (as required by current City regulations), there are no significant unmitigated impacts.

Public Services and Utilities

It is anticipated that this alternative, similar to the proposed project, would have a significant impact with regard to fire protection services and schools. The installation of sprinklers would be required to mitigate impacts to fire protection services. Additionally, depending on future tenant uses in the light industrial area, special fire protection systems, training, or other mitigation as determined by the Fire Marshal would also be required. To mitigate school capacity impacts, the developer would be required to pay school fees at the time of construction. With the incorporation of these mitigation measure, all public services and utilities impacts will be mitigated to below a level of significance.

Cultural Resources

The alternative would not cause a significant impact to cultural resources.

Geology/Soil

With incorporation of similar measures identified in the Geotechnical Report (Appendix I), there would be no significant unmitigated impacts to geology or soils.

Summary

This alternative was rejected because it did not meet the following project objective:

- Provide energy to meet the existing demand for the Southern California region. With no power plant, energy would not be provided by this alternative.

Over the past decade, the population growth and economic growth in California has created a steadily increasing demand for electrical power. However, the growth in electrical generating capacity serving California has not kept pace with the growth in demand. This imbalance has led to a shortfall in generating capacity, with potentially serious consequences for California's residents and businesses. Such consequences started to appear in 2000. Electrical demand forecasts predict continuing growth over the coming years, making the need for additional generating capacity even more acute.

In particular, the SDG&E load pocket faces future prospects of inability to serve load, due to insufficient SDG&E import capability combined with insufficient local generating capacity. Addressing this concern is a key objective of the proposed project, and the "no power plant project" alternative would not meet this objective.

The Power Plant Project is among those resources that have been identified as potential suppliers of electricity under a contract between Sempra Energy Resources and the California Department of Water Resources for the sale of 1,900 MW. The proposed project will provide competitively priced electrical power to help meet California's growing demand, and it will help replace nuclear and fossil fuel generation resources that are retired due to age or cost of producing power. The "no power plant project" alternative would not meet these objectives.

Given the need for additional generating capacity, and even with the various other power plants under construction and proposed, the "no power plant project" alternative likely would result in more energy production from existing power plants than otherwise would occur with the new power plant in operation. Because the proposed project will employ advanced combustion turbine technology and state-of-the-art emissions control systems, existing power plants operating in place of the new plant most likely would consume more fuel and emit more air pollutants per kilowatt-hour generated.

In summary, the "no power plant project" alternative would not serve the growing needs of residents and businesses in California, and in the San Diego load pocket in particular, for efficient, reliable, and environmentally sound power generation resources.

3.1.3 Specific Plan with No Power Generating Plant

This alternative would implement the Specific Plan, with the option of building industrial in Planning Area 1 and relocating the power plant to another location. Therefore, all of the impacts described in Section 2 would occur. To review the feasibility of relocating the Power Plant to another site, engineering, environmental, and fiscal criteria were reviewed against potential sites that could be constructed.

Land Use and Planning

Similar to the proposed project, by implementing the General Plan Amendment, Specific Plan Amendment, and rezone for residential uses as would be necessary for this alternative, impacts to Land Use and Planning would be reduced to a level below significance.

Transportation/Circulation

The impact analysis presented in Section 2.3 also represents this alternative. Significant and unmitigated project and cumulative impacts were identified.

Air Quality

Although slightly less dense and with a reduced site plan disturbance compared to the proposed project, after implementation of all feasible mitigation measures as described in Section 2.3,

construction operations would generate emissions exceeding daily construction emissions thresholds and quarterly emissions thresholds for NO_x and PM₁₀. Therefore, construction of the project would have a significant and unavoidable short-term adverse impact on regional air quality.

In the operational phase, this alternative would result in a net decrease in daily emissions when compared to the operation of the Proposed Project. Mitigation measures identified above would reduce the potential air quality impacts of the project to the degree technically feasible, but emissions would remain above significance thresholds. Regional air quality impacts associated with the Proposed Project would therefore not be significant.

Noise

Similar to the proposed project, after implementation of all feasible mitigation measures as described in Section 2.4, this alternative would result in construction operations that would potentially generate noise levels in excess of the City 75-dBA noise standard for construction activities at the noise-sensitive receivers closest to the project site. Noise levels at these noise-sensitive land uses are short term and of limited geographical area. However, because noise levels exceed the City noise standard for construction activities, the alternative would have a significant and unavoidable short-term adverse noise impact

In the operational phase, the alternative would result in noise generated by project-related vehicle traffic and onsite sources. These sources of noise were not found to result in significant levels of noise after mitigation.

Hazards

Since there would not be a power plant associated with the adopted Specific Plan, an increased amount of electromagnetic forces (EMF) would not be generated under this alternative. There would be no additional hazards associated with EMF, because this alternative would not require the installation of any new transmission lines. Furthermore, potential hazards associated with silica have been reduced to below a level of significance.

Biological Resources

Similar to the proposed project, with implementation of site-specific mitigation measures identified in Section 2.7, impacts to biological resources could be mitigated to below a level of significance. Due to the enhanced preservation of sensitive resources, the significant impacts would be reduced; however, not to below significance without mitigation.

Aesthetics

No significant aesthetic impacts were identified for the proposed project. The proposed project will not have an adverse impact on a scenic vista. The project will not substantially degrade scenic resources or substantially degrade the existing visual character or quality of the site and its surroundings, nor will it create a substantial light or glare which would adversely affect daytime or nighttime views in the areas.

Water

With implementation of standard construction and design measures (as required by current City regulations), there are no significant unmitigated impacts

Public Services and Utilities

Similar to the proposed project, this alternative would have a significant impact with regard to fire protection services, and schools. The installation of sprinklers would be required to mitigate impacts to fire protection services. Additionally, depending on future tenant uses in the light industrial area, special fire protection systems, training, or other mitigation as determined by the Fire Marshal would be required. To mitigate school capacity impacts, the developer would be required to pay school fees at the time of construction. With the incorporation of these mitigation measures, all public services and utilities impacts would be mitigated to below a level of significance.

Cultural Resources

Similar to the proposed project, the proposed project would not cause a significant impact to cultural resources.

Geology/Soil

Similar to the proposed project, this alternative would need to incorporate all measures identified in the Geotechnical Report (Appendix I). There would be no significant unmitigated impacts to geology or soils.

Summary

This alternative was rejected because it did not meet the following project objective:

- Provide energy to meet the existing demand for the Southern California region. With no power plant, energy would not be provided by this alternative.

Over the past decade, the population growth and economic growth in California has created a steadily increasing demand for electrical power. However, the growth in electrical generating capacity serving California has not kept pace with the growth in demand. This imbalance has led to a shortfall in generating capacity, with potentially serious consequences for California's residents and businesses. Electrical demand forecasts predict continuing growth over the coming years, making the need for additional generating capacity even more acute.

In particular, the SDG&E load pocket faces future prospects of inability to serve load, due to insufficient SDG&E import capability combined with insufficient local generating capacity. Addressing this concern is a Sempra Energy Resources objective for the power plant, and the "no power plant project" alternative would not meet this objective.

Given the need for additional generating capacity, and even with the various other power plants under construction and proposed, this alternative likely would result in more energy production from existing power plants than otherwise would occur with the new power plant in operation. Because the proposed project will employ advanced combustion turbine technology and state-of-the-art emissions control systems, existing power plants operating in place of the new plant most likely would consume more fuel and emit more air pollutants per kilowatt-hour generated.

According to the CEQA Guidelines, in addition to considering existing environmental conditions, this analysis is to consider what would be reasonably expected to occur in the foreseeable future if the project were not approved [14 CCR Sec. 15126.6(e)(3)]. The Guidelines state that the analysis is to consider predictable actions, such as the proposal of some

other project. The 20-acre area proposed as the power plant project site is within a 186-acre area planned as an industrial park, pursuant to the draft Escondido Research and Technology Center Specific Plan currently under review by the City of Escondido. It is therefore foreseeable that grading and other improvements of an industrial park will take place, including the area proposed as the power plant project site. However, if the power plant project were not constructed, the site would be instead improved with other industrial land uses, and the objectives of the power plant project would not be met.

In summary, this alternative would not serve the needs of residents and businesses in California, and in the San Diego load pocket in particular, for efficient, reliable, and environmentally sound power generation resources.

3.1.4 Specific Plan with Power Plant Located on Alternative Site

This alternative would implement the Specific Plan with the option of building industrial in Planning Area 1 and relocating the power plant to another location. Therefore, all of the impacts described in Section 2 would occur. In addition to those impacts, additional impacts would also occur with relocating the power plant to another site. To review the feasibility of relocating the Power Plant to another site, engineering, environmental, and fiscal criteria were reviewed against potential sites that could be constructed. These criteria for the Power Plant Project are as follows:

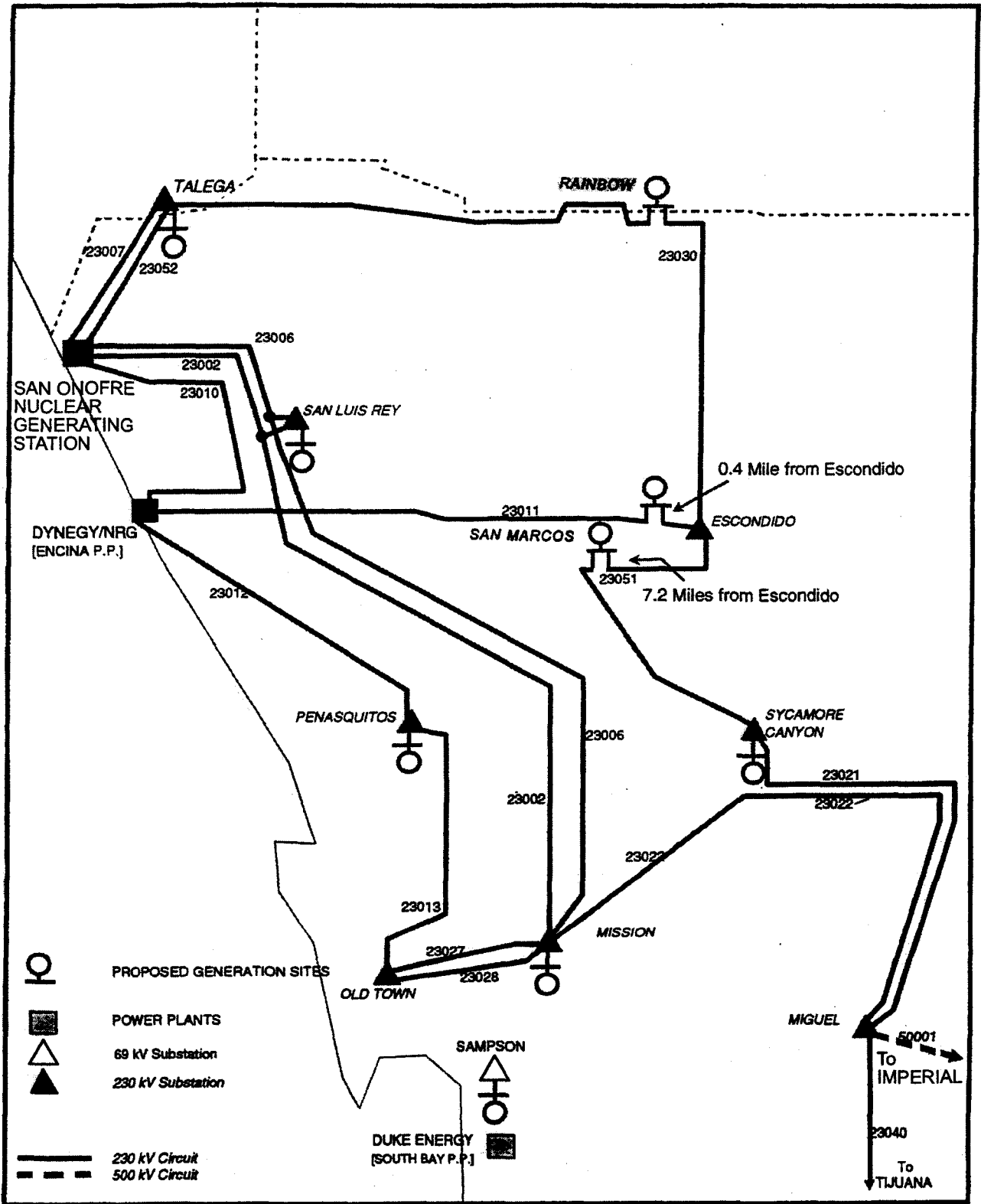
- Add an efficient, reliable, dispatchable, and environmentally sound power generating facility of substantial size to the SDG&E load pocket.
- Interconnect the facility at a location within the SDG&E load pocket that results in a megawatt-for-megawatt addition to the load-serving capability of the SDG&E transmission grid (i.e., avoid the displacement of existing SDG&E import capability, avoid the displacement of existing generating capacity, and avoid intrazonal congestion). Generally, this objective translates to locating the facility near electrical load.
- Avoid the construction of new transmission lines (i.e., locate the facility adjacent to existing transmission lines and/or substation facilities that will accommodate interconnection of the project).

- Locate the facility in a portion of the SDG&E gas system that minimizes the need for system upgrades.
- Locate the facility in an area with readily available nonpotable water of sufficient quantity and quality to meet the facility's process water requirements.
- Locate the facility at a site with compatible adjacent land uses.

Given that some of the above objectives lead to siting of the facility in or near an urban area, locate the facility at a site that offers landforms that are substantial enough to afford significant visual screening, but do not adversely affect plume dispersion.

The project criteria were used to guide the selection of an appropriate site for the power plant project. Nine alternative locations were investigated. Locations were postulated that are adjacent to existing, substantial SDG&E transmission lines and/or substation facilities, in order to avoid the construction of new transmission lines. It should be noted that there may still need to be a realignment/reconfiguration within the adjacent SDG&E rights-of-way of existing transmission lines to accommodate the power plant connection. To assess electrical interconnection issues for each alternative, SDG&E was commissioned to prepare the System Impact Study. The nine alternatives are as follows, and their locations relative to SDG&E electric transmission facilities are shown in Figure 3.1-1.

- **Escondido:** A site along the Escondido-Sycamore Canyon/Escondido-Encina 230-kilovolt (kV) transmission lines, near Escondido Substation. Defined as the proposed project.
- **San Marcos:** A site along the Escondido-Sycamore Canyon 230-kV transmission line, at the retired North County Resource Recovery Facility in the City of San Marcos.
- **Sycamore Canyon:** A location near the 230-kV Sycamore Canyon Substation at the north edge of the Miramar Marine Corps Air Station, south of the City of Poway.
- **Penasquitos:** A location near the 230-kV Penasquitos Substation in the Sorrento Hills area of the City of San Diego.



Source: Palomar Energy, LLC

No Scale

P&D Environmental Services

Alternate Power Plant Sites

Figure 3.1-1

010602 P:\Admin\Escondido\Escondido-R1\graphics\map\plant\sites.th9

- **Mission:** On the 230-kV Mission Substation site in the Serra Mesa area of the City of San Diego.
- **Rainbow:** A location along the Talega-Escondido 230-kV transmission line, near the community of Rainbow.
- **Talega:** A location near the 230-kV Talega Substation, in southern Orange County.
- **San Luis Rey:** A location near the 230-kV San Luis Rey Substation, in the City of Oceanside.
- **Sampson:** On the retired Silvergate Power Plant site, interconnecting with the 69-kV Sampson Substation in the City of San Diego.

The alternative locations were evaluated in relation to the project objectives. The conclusions of this evaluation are as follows:

- **Escondido:** The transmission grid will accommodate a 550-MW facility at this location. The proposed site meets all of the project objectives.
- **San Marcos:** The transmission grid will accommodate a 550-MW facility at this location. This site meets the project objectives except (a) availability of nonpotable water is uncertain; (b) the site is surrounded by open space rather than industrial land uses; and (c) adjacent terrain more than 200 feet higher than the site bounds the site on two sides, presenting plume dispersion and/or stack height issues.
- **Sycamore Canyon:** The transmission grid will accommodate a 550-MW facility at this location. This location meets the project objectives except (a) availability of nonpotable water is uncertain; (b) the location consists of open space rather than industrial land uses; and (c) the terrain at this location is extremely steep and may present plume dispersion/stack height issues, depending upon the specific site. Land at this location is not readily available, as it is part of the Miramar Marine Corps Air Station reserve, under federal ownership.

- ***Penasquitos:*** The transmission grid will accommodate a 250-MW facility at this location, and might accommodate a 550-MW facility. However, this location is largely residential, and there are no sites available with compatible adjacent land uses.
- ***Mission:*** The transmission grid will accommodate a 250-MW facility at this location, and would probably accommodate a 550-MW facility. However, there is not sufficient land available on the Mission Substation site to accommodate even a 250-MW facility.
- ***Rainbow:*** Interconnecting a generating facility at this location would tend to use and/or displace import capability into the SDG&E load pocket (i.e., there would tend to be no net addition to the load-serving capability of the SDG&E transmission grid).
- ***Talega:*** Interconnecting a generating facility at this location would tend to use and/or displace import capability into the SDG&E load pocket (i.e., there would tend to be no net addition to the load-serving capability of the SDG&E transmission grid).
- ***San Luis Rey:*** The transmission grid will accommodate a 250-MW facility at this location, and might accommodate a 550-MW facility. However, this location is largely residential, and there are no sites available with compatible adjacent land uses.
- ***Sampson:*** The transmission grid will accommodate a 250-MW facility at this location. However, the Silvergate Power Plant site might not be large enough to accommodate such a facility, and this location would necessitate substantial upgrades to the SDG&E gas system.

In addition to evaluating the Alternative Site location for the power plant, potential impacts associated with transmission line and natural gas pipeline route alternatives, as well as access to cooling water and discharge line, were considered.

Transmission Line Route Alternatives

Avoiding the construction of new transmission lines is an important objective of the power plant project. The proposed project meets this objective, as an existing 230-kV line that will accommodate facility interconnection is located immediately adjacent to the project site.

Because no new transmission lines are needed for the project, no transmission line route alternatives were evaluated.

Natural Gas Pipeline Route Alternatives

Minimizing the need to upgrade the existing SDG&E gas system is an important objective of the power plant project. The proposed project meets this objective, as an existing 16-inch natural gas pipeline with sufficient capacity to serve the project is located immediately adjacent to the project site. In order to relieve a bottleneck in a segment of the existing SDG&E gas system located about 1 mile northeast of the project site, SDG&E will construct an upgrade consisting of approximately 2,600 feet of 16-inch pipeline. This upgrade will be installed in existing paved streets along its entire route. As this construction by SDG&E will have impacts that are both minimal and short term in nature, no natural gas pipeline route alternatives were evaluated.

Summary

The Escondido, San Marcos, and Sycamore Canyon alternatives are substantially superior to the other six. The Escondido site was selected because it is the only alternative that is clearly feasible in all respects, and it is the only one that meets all of the project objectives. In particular, the Escondido site:

- accommodates the addition of a 550-MW facility to the SDG&E load pocket;
- results in a megawatt-for-megawatt addition to the load-serving capability of the SDG&E transmission grid;
- avoids the construction of new transmission lines, as an existing 230-kV line that will accommodate facility interconnection is located immediately adjacent to the site;
- minimizes the need for SDG&E gas system upgrades, as an existing 16-inch pipeline with sufficient capacity to serve the facility is located immediately adjacent to the site;
- makes use of readily available nonpotable water from the City of Escondido's nearby Hale Avenue Resource Recovery Facility for the facility's process water requirements;

- is surrounded by existing and future industrial land uses; and
- offers landforms that are sufficient in size to screen the facility, but are not problematic for plume dispersion.

San Marcos and Sycamore were ultimately rejected because they were not able to meet all of the objectives, including:

- **San Marcos:** (a) Availability of nonpotable water is uncertain; (b) the site is surrounded by open space, rather than industrial land uses; and (c) adjacent terrain more than 200 feet higher than the site bounds the site on two sides, presenting plume dispersion and/or stack height issues.
- **Sycamore Canyon:** (a) Availability of nonpotable water is uncertain; (b) the location consists of open space, rather than industrial land uses; (c) the terrain at this location is extremely steep, and may present plume dispersion/stack height issues depending upon the specific site; and (d) this location is not readily available, because it is part of the Miramar Marine Corps Air Station reserve, under federal ownership.

3.1.5 Reduced Project Scale Alternative

This alternative was designed to reduce the potential for significant impacts. Significant impacts included biological resources, air, noise, and transportation. This alternative would entail the reduction of uses to approximately 90 acres. Three potential use areas were identified (Figure 3.1-2). The areas to be designated for use were selected to avoid impacts to sensitive biological resources, particularly coastal sage scrub and wetlands. With the reduction of areas to be developed, there would be a concomitant reduction in traffic, air and noise impacts. This alternative would propose approximately 55 acres of industrial (business park) in the northern parcel. A power plant is not included in this alternative.

Land Use and Planning

Similar to the proposed project, by implementing the General Plan Amendment and Specific Plan Amendment as would be necessary for this alternative, impacts to Land Use and Planning would be reduced to a level below significance.

Transportation/Circulation

Utilizing the trip generation calculations in the traffic analysis (Section 2.2), 200 ADT would be generated per acre for the business park. With 55 acres of business park, there would be 11,000 ADT generated under this alternative. This represents 77% of the total trips generated by the proposed project. This would, therefore, generally result in a 23% reduction in the magnitude of impacts associated with implementation of this alternative. The requirements for mitigation would likely be similar to those identified for the proposed project, with the exception of the extension of Citracado Parkway, which would not occur under this alternative.

Air Quality

Although slightly less dense and with a reduced site plan disturbance compared to the proposed project, after implementation of all feasible mitigation measures as described in Section 2.3, construction operations would generate emissions exceeding daily construction emissions thresholds and quarterly emissions thresholds for ROC, NO_x, and PM₁₀. Therefore, construction of the project would have a significant and unavoidable short-term adverse impact on regional air quality. See a comparison of the impacts from the proposed project and the reduced alternative.

The proposed project would generated the following construction emissions:

Category	CO	ROC	NO _x	PM ₁₀	SO _x
Combined Emissions (lb/day)					
Proposed Project	169	237	361	540	28
Reduced Alternative	76	107	163	243	13
SCAQMD Daily Threshold (lb/day)	550	75	100	150	150

In the operational phase, the project would result in a net decrease in daily emissions when compared to the operation of the Proposed Project and the adopted Specific Plan. Regional air quality impacts associated with the Proposed Project would therefore not be significant.

Noise

Similar to the proposed project, this alternative, after implementation of all feasible mitigation measures as described in Section 2.4, would result in construction operations that would

potentially generate noise levels in excess of the City 75-dBA noise standard for construction activities at the noise-sensitive receivers closest to the project site. Noise levels at these noise-sensitive land uses are short term and of limited geographical area. However, because noise levels would exceed the City noise standard for construction activities, the project would have a significant and unavoidable short-term adverse noise impact.

In the operational phase, the project would result in noise generated by project-related vehicle traffic and onsite sources. These sources of noise were not found to result in significant levels of noise after mitigation.

Hazards

Similar to the proposed project, potential hazards associated with silica have been reduced to below a level of significance. Since this alternative considered a reduced scale project, there would not be an incremental increase of electromagnetic forces (EMF) generated by the project. Because EMF is generated everywhere there is electricity, and the reduced scale alternative would potentially generate less than the proposed project, there would be no additional significant hazards associated with EMF.

Biological Resources

Impacts to biological resources are substantially reduced. The following direct impacts would result from implementation of this alternative:

Coastal sage scrub	2 acres
Annual grassland	76 acres
Eucalyptus	3 acres
Disturbed/ruderal	8 acres
Urban	<u>1 acre</u>
	90 acres

Similar to the proposed project, with implementation of site-specific mitigation measures identified in Section 2.7, impacts to biological resources are substantially avoided. Those impacts that could not be avoided could be mitigated to below a level of significance with a much smaller mitigation plan. Due to the enhanced preservation of sensitive resources, the significant impacts would be reduced; however, not to below significance without mitigation.

Aesthetics

No significant aesthetic impacts were identified for the proposed project. The proposed project will not have an adverse impact on a scenic vista. The project will not substantially degrade scenic resources or substantially degrade the existing visual character or quality of the site and its surroundings, nor will it create a substantial light or glare which would adversely affect daytime or nighttime views in the areas.

