

FINAL  
ENVIRONMENTAL IMPACT REPORT

EIR-84-5

OTAY VALLEY ROAD - SOUTH  
GENERAL PLAN AMENDMENT

CHULA VISTA, CALIFORNIA

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## 1.0 INTRODUCTION

### 1.1 PURPOSE

This Environmental Impact Report (EIR) provides a detailed review and analysis of the potential environmental impacts that would result from the implementation of the proposed Otay Valley Road-South General Plan Amendment project. This project involves an annexation to the City of Chula Vista, amendment to the Chula Vista General Plan, and rezoning of the land proposed for annexation. No actual development is proposed as part of this project. This report is informational in nature and is intended for use by the City of Chula Vista and other responsible agencies in evaluating the potential environmental impacts of the proposed project. The EIR also contains an analysis of mitigation measures and alternatives to the project. The 241-acre project area analyzed in this EIR encompasses the southern portion of the Otay Valley Road Redevelopment Project Area.

This EIR has been prepared in accordance with the requirements of the City of Chula Vista Environmental Review Policy, and complies with all criteria, standards and procedures of the California Environmental Quality Act of 1970 (PRC 21000 et. seq.) and State EIR Guidelines (Administrative Code 15000 et. seq.).

This report has been prepared by the Technical Studies Group of PRC Engineering, San Diego, in cooperation with the Environmental Review Coordinator of the City of Chula Vista.

## 1.2 EXECUTIVE SUMMARY

### 1.2.1 Project Description

The proposed project is located on approximately 241 acres in the southwestern portion of San Diego County, just east of the intersection of Interstate 805 (I-805) and Otay Valley Road (Figures 2.1-1 and 2.1-2). The property is currently under the jurisdiction of the County of San Diego, and is bordered on the north by Otay Valley Road. The project site is located within the Otay Valley; the Otay River flows in an east-to-west direction through the southern portion of the property. The river and associated flood plain occupy much of the project site. The Otay Valley is flat to gently rolling, with numerous sand and gravel deposits in the alluvium of the river valley. Elevations on the project site range from approximately 80 feet above mean sea level (AMSL) in the Otay River Valley to 120 feet AMSL at Otay Valley Road. Sloping lands also occur to the south of the project site; these lands rise from the Otay Valley to form Otay Mesa.

The project is a proposal for annexation of the site to the City of Chula Vista and detachment from the Montgomery Fire Protection District and the San Diego County Flood Control District - Zone 4. The project also includes a General Plan Amendment (GPA) and prezones. The site is currently a "finger" of County land, lying between the cities of Chula Vista and San Diego. The current County designations of intensive agriculture, service commercial and impact sensitive would be pre-zoned for limited industrial (I-L-P) and parks/public open space (refer to Section 3.1, land use).

A preliminary redevelopment plan has been prepared for a 771-acre area on Otay Valley Road. The project site is located in the southern portion of the redevelopment area. The Redevelopment Plan will serve as a framework for preparation of specific plans, projects and improvements for the purpose of upgrading aesthetic and economic conditions. The plan provides for improvements to streets and public facilities through tax increment financing. The Redevelopment Agency of Chula Vista will be the implementing body with possible participation from private owners. The Redevelopment Plan is currently the subject of legal challenge. Until final approval of the redevelopment plan, all projects will be processed through the standard planning procedures of the City of Chula Vista once the site has been annexed.

Although no construction would actually take place as a consequence of approval of this project, implementation of the project could result in "limited industrial" development on a net total of 90 acres of the project site. Lands within the floodway of the Otay River, consisting of approximately 114 acres in the southern portion of the property, would be designated as "parks and public open space" in conformance with the City of Chula Vista's current General Plan.

### 1.2.2 Environmental Analysis

Several land use effects would be associated with implementation of the proposed project. An incremental loss of agricultural land from the project site would not be significant. The annexation would eliminate an irregular "finger" of county land and would be a logical extension of Chula Vista boundaries. Potential conflicts with residential uses north of Otay Valley Road can be adequately mitigated through design review of "precise plans" that will be required by the City of Chula Vista for all light industrial development within the project.

Several hazardous soil and geologic conditions occur on the project site which could affect eventual industrial development. Structural setbacks or specific design criteria would be required before development could occur in proximity to the La Nacion Fault Zone which is considered to pass in a north/south direction through the western portion of the project site. Expansive soils, uncompacted fill soils, and highly erodible soils also occur on the project site. Uncompacted fill soils are especially prevalent adjacent to the Otay River and near the road bed of Otay Valley Road. Supportive structures and densification would have to be provided before development could occur on expansive or fill soils. Careful landscaping would reduce potential erosion of highly erodible soils. Unconsolidated alluvial soils also occur on the project site which could be affected by potential earthquake activity. Because these alluvial soils are water bearing, the potential for liquefaction exists during periods of ground shaking. Adequate foundations would have to be provided before construction could occur on these soils. Because most of these alluvial soils are located within the floodway of the Otay River which would be designated for parks and public open space, it is unlikely that significant amounts of construction would occur on alluvial soils. Detailed soil investigations will be necessary during specific planning for individual developments within the project area.

The floodway of the Otay River extends over much of the 241-acre project site. Designation of the floodway for parks and public open space and rezoning to the F-1 zone would avoid the potential for adverse impacts which could result from development in the flood plain. Urban runoff into the Otay River would be generated by eventual industrial development; the potential reduction of agricultural runoff, as the project site is converted from agricultural to urban land uses, would reduce the significance of this impact.

Both mobile noise and stationary noise would be expected to increase incrementally if industrial development occurs following approval of the land use designation changes proposed. Cumulative regional growth will have significant impacts on traffic and noise on Otay Valley Road.

No direct significant impacts to biological, archaeological, historical or paleontological resources would occur as a result of implementation of the proposed project. Eventual industrial development would result in the destruction of some marginal riparian resources. Designation of the floodway of the Otay River and associated riparian area for parks and public open space and rezoning to the F-1 zone reduces most potential impacts. Enhancement of riparian habitat would mitigate the loss of marginal habitat. Potential impacts to two possible archaeological sites in the central portion of the property could be mitigated to a level of insignificance.

Conversion of the project site from rural/agricultural to urban land uses would result in alteration of the visual quality and landform of the property. Careful site design, landscaping, and strict conformance with the City of Chula Vista's grading ordinance, and landscaping and signing standards called for in the zoning ordinance, would help to reduce potential impacts.

Primary access to the project site is provided by Interstate 805 (I-805) and Otay Valley Road. The level of service of roads in the project area would be

adversely affected by eventual industrial development of the project site. Improvements to Otay Valley Road would be required to accommodate projected traffic levels and mitigate potential impacts.

With the exception of schools, an urban level of services would be required to serve the proposed project. The Chula Vista Fire Department and the Chula Vista Police Department have adequate facilities to serve eventual industrial development of the project site. The project site is currently served by the Montgomery Fire Protection District. Annexation of this property to the City of Chula Vista and eventual coverage by the Chula Vista Fire Department would result in a loss of revenue to the Montgomery Fire Protection District. Appropriate mitigation measures to reduce potential impacts would have to be determined by the applicable planning bodies as plans for incorporation progress. Water distribution facilities will have to be extended to serve the site for adequate fire protection. Sewer availability could also be a problem on the project site; available information indicates that the line which currently serves the project area is operating at approximately 70 to 80 percent of capacity. Off-site improvements and/or the provision of on-site storage capacity could be required in conjunction with eventual industrial development of the project site. The problem of sewer availability in the project area is, however, an areawide one which may need cooperative planning among several agencies.

## 2.0 PROJECT DESCRIPTION

### 2.1 LOCATION

The proposed Otay Valley Road - South project is located on approximately 241 acres in the southwestern portion of the County of San Diego. The project site is located just east of the intersection of Interstate 805 and Otay Valley Road. Otay Valley Road forms the boundary between the City of Chula Vista to the north and the County of San Diego to the south. The 241-acre property is bordered by Otay Valley Road on the north, by Interstate 805 to the west, and by vacant land which is under the jurisdiction of either the City of San Diego or the County of San Diego to the south and east, respectively. Figures 2.1-1 and 2.1-2 are a regional map and a vicinity map of the project site. The property can be located on page 72, coordinates B3, C3, D3 and E3 of the 1984 edition of the Thomas Brothers Map Book.

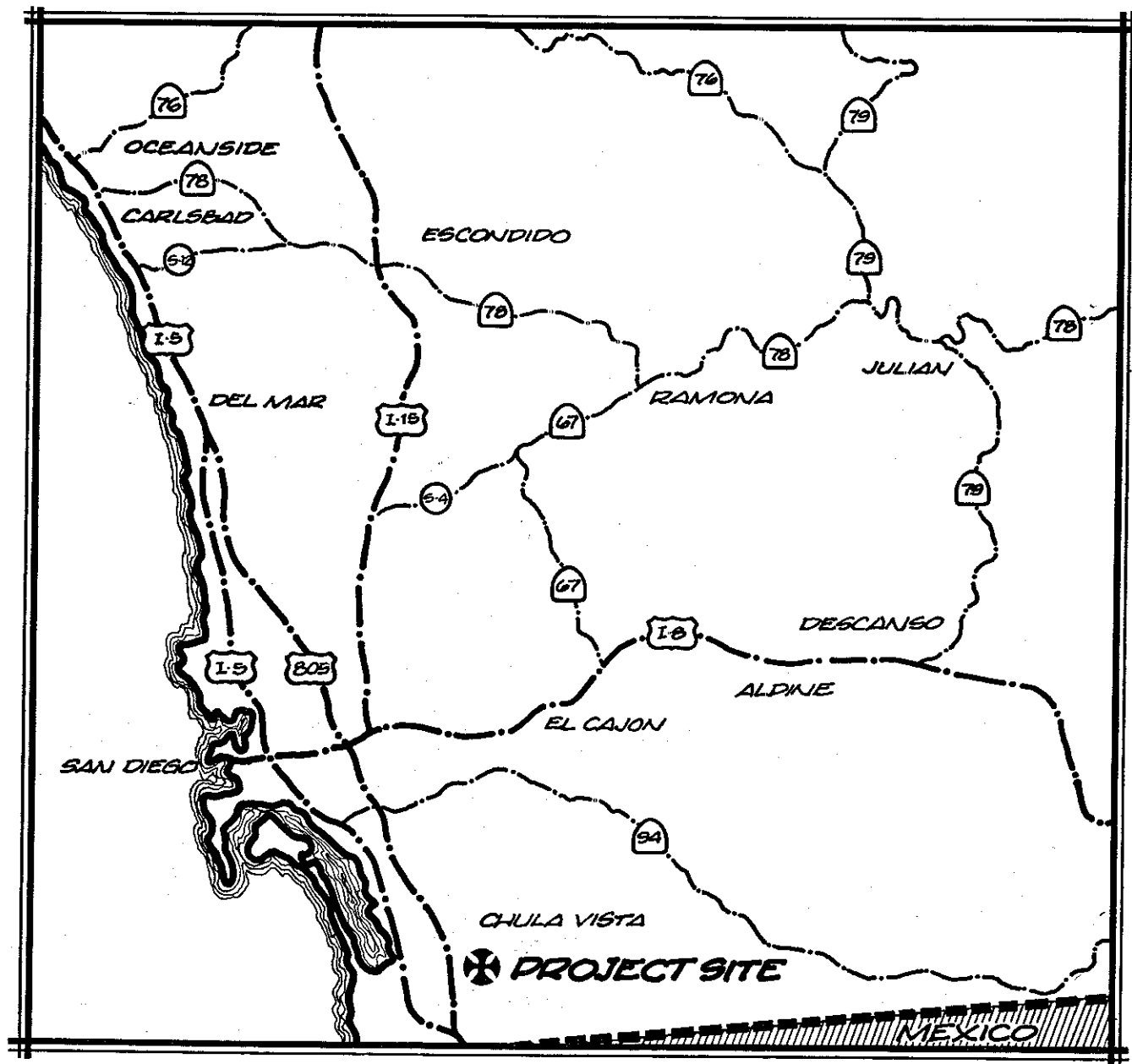
### 2.2 BACKGROUND

The 241-acre project area forms the southern portion of the 771-acre Otay Valley Road Redevelopment Project (Figure 2.2-1). The Redevelopment Plan has been adopted by the City of Chula Vista to promote physically and economically viable development in the southeastern portion of the city. The Redevelopment Plan is subject to legal challenge at this time. All projects in this area are currently being processed through the city's normal zoning and planning process. A final EIR for the redevelopment plan has been certified by the Chula Vista City Council and Redevelopment Agency, as described in Section 2.4 below. This EIR will address only the 241-acre portion of the redevelopment project area which is south of Otay Valley Road.

General industrial activities have historically occurred in the area north of Otay Valley Road. These are described in detail in Sections 3.9.1 (Hyspan Precision) and 3.7.2 (Omar, BKK Otay Landfill, Otay Industrial Park). Several other industrial projects are currently under construction or undergoing planning, as discussed in Section 2.4 below.

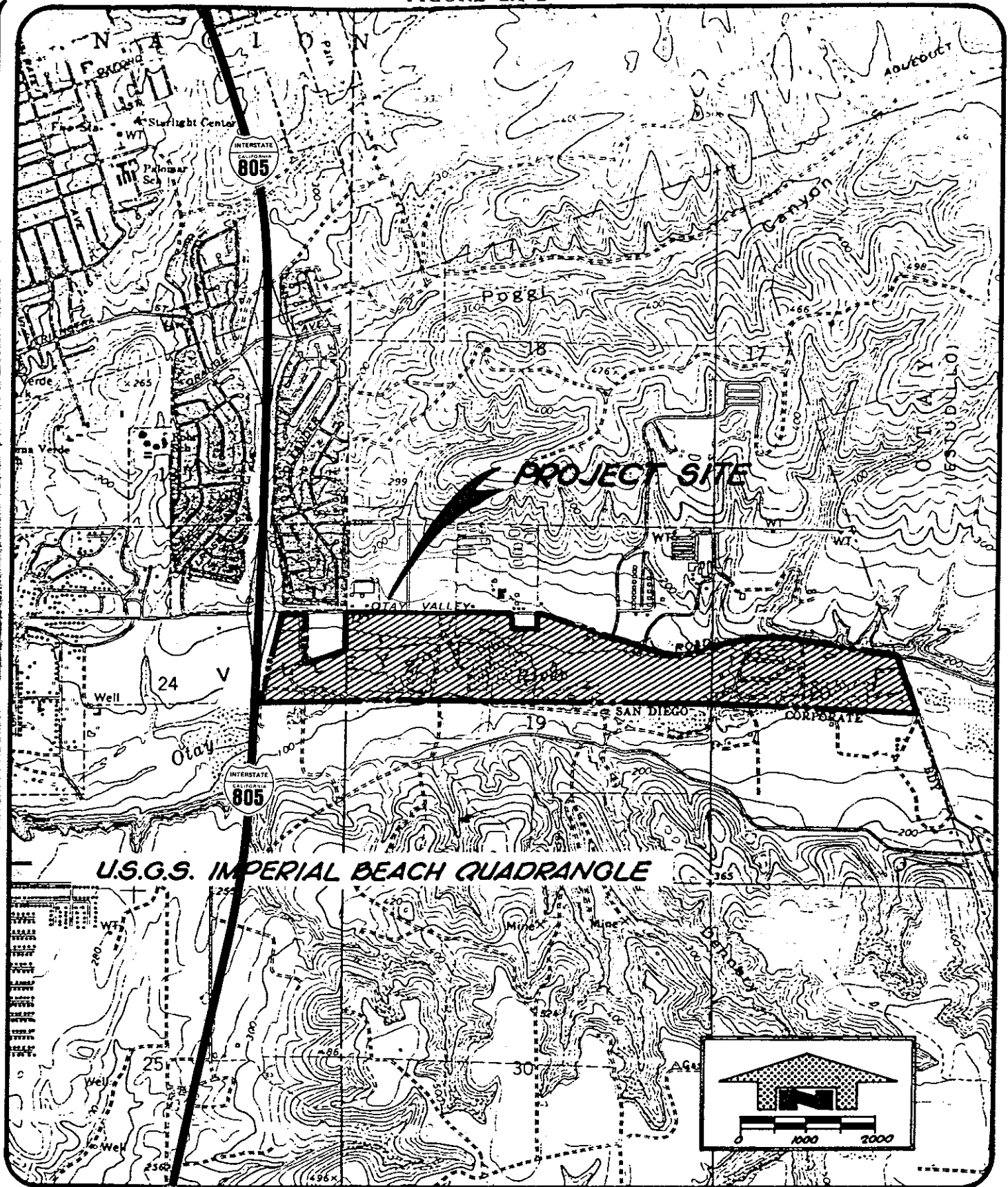
A previous EIR, prepared in 1980 (Case No. 80-7, Brandywine Industrial Park), assessed the environmental impacts of research and limited industrial development on the current project site and an area north of the road on Brandywine. The area covered by the EIR was later reduced to the 40 acres north of Otay Valley Road. However technical background studies for the current project area were conducted, including geologic and soils investigations, archaeological and biologic surveys, and a traffic analysis. These studies formed important data bases for the present EIR and are reproduced in the appendix. Where necessary, new studies or supplemental information was prepared for these issue areas.

Figure 2.1-1

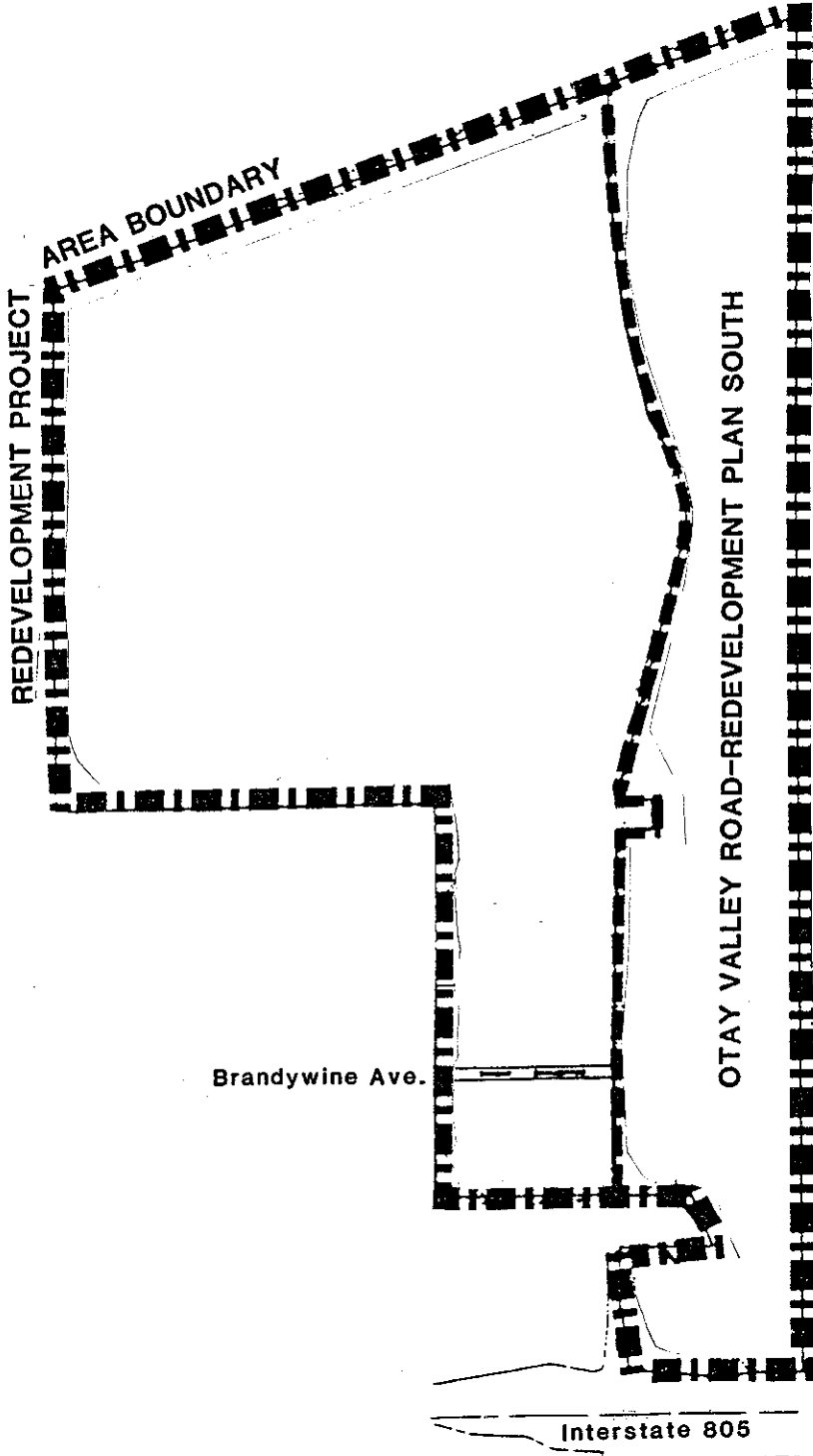


**regional map**

FIGURE 2.1-2



**vicinity map**



**OTAY VALLEY ROAD  
REDEVELOPMENT PROJECT AREA**

FIGURE 2.2-1



The 241-acre property is owned by several private parties and it is currently within the boundaries of the County of San Diego. In 1980, the County prepared General Plan Amendment (GPA) 80-01 which added the area to the Otay Subregional Plan; the applicable portion of the GPA received a negative declaration (no EIR required) from the County Environmental Review Board and was adopted by the Board of Supervisors on July 16, 1980. The Otay Subregional Plan was recently revised by GPA 83-01, adopted on May 18, 1983. The designations shown on the Otay Subregional Plan are discussed more thoroughly in Section 3.1, Land Use.

## 2.3 PROJECT PLANS

The project is a proposal for governmental reorganization of the 241-acre project site. The project will annex the area, currently within the County of San Diego, to the City of Chula Vista. The reorganization will also include detachment of the 241 acres from the Montgomery Fire Protection District and the San Diego County Flood Control District - Zone 4. These reorganization proposals will require approval from LAFCO as a Responsible Agency for the project. An amendment to the General Plan of the City of Chula Vista, and rezoning to permit future limited industrial use on a portion of the property are also being requested.

The area covered in this proposal is the 241-acre southern portion of the redevelopment area, which includes Otay Valley Road. A development feasibility study of the project area examines three floodway treatment alternatives in terms of costs, environmental effects and development potential. This EIR examines the preferred floodway alternative identified in the feasibility study, which recommends development north of the Otay River up to a modified 100-year floodway. This proposal will result in a total developed area of approximately 127 acres. Of this land, approximately 90 net areas will be available for limited industrial development. The southern 114 acres, including the floodway, will remain in natural open space. Estimated developable acreages under this proposal are outlined in Table 2.3.1.

The developable portion of the property north of the Otay River floodway is proposed to be rezoned to the I-L-P zone, permitting planned limited industrial use. The southern portion of the project site that is within the floodway would be placed under the F-1 zone, which would preclude construction in the floodway, consistent with the parks and open space designation in the Chula Vista General Plan. Figure 2.3-1 illustrates the proposed land use designations, and Figure 2.3-2, proposed zoning.

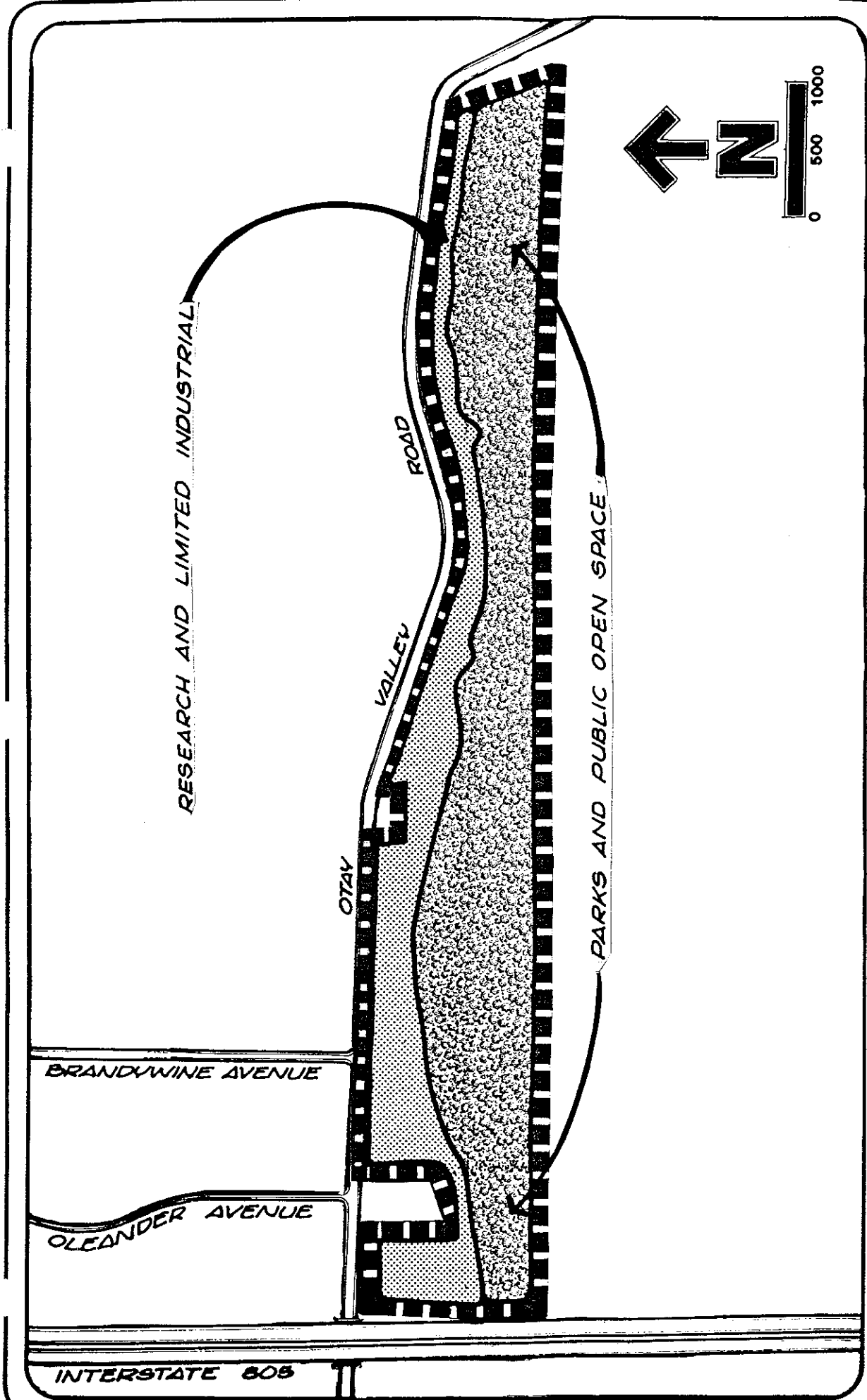
This project involves only a change in land use designations; no precise development plans are available at this time. When precise development plans become available, additional environmental review will be required. The City of Chula Vista has indicated that it will require a "precise plan" for either all or portions of the property. Such a precise plan requirement would be reviewed by the City Council, and any precise plan eventually submitted would be reviewed by the City's Design Review Committee prior to the development of a tentative map for the subject property. More complete definitions of the "limited industrial" zone and the "precise plan" required are included in Section 3.1 of this report, Land Use.

If the Redevelopment Plan is approved, development plans will be processed by the Redevelopment Agency either under a disposition and development agreement (DDA), in which the agency acquires the property, or through an owner's participation agreement.

In summary, the proposed project would involve a GPA, rezoning and annexation of the property to the City of Chula Vista. The northern portion of the property would be designated for limited industrial development. The southern portions of the property would be designated for parks and public open space and would remain undeveloped.

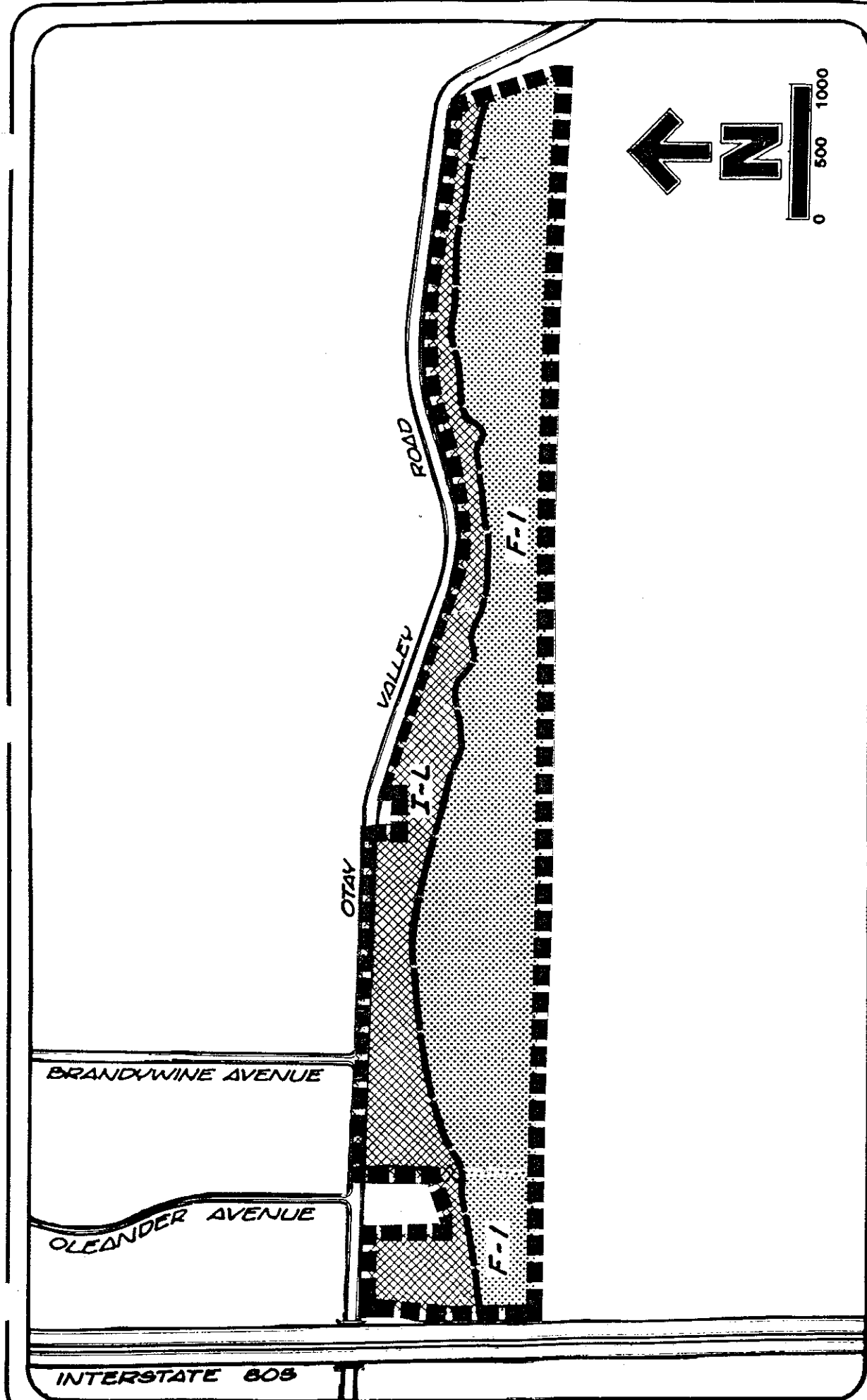
Table 2.3.1  
Acreage Analysis

<u>Area to be Developed</u>	<u>Acres</u>
Limited industrial development (net acres developable)	90.0
Presently developed	2.5
Internal streets	8.0
Internal streets - fill slopes	2.0
Fill slopes between lots	<u>1.5</u>
Subtotal	104.0
<u>Public Improvements - Otay Valley Road</u>	
Existing Otay Valley Road (60-foot right-of-way)	12.0
Area needed to widen to 120 feet (south side only)	6.0
Fill slopes needed to widen to 120 feet (south side only)	<u>5.0</u>
Subtotal	23.0
<u>Open Space - Floodway</u>	<u>114.0</u>
TOTAL	241.0



**proposed land use designations**

FIGURE 2.3-1



# proposed zoning

FIGURE 2.3-2

## 2.4 Other Proposals in the Project Vicinity

At the present time, various projects are under development or under consideration in the vicinity of the proposed project. These are described briefly below in order to define cumulative impacts in the project area. The documents prepared for these projects provide important background information for this EIR. Each is hereby incorporated by reference into this document.

### a. Immediate Vicinity

The following projects are located on the north side of Otay Valley Road, immediately adjacent to the project:

Otay Valley Road Redevelopment Project Area (City of Chula Vista, Preliminary Redevelopment Plan, September 10, 1983; Draft EIR, October 1983; EIR Supplements, December 9, 1983.) These documents address a redevelopment program for 771 acres on the north and south side of Otay Valley Road, including the Otay Valley Road South GPA project. The plan will serve as a framework for future specific plans, projects and improvements for mitigating blighted conditions. The plan outlines objectives, strategies for implementation, and methods for financing. The EIR and Supplement evaluate impacts of proposed policies on land use, growth, traffic and noise, air quality, energy consumption, biological and archeological resources, water quality, and aesthetics. Provision of sewer facilities is cited as a significant impact which may potentially be resolved through cooperative action with the City of San Diego. The Redevelopment Plan and EIR are currently the subject of legal challenge.