Water

Impacts to water resources were not considered significant for the proposed project and for this alternative assuming incorporation of standard construction measures.

Public Services and Utilities

Similar to the proposed project, this alternative would have a significant impact with regard to fire protection services, and schools. The installation of sprinklers would be required to mitigate impacts to fire protection services. Additionally, depending on future tenant uses in the light industrial area, special fire protection systems, training, or other mitigation as determined by the Fire Marshal would be required. To mitigate school capacity impacts, the developer would be required to pay school fees at the time of construction. With the incorporation of these mitigation measures, all public services and utilities impacts would be mitigated to below a level of significance.

Cultural Resources

Similar to the proposed project, the proposed project would not cause a significant impact to cultural resources.

Geology/Soil

Similar to the proposed project, this alternative would need to incorporate all measures identified in the Geotechnical Report (Appendix I). There would be no significant unmitigated impacts to geology or soils.

Summary

This alternative was rejected because it did not meet the following project objectives:

- Concentration of a variety of office, research and development, industrial (multi-tenant, corporate, and distribution) uses which serve the community. A substantial reduction of the development would result.
- Enhanced economic benefits to the community, by providing increased employment opportunities and tax base. Employment base was substantially reduced due to the reduction in the developable acreage.
- Creation of an industrial business park through the concentration of business uses which will be comprehensively planned to ensure community compatibility, adequacy of access, parking, landscaping, and other features which are characteristic of a quality development. The alternative isolated the industrial park to one smaller parcel.
- Initiation of physical development on the site will be undertaken in a manner which ensures adequate public infrastructure to support uses as they transition into public use. Public infrastructure can not be funded with the reduced footprint of development. Traffic impacts and requirements for mitigation are similar and can not be funded by the alternative.
- Provide energy to meet the existing demand for the Southern California region. With no power plant, energy would not be provided by this alternative.

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4.0 ENVIRONMENTAL EFFECTS FOUND NOT TO BE SIGNIFICANT

State CEQA Guidelines Section 15128 requires the identification of impacts of a project that were determined not to be significant and that were not discussed in detail in the impact section of the EIR. Therefore, a brief discussion of environmental issues that were not found to be significant for this project (paleontology, recreation, and population/housing) is presented below. Additionally, Appendix A includes the Initial Study prepared for the proposed project.

4.1 PALEONTOLOGY

Thomas A. Deméré, Ph.D., Curator of Paleontology for the San Diego Natural History Museum, prepared a Paleontological Resource Assessment for the proposed Escondido Research and Technology Center Specific Plan Area, dated October 2001 (Appendix J).

Based on the results indicated in the Paleontological Resource Assessment, impacts to paleontological resources are generally rated from high to zero, depending upon the resource sensitivity of impacted geologic deposits. The specific criterion applied for each sensitivity category is summarized below.

- High significance – Impacts to high-sensitivity geologic deposits.
- Moderate significance – Impacts to moderate-sensitivity geologic deposits.
- Low significance – Impacts to low-sensitivity geologic deposits.
- Zero significance – Impacts to zero-sensitivity geologic deposits.

There are no records in the archives of the San Diego Natural History Museum of fossil localities occurring in or near the Specific Plan Area, nor are there any known fossil localities within approximately 5 miles of the site. This lack of fossil localities is understandable in light of the geologic conditions of the site. The igneous rocks of the Green Valley Tonalite are assigned a zero paleontological sensitivity rating, because of their volcanic origin. The sediment deposits of the recent alluvium and colluvium are assigned a low paleontological sensitivity rating, because they have been relatively recently deposited. Therefore, there is an extremely low potential for the project to affect paleontological resources.

4.2 RECREATION

The City of Escondido has a variety of park and recreation facilities. These amenities include Kit Carson Park, Daley Ranch, Lake Wohlford Regional Park, Lake Dixon Regional Park, San Dieguito Corridor Regional Park, and Felicita County Park. In addition, the City has a number of community and neighborhood parks.

Community parks are a minimum of 15 acres and may include multipurpose turf areas, play equipment for children, opportunities for passive recreation, bike paths linked to the Citywide trail system, off-street parking facilities, multiuse athletic courts, and restrooms and multiuse recreation buildings. Neighborhood parks are smaller (2 to 5 acres) and are generally developed in residential areas.

The Parks and Recreation section of the Community Services and Facilities Element of the City of Escondido General Plan states that for every additional 1,000 dwelling units, 11.8 acres of active and/or passive recreation opportunities shall be provided. Two areas (22 acres total) are proposed for residential development and could be developed with up to 46 residential units. This translates to a need to provide approximately 0.5 acre of park space.

The proposed project includes the development of an approximate 4-mile public trail which will be accessible from a trailhead and parking area in Planning Area 6. The trail will make a general loop around the Specific Plan area. Additionally, the proposed project includes the preservation and/or revegetation of approximately 40 acres of native habitat.

The provision of a public trail and the preservation and/or revegetation of native habitat will meet the requirements of the Parks and Recreation section of the Community Facilities and Services Element of the City of Escondido General Plan. Therefore, the proposed project will not have a significant recreation impact.

4.3 POPULATION AND HOUSING

The City of Escondido, like the majority of the cities in San Diego County, has faced significant growth in the past 20 years. From 1980 to 1990, the population increased 69% (from 64,355 to 108,635). From 1990 to 2000 the population increased another 18% for a current population of 108,635. Regional forecasts place the 2020 population of Escondido at 143,228. Table 4.3-1 summarizes the past and forecasted population for the City of Escondido.

**Table 4.3-1
City of Escondido Population**

	1980	1990	2000	Projected 2005	Projected 2010	Projected 2020
Population	64,355	108,635	127,813	136,211	140,490	143,228
% Change		+69%	+18%	+7%	+3%	+2%

Source: San Diego Association of Governments, 2001.

As of January 2000, Escondido had an estimated 49,874 housing units, with a 52% owner occupancy rate for single-family homes (Escondido Profile, 2000-2001).

The Housing Element of the Escondido General Plan assesses the housing needs of all economic segments of the City, defines the goals and policies which will guide the City's approach to resolving those needs, and recommends a set of programs which would implement policies over the next five years.

State CEQA Guidelines state that a proposed project would be significant if it would:

- Induce substantial population growth in an area, either directly or indirectly; or
- Displace a substantial number of existing housing units or people, necessitating the construction of replacement housing elsewhere.

The proposed project includes two residential planning areas that could be developed with a maximum of 46 estate residential units. It is unlikely that all of these units would be occupied by new residents to the City; some of the residential units may be occupied by current City residents relocating within the City. However, this population analysis assumes a worse-case scenario, where all future occupants are new to the City.

To estimate the population increase associated with the 46 housing units, the January 2001 City/County Population Statistics from the San Diego Association of Governments were consulted. Escondido currently averages 2.983 persons per household. The statistics do not distinguish between single-family or multiple-family residential. For the purposes of this analysis, three persons per household were determined to be feasible for the proposed residential

planning areas. Based on that assumption, the proposed project could result in a population increase of 138 additional residents to the City of Escondido. This represents a 0.1% increase in the City's population, and is not considered to be a substantial population increase. Therefore, the proposed project will not have a significant population impact.

The southern portion of the project site currently supports two residential units. These structures will be destroyed for construction of the proposed project. The residential areas (22 acres total) of the proposed specific plan have been designated as estate residential (Figure 1.1-1). Lots sizes under this designation must be at least 20,000 square feet; therefore, these two areas combined could support up to 46 dwelling units. When compared to the current specific plan for the area, the proposed project will increase the number of housing units within the City of Escondido. This represents a beneficial project impact.

5.0 GROWTH-INDUCING IMPACTS

Section 15126.2(d) of the State CEQA Guidelines requires that an EIR evaluate the growth-inducing impacts of a proposed project. Growth-inducing impacts are defined by the State CEQA Guidelines as “the ways in which the proposed project could foster economic or population growth . . . either directly or indirectly, in the surrounding environment”. The State CEQA Guidelines also require the analysis of those project characteristics that may encourage or facilitate activities that, either individually or cumulatively, could significantly affect the environment.

Induced growth is any growth which exceeds planned growth and results from new development which would not have taken place without the implementation of the proposed project. Typically, the growth-inducing potential of a project would be considered significant if it results in growth or a population concentration that exceeds those assumptions included in pertinent general plans, land use plans, or projections made by regional planning authorities. However, the creation of growth-inducing potential does not automatically lead to growth. Additionally, the State CEQA Guidelines also state that the lead agency must not assume that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

The environmental effects of induced growth are secondary or indirect impacts of the proposed project. Secondary effects of growth could result in significant, adverse environmental impacts, which could include increased demand on community or public services, increased traffic and noise, degradation of air and water quality, and conversion of agricultural land and open space to developed uses. This increase in demand for services would be the result of residential growth within the area. That creates the need for additional development of adequate services to accommodate the growing community.

The proposed project includes two residential planning areas that could be developed with up to 46 residential dwelling units. The residential planning areas were not a part of the original Specific Plan for the project area. To estimate the population increase associated with the 46 housing units, the January 2001 City/County Population Statistics from the San Diego Association of Governments were consulted. Escondido currently averages 2.983 persons per household. The statistics do not distinguish between single-family or multiple-family residential. For the purposes of this analysis, three persons per household were determined to be feasible for the proposed residential planning areas. Based on that assumption, the proposed project could

result in a population increase of 138 additional residents to the City of Escondido. This represents a 0.1% increase in the City's population, and is not considered to be a substantial population increase.

The industrial uses proposed for the project will provide employment opportunities for the region as a whole. This area has been designated for industrial uses and is assumed to be industrial in the General Plan. Therefore, the potential that the industrial uses would induce growth has already been considered. Since this is part of the planned and orderly development of the region, it is anticipated that some growth will be induced; however, the magnitude of the impact would not be significant, because it is consistent with the General Plan.

Another component of the project is the power plant. Energy produced by the project is intended to meet the needs of existing demand and help meet future demand. There are numerous other power generating facilities in southern California. Over the past decade, the population growth and economic growth in California has created a steadily increasing demand for electrical power. However, the growth in electrical generating capacity serving California has not kept pace with the growth in demand. This imbalance has led to a shortfall in generating capacity, with potentially serious consequences for California's residents and businesses. Such consequences started to appear in 2000. Electrical demand forecasts predict continuing growth over the coming years that makes the need for additional generating capacity even more acute.

In particular, the SDG&E load pocket faces future prospects of inability to serve load, due to insufficient SDG&E import capability combined with insufficient local generating capacity. Addressing this concern is a key objective of the proposed project.

This Power Plant is among those resources identified as potential suppliers of electricity under a contract between Sempra Energy Resources and the California Department of Water Resources for the sale of 1,900 megawatts (MW). The proposed project will provide competitively priced electrical power to help meet California's growing demand, and it will help replace nuclear and fossil fuel generation resources that are retired due to age or cost of producing power. This is considered a beneficial impact of the project.

Because the project is going to meet the existing demand and help meet the future existing demand, it is not considered significantly growth inducing. It will eliminate an impediment for future growth and, thus, can be defined as growth inducing. It should be noted that the project is

intended to serve the existing needs and future demands of the community. Its contribution to growth is considered incremental.

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6.0 CUMULATIVE EFFECTS

Section 15130(a) of the State CEQA Guidelines requires that cumulative impacts shall be discussed when they are cumulatively considerable. As required by CEQA, this EIR analyzes the cumulative impacts of the Proposed Project. Section 15355 of the CEQA guidelines defines a cumulative impact as “two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts”. Cumulative impacts may result from individual effects of a single project or the effects of several projects that are developed within a particular window of time. All projects that are closely related, past, present, or reasonably anticipated to occur in the future, are analyzed in this section of the EIR. The impacts associated with the Proposed Project are analyzed in conjunction with the effects of other projects within the Proposed Project vicinity.

An EIR must discuss cumulative impacts when they are significant and the project’s incremental contribution is cumulatively considerable [CEQA Guidelines, Section 15130(a)]. If the combination of the Proposed Project’s incremental effect and the related effects from other projects is not significant, the EIR should briefly explain why the cumulative effect is not significant [CEQA Guidelines, Section 15130(a)(2)]. An EIR need not discuss significant cumulative impacts in as great detail as is provided for project impacts alone [CEQA Guidelines, Section 15130(b)]. The discussion should be guided by standards of practicality and reasonableness [CEQA Guidelines, Section 15130(b)] and should focus on the cumulative impact to which the identified other projects contribute.

6.1 RELATED PROJECTS

In evaluating cumulative effects, an EIR should focus on a list of past, present, and probable future projects producing related impacts. The evaluation can also be based upon a summary of projections contained in the adopted general plan or related planning documents. For each identified impact, the basis of the cumulative analysis will be described. Some impacts are discussed using a combination of general plan projections and adjustments, if any projects propose increases over the projections of the general plan. The cumulative list of projects is consistent with the 2002 CEQA Guidelines Section 15130(1)(A) which states that a list of past, present, and probable future projects producing related or cumulative impacts, including if necessary, those projects outside of the control of the agency, be included in the analysis of

**Table 6.1-1
List of Cumulative Projects**

Map Label	Project Name	Project Description	Location	Status
<i>City of Escondido</i>				
1	Executive Place	Construction of three industrial buildings on vacant land	2867 & 2869 Executive Place	Application is currently under City review.
2	Meyers Avenue	Construction of industrial/commercial addition	2213 Meyers Avenue	Application is currently under City review.
3	Harmony Grove Specific Plan	13.81 acres to be developed into nine industrial lots	2175 Harmony Grove Road	Application is currently under City review.
4	Andreason Development	Construction of two industrial buildings on vacant land	Andreason/Enterprise	Application is currently under City review.
5	Chablis Court	Construction of approximately 37,500-SF industrial building on vacant lot	West end of Chablis Court	Application is currently under City review.
6	Harmony Grove Tract 837	3.67 acres to be developed into 16 residential units	1978 Harmony Grove Road	Application is currently under City review.
7	Dorn Tentative Map	Residential subdivision into 34 residential units	Del Dios Highway and Via Rancho Parkway	Project was approved.
8	Citracado Parkway Tract 817	Subdivision of approximately 12.5 acres into 12 residential lots	Citracado Parkway	The project is currently under construction. Project was approved on May 2000. A Negative Declaration was prepared for the project.
9	Auto Parkway	Expansion of commercial building	1280 Auto Parkway	The project is currently under construction.
10	Concrete & Asphalt Recycling Plant	New development of a concrete and asphalt recycling plant on 1.73 acres	361 North Hale	Application is currently under City review.
11	Recycling Plant	Proposed recycle materials transfer loading and vehicle maintenance site	1035 West Washington	Application is currently under City review.
12	Trash Transfer Station	Increase capacity of trash transfer station from 1,500 tons/day to 2,500 tons/day	1044 West Washington	Project was approved.
13	Asphalt Batch Plant	Construction of a new asphalt batch plant on approximately 4.13 acres	901 West Washington	Application is currently under City review.

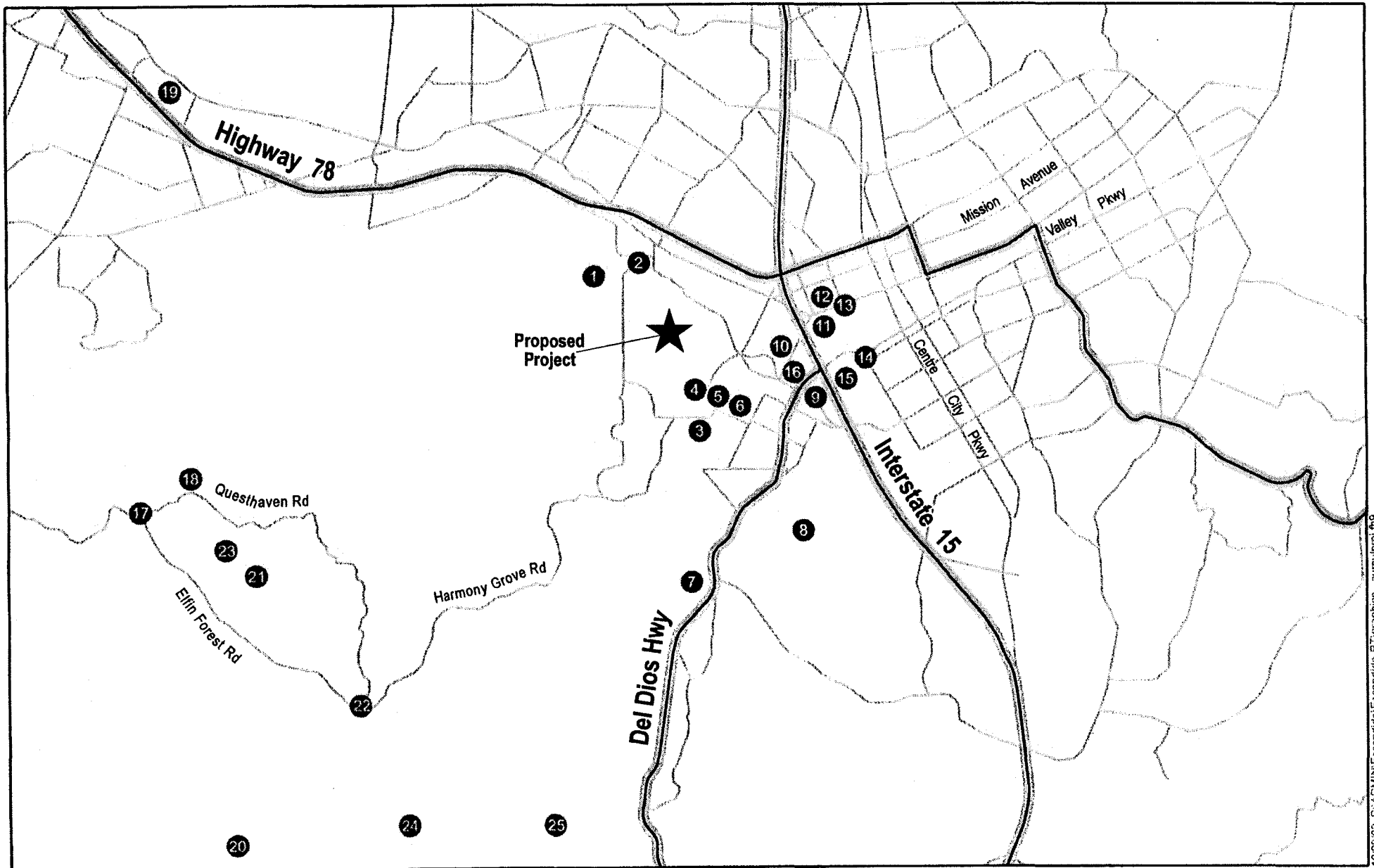
Map Label	Project Name	Project Description	Location	Status
14	South Tulip Tract 831	Subdivision of 4.33 acres into 13 residential lots	101 South Tulip	Project was approved on May 2001. A Negative Declaration was prepared for the project. Currently undergoing plan check by the City.
15	La Terraza Planned Development	Proposed 140,000-SF office space and 154-room hotel	300-400 La Terraza Boulevard	Project was approved.
16	City of Escondido Hale Avenue Resource Recovery Facility (HARFF)	Rehabilitation of existing facilities, improvements for treatment efficiency, and extension of pipeline connections	1521 Hale Avenue	Applicant has prepared an EIR which is currently in public review.
City of San Marcos				
17	San Elijo Hills Planned Community	3,398 residential units, 40 acres of community services, 13 acres of commercial, golf course, and 1,050 acres of open space	San Elijo Road/ Elfin Forest Road	Project may be under construction. Limited, if any, occupied units.
18	San Elijo Ridge	260 single-family residential units	Questhaven Road	Preparing Initial Study. Unlikely to be through entitlement process.
19	San Marcos Highlands	238 single-family dwelling units (north of border); 70% of the project is dedicated to permanent open space	Las Posas Avenue	A supplemental EIR has been prepared for the project and will shortly be distributed for public review.
County of San Diego				
20	The Bridges at Rancho Santa Fe (TM4569/P85-084W4)	Revision to previously approved 445-acre subdivision and golf course complex	Approximately 2,700 feet north of intersection of El Camino Norte and Aliso Canyon Road	A Final EIR was certified by the Board of Supervisors on 12/10/86.
21	Quail Ridge (SPA00-05/TM5185)	Subdivision of 235 acres into 69 residential lots; development will involve the approval of a Specific Plan, pursuant to Board of Supervisors Policy I-59	Elfin Forest Road between Fortuna del Norte and Aguilera Lane	Applicant has prepared an EIR and recently completed public review. Project is still under County review.

Map Label	Project Name	Project Description	Location	Status
22	Cielo del Norte (SPA99-001/TM5182)	Establishment of a Specific Plan and the residential subdivision of 580 acres; project proposes 186 residential units and approximately 370 acres to be designated as open space	Harmony Grove Road/Elfin Forest Road	Applicant has prepared an EIR. Currently under County review.
23	Victoria Shangrila (TM5261)	Subdivision of 79.7 acres into 37 residential units	West of Elfin Forest Road between Elfin Forest Road and Questhaven	Applicant may be required to prepare an EIR. Currently under County review.
24	Rancho Cielo Tract 5010 (SPA00-006/TM5010RPL)	Specific Plan amendment to relocate five residential lots for the Olivenhain Municipal Water District pipeline right-of-way	Del Dios Highway between Mount Israel and Calle Ambiente	Currently under County review. Proposed project will be required to comply with new County Stormwater Ordinance.
25	Oakrose Estates (TM5204)	Subdivision of 39.7 acres into 10 single-family residential lots	Mt. Israel Road and Detwiler Road	Currently under County review. Potential impacts under analysis are biology and growth inducement.

cumulative effects in the EIR. Table 6.1-1 lists the development projects in the area that are under construction or approved for development within the City of Escondido and other jurisdictional areas surrounding the project vicinity. Their locations in relation to the project site is indicated on Figure 6.1-1.


The cumulative analysis will be conducted as follows:

- Land Use and Planning - Analyzed based upon the list of projects.
- Transportation/Circulation - Analyzed utilizing the projections based upon a regional planning document. Also modified by the list of projects.
- Air Quality - Analyzed utilizing the projections based upon a regional planning document.
- Noise - Analyzed based upon the list of projects.



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Source: County of San Diego, City of San Marcos, City of Escondido
 Note: Please see Table 6.1-1 for project name, description and status.

 No Scale

 **P&D Environmental Services**

Cumulative Projects

Figure 6.1-1

- Hazards - Analyzed based upon the list of projects.
- Biological Resources - Analyzed utilizing the projections based upon a regional planning document.
- Aesthetics - Analyzed based upon the list of projects.
- Water - Analyzed utilizing the projections based upon a regional planning document.
- Public Services - Analyzed utilizing the projections based upon a regional planning document.
- Utilities and Service Systems - Analyzed utilizing the projections based upon a regional planning document.
- Cultural Resources - Analyzed based upon the list of projects.
- Geology/Soils - Analyzed based upon the list of projects.

6.2 CUMULATIVE ENVIRONMENTAL

Projects listed in Table 6.1-1 include a number of developments that were considered by the City subsequent to issuance of the Notice of Preparation. The approval and construction of these developments generally illustrate the pattern of continuing urban development within the City and project vicinity that is consistent with that anticipated by the City General Plan.

A summary of cumulative impacts relating to each individual environmental category discussed in Section 2.0, Environmental Analysis, of the EIR is as follows.

6.2.1 Land Use and Planning

Although the ERTC proposes a Specific Planning Area (SPA) to accommodate changes in the proposed plan, upon reviewing the list of projects it appears that the projects located within the City of Escondido are not proposing land use changes from the existing General Plan. The majority of the projects are in-fill projects. When reviewing the City of San Marcos and County of San Diego documents, there are substantial large-scale projects making extensive

modifications to the existing land use elements. If the cumulative analysis was analyzed strictly in Escondido, the cumulative impacts to land use would not be considered significant. However, when reviewing the other jurisdictions, it appears that the land use impacts in the region are significant.

6.2.2 Transportation/Circulation

As discussed in detail in Section 2.2, there would be significant project and cumulative impacts. See that section for the methodology and assumptions of the analysis; however, a summary of the cumulative impacts are as follows:

The following is a list of significant cumulative impacts calculated at the signalized intersections, unsignalized intersections, street segments, and freeway segments, based on the established significance criteria. The impacts were analyzed on the following future scenarios:

- Existing + Cumulative Projects
- Existing + Cumulative Projects + Project

Cumulative

Signalized Intersections: Nordahl Road/ SR 78 EB Ramps
Nordahl Road/Mission Road
Del Dios Highway/Via Rancho Parkway
I-15 SB Ramps/Valley Parkway
I-15 NB Ramps/Valley Parkway

Unsignalized Intersections: Barham Drive/East Mission Road
Citracado Parkway/Country Club Drive
Howard Avenue/Auto Parkway South
Enterprise Street/Harmony Grove Road
Hale Avenue/Harmony Grove Road
Simpson Way/Hale Avenue

Street Segments: Nordahl Road (SR 78 to East Mission Road)
Vineyard Avenue (Country Club Drive to Citracado Parkway)
Vineyard Avenue (Citracado Parkway to Enterprise Street)

Vineyard Avenue (Enterprise Street to Andreasen Drive)
Auto Parkway (Hale Avenue to Valley Parkway)
West Ninth Avenue (Auto Parkway to I-15 SB Ramps)
Valley Parkway (11th Avenue to Citracado Parkway)
Valley Parkway (Citracado Parkway to Via Rancho Parkway)

Freeways: SR 78 east and west of Nordahl Road
I-15 north and south of West Ninth Avenue

Significant unmitigated cumulative impacts were identified for I-15 and the SR 78 freeway. Since impacts were identified in combination with cumulative projects, fair-share contributions are recommended, and implementation of mitigation measures from Section 2.2 would reduce impacts to below a level of significance.

6.2.3 Air Quality

Buildout of Year 2020 related projects within a similar time frame as the Proposed Project would increase short-term emissions for concurrent activities during any day of the project's construction period. Since the worst-case construction quarter for the Proposed Project was identified to be significant, any additional construction activities occurring during this time and in the vicinity of the Proposed Project site would be adding an additional air pollutant emission burden to these significant levels. Quantification of construction emissions from cumulative projects is speculative, given the uncertainty over the timing and phasing of construction activities for each of these projects and the extent to which such activity would coincide with the worst day and quarter of the Proposed Project's construction process. However, because the emission levels associated with the Proposed Project already are projected to have a significant impact, a significant and unavoidable cumulative impact with respect to construction emissions would occur.

Operational emissions associated with buildout of the Proposed Project would occur along with emissions from other development projects in the vicinity. All projects projected to be built and operational within the 2010 time frame would likely contribute Carbon Monoxide (CO), Reactive Organic Compounds (ROC), Particulate Matter (PM₁₀), and Nitrogen Oxides (NO_x). Cumulative air quality impacts would therefore be significant and unavoidable. San Diego Air Pollution Control District and SANDAG are responsible for reducing regionwide air quality

emissions. The project has mitigated its proportion of impacts for cumulative resources; however, it is infeasible for this project to fully mitigate the regionwide impacts to air quality.

6.2.4 Noise

Noise levels would incrementally increase throughout the above-mentioned project areas as each development is completed. On the basis of predicted future traffic volumes, noise levels at certain parts of the Escondido and surrounding communities site exceed the 65-dBA standard for residential areas, and would thus require mitigation measures in the form of noise walls or wall/berm combinations. After completion of these projects, noise levels in the majority of the project areas would likely correspond to average levels acceptable for residential uses, higher levels being found only near busy roads, where noise walls and/or setbacks could effectively mitigate noise impacts. Predicted future traffic related to further growth in the local area could eventually increase noise levels in excess of the city's standards at numerous locations. The project has mitigated its proportion of impacts for cumulative resources; however, it is infeasible for this project to fully mitigate the regionwide impacts to noise.

6.2.5 Hazards

There does not appear to be a cumulative trend of creating hazards, or through concentrating projects that could disproportionately result in cumulative impacts to hazards. There does not appear to be any trend in the projects that would generate and cumulatively concentrate hazardous materials (generally industrial uses) in regions that have not already been planned for this use. Therefore, there does not appear to be any significant cumulative hazards.

6.2.6 Biological Resources

Despite mitigation measures taken to preserve biological resources in each of the project areas, the cumulative impact of these developments on sensitive species and habitats is adverse and significant. The projects will significantly reduce the amount of certain sensitive habitats such as wetlands, Diegan coastal sage scrub, and nonnative grasslands; lead to significant impacts to numerous state and federally listed sensitive plants, impinge upon regionally significant wildlife corridors, and eliminate identified high-quality California gnatcatcher habitat.

Revegetation efforts, onsite and offsite habitat re-creation, onsite mitigation plans, and offsite habitat preservation programs can offset some of these impacts. At this time, the Multiple

Habitat Conservation Plan (MHCP) is in process. The goal and objective of the MHCP is to provide a regional planning process to reduce cumulative impacts. However, as indicated in the Draft EIR/EIS for the MHCP, there were some significant and unmitigated impacts to biological resources. The project has mitigated its proportion of impacts for cumulative resources; however, it is infeasible for this project to fully mitigate the regionwide impacts to biological resources.

6.2.7 Aesthetics

Grading and development of projects in the area will contribute to a cumulative alteration of the area's visual quality. These projects will cumulative result in a change from a rural open space vista to an urban scene. Grading will be substantial at all of the project sites, and landforms will be considerably altered. However, these impacts are not considered significant, because they are implementing the planned and orderly development of the North County region. Each project incorporates mitigation measures, including landscaping, buffering, and architectural treatments.

6.2.8 Water Quality

Each project is required to implement drainage control measures to ensure that the velocity and volume of water discharged during a storm event does not exceed the existing levels. Since these requirements are incorporated into any design plan, there would not be any significant impacts to water. Specifically for this region, the project will contribute water to downstream drainage facilities; however, these facilities were sized to accommodate the drainage from this project.

6.2.9 Public Utilities and Services

The ERTC, along with other planned development projects, would increase the demand for police and fire protection and emergency medical services in the area. The level of increased demand may result in the need for additional police and fire personnel and other public facilities.

The cumulative projects would result in an increased demand for water and increased generation of wastewater and solid waste. These increases would have significant long-term cumulative impacts on available water supply, and sewage treatment and landfill capacity. These impacts are partially mitigated, because each service and utility provider prepares a Master Plan to provide for the orderly growth and expansion of the facilities with the urban development.

6.2.10 Cultural Resources

Grading and development of projects in the area may permanently cover or potentially disturb cultural resources that may exist in the area, precluding further research or investigation. However, if appropriate mitigation measures are employed on a project-by-project basis, no significant impacts to cultural resources are anticipated.

6.2.11 Geology/Soils

Because the overall project site is not prone to geologic hazards (subsidence, settlement, landslides, etc.), no known active or potentially active earthquake faults were identified, and there are no geologic resources present on the project site or identified surrounding the site, no cumulative geologic hazard or geologic resource impacts are expected to occur within the project vicinity. Additionally, because the facilities within the City of Escondido will be designed to appropriate earthquake standards, damage associated with geologic hazards will be reduced.

Each of the jurisdictions has established codes regulating development to ensure that people are not subject to geologic hazards. Erosive soils are also regulated through conditions established on Grading Permits. With the incorporation of these measures into each of the projects, in accordance with existing codes, there would not be any significant cumulative impacts associated with geology/soils.

In summary, the proposed project, in combination with the other projects, will not cause or contribute to the loss of significant geologic resources or to geologic hazards.

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7.0 UNAVOIDABLE SIGNIFICANT ADVERSE ENVIRONMENTAL IMPACTS

The direct and cumulative environmental effects of the Proposed Project are discussed in detail in Section 2.0, and cumulative effects in Section 6.0, both of this EIR. In most cases, the potentially significant impacts identified in these analyses can be adequately mitigated to below a level of significance through the adoption of mitigation measures and the implementation of sound environmental planning practices.

- Significant impacts associated with inconsistency with the General Plan will be mitigated through adoption of the General Plan Amendment (GPA).
- Significant project and cumulative impacts to traffic and circulation: With the exception of the freeway interchange and the intersection of Nordahl Road/Mission Road impacts, all other impacts will be mitigated to below a level of significance.
- Significant short-term air quality impacts are associated with emissions resulting from construction activities.
- Short-term construction noise exceedence of standards would result in significant impacts.
- Significant and mitigable project-level impacts to biological resources would result. Significant cumulative impacts are unavoidable.
- Significant and mitigable impacts were identified for public services and utilities (fire protection and schools).

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ATTACHMENT A
ERRATA AND REVISION SHEETS

ACRONYMS

ACOE	Army Corps of Engineers
ADT	Average Daily Trip
ALS	Advanced Life Support
AMSL	Above Mean Sea Level
APCO	Air Pollution Control Officer
AQIA	Air Quality Impact Analysis
ARB	Air Resources Board
BMPs	Best Management Practices
CAAQS	California Ambient Air Quality Standards
CalARP	California Accidental Release Prevention Program
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CDFG	California Department of Fish and Game
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CIWMB	California Integrated Waste Management Board
CNDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CO	Carbon monoxide
CPUC	<u>California Public Utilities Commission</u>
CRHR	California Register of Historic Resources
CTG	Combustion Turbine Generator
dB	decibels
DEIR	Draft Environmental Impact Report
DHS	Department of Health Services
DOE	Department of Energy
DOT	Department of Transportation
du	Dwelling Unit
EIR	Environmental Impact Report
EMF	Electromagnetic Forces
EPA	Environmental Protection Agency
ERC	Emission Reduction Credits
ERRWP	Escondido Regional Recycled Water Project
ERTC	Escondido Research and Technology Center
ESA	Endangered Species Act
EUHSD	Escondido Union High School District
EUSD	Escondido Union School District
FAA	Federal Aviation Administration
FCC	Federal Communication Commission
FEMA	Federal Emergency Management Agency

industrial development occurring to the north and east. Land use in the project vicinity also includes urban, suburban, and rural residential development.

The SPA exhibits rolling to hilly terrain, with prominent hills located in the northern and southwestern portions of the property. The landscape is cut by a number of shallow gullies, with the most prominent drainage running from the west central portion of the SPA to the southwest. The site drains southward to Escondido Creek. The highest elevation on the property, located in the northwestern corner, is approximately 885 feet above mean sea level (AMSL); the lowest elevation, located in the southeastern corner of the site, is approximately 625 feet AMSL. A 200-foot-wide electrical transmission easement containing two 230-kV circuits and one 138-kV circuit on steel lattice tower structures, and five 69-kV circuits on wooden pole structures bisect the eastern and western portions of the SPA. There is a network of dirt roads and trails on the SPA, some of which are used to access the electrical transmission towers; others are the result of past and continuing recreational off-road vehicle uses.

Deleted: Major electrical transmission lines bisect the eastern and western portions of the SPA.

PROJECT DESCRIPTION

The proposed project is the implementation of the Escondido Research and Technology Center Specific Plan (Figure S-3). The Escondido Research and Technology Center Specific Plan will amend and supersede the existing Quail Hills Specific Plan, which was adopted by the City of Escondido in January 1988, by adoption of Resolution 88-126. The proposed land uses by planning area are presented in Table S-1.

The proposed project will further require modification to the City of Escondido General Plan Circulation Element, including the elimination of a segment of Enterprise Street which traverses the project site, and to the Land Use Element to accommodate residential land uses within designated "Planning Areas" within the Specific Plan area. The Specific Plan will establish permitted land uses for the remaining planning areas (Figure S-4). The proposed Specific Plan will include sections on Plan Conformance with State law and the City of Escondido General Plan, Comprehensive Policies addressing development within the Specific Plan area, Specific Development Standards and Regulations for individual Planning Areas, plan processing including implementation, and the adopted process for amendments to the Specific Plan.

There are a number of general plan provisions that have provided direction for the development of the ERTC Specific Plan. The primary direction has been derived from the Land Use Element, although other element provisions have also been integrated in the Specific Plan.

Planning Area 1

Planning Area 1 consists of approximately 14.1 net acres and is located in the northeast corner of the Specific Plan area. Two options are designated for Planning Area 1. Option A allows for light industrial-type uses, and Option B allows for an electrical power generating facility.

Under Option A, the maximum building height will be 60 feet. Access to this area will be through ingress and egress from Citracado Parkway. Parking shall be provided at a ratio of 2 spaces per 1,000 square feet of gross floor area. Permitted uses under Option A include light industrial uses intended to provide for a variety of industrial firms engaged in processing, assembling, manufacturing, warehousing, research and development, and distribution. Support services are also proposed to include an employee cafeteria, café, restaurant, or auditorium accessory. Accessory uses and structures such as food preparation, food service, and eating facilities are permitted. Restaurants are subject to the review and approval of a conditional use permit.

Sempra Energy Resources intends to develop the proposed Power Plant under the Option B use program. The project consists of a natural-gas-fired combined-cycle power plant with proposed reclaimed water supply and brine return pipelines. The project will have an electrical output of 550 megawatts, and commercial operation is planned for the Spring of 2004. As part of the electrical interconnection process of the power plant's new 230-kV switchyard, existing 230-kV and 138-kV transmission lines located within the existing 20-foot-wide right-of-way will be realigned to position the existing 230-kV line closer to the eastern edge of the right-of-way. SDG&E electric transmission line also located immediately adjacent to the project site. Reclaimed water for the project will be supplied from the City of Escondido's Hale Avenue Resource Recovery Facility (HARRF) via a new 1.1-mile, 16-inch supply pipeline extending from an existing reclaimed water main. Brine from the project will be returned to the HARRF via a new 1.1-mile, 8-inch return pipeline routed alongside the reclaimed water supply pipeline.

Deleted: The project includes a new 230-kilovolt switchyard connecting with an existing

Additionally, the project will be fueled with natural gas delivered via the SDG&E gas system. An existing 16-inch SDG&E natural gas pipeline located immediately adjacent to the northeast corner of the project site at the end of Enterprise Street. SDG&E proposes to construct an upgrade, consisting of approximately 2,600 feet of 16-inch pipeline, to be routed along Lincoln Avenue from its intersection with Rock Springs Road to its intersection with Metcalf Street, and then along Metcalf Street to its intersection with Mission Avenue.

Reclaimed water for uses within the ERTC planning area will be supplied from the City of Escondido's Hale Avenue Resource Recovery Facility (HARRF) via a new 1.1-mile, 16-inch supply pipeline extending from an existing reclaimed water main. Brine from ERTC users will ultimately be returned to the HARRF via a new 1.1-mile, 8-inch return line routed along the reclaimed water supply pipeline and connecting to an existing brine return line located in a bridge which spans Escondido Creek. Plans for operation of the HARRF are included in the City's Recycled Water Quality Enhancement Project, which addresses the return of brine to the HARRF from current and prospective industrial dischargers. The Water Quality Enhancement Project covers the City's entire brine collection system including the 900-foot portion of the system between the bridge and the HARRF, the necessary modifications to the HARRF, and any permits necessary to discharge brine into the ocean outfall line.

Brine will be monitored and metered at the Power Plant, then returned to the City's HARRF alongside the reclaimed water supply pipeline. The design of the brine return pipeline will be similar to the reclaimed water supply pipeline to a connection point with an existing City of Escondido brine return line.

As part of electrical interconnection of a power plant in Planning Area 1, the north/south portion of the existing 230-kV and 138-kV transmission lines located inside the existing 200-foot-wide right-of-way would be realigned in order to position the existing 230-kV and 138-kV steel lattice tower structures. The relocated 230-kV lines would be supported on five new tubular steel poles located 35 feet west of the eastern edge of the right-of-way, and the relocated 138-kV line would be supported on five new tubular steel poles located 65 feet west of the new 230-kV poles. Near the southeast corner of the ERTC site, one or two wood pole H-frame structures would be inter-set to cross the 138-kV line back to its original position within the existing right-of-way. One or two additional steel poles would be inter-set for loop-in of the easternmost 230-kV circuit into the power plant switchyard. Due to the proximity of the existing 230-kV lines to the proposed power plant site (Planning Area 1), there are no other feasible route alternatives for the 230-kV loop-in and interconnection to the proposed power plant in Planning Area 1.

The Power Plant is subject to issuance of a license by the California Energy Commission (CEC). That license is separate from and not included among the approvals required for the proposed project. The proponent of the power plant has submitted an application for certification to the CEC. The California Warren-Alquist Act establishes a State-level licensing process for power plants over 50 megawatts in capacity. The Act also designates the CEC as the lead CEQA agency for projects which require a license. Therefore, the CEC is conducting a detailed review

of the potential impacts of the Power Plant license in compliance with CEQA pursuant to the CEC's regulations.

Under Option B, the City and the developer will establish a Development Agreement for a 10-year term that will provide land use assurances, discuss conditions to be met prior to grading, and address utility pricing and availability.

Planning Area 2

Planning Area 2 is approximately 11.5 net acres, located in the eastern portion of the Specific Plan area. Minimum lot size will be 1 acre. Maximum building height will be 60 feet. Access to this area will be through ingress and egress from Citracado Parkway. Parking shall be provided at a minimum ratio of 2 spaces per 1,000 square feet of gross floor area.

Permitted uses for this site include light industrial uses intended to provide for a variety of industrial firms engaged in processing, assembling, manufacturing, warehousing, research and development, and distribution. Support services are also proposed to include a employee cafeteria, café, restaurant, or auditorium accessory. Accessory uses and structures such as food preparation, food service, and eating facilities are permitted. Restaurants or delicatessens are subject to the review and approval of the Planning Director.

Planning Area 3

Approximately 6.25 acres, Planning Area 3 is located in the north/central portion of the Specific Plan area. Minimum lot size will be 1 acre. Maximum building height will be 60 feet. Access to this area will be through two locations of private ingress and egress from Citracado Parkway.

Permitted uses within this area include administrative, business, and professional offices, limited to: (a) offices which are associated with any permitted planned industrial use, or (b) offices which do not attract and are not primarily dependent upon business customers visiting the office, such as medical and dental offices, employment agencies, real estate agencies, and travel agencies.

Other permitted uses are primarily research activities, including developmental laboratories, and compatible light manufacturing such as, but not limited to, the following:

equipment, and systems; (4) light manufacturing; (5) warehousing storage and distribution; (6) construction industries; (7) employee support services and accessory structures; and (8) open space conservation preserve for oak woodland habitat.

Planning Area 8

Approximately 6.37 net acres, Planning Area 8 is located in the southeast corner of the Specific Plan area. Minimum lot size will be 1 acre. Maximum building height will be 60 feet. Access will be through ingress and egress from Citracado Parkway. Depending on the type of development, parking spaces will be provided at a ratio of 2.4 to 3.3 spaces per 1,000 square feet of gross floor area.

Permitted uses within Planning Area 8 include (1) administrative, business, and professional offices; (2) research activities, including developmental laboratories and compatible light manufacturing; (3) manufacture, assembly, testing, and repair of components, devices, equipment, and systems; (4) light manufacturing; (5) warehousing storage and distribution; (6) construction industries; and (7) employee support services and accessory structures.

Residential Uses

Areas previously designated as Planning Areas 9 and 10 will be removed from the Specific Plan. These areas will be designated as Estate II (under the General Plan) and RE 20 (zoning).

There are a number of general plan provisions that have provided direction for the development of the ERTC Specific Plan. The primary direction has been derived from the Land Use Element, although other element provisions have also been integrated in the Specific Plan. Proposed development within the Specific Planning Area will be required to comply with the Land Use, Circulation, and Design Policies established in the ERTC Specific Plan and are subject to review and approval of the Planning Director.

Implementation of the proposed project will require the reconstruction of existing high-power transmission lines to be done onsite. This action will require review and approval by the California Public Utilities Commission (CPUC).

Deleted: additional review by the City to obtain a Conditional Use Permit, and will also be subject to

Deleted: Federal Communication Commission (FCC)

Radio Tower Relocation

The proposed radio tower which may be removed is located within Planning Area 3. The existing tower is about 100 feet tall, which is shorter than optimal for broadcasting purposes. It is triangular (horizontal cross-section) with 8- to 10-inch faces. The tower is painted in bright colors because, years ago, it was moved from another location where Federal Aviation Administration (FAA) rules required bright colors and lighting. The current bright color scheme and lighting are no longer required by the FAA.

If a new tower is to be constructed, it will have a height of approximately 130 to 140 feet (the tower height is unaffected by base elevation). The new tower could be either guyed or self-supporting. A guyed tower would be triangular (horizontal cross-section) with 8- to 10-inch faces, similar to the existing tower (except 30 to 40 feet taller). A self-supporting tower would be either a three-legged design or a monopole ("flagpole") design within the project site. It is uncertain whether technical considerations would allow use of the monopole design. For the three-legged design, the tower would be triangular (horizontal cross-section) with the upper two-thirds tapering to 8- to 10-inch faces at the top, and the bottom one-third spreading to form the three-legged base. The new tower will be colored to help it blend in (e.g., light grey or dull galvanized).

There are two proposed alternative locations for the radio antenna. Alternatively, the tower may remain in its current location.

Offsite Improvements

Due to the traffic generated by the project, impacts to Vineyard Avenue and Valley Parkway were identified. Specifically, Vineyard Avenue will be widened between Mission Road and Alpine Way. West Valley Parkway will be widened between 11th Street and Citracado Parkway. To mitigate these impacts, these street segments will ultimately be widened in accordance with the mitigation measures identified in the Traffic Analysis (Section 2.2). Although these final roadway improvements have not been designed at this time, impacts from their construction are assessed in this EIR.

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General Plan Amendment to the Circulation Element

The proposed project will require modification to the City of Escondido General Plan Circulation Element to eliminate Enterprise Street and Citracado Parkway. The project proposes to eliminate a segment of Enterprise Street, amend the existing designation of Citracado Parkway, and eliminate the interconnection of Citracado Parkway and Enterprise Street. Currently, under Policy D2.1 of the Circulation Element of the City's General Plan, "The City shall plan, design, and implement a street system that recognizes the importance of the use and function of each street classification." According to the Circulation Element, Enterprise would serve as a Local Collector, and Citracado Parkway was classified as a Major Road.

Citracado Parkway will connect with Andreasen Drive, diverting project traffic to the east. Future extension of Citracado Parkway to connect with Harmony Grove is being considered. Encroachment of SDG&E right-of-way and property to the south of the proposed project would need to be approved.

Additional improvements to Citracado Parkway have been proposed within the Specific Plan, including north/south connection through the site to connect to Vineyard Avenue, necessary offsite circulation improvements, and the addition of a sufficient bicycle lane width along Citracado Parkway to encourage an alternative mode of transportation. However, implementation of these improvements will require a Circulation Element Amendment to modify the existing Major Road designation to Collector.

The Quail Hills Specific Plan established that Citracado Parkway would be constructed as a Major Road per the City's General Plan and Design Standards. Furthermore, all other roads within the project were to be classified as Local Collector, serving industrial and private driveways. Streets were to be constructed in conformance with City design standards, providing primary access to lots and internal circulation for the tenants.

Upon approval of the proposed ERTC Specific Plan, tentative subdivision maps and site plans will be reviewed prior to initiation of development. At this time, the tentative subdivision map will be processed concurrently with the Specific Plan. The Planning Commission and City Council will review the tentative subdivision map for approval in accordance with the State Subdivision Map Act, the City of Escondido Subdivision Ordinance, and the approved Specific Plan. Following recordation of the Final Subdivision Map, any further parcel maps and

boundary adjustments will be subject to approval of the Planning Director, with appeal rights to the Planning Commission and City Council.

General Plan Amendment to the Specific Planning Area No. 8 Land Use Text

Implementation of the proposed project requires modification to the Specific Planning Area No. 8 Land Use text to achieve consistency with the proposed ERTC Specific Plan.

General Plan Amendment and Rezone for Residential Use

Residential uses are proposed for approximately 22 acres and will be rezoned RE with a minimum lot size of 20,000 square feet. This area will not be incorporated with the ERTC Specific Plan.

ENVIRONMENTAL ANALYSIS

Table S-2 is a summary of the impacts associated with the proposed project, recommended mitigation measures, and the level of significance of the impacts after mitigation.