Cruz Warehouse (City of Chula Vista, 1982, Case No. IS-82-5 Negative Declaration). An industrial warehouse facility of 79,600 square feet on 3.78 acres, located 114 feet east of Oleander Avenue on Otay Valley Road. The project is accessed from Otay Valley Road and includes 110 parking spaces. Environmental review included assessment of truck noise and sewage capacity. The project has been approved and is currently under construction.

J.T. Racing (City of Chula Vista, 1983, Case No. IS-83-18, Mitigated Negative Declaration issued June 22, 1983). A 27,179 square foot office warehouse structure with 60 parking spaces, on 1.88 acres. The project is located 345 feet west of Brandywine on Otay Valley Road. Mitigative measures to assure sewage capacity and structural stability were incorporated into the project, which is currently under construction.

Rio Otay Industrial Park (City of Chula Vista, 1982, Case No. IS-82-20, Conditional Negative Declaration issued on January 28, 1982). A proposal to subdivide the former Otay Rendering Plant site into 22 industrial lots. No specific development plans have been submitted. The project was issued a negative declaration under the conditions that: the future developer will demonstrate that development will not create a hazardous situation with respect to the toxic wastes buried on the site; that sufficient water is available to meet fire protection needs; and that sufficient sewer capacity is available.

Otay Valley Industrial Park (City of Chula Vista, 1981, Case No. IS-81-24; Negative Declaration issued July 21, 1981). A proposal to subdivide 40.76 acres of vacant land into 30 light industrial/commercial lots. No specific development plans have been prepared. The project site, located on the west side of Maxwell Road, is currently vacant. No significant unmitigable impacts were identified.

Otay Landfill Generating Plant (City of Chula Vista, 1983 Final EIR, Case No. 84-4). A proposal to construct and operate a methane recovering electric generating plant on 0.86 acres on the northeast corner of the Otay Landfill north of Otay Valley Road. Environmental review focused on air quality, noise, and protection of public health. The EIR determined that conformance with APCD regulations would mitigate any potential air quality impacts; noise impacts would be mitigated by the plant structure; potential escape of toxic pollutants from the landfill would be reduced by collection and use of gas. The plant will incorporate automatic shut-down in the event of major ground rupture. The project and the EIR are scheduled to go before the City Council in 1984.

The above projects are related to the current project in terms of traffic and traffic noise generation, land use, sewer and water service availability and aesthetics.

b. Regional Vicinity

The following major projects are located within three miles of the proposed project.

Eastlake Planned Community (City of Chula Vista, Case No. EIR-81-03, Final EIR, February, 1982, Supplemental EIR, Case No. EIR 84-1, draft in preparation) The EIR addresses the annexation and planned development of a portion of the Janal Ranch located northeast of the project site. The planned community would include a mixture of residential, industrial, commercial, office educational and open space land uses. The project is anticipated to have significant cumulative impacts on the regional circulation system, regional sewer and water service facilities, air quality,

and growth inducement. Supplemental environmental review of Eastlake 1, the first 1,200 acres within the community, is currently being conducted.

El Rancho Del Rey Specific Plan (City of Chula Vista, proposed Specific Plan Amendment January 7, 1984, Case No. EIR 83-2, draft in preparation) The specific plan proposes development of 1582 acres located approximately three miles north of the project site. The planned community, a mixture of residential, employment park, parks and open space uses, would have an ultimate population of 13,772 persons. The project would be developed in seven phases, proceeding from west to east. Environmental review for the specific plan will be conducted in 1984.

The projects discussed above would have cumulative impacts on region-wide circulation systems and air quality but are otherwise not directly related to the Otay Valley Road-South project.

Otay Mesa Community Plan and EIR (City of San Diego, adopted by the City Council on April 27, 1981) This plan provides a conceptual long-range policy guide for development of the Otay Mesa area, south of the project area on the Mexican border. The plan provides for a mixed use community of 18,000 residential units, 358 acres of commercial and 3,500 acres of new industrial development. Ultimate population will be approximately 46,000. The plan also addresses related development south of the border. The plan would have significant cumulative effects on region-wide circulation, traffic noise, air quality, water quality, sewer and water services and agricultural land reduction.

The following specific plans have been initiated in the Otay Mesa community:

Otay International Center Specific Plan and Tentative Subdivision Map (City of San Diego, May 1983 Draft EIR) A proposal for mixed use development of 449 acres at the second U.S./Mexico border crossing. Proposed uses include commercial/border services, warehousing, truck and freight, retail commercial, general industrial land, and business park. Significant issues include off-site extension of sewer service and road improvements.

Robinhood Ridge Precise Plan (City of San Diego, March 1984) Approval for initiation of precise plan preparation for 300 acres, 0.5 miles south of the Otay Valley Road project, indicated in the community plan as a mixed-density residential area.

California Terraces Precise Plan (City of San Diego, December 1983) Approval for initiation of precise plan preparation for a 693-acre area adjacent to the south of the Robinhood Ridge area; indicated in the community plan for residential and commercial use.



Santee Investments (City of San Diego, March 1984) Approval for initiation of precise plan preparation for a 94-acre area adjacent to the south of the California Terraces area (approximately one mile from the Otay Valley Road project); indicated in the community plan for residential and commercial uses.

The area directly east of the Otay Mesa community is also under planning by the County of San Diego.

Phase II of the Otay Mesa Land Use Plan, GPA 84-01 (County of San Diego, Supplemental Draft EIR, December 1983) This document addresses a proposed amendment to the Regional Land Use Element and Otay Mesa Subregional Plan, encompassing an area of 5,100 acres of Otay Mesa directly east of the Otay Mesa Community Plan. The proposed plan is for mixed land uses including general impact industrial, general commercial, estate and rural residential. The EIR also evaluates eight alternative proposals. The plan proposes changes to the regional-wide circulation system which would directly impact Otay Valley Road, increasing traffic and traffic-generated noise. The proposed plan will also contribute to cumulative region-wide impacts in providing sewage service for Otay Mesa, loss of agricultural land, and air quality.

In addition to cumulative region-wide impacts, the above projects would have direct impacts on Otay Valley Road in terms of traffic, traffic noise and sewer facilities.

## 3.0 ENVIRONMENTAL ANALYSIS

### 3.1 LAND USE

#### 3.1.1 Project Setting

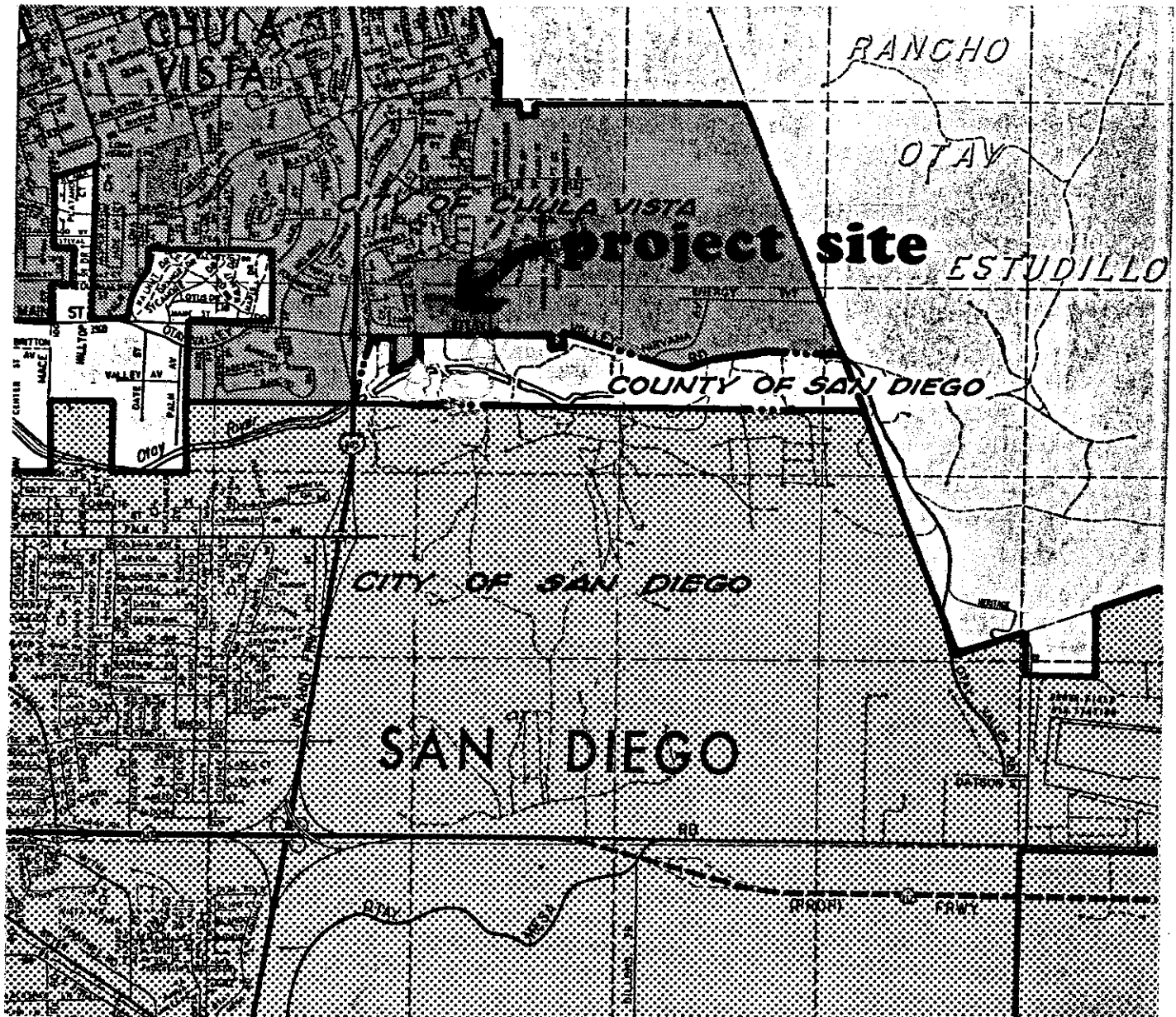
Although development pressures have increased in recent years, the project site lies within an area which is largely undeveloped at the present time. Because three jurisdictions (the City of Chula Vista, the City of San Diego, and the County of San Diego) govern land uses in the area, changes in land use designations, such as those proposed by the project, are somewhat complex. Because the proposed changes involve annexation, the Local Agency Formation Commission (LAFCO) will also be involved. The jurisdictions in the vicinity of the project area are shown on Figure 3.1-1.

The existing setting is illustrated on Figure 3.1-2. Approximately 50 acres of the project site are currently in agricultural production. Much of the property has been farmed at some time during the recent past. Approximately 44 percent of the project site is overlain by Salinas clay loam, a Class I or II soil type according to the Soil Conservation Service, which is generally considered to be a prime agricultural soil. Tomatoes and cucumbers have been raised in the western portion of the property since the 1940's. The present landowner of this portion of the property and his family have cultivated the area since 1906. The landowner currently farms 22 acres south of Otay Valley Road and 18 acres north of Otay Valley Road (outside the project area); 17 acres are also leased from N&S Materials Company for agricultural production. Several structures in the central portion of the property are associated with this agricultural activity. Additional agricultural activity occurs in the southeastern portions of the site which is associated with the farming activities of Otay Ranch located at the southeastern border of the property. Tomatoes are the principal crop cultivated in this area. The river bank on the western portion of the site is currently being filled under County approval. Other landfilling has occurred south of the river in conjunction with illegal waste disposal.

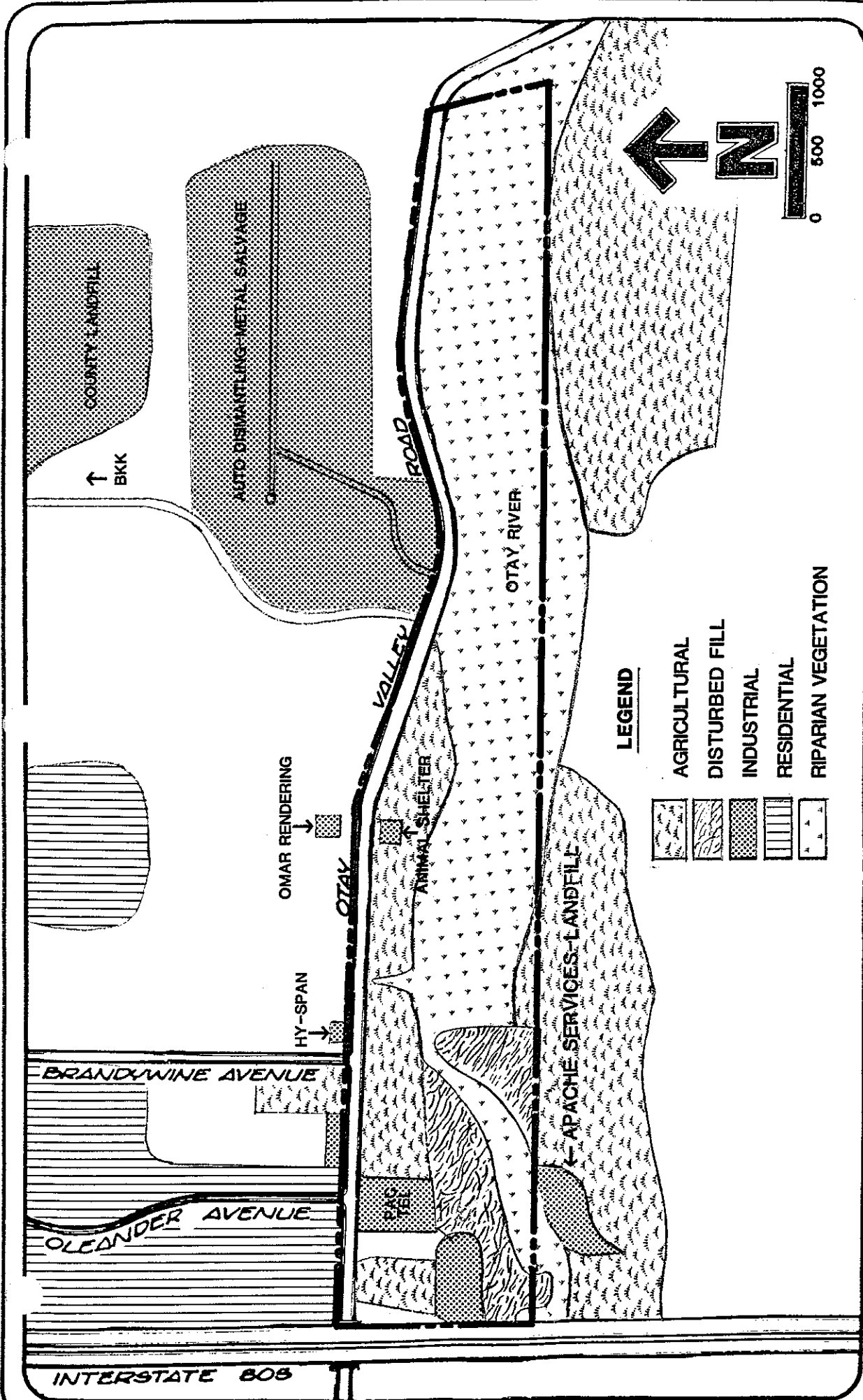
The project site is within a significant area of agricultural lands which includes the Otay River Valley and Otay Mesa, governed by the Cities of Chula Vista and San Diego and the County of San Diego. Development pressures have occurred in all of these jurisdictions during recent years, and agricultural acreage in the area has steadily declined. The City of San Diego estimates that 5,000 acres of agricultural land remains in the Otay Mesa Community Planning Area while the County of San Diego calculates that 13,695 acres are in agricultural production in the Otay Subregion. San Diego's Otay Mesa Community Plan and the County of San Diego's Agriculture Basic Data Report, which was prepared in conjunction with its proposed Agriculture Element, both express concern regarding the preservation of agriculture in this area. None of these jurisdictions have, as yet, adopted policy guidelines or general plan elements which would preserve the existing stock of agricultural land.

A variety of land uses surround the project site. Single-family residential dwelling units are located along Oleander Avenue north of the project site at its western end. Single-family attached and detached residential development occurs further

Figure 3.1-1



**area jurisdictions**



# EXISTING SETTING

FIGURE 3.1-2

north of the property along Brandywine Avenue and Mendocino Drive, and on a bluff north of the property along Cherry Point Drive. Primary access to these residential developments is provided by Brandywine Avenue which intersects Otay Valley Road 2,000 feet east of I-805. Five acres south of Otay Valley Road and surrounded by the project are leased by Pacific Telephone. Pacific Telephone operates a plant work center on this acreage which serves as a headquarters and maintenance facility for telephone installation trucks. The western portion of the project site is bordered by Interstate 805. Various types of residential and commercial development occupy lands west of I-805. Sloping land located adjacent to the southern portion of the property is within the City of San Diego. This land is within the Otay Mesa Community Plan area; the community plan was adopted by the City in April 1981. The plan would permit a variety of residential, commercial and industrial developments in the Otay Mesa area. Most of the property adjacent to the eastern border of the site is undeveloped; portions of it are in agricultural production. The Otay Trap and Skeet Shooting Range is located adjacent to the southeastern border of the property. A variety of industrial uses are located along Otay Valley Road near the project site. The City of Chula Vista operates an animal shelter on the south side of Otay Valley Road, adjacent to the northern border, approximately 3,500 feet from the Intersection of I-805 and Otay Valley Road. A rendering plant is located north of Otay Valley Road across from the animal shelter. The Otay Industrial Recycling Park is located on the north side of Otay Valley Road. The County of San Diego operates the Otay Solid Waste Disposal Station north of the Recycling Park.

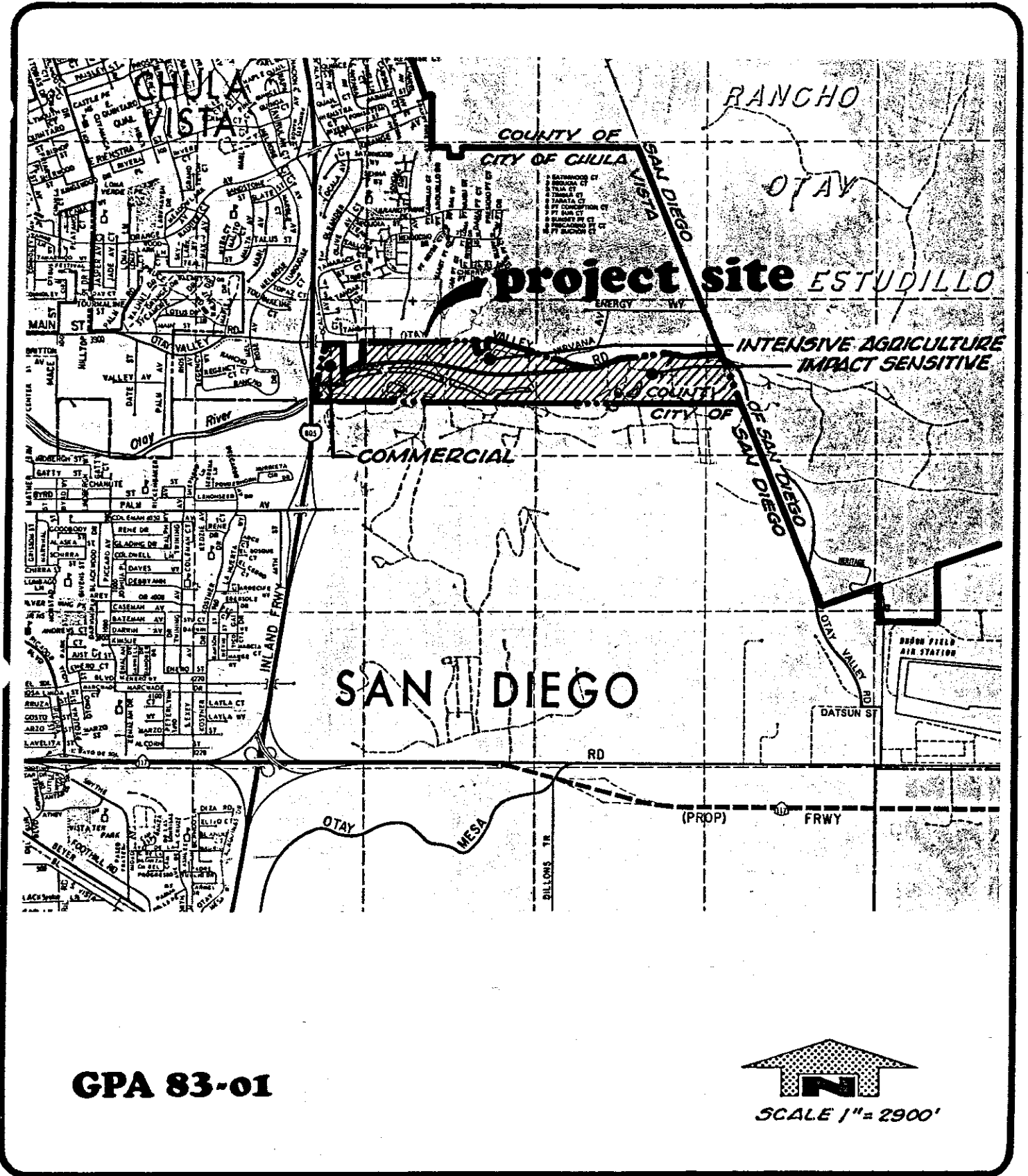
The project site is within the County of San Diego. This area is covered by the County's Otay Subregional Plan; land use designations were adopted by GPA 83-01 and are shown on Figure 3.1-3. The land use designations adopted by GPA 83-01 are "intensive agriculture", "impact sensitive", and "service commercial". The intensive agriculture designation "promotes a variety of agricultural uses including minor commercial, industrial, and public facility uses appropriate to agriculture operations or supportive of the agricultural population." The impact sensitive designation "is applied to areas considered unsuitable for development for reasons of public safety or environmental sensitivity". As it applies to the project site, the impact sensitive designation preserves the floodway of the Otay River. The land use designations adopted by GPA 83-01 are "impact sensitive" in the floodway of the Otay River and "service commercial" or intensive agriculture over the remaining portions of the area. The "service commercial" designation would permit certain retail activities and services.

Existing land use designations on properties adjacent to the west of the site are "multiple rural use" and "intensive agriculture". Land use designations to the south are governed by the City of San Diego's Otay Mesa Community Plan; this area is designated "open space", "agriculture reserve", "very low density residential" and "low density residential".

### 3.1.2 Potential Impacts

The project would place the entire property under the jurisdiction of the City of Chula Vista and would alter land use designations on the project site to allow for limited industrial development in the northern portion of the site. The floodway of the Otay River would be designated for parks and public open space and would be

Figure 3.1-3



# land use designations

prezoned F-1. In order to accomplish this goal, an annexation, a GPA, and prezoning would be required. Proposed land use designations and proposed zoning are shown on Figures 2.3-1 and 2.3-2 in the Project Description.

Implementation of the proposed project would permit limited industrial development on approximately 90 net acres. The zoning ordinance of the City of Chula Vista states that the purpose of the limited industrial zone. . .

"... is to encourage sound limited industrial development by providing and protecting an environment free from nuisances created by some industrial uses and to insure the purity of the total environment of Chula Vista and San Diego County and to protect nearby residential, commercial and industrial uses from any hazards or nuisances."

Permitted uses within the limited industrial zone include the following:

- a. Manufacturing, printing, assembling, processing, repairing, bottling, or packaging of products from previously prepared materials not including any prohibited use in this zone;
- b. Manufacturing of electrical and electronic instruments, devices and components;
- c. Wholesale business, storage and warehousing;
- d. Laboratories: research, experimental, film, electronic and testing;
- e. Truck, trailer, mobile home, boat and farm implement sales establishments;
- f. Public and private building material sales yards, service yards, storage yards, and equipment rental;
- g. Minor auto repair;
- h. Laundries, laundry service, dyeing and cleaning plants, except large-scale operations;
- i. Car washing establishments;
- j. Plumbing and heating shops;
- k. Exterminating services;
- l. Animal hospitals and veterinarians;
- m. The manufacture of food products, drugs, pharmaceuticals and the like;
- n. Electrical substations and gas regulator stations;
- o. Temporary tract signs;

- p. Any other limited manufactured use which is determined by the commission to be of the same general character as the above uses;
- q. Agricultural uses under a conditional use permit.

Many types of general industrial land uses are prohibited within the limited industrial zone. Prohibited uses and processes in the limited industrial zone include:

1. Manufacturing uses and processing involving the primary production of products from raw materials, including the following materials and uses:
  - a. Asphalt, cement, charcoal and fuel briquettes;
  - b. Rubber, chemical and allied products, and soap and detergents;
  - c. Coal, coke and tar products, the manufacturing of explosives, fertilizers, gelatin, animal glue and size;
  - d. Turpentine, matches, paint and other combustible materials;
  - e. Stockyards, slaughterhouses and rendering plants;
  - f. The storage of fireworks or explosives;
  - g. Industrial metal, waste rag, glass or paper salvage operations and slag piles;
  - h. Fish, sauerkraut, vinegar and similar uses;
  - i. Brewing or distilling of liquors or perfume manufacturing;
2. The following processes: Nitrating of cotton or other materials; foundries; reduction, refining, smelting, alloying, rolling, drawing and extruding of metal or metal ores; refining of petroleum products; distillation of wood or bones; storage, curing or tanning of raw, green or salted hides or skins; and grain milling;
3. Any other use which is determined by the commission to be of the general character as the above uses. (Chula Vista Municipal Code, Chapter 19.44)

The Redevelopment Agency is currently developing a policy to further restrict the types of industrial uses permitted within the redevelopment plan area. This policy will be incorporated in the design manual for the redevelopment plan. This industrial policy will limit the types of industrial uses within the redevelopment plan area, prohibiting heavy industrial uses or other activities with the potential for adverse environmental impacts. Additional restrictions are proposed for industrial uses located near existing residential areas, including further limitations on the types of permitted uses and creation of buffers with additional landscaping requirements.

The City of Chula Vista has also indicated that a "precise plan" will be required on all or portions of the project site prior to development of final plans for the



proposed project. The City defines a "precise plan" as ". . . a plot plan, drawn to scale, that encompasses an area that has been designated for future development for industrial, commercial, and/or multiple family residential uses."

Potential conflicts exist between the type of development which would be permitted under the I-L-P zone and the residential land uses north of the western end of the property. Noise which could be generated by some forms of industrial development or by increased regional traffic on Otay Valley Road associated with industrial development could conflict with these adjacent residential land uses. The proposed project would alter the visual environment of the site from that of an agricultural valley to one of light industrial development; such alteration could adversely affect the quality of views from residential lands north of Otay Valley Road.

Several conflicts exist between existing and proposed land use designations on the property which is within the County of San Diego. The land uses proposed are not compatible with the land use designations shown on the Otay Subregional Plan and adopted by the County in May 1983 or with the Chula Vista General Plan, and are potentially incompatible with the Local Agency Formation Commission's (LAFCO's) agricultural lands preservation policy.

The majority of the site is currently designated by the City of Chula Vista's General Plan as agriculture and reserve, and parks and public open space. The land use changes proposed would conflict with the agriculture and reserve designation in the northern portion of the site but would generally conform with the parks and public open space designation shown in the southern portion. The western corner of the site is designated by the City of Chula Vista's General Plan for research and limited industrial development and for parks and public open space. The land use changes proposed would generally conform with these designations.

The Local Agency Formation Commission (LAFCO) is the agency which has the most direct influence over annexations such as those proposed. When evaluating proposed annexations, LAFCO considers a variety of factors, such as service availability and proposed land use changes, including loss of agricultural lands. LAFCO's agricultural lands preservation policy concerns the disposition of annexation proposals which involve the conversion of agricultural or open space lands to urban uses. LAFCO uses several criteria to define prime agricultural lands. The portions of the subject property which are overlain by Class II soils (as defined by the Soil Conservation Service) are considered by LAFCO to be prime agricultural lands. (Soil classifications are explained in greater detail in Section 3.3, Soils.) In general, LAFCO discourages annexations which would lead to the loss of prime agricultural land unless the City or jurisdiction has accomplished the following:

- a. Identified, within its sphere of influence, all "prime agricultural lands";
- b. Demonstrated to LAFCO that measures have been taken to preserve agricultural lands, such as the formation of agricultural preserves, the placement of agriculture designations on the General Plan, or the adoption of an agriculture element;
- c. Prezoned territory within the City's general planning area to be maintained

for agricultural use and territory within the annexation area to indicate anticipated levels of development.

When considering annexation proposals which involve the loss of agricultural lands, however, LAFCO also evaluates the regional significance of the site, the profitability of existing on-site agricultural operations, and the effect of the loss of agricultural lands on surrounding land uses before making a final determination. LAFCO would also consider existing development trends in the area when evaluating the proposed project. The potential incompatibility of the proposed project would have to be determined by LAFCO during project review.

o Cumulative Effects

Because it would remove approximately 50 acres from the total agricultural production in the Otay Valley area, the loss of on-site agricultural activities which would occur with project implementation contributes incrementally to region-wide, cumulative reduction in agricultural land.

The proposed large-scale developments in the East Lake Community (Chula Vista), the Otay Mesa Community Plan Area (City of San Diego) and the Otay Mesa-Phase II (County of San Diego) described in Section 2.4 will significantly reduce agriculturally productive land in the surrounding region. In the Otay Mesa area, 5,000 acres of land are currently under productive agricultural use. The proposed plans will at ultimate buildout reduce the area to 600 contiguous acres, paralleling approximately 6 miles of the Otay River. In light of the magnitude of these other proposals in the vicinity, the Otay Valley Road - South GPA contribution to cumulative loss of agricultural lands is not significant.

### 3.1.3 Mitigation Measures

Several mitigation measures are available with regard to the proposed project both in terms of the present project and in terms of more specific project plans which may be developed in the future. Some mitigation measures would have to be implemented on the project level when precise development proposals for the subject property are prepared.

Conflicts between existing residential uses to the north of the project site and the proposed industrial development could be mitigated by providing a landscape buffer between these two land use types. Sufficient visual separation should be provided between the residential uses and the industrial uses to minimize land use conflicts. These concerns should be incorporated into the environmental review of the final development plans. The city will require preparation of 'precise plans' to assure implementation of adequate mitigation measures into development proposals.

The incremental loss of productive agricultural land is not considered to be significant, and no mitigation measures are required.

### 3.1.4 Analysis of Significance

The loss of agricultural lands on the project site would not be significant in a

regional context, since only 50 acres within the project area are currently used for agricultural production. Annexation of this portion of the Otay River Valley to the City of Chula Vista would eliminate an irregular "finger" of county land which is currently surrounded on three sides by incorporated areas. Because such irregular "fingers" of land are more difficult for the county to administer than are larger areas, the annexation would not, in itself, have adverse impacts. The annexation would be a logical extension of the Chula Vista boundary.

Rezoning of the floodway of the Otay River to the F-1 zone would generally conform with both the County of San Diego and City of Chula Vista designations proposed for this area.

The potential conflict between existing residential uses to the north and the proposed industrial uses could be significant if it is not mitigated on the project level. Careful site design on the project level would, however, reduce the significance of these impacts. The City's requirement that a "precise plan" be prepared for individual developments within the project area will assure that future light industrial projects will be compatible with adjacent developments. Additionally, the Redevelopment Agency is developing a policy to further restrict the types of industrial uses permitted within the redevelopment plan area, including a requirement for additional buffers adjacent to residential areas.

## 3.2 GEOLOGY

### 3.2.1 Project Setting

A geological reconnaissance of the project site, which included field observations and a review of Map Sheet 29 of the California Division of Mines and Geology, was conducted by Geocon, Inc., in May, June and August 1980. Their report is included in the appendix to this report and summarized below.