ALTERNATIVES

A summary of the alternatives and significance of impacts is presented in Table S-3.

No Project/No Development Alternative

The No Project/No Development Alternative would leave the project site in its present condition, without project development or new construction. Implementation of the No Project/No Development Alternative is considered environmentally superior to the proposed project, since no new significant environmental impacts would result. Existing conditions for each environmental resource would remain, and environmental impacts would remain at existing levels. However, this alternative does not meet any of the goals and objectives of the proposed project, nor would any of the environmental benefits of the proposed project occur. Therefore, it is neither feasible nor practical to implement this alternative.

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**Table S-2
Summary of Project Impacts and Mitigation Measures**

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Impact	Mitigation	Significance After Mitigation
Land Use and Planning (see Section 2.1)		
<p>The proposed project would be inconsistent with the Land Use and Circulation Elements of the City of Escondido General Plan as well as the current adopted Quail Hills Specific Plan for the project area.</p>	<ul style="list-style-type: none"> The City Council will be required to adopt a General Plan Amendment and a Specific Plan Amendment. 	<p>Implementation of this mitigation measure would reduce impacts to land use inconsistencies to below a level of significance.</p>
Transportation/Circulation (see Section 2.2)		
<p>The proposed project would cause project-level traffic impacts to the following intersections, street segments, and access:</p> <ul style="list-style-type: none"> Valley Parkway/Auto Parkway West Ninth Avenue/Auto Parkway 	<ul style="list-style-type: none"> Restripe the third through lane to a shared through/right lane on the southbound approach on Valley Parkway to provide dual left-turn lanes, two through lanes, a shared through/right lane, and a right-turn lane in the southbound direction at the Valley Parkway/Auto Parkway intersection. Contribute a fair share towards the future City project for ultimate intersection improvements. Restripe eastbound West Ninth Avenue at Auto Parkway to a right-turn lane, a shared through/right lane, and a left-turn lane, and provide right-turn overlap phasing in the eastbound approach in the near term. Contribute a fair share towards the future City project for ultimate intersection improvements. 	<p>Implementation of these mitigation measures would reduce project-level traffic impacts to below a level of significance.</p>

Table S-2 (Continued)

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Deleted: <#>Enterprise Street/Vineyard Avenue ... [1]

Deleted: or connect Citracado Parkway between Harmony Grove Road and Avenida Del Diablo

Deleted: or connect Citracado Parkway between Harmony Grove Road and Avenida Del Diablo

Impact	Mitigation	Significance After Mitigation
<ul style="list-style-type: none"> Citracado Parkway/Vineyard Avenue 	<ul style="list-style-type: none"> Signalize the Citracado Parkway/Vineyard Avenue intersection and provide the following geometry: <ul style="list-style-type: none"> Northbound – Dual left-turn lanes and one right-turn lane Westbound – One left-turn lane and two through lanes Eastbound – Two through lanes and one right-turn lane 	
<ul style="list-style-type: none"> Enterprise Street/Andreasen Drive 	<ul style="list-style-type: none"> Signalize the Enterprise Street/Andreasen Drive intersection. 	
<ul style="list-style-type: none"> Citracado Parkway (West Mission Avenue to Myers Avenue) 	<ul style="list-style-type: none"> Contribute fair share to the City planned widening project on Citracado Parkway between Myers Avenue and the SR 78 Eastbound Ramps, which will mitigate the impacts on Citracado Parkway between East Mission Avenue and Myers Avenue. 	
<ul style="list-style-type: none"> Hale Avenue (Harmony Grove Road to West Ninth Avenue) 	<ul style="list-style-type: none"> Upgrade existing roadway to Local Collector standards. Upgrade unimproved sections of Hale Avenue immediately north of Harmony Grove Road and south of West Ninth Avenue. 	
<ul style="list-style-type: none"> West Ninth Avenue (Hale Avenue to Home Depot Driveway) 	<ul style="list-style-type: none"> Upgrade existing roadway to Local Collector standards or connect Citracado Parkway between Harmony Grove Road and Avenida Del Diablo. 	
<ul style="list-style-type: none"> Citracado Parkway (Vineyard Avenue to Andreasen Drive) 	<ul style="list-style-type: none"> Construct Citracado Parkway to Modified Collector standards. 	
<ul style="list-style-type: none"> Andreasen Drive (Citracado Parkway to Enterprise Street) 	<ul style="list-style-type: none"> Construct Andreasen Drive to <u>Modified</u> Collector standards. 	
<ul style="list-style-type: none"> Harmony Grove Road (Andreasen Avenue to Howard Road) 	<ul style="list-style-type: none"> Upgrade existing roadway to Local Collector standards. 	
<ul style="list-style-type: none"> Harmony Grove Road (Howard Road to Hale Avenue) 	<ul style="list-style-type: none"> Upgrade existing roadway to Local Collector standards. 	

Table S-2 (Continued)

Impact	Mitigation	Significance After Mitigation
<ul style="list-style-type: none"> Project access to Citracado Parkway 	<ul style="list-style-type: none"> Once the planning-area land uses are better defined, prepare an access plan for Citracado Parkway between Vineyard Avenue and Andraesen Drive that would recommend traffic signals, turn lanes, and other access-related improvements. 	
<p>The proposed project, in combination with the existing conditions and cumulative projects, would cause cumulative impacts to the following intersections, and street and freeway segments:</p> <ul style="list-style-type: none"> Nordahl Road/SR 78 EB Ramps Nordahl Road/Mission Road Del Dios Highway/Via Rancho Parkway I-15 NB and SB Ramps/Valley Parkway Barham Drive/East Mission Road Citracado Parkway/Country Club Drive Howard Avenue/Auto Parkway South 	<p>Contribute a fair share of funding toward the following planned intersection and road improvements:</p> <ul style="list-style-type: none"> Widening of Nordahl Road between SR 78 and East Mission Road to six lanes. In addition to the City planned improvements, other mitigation measures are required to meet City LOS standards. Widening of Nordahl Road between SR 78 and East Mission Road to six lanes. In addition to the City planned improvements, other mitigation measures are required to meet City LOS standards. Contribute fair share towards the provision of a dedicated right-turn lane in the northbound direction on Del Dios Highway at Via Rancho Parkway. <u>For future improvements at the Valley Parkway/Interstate 15 interchange, northbound and southbound ramps.</u> Signalization of Barham Drive/East Mission Road intersection. Signalization of Citracado Parkway/Country Club Drive intersection. Signalization of Howard Avenue/Auto Parkway South intersection. 	<p>Implementation of these mitigation measures would partially reduce cumulative traffic impacts; however, there is no feasible way to mitigate freeway impacts to below a level of significance. Therefore, the proposed project will have a significant and unmitigable cumulative traffic impact.</p>

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Deleted: <#>I-15 NB Ramps/Valley Parkway ... [2]
 Deleted: <#>Enterprise Street/Vineyard Avenue ... [3]

Table S-2 (Continued)

Impact	Mitigation	Significance After Mitigation
<ul style="list-style-type: none"> • Enterprise Street/Vineyard Avenue 	<ul style="list-style-type: none"> • <u>Signalization of Enterprise Street/Vineyard Avenue intersection.</u> 	
<ul style="list-style-type: none"> • Enterprise Street/Harmony Grove Road 	<ul style="list-style-type: none"> • Signalization of Enterprise Street/Harmony Grove Road intersection and provide the following intersection geometry: <ul style="list-style-type: none"> - Northbound – One left-turn lane and one right-turn lane - Eastbound – One shared through/right lane - Westbound – One left-turn lane and one through lane 	
<ul style="list-style-type: none"> • Hale Avenue/Harmony Grove Road 	<ul style="list-style-type: none"> • Signalization of Hale Avenue/Harmony Grove Road intersection. 	
<ul style="list-style-type: none"> • Simpson Way/Hale Avenue 	<ul style="list-style-type: none"> • Signalization of Simpson Way/Hale Avenue intersection. 	
<ul style="list-style-type: none"> • Nordahl Road (SR 78 to East Mission Road) 	<ul style="list-style-type: none"> • Widening of Nordahl Road between SR 78 westbound ramps and East Mission Road (including the bridge) to six lanes. 	
<ul style="list-style-type: none"> • Vineyard Avenue (Country Club Drive to Citracado Parkway) 	<ul style="list-style-type: none"> • Widening of Citracado Parkway between Country Club Drive and Vineyard Avenue to four lanes (Major Road standards). 	
<ul style="list-style-type: none"> • Vineyard Avenue (Citracado Parkway to Enterprise Street) 	<ul style="list-style-type: none"> • Widening of Vineyard Avenue between Citracado Parkway and Enterprise Street to four lanes (Major Road standards). 	
<ul style="list-style-type: none"> • Vineyard Avenue (Enterprise Street to Andreasen Drive) 	<ul style="list-style-type: none"> • Widening of Vineyard Avenue between Enterprise Street and Andreasen Drive to four lanes (Major Road standards). 	
<ul style="list-style-type: none"> • Auto Parkway (Hale Avenue to Valley Parkway) 	<ul style="list-style-type: none"> • Contribute fair share towards the provision of additional capacity along Auto Parkway to the satisfaction of the City Engineer. 	

Table S-2 (Continued)

Impact	Mitigation	Significance After Mitigation
<p>Air Quality (see Section 2.3)</p> <p>Significant short-term Reactive Organic Compounds (ROC), Nitrogen Oxide (NO_x), and Particulate Matter (PM₁₀) impacts related to project construction have been identified for the proposed project.</p>	<p>The following mitigation measures shall be placed as conditions on the Grading Permit.</p> <ul style="list-style-type: none"> • All active sites shall be watered at least twice daily. • All grading activities shall cease during second-stage smog alerts and periods of high winds (i.e., greater than 25 mph) if dust is being transported to offsite locations and cannot be controlled by watering. • All trucks hauling dirt, sand, soil, or other loose materials offsite shall be covered or wetted or shall maintain at least 2 feet of freeboard (i.e., minimum vertical distance between the top of the load and the top of the trailer). • Streets shall be swept hourly if visible soil material has been carried onto adjacent public paved roads. (Reclaimed water shall be used if available.) • Water or nontoxic soil stabilizers shall be applied, according to manufacturers' specifications, as needed to reduce offsite transport of fugitive dust from all unpaved staging areas and unpaved road surfaces. • Traffic speeds on all unpaved roads shall not exceed 15 mph. • The contractor shall use reduced-VOC-content paints and solvents to the maximum extent feasible. <u>Additionally, use of soot filters, low-sulfur diesel fuel, monitoring dust emissions, and installation of low-VOC architectural coverings will be required.</u> 	<p>Implementation of these mitigation measures will partially reduce short-term air quality impacts related to project construction; however, these short-term air quality impacts will not be reduced to below a level of significance. Therefore, the proposed project will have significant and unmitigable short-term air quality impacts related to project construction.</p>

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Table S-2 (Continued)

Impact	Mitigation	Significance After Mitigation
	<ul style="list-style-type: none"> • <u>Prior to issuance of grading permit, the applicant will be required to provide verification that construction activities will offset PM₁₀ emissions to the City's Planning Director.</u> 	
<p>Significant air quality impacts related to the operation of the power generation plant have been identified for the proposed project.</p>	<ul style="list-style-type: none"> • San Diego Air Pollution Control District (SDAPCD) Rule 20.3(d)(8) requires major new stationary sources of NO_x and Volatile Organic Compounds (VOC) to offset emissions of these pollutants. Since the NO_x emissions from the project are greater than 50 tons per year, offsets are required for NO_x emissions. <u>The Power Plant will be required to use soot filters, low-sulfur diesel fuel, monitor dust emissions, and install low-VOC architectural coverings to reduce pollutant emissions.</u> 	<p>Implementation of these mitigation measures will reduce air quality impacts related to operation of the power generation facility to below a level of significance. Therefore, the proposed project will not have significant air quality impacts related to project operation.</p>
<p>Significant air quality impacts were identified associated with the operational phase of the Specific Plan (CO, ROC, NO_x, and PM₁₀).</p>	<p>No mitigation measures are proposed.</p>	<p>Significant and unmitigable impacts would occur.</p>
<p>Noise (see Section 2.4)</p>		
<p>Significant short-term noise impacts related to project construction have been identified for the proposed project.</p>	<ul style="list-style-type: none"> • All construction equipment shall be in proper operating condition and fitted with standard factory noise attenuation features. All equipment shall be properly maintained to assure that no additional noise, due to worn or improperly maintained parts, would be generated. • Stockpiling and vehicle staging areas shall not be located within 200 feet of existing residences. 	<p>Implementation of these mitigation measures will partially reduce short-term noise impacts related to project construction; however, these short-term noise impacts will not be reduced to below a level of significance. Therefore, the proposed project will have significant and unmitigable short-term noise impacts related to project construction.</p>

Deleted: offset NO_x potential to emit (PTE) of 124 tons per year with NO_x emission reduction credits (ERCs) and/or with an interpollutant trade of VOC ERCs as allowed by SDAPCD Rule 20.3(d)(5)(vi). NO_x ERCs will be provided at the ratio of 1.2:1. Alternatively, VOC ERCs will be provided at an additional ratio of 2:1, or a total ratio of 2.4 tons of VOC ERC for each ton of NO_x emissions.

Table S-2 (Continued)

Impact	Mitigation	Significance After Mitigation
The proposed project will impact 102.8 acres of annual grasslands. This represents a significant impact.	<ul style="list-style-type: none"> Impacts to annual grasslands shall be mitigated at a 0.5:1 ratio, for a total of 62.4 acres. 	Implementation of this mitigation measure will reduce annual grassland impacts to below a level of significance.
The proposed project will impact 1.2 acres of coast live oak woodland. This represents a significant impact.	<ul style="list-style-type: none"> Impacts to coast live oak woodland shall be mitigated at a 3:1 ratio. 	Implementation of this mitigation measure will reduce coast live oak impacts to below a level of significance.
The proposed project will impact 0.9 acre of mixed willow/mulefat. This represents a significant impact. Note: Section 1603 Agreement (CDFG), Section 404 (USACOE), and Section 401 (RWQCB) permits will be required.	<ul style="list-style-type: none"> Impacts to mixed willow/mulefat shall be mitigated at a 3:1 ratio. 	Implementation of this mitigation measure will reduce mixed willow/mulefat impacts to below a level of significance.
The proposed project will impact a small population of Western spadefoot toads. This represents a significant impact.	<ul style="list-style-type: none"> Western spadefoot toad impacts and seasonal basin areas would be mitigated through creation, or restoration, of an equivalent acreage of habitat that supports seasonal ponds in preserve lands within the Multiple Habitat Planning Area (MHPA) FPAs. This mitigation plan shall be submitted to the Planning Director for approval prior to issuance of any grading permit. 	Implementation of this mitigation measure will reduce impacts to Western spadefoot toad to below a level of significance.
Construction activities related to the proposed project could impact breeding California gnatcatchers. This represents a significant impact.	<ul style="list-style-type: none"> Construction activities would be initiated during the nonbreeding season for California gnatcatchers (Aug. 30 through Feb. 14). Work that would be completed during this period includes site boundary demarcation with construction fencing along the edge of retained sage scrub, and all clearing and grubbing. 	Implementation of these mitigation measures will reduce potential impacts to breeding gnatcatchers to below a level of significance.

Table S-2 (Continued)

Impact	Mitigation	Significance After Mitigation
	<p><u>A qualified biologist will conduct a preconstruction survey of the project site and surrounding habitat to determine whether there are active raptor nests within that area. If an active nest is observed, a buffer will be established between the construction activities and the nest so that nesting activities are not interrupted. The buffer will be a minimum width of 500 feet and will be in effect as long as construction is occurring and until the nest is no longer active.</u></p> <p><u>Prior to construction activities, a qualified biologist will survey the preserved habitat areas adjacent to the project site to determine if any gnatcatcher nests are within a distance potentially affected by noise from these activities. If no nesting gnatcatchers are located, no additional measures will need to be taken to mitigate indirect impacts. However, if nesting gnatcatchers are observed, no activity will occur within 300 feet of active nesting territories unless measures are implemented to minimize the noise and disturbance to those adjacent birds. If nesting birds are located adjacent to the project site with the potential to be affected by noise above 60 dBA Leq, a noise barrier will be erected. This noise barrier should consist of a 20-foot-high continuous plywood fence supported by posts or an earthen berm located at the site boundary that abuts potential offsite habitat.</u></p> <p><u>This mitigation shall be placed as a condition on the Tentative Map and Grading Permit.</u></p>	

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Table S-2 (Continued)

Impact	Mitigation	Significance After Mitigation
	<ul style="list-style-type: none"> Night construction activities shall be initiated prior to the onset of the gnatcatcher breeding season (prior to Feb. 15). Or, prior to conducting any night construction activities, a qualified biologist shall determine that no gnatcatcher breeding is occurring within 300 feet of areas that would be lighted. In the event that gnatcatchers are found in proximity to areas to be lighted, a verification of adequate light shielding would be made by a qualified biologist prior to commencing night work. This mitigation shall be placed as a condition on the Tentative Map and Grading Permit. 	
<p>Significant indirect impacts to biological resources from project lighting have been identified for the proposed project.</p>	<ul style="list-style-type: none"> Facility lighting shall be shielded such that no direct lighting falls within the adjacent natural habitat. This mitigation shall be placed as a condition on the Specific Plan and Conditional Use Permit. 	<p>Implementation of this mitigation measure will reduce indirect lighting impacts from the proposed project to below a level of significance.</p>
<p><u>The proposed project will impact 0.22 acre of jurisdictional wetland habitat. This represents a significant impact.</u></p>	<p><u>Jurisdictional wetland habitat impacts shall be mitigated as follows:</u></p> <ul style="list-style-type: none"> <u>Approximately 0.17 acre of existing wetlands will be preserved within Planning Area 7, and an additional 0.50 acre of wetland will be created in Planning Area 7, which totals 0.67 acre of wetland mitigation.</u> 	<p><u>Implementation of this mitigation measure will reduce jurisdictional wetland impacts to below a level of significance.</u></p>

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Table S-2 (Continued)

Impact	Mitigation	Significance After Mitigation
	<ul style="list-style-type: none"> • <u>This wetland creation is to be located in a gently sloping, shallow valley, incised only intermittently along the drainage bottom, within Planning Area 7. The creation site is only slightly higher in elevation than the existing adjacent wetland habitat and drainage channel, and presently supports California annual grassland series vegetation, a disturbed upland community suitable for wetland creation. The alluvial soils and proximity to groundwater in the area are favorable to the creation of an expanded wetlands corridor.</u> • <u>The expanded wetlands corridor in Planning Area 7 will be buffered from the urban business park uses by a manufactured perimeter slope a minimum of 100 horizontal feet in depth, and 50 vertical feet in height. This slope adjacent to the wetland restoration area will be planted with a species palette that contains no invasive species (CalEPPC, 1999). This will provide an adequate environmental buffer between the edge effects of the business park, and the existing and created (expanded) wetlands.</u> 	
<p><u>Impacts associated with short-term construction activities could affect sensitive biological resources identified onsite. This represents a significant impact.</u></p>	<ul style="list-style-type: none"> • <u>A construction monitor will be present during construction activities to ensure that conservation measures are performed in compliance with any concurrent or subsequent mitigation plans. The biological monitor will instruct construction management to halt all associated project activities, which may be in violation of the conditions of any permits in effect. Any unauthorized impacts or actions, not in compliance with the required mitigation will be immediately brought to the attention of the City and Wildlife Agencies.</u> 	<p><u>Implementation of this mitigation measure would reduce impacts to biological resources to below a level of significance.</u></p>

Table S-2 (Continued)

Impact	Mitigation	Significance After Mitigation
Cultural Resources (see Section 2.10)		
<p>Five small late prehistoric period sites, and one isolate, were found at the project site. Additionally, a slight possibility exists that cultural resources could exist at the offsite improvement areas, but were undiscovered due to vegetative cover.</p>	<p>In the event that buried cultural materials or deposits are found during construction or related activities, the following will be implemented, as appropriate:</p> <ul style="list-style-type: none"> • Work in the vicinity shall stop immediately until an assessment of the findings can be made by a qualified archaeologist. In the event that human remains are discovered, work in the vicinity must stop, and the San Diego County Coroner shall be notified immediately. • Questionable materials inadvertently discovered – including suspected or not readily identified cultural resources – must be considered significant until a qualified archaeologist can provide an accurate assessment. If potentially significant cultural resources are detected and cannot be avoided by construction, then impacts must be mitigated through data recovery or other means, in consultation with pertinent agencies and concerned parties. • Findings will be prepared discussing the significance of any materials recovered from the project site. The City will determine, in coordination with responsible agencies, the appropriate repository where the collected materials will be archived. 	<p>Implementation of this mitigation measure will reduce impacts to cultural resources to below a level of significance.</p>
Geology and Soils (see Section 2.11)		
<p>No significant geology and soils impacts were identified for the proposed project.</p>	<p>No mitigation measures are required, other than adherence to existing codes and regulations.</p>	<p>No significant geology and soils impacts were identified for the proposed project.</p>

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**Table S-3
Comparison of Alternatives and Significance of Impacts**

Project Area/Issues	Proposed Project <i>Specific Plan (186-acre business park, with option of building a power plant) and 22 acres of residential rezone</i>	No Project/ No Development <i>Retain current conditions</i>	No Project/ Existing Entitlement (Adopted Quail Hills Specific Plan) <i>172 acres of general industrial, 14-acre activity center, 6-acre business commercial, and 6-acre office</i>	Specific Plan with No Power Generating Plant <i>Specific Plan (186-acre business park, without option of building a power plant) and 22 acres of residential rezone</i>	Reduced Project Scale (Environmentally Superior) <i>55 acres of business park and 35 acres of residential rezone</i>
Land Use and Planning	SM	NS	SU	SM	SM
	CS	CNS	CS	CS	CS
Transportation/ Circulation	SU	NS	SU	SU	SU
	CS	CNS	CS	CS	CNS
Air Quality	SU	NS	SU	SU	SU
	CS	CNS	CS	CS	CS
Noise	SU	NS	SU	SU	SM
	CNS	CNS	CNS	CNS	CNS
Hazards	NS	NS	NS	NS	NS
	CNS	CNS	CNS	CNS	CNS
Biological Resources	SM	NS	SM	SM	SM
	CS	CNS	CS	CS	CNS
Aesthetics	NS	NS	NS	NS	NS
	CNS	CNS	CNS	CNS	CNS
Water Quality	NS	NS	NS	NS	NS
	CNS	CNS	CNS	CNS	CNS

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facilities, to avoid the construction of new transmission lines. Each alternative was evaluated in relation to the proposed project objectives. Of the sites analyzed, the Escondido, San Marcos, and Sycamore Canyon sites were found substantially superior to the remaining six, because each site met particular project objectives. However, each alternative site had approximately the same degree of impact to the surrounding land uses. The Escondido site was the only site found to be feasible within an industrial use area, such as the ERTC.

Although the preferred site in Escondido is adjacent to an existing high-voltage SDG&E transmission line right-of-way and no new transmission lines need to be constructed, this site will require realignment within this right-of-way of existing 230-kV and 138-kV lines to accommodate the power plant.

ENVIRONMENTAL EFFECTS FOUND NOT TO BE SIGNIFICANT

Impacts to paleontology, recreation, population and housing, hazards, aesthetics, water quality, police protection, public facilities maintenance, water service, wastewater/sewer, and solid waste were determined to be less than significant.

GROWTH-INDUCING EFFECTS

Because the project would reduce an impediment to growth (energy) to support existing and future demand, it was determined that the project was not considered growth inducing.

UNAVOIDABLE SIGNIFICANT ADVERSE ENVIRONMENTAL IMPACTS

At the project level, significant and unmitigated impacts were identified for transportation/circulation and air quality. There are significant and mitigable impacts to land use and planning, biological resources, fire and schools. Cumulative impacts were identified for land use, transportation, air quality, and biological resources.

1.0 PROJECT DESCRIPTION, LOCATION, AND ENVIRONMENTAL SETTING

1.1 PROJECT LOCATION

The Escondido Research and Technology Center Specific Plan area is located in the western portion of the City of Escondido (Figures 1.1-1 and 1.1-2). Elevations on the site range from approximately 630 feet to 880 feet above mean sea level. Generally the property slopes downward toward the southwest, from a high point in the midnorthern section of the plan area.