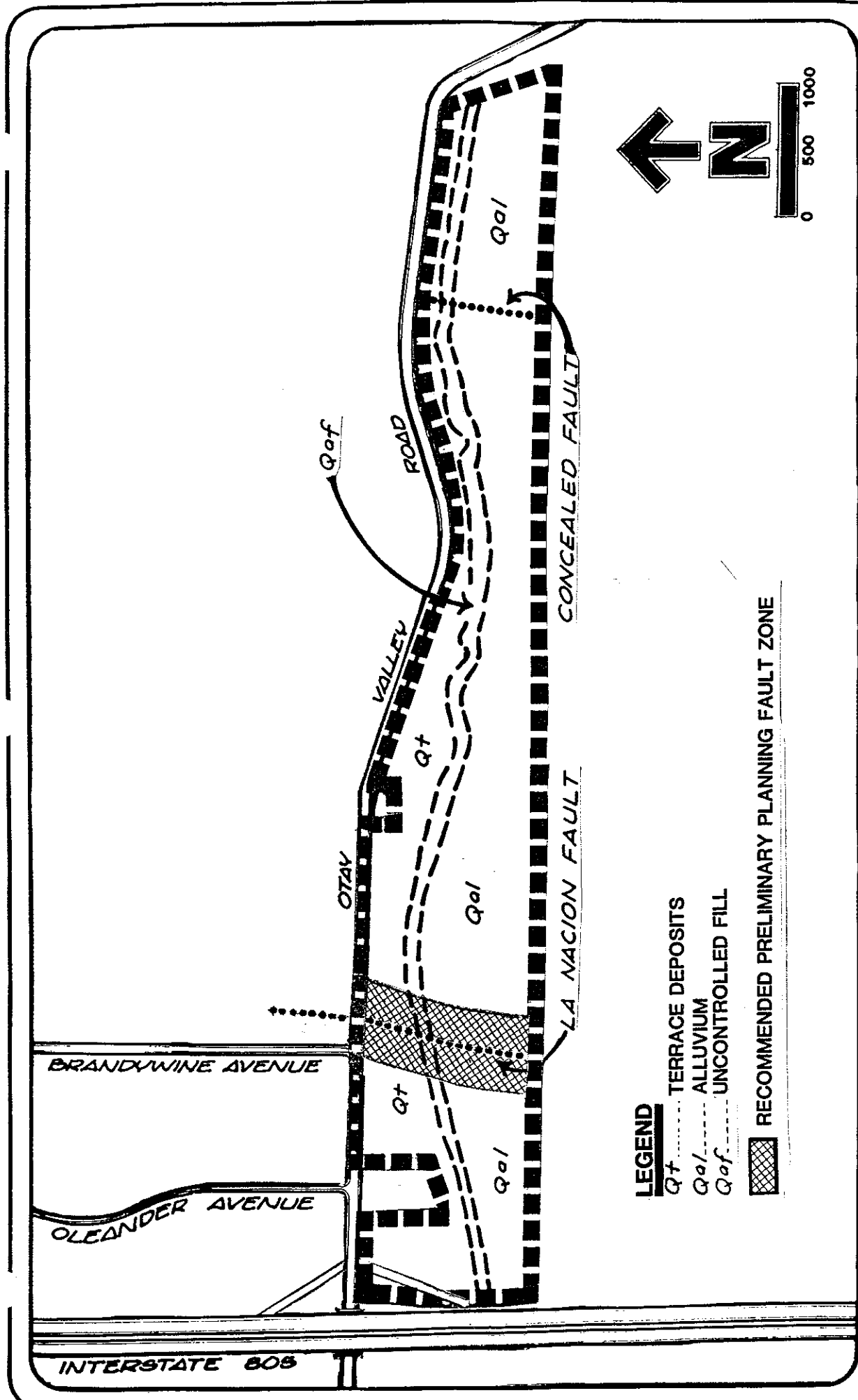
Elevations on the project site range from a high of approximately 120 feet above mean sea level (AMSL) at Otay Valley Road to a low of approximately 80 feet AMSL in the drainage course of the Otay River.

Tertiary sedimentary rocks are overlain by Quaternary non-marine terrace deposits alluvium on the north side of the stream course in Otay Valley. The majority of the project site is occupied by alluvial and stream terrace deposits. Quaternary-aged slopewash and recent artificial fill are also present over localized areas of the project site. Fill materials occur primarily adjacent to the Otay River and along the road bed of Otay Valley Road. A trace of the La Nacion Fault Zone is located on the project site approximately parallel to Brandywine Avenue as shown on Figure 3.2-1. Although the precise location of the fault is unknown, the relationships of Tertiary rocks in the area confine the location of the fault north of Otay Valley Road to within a zone of approximately 100 feet of the trace shown on Figure 3.2-1. South of the road, the fault is overlain by terrace and alluvial deposits; its location can only be approximated by means of inferred faulting of sedimentary units on the south side of the Otay River Valley.

The La Nacion Fault Zone is considered to be potentially active although current evidence indicates that no movement has occurred within the last 10,000 to 20,000 years. In the event of a significant earthquake along the La Nacion Fault Zone, severe ground shaking and earth rupture would probably occur. According to Geocon's report, the risk of surface faulting on the project site is relatively low and not significantly greater than that of immediately surrounding developments.

An unnamed concealed fault passes through the county's solid waste disposal site, located north of the eastern portion of the site, across Otay Valley Road. The possibility exists that this concealed fault extends onto the project site. The probable location of this fault is shown on Figure 3.2-1. The Elsinore Fault is located approximately 43 miles northeast of the project site; it is the nearest known active fault. A major earthquake on the Elsinore Fault would be expected to result in moderate to severe ground shaking on the project site.

Several potentially hazardous soil conditions occur on the project site. A potential for seismically induced liquefaction exists in areas of the project site underlain by unconsolidated alluvial materials. Alluvial materials, consisting of clays, silts and sands, are primarily located in and adjacent to the Otay River in the southern portion of the property. Potentially expansive soils also occur on the project site both within localized portions of the terrace deposits located in the northern portions of the site. More information concerning these soils is contained in Section 3.3, Soils - Table 3.3-1. An unknown depth of uncontrolled fill material has been placed along the north bank of the Otay River. Some oversize rubble may be present in this fill material.



# geology map

FIGURE 3.2-1

### 3.2.2 Potential Impacts

No direct geologic risks would occur as a result of approval of the land use designations proposed by the applicant. Eventual limited industrial development anticipated for the site would be subject to geologic risk if it occurred where a trace of the La Nacion Fault Zone is inferred to pass through the project site. Structures erected in this portion of the project site could receive severe damage during potential earthquake activity.

Several adverse soil and geologic conditions are also present on the project site which may affect eventual industrial development. Areas of unconsolidated alluvial materials, potentially expansive soils, and uncontrolled fill would require special treatment if development were to occur in these areas. Unconsolidated alluvial and unconsolidated fill materials are located primarily in the flood plain of the river. Potentially expansive soils occur in localized areas in the northern and central portions of the project site.

### 3.2.3 Mitigation Measures

The geology report recommends several measures which would help to reduce geologic hazards if development occurred on the project site. They are listed below.

1. Relatively common grading and construction measures could be used to mitigate potential impacts related to expansive soils and uncontrolled fill materials. Appropriately designed foundation systems would be required during construction on expansive soils. Uncontrolled fill material would require densification before development could occur on this material.
2. The presence of the La Nacion Fault Zone on the project site would affect the location of proposed structures. No structures should be permitted to lie directly over a major fault trace. The geology report recommends that a detailed geologic investigation be performed to better define the location of the fault and to determine minimum structural setbacks from the fault. The City of Chula Vista Seismic Safety Element recommends the placement of a 250-foot wide preliminary planning zone over the La Nacion Fault Zone as shown on Figure 3.2-1.
3. In alluvial areas prone to liquefaction, deep pier or pile foundations may be required for large structures. Vibratory densification of the alluvial material could also reduce potential risks. A detailed soil investigation would be necessary to provide meaningful recommendations for foundations in unconsolidated alluvium. Because most of the alluvial deposits on the project site occur within the floodway of the Otay River, which would be designated for parks and public open space, it is unlikely that any large structures would be constructed on alluvium.

Future studies for specific development projects should determine whether structural foundation mitigations, zoning setbacks, or a combination of these methods would be most appropriate for each specific site.

### 3.2.4 Analysis of Significance

Several geologic hazards exist on the project site which would require mitigation on the project level before development occurred. Development would be most hazardous in the western portion of the property which is occupied by a trace of the La Nacion Fault Zone and in the southern portion of the property which is overlain by unconsolidated alluvial deposits. Because no development would occur in the floodway of the Otay River, which contains most of the alluvial deposits on the project site, the significance of potential impacts related to development on alluvial materials would be reduced.

In the event of a significant earthquake along the La Nacion Fault Zone, severe ground shaking and surface rupture would probably occur. Based on present geologic data, it is the opinion of the geologist that the risk of on-site surface faulting is very low. All evidence for recency of activity of the La Nacion Fault Zone indicates that no movement has occurred within the last 10,000 to 20,000 years. However, because of the uncertainty of predicting future movements, development plans may require a structural setback from the zone of faulting, or specific structural foundation improvements.

### 3.3 SOILS

#### 3.3.1 Project Setting

Five soil types occur on the property according to the U.S. Department of Agriculture's (Soil Conservation Service) Soil Survey of the San Diego area. These soil types occupy approximately 57 percent of the project site. The remaining 43 percent of the property is designated as being within the boundaries of the Otay River, with no soil classification. The soils within the project area are generally well drained, with medium runoff potential and moderate shrink/swell potential according to the Soil Conservation Service. Over 77 percent of the soils (excluding the portion of the property which is occupied by the Otay River) exhibit slight to moderate erosion susceptibility. Table 3.3-1 shows the classifications and interpretations of all the soils on the project site. Figure 3.3.-1 is a soils map of the project site. Most of the soils are clay loams; riverwash deposits occur in the flood plain of the Otay River and on the valley floor.

The Soil Conservation Service survey provides a more generalized discussion and mapping of all soil types within San Diego County. A more site-specific evaluation of soils on the project site is provided in the geology report which was prepared by Geocon, Inc. The Geocon report reveals that several hazardous soil conditions exist on the project site which would affect the type and location of possible development. These conditions include the presence of expansive soils in the central portion of the project site and unconsolidated alluvial soils and fill materials in the southern portion of the site. The locations of these soils are shown on Figure 3.2-1; a more thorough discussion of potential hazards associated with these soils is contained in Section 3.2, Geology.

The soils on the project site are also suitable for agricultural production. Approximately 50 acres of the project site are currently in agricultural production. Additional acreages have been cultivated in the past. Two methods of determining the suitability of soils for agricultural use are available: the Storie Index and the Soil Conservation Service's Capability Ratings. The Storie Index considers only the inherent qualities of the soil and does not include other factors such as the availability of water for irrigation, climate or distance to markets. Forty percent of the soils on the project site are in grades one or two of the Storie Index. These grades generally have few limitations for agriculture. Twenty percent of the soils are in grades four, five or six of the Storie Index. Soils having these grades are generally not suitable for farming.

The Soil Conservation Service utilizes their own Capability Ratings. Only Capability Ratings I and II are considered to be prime agricultural soils. Forty-four percent of the soils on the project site have Capability Ratings of I or II. Both the Storie Index and the SCS Capability Ratings for each soil type on the project site are shown on Table 3.3.-1. The Storie Index grades for soils on the project site are shown on Table 3.3-2. Additional information concerning the soils on the project site and a key to the Storie Index Grades and the SCS Capability Ratings is included in the Soils Appendix to this report.

The California Department of Conservation, under the direction of the State Mining and Geology Board, has prepared a Draft Environmental Impact Report (DEIR) for the Designation of Regionally Significant Construction Aggregate Resource Areas in the

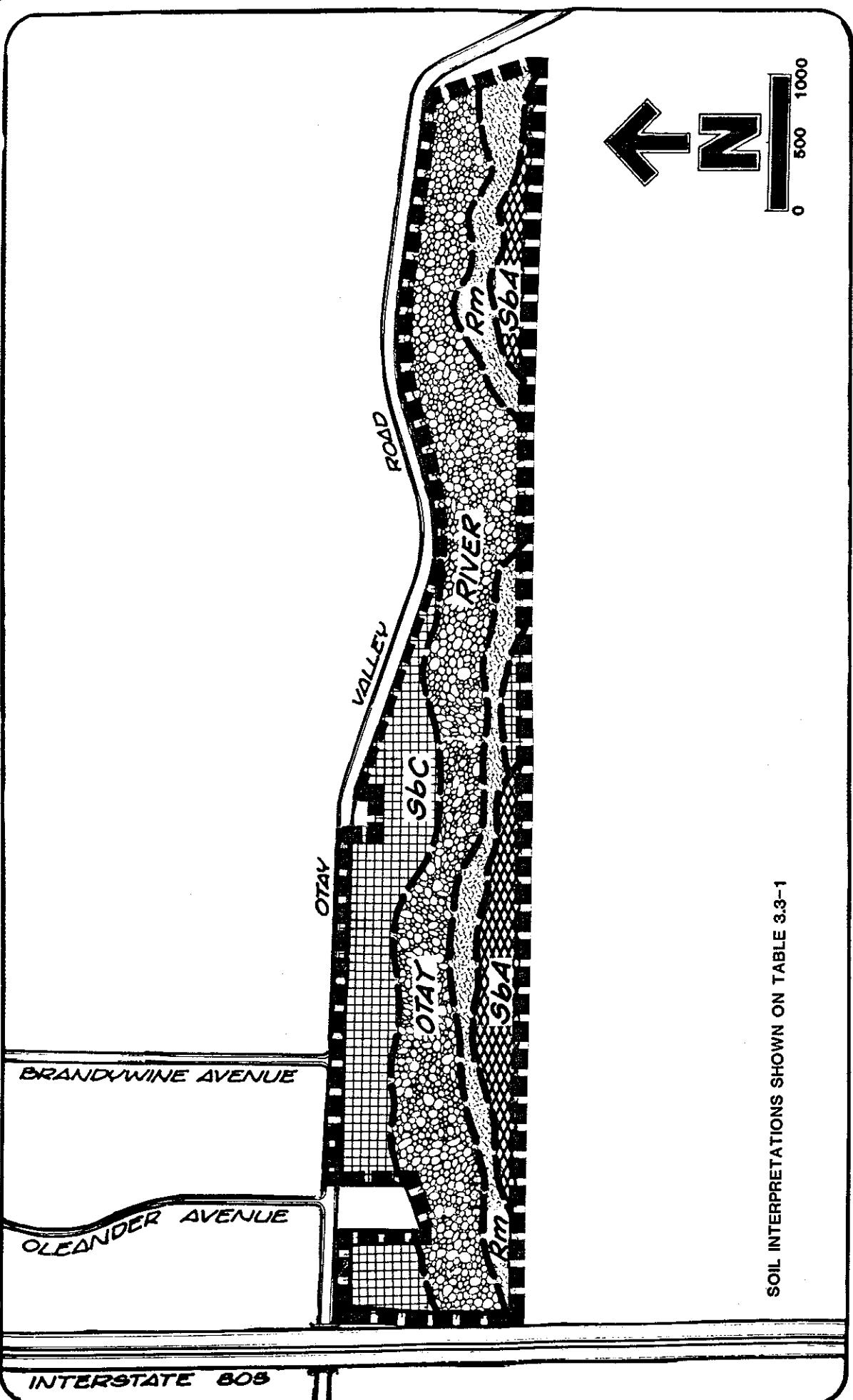


Western San Diego County Production-Consumption Region (March 1984). The purpose of the designation was to identify the location and areal extent of construction aggregate resources (sand, gravel, and crushed rock) that are of prime importance in meeting the future needs of the Western San Diego Production Consumption (P-C) Region. The region is approximately 70 miles long and varies in width from 15 to 35 miles.

The entire P-C region was divided into Mineral Resource Zones (MRZ-1, MRZ-2, MRZ-3, MRZ-4) determined on the basis of guidelines set forth in the Surface Mining and Reclamation Act of 1975 and in the "Guidelines for Classification and Designation of Mineral Lands". Mineral Resource Zones within the Western San Diego County P-C Region are established on the basis of a resource appraisal which includes: an analysis of geologic reports and maps; field investigations; an examination of active sand and gravel mining operations; analyses of drill hole data; interpretation of aerial photographs; and evaluation of private company data.

The 241-acre project site is located within the Otay Valley Resource Area which is designated MRZ-2. This classification states that there is adequate information available to indicate that significant mineral deposits are present, or that there is a high likelihood for their presence, in the project area.

The Otay Valley Resource Area is divided into three sectors. The project site is within the 2700-acre Sector R, which extends along the Otay River ten miles upstream from San Diego Bay. In-stream sand mining has historically occurred within Sector R, but there are no on-going operations, and none are proposed in or adjacent to the project area. According to the State's EIR: "Industry representatives have indicated that because of the clay layer, a high waste factor, the amount of historical mining, and urban encroachment, there is a low potential for continued mining in this sector (State Mining and Geology Board, 1984: p. 117)."



# soils map

FIGURE 3.3-1

Table 3.3-1

SOIL CLASSIFICATIONS AND INTERPRETATIONS

<u>MAP SYMBOL*</u>	<u>SOIL NAME</u>	<u>STORIE INDEX</u>	<u>CAPABILITY RATING</u>	<u>NATURAL DRAINAGE</u>	<u>SUB-SOIL PERMEABILITY</u>	<u>RUNOFF POTENTIAL</u>	<u>EROSION SUSCEPTIBILITY</u>	<u>SHRINK SWELL POTENTIAL**</u>
Rm 13%	Riverwash	10	VIIIw-4(19,20,30)	-	-	-	severe	low
SbA 11%	Salinas clay loam 0-2% slopes	81	I-1(19)	moderately well to well	moderately rapid to moderately slow	-	little or none	moderate
SbC 33%	Salinas clay loam 2-9% slopes	73	Ile-1(19)	moderately well to well	moderately rapid to moderately slow	slow to medium	slight to moderate	moderate
Otay River/ Gravel Pits 43%	-	-	-	-	-	-	-	-

\* Percentages refer to the approximate percent of the project site covered with each soil type.

\*\* The shrink/swell potential of soils on the project site is more thoroughly discussed in Section 3.2, Geology, and in the geology report which is included in the appendix to this report.

Table 3.3-2

Soil Suitability for Agriculture

Map Symbol	Soil Name	%	Storie Index	Grade	Capability Rating
LsE	Linne clay loam	2	14	5	IVe-1(19)
Rm	Riverwash	12	10	6	VIIIw-4(19,20,30)
SbA	Salinas clay loam	10	81	1	I-1(19)
SbC	Salinas clay loam	30	73	2	Ile-1(19)
Otay River	-	40	-	-	-

Source: Soil Survey of the San Diego Area, USDA Soil Conservation Service

### 3.3.2 Potential Impacts

Several hazardous soil conditions occur on the project site which are related to the presence of expansive soils and unconsolidated fill materials. These impacts are more thoroughly discussed in Section 3.2, Geology. Erosion of these soils could occur during construction activities; such erosion would be visually adverse and would result in increased siltation and sedimentation of the Otay River.

While no direct impacts to agricultural resources would occur with approval of the proposed change in land use designation, such approval would be the first step toward limited industrial development of the project site which would result in the loss of approximately 50 acres of productive agricultural lands. Additional incremental limited acreages on the project site have been cultivated in the past, although they are not currently in production. Much of this land is considered to be prime agricultural land by the Department of Agriculture and the Soil Conservation Service. The Otay Valley and Otay Mesa area have long been recognized as significant agricultural areas. This loss would contribute incrementally to a region-wide cumulative reduction in agriculturally productive land.

There will be no impact to aggregate resources, as the potential for continued mining in this area is considered to be low. The project would not preclude extraction within the 114-acre floodway portion of the project area.

### 3.3.3 Mitigation Measures

Mitigation measures to reduce the potential impacts of expansive soils, unconsolidated fill material and soil erosion are discussed in Section 3.2, Geology and 3.4, Groundwater. Supportive structures should be provided before development occurs on the riverwash soils located adjacent to the Otay River. All construction activities on these soils should strictly adhere to the City of Chula Vista's grading ordinance. All graded areas should be promptly reseeded.

The incremental loss of agricultural land is not considered to be significant (see 3.1, Land Use). Some agricultural acreage would be preserved in the southern portion of the project site on lands adjacent to the Otay River which would be rezoned F-1, a zone which permits agricultural activities such as farming, grazing and livestock raising. Continued agricultural production in this portion of the project site would be generally compatible with limited industrial development.

### 3.3.4 Analysis of Significance

Potential impacts of the proposed project include possible development on expansive soils and on loosely consolidated alluvial deposits adjacent to the Otay River. Development on expansive soils, erodible soils, alluvial deposits or riverwash could be potentially significant if it is not mitigated on the project level. Because the floodway of the Otay River would be placed in the F-1 zone, it is unlikely that development would occur on significant amounts of potentially hazardous riverwash soils. Prompt revegetation and careful site design would reduce the potential impacts of development on erodible soils. These measures would reduce the significance of potential impacts resulting from development on hazardous soils.

Project implementation would also be the first step in removal of approximately 50 acres of prime agricultural land from agricultural production. The loss of 50 acres of productive agricultural land is not regionally significant, but it does contribute to an incremental, cumulative loss of agricultural land in the Otay River Valley.

### 3.4 GROUNDWATER

#### 3.4.1 Project Setting

The Lower Otay groundwater basin underlies a significant portion of the project site. This basin is a four square mile coastal groundwater basin which is drained by the Otay River; the water-bearing strata consists of young alluvial deposits. According to the geology report summarized in Section 3.2 of this report, groundwater in this alluvial material is probably near the surface. This type of loosely-compacted alluvial deposit typically exhibits a potential for liquefaction during periods of earthquake activity (City of Chula Vista, Seismic Safety Element, 1974).

Current use of water from the Lower Otay basin is negligible, primarily because of poor water quality. The basin has experienced high concentrations of total dissolved solids (TDS) in recent years. Groundwater taken from it ranges from 800 mg/l TDS to 4,000 mg/l TDS with typical concentrations around 1,600 mg/l. These high concentrations indicate that seawater or connate brines, or both, are intruding the basin (CPO, 1978). Water quality objectives for the basin are 1,000 mg/l TDS (CPO, 1978). Basinwide, the TDS levels are expected to increase at a rate of approximately 19 mg/l per year (CPO, 1980). The basin is in hydrologic balance with inflow approximately equal to outflow (CPO, 1980).

The principal non-marine sources of salt input into the basin are urban and agricultural return flows; the quality of the outflow, in terms of TDS, is not a major concern because the basin discharges to the marine waters of San Diego Bay. Despite this existing condition, the Comprehensive Planning Organization has recommended control of urban and agricultural runoff which drains into the basin as a means of preventing future adverse salt balance in the Lower Otay basin.

#### 3.4.2 Potential Impacts

Implementation of the proposed project would have no direct effect on groundwater quality in the Lower Otay basin. It would be the first step, however, toward development of the site in accordance with the limited industrial zone of the City of Chula Vista. Runoff from the site would contain increased urban pollutants such as metals, oils, and other residues which could enter the groundwater basin. The type of urban runoff which would be generated by eventual limited industrial development on the project site would depend upon the specific type of industrial development which occurs on the property. Manufacturing operations, dyeing and cleaning plants, for example, would be more likely to generate contaminated runoff than would warehouse, storage yards or rental or sales establishments. Because on-site agricultural operations would eventually cease, agricultural runoff into the Lower Otay basin, which often contains quantities of pesticides and fertilizers, would be reduced. The adverse effect of increased urban runoff on salt balance in the basin could be offset by the decrease in agricultural runoff.

Due to the proximity of the La Nacion Fault Zone and the overall potential for seismic activity in the area, the potential exists for liquefaction of water-bearing alluvial soils in the Lower Otay basin should movement occur. The presence of a high groundwater table on the project site increases the potential for liquefaction. The potential for earthquake activity along the La Nacion Fault is more thoroughly

discussed in Section 3.2, Geology. Because most of the alluvial soils on the project site occur within the floodway of the Otay River, which would remain undeveloped, the significance of this impact would be reduced.

### 3.4.3 Mitigation Measures

Appropriate mitigative measures for reducing urban runoff and TDS levels should be developed in future planning for the site. These measures should be required as conditions of approval for future precise plans and development proposals. Specific measures which could be incorporated into future plans include, but are not limited to:

- o Limit slope and vertical height on fills.
- o Minimize surface drainage to slope areas.
- o Promptly revegetate graded areas, prior to November.
- o Use temporary sedimentation basins or other standard controls during construction periods.
- o Prohibit construction during rainy season of the year.
- o Use drought-resistant, low-maintenance, native species to reduce need for irrigation, fertilizer and pesticide.
- o Minimize impervious surface area. (Example: open brickwork with grass as an alternative to concrete or asphalt parking lots)

Mitigation measures for construction which could occur on alluvial soils are discussed in Section 3.2.3. Recompaction of soils and structural treatments may be required. Detailed soil investigations must be conducted during specific site planning to determine the most effective and appropriate mitigative techniques.

### 3.4.4. Analysis of Significance

Significant potential exists for liquefaction of alluvial soils in the Lower Otay basin. Because most of these alluvial soils would be situated in proposed parks and public open space, this potential impact would be reduced to a level of insignificance.

The potential impact of increased levels of urban pollutants from the project site on the quality of the groundwater basin would be minimal with appropriate mitigation measures incorporated as conditions of approval in future development plans. The significance of this impact is further reduced by the fact that water from the basin is not currently used for domestic water supply or irrigation.

### 3.5 DRAINAGE PATTERN

#### 3.5.1. Project Setting

The project site is drained by the Otay River which is an intermittent stream, flowing in an east to west direction and eventually draining into San Diego Bay. The river drains approximately 145 square miles in the southwestern portion of San Diego County. The Lower Otay Reservoir, which is owned by the City of San Diego, controls drainage from the upper Otay River basin upstream from the project site. No reservoirs occur downstream of the project site. The Otay River passes south of Otay Valley Road through the project site. The margins of the river have been filled along much of the river's length, and little of it remains in its natural state. On the project site, two large ponds currently exist in the river bed.

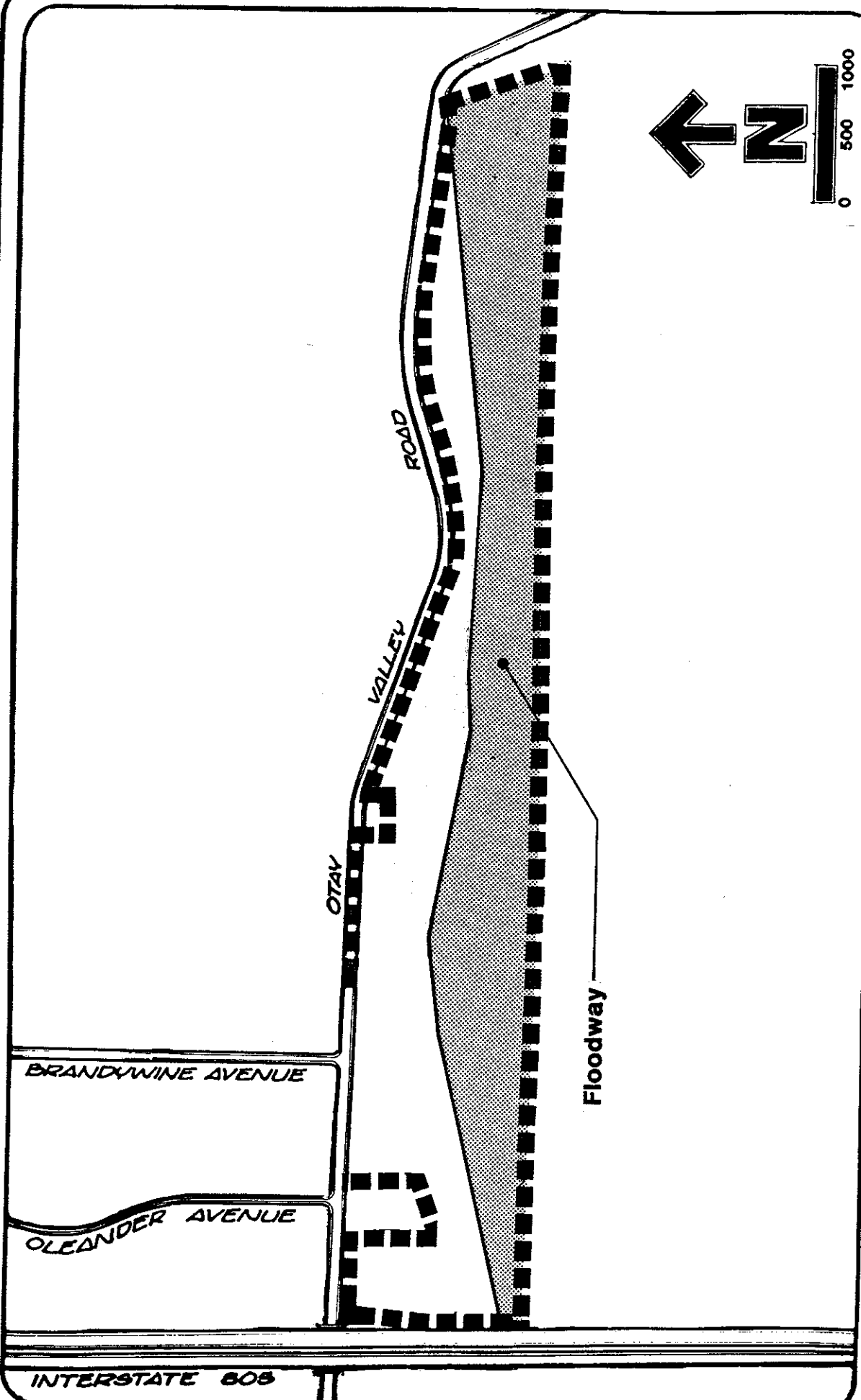
Much of the project site lies within the 100-year flood plain of the Otay River. Approximately 163 acres are within the boundaries of the 100-year flood inundation contour. The total acreage outside of this flood plain is 69 acres. The San Diego County Department of Public Works estimates that storm flow in the Otay River would cross the project site during a 100-year flood at 22,000 cubic feet per second (Mr. Poon, personal communication, February 27, 1984).

#### 3.5.2 Potential Impacts

No direct impact to the flood plain will result from annexation of the property. However, the industrial land use designations which are proposed adjacent to the floodway of the Otay River could be the first step toward additional modification of the flood plain. It is difficult to determine the extent of potential modification until precise development plans are available. A study is now being conducted for the City of Chula Vista Redevelopment Agency on the development potential and feasibility of various alternatives for industrial development adjacent to the floodway. Preliminary results of the study indicate that floodway channelization would destroy extensive areas of riparian habitat, create alterations in flow downstream and incur high costs. These impacts would be difficult to mitigate. Filling in the area outside of the 100-year floodway to the level of Otay Valley Road is a possible alternative, but the 10 to 30 feet fill depths necessary would require importation of large volumes of soil.

The floodway feasibility study recommends a limited modification permitting development within the floodplain on the north side of the river (Refer to Figure 3.5-1). Existing elevations would be utilized for development, protected by levees along the floodway. In this approach, some marginal riparian habitat would be lost, but grading volumes would be much less than the other alternatives, and may be aesthetically superior. This recommended floodplain treatment would create approximately 90 net acres for industrial development. Easement and fill slopes necessary for widening and improvement of Otay Valley Road would increase the area committed to road right-of-way from 11.9 acres to 22.9 acres. Internal arterial streets and fill slopes would require about 11.8 acres together with the 2.5 acres already developed on the site, and Otay Valley Road. Improvements on the north of Otay River would total approximately 127 acres. This approach would leave approximately 114 acres of floodway/flood plain in an undeveloped state. The completed study will provide more precise information on potential flood plain





# future floodway boundaries

alteration that could occur as the result of light industrial development and road improvements (Bill Stracker, Vice President of Barryman and Stephenson, Personal Communication, March 23 and April 20, 1984). Effects of potential flood plain modification on riparian-wetland habitat is further discussed in Section 3.10 Biology.

### 3.5.3 Mitigation Measures

All of the floodway and the southern portion of the flood plain of the Otay River under the recommended alternative would be designated for parks and public open space, with rezoning to the F-1 zone. Such a zone would ensure that incompatible forms of development would not occur in the floodway portions of the Otay River. Mitigation measures for potential modification of the floodplain such as filling or construction of levees discussed above, should be developed in the preparation of precise plans.

Increased runoff, which would accompany limited industrial development, could be accommodated by a storm drain system which should be part of final site plans for the proposed project. Runoff could also be reduced by restricting the amount of impervious surface which could be constructed on the project site.

### 3.5.4 Analysis of Significance

The significance of potential future modification of the floodplain cannot be precisely determined until floodplain improvement plans are available. Any flood plain improvements would require further environmental review.

Increased runoff, if handled through appropriate storm drain design, can be reduced to a level of insignificance.

### 3.6 LANDFORM

#### 3.6.1 Project Setting

Most of the project site is located on the nearly flat alluvial floor of the Otay River Valley. The valley is flat to gently rolling with numerous sand and gravel deposits in the alluvium of the river valley. Elevations on the project site range from approximately 80 feet above mean sea level (AMSL) in the river to 120 feet AMSL at Otay Valley Road. Sloping lands also occur south of the project site; these lands rise from the Otay Valley to form Otay Mesa. The majority of the flat lands on the project site, with the exception of the river bed, have been plowed for use in agricultural operations.

#### 3.6.2 Potential Impacts

No direct landform alteration would occur as a result of approval of the land use designation changes proposed by the project. Grading activities would occur, however, in conjunction with the limited industrial development which could result from the land use designation changes. Because no precise development plans have been prepared for the project site, no grading estimates are available at this time. Few impacts to the existing landform would be expected from grading which could take place on the flatter portions of the site. Portions of these areas have already been plowed for agricultural production.

Development in the northeastern portion of the site could alter the existing Otay River floodplain through floodway modification. Potential impacts are difficult to assess until precise plans are available. Studies now being conducted will provide more definitive information on potential effects. In general, the area between Otay Valley Road and the Otay River would be graded but this industrial development would not represent a substantial alteration of existing landforms. This is discussed further in Section 3.5 Drainage Pattern and Section 3.10 Biology.

#### 3.6.3 Mitigation Measures

All development which occurs on the flatter portions of the project site should strictly adhere to the City of Chula Vista's grading ordinance. Restriction of development to areas outside the existing floodway of the Otay River, as proposed, would reduce the possibility that imported fill material would be required and would reduce the need for establishment of a borrow pit. Further mitigation for potential floodplain alteration should be developed in conjunction with the environmental review of final floodplain development plans.

#### 3.6.4 Analysis of Significance

No direct significant impacts to existing landform would occur with GPA approval. Limited industrial development, which could take place following approval of the proposed project, would not significantly alter existing landform on the site if it were confined to the existing elevations as recommended by the feasibility study (refer to Section 3.5.2). A potential exists for alteration to the floodplain, but the extent and significance of this impact can only be determined when precise plans are available. Specific development plans will require further environmental review.

### 3.7 WATER QUALITY

#### 3.7.1 Project Setting

The 241-acre project site lies within the lower portion of the Otay Hydrographic Unit, a 145-square mile area which is drained by the Otay River. The Otay River is formed at the confluence of Dulzura and Proctor Valley Creeks and is joined along its length by Jamul Creek. The Upper and Lower Otay Reservoirs, which are owned by the City of San Diego and located upstream from the project site, control drainage from the inland drainage areas. Downstream from Lower Otay Reservoir, the Otay River extends westward across the coastal plain and discharges into San Diego Bay (CPO, 1978). The project site is located downstream from Lower Otay Reservoir, and runoff from it eventually drains into San Diego Bay.

Runoff from the project site currently contains agricultural pollutants such as fertilizer and pesticides as it enters the lower Otay River. In general, however, water quality in the lower Otay River, downstream from Lower Otay Reservoir and in San Diego Bay, the ultimate discharge point, is good. Surface waters which drain into the lower Otay River are diverted away from existing waste disposal sites; no serious potential surface water quality problems are anticipated in the lower Otay River (CPO, 1980). Water quality in San Diego Bay has improved significantly since the development of the San Diego Metropolitan Sewerage System in 1963 (CPO, 1980). The Otay River does, however, discharge into a 4,000-acre area of shallows (1 to 3 feet deep at mean lower low water) in the south end of the bay. The river has no gauging station established at its mouth; runoff samples have, therefore, not been collected. The waters in this shallows area are warm and turbid, indicating that phytoplankton populations are larger here than in other portions of the bay. This southern portion of the bay contains some of the few remaining wetlands in San Diego Bay and has been identified as a natural habitat for a great variety of fish and wildlife. Due to development pressures in the South Bay area, the Areawide Water Quality Management Plan recommends close monitoring of water quality in the Otay River as part of any future water quality studies of the South Bay area (CPO, 1978).

Biological surveys are conducted at the mouth of the Otay River jointly by the State Fish and Game Department and State Water Resources Board. The studies, which test concentrations of heavy metals and pesticides in fish river species (blue-gill and mouth bass), showed no evidence of pollutants. Fish originating in bay waters have been found to contain relatively high concentrations of PCB, the origin of which is not clear (Greg Peters, RWQCB, March 1, 1984.)

#### 3.7.2 Industrial Wastes - Existing Setting

The majority of the site is devoted to natural riparian-wetland vegetation and agricultural uses. No industrial facilities are located on the project site, with the exception of the Pacific Telephone headquarters which operates a maintenance facility for telephone installation trucks. However, a variety of industrial operations, located outside of the 241-acre project area on land draining into the Otay River, conduct waste-handling activities with potential effects on water quality.

Three industrial waste disposal sites are or were located in the vicinity of the project, as shown on Figure 3.1-2. Two are legal, permitted operations, subject to strict regulations; the third was an illegal use which was recently investigated and underwent clean-up. These sites are closely monitored by the Regional Water Quality Control Board (RWQCB), the State Department of Water Resources and the San Diego County Department of Health Services, Hazardous Waste Management Divisions. The background and present condition at each of these sites is described below.

- o Omar Class I Landfill

The Omar Class I Landfill is located on the north side of Otay Valley Road approximately 4,500 feet to the east of I-805. The plant began operation in July 1959, with a permit from the RWQCB to discharge Class I industrial chemical wastes into clay-lined pits. The site received approximately one million gallons per year of various wastes including chromic acid, nitric acid, alkaline solutions, and carbide lime wastes. Disposal activities ceased in July 1978 and residue remaining in the ponds were covered with topsoil. The RWQCB issued closure requirements for the dump site in 1980 to assure continuous protection of surface and groundwaters from infiltration of waste (Regional Water Quality Control Board, Order No. 80-06).

In compliance with the closure order, a new pit was excavated and lined with impervious clay. In removing waste material, it was noted that the old pits although unevenly lined, had maintained integrity and had not experienced significant leakage. The ponds were underlain by 30 feet or more of natural impervious clays which had further served to prevent groundwater infiltration.

The new pit was constructed to a size large enough to contain all contaminated material and a large volume of surrounding soils from the old pits. When filled, the new pit was capped with an impervious 7-foot clay lid to prevent infiltration of surface water and migration of hazardous gasses. All removal and burial operations were closely monitored by the RWQCB. The operator is required to monitor and report on the disposal site and to correct any problems which may occur in future use of the property. The RWQCB considers the site to be in compliance with closure requirements and does not feel it will pose a significant threat to water quality in the area (Greg Peters, RWQCB, March 1, 1984).

- o BKK Facility - Otay County Landfill

The Otay County Landfill, in operation since the 1950's, formerly maintained a Class I toxic waste facility on the northern portion of the landfill. In 1980, the facility received from 75,000 to 225,000 gallons of liquid wastes per month. The Regional Water Quality Board maintains four leachate monitoring wells of from 12 to 30 feet in depth, around the facility. Chemical and bacteriological data are obtained quarterly. Groundwater quality is measured semi-annually. During the last three years of monitoring, the wells have been dry approximately 90% of the time. Water was present only during periods of rainfall. Constituents measured were well under acceptable levels as shown in Table 3.7-1. There is no evidence of migration

of toxic materials into the surface water or groundwater in the area. The disposal site was unofficially closed in November 1980. An official closure order has not yet been issued. (RWQCB monitoring data from 1981 to 1982 and conversation with Greg Peters on March 1, 1984).

A leasehold for a new industrial waste facility west of the old disposal site was granted in 1981 to the BKK Corporation. The Chancellor & Ogden Industrial Waste Transfer Station is a receiving and temporary holding facility. Wastes are treated or stored for transfer to a permitted disposal facility. According to the Facilities Operations Plan, only hazardous and non-hazardous, properly identified, liquid and solid wastes in bulk or in approved drums are accepted. No radioactive materials, PCB or explosives are accepted. "Extremely hazardous" materials are subject to special disposal permit procedures from the Department of Health. In 1981, operators anticipated receiving approximately 60% alkaline wastes, 30% acidic wastes and 10% neutral materials.

Facilities are designed to protect both surface waters and groundwater. Storage tanks and drum storage areas are placed on concrete pads. Sumps and ponds are lined with impervious concrete. Treatment prior to transfer includes neutralization of acidic wastes, oil separation and dewatering. Acids are neutralized in a fiberglass mixing tank, pumped to a storage tank for particulate settling, and then evaporated in ponds or transferred to a permitted disposal facility. The neutralization process is monitored for unexpected fume or heat generation (Operations Plan, August 1981).

Development of the site was preceded by geologic and soils studies (Goldhammer, 1977) which indicated no potential problems with off-site migration of liquids. The studies did indicate a potential for spillage due to cracking or failure in the event of a major earthquake. The BKK facility operation plan includes a contingency plan for accidental spillage during transfer operations or during a major earthquake. Concrete berms are provided for temporary containment of spills which would be cleaned up with vacuum trucks. The site is also sloped towards the old disposal ponds.

Surface waters are diverted away from the holding facility. On site drainage facilities are designed to handle runoff volumes expected in a 100-year frequency storm. On-site drainage is directed to a concrete lined sump for monitoring and disposal. (Operations Plan, August 1981).

o Apache Services

The Apache Service site is a small (300 feet by 1000 feet) privately owned and operated dump located on the south side of Otay River, just south of the project boundary and approximately 700 feet east of I-805 (see Figure 3.1-2.) The area, approximately 6 to 10 feet above the river bed, was filled primarily with broken concrete, asphalt and sandblasting grit. The site was unprotected from rainfall. On February 17, 1981, the RWQCB inspected the site and found it had been used for stockpiling of industrial waste materials for salvage purposes. Wastes included solvents, paints, inks, adhesives, petroleum distillates, oils, barium salts, calcium hypochlorite, sodium sulfite, monoethanolamine, trichloroethane (TCE) tetrachloroethylene (PCE),

chloroform, and trichlorofluoromethane. It was determined that the operator had obtained much of the material from the Navy, and was unaware of the potential impacts of stockpiling wastes next to a river. A cease-and-desist order was issued on May 22, 1981.

The Navy accepted responsibility for inventory and removal of the wastes, and contracted with IT Corporation to conduct removal operations. Beginning in April 1981 drums and surface material were extracted and deposited in a permitted waste facility. Soils tests conducted prior to removal indicated that sandblasting grit contained significant amount of heavy metals, as shown in Table 3.7-2.

The RWQCB monitored water quality in the nearby river throughout 1981, including factors of flow, volative organics and aquatic life. Monitoring tests indicated that TCE and PCE were present in high concentrations in the small pond just northwest of the Apache Service site. The pond was determined to be the main impact area. Concentrations decreased downstream from the site, reducing to insignificant levels where the stream bed passes under I-805. PCB was also noted, but not in significant amounts. Heavy metals were not monitored.

Biological surveys did not reveal any adverse impacts on aquatic fauna from the operation of the Apache Service site. Species composition and diversity were similar to other sites on the river. A greater number of species was noted adjacent to the dump site, apparently thriving in habitat created by concrete debris. Species observed included frogs, shrimp, crayfish, dragonfly and magfly.

The RWQCB continued to monitor the pond nearest the site for volatile organics into late 1982. The results are displayed graphically in Figure 3.7-1. The sampling indicates that PCE and TCE concentrations were reduced to insignificant levels following removal of the surficial waste source.

The Apache Services site is still in operation but is prohibited from accepting toxic waste materials. The RWQCB anticipates no further water quality problems in the Otay River from this source. However, the County Department of Health Services Hazardous Waste Division remains concerned about underlying soils on the Apache site. The Department has received approval from the State to conduct soils testing beneath the impacted area to determine if migration of previously stored wastes or heavy metal concentrations occurred and if further removal of material is required. The soils testing operations are scheduled to begin in 1984. (Marion Balster, personal communication, March 5, 1984.

Table 3.7-1

Water QualityOtay Disposal Site Monitoring Well "B"Data Obtained When Water Present

	2nd Quarter 1981	1st Quarter 1982	1st Quarter 1983	2nd Quarter 1983
Volume (gallons)	1.25	1.5	1.5	1.0
TDS (mg/l)	630.00	588.00	628.00	888.00
pH	7.01	7.29	7.26	7.97
Arsenic (mg/l)	0.12	0.02	0.021	0.014
Chromium (mg/l)	<0.01	<0.01	0.02	<0.01
Copper (mg/l)	0.01	0.02	<0.01	0.02
Lead	<0.01	<0.01	0.03	0.03
Mercury	<0.0001	0.0027	0.0027	0.0045
Nickel	<0.01	0.01	0.02	<0.01
Silver	<0.0001	0.01	<0.01	<0.01
Zinc	0.01	0.11	0.08	0.11

Source: San Diego Regional Water Quality Control Board files



Table 3.7-2  
Heavy Metal Concentration in Apache Services Fill  
April 1981

<u>Metal</u>	<u>Grit Samples (ppm)</u>					<u>Average Soil Concentrations</u>
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	
Zinc	246	426	9720	34	2600	50
Lead	60	60	1200	52	32	10
Cadmium	2	2	6	88	2	0.06
Nickel	10	200	56	86	64	40
Copper	94	460	2120	14	40	20
Chromium	54	170	47	60	160	100

Source: San Diego Regional Water Quality Board files.

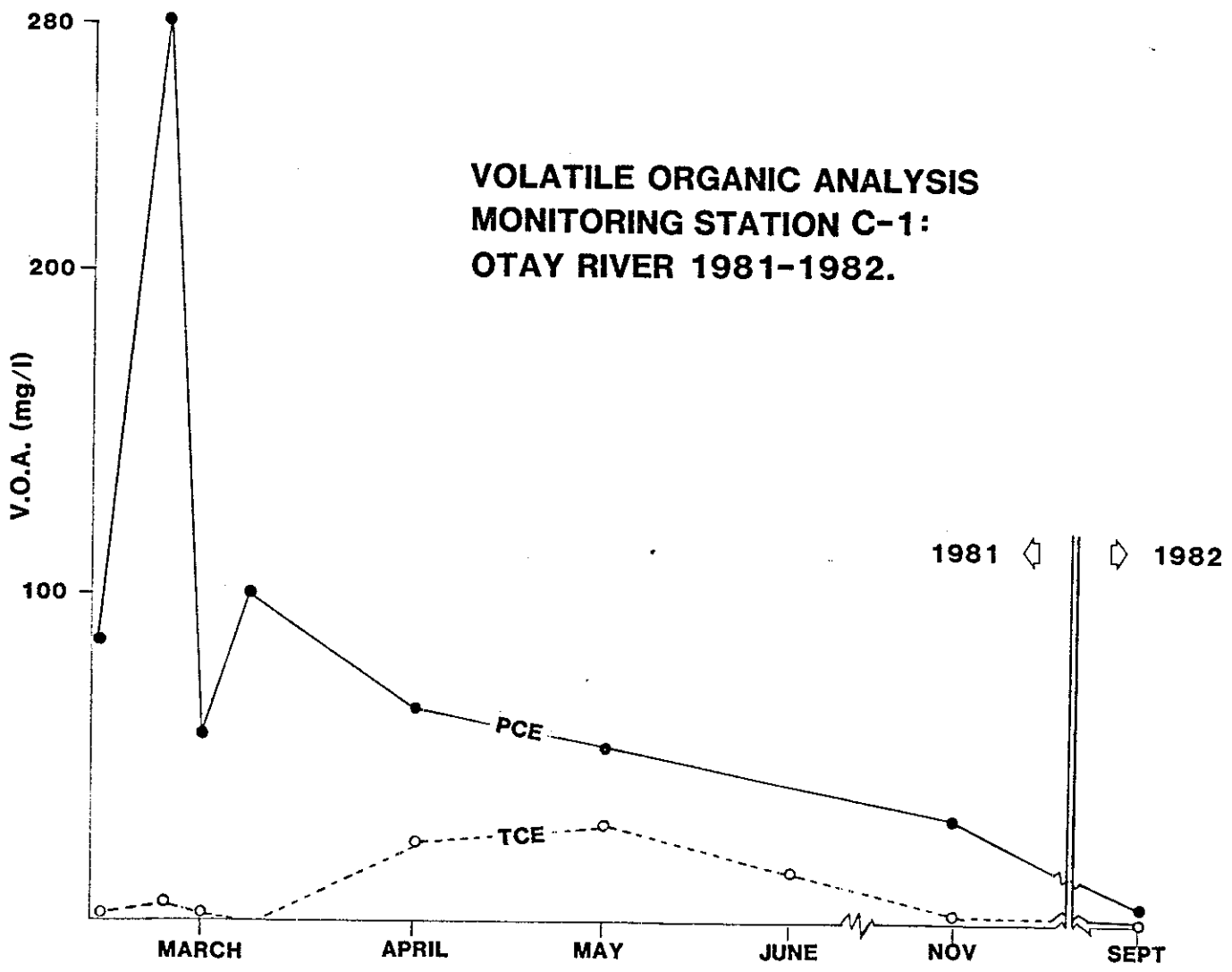


FIGURE 3.7-1

The other industrial sites in the project vicinity include Hyspan Precision Inc., located at Brandywine and Otay Valley Road and the Otay Industrial Recycling Park located just below the county landfill at Nirvana Avenue. Hyspan manufactures expandible metal joints within an enclosed facility and is an unlikely source of pollutants other than expected urban runoff (petroleum products from car and truck traffic). The Recycling Park includes 16 auto dismantling firms, four scrap metal salvage firms and one tire salvage firm. Operations at these sites consist mainly of mechanical dismantling, sorting and storage. Some of these operations are conducted in small river channels tributary to the Otay River. Runoff from these sites could potentially contain metal particulates, petroleum products and solvents. However, no data is currently available to assess if, or to what extent, this may occur.

### 3.7.3 Potential Impacts

No direct impacts to water quality in the Otay River or San Diego Bay from toxic waste disposal are anticipated as the result of approval of annexation and proposed land use designations. As discussed above, the legally-operating industrial waste facilities north of the project site, which have been monitored for 30<sup>±</sup> years, have not shown discernible adverse impacts on water quality in the Otay River. An illegal and improperly operated facility did recently result in release of toxic materials into a portion of the river. Prompt response by concerned agencies has alleviated the problem, but further investigation is being conducted to confirm that clean-up operations were sufficient. Therefore, no potential threats to the health of future on-site employees or nearby residents are anticipated at this time. The RWQCB will continue monitoring the river and landfill for any water quality violations.

In addition, the industrial operations described above are much more intensive uses than uses proposed for the project site. Manufacturing uses, processing and primary production of products from raw materials involving toxic substances are clearly prohibited in the proposed Limited Industrial Zone (refer to Section 3.1.2). The proposed project would not be expected to have water quality concerns similar to the existing industrial operations in the vicinity. Industries in the proposed project would utilize the sewage utilities for liquid waste disposal and would be subject to regulation by the San Diego Water utilities Department.

Industrial development which could occur as a result of project implementation could, however, increase surface runoff from the site as a result of the disturbance of native soils and the addition of impervious surfaces to the property. Although agricultural pollutants would be reduced, runoff from the site would carry a greater concentration of urban pollutants than it does at present. In urban areas, the rainwater runoff from streets often carries considerable quantities of harmful materials such as oil, rubber, metals (including lead), pathogens, trash and other solid wastes. Lower Otay Reservoir, upstream from the project site, has already experienced some eutrophication as a result of urban runoff (CPO, 1978).

If grading occurred on the property in conjunction with eventual development, the potential would exist for erosion of manufactured slopes and entry of sediment laden runoff into San Diego Bay. Although sedimentation is not a serious problem in San Diego Bay, such erosion and sedimentation would be visually adverse and would represent an incremental degradation in the water quality of the bay.

#### 3.7.4 Mitigation Measures

All grading activities should strictly adhere to the City of Chula Vista's grading ordinance. The problems of increased runoff and erosion which could result from grading for roads and structures could be reduced by keeping grading to a minimum and reseeding promptly with drought-resistant, low-maintenance plants. The use of these types of plants would reduce the need for irrigation as well as fertilizers and pesticides which are contaminants often contained in urban runoff. Minimizing the area of impervious surfaces would also help to reduce runoff. The potential area of impervious surfaces could be reduced by the use of porous paving surfaces wherever possible. For example, visitor parking areas could be covered with open brickwork, rather than pavement, and planted with grasses between the bricks.

Water quality conditions, including any illegal discharge of pollutants from eventual industrial operations, would be monitored and controlled by the Regional Water Quality Control Board as mandated by the federal Water Pollution Control Act of 1972. This control would eliminate the possibility of adverse industrial discharges into the lower Otay River and San Diego Bay from the project site.

#### 3.7.5 Analysis of Significance

No significant impacts to water quality in the project area would occur with implementation of the proposed project.

### 3.8 MOBILE NOISE SOURCE

#### 3.8.1 Project Setting

Noise nuisance in the City of Chula Vista is controlled primarily through the enforcement of Performance Standards included in the City's Zoning Ordinance which specifies maximum allowable noise levels for fixed point sources. There is no ordinance which sets standards for ambient transportation noise levels. However, the Noise Element of the Chula Vista General Plan outlines the state regulatory controls for traffic noise and the city's existing (1973) and projected (1995) conformance with these noise level restrictions. The Noise Element does not set standards for specific land uses in the city.

The Transportation Noise Elements of the City of San Diego includes an analysis of the compatibility of ambient noise levels with various land uses. These compatibility criteria, adapted from a Housing and Urban Development Study are based on indoor and outdoor activities normally associated with the defined land use. According to these widely accepted criteria, average noise levels (CNEL or Ldn) of 70 dBA are clearly compatible with industrial use such that indoor and outdoor activities may be carried on without nuisance. Levels of up to 75 dBA are normally acceptable, since common construction techniques will reduce indoor noise to levels compatible with the expected activity (Buildings generally alleviate noise by 15 to 20 decibels). Noise levels above 80 decibels are normally incompatible with industrial uses unless alleviated with exterior barriers or interior insulation. Noise levels of up to 85 dBA are considered compatible with agricultural use.

Otay Valley Road currently experiences only light traffic. Current levels of traffic noise at the project site were estimated using the Wyle Methodology and the City of Chula Vista's estimates of average daily trips on Otay Valley Road and Brandywine Avenue. According to these calculations, ambient noise levels on the project site do not exceed 55 dBA. Many trucks currently use Otay Valley Road in conjunction with agricultural operations and industrial activities along Otay Valley Road.

Assuming that Otay Valley Road is eventually constructed as a four-lane road, as indicated in recent planning studies, and that future development occurs along Otay Valley Road in the eastern portion of the Chula Vista Planning Area and in the Otay Mesa Area, traffic noise would inevitably increase. Industrial development and continuance of the existing agricultural activities along Otay Valley Road, as shown on the City of Chula Vista's General Plan would, however, be more compatible with increased noise levels than would residential development.

#### 3.8.2 Potential Impacts

Approval of the proposed land use changes would have no direct effects on the existing noise environment in the project area. Eventual limited industrial development over much of the project site would increase mobile noise in the area. The degree of this increase would be largely dependent upon the volume of truck traffic generated by the proposed development. Some types of limited industrial development, such as laboratories, electronic testing firms or laundry services,

would generate little or no truck traffic. This type of traffic noise would be expected to be generated primarily during daily and early evening working hours.

o Cumulative Effects

Traffic generated by the proposed limited industrial use on the project site would generate less than 4000 average daily trips, which would not significantly increase noise levels. The extensive growth planned for the surrounding region will have a much greater effect on ambient noise levels along Otay Valley Road. If development proceeds as planned in the Otay Mesa/Mesa de Otay border area, traffic on Otay Valley Road will increase substantially beyond existing levels. The traffic study discussed in Section 3.14 is based on SANDAG traffic projections for 1995. By 1995, Otay Valley Road is assumed to be a 4-lane road. In order to gain a perception of the ultimate future ambient noise setting along Otay Valley Road, this noise analysis is based on "worst-case" estimates of post-year 2000 average daily traffic. Day-night average noise levels for Otay Valley Road and I-805 at potential ultimate development as a six-lane arterial were determined using the Wyle Laboratories Methodology developed for the San Diego Region (1973). The Wyle calculation worksheet is included in the appendix to this report. The analysis assumed 6% truck traffic, and speeds of 45 mph on Otay Valley Road and 55-60 mph on I-805.

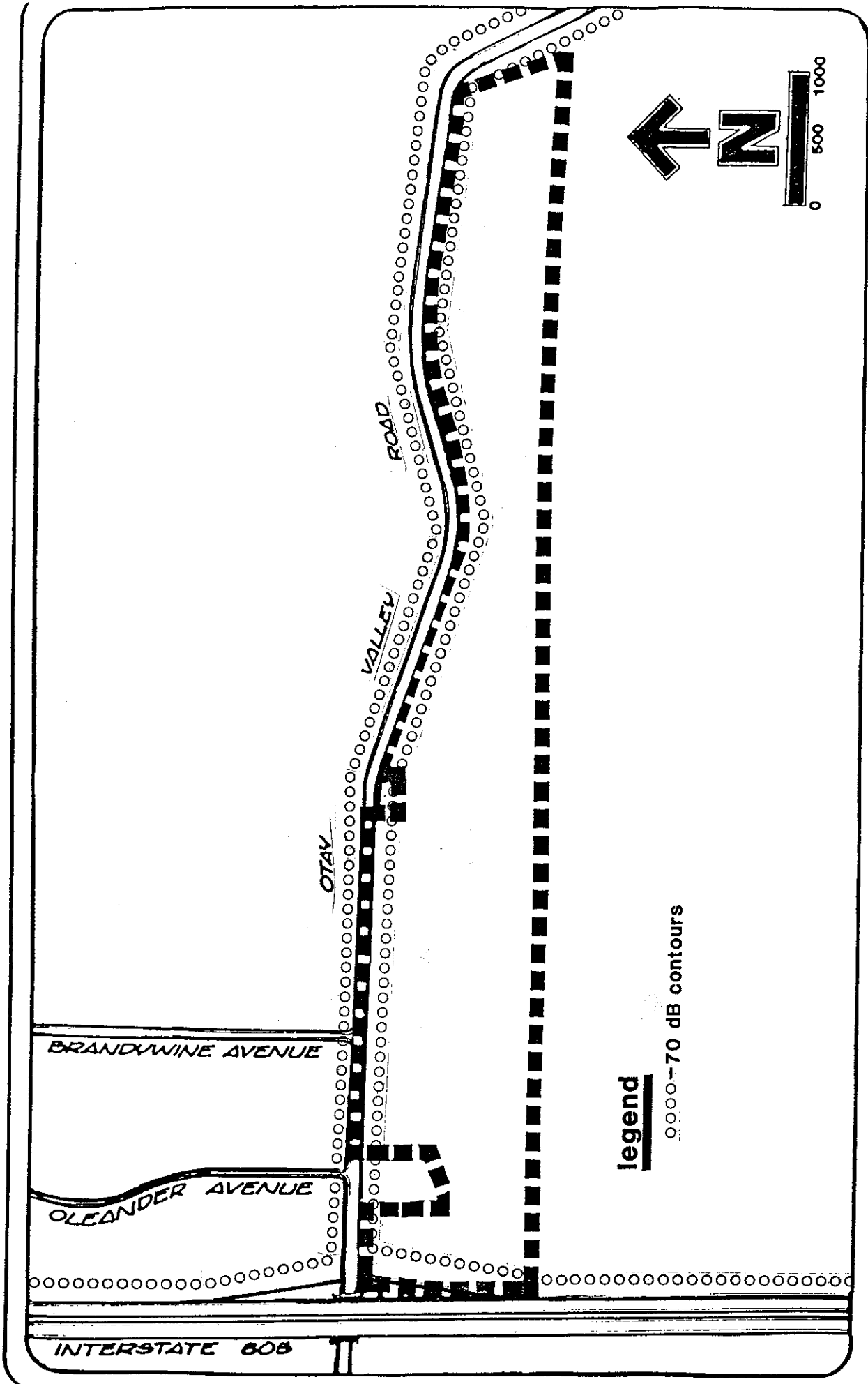
It is estimated that traffic generated by ultimate potential growth would result in ambient noise levels of 71 to 76 dB at 50 feet from the center line of the nearest travel lane. The distance from the center line of the nearest travel lane to the 70 dB contour level is shown in Figure 3.8-1 and Table 3.8-1. Based on the compatibility criteria discussed in Section 3.8.1 (Setting), these projected noise levels would not have a significant effect on the activities which would be associated with the proposed project. Levels of up to 75 decibels are acceptable for industrial uses. Structures placed next to the off-ramp of the freeway may be affected by noise levels up to 78 decibels, due to the combined effect of freeway and ramp traffic. However, normal construction techniques could be expected to reduce interior noise to acceptable levels.

Off-site impact from regionally-generated transportation noise would be greater. Residences north of Otay Valley Road at Oleander Avenue could be exposed to ambient noise levels above 65 dB which is considered incompatible with residential use. These houses are elevated above the road from 20 to 50 feet which would partially alleviate the traffic noise. Traffic generated by the 241-acre project site (4000 ADT) would not create a significant noise impact for these areas.

Table 3.8-1 - Projected 70dB Noise Contours - Post Year 2000

	<u>Projected ADT</u>	<u>Ldn at 50 feet</u>	<u>Distance to Ldn = 70 dB</u>
<u>Otay Valley Road</u> from I-805 to east of Brandywine	51,000	71.5	65
<u>Otay Valley Road</u> from above point to east project boundary	62,000	73.0	90
<u>I-805</u>	130,000	76.0	90
Northbound On-Ramp <sup>(1)</sup>	---	78.8	90
Northbound Off-Ramp	---	77.3	175

- (1) Adjusted for highway interchange additive effect. On-ramp adjusted for effect of truck traffic on short moderate grades.



**70 dB(A) noise contours- year 2000+**



### 3.8.3 Mitigation Measures

Transportation noise from regionally-generated traffic on Otay Valley Road and I-805 will not adversely affect the proposed project; no mitigation is required for the industrial uses proposed for the site.

### 3.8.4 Analysis of Significance

According to the most accurate estimates that can be made at this stage of planning, project-generated traffic would not significantly increase ambient noise levels in the project area. The significance of actual truck volumes on estimated noise levels can be more adequately evaluated when more precise development plans become available.

Regardless of the volume of truck traffic, the noise generated by project implementation will be an incremental increase in respect to the impact of regional growth on Otay Valley Road. If development occurs as planned in the Otay Mesa region, ambient noise levels will increase significantly. The proposed limited industrial development would be more compatible with these noise levels than would a residential type of development. The cumulative impact of regional growth will necessitate noise buffering for the existing residences in the area. Mitigative measures for these cumulative noise impacts will be included in future road improvement plans for Otay Valley Road.

### 3.9 STATIONARY NOISE SOURCE

#### 3.9.1 Project Setting

Much of the project site is currently in agricultural production; the remaining portions of the property are vacant. Little stationary noise, therefore, currently exists on the project site. Stationary noise sources in the surrounding area include sand and gravel operations along the Otay River (although most noise generated by these operations is related to truck traffic), Hy-Span Precision Inc., the Omar Rendering Plant, the Otay Industrial Recycling Park, all located north of Otay Valley Road, and Pacific Telephone's plant work center located south of Otay Valley Road. The Otay Trap and Skeet Shooting Range, located adjacent to the eastern border of the project site, is an intermittent source of stationary noise in the project area. None of these facilities generate excessive amounts of noise at sensitive receptors.

Potential nuisance from stationary noise sources is regulated by Performance Standards included in the City's Zoning Code (Chula Vista Municipal Code, Chapter 19.66). Performance Standards for noise nuisance are based on the frequency range of the sound, the duration and time of emission. Regulated octave bands and maximum permitted sound levels are shown on Table 3.9.1. Permitted adjustments to these maximum levels are also listed. Noise adjustments are not additive; only one correction can be applied.

Noise measurements are taken at the property line of the noise source. Compliance with these standards generally protects the potential receptor; however, perceived nuisance varies from individual to individual. Noise nuisance complaints are handled by the City of Chula Vista Zoning Enforcement Section, which tends to examine each case individually based on local conditions and citizen response.

Typical procedure is illustrated in the recent treatment of the Hy-Span Precision Inc. case, located on the north side of Otay Valley Road. Hy-Span manufactures expandable metal joints, a process which produces noise such as grinding, pounding and metal dropping on concrete. The plant operates from 7:00 A.M. to 12 midnight. In September 1983, a local resident complained of excessive noise at late hours. Zoning Enforcement personnel promptly examined the site (September 20, 1983) and obtained a reading of 50 decibels at an octave band of 2000 cycles per second, which is not considered excessive for short durations. The closest receptor area were residences on Pelican Point on a bluff above the plant. Ambient noise levels emitting from I-805 and Otay Valley Road were noted to be greater than noise emitted from the plant. Regardless of these findings, the operator of the plant was contacted. It was agreed that the installation of doors on the wide opening to the plant would mitigate the perceived nuisance, and 25-foot by 40-foot accordion doors were installed. Work was begun in October and completed by mid-November. The complainant was satisfied with the actions taken.

In December 1983, another complaint of a perceived noise nuisance was received by the City. Further monitoring was conducted. The measurements taken at this time are shown in Table 3.9.1. The results indicated two minor violations of short duration. However, because of restricted access, these measurements were taken

at 50 feet from the property line. The Performance Standards indicate that noise performance standards should be applied at 500 feet from the property line. It was felt that the two minor violations would not exist at that distance. The site was again monitored in March 1984, with no apparent violations.

Other industrial uses in the area have been examined at various times, and no variances from performance standards have been detected.