Regional access to the project site is from State Route 78 (SR-78) and Interstate 15 (I-15). Local access is via the Nordahl Drive exit off SR-78, via future Citracado Parkway, and the Ninth Avenue and Valley Parkway exits off I-15 to Vineyard Avenue from the southeast. Future Citracado Parkway is proposed as a "Major Road", and it will bisect the Specific Plan area traveling from north to south. Other streets in the area include Enterprise Street and Andreasen Drive, which serve the existing industrial park to the east, and Harmony Grove Road, which provides access from the south.

1.2 PROJECT SETTING

The property is essentially vacant, with the exception of eight existing single-family dwellings in the southwest portion of the site. Significant portions of the plan area have been disturbed by former agricultural activities, off-road vehicles, and grading. A 200-foot-wide electrical transmission easement containing two 230-kV circuits and one 138-kV circuit on steel lattice towers and five 69-kV circuits on wooden pole structures runs north/south through the center of the site. This easement turns westerly at the southerly boundary. Numerous other utility easements traverse the site.

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Drainage onsite flows toward the lower elevations in the southern and western portions of the site. An ephemeral drainage, in which wetland vegetation exists, flows over some lower elevations in the southwest portion of the site.

Vegetation over the site is predominantly disturbed habitat, nonnative grassland, and disturbed coastal sage scrub communities. There exists a riparian woodland habitat along the southwestern portion of the site.

<u>Planning Area 8</u>			
Building A	8,400 SF (1 Floor)		8,400 SF
Building B	15,400 SF (1 Floor)		15,400 SF
Building C	23,400 SF (1 Floor)	+ 2,000 SF (Mezzo)	25,400 SF
Building D	23,400 SF (1 Floor)	+ 2,000 SF (Mezzo)	25,400 SF
Building E	15,100 SF (1 Floor)		<u>15,100 SF</u>
Total Building Area			89,700 SF

Notes:

- * The Specific Plan indicates buildings may cover any area not required by the Specific Plan for setbacks, landscaping, or parking.

Under Option A, the maximum building height will be 60 feet. Access to this area will be through ingress and egress from Citracado Parkway. Parking shall be provided at a ratio of 2 spaces per 1,000 square feet of gross floor area. Permitted uses under Option A include light industrial uses intended to provide for a variety of industrial firms engaged in processing, assembling, manufacturing, warehousing, research and development, and distribution. Support services are also proposed to include an employee cafeteria, café, restaurant, or auditorium accessory. Accessory uses and structures such as food preparation, food service, and eating facilities are permitted. Restaurants are subject to the review and approval of a conditional use permit.

Sempra Energy Resources intends to develop the proposed Power Plant under the Option B use program (Figure 1.3-2). The project consists of a natural-gas-fired combined-cycle power plant with proposed reclaimed water supply and brine return pipelines. The project will have a nominal electrical output of 550 megawatts, and commercial operation is planned for the Spring of 2004. The project will be fueled with natural gas delivered via the San Diego Gas and Electric Company (SDG&E) gas system, and an existing SDG&E natural gas pipeline located immediately adjacent to the project site. The power plant project includes a new 230-kV switchyard connecting with an existing SDG&E 230-kV electric transmission line also located adjacent to the project site. The existing 230-kV transmission lines would swap positions with an existing 138-kV transmission line within an existing right-of-way in order to facilitate a direct interconnection into the new power plant switchyard. Replacement of existing 230-kV and 138-kV steel lattice towers with steep poles would allow for the relocation of these transmission lines within the existing right-of-way. Reclaimed water for the project will be supplied from the City of Escondido's Hale Avenue Resource Recovery Facility (HARRF) via a new 1.1-mile, 16-inch supply pipeline extending from an existing reclaimed water main. Brine from the project will be returned to the HARRF via a new 1.1-mile, 8-inch return pipeline routed alongside the reclaimed water supply pipeline.

Deleted: The project includes a new 230-kilovolt switchyard connecting with an existing SDG&E electric transmission line also located immediately adjacent to the project site.

Additionally, the project will be fueled with natural gas delivered via the SDG&E gas system. An existing 16-inch SDG&E natural gas pipeline is located immediately adjacent to the northeast corner of the project site at the end of Enterprise Street. SDG&E proposes to construct an upgrade, consisting of approximately 2,600 feet of 16-inch pipeline, to be routed along Lincoln Avenue from its intersection with Rock Springs Road to its intersection with Metcalf Street, and then along Metcalf Street to its intersection with Mission Avenue.

Reclaimed water for users within the ERTC will be supplied from the City of Escondido's Hale Avenue Resource Recovery Facility (HARRF) via a new 1.1-mile, 16-inch supply pipeline extending from an existing reclaimed water main. Brine from ERTC users will ultimately be returned to the HARRF via a new 1.1-mile, 8-inch return line routed along the reclaimed water supply pipeline and connecting to an existing brine return line located in a bridge which spans Escondido Creek. Plans for operation of the HARRF include the City's Brine Master Plan, which addresses the return of brine to the HARRF from current and prospective industrial dischargers. The City's Brine Master Plan covers the City's entire brine collection system including the 900-foot portion of the system between the bridge and the HARRF, the necessary modifications to the HARRF, and any permits necessary to discharge brine into the ocean outfall line.

As part of electrical interconnection of a power plant in Planning Area 1, the north/south portion of the existing 230-kV and 138-kV transmission lines located inside the existing 200-foot-wide right-of-way would be realigned in order to position the existing 230-kV and 138-kV steel lattice tower structures, the relocated 230-kV lines would be supported on five new tubular steel poles located 35 feet west of the eastern edge of the right-of-way, and the relocated 138-kV line would be supported on five new tubular steel poles located 65 feet west of the new 230-kV poles. Near the southeast corner of the ERTC site, one or two wood pole H-frame structures would be inter-set to cross the 138-kV line back to its original position within the existing right-of-way. One or two additional steel poles would be inter-set for loop-in of the easternmost 230-kV circuit into the power plant switchyard. Due to the proximity of the existing 230-kV lines to the proposed power plant site (Planning Area 1), there are no other feasible route alternatives for the 230-kV loop-in and interconnection to the proposed power plant in Planning Area 1. Please see Figure 1.3-2A.

Under Option B, the City and the developer will establish a Development Agreement for a 10-year term that will provide land use assurances, discuss conditions to be met prior to grading, and address utility pricing and availability.

Figure 1.3-2A. Proposed Transmission Line Realignment (8½ x 11 b/w)

Planning Area 8

Approximately 6.37 net acres, Planning Area 8 is located in the southeast corner of the Specific Plan area. Minimum lot size will be 1 acre. Maximum building height will be 60 feet. Access will be through ingress and egress from Citracado Parkway. Depending on the type of development, parking spaces will be provided at a ratio of 2.4 to 3.3 spaces per 1,000 square feet of gross floor area.

Permitted uses within Planning Area 8 include (1) administrative, business, and professional offices; (2) research activities, including developmental laboratories and compatible light manufacturing; (3) manufacture, assembly, testing, and repair of components, devices, equipment, and systems; (4) light manufacturing; (5) warehousing storage and distribution; (6) construction industries; and (7) employee support services and accessory structures.

Residential Uses

Areas previously designated as Planning Areas 9 and 10 will be removed from the Specific Plan. These areas will be designated as Estate 2 (under the General Plan) and RE 20 (zoning).

There are a number of general plan provisions that have provided direction for the development of the ERTC Specific Plan. The primary direction has been derived from the Land Use Element, although other element provisions have also been integrated in the Specific Plan. Proposed development within the Specific Planning Area will be required to comply with the Land Use, Circulation, and Design Policies established in the ERTC Specific Plan and are subject to review and approval of the Planning Director.

Implementation of the proposed project will require the reconstruction of existing high-power transmission lines to be done onsite. This action will require review and approval by the California Public Utilities Commission (CPUC).

~~Deleted: additional review by the City to obtain a Conditional Use Permit, and will also be subject to~~

~~Deleted: Federal Communication Commission (FCC)~~

Radio Tower Relocation

The proposed radio tower which may be removed is located within Planning Area 3. The existing tower is about 100 feet tall, which is shorter than optimal for broadcasting purposes. It is triangular (horizontal cross-section) with 8- to 10-inch faces. The tower is painted in bright colors because, years ago, it was moved from another location where Federal Aviation

General Plan Amendment to the Circulation Element

The proposed project will require modification to the City of Escondido General Plan Circulation Element to eliminate Enterprise Street and Citracado Parkway. Currently, under Policy D2.1 of the Circulation Element of the City's General Plan, "The City shall plan, design, and implement a street system that recognizes the importance of the use and function of each street classification." According to the Circulation Element, Enterprise would serve as a Local Collector, and Citracado Parkway was classified as a Major Road.

Citracado Parkway will connect with Andreasen Drive, diverting project traffic to the east. Future extension of Citracado Parkway to connect with Harmony Grove is being considered. Encroachment of SDG&E right-of-way and property south of the proposed project would need to be approved.

Additional improvements to Citracado Parkway have been proposed within the Specific Plan, including north/south connection through the site to connect to Vineyard Avenue, necessary offsite circulation improvements, and the addition of a sufficient bicycle lane width along Citracado Parkway to encourage an alternative mode of transportation. However, implementation of these improvements will require a Circulation Element Amendment to modify the existing Major Road designation to Collector.

The Quail Hills Specific Plan established that Citracado Parkway would be constructed as a Major Road per the City's General Plan and Design Standards. Furthermore, all other roads within the project were to be classified as Local Collector, serving industrial and private driveways. Streets were to be constructed in conformance with City design standards, providing primary access to lots and internal circulation for the tenants.

Upon approval of the proposed ERTC Specific Plan, tentative subdivision maps and site plans will be reviewed prior to initiation of development. At this time, the tentative subdivision map will be processed concurrently with the Specific Plan. The Planning Commission and City Council will review the tentative subdivision map for approval in accordance with the State Subdivision Map Act, the City of Escondido Subdivision Ordinance, and the approved Specific Plan. Following recordation of the Final Subdivision Map, any further parcel maps and boundary adjustments will be subject to approval of the Planning Director, with appeal rights to the Planning Commission and City Council.

General Plan Amendment to the Specific Planning Area No. 8 Land Use Text

Implementation of the proposed project requires modification to the Specific Planning Area No. 8 Land Use text to achieve consistency with the proposed ERTC Specific Plan.

General Plan Amendment and Rezone for Residential Use

Residential uses are proposed for approximately 22 acres. This area will be rezoned RE with a minimum lot size of 20,000 square feet.

Offsite Improvements

Due to the traffic generated by the project, impacts to Vineyard Avenue and Valley Parkway were identified. Specifically, Vineyard Avenue will be widened between Mission Road and Alpine Way. West Valley Parkway will be widened between 11th Street and Citracado Parkway. To mitigate these impacts, these street segments will ultimately be widened in accordance with the mitigation measures identified in the Traffic Analysis (Section 2.2). Although these final roadway improvements have not been designed at this time, impacts from their construction are assessed in this EIR.

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1.3.2 Project Objectives

The following objectives establish the direction for implementing the Escondido Research and Technology Center Specific Plan and additional criteria for the Power Plant:

Specific Plan

- Concentration of a variety of office, research and development, industrial (multi-tenant, corporate, and distribution) uses which serve the community.
- Enhanced economic benefits to the community, by providing increased employment opportunities and tax base.
- Creation of an industrial business park through the concentration of business uses which will be comprehensively planned to ensure community compatibility, adequacy of access, parking, landscaping, and other features which are characteristic of a quality development.

- The integrity of the Specific Plan document will ensure consistent, well-planned development within the plan requirements.
- Initiation of physical development on the site will be undertaken in a manner which ensures adequate public infrastructure to support uses as they transition into public use.
- Relocation/reconfiguration of existing transmission line facilities in a manner that supports the integrity of the development improvements proposed by the Specific Plan.

Power Plant

- Provide energy to meet the existing demand for the Southern California region.
- Add an efficient, reliable, dispatchable, and environmentally sound power generating facility of substantial size to the SDG&E load pocket.
- Interconnect the facility at a location within the SDG&E load pocket that results in a megawatt-for-megawatt addition to the load-serving capability of the SDG&E transmission grid (i.e., avoid the displacement of existing SDG&E import capability, avoid the displacement of existing generating capacity, and avoid intrazonal congestion). Generally, this objective translates to locating the facility near electrical load.
- Avoid the construction of new transmission lines (i.e., locate the facility adjacent to existing transmission lines and/or substation facilities that will accommodate interconnection of the project).
- Locate the facility in a portion of the SDG&E gas system that minimizes the need for system upgrades.

existing radio tower on the project site. Therefore, the project will be reviewed and approved by the FCC.

Deleted: television antenna and high-power transmission lines to be located

California Public Utilities Commission (CPUC)

The CPUC regulates privately owned telecommunications, electric, natural gas, water, railroad, rail transit, and passenger transportation companies. The CPUC was formed in 1911. Implementation of Option B, which would develop a power plant in Planning Area 1, would require the replacement and relocation of high-power transmission lines. All transmission facility work will be required to follow the applicable orders, decisions, and regulations set forth by the CPUC.

Regional Water Quality Control Board (RWQCB)

The San Diego RWQCB is one of nine regional boards under the California "State Water Resources Control Board" (SWRCB). Under the direction of the SWRCB, the RWQCB exercises authority under the Federal Clean Water Act and correlative state statutes to regulate the discharge of "waste" into waters of the United States within its San Diego region of influence. Regulation in part is through a Section 401 Water Quality Certification. Section 401 Certification is based on a finding that the Proposed Project Section 404 discharge will comply with all pertinent water quality standards as established by the RWQCB. As part of Section 401 Certification, conditions may be required by the RWQCB to mitigate potential impacts to water quality standards.

Additionally, the RWQCB will review and approve the Storm Water Pollution Prevention Plan (SWPPP) which will be implemented for project construction and operational activities. The SWPPP will be prepared in accordance with Water Quality Order 99-08DWQ, State Water Resources Control Board National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction Activity.

California Department of Fish and Game (CDFG)

The CDFG has the authority to reach an agreement with an agency or private party proposing to affect intermittent or permanent wetlands habitat, pursuant to Section 1603 of the State Fish and Game Code. In the event that the project affects any jurisdictional "streambed", CDFG has a "no net loss of wetland habitats" policy that will be addressed in future permitting. Where a State-listed threatened or endangered species occurs on a project site, the CDFG would be responsible for the issuance of a Memorandum of Understanding (MOU, Section 2081) to ensure the

The City plans to widen Nordahl Road/Citracado Parkway between Country Club Drive and the SR 78 Eastbound Ramps from the current four lanes to six lanes. In the northbound direction, the third lane will end in a northbound right-turn lane at the Nordahl Road/SR 78 Eastbound Ramps. In the southbound direction, the third lane will end in a southbound right-turn lane at the Citracado Parkway/County Club Drive intersection.

- **Citracado Parkway** is classified as a four-lane Major Road from East Mission Road to Country Club Drive and south from Vineyard Avenue to Interstate 15 (I-15). Currently, it is a four-lane road from East Mission Road to Country Club Drive. As explained above, the City plans to widen this segment to a six-lane section. Curb, gutter, and sidewalk are provided. The posted speed limit is 40 miles per hour (mph). The sections of Citracado Parkway from Vineyard Road to Avenida Del Diablo and from Scenic Trail to Gamble Lane are not built.

Deleted: Collector

The project plans to construct Citracado Parkway between Vineyard Avenue and Harmony Grove Road, providing an access point to the south of the project site.

- **East Mission Road/West Mission Avenue** is classified as a six-lane Major Road from Nordahl Road/Citracado Parkway to Andreasen Drive and a four-lane Major Road east of Andreasen Drive. Currently, it is a four-lane road with a two-way left-turn lane, in the study area. Curb, gutter, and sidewalk are provided. Bike lanes are also provided and parking is not provided. The posted speed limit in the study area is 45 mph.
- **Vineyard Avenue** is classified as a four-lane Collector. Currently, it is a two-lane road with a center two-way left-turn lane and parking along both curbs. The posted speed limit on Vineyard Avenue is 40 mph.
- **Auto Parkway North/South** are classified as Collectors. This is a two-lane one-way pair of streets with curb, gutter, and sidewalk. The posted speed limit in the study area is 35 mph.
- **West Ninth Avenue** is classified as a four-lane Collector. Currently, it is a two-lane road west of Valley Parkway.

**Table 2.2-7
Signalized Intersections**

Intersection	Peak Hour	Existing		Existing + Cumulative Projects		Existing + Cumulative Projects + Project		Increase in Delay
		Delay	LOS	Delay	LOS	Delay	LOS	
Nordahl Road/WB Ramps	AM	31.8	C	32.5	C	34.8	C	2.3
	PM	33.8	C	34.9	C	43.6	D	8.7
Nordahl Road/EB Ramps	AM	29.6	C	40.9	D	45.4	D	4.5
	PM	57.4	E	69.6	E	>100.0	F	>10.0
Nordahl Road/Mission Road	AM	46.0	D	59.5	E	>100.0	F	>10.0
	PM	67.8	E	85.1	F	>100.0	F	>10.0
Enterprise Street/Mission Road	AM	17.7	B	17.7	B	19.1	B	1.4
	PM	19.3	B	19.3	B	20.8	B	1.5
Andreasen Drive/Mission Road	AM	32.4	C	32.8	C	33.9	C	1.1
	PM	33.2	C	33.6	C	34.2	C	0.6
Andreasen Drive/Vineyard Avenue	AM	35.6	D	39.7	D	44.0	D	4.3
	PM	36.4	D	41.1	D	42.7	D	1.6
Hale Avenue/Auto Parkway	AM	26.5	C	26.8	C	27.2	C	0.4
	PM	35.9	D	36.6	D	40.1	C	3.5
Valley Parkway/Citracado Parkway	AM	27.7	C	29.0	C	36.6	D	7.6
	PM	25.0	C	27.2	C	29.2	C	2.0
Valley Parkway/West 11 th Avenue	AM	17.8	B	18.3	B	19.6	B	1.3
	PM	18.1	B	18.6	B	19.2	B	0.6
Valley Parkway/West Ninth Avenue	AM	37.1	D	40.9	D	41.3	D	0.4
	PM	37.2	D	38.4	D	43.7	D	5.3
Valley Parkway/Auto Parkway	AM	37.2	D	42.0	D	58.9	E	16.9
	PM	40.7	D	43.0	D	48.3	D	5.3
I-15 SB Ramps/Valley Parkway	AM	44.2	D	46.4	D	48.3	D	1.9
	PM	79.7	F	>100.0	F	>100.0	F	>10.0

Table 2.2-7 (Continued)

Intersection	Peak Hour	Existing		Existing + Cumulative Projects		Existing + Cumulative Projects + Project		Increase in Delay
		Delay	LOS	Delay	LOS	Delay	LOS	
I-15 NB Ramps/Valley Parkway	AM	32.9	C	36.0	C	38.7	C	2.7
	PM	51.3	D	73.0	E	84.7	F	11.7
West Ninth Avenue/Auto Parkway	AM	35.5	D	35.9	D	38.7	D	2.8
	PM	38.8	D	40.1	D	52.3	D	12.2
I-15 SB Ramps/West Ninth Avenue	AM	16.2	B	16.5	B	17.5	B	1.0
	PM	20.8	C	23.5	C	33.1	C	9.6
I-15 SB Ramps/West Ninth Avenue	AM	27.0	C	27.9	C	30.0	C	2.1
	PM	26.3	C	26.7	C	27.4	C	0.7
Del Dios Highway/Via Rancho Parkway	AM	44.8	D	45.6	D	47.5	D	2.1
	PM	63.4	E	>100.0	F	>100.0	F	>10.0

Notes:

- (1) No mitigation required.
- (2) Recommended mitigation described in text.

**Table 2.2-8
Unsignalized Intersections**

Intersection	Peak Hour	Movement	Existing		Existing + Cumulative Projects		Existing + Cumulative Projects + Projects		Increase in Delay
			Delay	LOS	Delay	LOS	Delay	LOS	
Barham Drive/East Mission Road	AM	WBL	12.1	B	12.6	B	16.2	C	3.6
		NBR	14.8	B	15.4	C	>100.0	F	>10.0
	PM	WBL	22.1	C	22.6	C	44.6	E	22.0
		NBR	36.0	E	37.0	E	51.0	F	14.0
Citracado Parkway/Country Club Drive	AM	NBL	12.4	B	15.8	B	53.8	F	38.0
		EBL	>100.0	F	>100.0	F	>100.0	F	>10.0
	PM	NBL	9.4	A	9.8	A	11.1	B	1.3
		EBL	51.2	F	>100.0	F	>100.0	F	>10.0
Citracado Parkway/Vineyard Avenue	AM	NBR	DNE	DNE	DNE	DNE	>100.0	F	NA
		WBL	DNE	DNE	DNE	DNE	>100.0	F	NA
	PM	NBR	DNE	DNE	DNE	DNE	>100.0	F	NA
		WBL	DNE	DNE	DNE	DNE	11.2	B	NA
Enterprise Street/Vineyard Avenue	AM	NBL	>100.0	F	>100.0	F	>100.0	F	>10.0
		WBL	11.1	B	12.7	B	13.3	B	0.6
	PM	NBL	>100.0	F	>100.0	F	>100.0	F	>10.0
		WBL	9.5	A	9.8	A	11.9	B	2.1
State Place./Vineyard Avenue	AM	NBL	82.2	F	>100.0	F	>100.0	F ⁽²⁾	>10.0
		WBL	10.5	B	11.9	B	12.3	B	0.4
	PM	NBL	>100.0	F	>100.0	F	>100.0	F ⁽²⁾	>10.0
		WBL	9.6	A	10.0	B	11.8	B	1.8
Howard Avenue/Auto Parkway South	AM	All-Way	11.4	B	12.1	B	12.7	B	0.6
	PM	All-Way	30.5	D	66.7	F	94.7	F	28.0
Harmony Grove Road/ Kauana Loa Drive	AM	WBL	7.4	A	7.4	A	8.3 ⁽³⁾	A	0.9
		NBLTR	9.5	A	10.0	B	15.8 ⁽⁴⁾	B	5.8
	PM	WBL	7.3	A	7.3	A	7.3 ⁽³⁾	A	0.0
		NBLTR	11.6	B	11.6	B	12.0 ⁽⁴⁾	B	0.4
Andreasen Drive/Enterprise Street	AM	All-Way	10.5	B	10.5	E	41.8	E	31.3
	PM	All-Way	11.4	B	11.4	B	12.3	B	0.9

Table 2.2-8 (Continued)

Intersection	Peak Hour	Movement	Existing		Existing + Cumulative Projects		Existing + Cumulative Projects + Projects		Increase in Delay
			Delay	LOS	Delay	LOS	Delay	LOS	
Harmony Grove Road/Enterprise Street	AM	NBL	36.7	E	36.7	E	>100.0 ⁽⁶⁾	F	>10.0
		WBL	7.6	A	7.6	A	7.8	A	0.2
	PM	NBL	17.8	C	17.8	C	52.2 ⁽⁶⁾	F	34.4
		WBL	7.8	A	7.8	A	9.1	A	1.3
Harmony Grove Road/Howard Avenue	AM	SBLTR	14.7	B	14.7	B	30.9	D	17.9
		EBL	8.5	A	8.5	A	9.9	A	1.4
	PM	SBLTR	12.0	C	12.0	C	16.2	C	28.2
		EBL	7.8	A	7.8	A	8.1	A	0.3
Harmony Grove Road/Hale Avenue	AM	NBL	8.8	A	8.8	A	8.9	A	0.1
		EBL	25.8	D	25.8	D	>100.0	F	>10.0
	PM	NBL	7.9	A	7.9	A	8.1	A	0.2
		EBL	38.2	E	38.2	E	>100.0	F	>10.0
Hale Avenue/West 11 th Avenue	AM	SBL	7.8	A	7.8	A	9.0	A	1.2
		WBL	12.7	B	12.7	B	19.3	C	6.6
	PM	SBL	8.3	A	8.3	A	9.0	A	0.7
		WBL	13.7	B	13.7	B	19.3	C	5.6
Hale Avenue/Simpson Avenue	AM	NBL	11.7	B	11.7	B	12.6	B	0.9
		EBL	37.4	E	37.4	E	45.3	E	7.9
	PM	NBL	8.6	A	8.6	A	8.7	A	0.1
		EBL	>100.0	F	>100.0	F	>100.0	F	>10.0

Notes:

- (1) Mitigated by installing a new traffic signal and appropriate modifications to current intersection geometry.
 - (2) Not significant/mitigated, since adjacent signalized intersections provide ample opportunities to execute turns.
 - (3) EBL, since the configuration of this intersection changes with the extension of Citracado Parkway.
 - (4) NBR, since the configuration of this intersection changes with the extension of Citracado Parkway.
 - (5) Mitigation not required.
 - (6) NBR, since the configuration of this intersection changes with the extension of Citracado Parkway.
- DNE – Does not exist currently.
 NA – Not applicable, since either the intersection does not exist currently, or the intersection has a new configuration with Citracado Parkway.