Table 3.9.1

City of Chula Vista Noise Performance Standards

<u>Frequency Ranges Containing Standard Octave Bands in Cycles per Second</u>	<u>Octave Band Sound Pressure Level in Decibels</u>
0 to 74	72
75 to 149	67
150 to 299	59
300 to 599	52
600 to 1199	46
1200 to 2399	40
2400 to 4799	34
4800 and above	32

Permitted Adjustments vs. Maximum Noise Levels  
(only one correction may be applied)

<u>Type of Location of Operation, or Character of Noise</u>	<u>Correction in Decibels</u>
1. Emission only between 7:00 a.m. and 7:00 p.m.	+ 5
2. Noise source operates less than: 3 minutes per one-hour period	+ 10
12 minutes per one-hour period	+ 5
3. Property is located in the I zone and is not within 500 feet of any R zone	+ 5
4. Noise of impulsive character (hammering, etc.)	- 5
5. Noise of periodic character (hum, screech, etc.)	- 5

Table 3.9-2: Sound Readings - Hyspan Precision Inc.

Readings taken at 50 feet from the North Property Line on January 6, 1984, 7:00 a.m. - 7:45 a.m.

Octave Bands Center Freq. (Cycles per sec.)	Ambient Levels (decibels)	Reading (decibels)	Duration (peak decibels)	Maximum Permitted Sound Level (decibels)
31.5	54-59	69	Short Pounding*	76
63	68-72	71	Pounding & Grinding* 30 sec.	71
125	66	62	Short Pounding*	65
250	53	53	Grinding	57
500	45-47	49	Metal Dropping*	50
1000	43-46	50	Metal Dropping*	45
2000	35	51	Metal Dropping*	39 (2 decibels violation)
4000	45	52-56	Grinding* 50 sec. - 40 sec.	34 (12 decibels violation)
8000	36	38-42	Grinding and Pounding*	32

\* + 10 decibels allowed

Note: No noise was discernible on either Pt. Reyes Ct. or Pelican Pt. From Hyspan - only ambient noise from 805 and Otay Valley Road.

### 3.9.2 Potential Impacts

The level of noise which could be generated by eventual limited industrial development which could occur as a result of approval of the proposed project is difficult to determine until more precise development plans become available. In general, most permitted uses for limited industrial development, as shown in the City of Chula Vista's Zoning Ordinance, would not generate excessive amounts of noise. These permitted uses are listed in Section 3.1, Land Use. Some manufacturing operations and auto repair operations could be noise producers; cleaning plants and plumbing and heating shops, if they engaged in welding activities, could also generate a significant amount of noise. As listed in the zoning ordinance, the remaining permitted uses would probably not be major noise generators. Future industrial development would be subject to the Performance Standards for noise nuisance. Non-compliance and citizen complaints would be handled in similar fashion to the Hy-Span case. Municipal Code 19.44.170 requires that all industrial work be conducted within enclosed spaces.

Noise potentially generated by industrial development on the project site would be most likely to affect residential developments along Brandywine and Oleander Avenues to the north of the project site. Sloping lands to the north of the project site could provide an effective topographic barrier between the proposed industrial development and residential development on the mesa top north of the site.

### 3.9.3 Mitigation Measures

Appropriate placement of industrial development in relation to the residential areas would minimize potential noise conflicts. In addition, structures may be designed so that any necessary large openings face east, west or south, thereby limiting sound transmission to the north in existing residential areas. All openings should have doors which remain closed except when necessary for large equipment movements, etc. Noise barriers may be applicable in individual cases. Enforcement of the City of Chula Vista's performance standards with regard to noise emitted by industrial development would be the responsibility of the Current Planning Division of the City Planning Department when more precise development plans become available and actual construction takes place.

### 3.9.4 Analysis of Significance

No significant impacts would occur as a result of the land use designation changes proposed by this project. The significance of the stationary noise generated by future industrial development would depend upon its proximity to nearby and adjacent residential areas, its magnitude, its frequency, and its timing. Regulation of future noise by the Zoning Enforcement Section of the City of Chula Vista Planning Department will assure compliance with the City's noise performance standards.

### 3.10 BIOLOGY

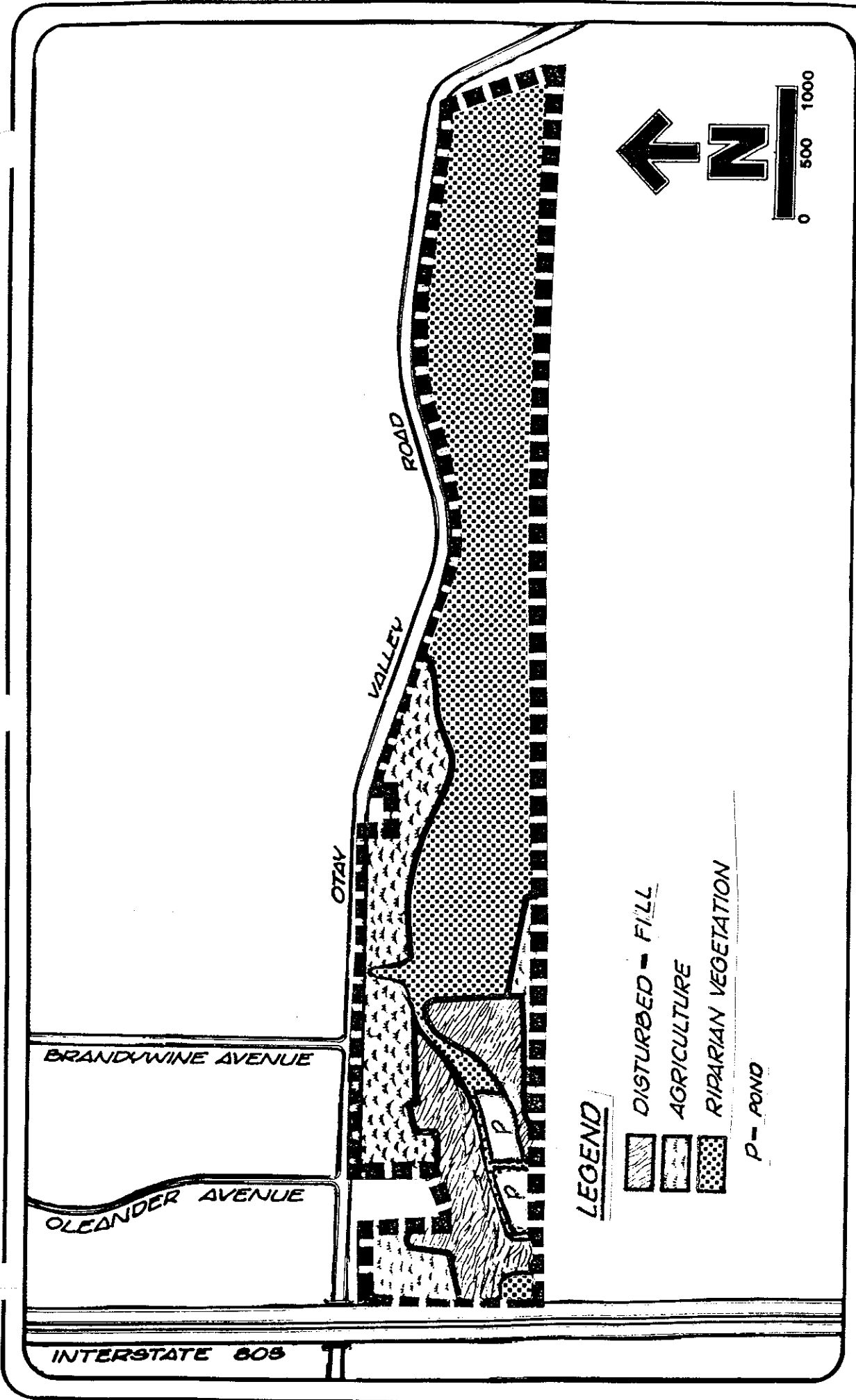
#### 3.10.1 Project Setting

A biological survey of the project site was conducted by Pacific Southwest Biological Services on May 21, May 29, and August 8, 1980. This survey included 37 acres north of Otay Valley Road part of the former 1980 project proposal. Weir Biological conducted additional field surveys in March, 1984 to assess current conditions in the project area. These survey reports are included in the appendix to this report and are summarized below.

The biological surveys revealed extensive areas of agricultural use on the project site along with disturbed fields and a riparian habitat which has been significantly filled and disturbed. In the southern portion of the project site, the Otay River has been filled and the riverbed now consists of several connected ponds and marshy areas. Recent flows from Savage Dam, upstream from the project site, have caused breakage in several small earthen dams and culvert crossings, including a small impounding fill along the west side of the property.

Most of the native vegetation on the project site has been removed or significantly disturbed by agricultural activities. Existing vegetative communities are shown on Figure 3.10-1. Agricultural use and filling south of Otay Valley Road have eliminated any natural biological systems except for the riparian habitat along the Otay River. This habitat is the primary resource on the project site and one which is decreasing in San Diego County. A small stand of willow and a stand of cat-tails and sedges occur along the historic Otay river bed in the southern portion of the property. Tamarisk trees have also invaded this area. In various portions of the river bottom, areas of high salinity were observed. In these alkaline areas, the salt-cedar has invaded riparian areas, further degrading the habitat. The habitat along the Otay River generally exhibits characteristics of both riparian and freshwater marsh areas and possesses a low degree of diversity; this is largely due to the extensive filling which has occurred on both sides of the river channel. Nowhere on the project site does the freshwater marsh/riparian habitat exhibit the diversity of similar high quality habitats located in Mission Valley or near San Miguel Mountain. Table 3.10-1 illustrates the acreages of various vegetative communities on the project site.

Three major wildlife habitats occur on the project site: cultivated fields, disturbed grasslands, and riparian and freshwater marsh areas. The cultivated fields and disturbed grasslands support relatively few wildlife species. The pond and marsh habitat supports a wide diversity of bird species. A total of 275 birds (46 species) were observed on the project site, many of which are associated with this habitat. Few reptile and mammal species occur in this area; the bullfrog, western fence lizard, orange throated whiptail, raccoon and spotted skunk were the only members of these groups observed on the project site.



# vegetation map

FIGURE 3.10-1



Table 3.10-1

Existing Vegetative Communities

Habitat	Acres	Percent of Project Site
Disturbed freshwater marsh and riparian habitats	171	64
Agriculture or disturbed	<u>70</u>	25
	241	

Six sensitive plant species were observed on the project site. These plants include the coast barrel cactus (Ferocactus viridescens), pygmy spikemoss (Selaginella cinerascens), San Diego sunflower (Viguiera lacinata), Baja California bird's beak (Dicranostegia orcuttiana), southern poverty weed (Iva hayesiana), and California loosestrife (Lythrum californicum). Four of these plants occur in such low numbers on the project site that their populations are not considered significant in a regional sense; these are coast barrel cactus, San Diego sunflower, pygmy spikemoss, and Baja California bird's beak. The remaining species, southern poverty weed and California loosestrife, are less common in San Diego County. Populations of these plants were observed in the eastern portion of the site. Several other sensitive plants were sought during the survey but not observed, including Otay Tarweed (Hemizonia conjugens), a species of concern in the Otay area. Due to the lack of clay soil, the project site does not appear to provide suitable habitat for this plant.

No state or federally listed endangered, threatened or rare animal species were observed on the project site. The orange-throated whiptail is considered a depleted species by the International Union for the Conservation of Nature and Natural Resources. Several sensitive bird species were observed on the project site including the cactus wren, common yellowthroat, and white-tailed kite. Additional information concerning Blue-Listed birds observed on the project site is contained in the biology report located in the appendix to this report.

3.10.2 Potential Impacts

Implementation of the proposed project would have no direct impacts to biological resources. Elimination of the disturbed fields on the project site could reduce foraging habitat for raptors.

If development were permitted in the riparian area adjacent to the Otay River, habitat loss could be significant. Although extensive filling has reduced the quality of the available habitat, the observations of the zoologist indicate that it is still of importance to wildlife. Riparian habitats generally exhibit an ability to recover from disturbance. Two sensitive plant species are also located within riparian habitat in the eastern portion of the property. The floodway of the Otay River contains the majority of existing riparian habitat on the project site. Because the

floodway would be retained in parks and public open space, potential impacts to sensitive riparian habitat would be insignificant.

### 3.10.3 Mitigation Measures

No development would occur in the riparian area within the flood plain of the Otay River. Preservation of this habitat through designation for parks and public open space would reduce potential impacts to bird and sensitive plant species observed on the project site. Dumping and other human activities in this area should also be prohibited.

Future industrial development and/or confinement of the flood plain could restrict the area of riparian habitat along the Otay River. Large portions of this habitat have relatively low quality due to previous land use practices. Encroachment into this lower quality habitat could be adequately mitigated through restoration of the remaining river habitats and re-establishment of a naturalistic riparian corridor. Restoration or enhancement could involve converting high ground areas to wetland, removing weedy species and planting of riparian trees and herbaceous perennial wetland plants. This river enhancement would need to be coordinated with any flood control improvements considered for the Otay River. Separate environmental review of any future improvements would be required, and specific habitat mitigation measures could be developed at that time.

### 3.10.4 Analysis of Significance

Because the floodway of the Otay River would be preserved as parks and public open space, no significant impacts to riparian habitat would occur with eventual development of the project site. No other significant habitats occur on the project site which would be adversely affected by eventual development.

### 3.11 ARCHAEOLOGY

#### 3.11.1 Project Setting

An archaeological survey of the property was conducted by Mark Roeder and Mark Desautels, Ken Christensen and Carla La Motte of Scientific Resource Surveys, Inc. (SRS) on May 27, June 9, July 31 and August 1, 1980. The survey included 37 acres north of Otay Valley Road, part of the 1980 project proposal. An historical assessment of the property was also conducted by John F. Elliott (SRS historian). The survey report is included in the appendix to this report and summarized below.

The survey crew examined both cultivated fields and natural areas on the project site. The Otay river bed, which contained water in some portions, was cursorily inspected. An archaeological records search revealed no known or recorded archaeological sites on the project site. Ten sites are, however, recorded within 1/2 mile of the property.

The field survey resulted in the discovery of two possible new sites, SDi-8065 (W-2705) (newly assigned numbers) and SRS Otay #1 (temporary number). Isolated felsite artifacts and scattered flake waste were also found in the western portion of the site. These artifacts included cores and stone tools.

The first possible site, SDi-8065 (W-2705) is located in the tomato fields just south of Otay Valley Road. The site consists of a light scatter of felsite tools and debitage of the La Jollan Tradition. Several handstones of dacite and granitic material were also observed. At least one artifact and/or debitage was found in every cultivated row in the site area during the field survey. Occasional shell fragments of Chione and Pecten were also observed. An interview with the property owner revealed that sand and earth fill was recently placed in the area of this newly discovered site.

The second possible site, SRS Otay #1, is located east of the City Animal Shelter and south of Otay Valley Road. Artifacts observed on the site included a handstone, a millingstone fragment, hammerstones, choppers, a domed scraper, numerous small scrapers and a large quantity of debitage.

The historical assessment of the project site revealed six sites (H#1 - H#6) associated with two of the major periods in San Diego County history, the Early American Pre-Railroad period (1846-1885) and the Urban/Modern period (1885-present). Sites H#1 and H#2 are associated with the historical Daneri Ranch and Winery. The Daneri complex exhibits a potential for inclusion in the National Register of Historic Places. Table 3.11-1 describes these six historical sites.

Table 3.11-1

Project Area - Historical Sites

Site	Location	Description
H#1	Adjacent to Otay Valley Road and City Animal Shelter	Cement structures believed to have been used by Daneri Winery
H#2	Adjacent to Otay River - (south of project area)	Site is associated with Daneri ranch house cluster - possible presence of subsurface deposits on the project site.
H#3	Western portion of project	Present location of Jimmie Shinohara house and ranch cluster
H#4	Northwestern portion of project	Davies family residences - the family has resided in the area since the 1890's.
H#5	Extreme eastern portion of project	Site consists of four building sites which appear on 1904 edition of USGS map.
H#6	Exact location undetermined	Vanished location of San Diego and Phoenix Railroad (1893) tracks believed to have run south of Otay Valley Road.

### 3.11.2 Potential Impacts

Approval of the land use designation changes proposed by the applicant would have no direct effects on archaeological resources. Limited industrial development which could occur on the property as a result of project approval would, however, result in the destruction of artifacts on the project site. The most sensitive area on the project site is located in the central portion of the property just south of Otay Valley Road. This area contains sites SDi-8065 and SRS Otay #1. Because fill material was recently deposited in this area, the possibility exists that artifacts found in this area were transferred from another location. If this proves to be the case, the validity of the sites would be uncertain and the significance of potential impacts would be reduced. The artifact scatter located in the western portion of the project could also be adversely affected by project implementation.

In addition, six sites of potential historical significance occur on the project site which could be affected by eventual site development. The most significant of these sites are H#1 and H#2 which are associated with the Daneri Ranch and Winery. Sites H#3, H#4, and H#5 are currently occupied and active. The exact location of site H#6 is undetermined.

### 3.11.3 Mitigation Measures

The archaeological survey report recommends measures which would mitigate potential impacts to archaeological resources to a level of insignificance. These measures are as follows:

- a. An investigation should be conducted to determine whether or not Sites SDi 8065, SRS Otay #1, and numerous artifacts found in the area south of Otay Valley Road were "imported" along with fill materials transferred from another location. Such an investigation could require backhoeing, spot screening, and/or subsurface field testing. If the site areas prove to be "original," further tests should be conducted to evaluate the nature, depth, areal extent and content of the archaeological resource.
- b. The areas which contain scattered artifacts should be field tested to determine the nature, depth, areal extent and content of the archaeological resource.

The archaeological report recommends several measures to mitigate potential impacts to historical resources on the project site. Additional investigation, including records searches and interviews with family descendants and subsurface testing, is recommended for the Daneri Ranch and Winery cluster (H#1 and H#2). Field inspection and testing are recommended for sites H#3, H#4, and H#5 if and when these sites are vacated. The archaeology report states that preliminary investigation of sites H#1 and H#2 would include a study of site H#6. Additional research should occur which would locate the vanished railroad bed and determine the existence of any associated structures.

#### 3.11.4 Analysis of Significance

No significant impacts to archaeological resources would occur directly as a result of project approval. The potential significance of archaeological and historical resources on the project site would have to be evaluated after further testing at the precise planning stage.

### 3.12 AESTHETICS

#### 3.12.1 Project Setting

Approximately 50 acres of the project site are currently in agricultural production; the Otay Valley is generally known for its scenic views of agricultural lands. The Otay River passes through the southern portion of the project site. Much of the western portion of the river has been filled during past years and two ponds remain on the project site. Disturbed riparian vegetation occurs adjacent to the Otay River. The value of this riparian habitat has been acknowledged by the City of Chula Vista's General Plan which designates lands adjacent to the Otay River for parks and public open space. Numerous willow trees are located in this riparian area.

The entire Otay River Valley can be viewed from elevated lands to the north and south of the project site. Existing residential developments to the north of the project site already offer views of the Otay Valley while development which could occur to the south, following adoption of the Otay Mesa Community Plan, would also afford views of the Otay Valley. As development changes the complexion of the valley, the visual environment of residents to the north and south of the valley will also be altered.

#### 3.12.2 Potential Impacts

Implementation of the proposed project would have no direct effect on the visual quality of the project site. Eventual development would, however, change the existing visual environment of the project site from that of a scenic agricultural valley to that of an industrial development. Riparian habitat adjacent to the Otay River could be altered. Designation of the floodway of the Otay River for parks and public open space, as proposed by the applicant, would reduce the significance of this impact since much of the existing riparian habitat is located within the floodway. Enhancement of the riparian habitat would further reduce aesthetic impacts. The views of residents to the north of the project site and potential residents to the south of the project site would be permanently altered.

A change in the character of the project site from vacant/agricultural to limited industrial would represent an incremental degradation in the visual quality of the Otay Valley. Such a change in land use could also spur similar developments on lands to the east of the project site which would accelerate alteration of the visual quality of the Otay River Valley.

Both short-term and long-term effects on visual quality would result from eventual development of the project area. Initial grading activities would result in landform alteration which would have adverse visual effects. Over the long term, however, as graded lands are revegetated and landscaping is established, the negative visual effects of the project would be greatly reduced.

### 3.12.3 Mitigation Measures

The retention of the majority of flood plain of the Otay River in parks and public open space, would preserve the riparian habitat adjacent to the river and ensure that portions of the Otay River Valley remain undeveloped and visually pleasing. Such a designation would ensure that portions of the river valley would remain natural. Enhancement and restoration of riparian habitat are recommended by the biological consultant would further mitigate aesthetic impacts in the floodplain.

Careful site design would help to reduce the adverse visual impacts which could result from limited industrial and/or retail commercial development on the project site. Landscaping, reseeding of graded areas and visually attractive structures could create an aesthetically pleasing environment within the proposed industrial park. These factors should be carefully reviewed when precise plans for the proposed project become available.

### 3.12.4 Analysis of Significance

The loss of visual resources on the project site would not, in itself, be significant. Such a loss would, however, represent an incremental degradation in the visual quality of the Otay River Valley which could be significant on a regional level.



### 3.13 FIRE AND POLICE

#### 3.13.1 Project Setting

##### Fire Protection

The area north of the project site is currently served by the Chula Vista Fire Department. The nearest fire station to the project site is located at 266 East Oneida Street, approximately two miles from the property. The station is equipped with one 1,250 pumper and three full-time firefighters. Response time to the project site from the East Oneida Street station varies depending upon existing traffic conditions but is generally from six to seven minutes. If a structure fire or any serious fire occurred in the area, additional firefighters and equipment would be supplied from other Chula Vista Fire Department stations; the City of Chula Vista also maintains a cooperative agreement with the Montgomery Fire Protection District which would respond in the case of a serious fire (David Bounds, Shift Commander, March 14, 1984).

Water service in the project area is provided by 10" and 12" water mains in Otay Valley Road and Brandywine Avenue. Portions of these lines were recently constructed in 1983 by the City of Chula Vista with Community Development Block Grant Funds. The project site is south of Otay Valley Road and is not currently within Improvement District No. 10 of the Otay Water District. Although there are existing water lines in Brandywine Avenue and Otay Valley Road, water service is not currently provided to the project site.

The project site primarily receives fire protection from the Montgomery Fire Protection District. The project site is not contiguous with the major portion of the boundaries of the Montgomery Fire Protection District, but the current landowners in the eastern portion of the site contract with the district for fire protection. If the proposed project is implemented as planned, the project site would be annexed by the City of Chula Vista and would be within the jurisdiction of the Chula Vista Fire Department. Fire protection would be provided as described above.

The Montgomery Fire Protection District is presently opposed to the annexation of any county land within its contract area because any annexation and detachment from the district would prevent the district from receiving a portion of the growth in property tax revenues after detachment (Phil Landowski, Fire Chief, Montgomery Fire District, March 14, 1984). The fire district would, however, retain its current level of property tax revenues, under a master property tax agreement between the City of Chula Vista and the County. The Board of Directors of the Montgomery Fire Protection District reviews all annexation proposals and submits commentary to the Local Agency Formation Commission and the San Diego County Board of Supervisors. The Board of Directors opposed the 1980 annexation proposal and are likely to oppose the current proposal on the basis of revenue reduction. Issues of service district boundaries are under the jurisdiction of LAFCO.

##### Police Protection

The area directly north of the project site is within the jurisdiction of the Chula Vista Police Department, Reporting District No. 68. The department has three regular shifts as shown below.

<u>Shift</u>	<u>Hours</u>
Day	7:00 a.m. - 3:00 p.m.
Swing	2:00 p.m. - 12:00 a.m.
Midnight	10:00 p.m. - 8:00 a.m.

Response time to the project site is approximately 2 minutes for emergency calls and ranges from five minutes to 30 minutes for low priority calls, depending on deployment at the time of the call (Mr. Byer, Chula Vista Police Department, March 14, 1984).

Industrial developments generally require more security during the evening hours than do residential developments. Recent trends throughout the region have been for private security coverage of industrial and commercial developments during the evening hours.

The project site is currently within the jurisdiction of the San Diego County Sheriff's Department. If the proposed project is implemented as planned, this portion of the project site would be annexed by the City of Chula Vista and would be within the jurisdiction of the Chula Vista Police Department. Police protection would be provided as described above.

### 3.13.2 Potential Impacts

The proposed project would increase the demand for fire and police protection services in the area; annexation of the project site by the City of Chula Vista would increase the service area of both the Chula Vista Fire Department and the Chula Vista Police Department. Because of the relatively large size of industrial structures, a structure fire would generally be more serious in a limited industrial development than in a residential development. Limited industrial development of the project site should not, however, significantly affect the ability of either the fire or the police department to provide service to the project area. The combined effect of population from this and other development in the vicinity during the next few years would more than likely require additional firefighters as well as additional police deputies and/or patrol units.

Project implementation will require annexation of the area to Improvement District No. 10 of the Otay Water District (OWD). Additional water lines will also be required to provide water service to the industrial development with adequate fire flows (5,000 gallons per minute). The Otay Water District will provide water service to the project site, but an hydraulic analysis must be conducted to determine the sizing and location of new pipelines needed to serve the project (Manual Arroyo, District Planning Engineer, letter of January 25, 1984, and phone communication of April 19, 1984).

Annexation of the project site would reduce the contract area of the Montgomery Fire Protection District. The Montgomery Fire Protection District has in the past registered opposition to the proposed annexation. Such annexation, by reducing its contract area, would reduce potential future growth in property tax revenues to the district. Any reduction of future revenue to the district could be potentially significant, but current tax revenues would be retained.

### 3.13.3 Mitigation Measures

Current facilities of the Chula Vista Fire Department and the Chula Vista Police Department are adequate to serve the proposed development. Revenue from property taxes assessed from the proposed project would help to offset the cost of expanded fire and police protection services.

A complete hydraulic analysis must be conducted during specific planning to determine appropriate placement and sizing of water pipelines. Funding for water improvements will be available through tax increment financing if the redevelopment plan is approved. If not, funding may be available through assessment district financing through the City of Chula Vista.

Because the project site is not contiguous to the boundaries of the major portion of the Montgomery Fire Protection District, the district's physical boundaries would not be significantly altered by the proposed annexation. The possible mitigation of loss of future revenue increases to the district, if the project site is annexed to the City of Chula Vista, would be mitigated by the current City/County policy which will retain the current property tax revenues for the fire district.

### 3.13.4 Analysis of Significance

Implementation of the proposed project would not significantly affect the Chula Vista Fire Department, the Chula Vista Police Department or the Montgomery Fire Protection District. Extension of water pipelines to the project site would reduce fire flow availability constraints to a level of insignificance.

### 3.14 TRANSPORTATION/ACCESS

#### 3.14.1 Project Setting

A traffic analysis of the proposed project was completed by PRC Engineering in June and July 1984. This analysis takes into account the regionally-generated traffic expected to be generated by the Otay Mesa Community Plan, the recently completed Chula Vista Transportation Study traffic assignments for 1995 by SANDAG, and the assumption that no significant building would occur on the project site until after 1995.

The project site is located just east and south of the intersection of Interstate 805 and Otay Valley Road. Four north-south roads intersect the project area: Oleander Avenue, Brandywine Avenue, Maxwell Road and Nirvana Avenue. A dirt road currently provides access to agricultural fields and a gravel operation in and adjacent to the southern portion of the project site.

Existing traffic in the project area is very light. Otay Valley Road east of Brandywine Avenue has a 24-hour volume of approximately 3,200 vehicles (1983 City of Chula Vista Traffic Flow Map). Only moderate traffic occurs on the freeway interchange ramps and Otay Valley Road and on Oleander and Brandywine Avenues.

Interstate 805 is a completed eight-lane freeway interchanging with Otay Valley Road. In the future, as traffic volumes warrant and before 1995, the freeway ramp intersections with Otay Valley Road would be signalized. These signals would be under the jurisdiction of Caltrans. Otay Valley Road is assumed to be a 6-lane arterial facility by 1995 with funding through an assessment district or another mechanism. East of the project area, Otay Valley Road is designated as a divided, 4-lane primary arterial in the City of San Diego Circulation Element. In addition, the 1995 plan proposes a future north-south 4-lane, major street/arterial connecting Otay Valley Road and Otay Mesa Road.

Based on the assumption that the project would not be constructed until 1995, the traffic analysis evaluated the impacts of the project related to the 1995 SANDAG Transportation Study for the area, along with mitigation measures to ensure an acceptable traffic flow along Otay Valley Road and the intersecting streets.

#### 3.14.2 Potential Impacts

The City of Chula Vista and SANDAG have recently conducted an area wide transportation study which is the basis for this traffic analysis. The SANDAG study developed traffic assignments for 1980, 1995, and 2005 assuming certain levels of land use and trip generation rates. The traffic analysis zones (TAZ) which include the project area are 143, 155, and 162 (see Figure 3.14.1).

The land use types, and acreages, and trip generation rates for each zone for 1995 are shown in Table 3.14.1. The respective uses as proposed by the project and the other uses within these three TAZ's, as discussed with the traffic and planning departments, are shown in Table 3.14.2.

As can be seen from Tables 3.14.1 and 3.14.2 only zone 155, just east of Interstate 805, is significantly changed for the proposed project. Based upon the trip generation rates shown in Table 3.14.1, the total daily trip ends for Traffic

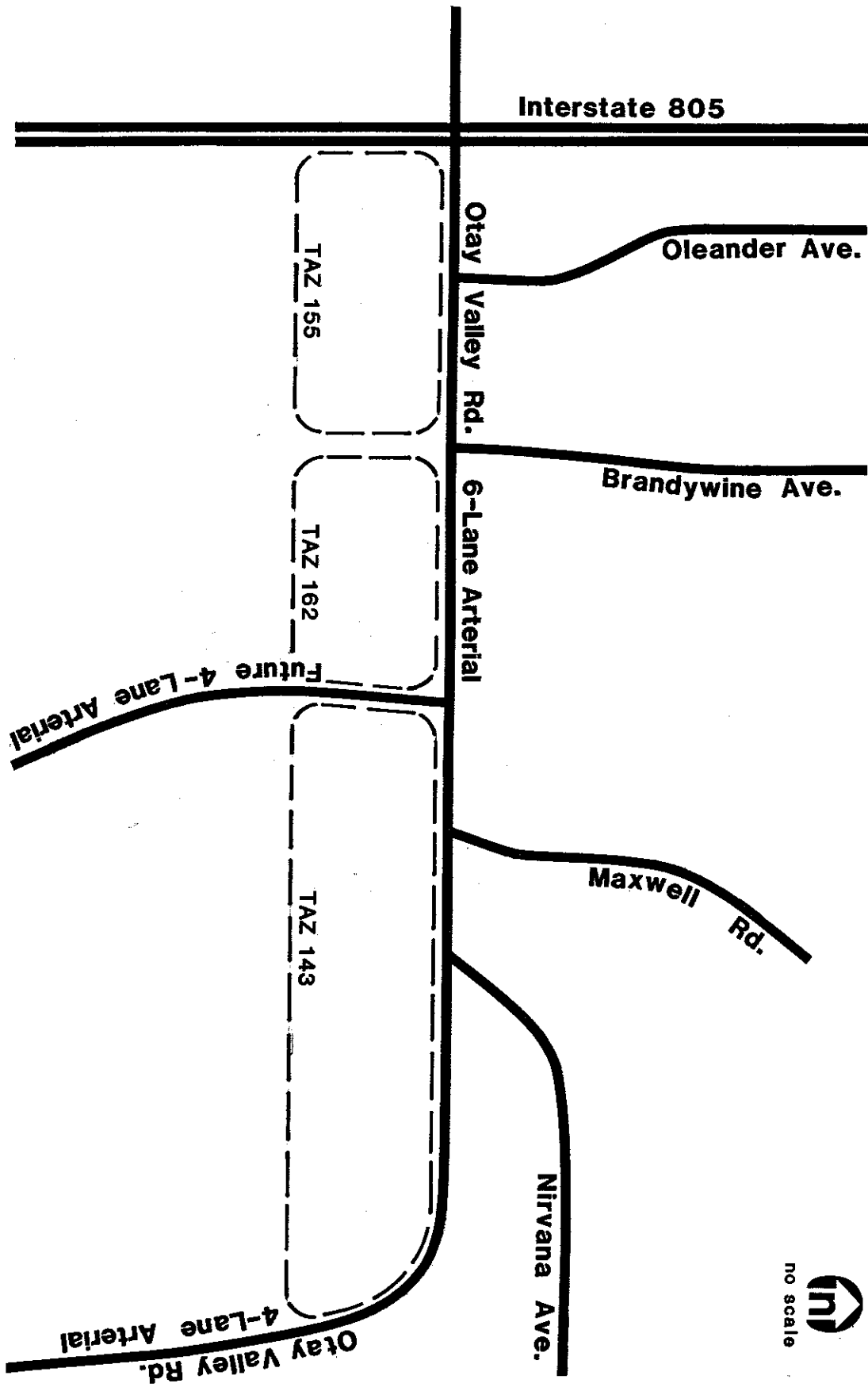


Figure 3.14.1  
1995 Roadway Network

Analysis Zone 155 is reduced to 6,818 from 11,636, or a 41.4% reduction. The total project area south of Otay Valley Road, which is assumed to include TAZ's 143, 155 and 162, would generate approximately 21,926 trips per day.

The traffic distribution was taken from the SANDAG study and it shows that the project area traffic in 1995 would be distributed as follows:

84 percent	Westbound on Otay Valley Road
6 percent	Eastbound on Otay Valley Road
6 percent	North on either Oleander or Brandywine Avenue
4 percent	South on the future arterial highway

Of the 84 percent of the trips that would travel westbound on Otay Valley Road, approximately 60 percent would enter I-805, either northbound or southbound, while 24 percent would continue west on Otay Valley Road.

Figures 3.14.2, 3.14.3, 3.14.4, and 3.14.5 show respectively the daily volumes for (1) 1983; (2) the 1995 SANDAG Study volumes; (3) the 1995 Project volumes; and (4) the 1995 volumes with no project and no traffic generated from TAZ's 143, 155 and 162.

As can be seen from the analysis, the proposed project would reduce the traffic volumes forecast by the SANDAG Study, but the actual physical street layout of the project related to Otay Valley Road also needs to be taken into consideration. The actual loading of TAZ 155 in the SANDAG study was done at Oleander Avenue, which is not consistent with the proposed project road network. The major access to TAZ 155 and to part of TAZ 162 has been relocated at the Brandywine Avenue intersection with Otay Valley Road. In addition, the future arterial highway should be connected to Otay Valley Road approximately midway between Brandywine and Maxwell, across from a proposed driveway entrance. The primary access to TAZ 143 should be made at Nirvana Avenue which is consistent with the proposed street layout of the project.

Based on these access points to Otay Valley Road, Figure 3.14.6 shows the daily volumes for the project only. Figure 3.14.7 shows the cumulative impact of adding the project area traffic to the 1995 daily volumes without the project and assuming the project access points discussed above.

#### 0 Intersection Capacity Analysis

To determine if traffic generated by the proposed project would create intersection capacity problems, a peak hour analysis (assuming 10% of ADT in peak hour and turning movement distribution from the SANDAG study) was conducted for the three major project intersections shown as A, B, and C and B on Figure 3.14.7. The analysis included the project-related traffic generated as well as the additional traffic expected in the area.

The intersection analyses concluded that the three intersections would operate at levels of service C, D and E (based on a planning design of 1500 vph for through movements and 1300 vph for left turns) in the year 1995 with the project as defined and taking into account the regionally generated and other non-project traffic. (See appendix section for work sheets and lane assumptions). All three intersections will require signalization.

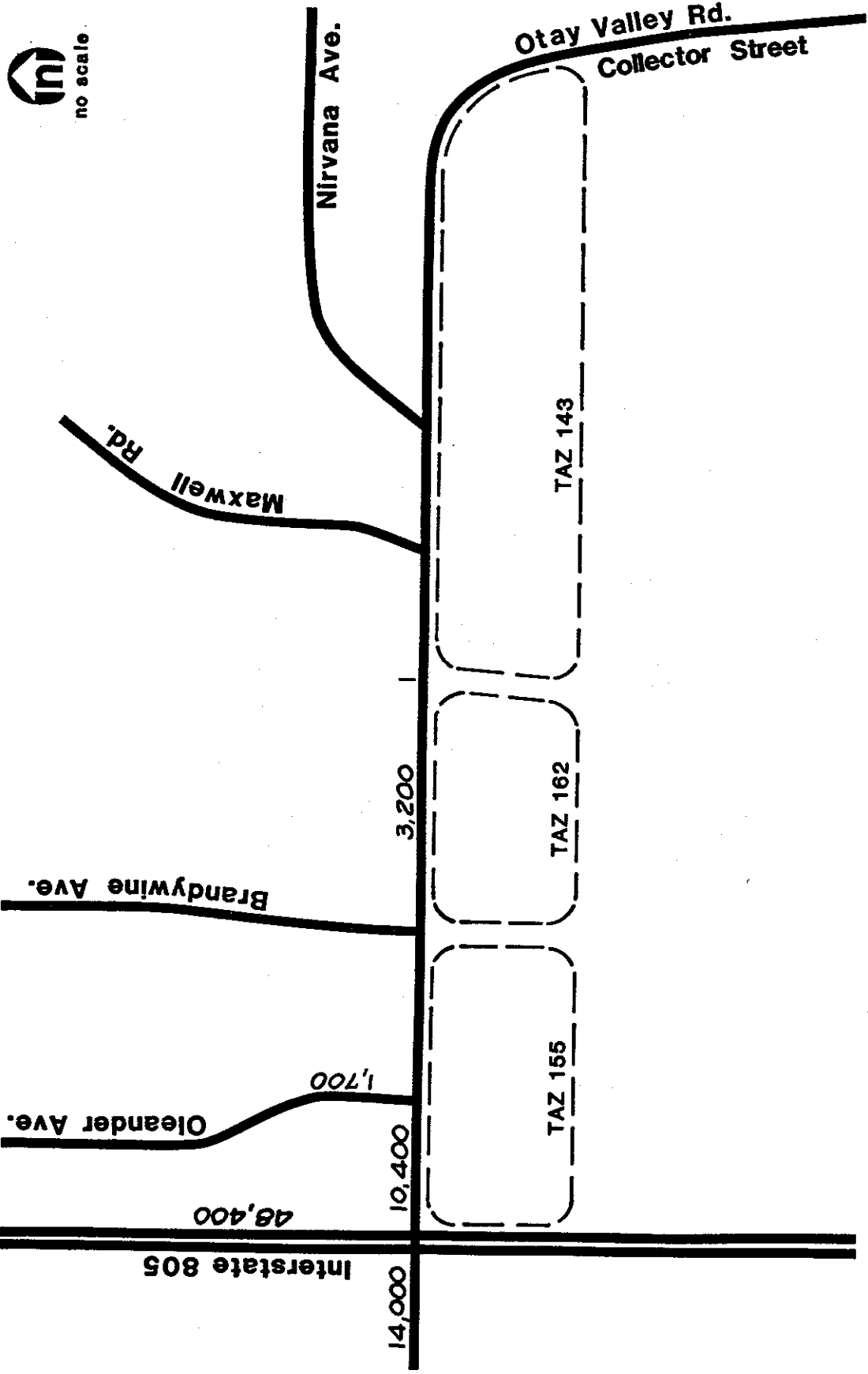
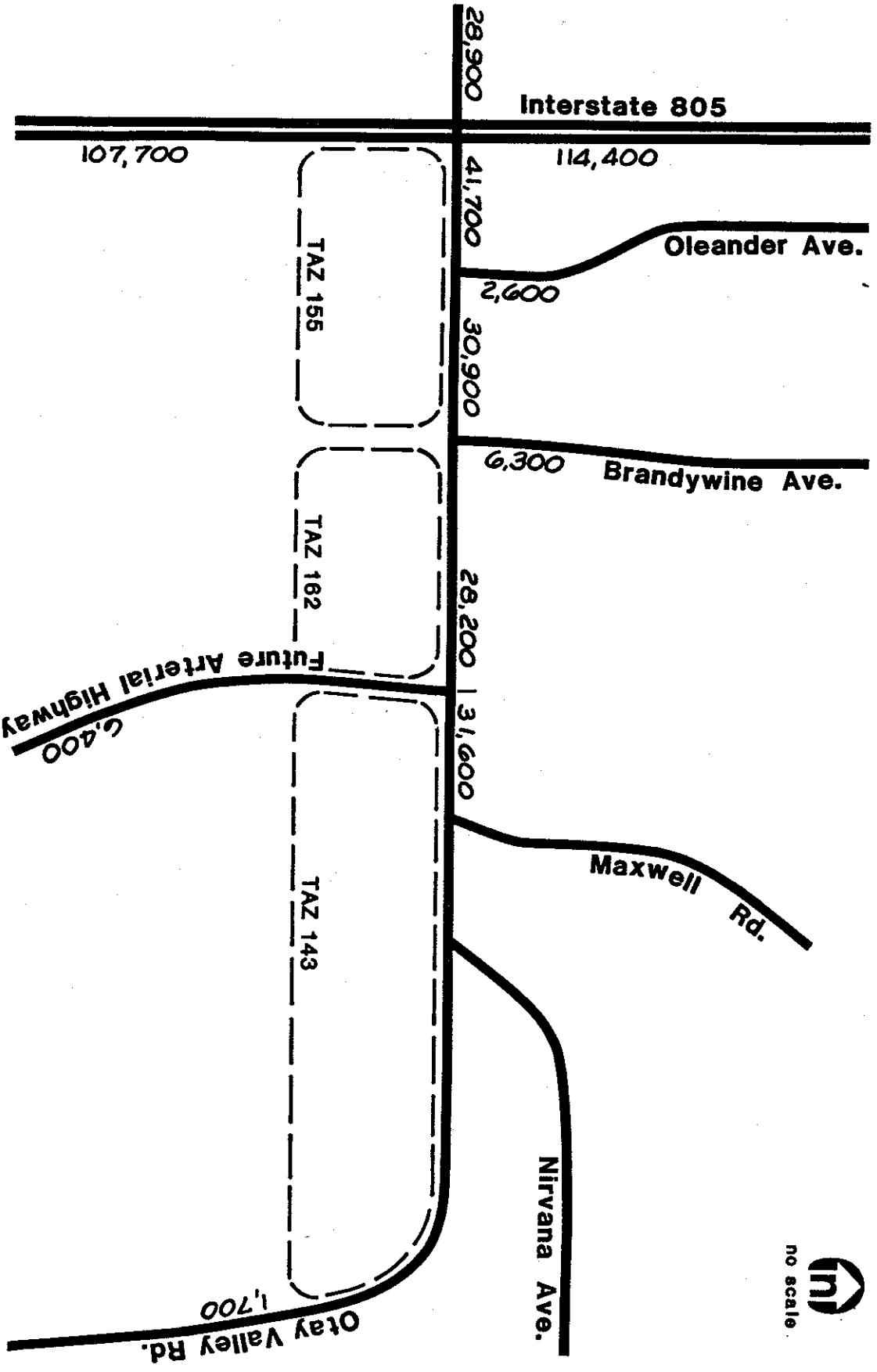


Figure 3.14.2  
1983 Volumes (ADT)

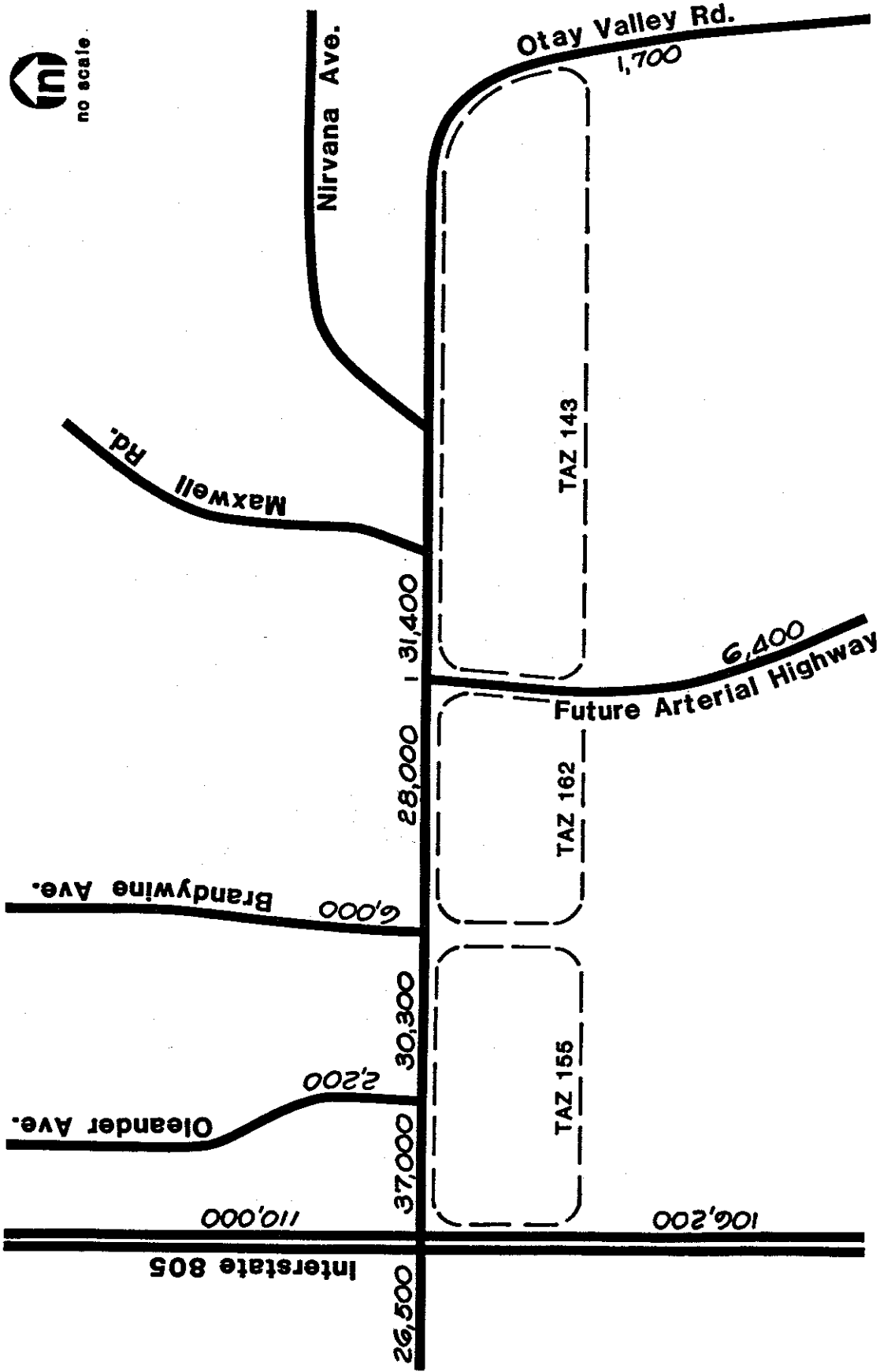


no scale

1995 Roadway Network

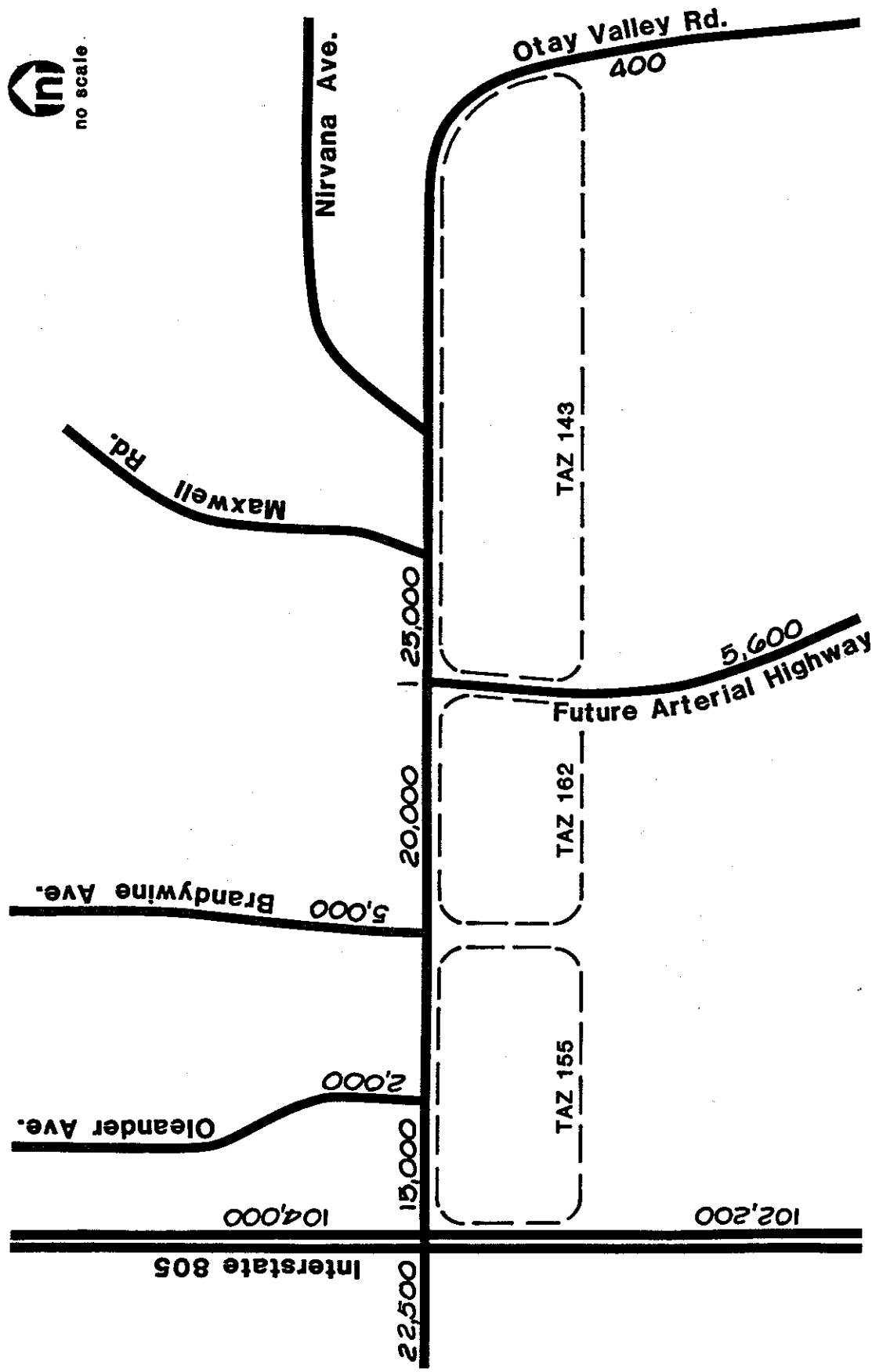
Figure 3.14.3  
 1995 Volumes (ADT)  
 SANDAG Study April 28, 1984





1995 Roadway Network

Figure 3.14.4  
 1995 Volumes (ADT)  
 Project With Revised Zone 155



1995 Roadway Network

Figure 3.14.5

**1995 Volumes (ADT) Without Project**

(No Trips Generated out of Zones 143, 155 and 162)

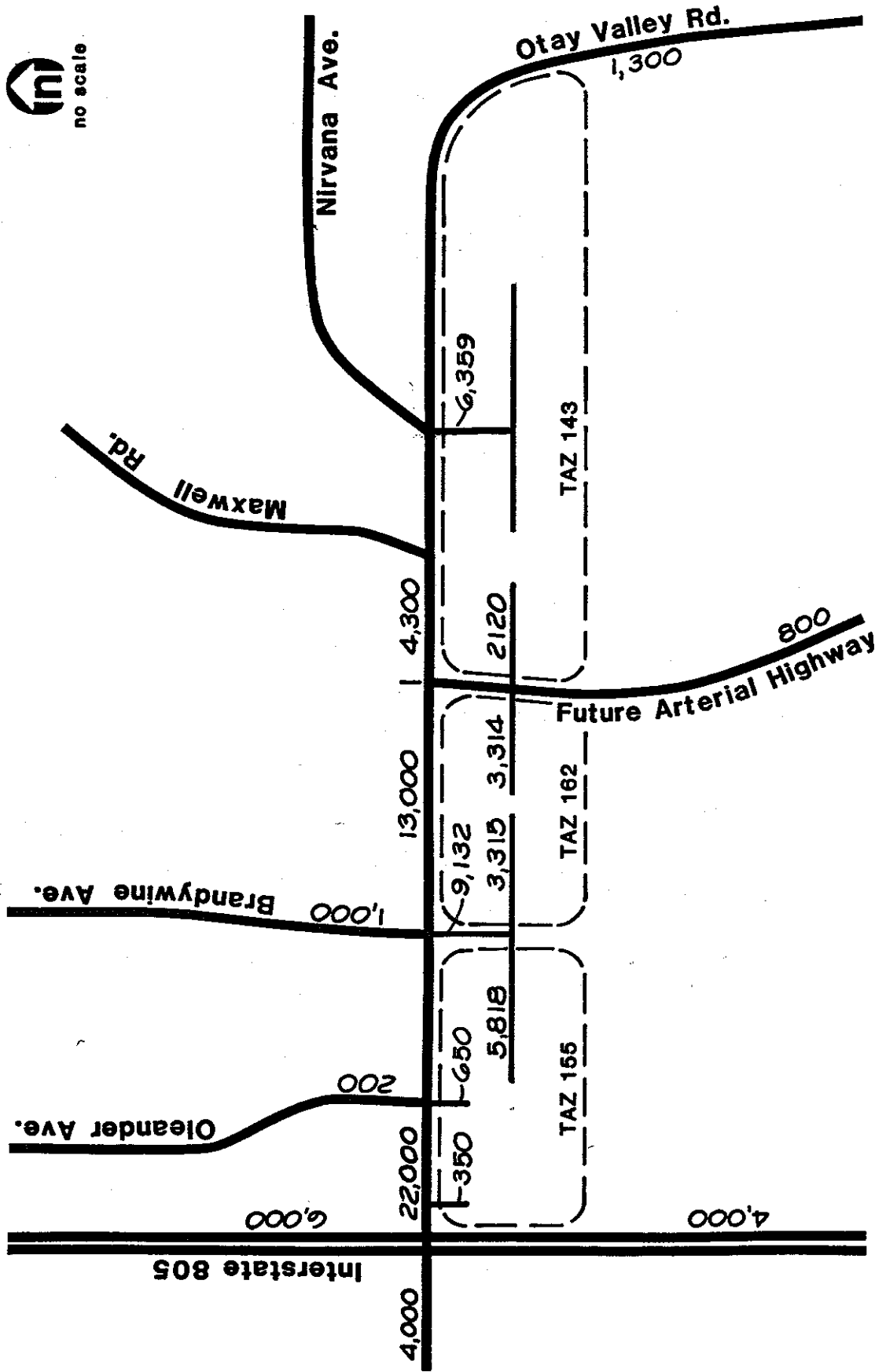
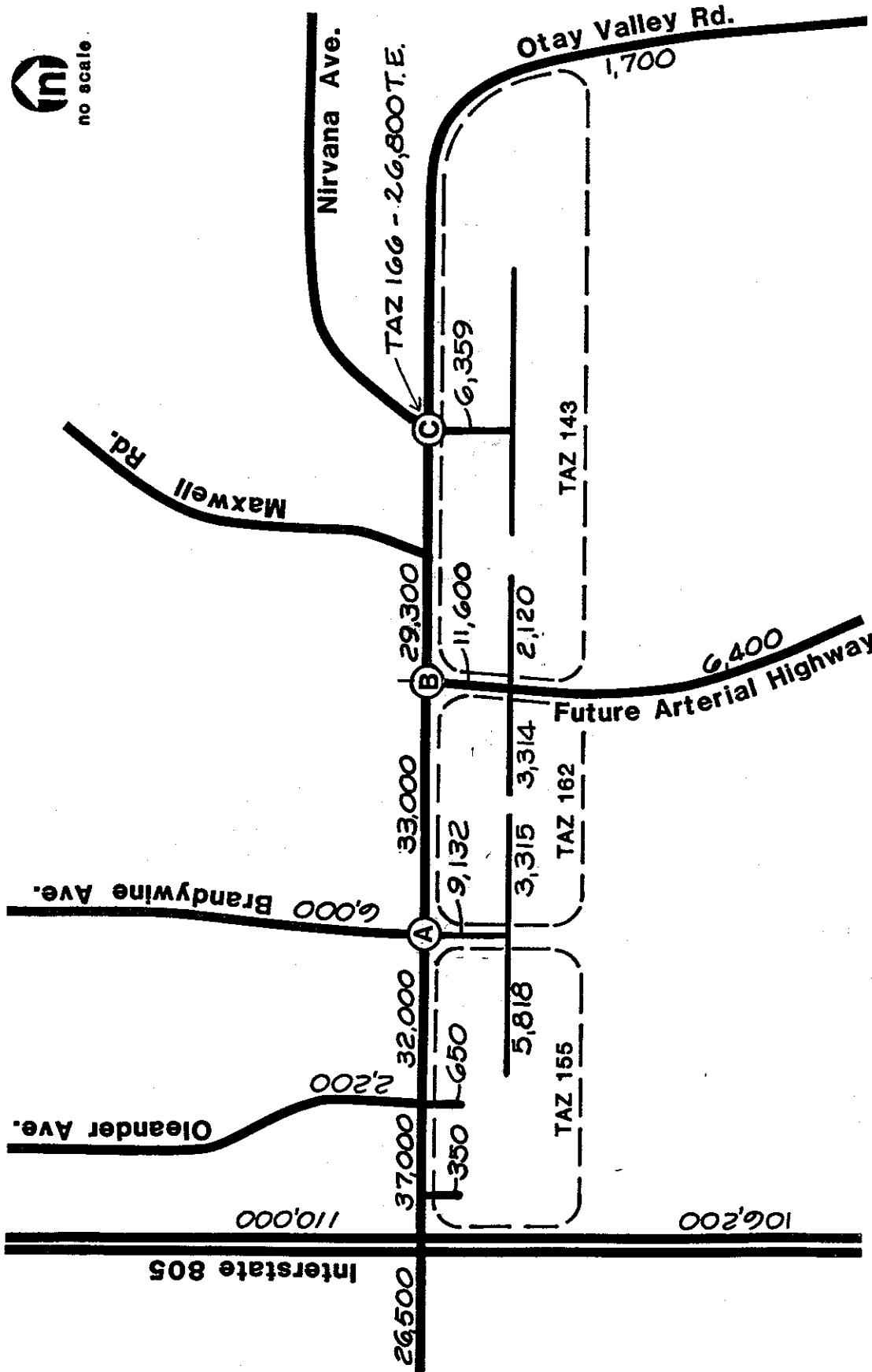


Figure 3.14.6  
 1995 Volumes (ADT) Project Only  
 Traffic with Revised Access Points

1995 Roadway Network



1995 Roadway Network Figure 3.14.7  
**1995 Volumes (ADT) With Project**  
**and Revised Access Points**

### 3.14.3 Mitigation Measures

The traffic analysis determined that significant traffic problems would be generated by the proposed project. These impacts can be mitigated satisfactorily by assuring that Otay Valley Road is constructed to a full 6-lane divided arterial and that traffic signals are placed at the major entrances/intersections as outlined in the analysis. In addition, the internal design of the project should be such that the major ingress/egress points are concentrated on Otay Valley Road and the future 4-lane arterial highway. Additional mitigation at Intersection C will be required in the future if TAZ 166 builds out at its projected intensity.

Industrial development of the project site should be coordinated with improvements to Otay Valley Road. Development of individual properties could be coupled with assessment district and/or tax increment financing to assure implementation of road improvements concurrent with need.

### 3.14.4 Analysis of Significance

The project area currently does not experience any significant traffic problems, but significant traffic problems would be generated in the future by regional trips and trips generated by the proposed project. The trips generated by the proposed project are already accounted for in the forecasted regionally-oriented traffic. By implementing the improvements proposed, the circulation network in the project vicinity will operate at a satisfactory level of service. These improvements can be financed through an assessment district, tax increment financing, or subdivision improvement requirements.

Table 3.14.1

SANDAG Transportation Study

<u>Zone</u>	<u>Land Use</u>	<u>Acres</u>
143	Light Industry	64.3
	Agriculture	59.7
155	Other Retail	22.9
	Light Industry	27.5
	Agriculture	22.9
162	Light Industry	50.5
	Agriculture	<u>32.1</u>
Totals	Light Industry	142.3
	Other Retail	22.9
	Agriculture	<u>114.7</u>
	Total	279.9 acres

Trip Generation Rates

Light Industry	130 Trip Ends/Acre/Day
Other Retail	350 Trip Ends/Acre/Day
Agriculture	2 Trip Ends/Acre/Day

Table 3.14.2

1995 Project Land Uses

<u>Zone</u>	<u>Land Use</u>	<u>Acres</u>
143	Light Industry	64.3
	Agriculture	59.7
155	Other Retail (Svc. Station)	1.0
	Light Industry	49.4
	Agriculture	22.9
162	Light Industry	50.5
	Agriculture	<u>32.1</u>
Totals	Light Industry	164.2
	Other Retail	1.0
	Agriculture	<u>114.7</u>
	Total	279.9 acres

### 3.15 SEWER AVAILABILITY

#### 3.15.1 Project Setting

Sewer service to the project site is currently provided by the City of Chula Vista. Sewage from the project area is metered through the Montgomery Sanitation District's pumping facility. It is then transported into the metro system and given primary treatment at the Point Loma Sewage Treatment Plant. A 10-inch line is located in Otay Valley Road which was extended east of the project site several years ago to provide sewer service to the Otay Industrial Recycling Park development to the east. The City of Chula Vista's Engineering Department estimates that this 10-inch line is currently operating at 70 to 80 percent capacity; the Engineering Department is conducting dipper testing of the line to monitor the existing sewage flows in the line. If the 10-inch line is at 70 to 80 percent capacity, very few new units could be added to the existing line before improvements are required (Roberto Sausado, Engineer, March 15, 1984). No estimates are available concerning the type or amount of industrial development which could be handled by the existing line, although industrial development tends to generate less sewage than does residential development. Because the existing line is nearing capacity, there is increasingly less capacity for the City of Chula Vista to serve development along Otay Valley Road east of Interstate 805. No funds for the construction of a parallel relief line in Otay Valley Road are available from the current capital improvements program.

#### 3.15.2 Potential Impacts

Approval of the proposed land use designations would have no direct impact on sewer service in the area; however, eventual industrial development would have potential impact. Because precise development plans are not yet available, estimates for the amount of sewage which would be generated by the 90 acres of limited industrial development on the project site cannot be determined. Most types of limited industrial development permitted by the proposed project would generate less waste than would residential development. The proposed development would unquestionably strain the city's ability to provide sewer service to the project site and to other developments along Otay Valley Road. Because the existing line is presently at 70 to 80 percent capacity, approval of the proposed project and eventual industrial development of the project site could significantly affect the level of service in the area.

##### o Cumulative Effects

Regional cumulative growth in the Otay Mesa area and the City of Tijuana is creating significant regional problems in sewage disposal. Solutions to these issues are currently under investigation by local, national and international agencies. The City of San Diego anticipates serving the area surrounding Otay Valley Road with a major sewer line to connect through an existing trunk line to the metropolitan treatment system. The City of Chula Vista could enter into a cooperative agreement with the City of San Diego in order to gain capacity rights to this sewer line.

### 3.15.3 Mitigation Measures

The City of Chula Vista Engineering Department has indicated that certain mitigation measures could be required as a condition of project approval in order to ensure that the level of sewer service in the project area would not be adversely affected with implementation of the proposed project. These measures are listed below.

1. Total and/or peak sewage flows which could be generated by the proposed project should be limited to that capacity which the city determines to be within the volume of the Otay Valley Road sewer until new sewer lines are constructed.
2. Installation of on-site sewage storage capacity could be required by the city as development progresses with appropriate automatic control and pumping facilities to permit discharge at off-peak times.
3. Current landowners could be required to stipulate that they would not oppose the formation of any assessment district formed for the primary or incidental purpose of providing adequate sewer capacity to the area.

Inadequate sewer capacity in the Otay River area is an area-wide problem involving all new developments in the project vicinity, including projects in the City and County of San Diego and the City of Tijuana. The City of San Diego is processing approval and permits for a new east-west sewer line from Otay Mesa to the existing Date-Faivre trunk line west of I-805. This 27-inch main sewer line would be located near the southern boundary of the redevelopment project area and is anticipated to have peak flows of 1.5 to 2.0 mgd. Industrial development within the Otay Valley Road Redevelopment Plan-South may be able through a cooperative agreement with the City of San Diego to connect to this sewer line (Bill Harshman, City of Chula Vista Engineer, April 20, 1984). The Redevelopment Plan identified sewer line improvements as an initial infrastructure project which could be financed with tax increment funds. Such sewer improvements would mitigate potential impacts to the existing 10-inch line in Otay Valley Road.

### 3.15.4 Analysis of Significance

Implementation of the proposed land use designation changes would not significantly affect sewer service in the area. Eventual industrial development, in the absence of improvements to the existing sewer system, could contribute to a significant, cumulative impact in the area. The significance of this impact would be reduced if the mitigation measures outlined in this report are implemented and the problem of sewer availability along Otay Valley Road is addressed on an area-wide level through construction of a new east-west sewer line.



### 3.16 AIR QUALITY

#### 3.16.1 Project Setting

The project site has a coastal, mediterranean-type climate with cool breezes out of the west, northwest. The nearest air pollution monitoring station is located approximately two miles west in Chula Vista; Table 3.16.1 shows a summary of air quality data recorded at this monitoring station. The Chula Vista station most closely represents air quality conditions in the Otay Valley because of similar climate and wind conditions. The sloping hillsides which surround the valley do not create any unusual topographic features which would create ambient air quality conditions significantly different than the Chula Vista Monitoring Station.