**Table 2.2-9
Street Segment Operations**

Segment	Existing Roadway Class	LOS D Capacity	Existing			Existing + Cumulative Projects			Existing + Cumulative Projects + Project			Increase in V/C	
			ADT	V/C	LOS	ADT	V/C	LOS	ADT	V/C	LOS		
Nordahl Road													
North of SR 78	Major Road	33,400	16,900	0.51	B	16,900	0.51	B	18,300	0.55	B	0.04	
SR 78 EB Ramps to East Mission Road	Major Road	33,400	33,300	1.00	D	35,400	1.06	E	41,000	1.23	F	0.17	
Citracado Parkway													
East Mission Road to Myers Avenue	Major Road	33,400	22,700	0.68	B	25,400	0.76	C	34,000	1.02	E	0.26	
South of Vineyard Avenue	Collector	30,800	DNE	(1)	(1)	(1)	(1)	(1)	13,400	0.44	A	-	
East Mission Road													
West of Barham Road to Nordahl Road	Major Road	33,400	20,000	0.60	B	20,500	0.61	B	22,500	0.67	B	0.06	
Nordahl Road to Enterprise Street	Major Road	33,400	19,300	0.58	B	19,400	0.58	B	19,400	0.58	B	-	
Enterprise St. to Andreasen Drive	Major Road	33,400	20,300	0.61	B	20,400	0.61	B	21,000	0.63	B	0.02	
West Mission Avenue													
Andreasen Drive to Rock Springs Road	Major Road	33,400	16,200	0.49	B	16,200	0.49	B	17,200	0.51	B	0.03	
Rock Springs Road to Centre City Parkway	Major Road	33,400	21,500	0.64	B	21,500	0.64	B	22,500	0.67	B	0.03	
Vineyard Avenue													
County Club Drive to Citracado Parkway	Local Collector	12,500	16,700	1.34	F	19,200	1.54	F	28,400	2.27	F	0.74	
Citracado Parkway to Enterprise Street	Local Collector	12,500	16,700	1.34	F	19,200	1.54	F	23,400	1.87	F	0.34	
Enterprise Street to Andreasen Drive	Local Collector	12,500	20,000	1.60	F	22,500	1.80	F	26,100	2.09	F	0.29	
Auto Parkway													
Hale Avenue to Valley Parkway	Collector	30,800	27,800	0.90	D	30,400	0.99	D	33,000	1.07	E	0.08	
Valley Parkway to Ninth Avenue	Collector	30,800	18,800	0.61	B	19,700	0.64	B	21,100	0.69	B	0.05	
Auto Parkway South													
Andreasen Drive to Hale Avenue	Collector	20,000 ⁽³⁾	12,100	0.61	C	13,400	0.67	C	14,900	0.75	C	0.08	
Auto Parkway North													
Hale Avenue to Andreasen Drive	Collector	20,000 ⁽³⁾	11,600	0.58	C	12,900	0.65	C	14,400	0.72	C	0.08	
Harmony Grove Road													
Andreasen Drive to Howard Road	Rural Collector	8,500	8,400	0.99	D	8,400	0.99	D	12,400	1.46	F	0.47	
Howard Road to Hale Avenue	Rural Collector	8,500	8,700	1.02	E	8,700	1.02	E	11,900	1.40		0.38	
Hale Avenue													
Harmony Grove Road to West Ninth Avenue	Rural Collector	8,500	7,600	0.89	D	7,600	0.89	D	9,000	1.06	E	0.16	

Table 2.2-9 (Continued)

Segment	Existing Roadway Class	LOS D Capacity	Existing			Existing + Cumulative Projects			Existing + Cumulative Projects + Project			Increase in V/C
			ADT	V/C	LOS	ADT	V/C	LOS	ADT	V/C	LOS	
West Ninth Avenue												
Hale Avenue to Home Depot Driveway	Rural Collector	8,500	7,600	0.89	D	7,600	0.89	D	9,000	1.06	E	0.16
Home Depot Driveway to Valley Parkway	Local Collector	12,500	9,400	0.75	C	9,400	0.75	C	10,800	0.86	D	0.11
Valley Parkway to Auto Parkway	Local Collector	12,500	9,800	0.78	C	9,800	0.78	C	10,400	0.83	D	0.05
Auto Parkway to I-15 SB Ramps	Major Road	33,400	32,800	0.98	E	33,700	1.01	E	35,100	1.05	F	0.04
West 11th Avenue												
Hale Avenue to Valley Parkway	Rural Collector	8,500	1,200	0.14	A	1,200	0.14	A	1,800	0.21	A	0.07
Howard Avenue												
Harmony Grove Road to Auto Parkway South	Rural Collector	8,500	2,900	0.34	A	2,900	0.34	A	3,700	0.44	A	0.09
Valley Parkway												
I-15 to Auto Parkway	Prime Arterial	51,000	33,800	0.66	C	36,400	0.71	C	38,400	0.75	C	0.04
Auto Parkway to West Ninth Avenue	Prime Arterial	51,000	27,700	0.54	B	29,700	0.58	B	30,500	0.60	C	0.02
West Ninth Avenue to 11 th Avenue	Major Road	33,400	22,100	0.66	B	24,400	0.73	B	24,400	0.73	C	-
11 th Avenue to Citracado Parkway	Local Collector	12,500	18,600	1.49	F	20,600	1.65	F	21,200	1.70	F	0.05
South of Citracado Parkway	Local Collector	12,500	20,900	1.67	F	22,900	1.83	F	24,300	1.94	F	0.11
Simpson Way												
Andreasen Drive to Hale Avenue	Rural Collector	8,500	5,800	0.68	C	5,800	0.68	C	6,400	0.75	C	0.07

Notes:

- (1) This street segment does not exist currently. Project access is provided by this street segment.
- (2) No mitigation required.
- (3) Assumed capacity of two-lane, one-way collector.
- (4) Mitigation described in text.

BOLD indicates significant impacts.

Source: *Proposed Level of Service Standards, Street Segment Average Daily Vehicle Trip Thresholds*, City of Escondido.

- Harmony Grove Road (Andreasen Drive to Hale Avenue)
- Hale Avenue (Harmony Grove Road to West Ninth Avenue)
- West Ninth Avenue (Hale Avenue to Home Depot Driveway)
- Valley Parkway (11th Avenue to Citracado Parkway)

Significance of Impacts and Mitigation Measures

The following is a list of significant impacts calculated at the signalized intersections, unsignalized intersections, street segments and freeway segments, based on the established significance criteria. Impacts are divided into direct and cumulative. An impact is considered cumulative if the intersection or segment already operates below City standards.

The traffic impact analysis assumes a total trip generation for the project of just under 20,000 ADT. Therefore, if the overall trip generation remains under this amount, the traffic study remains valid. If the total trip generation exceeds this amount, additional studies would be necessary. Individual Planning Area trip generation could exceed the assumed trip generation in this report. However, if the trip generation of an individual Planning Area exceeds the assumed trip generation by more than 10%, the impact of this additional amount of trips should be analyzed.

Direct Project

Signalized Intersections: Valley Parkway/Auto Parkway
West Ninth Avenue/Auto Parkway

Unsignalized Intersections: Citracado Parkway/Vineyard Avenue
Enterprise Street/Andreasen Drive

Street Segments: Citracado Parkway (West Mission Avenue to Myers Avenue)
Hale Avenue (Harmony Grove Road to West Ninth Avenue)
West Ninth Avenue (Hale Avenue to Home Depot Driveway)
Citracado Parkway (Vineyard Avenue to Andreasen Drive)
Andreasen Drive (Citracado Parkway to Enterprise Street)
Harmony Grove Road (Andreasen Drive to Howard Road)
Harmony Grove Road (Howard Road to Hale Avenue)

Deleted: A total ADT of 40,736 was assumed in the Final Environmental Impact Report for the approved Quail Hills Specific Plan dated September 4, 1986, prepared by Mooney-Levine and Associates. The current proposed land use plan is calculated to generate under 20,000 ADT, which is less than 50% of the approved specific plan.¶

Deleted: . . . Enterprise Street/Vineyard Avenue¶

Freeways: No direct impacts

Access: Project access to Citracado Parkway

Cumulative

Signalized Intersections: Nordahl Road/ SR 78 EB Ramps
 Nordahl Road/Mission Road
 Del Dios Highway/Via Rancho Parkway
 I-15 SB Ramps/Valley Parkway
 I-15 NB Ramps/Valley Parkway

Unsignalized Intersections: Barham Drive/East Mission Road
 Citracado Parkway/Country Club Drive
 Howard Avenue/Auto Parkway South
 Enterprise Street/Harmony Grove Road
 Enterprise Street/Vineyard Avenue
 Hale Avenue/Harmony Grove Road
 Simpson Way/Hale Avenue

Street Segments: Nordahl Road (SR 78 to East Mission Road)
 Vineyard Avenue (Country Club Drive to Citracado Parkway)
 Vineyard Avenue (Citracado Parkway to Enterprise Street)
 Vineyard Avenue (Enterprise Street to Andreasen Drive)
 Auto Parkway (Hale Avenue to Valley Parkway)
 West Ninth Avenue (Auto Parkway to I-15 SB Ramps)
 Valley Parkway (11th Avenue to Citracado Parkway)
 Valley Parkway (Citracado Parkway to Via Rancho Parkway)

Freeways: SR 78 east and west of Nordahl Road
 I-15 north and south of West Ninth Avenue

Table 2.2-12 summarizes the impacts and mitigation measures. Appendix G of the traffic analysis contains AM/PM peak hour intersection analysis worksheets with the recommended

**Table 2.2-12
Significance of Impacts and Mitigation Measures**

Impact	Mitigation Measures
DIRECT PROJECT	
1. Signalized Intersections	
a. Valley Parkway/Auto Parkway	Restripe the third through lane to a shared through/right lane on the southbound approach on Valley Parkway to provide dual left-turn lanes, two through lanes, a shared through/right lane, and a right-turn lane in the southbound direction at the Valley Parkway/Auto Parkway intersection. Contribute a fair share towards the future city project for ultimate intersection improvements.
b. West Ninth Avenue/Auto Parkway	Restripe eastbound West Ninth Avenue at Auto Parkway to a right-turn lane, a shared through/right lane, and a left-turn lane, and provide right-turn overlap phasing in the eastbound approach, in the near-term. Contribute a fair share towards the future city project for ultimate intersection improvements.
2. Unsignalized Intersections	
a. Citracado Parkway/Vineyard Avenue	Signalize the Citracado Parkway/Vineyard Avenue intersection and provide the following geometry: Northbound – Dual left-turn lanes and one right-turn lane. Westbound – One left-turn lane and two through lanes. Eastbound – Two through lanes and one right-turn lane.
b. Enterprise Street/Andreasen Drive	Signalize the Enterprise Street/Andreasen Drive intersection.
3. Street Segments	
a. Citracado Parkway West Mission Avenue to Myers Avenue	Contribute fair share to the City planned widening project on Citracado Parkway between Myers Avenue and the SR 78 Eastbound Ramps, which will mitigate the impacts on Citracado Parkway between East Mission Avenue and Myers Avenue.
b. Hale Avenue Harmony Grove Road to West Ninth Avenue	Upgrade existing roadway to Local Collector standards. Upgrade unimproved sections of Hale Avenue immediately north of Harmony Grove Road and south of West Ninth Avenue.
c. West Ninth Avenue Hale Avenue to Home Depot Driveway	Upgrade existing roadway to Local Collector standards or connect Citracado Parkway between Harmony Grove Road and Avenida Del Diablo.
d. Citracado Parkway Vineyard Avenue to Andreasen Drive	Construct Citracado Parkway to Modified Collector standards.
e. Andreasen Drive Citracado Parkway to Enterprise Street	Construct Andreasen Drive to Modified Collector standards.
f. Harmony Grove Road Andreasen Drive to Howard Road	Upgrade existing roadway to Local Collector standards.

Deleted: . c . Enterprise Street/Vineyard Avenue

Deleted: Signalize the Enterprise Street/Vineyard Avenue intersection.

Deleted: standards or connect Citracado Parkway between Harmony Grove Road and Avenida Del Diablo

Table 2.2-12 (Continued)

Deleted: or connect Citracado Parkway between Harmony Grove Road and Avenida Del Diablo

Impact	Mitigation Measures
g. Harmony Grove Road Howard Road to Hale Avenue	Upgrade existing roadway to Local Collector standards.
4. Freeways (No direct impacts)	No mitigation is required.
5. Access	
a. Project access to Citracado Parkway	Once the planning-area land uses are better defined, prepare an access plan for Citracado Parkway between Vineyard Avenue and Andreasen Drive that would recommend traffic signals, turn lanes, and other access-related improvements.
CUMULATIVE	
1. Signalized Intersections	
a. Nordahl Road/SR 78 EB Ramps	Contribute a fair share towards the City planned widening of Nordahl Road between SR 78 and East Mission Road to six lanes. In addition to the City planned improvements, other mitigation measures are required to meet City LOS standards. Figure 21 of the technical report shows the lane configuration necessary to meet City Standards.
b. Nordahl Road/Mission Road	Contribute a fair share towards the City planned widening of Nordahl Road between SR 78 and East Mission Road to six lanes. In addition to the City planned improvements, other mitigation measures are required to meet City LOS standards. Figure 21 of the technical report shows the lane configuration necessary to meet City Standards.
c. Del Dios Highway/Via Rancho Parkway	Contribute a fair share towards the provision of a dedicated right-turn lane in the northbound direction on Del Dios Highway at Via Rancho Parkway.
d. I-15 SB Ramps/Valley Parkway	Contribute a fair share towards future improvements at the Valley Parkway/Interstate 15 interchange.
e. I-15 NB Ramps/Valley Parkway	Contribute a fair share towards future improvements at the Valley Parkway/Interstate 15 interchange.
2. Unsignalized Intersections	
a. Barham Drive/East Mission Road	Contribute a fair share towards installing a traffic signal at the Barham Drive/East Mission Road intersection.
b. Citracado Parkway/Country Club Drive	Contribute a fair share towards installing a traffic signal at the Citracado Parkway/Country Club Drive intersection.
c. Howard Avenue/Auto Parkway South	Contribute a fair share towards installing a traffic signal at the Howard Avenue/Auto Parkway South intersection.
d. Enterprise Street/Vineyard Avenue	Contribute a fair share towards installing a traffic signal at the Enterprise Street/Vineyard Avenue intersection.

Table 2.2-12 (Continued)

Impact	Mitigation Measures
e. Enterprise Street/Harmony Grove Road	Contribute a fair share towards signaling the Enterprise Street/Harmony Grove Road intersection and provide the following intersection geometry: Northbound – One left-turn lane and one right-turn lane. Eastbound – One shared through/right lane. Westbound – One left-turn lane and one through lane.
f. Hale Avenue/Harmony Grove Road	Contribute a fair share towards installing a traffic signal at the Hale Avenue/Harmony Grove Road intersection.
g. Simpson Way/Hale Avenue	Contribute a fair share towards installing a traffic signal at the Simpson Way/Hale Avenue intersection.
3. Street Segments	
a. Nordahl Road SR 78 to East Mission Road	Contribute a fair share towards the widening of Nordahl Road between SR 78 westbound ramps and East Mission Road (including the bridge) to six lanes.
b. Vineyard Avenue Country Club Drive to Citracado Parkway	Contribute a fair share towards the widening of Citracado Parkway between Country Club Drive and Vineyard Avenue to four lanes (Major Road standards).
c. Vineyard Avenue Citracado Parkway to Enterprise Street	Contribute a fair share towards the widening of Vineyard Avenue between Citracado Parkway and Enterprise Street to four lanes (Major Road standards).
d. Vineyard Avenue Enterprise Street to Andreasen Drive	Contribute a fair share towards the widening of Vineyard Avenue between Enterprise Street and Andreasen Drive to four lanes (Major Road standards).
e. Auto Parkway Hale Avenue to Valley Parkway	Contribute a fair share towards the provision of additional capacity along Auto Parkway to the satisfaction of the City Engineer.
f. West Ninth Avenue Auto Parkway to I-15 SB Ramps	Restripe eastbound West Ninth Avenue at Auto Parkway to a right-turn lane, a shared through/right lane, and a left-turn lane, and provide right-turn overlap phasing in the eastbound approach, in the near term. Contribute fair share towards the future City project for ultimate intersection improvements.
g. Valley Parkway 11 th Avenue to Citracado Parkway	Contribute a fair share towards the widening of Valley Parkway between Citracado Parkway and 11 th Avenue to four lanes.
h. Valley Parkway Citracado Parkway to Via Rancho Parkway	Contribute a fair share towards the widening of Valley Parkway between Citracado Parkway and Via Rancho Parkway to four lanes.
Freeways	
a. SR 78 east and west of Nordahl Road	Mitigation is not available to mitigate SR 78 freeway impacts to below a level of significance.
b. I-15 north and south of West Ninth Avenue	Mitigation is not available to mitigate I-15 freeway impacts to below a level of significance.

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mitigation measures. Individual Planning Area trip generation could exceed the assumed trip generation in this report. However, if the trip generation of an individual Planning Area exceeds the assumed trip generation by more than 10%, the impact of this additional amount of trips should be analyzed.

2.2.4 Mitigation Measures

The project will construct improvements at all intersections and segments impacted directly by the project. In addition, the project will contribute a fair share towards improvements at intersections and segments that have cumulative impacts. With the implementation of the recommended mitigation measures, all project direct and cumulative impacts are mitigated to below a level of significance, except on the freeways. Feasible mitigation is not available on the freeways.

Table 2.2-12 summarizes the impacts and recommended mitigation measures.

2.2.5 Conclusions

Significant unmitigable cumulative impacts were identified for the SR 78 freeway and I-15 freeway. Direct impacts to the intersection of West Ninth Avenue and Auto Parkway will occur in the near term; however, the applicant will contribute a fair share towards the future City projects for ultimate intersection improvements. Implementation of the above measures will mitigate significant project or cumulative impacts to a level below significance for the following:

Intersections

- Valley Parkway/Auto Parkway
- West Ninth Avenue/Auto Parkway
- Citracado Parkway/Vineyard Avenue
- Enterprise Street/Andreasen Drive
- Nordahl Road/SR 78
- Nordahl Road/Mission Road
- Del Dios Highway/Via Rancho Parkway
- Valley Parkway/I-15 Northbound
- Valley Parkway/I-15 Southbound
- Barham Drive/East Mission Road

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¶ Signalized Intersections: . Restripe the third through lane to a shared through/right lane on the southbound approach on Valley Parkway to provide dual left-turn lanes, two through lanes, a shared through/right lane, and a right-turn lane in the southbound direction at the Valley Parkway/Auto Parkway intersection. Contribute a fair share towards the future City project for ultimate intersection improvements.¶

¶ . . . Restripe eastbound West Ninth Avenue at Auto Parkway to a right-turn lane, a shared through/right lane, and a left-turn lane, and provide right-turn overlap phasing in the eastbound approach. Contribute a fair share towards the future City project for ultimate intersection improvements.¶

¶ Unsignalized Intersections: . Signalize the Citracado Parkway/Vineyard Avenue intersection and provide the following geometry:¶

¶ . . . Northbound – Dual left-turn lanes and one right-turn lane¶

¶ . . . Westbound – One left-turn lane and two through lanes¶

¶ . . . Eastbound – Two through lanes and one right-turn lane¶

¶ . . Signalize the Enterprise Street/Andreasen Drive intersection.¶

¶ . . Signalize the Enterprise Street/Vineyard Avenue intersection.¶

¶ Street Segments: . Contribute fair share to the City planned widening project on Citracado Parkway between Myers Avenue and the SR 78 Eastbound Ramps, which will mitigate the impacts on Citracado Parkway between East Mission Avenue and Myers Avenue.¶

¶ . . Upgrade existing roadway to Local Collector standards. Upgrade unimproved sections of Hale Avenue immediately north of Harmony Grove Road and south of West Ninth Street.¶

¶ . . Upgrade existing roadway to Local Collector standards' or connect Citracado Parkway to Enterprise Street/Vineyard Avenue¶

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- Citracado Parkway/Country Club Drive
- Howard Avenue/Auto Parkway South
- Enterprise Street/Vineyard Avenue
- Enterprise Street/Harmony Grove Road
- Hale Avenue/Harmony Grove Road
- Simpson Way/Hale Avenue

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Segments

- Citracado Parkway (West Mission Avenue to Myers Avenue and Vineyard Avenue to Andreasen Drive)
- Hale Avenue (Harmony Grove Road to West Ninth Avenue)
- West Ninth Avenue (Hale Avenue to Home Depot Driveway and Auto Parkway to I-15 SB Ramps)
- Andreasen Drive (Enterprise Street to Citracado Parkway)
- Auto Parkway (Hale Avenue to Valley Parkway)
- Harmony Grove Road (Andreasen Drive to Hale Avenue)
- Nordahl Road (SR 78 to East Mission Road)
- Vineyard Avenue (Citracado Parkway to Andreasen Drive)
- Valley Parkway (11th Avenue to Via Rancho Parkway)

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<#>Vineyard Avenue (Citracado Parkway to Andreasen Drive)¶

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construction of portions of the Escondido Research and Technology Center nearest to the residences will intermittently exceed the noise limits established in Section 17-238 (Grading Noise) of the City's Municipal Code and will represent a significant short-term noise impact from construction activities. Following the completion of construction of the Specific Plan, noise produced from construction activities associated with the Specific Plan would cease.

In addition, truck-hauling operations and deliveries can generate noise levels as high as 86 dBA at a distance of 50 feet from the source. Due to the relatively small contribution of truck trips to the overall traffic volume occurring at selected haul routes, truck operations associated with construction activities would not be expected to significantly increase the CNEL along haul routes and would not be expected to yield a significant noise impact. The noise from truck movements would result in a short-term increase in noise levels to residences and noise-sensitive receptors located along the roadways.

The site will require blasting during the initial construction phase of the project site. It is difficult to measure and control blasting noise to adjacent land uses; therefore, impacts associated with blasting are considered significant short-term construction impacts. However, the ERTC Specific Plan further addresses a blasting program to be established by the master developer, which will be approved by the City prior to and executed concurrently with the Master Tentative Subdivision Map. The City's Blasting provisions (Section 11-16 of the City's Municipal Code) require preblasting inspections and documentation of existing conditions, notice to surrounding properties, and close supervision by the City's Fire Department and Field Engineering Inspectors.

Project Related Traffic Noise

Potential noise impacts from traffic-generated noise are evaluated in relation to changes in the noise environment as a result of additional project-related traffic traveling on offsite roadways. To quantify incremental traffic noise impacts, noise levels from existing traffic data were determined and compared to estimates of traffic noise to be generated by (1) future estimated traffic volumes without the Specific Plan and (2) future estimated traffic volumes including the Specific Plan. Project-generated and cumulative traffic volumes were estimated using the Caltrans Sound32 traffic noise model. Selection of modeled roadway links and noise-sensitive receptor locations is based on those roadways which have the highest potential to trigger an exceedance of the noise increase criterion and City's Land Use Compatibility Guidelines. The potential for exceedance of the City's noise criterion is based on those roadways that have the

highest contribution of project traffic distribution, the largest change in net traffic volume, and the closest noise-sensitive receptors. Figure 2.4-3 depicts the modeling locations for traffic noise. These locations represent those areas for which there is the greatest potential for exceedance of the City's noise criteria by project related vehicle traffic.