The project site is within the San Diego Air Basin, a basin designated as a "non-attainment area" for several air pollutants that periodically exceed state and federal air quality standards. However, pollutants such as carbon monoxide, nitrogen dioxide, and sulphur dioxide have not exceeded state and federal standards for the past few years. Photochemical smog is still the most difficult air pollutant to control, although "smog-forming hydrocarbon emissions were reduced by 12.7 tons/day in 1982" (APCD, 1982).

#### 3.16.2 Potential Impacts

The proposed annexation and land use designations will not have any direct air quality effects. The analysis below discusses potential impacts from ultimate industrial development of the project site.

##### o Short-term Emissions

Short-term emissions would be generated during site preparation and construction of future industrial development, including dust and exhaust fumes from heavy duty construction equipment. Once final design plans are prepared, the type of construction equipment, the duration of activities and amount of earth to be moved can be determined. Analysis of consequent air pollutants generated from these sources will be considered at that time.

##### o Long-term Emissions

The project is anticipated to generate a maximum of 3,450 average daily trips, with an average trip length of approximately nine miles. Table 3.16-2 represents the estimated total emissions that would be generated by this project after buildout of the project. Calculations of these emissions were obtained utilizing the URBEMIS #1 computer model from the California Air Resources Board. These vehicular emissions will be spread throughout the air basin. Operation-related activities would not result in significant emissions.

##### o Local Scale Analysis

Impacts to local sensitive receptors such as schools, hospitals and convalescent homes were investigated. One elementary school is located north of and within a mile of Otay Valley Road. Two hospitals are located

north of and within two miles of Otay Valley Road, but these are located on the other side of the ridge separating Otay Valley from Telegraph Canyon and would not be expected to be directly impacted from this source. Significant impacts to sensitive receptors from incremental increases in air pollutants generated by the project are not expected. Point source emissions from future industrial development will be closely regulated by the City's zoning ordinance and the APCD, and no significant joint source emissions would be generated.

o Cumulative Effects

The project represents an increase in local air pollution levels and would contribute cumulatively to regional air quality problems. The project is an increment of growth in the Otay Valley/Otay Mesa area of San Diego County that will replace agricultural uses with industrial development. The cumulative vehicle emissions generated by these projects will not affect attainment of the national ambient air quality standard for ozone by 1987, but the projects could cumulatively hamper regional efforts to maintain national standards.

It is not anticipated, however, that this project will be growth-inducing. Past, present, and reasonably foreseeable future development projects in this area are currently being evaluated by the San Diego Association of Governments to determine regional growth forecasts. It is anticipated that this information will be used by appropriate agencies to determine potential impacts on ambient air quality. Implementation of the R-RAQ's may reduce potential impacts.

3.16.3 Mitigation Measures

The San Diego County Air Pollution Control District is attempting to control emissions in the San Diego Air Basin by implementation of the Revised Regional Air Quality Strategies (R-RAQs). Because of the project's provision of employment near residential areas, the project would be consistent with tactic T-1, Regional Land Use Pattern. Potential measures to reduce emissions include carpooling to employment areas in the industrial park and phasing of work shifts to minimize peak hour emissions. These measures could only be implemented by employers and employees of future industrial developments in the project area. These TSM strategies could be implemented when precise plans for individual developments are proposed, but these measures cannot be assured at this time.

The temporary generation of dust pollution during construction will be controlled by following standard grading techniques, including periodic watering of the site, and by planting and maintaining required landscaping on the site once construction is finished.

3.16.4 Analysis of Significance

Ultimate development of the industrial park will generate automobile emissions and operation-related emissions that will incrementally contribute to air quality degradation in the San Diego region. These emissions are not considered to be significant from a regional perspective.

TABLE 3.16-1

SUMMARY OF AIR QUALITY DATA FOR CHULA VISTA MONITORING STATION

Pollutant	Maximum Value	Number of Days Over State Standard			Maximum Value	Number of Days Over Federal Standard		
		1982	1981	1980		1982	1981	1980
Oxidant (Ozone, O <sub>3</sub> )	1 Hr Avg 12 pphm	5	3	6	1 Hr Avg 12 pphm	5	3	6
Carbon Monoxide (CO)	12 Hr Avg 11 milli- <sub>3</sub> grams/m <sup>3</sup>	0	0	0	8 Hr Avg 10 milli- <sub>3</sub> grams/m <sup>3</sup>	0	0	0
Sulfur Dioxide (SO <sub>2</sub> )	24 Hr Avg 131 micro- <sub>3</sub> grams/m <sup>3</sup>	0	0	0	3 Hr Avg greater than 50 pphm	0	0	0
Reactive Hydrocarbons (RHC)	No Standard	**	**	**	3 Hr Avg (6-9 a.m.) 160 micro- <sub>3</sub> grams/m <sup>3</sup>	183	180	168
Nitrogen Dioxide (NO <sub>2</sub> )	1 Hr Avg 470 micro- <sub>3</sub> grams/m <sup>3</sup>	0	0	0	Annual Avg 100 micro- <sub>3</sub> grams/m <sup>3</sup>	0	0	0
Particulates (TSP)*	24 Hr Avg 100 micro- <sub>3</sub> grams/m <sup>3</sup>	5	3	12	24 Hr/Avg 260 micro- <sub>3</sub> grams/m <sup>3</sup>	0	0	0

\*Expressed as percentage of samples taken which exceeded the specified standard

\*\*No applicable state standard for the indicated pollutant.



#### 4.0 UNAVOIDABLE SIGNIFICANT ADVERSE ENVIRONMENTAL EFFECTS

As discussed in Section 3.0 Environmental Analysis, potential environmental impacts associated with project implementation can be mitigated. However, the 241-acre project will incrementally contribute to potentially significant cumulative impacts with respect to mobile noise, aesthetics, transportation, sewer availability and air quality. These cumulative impacts are unavoidable if all anticipated projects are implemented.

##### MOBILE NOISE SOURCE

Increased traffic which will be generated by cumulative regional growth would significantly increase mobile noise in the project area. The project will contribute incrementally to this increase in future noise levels. Projected noise would not adversely affect the proposed industrial development, but would have significant effects on existing residential areas adjacent to Otay Valley Road. Noise mitigation measures will be incorporated into the future design of Otay Valley Road.

##### AESTHETICS

Eventual industrial development of the project site and other areas in the vicinity would permanently alter the existing visual environment from that of a scenic agricultural area to that of an industrial park development. Careful site design and retention of the flood plain of the Otay River in parks and public open space, as proposed, would help to reduce the adverse visual effects which could result from limited industrial development on the project site.

##### TRANSPORTATION/ACCESS

The results of the traffic analysis indicate that the level of service of roads and intersections in the area would be adversely affected by eventual development of the project site and other regional growth. Improvements to Otay Valley Road to Circulation Element Standards will be necessary when development occurs on the project site. Such improvements would accommodate projected traffic from cumulative development in the subregion.

##### SEWER AVAILABILITY

Under present conditions, sewer service availability represents a significant constraint to development. A 10-inch line located in Otay Valley Road, which would serve eventual industrial development on the project site, is currently estimated to be at 70 to 80 percent capacity. Improvements to this line could be required in conjunction with development of the property. On-site storage capacity which could permit discharge during off-peak periods could also be required. Sewer availability for cumulative projects in the area is under consideration on an area-wide level by the applicable jurisdictions in the project area and may be solved through cooperative action.

##### AIR QUALITY

Increased traffic generated by cumulative regional growth would contribute to air quality degradation in the San Diego region. The proposed project represents an incremental part of this growth. Implementation of the Revised Regional Air Quality Strategies (RAQ's) may reduce potential impacts on a region-wide basis.

## 5.0 EFFECTS FOUND NOT TO BE SIGNIFICANT

In establishing the requirements for environmental review of the proposed project, the City of Chula Vista determined that the project would not result in significant impacts to the following environmental issues:

### PALEONTOLOGICAL RESOURCES

A paleontological survey was conducted by Scientific Resource Surveys (SRS), Inc., in 1980 including a records search, at the Natural History Museum of Los Angeles County (LACM) and the Natural History Museum of San Diego (SDSNH), a personal interview with Mr. Tom Demere (SDSNH), and a walkover survey of the project site. The survey also examined a 37-acre area north of Otay Valley Road in addition to the current project site. The records search revealed no recorded paleontological resources within the project boundaries. Alluvium, slopewash deposits, stream terraces, present on the site were considered to have low potential for containing paleontological resources.

The study concluded that no direct impacts to paleontological resources would occur as a result of project implementation. No sites are recorded or were located on the property which would be affected by eventual industrial development. The paleontological survey, however, evaluated only surface features and recorded geological information. Fossil resources could potentially be uncovered during grading activities which would occur in conjunction with development of the project site.

To insure the recovery of any undetected paleontological resources, the survey report recommended that a qualified paleontologist be present at pre-grade meetings to consult with the grading and excavation contractor. The paleontologist should be empowered to temporarily direct, divert or halt grading to permit recovery of fossil remains. With the owner's permission, remains collected from the project site should be deposited in an institution such as the San Diego Natural History Museum. The inclusion of these measures as conditions for tentative map approval for future projects, reduces any potential impact to a level of insignificance.

### SOCIO-ECONOMIC FACTORS

Employees of the proposed limited industrial development would be expected to have economic and social characteristics similar to employees and residents in the surrounding area. Community social factors would therefore not be significantly affected by the proposed project.

### SCHOOLS

Because limited industrial development is proposed for the project site, no students would be generated by the proposed project, and area schools would not be affected.

### PARKS, RECREATION, AND OPEN SPACE

Because no new residents would be generated by the proposed project, dedication of additional public parks would not be required as a condition of project approval. Placement of the flood plain of the Otay River in a floodway zone would ensure the preservation of open space in the Otay River Valley. The river valley is currently designated for parks and public open space on the City of Chula Vista's General Plan.

### SOLID WASTE DISPOSAL

Solid waste disposal services in the area would not be significantly affected by project implementation.

## 6.0 ALTERNATIVES TO THE PROPOSED PROJECT

A wide variety of alternative development designs are possible for the subject site and the proposed project. The following analysis addresses the feasibility, potential environmental effects, and consistency with surrounding land uses of each alternative. Under state law, the reviewing agencies are required to give major consideration to alternatives in order to prevent environmental damage. These agencies, however, also have obligations to balance other public objectives, including economic and social factors, in determining whether and how a project should be approved.

### NO PROJECT/CONTINUED AGRICULTURAL USE

This alternative would probably be limited to a continuation of the existing agricultural activity on the property. This agricultural use consists of approximately 50+ acres of field crops. The Otay River Valley, including the project site, is extremely well suited to agricultural production; this alternative would help to preserve agriculture in the valley. It would also conform with the intensive agriculture designation adopted by the County of San Diego and with the agriculture and reserve designation which is shown on the City of Chula Vista's General Plan for the southern portion of the project site. Agricultural pollutants would continue to be generated with this alternative. It would, however, have a lower demand for services, less potential for landform alteration and less disruption of biological and archaeological resources than would the proposed project.

No annexation would take place under this alternative. This would eliminate potential impacts to the Montgomery Fire Protection District, as well as potential conflicts with LAFCO policy associated with the loss of agriculture on the project site.

Cumulative traffic and mobile noise and air quality impacts would essentially be the same as the proposed project, since the majority of these impacts are generated from off-site regional growth.

### STRICT CONFORMANCE WITH THE CHULA VISTA GENERAL PLAN

This alternative would allow research and limited industrial development in the western corner of the project site, and would permit parks and public open space in the flood plain of the Otay River and agricultural and reserve lands on the remaining portion of the property. Strict conformance with the General Plan would generally have fewer impacts than would the proposed project. The potential conflict between residential development to the north of Otay Valley Road and limited industrial developments permitted in the western corner of the site would still occur. Approximately 45 acres of agricultural land would be preserved south of Otay Valley Road which would conform with LAFCO's agricultural lands preservation policy.

Under this alternative, the project site would be annexed to the City of Chula Vista. Conflicts associated with annexation, such as potential impacts to the Montgomery Fire Protection District, would still occur. Cumulative traffic and mobile noise and air quality impacts would essentially be the same as the projected project, since the majority of these impacts are generated from off-site regional growth.



## OTHER TYPES OF LAND USES

### RESIDENTIAL

Residential development would be more compatible with residential developments to the north but would be less compatible with general industrial development which is existing or designated east of existing residential developments. A residential project would, like the proposed project, be in conflict with existing land use designations of the County and City of Chula Vista. Annexation of the property to the City would most likely be part of such a project, as County policy encourages annexation of irregular "fingers" of land. The cost of floodway modification may make residential use infeasible for the east portion of the property. However, the loss of agricultural land would be the same as the proposed project, as well as potential conflict with LAFCO policy.

Residential use would also require extension of public services to the site and be dependent on solution of the sewer availability problem. Residential uses generally generate more liquid wastes than industrial uses, but have less fire flow requirements. Annexation to the City of Chula Vista Fire Department would still be required with resulting impacts to the Montgomery Fire District. A residential project would also generate demand for public schools, parks and recreation facilities.

Depending upon the density of development, a residential project would be expected to generate less daily traffic than the proposed limited industrial use, with a lower percentage of truck traffic. However, the cumulative traffic, mobile noise levels and air quality impacts would essentially be the same as the proposed project, since the majority of the cumulative impacts are generated from off-site regionally generated growth, not from development of the project site. A residential development would be exposed to significant noise impacts from Otay Valley Road and I-805 that would not occur under the proposed project. Overall, a residential alternative would not significantly reduce impacts associated with the proposed light industrial project.

### COMMERCIAL

Commercial development would be more compatible with residential development to the north than would limited industrial development; commercial development is, however, already designated by the City of Chula Vista's General Plan, along Otay Valley Road west of I-805. Such nearby commercial development could reduce the economic viability of additional commercial development on the project site. Commercial development would be in conflict with existing land use designations. Annexation to the City of Chula Vista would, as above, most likely be a part of such a project. Commercial development would have similar demands on public services as the proposed project and would result in the same reduction of agricultural and biological resources, and be subject to the impacts of sewer availability and fire district annexation.

Commercial development may generate greater average daily trips than limited industrial, with a similar percentage of truck traffic. However, as with the proposed project, region-wide traffic generation will have a greater impact.

Potential violation of stationary noise standards may be somewhat reduced from light industrial use, but is dependent on types of commercial uses.

Commercial development would be aesthetically similar to light industrial use, although both could be partially mitigated through design control. A commercial alternative would not significantly reduce impacts associated with the proposed light industrial project.

#### GENERAL INDUSTRIAL

General industrial development would be compatible with industrial development which could occur to the north and east of the project site according to the City of Chula Vista's General Plan. It would, however, have more conflicts with adjacent residential developments to the north than would the proposed limited industrial development, due to increased truck traffic, noise generation. General industrial use would also be in conflict with existing land use designations.

General industrial use would place greater demands on sewage disposal and fire protection services than the proposed project. Similar impacts in reduction of agricultural and biological resources would be anticipated. Certain activities permitted under the general industrial zone would have greater potential for violation of stationary noise standards and water quality problems (in the event of accidental or illegal waste spillage).

All of the above types of land uses would have impacts to cultural, paleontological and geological resources similar to those of the proposed development.

#### ALTERNATE TIMING AND/OR LOCATION

Delay of implementation of the project would have no distinct advantages over the proposed project as long as adequate mitigation to prevent potential impacts to biological, cultural, and paleontological resources is performed prior to any grading. The project can be designed to accommodate future improvements to Otay Valley Road necessitated by regional growth, without delaying for these improvements. Delaying project implementation until the regional sewage service issue is resolved would not be necessary if interim mitigation measures recommended by the Engineering Department are implemented.

Regional cumulative impacts to traffic, mobile noise and air quality would not be significantly reduced by delaying the project. Project postponement would allow productive use of agricultural land for the interim period but would postpone the economic benefits to the overall area available through the Redevelopment Plan.

Construction of the project on a different site would avoid direct biological, archaeological, historical, and geological impacts. This would not, however, be feasible for the owners of the property involved in the annexation. Additionally, the fiscal and economic benefits associated with the redevelopment area would not be available at an alternative location.

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

The proposed project would have certain cumulative, long-term environmental effects. Implementation of the proposed project would irreversibly commit a portion of the site to limited industrial development and eliminate approximately 50 acres of agricultural production from the project site. This loss of agriculture would represent an incremental reduction of agricultural acreage in San Diego County. Limited industrial development would also have adverse effects on on-site biological, archaeological, and historical resources and would result in incremental increases in traffic and noise levels in the project area. For these reasons, the proposed project would narrow the range of available beneficial uses of the environment.

Development of the project site as an industrial park would provide employment for residents of the region. The proposed project would not generate long-term risks to health or safety if limited industrial development occurs in conformance with the permitted limited industrial uses listed in the City of Chula Vista's zoning ordinance. Current information indicates that potential impacts which would result from the proposed development could be mitigated to a level of insignificance during development of precise plans for the proposed project.

The proposed project should also be considered in conjunction with proposed plans for the development of other portions of the City of Chula Vista's Redevelopment Area and the Otay Mesa Community Planning Area in the City of San Diego as these areas convert from rural/agricultural to urban uses. The cumulative effects of these proposed developments would result in significantly increased traffic and noise levels on Otay Valley Road; and could significantly strain the ability of the existing sewer line to provide service to the area unless additional lines are developed. Environmental considerations and economic and social factors should be balanced to determine the most appropriate form of development.

## 8.0 IRREVERSIBLE ENVIRONMENTAL CHANGES

Change of land use designations on the project site and annexation of land to the City of Chula Vista as proposed would not, in itself, have any irreversible environmental impacts. The primary irreversible environmental change associated with the actual development of the site would be the conversion of the project site from agricultural to urban land uses. Implementation of the proposed project would result in further urbanization of the Otay River Valley. The cumulative effects of the proposed project and other development in the area could unavoidably alter the rural character of the eastern portion of the Otay River Valley. The potential effects of the proposed project on natural resources, traffic levels and public services would be comparatively small. Over the long term, however, the cumulative effects of increased population and employment centers in the area would irreversibly affect natural habitats, energy consumption, traffic levels and public services. In addition, construction of the project would require an irreversible commitment of resources in the form of building materials and energy required for construction.

## 9.0 GROWTH-INDUCING IMPACTS

Annexation of the project site to the City of Chula Vista and eventual development of the site would result in increased urbanization of the Otay River Valley. Because this annexation would eliminate a finger of county land from the County's Otay Subregion and result in more regular jurisdictional boundaries in the project area, it is unlikely that the proposed annexation would encourage future annexations in the area.

Urban services currently exist in the area and, with the exception of sewer service, are adequate to serve the needs of the proposed project. The construction of a new sewer line, or improvements to the existing line, could be required to meet the needs of this and future developments in the project area. An increase in sewer capacity could have growth-inducing effects, but decisions regarding such an increase will be made on an area-wide level and would not be the direct result of approval of the proposed project. While the project would not directly stimulate growth through the extension of public roads or services, the cumulative effects of this and other projects in the area would be to increase the level of urbanization and change the character of the Otay River Valley.

## 10.0 SOURCES

### 10.1 REFERENCES

- Balster, Marion. San Diego County Health Department, Hazardous Waste Division, telephone communication, March 5, 1984.
- Bounds, David. Shift Commander, Chula Vista Fire Department, telephone communication, March 14, 1984.
- Byer, Mr., Chula Vista Police Department, telephone communication, March 14, 1984.
- BKK Corporation. Preliminary Operations Plan for the Chancellor and Ogden Industrial Waste Transfer Station, Otay Landfill Leasehold, Chula Vista, California. August 1981.
- California Regional Waste Quality Board, San Diego Region. Closure Requirements for the Omar Rendering Company Dumpsite in the Otay River Valley, Order No. 80-06. January 28, 1980.
- California Regional Water Quality Board, San Diego Region. Clean-up and Abatement Order No 81-27, Vincent Davies Property - Otay River Valley, San Diego County. May 22, 1981.
- California Regional Water Quality Board, San Diego Region. Files on Otay County Landfill, Omar Rendering Plant and Apache Services sites, 1959 to present.
- City of Chula Vista. Bike Routes - An Element of the General Plan. Chula Vista: Planning Department, January 1975.
- City of Chula Vista. Chula Vista Municipal Code Title 19, Zoning. Chula Vista: April 1975.
- City of Chula Vista. General Plan - 1990. Chula Vista: Planning Department, March 1970.
- City of Chula Vista. Noise Element. Chula Vista: Planning Department, September 1974.
- City of Chula Vista. Open Space - An Element of the General Plan. Chula Vista: Planning Department, October 1973.
- City of Chula Vista. Scenic Highways - An Element of the General Plan. Chula Vista: Planning Department, April 1974.
- City of Chula Vista. Seismic Safety Element. Chula Vista: Planning Department, December 1974.
- City of Chula Vista. Environmental Review Department, current project files.

- City of Chula Vista Redevelopment Agency. Preliminary Redevelopment Plan, Otay Valley Road Redevelopment Project Area. September 10, 1983.
- City of Chula Vista Redevelopment Agency. Draft Environmental Impact Report on the Redevelopment Plan, Otay Valley Road Redevelopment Project Area, prepared by CSA, Inc., October 14, 1983.
- City of San Diego. Otay Mesa Community Plan and Environmental Impact Report. San Diego: City Planning Department, April, 1981.
- Comprehensive Planning Organization. Areawide Water Quality Management Plan: Part I - Runoff. San Diego: DMJM/Lowry, March 1978.
- Comprehensive Planning Organization. Areawide Water Quality Management Plan: Part III - Salt Balance. San Diego: DMJM/Lowry, March 1978.
- Comprehensive Planning Organization. Water in the San Diego Region. San Diego: 1980.
- County of San Diego. Comprehensive Plan for Flood Control and Drainage: San Diego County Flood Control District, Zone 4. San Diego: Hirsch and Koptionak, Department of Sanitation and Flood Control, August 1975.
- County of San Diego. Basic Data Report for the Agriculture Element. San Diego: Department of Planning and Land Use, May 1979.
- County of San Diego. GPA 80-01 Land Use Element: Subareas 1 and 2 in Otay. San Diego Department of Planning and Land Use, April 1980.
- County of San Diego. Phase II of the Otay Mesa Land Use Plan, GPA 84-01, Supplemental Draft EIR, December 1983.
- County of San Diego, Otay Subregional Plan, Part XXIII of the San Diego County General Plan, GPA 83-01, approved May 18, 1983.
- Glass, Chuck. City of Chula Vista, Engineering Department, telephone communication of March , 1984.
- Goldhammer, J. C. Geologic Report - Otay Disposal Site, County of San Diego , Department of Transportation, February 22, 1977.
- Harshman, Bill. Engineering Department, City of Chula Vista, telephone communication, April 20, 1984.
- Hodge, Roy. Zoning Enforcement Section, City of Chula Vista, personal interview, March 13, 1984.
- Kassman, Fred. Redevelopment Agency of Chula Vista, telephone communication, March 14, 1984.
- Kovac, John. Air Pollution Control District, telephone communication, San Diego, March 1, 1984.

- Local Agency Formation Commission. Agricultural Lands Preservation Policy -San Diego LAFCO. San Diego: November 1978.
- Landowski, Phil. Fire Chief, Montgomery Fire District, telephone communication, March 14, 1984.
- Michaels, Peter. San Diego Regional Water Quality Control Board, telephone communication, February 27 and March 6, 1984.
- Peters, Greg. San Diego Regional Water Quality Control Board, telephone communication and personal interview, March 1, 1984.
- Poon, Mr., San Diego County Flood Control District, telephone communication, February 27, 1984.
- Sausado, Roberto. City of Chula Vista, Engineering Department, telephone communication, March 15, 1984.
- State Mining and Geology Board. Designation of Regionally Significant Construction Aggregate Resource Areas in the Western San Diego County Production-Consumption Region, Draft EIR, March 1984.
- Stracker, William. Vice-President, Barryman and Stephenson, Inc., development feasibility consultants to the Chula Vista Redevelopment Agency, telephone communications, March 23, 1984 and April 20, 1984.
- Wyle Laboratories. Development of Ground Transportation Systems Noise Contours for the San Diego Region. December 1973.
- Wickham, Max. California Department of Transportation, telephone communication, March 7, 1984.



10.2 ORGANIZATIONS AND PERSONS CONSULTED

California Department of Transportation

Max Wickham

City of Chula Vista

Planning Department

Doug Reid, Environmental Review Coordinator

Engineering Department

Chuck Glass

Bill Harshman

Roberto Sausado

Police Department

Mr. Byer

Fire Department

David Bounds

Zoning Enforcement

Roy Hodge

Chula Vista Redevelopment Agency

Fred Kassman

County of San Diego

Health Department, Hazardous Waste Division

Marion Bolster

Flood Control

Mr. Poon

Montgomery Fire Protection District

Phil Landowski, Fire Chief

San Diego Regional Water Quality Control Board

Greg Peters

Peter Michaels

San Diego Air Pollution Control District

John Kovac

### 10.3 STAFF AND CONSULTANTS

This report was prepared by the Technical Studies Group of PRC Engineering. Members of the PRC professional staff contributing to this report include the following individuals:

Thomas M. Larkin	Director, Technical Studies Group
Jana Edwards	Environmental Analyst, Principal Investigator
Michael Bates	Transportation Planner
Kim Lutz	Graphic Artist
Beryl Embry	Word Processing Secretary

The following consultants contributed to this Environmental Impact Report:

Geocon, Inc.	Soil and Geologic Investigation
Pacific Southwest Biological Services	Biological Survey
Scientific Resource Surveys, Inc.	Archaeological Survey
Weir Biological	Biological Survey
Federhart & Associates	Traffic Analysis



Thomas M. Larkin, Director  
Technical Studies Group

# COMMENTS



THE CITY OF  
**SAN DIEGO**

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

ENVIRONMENTAL  
QUALITY DIVISION  
PLANNING  
DEPARTMENT  
236-5776

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BY \_\_\_\_\_

OCT 09 1984

PLANNING DEPARTMENT  
CHULA VISTA, CALIFORNIA

Mr. Douglas D. Reid  
Environmental Review Coordinator  
City of Chula Vista  
Planning Department  
276 4th Avenue  
Chula Vista, California 92010

Subject: Draft Environmental Impact Report for the General Plan Amendment - Otay Valley Road South

*Doug*  
Dear Mr. Reid:

The City of San Diego has reviewed the draft Environmental Impact Report for the Otay Valley Road South General Plan Amendment and pre-zoning and annexation. We have the following comments regarding the report.

Transportation/Access

1 Page 63, Section 3.14.1: Otay Mesa Road east of T-805 is classified as a future six-lane major street with a 14-foot median rather than a six-lane arterial as stated in the EIR. Also, the future north-south road connecting Otay Valley Road and Otay Mesa Road is classified as a four-lane major street with a 14-foot median approximately half way to Otay Mesa Road. It should also be pointed out that Otay Valley Road is classified by the City of San Diego as a future divided four-lane primary arterial east and south of Nirvana to its intersection with Heritage Road. We agree with the EIR that the portion of Otay Valley Road near Nirvana should be six-lanes (and a divided major street as per City of San Diego classification).

2 Figures 3.14.3-3.14.7: The volumes shown on these figures significantly differ with the forecast performed by the City of San Diego for post year 2000 even though the figures are for 1995. The EIR forecast for 1995 differs from 400-1700 vehicles per day on Otay Valley Road and existing ADT varies from 3200 vehicles at Nirvana to 9200 vehicles just north of Otay Mesa Road. It is doubtful that the vehicular volume will ever drop to 400 vehicles per day as indicated on Figure 3.14.5. The volume forecast in the EIR for the future north-south roadway connecting Otay Valley Road with Otay Mesa Road varies from 800 to 6400 vehicles per day, while the City of San Diego has forecast an ADT of 20,000 for post year 2000.

1. Section 3.14.1, page 63, has been revised to incorporate these comments into the description of the future circulation system. Otay Valley Road west of Nirvana will be designated as a 6-lane primary arterial by the City of Chula Vista.

2. The future traffic volumes shown on Figure 3.14.3 - 3.14.7 of the EIR are based upon a 1995 travel forecast prepared for Chula Vista by SANDAG. A separate forecast was also prepared for the year 2005 by SANDAG. Traffic volumes in that 2005 forecast more closely approximate the volumes shown in the City of San Diego's "post year 2000" forecast. The 1995 forecast was used for the EIR analysis because the project was assumed to be completed by 1995.

# RESPONSES

**3** Attached are three maps from the City of San Diego's Otay Mesa Community Plan showing: 1) existing functional classifications; 2) proposed automobile system post year 2000; and, 3) traffic projections for horizon forecast post year 2000 for reference. It would be helpful if similar maps were included in the EIR.

**4** Drainage, Flooding, Biological Impacts: We agree with the EIR that environmental review is necessary for the subsequent precise plans prepared for the project. The modification of the floodplain and potential loss of riparian resources must be addressed in detail as precise plans are formulated to determine mitigation measures.

Thank you for the opportunity to review the draft EIR. If you have any questions please feel free to contact Ellen Mosley of this office at 236-6773.

Sincerely,



Allen M. Jones, Deputy Director  
City Planning

cc: William Schempers, Jr.

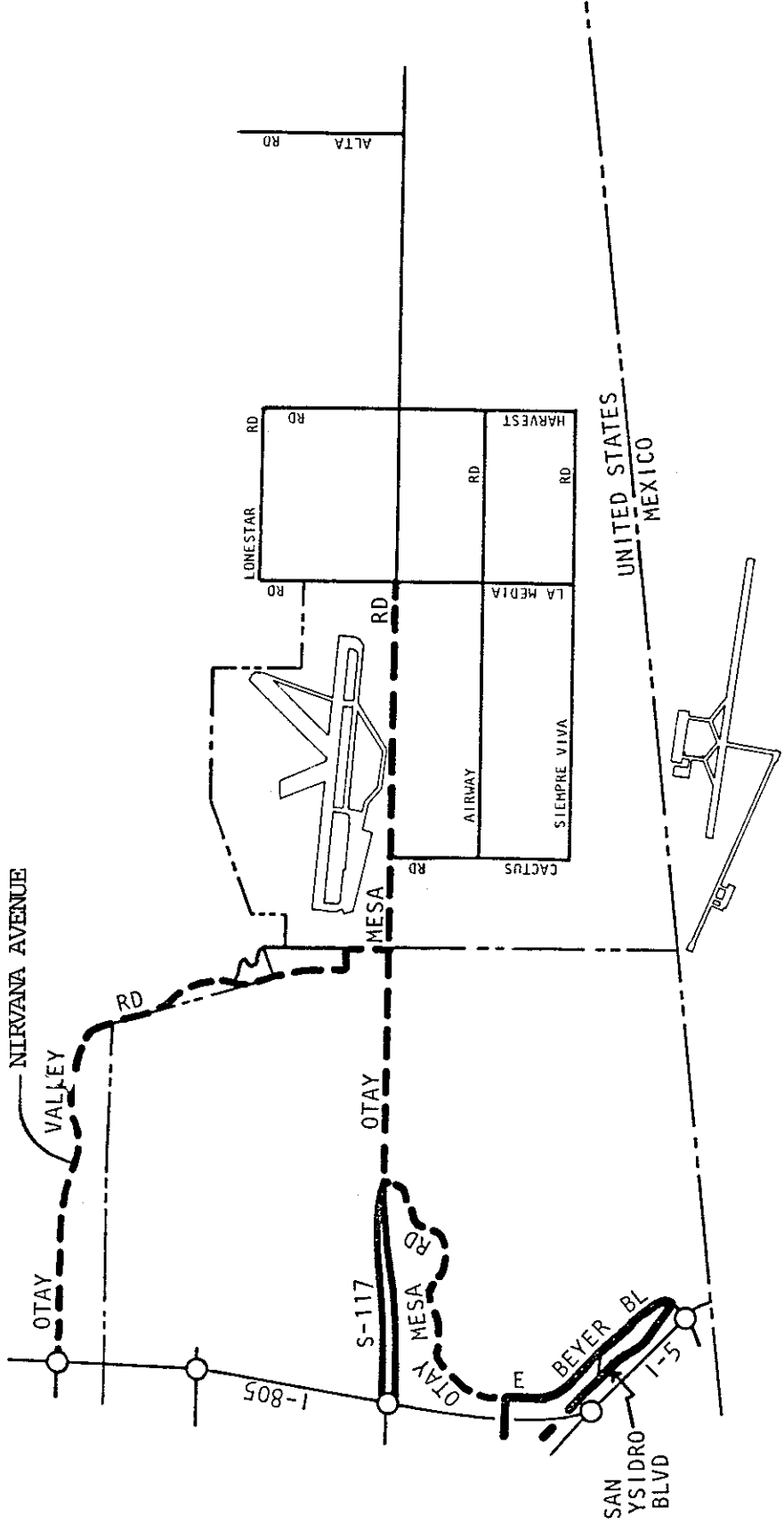
Attachments

AMJ/njw

**3.** It is agreed that future traffic will not drop to 400 ADT on Otay Valley Road. Figure 3.14.5 assumes no trips generated in the project area and no significant north-south movement on Otay Valley Road. The 2005 forecast corresponds to the City of San Diego's "post year 2000" forecast.

Figure 3.14.1 and 3.14.2 have been revised in response to this comment to show future and current roadway classifications, respectively.

**4.** No response required.



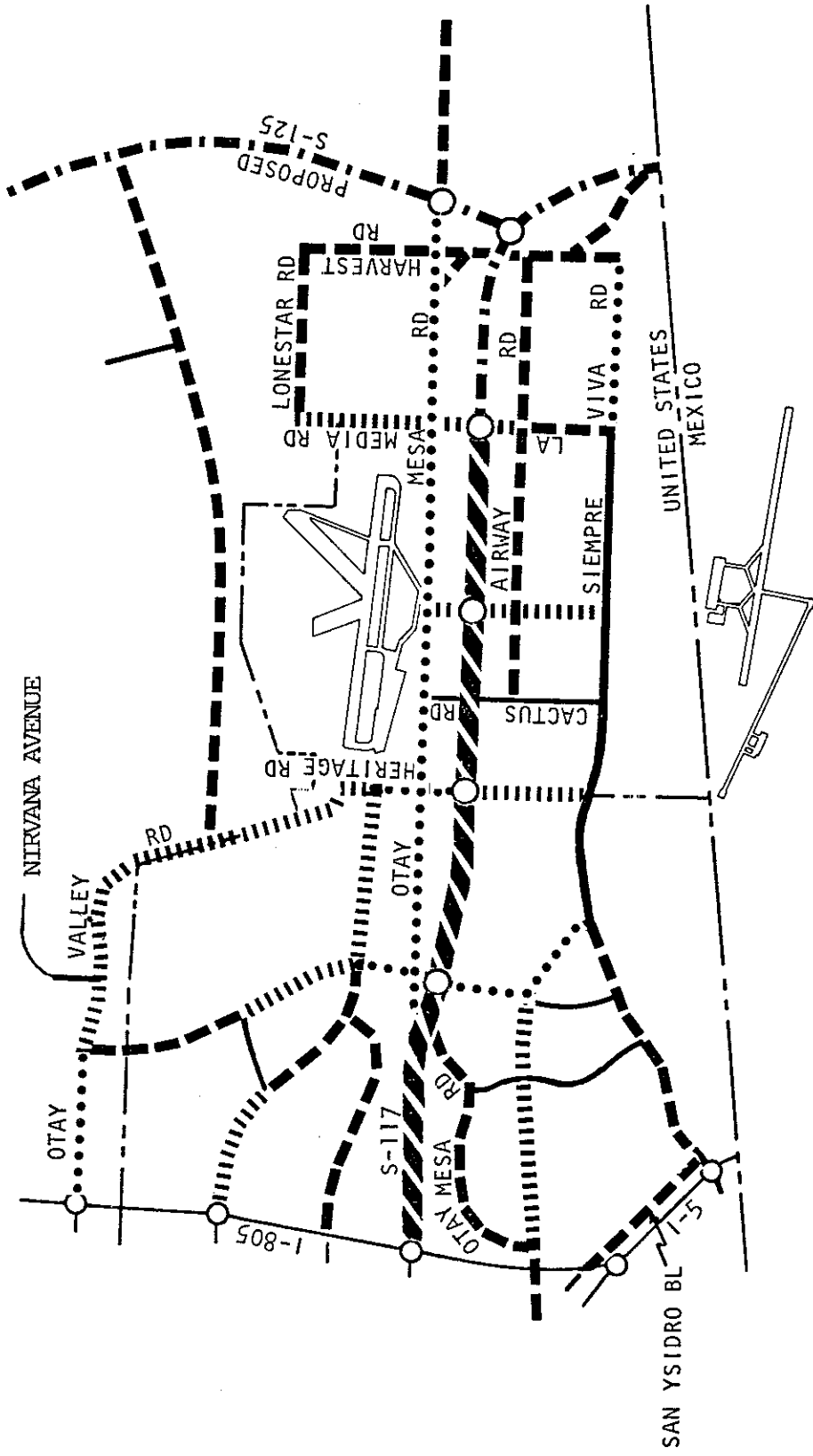
- ==== FREEWAY
- MAJOR STREET
- - - - COLLECTOR STREET
- LOCAL/RURAL COUNTY ROAD

**EXISTING FUNCTIONAL CLASSIFICATION**



**Otay Mesa Community Plan**

PLANNING DEPARTMENT • CITY OF SAN DIEGO



- ..... 6 LANE MAJOR STREET
- · - · - 4 LANE MAJOR STREET
- 4 LANE COLLECTOR STREET

- 6 LANE PRIMARY ARTERIAL
- 4 LANE PRIMARY ARTERIAL

- 6 LANE FREEWAY
- ..... 4 LANE FREEWAY

**PROPOSED AUTOMOBILE SYSTEM  
POST YEAR 2000**



**Otag Mesa Community Plan**



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# Otay Mesa Community Plan

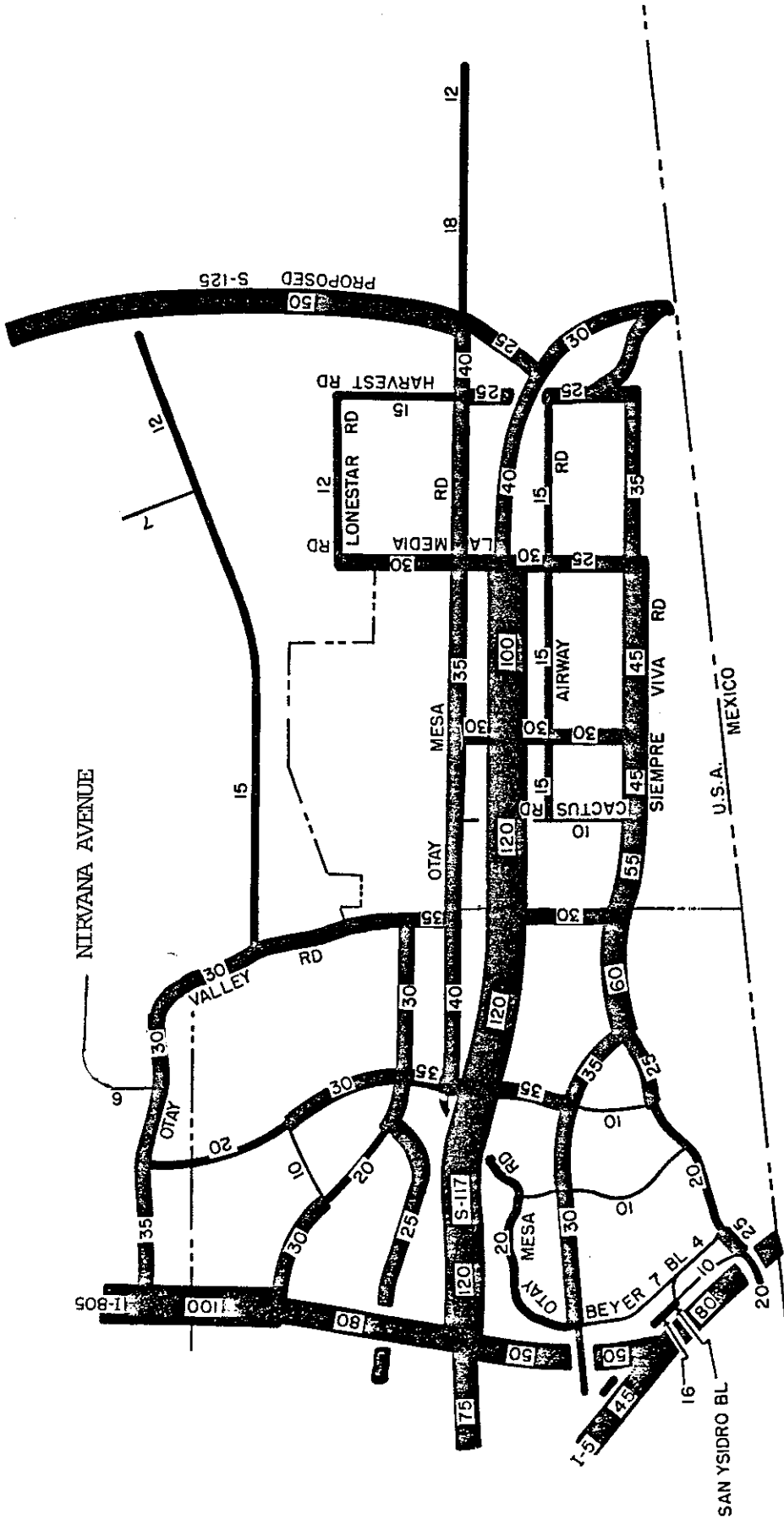
PLANNING DEPARTMENT - CITY OF SAN DIEGO



## TRAFFIC PROJECTIONS

HORIZON FORECAST POST YEAR 2000

VOLUMES IN THOUSANDS



September 27, 1984  
File # YE-001

TO: Doug Reid, Environmental Review Coordinator  
VIA: Chuck Glass, City Traffic Engineer *CG* PRC Engineering  
FROM: Edgar Monroy, Associate Traffic Engineer *EM*  
SUBJECT: Otay Valley Road Redevelopment EIR - Transportation/Access  
Section

We have reviewed the subject document and following are our comments:

- 5 1. There is a question as to the reduction in project trips due to the change in land use for TAZ 155. "Old" project volumes can be obtained by subtracting volumes on Figure 3.14.5 from those on Figure 3.14.3. Comparing these derived volumes with those on Figure 3.14.6 it appears that 7200 trips have been reduced from the "old" project. Comparing tables 3.14.1 and 3.14.2 a reduction of only 4400 trips can be deduced. Thus, it appears that the subject study removes 2800 trips (7200 - 4400) too many from the street system. In other words, the true volumes will be higher and the level of service lower than that mentioned on page 64. Instead of LOS C or D the higher volumes could result in LOS D or E.
- 6 2. The ICU/LOS CALCULATION sheet for intersection C shows three southbound right turn lanes. We would not use such a configuration because in our opinion it would be unsafe. Thus the changes shown in the attached corrected sheet should be made, reducing the LOS. The result of these changes should also be shown on page 64, bottom paragraph. Appropriate mitigations should then be proposed.

5. External trips have been corrected on Figures 3.14.4, 3.14.5 and 3.14.7 based on this comment. Comparing Figures 3.14.4 (revised) to 3.14.3 (original) shows that 5400 trips have been removed from the network compared to 4400 trips in Tables 3.14.1. and 3.14.2. The volumes may be slightly higher but will not significantly affect intersection capacity. The conservative traffic analysis estimated 142 gross acres where only 90 net acres of industrial land will actually be developed.
6. The requested changes have been made, resulting in a LOS E for intersection C. This impact will result almost entirely due to traffic into and out of TAZ 166 which is outside the project area and currently lightly developed. If TAZ 166 is developed in the future at the intensity anticipated, then that development will be required to mitigate impacts at the Nirvana/Otay Valley Road intersection.

EM:ljr  
(83:EIR.OVR)

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CHULA VISTA, CALIFORNIA



SEP 26 1984

PLANNING DEPARTMENT  
CIVIL ENGINEERINGSeptember 25, 1984  
File: YE 007

TO: Doug Reid, Environmental Review Coordinator  
 FROM: Roger Daoust, Senior Civil Engineer  
 SUBJECT: Review of Draft EIR 84-5, Otay Valley Road - South: General Plan Amendment

Engineering has reviewed the subject document and submits the following comments:

7. Page 3, Last Paragraph  
 It is stated that the level of service of roads in the project area would not be adversely affected by eventual industrial development of the project site. This statement is not true, because improvements to Otay Valley Road are not needed otherwise.
  8. Page 7, Third Paragraph  
 The statement "the southern portion would be placed under the F-1 zone," is vague. More specific location should be used.
  9. Page 8, Table 2.3.1  
 A statement (south side only) should be added to follow the rows: "Area needed to widen to 120 feet" and "fill slopes needed to widen to 120 feet".
  10. Page 27, Section 3.3.3. - Mitigation Measures *X-ref 3.2 + 3.4*  
 The potential impact of erosion of soils which would result in increased siltation is existing and mentioned in Section 3.3.2, POTENTIAL IMPACTS. However, Section 3.3.3, MITIGATION MEASURES, did not include any proposed erosion control measures such as planting or the installation of desilting basins.
  11. Page 29, Section 3.4.4 - Analysis of Significance  
 The word "retained" should be deleted and the phrase "situated in proposed" inserted in its place.
  12. Page 30, Section 3.5.1 - Project Setting  
 The fact that the 100 year storm flow of 22000 cfs in the Otay River would cross the project site raises the question of a need of constructing reservoirs, dams, or retention basins, and this question should be addressed.
7. Pages 3 and 4 have been revised to state that potential impacts could occur and mitigation measures will be required.
  8. Page 7 has been revised in response to this comment.
  9. These corrections have been made to Table 2.3.1.
  10. In addition to mitigation measures in Section 3.3.3, mitigation measures in Sections 3.2.3 and 3.4.3 have been cross-referenced.
  11. Corrections made to page 29 as noted.
  12. The EIR addressed alternative flood control modifications in the river channel to accommodate the 100-year storm; off-site reservoirs, etc., are beyond the scope of this EIR.

**13** 7. Page 31, Section 3.5.3 - Mitigation Measures

Mitigation alternatives for the existing floodway such as filling in the area outside of the 100-year floodplain to the level of Otay Valley Road or protecting development by constructing levees along the floodway, are again mentioned in Section 3.5.2 - POTENTIAL IMPACTS, and should be mentioned in the Mitigation Measures of same section.

**14** 8. Page 33, Paragraph 2

The statement "...no serious potential surface water problems are anticipated in the lower Otay River" is not true because flooding is still certainly possible.

**15** 9. Page 34, Paragraph 2

The title "Omar Rendering Plant" is suggested to be changed to "Omar Class I Landfill" because the rendering plant was a separate operation even though it's on the same site.

**16** 10. Page 67, Paragraph 1, Line 16

The phrase "...it is becoming increasingly difficult..." should be changed to "...there is increasingly less capacity..."

**17** 11. Page 68, Section 3.15.3 - Mitigation Measures

In the item numbered 1, the word volume should be changed to "capacity".

In the item numbered 2, an "on-site" phrase should be added right after "installation of..."

Items 3 & 5 have nothing to do with the level of sewer service in the project area and should be deleted.

In Paragraph 2, Line #2, "project area" should be changed to "project vicinity" because the project area would include Tijuana, etc.

MAY:av

(B6:EIR84-5)

13. Section 3.5.3 has been revised as suggested.

14. This paragraph has been revised to state that "no serious surface water quality problems are anticipated"....

15. The title has been revised as suggested.

16. Section 3.15.1 has been revised as suggested.

17. Section 3.15.3 has been revised as suggested.



...Dedicated to Community Service  
10595 SAMACHA BOULEVARD, SPRINGS VALLEY, CALIFORNIA 92078  
TELEPHONE: 482-2222, AREA CODE 619

September 19, 1984

Mr. Douglas Reid  
Environmental Review Coordinator  
City of Chula Vista  
Planning Department  
P.O. Box 1087  
Chula Vista, CA 92012

Subject: Draft EIR for 241 acres East of I-805 and  
South of Otay Valley Road

Dear Mr. Reid:

**18** Thank you for having given us the opportunity to review the draft EIR on the proposed general plan amendment pre-zoning and annexation of approximately 241 acres east of I-805 and south of Otay Valley Road. The statement regarding water availability to the subject area is correct, however, we believe it should be under its own section or indexed so one can easily refer to it.

If you have any questions, please do not hesitate to call.

Very truly yours,

*Manuel Arroyo*

Manuel Arroyo  
District Planning Engineer

MA:cp

18. The water availability issue is addressed under Fire Protection, Section 3.13.1.

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SEP 20 1984

PLANNING DEPARTMENT  
CHULA VISTA, CALIFORNIA

September 20, 1984

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Carlsbad

**Executive Officer**

Jane P. Merrill

**Counsel**

Lloyd M. Harmon, Jr.

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

Dear Doug:

SUBJECT: Draft Environmental Impact Report for Otay  
Valley Road-South General Plan Amendment

LAFCO staff has reviewed the Draft EIR for the Otay Valley Road General Plan Amendment and would like to offer the following comments. The annexation to the City of Chula Vista is being processed as part of a reorganization that concurrently involves detachment from the Montgomery Fire Protection District and the San Diego County Flood Control District - Zone 4. We would like to suggest that the project description be changed to discuss the reorganization so that it is clear that all LAFCO actions are covered in the EIR.

19. Section 1.2.1, Executive Summary and Section 2.3, Project Plans have been revised to indicate that the reorganization, including detachments, are the subject of this EIR.

In several sections of the EIR, the potential loss of revenue to the Montgomery Fire Protection District is mentioned. The City of Chula Vista and the County have adopted a master property tax agreement which pertains to this reorganization proposal. The agreement established the percentage of property tax revenues to be exchanged among the County, detaching special districts and the City upon annexation. If the reorganization is approved, the Montgomery Fire Protection District would retain their current level of property tax revenues and would not suffer a loss in revenue. However, the district would not receive a portion of growth in property tax resulting from the increase in assessed value after development. Reference is also made in the text to the San Diego County Department of Fire Services. This office was disbanded in 1982.

Thank you for the opportunity to comment.

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Sincerely,

*Jane P. Merrill*

JANE P. MERRILL  
Executive Officer

JPM:RLM:1W

SEP 25 1984

PLANNING DEPARTMENT  
CHULA VISTA, CALIFORNIA

20. Sections 3.13.1, 3.13.2 and 3.13.3 have been revised to incorporate this comment into the EIR.



**H. G. FENTON MATERIAL COMPANY**

P. O. BOX 64 • (702 WEST WASHINGTON STREET)  
SAN DIEGO, CALIFORNIA 92112 • TELEPHONE 298-8824

September 26, 1984

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Douglas D. Reid  
Environmental Review Coordinator  
Planning Department  
City of Chula Vista  
P. O. Box 1087  
Chula Vista, California 92012

SEP 28 1984

PLANNING DEPARTMENT  
CHULA VISTA, CALIFORNIA

Subject: DRAFT EIR 84-5 (OTAY VALLEY ROAD - SOUTH)

In accordance to your request for comments on the adequacy of the subject draft EIR, we offer the following comments:

- 21. The draft report seems to use the words "floodway" and "floodplain" interchangeably particularly with respect to designation of parks and public open space. It is our understanding that portions of the floodplain (outside of the floodway) are intended for reclamation and development. The draft EIR is confusing throughout on this subject.
- 22. The Draft EIR available at the Public Library was missing pages 25 - 26, page 44, and various appendices referred to in the text (Geology, Soils, Biology, Archaeology, Traffic and Noise).
- 23. On page 30, the draft EIR makes some assumptions on an as yet uncompleted study . . . "being conducted for the City of Chula Vista Redevelopment Agency on the development potential and feasibility of various alternatives for industrial development adjacent to the floodplain" (does the report mean Floodway?). The draft EIR assumes that channelization would not be an acceptable alternative because:
  - a) . . . "this approach would destroy extensive areas of riparian habitat". . . (no mention is made that there could be acceptable mitigation if there was restoration and improvement of wetlands in the existing floodway).
  - b) . . . "create alterations in flow downstream" (this is nonsense because a channel could be designed to discharge flow at the downstream end in volume and velocities similar to that without a channel).
  - c) . . . "incur high costs" (Costs must be weighed against benefit. It may indeed be cost effective to remove dirt from the north side of the Otay Valley Road to fill the floodplain fringe on the south side of the road. This could either create additional useable land on the north side of the road, or allow widening or relocation of the road to the north to maximize useable land south of the road).

- 21. Sections 1.2.1, 3.1.1, 3.2.3, 3.5.2, 3.6.3, have been revised to clarify that development will be permitted within the floodplain north of the river and that the floodway will be retained as park and open space.
- 22. Pagnation in the EIR has been corrected.
- 23. The EIR refers to a preliminary study being conducted for the Redevelopment Agency. The potential impacts could be mitigated as indicated in this comment, and the EIR has been revised to indicate that mitigation of impacts from channelization would be difficult to achieve. Subsequent environmental review would be required of any plans for river improvements.

It is presumptuous and subjective for this draft EIR to . . . "Indicate that floodway channelization would not be an acceptable alternative. . . ."



September 26, 1984  
Douglas D. Reid  
Environmental Review Coordinator  
Page Two

24. Page 66 The trip generation rates are too low. Recent studies by the City of San Diego indicate that light industrial uses generate between 14 - 18 trips per 1000 square feet of building. A typical light industrial complex utilizes its land area 50% building; 40% parking; 10% landscaping. A one-story complex will generate between 305 - 392 trips per acre (and not 130 as used in the Draft EIR).
25. Page 67 Sewer Availability. The Draft EIR expresses concern about sewer trunk line carrying capacity to serve the subject area. At this time, the City of Chula Vista could negotiate for sewer trunk line capacity rights for this area to utilize a small portion of the City of San Diego's Otay Mesa Sewer Trunk line that will be constructed through the Otay Valley within the next two (2) years.
26. Page 68 Date - Fairve Trunk line (misspelled).
27. Page 72 Industrial Park acreage shown as 70 acres (but 142.3 acres on Page 66, and 90 acres on Page 2).

If you have any questions please give me a call.

Yours very truly,

H. G. FENTON MATERIAL COMPANY



TIMOTHY C. FLANAGAN, Property Engineer

TCF/mcw

24. The trip generation rates in the EIR were provided by SANDAG and the City of Chula Vista and are standard, generally accepted rates for San Diego County. The EIR has not been revised in response to this comment.
25. Section 3.15.2 has been revised to address this comment. The following page already addressed this issue under mitigation measures.
26. Correction made.
27. Page 72 corrected to show 90 acres, which is net developable industrial land. The traffic analysis included a very conservative, gross industrial acreage of 142.3 acres on page 66.




**AIR RESOURCES BOARD**

1107 O STREET  
P.O. BOX 2015  
SACRAMENTO, CA 95812

Date: October 9, 1984

- To:
- 1) John Ohanian, Director  
State Clearinghouse  
Office of Permit Assistance  
1400-10th Street  
Sacramento, CA 95814  
IMS A-8
  - 2) Douglas D. Reid  
City of Chula Vista  
276 Fourth Avenue  
Chula Vista, CA 92010

Attention: Chris Goggin  
  
 Corinne Murphy, Secretary  
 Deputy Secretary of Environmental Affairs  
 James D. Boyd  
 Executive Officer

Subject: Otay Valley Road South General Plan Amendment, SCH No. 84012506

We appreciate the opportunity to review the draft environmental impact report (DEIR) for the Otay Valley Road - South General Plan Amendment. The 241-acre project site is located in San Diego County just east of the intersection of Interstate 805 and Otay Valley Road. The proposal would annex this property to the City of Chula Vista and rezone 127 acres from agricultural-low density residential to limited industrial development. The remaining 114 acres along the Otay River would retain existing open space-floodway zoning.

Traffic-Air Quality Analysis

28

The DEIR estimates of daily vehicle trips and the resulting vehicle emissions were made using the URBEMIS #1 land use-emissions model. Two errors were made which should be corrected in the final environmental impact report (FEIR):

- 1) The industrial park acreage was assumed to be 70 net acres rather than 90 net acres, and
- 2) The trips originating from the site which were not home-work trips were not counted (deliveries, lunch trips, etc.).

28. The project traffic analysis assumed 90 acres of industrial development; the air quality analysis inadvertently analyzed only 70 acres of industrial development. The air quality analysis has been revised in response to this comment. Table 3.16.2 has been revised to incorporate data from ARB.

Mr. Ohanian  
Mr. Reid

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October 9, 1984  
SCH No. 84012506

We conducted a screening analysis using URBEMIS #1 to determine the additional impacts of the change in acreage. The results are shown below for buildout year 1987:

	Daily Vehicle Trips	Carbon Monoxide (tons/year)	Total Hydrocarbons (tons/year)	Oxides of Nitrogen (tons/year)
Industrial Park: 70 acres	3,926	173	19	12
Industrial Park: 90 acres	5,048	223	25	15

Based on the traffic analysis, it is concluded in the DEIR that significant traffic problems would be generated by the proposed project. It is suggested in the DEIR, however, that these problems could be mitigated by the construction of additional roadway capacity. We recommend the number of vehicle trips used in making this finding be reviewed and revised, if necessary, based on the 90-acre estimates of project development.

### 29 Consistency with the State Implementation Plan (SIP)

It is observed in the DEIR that the proposed rezoning would remove 50 acres from agricultural uses but the impacts on transportation and air quality are small relative to other recent proposals to reduce agricultural acreage on Otay Mesa from 5,000 acres at present to 600 acres at ultimate buildout. Additional discussion of the cumulative impacts of this large-scale change in land uses on traffic congestion and air quality is needed in the FEIR. The Revised Regional Air Quality Strategies (R-RAQS) adopted in 1982 as a State Implementation Plan revision is based on the assumption that agricultural and low-density residential development would occur in eastern Otay Mesa. The additional vehicle emissions generated by the proposed land use changes would not affect the projected attainment of the national ambient air quality standard for ozone by 1987, but they could hamper regional efforts to maintain these standards unless vehicle trips are mitigated as growth continues.

### 30 Mitigation Measures

The Otay Mesa Community Plan adopted by the City of San Diego on April 27, 1981, was based on development of a balanced transportation system. We recommend a similar, comprehensive transportation systems management (TSM) plan be adopted for this project and nearby developments through cooperation of the City of Chula Vista with San Diego County and the City of San Diego. If this project is approved, we recommend the future precise plan governing site development set trip-reduction targets and identify specific actions to be taken by the developer and subsequent tenants to minimize the traffic-air quality impacts.

29. The discussion of cumulative air quality impacts, Section 3.16.2, has been revised in response to this comment.

30. Section 3.16.3, Mitigation Measures, has been revised in response to this comment.



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Mr. Reid

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October 9, 1984  
SCH No. 84012506

A number of California communities have recently adopted trip-reduction ordinances. A copy of the City of Sacramento Transportation Systems Management Plan is attached as an example. Technical assistance in developing a TSM plan implementation process is available through Commuter Computer, the San Diego Association of Governments, or our agency.

If you have questions concerning these comments, please contact Donna Lott of my staff at (916) 322-7047.

Attachment

cc: Manny DeMetre, Commuter Computer  
Paul Sidhu, SDAPCD  
Michael Zdon, SANDAG  
Mike Stang, City of San Diego  
Thomas Oberbauer, County of San Diego  
Richard Miller, San Diego LAFCO  
Donna Lott, ARB

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OCT 10 1984  
OFFICE OF PLANNING  
& RESEARCH

Memorandum

Mrs. Terry Roberts  
Manager, State Clearinghouse  
Office of Planning and Research

Date: October 3, 1984  
File: 11-SD-805  
3.7

DEPARTMENT OF TRANSPORTATION  
District 11

Subject: SCH #84012506, Otay Valley Road South, General Plan Amendment

Caltrans District 11 comments on the draft EIR are as follows:

- 31. The analysis of Transportation/Access (pages 63 through 66) has failed to analyze peak-hour traffic impacts to the interchange of Interstate Route 805 and Otay Valley Road. We had hoped to alert the City of Chula Vista to the need for that analysis by our response to the Notice of Preparation (copy attached).
- 32. If Otay Valley Road must be constructed to a full six-lane divided arterial as a mitigation measure for this project (page 65), it seems probable that necessary modifications to the freeway interchange will require more than signalization. Provision for those modifications should be included in funding arrangements intended to assure implementation of road improvements concurrent with need.

31. A detailed LOS/ICU analysis of the Otay Valley Road/I-805 interchange will be completed when the first subdivision/precise plan within the project area is submitted.

32. The City of Chula Vista will prepare improvement plans for the widening of Otay Valley Road through the project area west to I-805. That design will include any necessary freeway interchange modifications. Funding will be coordinated with CalTrans to assure implementation of road and interchange improvements concurrent with need.

*T. Cheshire*  
T. Cheshire  
Chief, Environmental  
Planning Branch

JTC/MO:cg

RECEIVED  
OCT - 5 1984  
OFFICE OF PLANNING  
& RESEARCH

**Memorandum**

To : Dr. Gordon F. Snow  
Assistant Secretary for Resources

Mr. Douglas Reid  
Chula Vista Planning Dept.  
276 - 4th Avenue  
San Diego, CA 92010

Date: OCT 10 1984

Subject: Draft EIR for Otay  
Valley Road - South  
GPA, San Diego Cou.  
SCH No. 84012506

**RECEIVED**  
OCT 10 1984  
OFFICE OF PLANNING  
& RESEARCH

From : Department of Conservation—Office of the Director  
Office of Planning  
& Research

The Department of Conservation has reviewed the Draft EIR for the proposed General Plan Amendment to annex 241 acres of vacant land to the City of Chula Vista. We have the following comments on the EIR's evaluation of geotechnical considerations, mineral resources and agricultural resources.

**33** Geotechnical

Although not designated as an Alquist-Priolo Special Studies Zone, the EIR recognizes that the La Nacion fault traverses the west end of the project area, and acknowledges that further evaluation is necessary to establish the fault's reactivity of activity in the area. Liquefaction potential associated with earthquake-induced groundshaking appears to be adequately mitigated largely by the designation of the 114 acre portion of the site within the Otay River flood plain as public open space.

33. No response required.

**34** Mineral

The mineral resource potential of the project area has not been adequately addressed in the Draft EIR. Lands within and adjacent to the project site have been mined for construction aggregate, particularly along the stream channel of the Otay River. One small mining operation still may be active in this area. The lands within the project were designated in August 1984 by the State Mining and Geology Board as being of regional significance for construction aggregate.

34. Sections 3.3.1 and 3.3.2 have been revised in response to this comment to provide more information regarding the mineral resource potential in the project area.

Because of the presence of construction aggregate resources in this area, we recommend that the EIR provide a brief discussion of the following issues:

1. Describe the aggregate resources that occur within the project area and their potential significance to the San Diego region.
2. Describe existing mining operations, if any, occurring within and immediately adjacent to the project area.

Dr. Gordon F. Snow  
Mr. Douglas Reid  
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3. Discuss proposed plans local mining companies may have for continued or future mining in this portion of the Otay River.
4. Discuss the effects the proposed project will have on the conservation of the aggregate resources in this area. Also, discuss any effects the proposed project may have on existing mining operations.

Information on the aggregate resources of the Otay River is available in Division of Mines and Geology, Special Report 153, Mineral Land Classification: Aggregate materials in the Western San Diego County Production-Consumption Region, 1983.

Information on this area is also available from the EIR prepared by the Department of Conservation for the State Mining and Geology Board's recent designation action. This report is entitled "SMARA EIR No. 4, Designation of Regionally Significant Construction Aggregate Resource Areas in the Western San Diego County Production-Consumption Region, March 1984. Both of these reports have been distributed to the City of Chula Vista's Planning Department.

Other sources of information on the mineral resources and earthquake hazards include the following Division of Mines and Geology publications:

1. County Report 3, 1963, Geology and mineral Resources of San Diego County, California;
2. Special Report 64, 1960, Geology of the Otay Bentonite Deposit, San Diego County, California (Plate 1);
3. Special Report 123, 1975, Character and Recency of Faulting, San Diego Metropolitan Area, California;
4. Map Sheet 29, 1977, Geology of National City, Imperial Beach and Otay Mesa Quadrangles, Southern San Diego Metropolitan Area.

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Mr. Douglas Reid  
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### 35 Agricultural

The document's text provides a good analysis of the impact of the proposed GPA on the site's agricultural land, and the surrounding agricultural operations. However, despite the overall thoroughness of the document in treating agricultural land and soil issues, the Existing Setting map (Figure 3.1-2) was confusing. Apparently, the project's southern boundary is missing. This map should also be more explicit in showing the surrounding agricultural uses, if any.

**36** Although this particular project involves a rather small agricultural area, we are concerned about the cumulative effect of the numerous development proposals for the Otay area, and future prospects for agriculture in the region. The consequences of the potential loss of this resource should be considered carefully by all of the area's decision makers.

**37** We would like to emphasize that the alternative "Strict Conformance With The Chula Vista General Plan" would accommodate some growth while retaining a portion of the agricultural land on the site. The Chula Vista General Plan designation, and the LAFCO policy on agricultural land would be upheld. The Final EIR should provide details on the amount of agricultural land that would be retained under this alternative.

If you have questions regarding these comments, please contact me at (916) 322-5873.

*Dennis J. O'Bryant*

Dennis J. O'Bryant  
Environmental Program Coordinator

cc: Robert Streit, DMG  
Eileen Allen, DLRP  
Robert Sleppy, MGB

7240B-2

**35.** Figure 3.1.2 has been revised to include a boundary. Surrounding agricultural uses are shown on this map.

**36.** Section 3.1.2 addresses the cumulative loss of agricultural land in the Otay area and concludes that the project's contribution to the cumulative loss of agricultural lands is not significant.

**37.** This comment paraphrases the statement in the EIR, Section 6.0, strict conformance with the Chula Vista General Plan. The EIR has been revised to state that this alternative would retain approximately 45 acres of agricultural land.