The modeling of traffic noise levels is based upon data pertaining to traffic volumes, traffic speeds, and the types of vehicles traveling on area roadways. The modeling input was developed from the Project's traffic engineer, government documentation, and field observations. The results of the noise modeling are presented in Table 2.4-5. As shown by the noise modeling results, future baseline (without project) traffic noise levels would result in noise levels that are categorized as normally unacceptable within the City's noise compatibility guidelines at the property lines of the closest residential uses to the modeled roadways. Noise Policy E1.4 of the City's Element considers noise increases of 5 dB or greater to represent a significant impact when noise levels are within the range of noise levels that are normally acceptable. Because noise levels are currently in exceedance of the normally acceptable category, an industry standard of a 3 dB increase will be used as a significance criterion. A 3-dB change in noise levels is considered to be the minimum change in noise levels that is discernable by human hearing. Traffic noise produced by only Project related roadway vehicles are expected to increase noise levels from 1.0 to a maximum of 4.6 dBA above future baseline conditions. This increase in traffic noise attributable to the proposed project is above the 3-dB significance threshold and would result in a significant noise impact from the addition of project related roadway traffic.

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Increases in traffic at the offsite improvements for Vineyard Avenue between Mission Road and Alpine Way would result in an increase of 1.0 dB with the proposed project at 2020 and 1.8 dB with the proposed project and cumulative traffic growth at 2020. This would not result in a perceptible (less than 3 dB) or a significant increase in noise. Project-related traffic utilizing offsite improvements at Valley Parkway between Citracado Parkway and 11th Avenue would result in an increase of 600 ADT. An additional 600 ADT, or approximately 60 peak-hour trips, represents an increase in traffic of less than 4%. This small increase in traffic would not result in changes in traffic noise which are perceptible to human hearing (less than 3 dB) and therefore would not result in a significant noise impact. However, the roadway widening associated with these offsite roadway improvements would bring the roadway closer to the structures of noise-sensitive residences. As such, before construction of these offsite improvements commences, an

Noise from the power plant may be distinguishable (depending upon the receptor location); however, with appropriate noise attenuation as proposed for this project, it is not expected to be perceived as an offensive whine, screech, hum, or hammering. As shown in Table 2.4-6, the power plant's loudest noise sources are the combustion turbines and steam turbine. These sources have fairly broad-band characteristics (i.e., "white noise") without very specific tone dominance (i.e., the noise is "atonal"). These sources also have a very strong low-frequency dominance, but the human ear does not hear low frequencies very well. The combination of all of the plant's noise sources is multispectral without a very strong frequency peak.

**Table 2.4-6
Noise Levels for Major Components of the Power Plant**

Component	Number of Units	Noise Level per Unit at 100 feet (dBA)
GE 7FA Combustion Turbine Generators ⁽¹⁾	2	74
Steam Turbine ⁽²⁾	1	72
HRSG Inlet Transition Ducts	2	67
HRSG	2	67
HRSG Exhaust Stacks ⁽³⁾	2	56
Main Step-Up Transformers	3	66
Cooling Tower	1	70
Boiler Feed Pumps	4	64
Condensate Pumps	3	60

Notes:

(1) With 85 dBA near-field noise attenuation package.

(2) With 90 dBA near-field noise attenuation package.

(3) With exhaust stack silencers that reduce noise level from 69 dBA to 56 dBA at 100 feet.

Source: Burns & McDonnell

Table 2.4-7 presents the frequency characteristics of the combustion turbines and steam turbine. This table shows that the total noise levels discernable to the human ear are lower than the noise energy levels. Further, it shows that the noise level peaks perceived by the human ear occur at a different frequency band than that of the maximum noise energy. The combustion turbines produce unweighted maximum sound at 63 hertz, but the human ear response shifts the apparent loudest octave band to 2,000 hertz. Similarly, the steam turbine produces unweighted maximum sound at 31.5 to 63 hertz, but the apparent maximum is at 500 to 1,000 hertz. The table further indicates the noise from untreated gas and steam turbines contains objectionable high-frequency components, in the range of about 2,000 hertz. Noise attenuation will be incorporated to reduce

2.5 HAZARDS

2.5.1 Existing Conditions

The property is essentially vacant, with the exception of eight existing single-family dwellings in the southwest portion of the site. Significant portions of the plan area have been disturbed by former agricultural activities, off-road vehicles, and grading. A 200-foot-wide electrical transmission easement with steel lattice towers and wooden poles runs north/south through the center of the site. The lattice towers support the existing 230-kV and 138-kV transmission lines, and the wood poles support the existing 69-kV transmission lines within the existing right-of-way. This easement turns westerly at the southern boundary. Numerous other utility easements traverse the site.

Deleted: The towers carry 230-kilovolt (kV) lines and the poles carry 138-kV lines.

Silica

Silica is a naturally occurring mineral that is present in soil and rock. A description of the regional geology prepared for the Power Plant Project describes the project area as a complex series of granitic intrusions. The intrusions are Cretaceous in age and include granodiorites, tonalites, diorites, leucogranodiorites, and grabbos. Granodiorites, tonalites, and leucogranodiorites are comprised of quartz and therefore contain silica. The diorites and grabbos do not contain quartz.

Areas where bedrock is exposed on the project site consist of Cretaceous-aged Green Valley Tonalite. Surface soils at the site consist primarily of colluvium composed of silty to clayey sand. Colluvium is soil that was formed in place by weathering of the underlying bedrock. Since tonalites are comprised of quartz, it is expected that the soil which has formed from the weathering of Green Valley Tonalite contains silica.

Electromagnetic Forces (EMF)

The controversy about EMF health effects derives from: (1) the fact that many scientists believe power line magnetic fields emit little energy and are therefore too weak to have any effect on cells; (2) the inconclusive nature of laboratory experiments; and (3) the fact that epidemiological studies of people exposed to EMF are inconclusive.

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The National Institute of Environmental Health Sciences (NIEHS), in conjunction with the U.S. Department of Energy (DOE), has collected data on the magnetic field strength near power lines similar to those crossing the project site. The following table summarizes the mean magnetic field strength at a given distance from 115-kV and 230-kV power lines.

Table 2.5-2
Magnetic Field Strengths at Designated Distances from Power Lines

Location	Mean Magnetic Field Strength (mG)	
	115-kV Power Lines	230-kV Power Lines
Directly beneath power line	29.7	57.5
50 feet from power line	6.5	19.5
100 feet from power line	1.7	7.1
200 feet from power line	0.4	1.8
300 feet from power line	0.2	0.8

Source: NIEHS and DOE, 1995

2.5.2 Thresholds of Significance

The project would cause a significant impact to public health and safety if one or more of the following conditions exist:

- Excavation and grading activities result in the emission of silica dust above the Permissible Exposure Limit (PEL);
- EMF exposure is conclusively shown to cause an increased rate of a specific disease or adverse health outcome in the human population.
- Storage, transport, or use of gas or regulated substances that result in adverse health or safety impacts.

Deleted: cancer and miscarriages

2.5.3 Analysis of Project Effects and Determination of Significance

Coarse particles (PM₁₀) are generally emitted from sources such as windblown dust, vehicles traveling on unpaved roads, and crushing and grading operations (also referred to as fugitive dust). Fine particles (PM_{2.5}) can come from fuel combustion (motor vehicles, power generation,

EMF

The construction of the power plant will not require construction of any new transmission lines. However, as described in Section 1.3.1, modifications will be required to the existing transmission facilities on the SPA site. Proposed improvements to the visual aesthetics of the electrical transmission easement include replacing the steel lattice towers with tubular steel poles. To facilitate the interconnection of the power plant into the SDG&E's regional transmission system, the existing 230-kV and 138-kV lines within the right-of-way will be realigned/reconfigured so that the 230-kV lines are closer to the eastern edge of the right-of-way. As part of the development of the industrial park, the 69-kV transmission lines will be rebuilt and/or undergrounded. These transmission facilities improvements will not alter the power of the electricity carried across the lines. Therefore, from a practical standpoint, no changes are expected from the existing EMF to the proposed EMF conditions. However, in accordance with no- and low-cost guidelines adopted by the CPUC, a field management plan will be prepared for the 230-kV and 138-kV line work.

The Specific Plan Area will have only commercial and industrial uses adjacent to the electrical transmission easement. At their closest points, residential developments would be located approximately 350 to 450 feet west of the easement.

DHS (1999) presented data on exposure of adults to EMF during a typical day. Exposure assessment studies of adults who wore measurement meters for a 24- to 48-hour period suggest that the average magnetic field level encountered during a typical 24 hours is about 1 mG. About 40% of magnetic field exposures found in homes come from nearby power lines, while 60% come from other sources such as stray currents running back to the electrical system through the grounding on plumbing and cables, current "loops" due to incorrect internal wiring in the home, and brief exposure to appliances and electrical tools.

Based upon reports prepared to date, it is uncertain as to whether exposure to 50- and 60-hertz fields is a health risk (DHS 1999). Three kinds of studies have been done to explore this:

1. Laboratory studies that expose human or animal cells or organs to fields, looking for biological changes;

Deleted: The construction of the power plant will not require construction of any new transmission lines. Proposed improvements to the visual aesthetics of the electrical transmission easement include replacing the steel lattice towers with tubular steel poles. As part of the development of the industrial park, the 69-kV transmission lines will be rebuilt and/or undergrounded. These visual improvements will not alter the power of the electricity carried across the lines. Therefore, from a practicable standpoint, there are no changes from the existing EMF to the proposed EMF conditions.¶

Valley Parkway

This area is surrounded by residential development. There are, however, areas that contain native vegetation, including disturbed coastal sage scrub, southern mixed chaparral, and wetland vegetation. There are also small areas that are dominated by nonnative grasses, as well as landscape trees such as eucalyptus and pepper trees.

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Final roadway improvements have not been determined at this time. The proposed road improvements will impact sensitive biological resources including disturbed coastal sage scrub, wetland vegetation, southern mixed chaparral, and nonnative grassland. Impacts to these habitats will need to be mitigated.

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2.6.4 Mitigation Measures

The recommendations and mitigation references stated herein are intended to establish standards for application subsequent to approval of the project. If the project design undergoes a change that may significantly alter the impact analysis contained herein, additional mitigation measures would be developed to further mitigate impacts as necessary. In the event that additional species or habitats are listed as special status prior to project construction, alterations in the aforementioned significance determinations would be made in accordance with these changes.

Prior to commencement of grading or clearing, mitigation measures will be reviewed and approved by the Wildlife Agencies and the City. These should include, but are not limited to, mitigation for impacts to Diegan coastal sage scrub and the western spadefoot toad.

As indicated in the above analysis, direct onsite biological impacts, as well as indirect impacts, would result from project development activities. The biological impacts described above can be mitigated through the implementation of the following recommended measures:

1. Based on project impact estimates (including impacts to vegetation associated with the proposed offsite waterlines), the habitat-based mitigation that would be required is identified in Table 2.6-4a and Table 2.6-4b and follows the standards established by the City of Escondido in its draft Escondido Subarea Plan. While the Subarea Plan has not yet been adopted, it provides a framework for addressing impacts to resources

**Table 2.6-4a
Habitat-Based Mitigation for Impacts of ERTC Project Implementation**

Vegetation Community	Mitigation Ratio	Impacts/Mitigation (Acres)					
		PA 1		PA 2-8		Total	
Coastal Sage Scrub	2:1 ⁽¹⁾	6.9	13.8	38.2	76.4	45.1	90.2
Annual Grassland	0.5:1	7.5	3.8	88.0	44.0	95.5	47.8
Coastal Live Oak Woodland	3:1 ⁽²⁾	0	0	0.1	0.3	6.1	0.3
Mixed Willow/Mulefat	3:1	0	0	0.1	0.3	0.22	0.66
Disturbed, Agricultural Land, Eucalyptus, Homes	None	5.5	0	26.0	0	31.5	0

Notes:

- ⁽¹⁾ Required ratios for gnatcatcher-occupied coastal sage scrub; preserve area will need to support six pairs of California gnatcatcher, in accordance with population numbers identified by Dudek in 1998 (Redlitz, B., pers. comm., 2001).
- ⁽²⁾ Includes 10:1 ratio for replacement of individual trees that meet minimum size requirements.

**Table 2.6-4b
Habitat-Based Mitigation for Impacts in Residential Areas (Acres)⁽¹⁾**

Vegetation Community	Mitigation Ratio	Impacts	Mitigation
Coastal Sage Scrub	2:1 ⁽¹⁾	3.3	6.6
Annual Grassland	0.5:1	7.3	14.6
Coastal Live Oak Woodland	3:1 ⁽²⁾	1.1	3.3
Mixed Willow/Mulefat	3:1	0.8	2.4
Disturbed, Agricultural Land, Eucalyptus, Homes	None	9.5	0

Note:

- ⁽¹⁾ There are no current development plans for these areas; however, impacts to habitats are assumed in this analysis, and mitigation is provided.

within the City. It does not yet fully address the permitting and conservation obligations associated with listed species; however, it does provide a foundation for making mitigation recommendations that are consistent with implementation of the City's Subarea Plan conservation objectives.

Mitigation would require a 2:1 requirement ratio for gnatcatcher-occupied sage scrub acreage and conservation of an equal number of gnatcatchers within a preserve system. This acquisition should occur within the Subarea Plan Focused Planning Areas (FPAs), or in occupied gnatcatcher habitat that has been identified by the

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MHCP within the unincorporated San Diego County core area, or in other areas approved by the City, State, and Federal jurisdictional agencies.

Mitigation for coastal sage scrub habitat would adhere to the acreage requirements cited in Table 2.6-4. These mitigation requirements should also be fulfilled within the FPAs. Mitigation shall be in place to the satisfaction of the Planning Director prior to issuance of a grading permit.

2. Direct impacts to California gnatcatchers would be adequately addressed through habitat conservation that also supports an equivalent number of gnatcatchers. For this reason, no additional mitigation is recommended for direct impacts to gnatcatchers.
3. Western spadefoot toad impacts and seasonal basin areas would be mitigated through creation, or restoration, of an equivalent acreage of habitat that supports seasonal ponds in preserve lands within the MHPA FPAs. This mitigation plan shall be submitted to the Planning Director for approval prior to issuance of any grading permit.
4. Construction activities would be initiated during the nonbreeding season for California gnatcatchers (August 30 through February 14). Work that would be completed during this period includes site boundary demarcation with construction fencing along the edge of retained sage scrub, and all clearing and grubbing. A qualified biologist will conduct a preconstruction survey of the project site and surrounding habitat to determine whether there are active raptor nests within that area. If an active nest is observed, a buffer will be established between the construction activities and the nest so that nesting activities are not interrupted. The buffer will be a minimum width of 500 feet and will be in effect as long as construction is occurring and until the nest is no longer active. This mitigation shall be placed as a condition on the Tentative Map and Grading Permit.
5. Prior to construction activities, a qualified biologist will survey the preserved habitat areas adjacent to the project site to determine if any gnatcatcher nests are within a distance potentially affected by noise from these activities. If no nesting gnatcatchers are located, no additional measures will need to be taken to mitigate indirect impacts.

However, if nesting gnatcatchers are observed, no activity will occur within 300 feet of active nesting territories unless measures are implemented to minimize the noise and disturbance to those adjacent birds. If nesting birds are located adjacent to the project site with the potential to be affected by noise above 60 dBA L_{eq} , a noise barrier will be erected. This noise barrier should consist of a 20-foot-high continuous plywood fence supported by posts or an earthen berm located at the site boundary that abuts potential offsite habitat.

6. In the event that any nighttime construction is allowed, night construction activities would be initiated prior to the onset of the gnatcatcher breeding season (prior to February 15). Alternatively, prior to conducting any night construction activities, a qualified biologist would determine that no gnatcatcher breeding is occurring within 300 feet of areas that would be lighted. In the event that gnatcatchers are found in proximity to areas to be lighted, a verification of adequate light shielding would be made by a qualified biologist prior to commencing night work. This mitigation shall be placed as a condition on the Tentative Map and Grading Permit.

7. Facility lighting would be shielded such that no direct lighting falls within the adjacent natural habitat. Adequate directional lighting or shielding would be installed to control nighttime illumination at the industrial park in a manner that does not enhance light levels within adjacent native habitat areas. This mitigation shall be placed as a condition on the Specific Plan and Conditional Use Permit.

8. Jurisdictional wetland impacts and mitigation for the proposed ERTC project are as follows:

<u>Jurisdictional Wetland Habitat</u>	<u>Total Impacts</u>	<u>Mitigation Ratio</u>	<u>Mitigation Total</u>
<u>Mixed Willow Series</u>	<u>3,920 SF</u>	<u>3:1</u>	<u>11,760 SF</u>
<u>Mulefat Series</u>	<u>870 SF</u>	<u>3:1</u>	<u>2,610 SF</u>
<u>Nonwetland Waters</u>	<u>5,001 SF</u>	<u>3:1</u>	<u>15,003 SF</u>
<u>Total Impacts</u>	<u>9,791 SF</u> <u>(0.22 ac)</u>		<u>29,373 SF</u> <u>(0.67 ac)</u>
<u>Credit for mixed willow habitat to be preserved and enhanced in PA 7</u>			<u>- 6,970 SF</u> <u>(0.17 ac)</u>
<u>Additional Mitigation Requirement (Wetland Creation, PA 7)</u>			<u>22,403 SF</u> <u>(0.50 ac)</u>

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The ERTC is proposing 0.17 acre of existing wetlands preservation within Planning Area 7, and an additional 0.50 acre of wetland creation in Planning Area 7, which totals 0.67 acre of wetland mitigation. The wetland creation area is shown on Ffigure 2.6-5.

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This wetland creation is to be located in a gently sloping, shallow valley, incised only intermittently along the drainage bottom, within Planning Area 7. The creation site is only slightly higher in elevation than the existing adjacent wetland habitat and drainage channel, and presently supports California annual grassland series vegetation, a disturbed upland community suitable for wetland creation. The alluvial soils and proximity to groundwater in the area are favorable to the creation of an expanded wetlands corridor.

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The expanded wetlands corridor in Planning Area 7 will be buffered from the urban business park uses by a manufactured perimeter slope a minimum of 100 horizontal feet in depth, and 50 vertical feet in height. This slope adjacent to the wetland restoration area will be planted with a species palette that contains no invasive species (CalEPPC, 1999). This will provide an adequate environmental buffer between the edge effects of the business park, and the existing and created (expanded) wetlands.

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9. For offsite improvements (i.e., Vineyard Avenue and Valley Parkway), when project-specific engineering has been completed, the City shall implement mitigation in accordance with the ratios above and implement the same mitigation measures as previously indicated.

10. A construction monitor will be present during construction activities to ensure that conservation measures are performed in compliance with any concurrent or subsequent mitigation plans. The biological monitor will instruct construction management to halt all associated project activities, which may be in violation of the conditions of any permits in effect. Any unauthorized impacts or actions not in compliance with the required mitigation will be immediately brought to the attention of the City and Wildlife Agencies.

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Figure 2.6-5. Wetland Revegetation Plan

Project Lighting

The power plant will require nighttime lighting for operational safety and security. To minimize any offsite impacts, lighting at the facility will be restricted to areas required for safety and security. In addition, lights will be directed onsite so that significant offsite light or glare will not be created.

Lighting associated with Planning Areas 2 through 8 is described in the Lighting Standards portion of the proposed Specific Plan. Onsite lighting includes lighting for parking areas, vehicular and pedestrian circulation, building exteriors, outdoor display areas, service areas, landscaping, security, and special effects. As per the Lighting Standards of the Specific Plan, all outdoor lighting facilities or fixtures shall be shielded, be equipped with automatic timing devices, and be limited to the amount of light necessary to illuminate the intended objects. Lighting which will remain on after 11:00 PM shall be low-pressure sodium.

Since the proposed project includes shielded and low-sodium lighting for night illumination, no significant lighting impacts were identified for the proposed project.

Transmission Line Routes

As part of the power plant interconnection, 11 existing lattice transmission towers located near the plant site would be replaced with 10 tubular steel poles, where one lattice tower would be eliminated. As these existing lattice towers are predominantly located along the primary ridgeline trending north/south through the middle of the SPA, this is thought to provide an aesthetic benefit, and provide visual quality improvements. It should be noted that two new steel poles would be installed immediately adjacent to the proposed plant site to facilitate the interconnection of the power plant.

As an additional measure to improve visual aesthetics, existing 69-kV transmission lines running along the ridgeline and/or through the planned industrial park will be rebuilt and/or be placed underground as part of the ERTC Specific Plan. It is anticipated that the height of the new steel pole structures will be approximately the same height as the existing 230-kV structure. This represents a beneficial aesthetic impact.

Power Plant

The features of the proposed power plant (Planning Area 1) are presented in Table 2.7-3. The proposed power plant will reach a maximum of 110 feet, and the maximum length of any plant feature is 320 feet. It will be visible from various locations onsite, with most views occurring from the east and north.

**Table 2.7-3
Major Power Plant Features**

Feature	Height (Feet)	Length (Feet)	Width (Feet)	Diameter (Feet)
HRSG Units ⁽¹⁾	85	150	30	--
HRSG Stacks ⁽¹⁾	110	--	--	17
Combustion Turbine-Generator (Two)	75	135	30	--
Cooling Tower (Seven Cells)	65	320	50	--
Raw Water Storage Tank	45	--	--	55
Demineralized Water Storage Tank	40	--	--	30
Operations Building	25	220	90	--

Note:

⁽¹⁾ HRSG = Heat Recovery Steam Generators.

The power plant and switchyard structures will have a flat, neutral, gray-tan finish that will be consistent with the color of the site area's soil and dry-season vegetation and the colors of many of the surrounding facilities. Use of a flat finish will reduce the reflectivity of the structures' surfaces, and the gray-tan tone will not contrast substantially with the backdrop in the more distant views. The ERTC Specific Plan will provide additional guidelines and requirements specifying exterior color surface, screening equipment, and appropriate landscaping in accordance with the City's Design Review Board Standards.

KOP Viewshed Change

Figures 2.7-2a through 2.7-10a present the existing conditions as viewed from KOPs 1 through 9. Figures 2.7-2b through 2.7-10b illustrate the "after conditions" as viewed from each KOP. The visual impact assessment was based on an evaluation of the changes to the existing visual resources that will result from construction of the proposed project. In making the determination of the extent and implications of the visual changes, consideration was given to:

Deleted: For the aesthetic benefit of the industrial park development and to provide visual quality improvements, six existing lattice transmission towers located near the plant site will be replaced with tubular steel poles of an aesthetically sensitive design, and one lattice tower will be eliminated. These existing lattice towers are prominently located along the primary ridgeline trending north/south through the middle of the SPA. As an additional measure to improve visual aesthetics, existing 69-kV transmission lines running along the ridgeline and/or through the planned industrial park will be rebuilt and/or be placed underground. This represents a beneficial aesthetic impact. ¶

Key Observation Point 1

Figures 2.7-2a and 2.7-2b represent the view from KOP 1 before and after construction of the proposed project. KOP 1 was selected to represent the views looking east toward the project site from within the planned industrial park. This observation point is located approximately 1,100 feet west of the principal structures comprising the power plant.

Contrast with Structures

The power plant structures are mostly screened by intervening terrain, with an upper portion of the exhaust stacks and cooling towers still visible in the middle ground of the view from KOP 1. This visible portion of the plant is partially screened by trees. The screening provided by terrain and trees substantially mitigates the potential for contrast with industrial park structures. In addition, replacement of the existing lattice transmission towers that currently support 230-kV and 138-kV lines with tubular steel poles with tubular steel poles of an aesthetically sensitive design, together with undergrounding of the 69-kilovolt (kV) lines currently supported on wooden poles, results in an improved visual quality that is more consistent with a modern industrial park. Due to the lack of significant existing structures near the project site, the contrast of the proposed project with existing structures is considered Low.

Contrast with Vegetation

Existing vegetation in this view consists mainly of scattered shrubs and low-lying grass. The presence of the partially screened, visible portion of the power plant structures does not significantly alter the existing landscape scene's character or quality, and therefore the contrast of the proposed project with vegetation is considered Moderate.

Contrast with Land

Because the screened, visible portion of the project structures presents a degree of contrast with the open nature of the project area, the contrast of the proposed project with land is considered Moderate.

Scale/Spatial Dominance

Because the structures associated with the proposed project are more distant and much shorter than the existing nearby lattice transmission towers that currently support 230-kV and 138-kV lines and radio tower, the scale dominance of the proposed project is considered Moderate. Given the relatively small portion of the project-related structures that is visible above the intervening terrain, and considering the openness of the general area, the spatial dominance of the proposed project is considered Moderate.

View Blockage

Because the project site is at a low elevation relative to this KOP, the upper portions of the tallest project-related structures impose a view blockage. Based on the form and mass of the visible portions of the plant structures, the view blockage imposed by the proposed project is considered Moderate.

Visual Impact Severity

Because this area is not visually sensitive and the presence of the power plant will not appreciably change the character and quality of the landscape visible from this KOP, the aesthetic impact of the proposed project as viewed from KOP 1 is considered less than significant.

Key Observation Point 2

Figures 2.7-3a and 2.7-3b are simulations that represent the view from KOP 2 before and after construction of the proposed project. Because of an intervening landform created as part of grading of the industrial park, the proposed project is not visible from this observation point.

Contrast with Structures

Other than towers and/or poles supporting existing transmission lines, there are no structures in the view from KOP 2. Replacement of the existing lattice transmission towers that currently support 230-kV and 138-kV lines with tubular steel poles of an aesthetically sensitive design, together with undergrounding of the 69-kilovolt lines currently supported on wooden poles,

Key Observation Point 3

Figures 2.7-4a and 2.7-4b represent the view from KOP 2 before and after construction of the proposed project. KOP 3 was selected to represent the views looking east toward the project site from several residences located on elevated lots along the west boundary of the planned industrial park. This observation point is located in the front patio area of 1189 Oak View Way, approximately 2,100 feet west-southwest of the proposed project. The view from KOP 3 is representative of the views from about 12 residences.

Contrast with Structures

The power plant structures are mostly screened by intervening terrain, with an upper portion of the exhaust stacks and cooling towers still visible in the view from KOP 3. This visible portion of the plant is partially screened by trees. The screening provided by terrain and trees substantially reduces the potential for contrast with industrial park structures. In addition, replacement of the existing lattice transmission towers that currently support 230-kV and 138-kV lines with tubular steel poles of an aesthetically sensitive design, together with undergrounding of the 69-kV lines currently supported on wooden poles, provides an improvement in visual quality. Due to the lack of significant existing structures near the project site, the contrast of the proposed project with existing structures is considered Low.

Contrast with Vegetation

In addition to the steel poles that replace the existing lattice transmission towers, a small portion of the power plant is visible, but partially screened by trees. Therefore, the contrast of the proposed project with vegetation is considered Low for KOP 3.

Contrast with Land

The small portion of the power plant that is visible in the background presents a minor degree of contrast with the landform in the middle ground created as part of grading of the industrial park. Therefore, the contrast of the proposed project with land is considered Moderately Low.

Scale/Spatial Dominance

Due to the project's unobtrusive appearance in the background, the scale and spatial dominance of the proposed project is considered Moderately Low.

View Blockage

The landform in the middle ground is the result of grading of the industrial park and is not attributable to the proposed project. The residences will have the current views altered by the fill slope, intended to buffer the plant from offsite land uses visually. Because the small portion of the power plant that is visible in the background presents an insignificant degree of view blockage, the view blockage imposed by the proposed project is considered Low.

Visual Impact Severity

The project elements visible from this KOP are the transmission line improvements (replacing the lattice towers with tubular steel) and a small, tree-screened portion of the power plant. As the transmission line improvements are included with the proposed project for the sole purpose of enhancing visual quality, and as the visible portion of the power plant is a minor presence in the background, no significant aesthetic impact is identified for KOP 3.

Key Observation Point 4

Figures 2.7-5a and 2.7-5b are simulations that represent the view from KOP 4 before and after construction of the proposed project. KOP 4 is a view looking northwest toward the project site from a vacant lot along Harmony Grove Road. This observation point is located approximately 0.7 mile southeast of the plant site. The view from KOP 4 is representative of the views from about eight residences. Other residences in the same vicinity have little or no views toward the project site, due to screening by existing industrial structures, residential structures, and vegetation.

Contrast with Structures

The view from KOP 4 is dominated by existing industrial buildings in the middle ground, which screen views toward the project site. Due to the lack of significantly visible project features in

provides secondary treatment of 15.0 million gallons per day of wastewater from the City of Escondido and from the Rancho Bernardo area. Effluent is discharged from the HARRF to the Pacific Ocean via a 14-mile pipeline that connects to an ocean outfall pipeline near San Elijo Lagoon. The effluent exits the outfall pipeline approximately 2.0 miles offshore through diffuser ports 132 feet deep in the Pacific Ocean.

The ongoing Escondido Regional Recycled Water Project (ERRWP) involves upgrading existing HARRF treatment facilities to produce tertiary treated recycled water and construction of approximately 24 miles of 4-inch to 24-inch-diameter pipeline and one underground storage reservoirs. One of these pipelines is a 24-inch reclaimed water supply main extending northeast from the HARRF along Escondido Creek. The power plant's recycled water supply pipeline will connect with this ERRWP pipeline at Harmony Grove Road just north of Escondido Creek. The power plant's brine return pipeline will connect with an ERRWP brine return line at the same location as the supply line at Harmony Grove Road and Escondido Creek. Upon full completion of the ERRWP, it is expected that the HARRF will provide approximately 9 million gallons per day of reclaimed water. Startup for the ERRWP is expected by the end of July 2002 (City of Escondido, 2000). As a portion of this water will be used throughout the City of Escondido for irrigation purposes (e.g., sprinkling of golf courses, parks, and landscaped medians), this water will meet the applicable regulatory requirements for such uses involving potential human contact.

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Water Conveyance

Potable water will be supplied via a connection with existing water lines. Reclaimed water will be conveyed to the site via a new 1.1-mile, 16-inch reclaimed water supply pipeline extending from the existing City of Escondido reclaimed water main. Brine created from the proposed project will be returned to the HARRF via a new 1.1-mile, 8-inch return pipeline routed alongside the reclaimed water supply pipeline and connecting to the City of Escondido's brine return line. There will be no discharge of wastewater from the project to surface waters or groundwater.

Power Plant Water Treatment

Water treatment varies according to the quality required for each of the plant's water uses. The circulating water, Heating Recovery Steam Generator (HRSG) makeup, and Combustion Turbine

- There may be no discharges of polychlorinated biphenyl compounds.
- Discharges of chemical metal cleaning wastes (wastewater resulting from cleaning any metal process equipment, including boiler tube cleaning) may not contain total copper in concentrations that exceed 1.0 mg/l maximum for one day.
- The quantity of pollutants discharged in cooling tower blowdown may not exceed the concentrations listed in Table 2.8-3.

**Table 2.8-3
Pretreatment and Categorical Standards**

Pollutant	Pretreatment Standards Maximum for 1 Day (mg/l)
126 Priority Pollutants ⁽¹⁾ contained in chemicals added for cooling tower maintenance, except:	Nondetectable
Chromium, total	0.2
Zinc, total	1.0

Note:
⁽¹⁾ Contained in 40 CFR 423.

At the permitting authority's discretion, instead of the monitoring in 40 CFR 122.11(b), compliance with the limitations for the 126 priority pollutants may be determined by engineering calculations which demonstrate that the regulated pollutants are not detectable in the final discharge by the analytical methods in 40 CFR Part 136.

Table 2.8-4 summarizes the types and quantities of operational wastewater to be generated by the power plant.

The 1,400 gallons per day of potable water supplied to the project by the Rincon del Diablo Municipal Water District is a minimal amount of water and will have no impact on the availability of water for other users. In addition, the project will require an average of 3.6 million gallons of reclaimed water per day. With completion of the ERRWP in 2002, well

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Isolate S11 lacks any qualities that would make it eligible for the CRHR. Therefore, the proposed project would not result in a significant impact to Isolate S11.

It should be noted that vegetation obscured ground visibility in some areas during the cultural resources survey. Consequently, there is a possibility, although it is not considered high, that unanticipated cultural material could be encountered during initial clearing and grading of the ERTC project site. This represents a potential significant impact.

2.10.4 Mitigation Measures

A cultural resources monitor will be onsite during all initial clearing and excavation activities. In the event that buried cultural materials or deposits are found during construction or related activities, the following mitigation measures will be implemented, as appropriate:

- Work in the vicinity shall stop immediately until an assessment of the findings can be made by a qualified archaeologist. In the event that human remains are discovered, work in the vicinity must stop, and the San Diego County Coroner shall be notified immediately.
- Questionable materials inadvertently discovered – including suspected or not readily identifiable cultural resources – must be considered significant until a qualified archaeologist can provide an accurate assessment. If potentially significant cultural resources are detected and can not be avoided by construction, then impacts must be mitigated through data recovery or other means, in consultation with pertinent agencies and concerned parties.
- Findings will be prepared discussing the significance of any materials recovered from the project site. The City will determine, in coordination with responsible agencies, the appropriate repository where the collected materials will be archived.

2.10.5 Conclusions

Five small Late Prehistoric period sites, and one isolate, were found at the project site. Impacts to the resources were not considered significant. A slight possibility exists that additional cultural resources could exist at the offsite improvement areas, but were undiscovered due to vegetative cover. In the event that obscured cultural resources are discovered, mitigation

**Table 3.1-1
Comparison of Alternatives and Significance of Impacts**

Project Area/Issues	Proposed Project <i>Specific Plan (186-acre business park, with option of building a power plant) and 22 acres of residential rezone</i>	No Project/ No Development <i>Retain current conditions</i>	No Project/ Existing Entitlement (Adopted Quail Hills Specific Plan) <i>172 acres of general industrial, 14-acre activity center, 6-acre business commercial, and 6-acre office</i>	Specific Plan with No Power Generating Plant <i>Specific Plan (186-acre business park, without option of building a power plant) and 22 acres of residential rezone</i>	Reduced Project Scale (Environmentally Superior) <i>55 acres of business park and 35 acres of residential rezone</i>
Land Use and Planning	SM CS	NS CNS	SU CS	SM CS	SM CS
Transportation/ Circulation	SU CS	NS CNS	SU CS	SU CS	SU CNS
Air Quality	SU CS	NS CNS	SU CS	SU CS	SU CS
Noise	SU CNS	NS CNS	SU CNS	SU CNS	SM CNS
Hazards	NS CNS	NS CNS	NS CNS	NS CNS	NS CNS
Biological Resources	SM CS	NS CNS	SM CS	SM CS	SM CNS
Aesthetics	NS CNS	NS CNS	NS CNS	NS CNS	NS CNS
Water Quality	NS CNS	NS CNS	NS CNS	NS CNS	NS CNS

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undeveloped natural state. Therefore, none of the project-specific environmental effects identified in this EIR (land use, biological, transportation, air quality, noise, public services and utilities, etc.) would occur. The project would remain undeveloped at this time.

The No Project Alternative would not be consistent with the City's General Plan, which designates the project area for future urban development. The beneficial effects of providing public facilities that would also serve offsite properties, such as the circulation element, would not be realized under this alternative. The No Project/No Development Alternative would also not achieve most of the basic objectives of the project, such as the provision of industrial and residential opportunities and additional energy facilities to the citizens of Escondido and the surrounding communities.

Over the past decade, the population growth and economic growth in California has created a steadily increasing demand for electrical power. However, the growth in electrical generating capacity serving California has not kept pace with the growth in demand. This imbalance has led to a shortfall in generating capacity, with potentially serious consequences for California's residents and businesses. Such consequences started to appear in 2000. Electrical demand forecasts predict continuing growth over the coming years, making the need for additional generating capacity even more acute.

In particular, the SDG&E load pocket faces future prospects of inability to serve load, due to insufficient SDG&E import capability combined with insufficient local generating capacity.

Addressing this concern is a key Sempra Energy Resources objective for the power plant, and the "no power plant project" alternative would not meet this objective.

Deleted: This problem is of particular concern for the northern two-thirds of the SDG&E system. Generation projects recently added to the southern third of the SDG&E system do little to alleviate this concern, as they are located south of transmission constraints.

The Power Plant Project is among those resources that have been identified as potential suppliers of electricity under a contract between Sempra Energy Resources and the California Department of Water Resources for the sale of 1,900 MW. The proposed project will provide competitively priced electrical power to help meet California's growing demand, and it will help replace nuclear and fossil fuel generation resources that are retired due to age or cost of producing power. The "no power plant project" alternative would not meet these objectives.

Deleted: objective of the proposed project

Given the need for additional generating capacity, and even with the various other power plants under construction and proposed, the "no power plant project" alternative likely would result in more energy production from existing power plants than otherwise would occur with the new power plant in operation. Because the proposed project will employ advanced combustion

Cultural Resources

The alternative would not cause a significant impact to cultural resources.

Geology/Soil

With incorporation of similar measures identified in the Geotechnical Report (Appendix I), there would be no significant unmitigated impacts to geology or soils.

Summary

This alternative was rejected because it did not meet the following project objective:

- Provide energy to meet the existing demand for the Southern California region. With no power plant, energy would not be provided by this alternative.

Over the past decade, the population growth and economic growth in California has created a steadily increasing demand for electrical power. However, the growth in electrical generating capacity serving California has not kept pace with the growth in demand. This imbalance has led to a shortfall in generating capacity, with potentially serious consequences for California's residents and businesses. Such consequences started to appear in 2000. Electrical demand forecasts predict continuing growth over the coming years, making the need for additional generating capacity even more acute.

In particular, the SDG&E load pocket faces future prospects of inability to serve load, due to insufficient SDG&E import capability combined with insufficient local generating capacity.

Addressing this concern is a key objective of the proposed project, and the "no power plant project" alternative would not meet this objective.

Deleted: This problem is of particular concern for the northern two-thirds of the SDG&E system. Generation projects recently added to the southern third of the SDG&E system do little to alleviate this concern, as they are located south of transmission constraints.

The Power Plant Project is among those resources that have been identified as potential suppliers of electricity under a contract between Sempra Energy Resources and the California Department of Water Resources for the sale of 1,900 MW. The proposed project will provide competitively priced electrical power to help meet California's growing demand, and it will help replace nuclear and fossil fuel generation resources that are retired due to age or cost of producing power. The "no power plant project" alternative would not meet these objectives.

Geology/Soil

Similar to the proposed project, this alternative would need to incorporate all measures identified in the Geotechnical Report (Appendix I). There would be no significant unmitigated impacts to geology or soils.

Summary

This alternative was rejected because it did not meet the following project objective:

- Provide energy to meet the existing demand for the Southern California region. With no power plant, energy would not be provided by this alternative.

Over the past decade, the population growth and economic growth in California has created a steadily increasing demand for electrical power. However, the growth in electrical generating capacity serving California has not kept pace with the growth in demand. This imbalance has led to a shortfall in generating capacity, with potentially serious consequences for California's residents and businesses. Electrical demand forecasts predict continuing growth over the coming years, making the need for additional generating capacity even more acute.

In particular, the SDG&E load pocket faces future prospects of inability to serve load, due to insufficient SDG&E import capability combined with insufficient local generating capacity.

Addressing this concern is a Sempra Energy Resources objective for the power plant, and the "no power plant project" alternative would not meet this objective.

Deleted: key objective of the proposed project

Given the need for additional generating capacity, and even with the various other power plants under construction and proposed, this alternative likely would result in more energy production from existing power plants than otherwise would occur with the new power plant in operation. Because the proposed project will employ advanced combustion turbine technology and state-of-the-art emissions control systems, existing power plants operating in place of the new plant most likely would consume more fuel and emit more air pollutants per kilowatt-hour generated.

According to the CEQA Guidelines, in addition to considering existing environmental conditions, this analysis is to consider what would be reasonably expected to occur in the foreseeable future if the project were not approved [14 CCR Sec. 15126.6(e)(3)]. The Guidelines state that the analysis is to consider predictable actions, such as the proposal of some

- Locate the facility in a portion of the SDG&E gas system that minimizes the need for system upgrades.
- Locate the facility in an area with readily available nonpotable water of sufficient quantity and quality to meet the facility's process water requirements.
- Locate the facility at a site with compatible adjacent land uses.

Given that some of the above objectives lead to siting of the facility in or near an urban area, locate the facility at a site that offers landforms that are substantial enough to afford significant visual screening, but do not adversely affect plume dispersion.

The project criteria were used to guide the selection of an appropriate site for the power plant project. Nine alternative locations were investigated. Locations were postulated that are adjacent to existing, substantial SDG&E transmission lines and/or substation facilities, in order to avoid the construction of new transmission lines. It should be noted that there may still need to be a realignment/reconfiguration within the adjacent SDG&E rights-of-way of existing transmission lines to accommodate the power plant connection. To assess electrical interconnection issues for each alternative, SDG&E was commissioned to prepare the System Impact Study. The nine alternatives are as follows, and their locations relative to SDG&E electric transmission facilities are shown in Figure 3.1-1.

- **Escondido:** A site along the Escondido-Sycamore Canyon/Escondido-Encina 230-kilovolt (kV) transmission lines, near Escondido Substation. Defined as the proposed project.
- **San Marcos:** A site along the Escondido-Sycamore Canyon 230-kV transmission line, at the retired North County Resource Recovery Facility in the City of San Marcos.
- **Sycamore Canyon:** A location near the 230-kV Sycamore Canyon Substation at the north edge of the Miramar Marine Corps Air Station, south of the City of Poway.
- **Penasquitos:** A location near the 230-kV Penasquitos Substation in the Sorrento Hills area of the City of San Diego.

result in a population increase of 138 additional residents to the City of Escondido. This represents a 0.1% increase in the City's population, and is not considered to be a substantial population increase.

The industrial uses proposed for the project will provide employment opportunities for the region as a whole. This area has been designated for industrial uses and is assumed to be industrial in the General Plan. Therefore, the potential that the industrial uses would induce growth has already been considered. Since this is part of the planned and orderly development of the region, it is anticipated that some growth will be induced; however, the magnitude of the impact would not be significant, because it is consistent with the General Plan.

Another component of the project is the power plant. Energy produced by the project is intended to meet the needs of existing demand and help meet future demand. There are numerous other power generating facilities in southern California. Over the past decade, the population growth and economic growth in California has created a steadily increasing demand for electrical power. However, the growth in electrical generating capacity serving California has not kept pace with the growth in demand. This imbalance has led to a shortfall in generating capacity, with potentially serious consequences for California's residents and businesses. Such consequences started to appear in 2000. Electrical demand forecasts predict continuing growth over the coming years that makes the need for additional generating capacity even more acute.

In particular, the SDG&E load pocket faces future prospects of inability to serve load, due to insufficient SDG&E import capability combined with insufficient local generating capacity. Addressing this concern is a key objective of the proposed project.

Deleted: This problem is of particular concern for the northern two-thirds of the SDG&E system. Generation projects recently added to the southern third of the SDG&E system do little to alleviate this concern, as they are located south of transmission constraints.

This Power Plant is among those resources identified as potential suppliers of electricity under a contract between Sempra Energy Resources and the California Department of Water Resources for the sale of 1,900 megawatts (MW). The proposed project will provide competitively priced electrical power to help meet California's growing demand, and it will help replace nuclear and fossil fuel generation resources that are retired due to age or cost of producing power. This is considered a beneficial impact of the project.

Because the project is going to meet the existing demand and help meet the future existing demand, it is not considered significantly growth inducing. It will eliminate an impediment for future growth and, thus, can be defined as growth inducing. It should be noted that the project is

Map Label	Project Name	Project Description	Location	Status
14	South Tulip Tract 831	Subdivision of 4.33 acres into 13 residential lots	101 South Tulip	Project was approved on May 2001. A Negative Declaration was prepared for the project. Currently undergoing plan check by the City.
15	La Terraza Planned Development	Proposed 140,000-SF office space and 154-room hotel	300-400 La Terraza Boulevard	Project was approved.
16	City of Escondido Hale Avenue Resource Recovery Facility (HARFF)	Rehabilitation of existing facilities, improvements for treatment efficiency, and extension of pipeline connections	1521 Hale Avenue	Applicant has prepared an EIR which is currently in public review.
City of San Marcos				
17	San Elijo Hills Planned Community	3,398 residential units, 40 acres of community services, 13 acres of commercial, golf course, and 1,050 acres of open space	San Elijo Road/Elfin Forest Road	Project may be under construction. Limited, if any, occupied units.
18	San Elijo Ridge	260 single-family residential units	Questhaven Road	Preparing Initial Study. Unlikely to be through entitlement process.
19	San Marcos Highlands	238 single-family dwelling units (north of border); 70% of the project is dedicated to permanent open space	Las Posas Avenue	A supplemental EIR has been prepared for the project and will shortly be distributed for public review.
County of San Diego				
20	The Bridges at Rancho Santa Fe (TM4569/P85-084W4)	Revision to previously approved 445-acre subdivision and golf course complex	Approximately 2,700 feet north of intersection of El Camino Norte and Aliso Canyon Road	A Final EIR was certified by the Board of Supervisors on 12/10/86.
21	Quail Ridge (SPA00-05/TM5185)	Subdivision of 235 acres into 69 residential lots; development will involve the approval of a Specific Plan, pursuant to Board of Supervisors Policy I-59	Elfin Forest Road between Fortuna del Norte and Aguilera Lane	Applicant has prepared an EIR and recently completed public review. Project is still under County review.

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Map Label	Project Name	Project Description	Location	Status
22	Cielo del Norte (SPA99-001/TM5182)	Establishment of a Specific Plan and the residential subdivision of 580 acres; project proposes 186 residential units and approximately 370 acres to be designated as open space	Harmony Grove Road/Elfin Forest Road	Applicant has prepared an EIR. Currently under County review.
23	Victoria Shangrila (TM5261)	Subdivision of 79.7 acres into 37 residential units	West of Elfin Forest Road between Elfin Forest Road and Questhaven	Applicant may be required to prepare an EIR. Currently under County review.
24	Rancho Cielo Tract 5010 (SPA00-006/TM5010RPL)	Specific Plan amendment to relocate five residential lots for the Olivenhain Municipal Water District pipeline right-of-way	Del Dios Highway between Mount Israel and Calle Ambiente	Currently under County review. Proposed project will be required to comply with new County Stormwater Ordinance.
25	Oakrose Estates (TM5204)	Subdivision of 39.7 acres into 10 single-family residential lots	Mt. Israel Road and Detwiler Road	Currently under County review. Potential impacts under analysis are biology and growth inducement.

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cumulative effects in the EIR. Table 6.1-1 lists the development projects in the area that are under construction or approved for development within the City of Escondido and other jurisdictional areas surrounding the project vicinity. Their locations in relation to the project site is indicated on Figure 6.1-1.

The cumulative analysis will be conducted as follows:

- Land Use and Planning - Analyzed based upon the list of projects.
- Transportation/Circulation - Analyzed utilizing the projections based upon a regional planning document. Also modified by the list of projects.
- Air Quality - Analyzed utilizing the projections based upon a regional planning document.
- Noise - Analyzed based upon the list of projects.

7.0 UNAVOIDABLE SIGNIFICANT ADVERSE ENVIRONMENTAL IMPACTS

The direct and cumulative environmental effects of the Proposed Project are discussed in detail in Section 2.0, and cumulative effects in Section 6.0, both of this EIR. In most cases, the potentially significant impacts identified in these analyses can be adequately mitigated to below a level of significance through the adoption of mitigation measures and the implementation of sound environmental planning practices.

- Significant impacts associated with inconsistency with the General Plan will be mitigated through adoption of the General Plan Amendment (GPA).
- Significant project and cumulative impacts to traffic and circulation: With the exception of the freeway interchange and the intersection of Nordahl Road/Mission Road impacts, all other impacts will be mitigated to below a level of significance.
- Significant short-term air quality impacts are associated with emissions resulting from construction activities.
- Short-term construction noise exceedence of standards would result in significant impacts.
- Significant and mitigable project-level impacts to biological resources would result. Significant cumulative impacts are unavoidable.
- Significant and mitigable impacts were identified for public services and utilities (fire protection and schools).

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California Integrated Waste Management Board

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