FINAL
ENVIRONMENTAL IMPACT REPORT
CITY OF CHULA VISTA
GENERAL PLAN UPDATE

(SCH #88052511)

(EIR #88-2)

Prepared for:

City of Chula Vista
276 Fourth Avenue
Chula Vista, California 92010
(619) 691-5101

Prepared by:

P&D Technologies, Inc.
401 West "A" Street
Suite 2500
San Diego, California 92101
(619) 232-4466
(Job #893-109-00)

May 31, 1989

INSTRUCTIONS

This report is a Final Environmental Impact Report (EIR) which addresses the update of the Chula Vista General Plan. The proposed update substantially revises the Land Use, Circulation and Public Facilities Elements of the General Plan, and modifies the other existing Elements for consistency. The Draft Environmental Impact Report was submitted by the City of Chula Vista to public review in March 1989. Several letters of comment were received during the public review period. A reproduction of the letters and all responses is included following these instructions. Some changes have been made to the text of the Draft EIR. The actual text changes are underlined to distinguish those from the original text. The revised Draft EIR and the letters of comment constitute the Final Environmental Impact Report.

Text changes were made on the following pages in order to respond to the various comments:

1-1
1-10
3-12
3-79
3-83
3-104
3-105
3-108
3-109
3-113
3-118, 119
3-123, 124
3-130
3-132
3-135
3-139
3-140, 141
5-20
5-41
11-2, 11-3

INTRODUCTION

The purpose of this EIR is to provide an accurate and concise informational document which analyzes the environmental consequences of adoption of the proposed updated and modified elements. The EIR is not a decision-making document, rather, the information contained herein is intended to provide guidance to the City of Chula Vista decision-makers in their consideration of approval of the proposed General Plan Update. It should be noted that there is no proposed development associated with this project, as the "project" is the Plan Update. Accordingly, the degree of specificity of this EIR corresponds to the degree of specificity in the General Plan Update document. More detailed analysis will be necessary at later stages of specific project planning and development.

The General Plan Update is "Scenario 4", the final scenario created as part of the planning process. This scenario adopts, by reference, several existing specific plans including the Montgomery and Bayfront Specific Plans, the Sweetwater Community Plan, El Rancho del Rey Specific Plan, Rancho del Rey SPA I and EastLake I SPA Plan. Because the western section of the City is predominantly built, the focus of the planning effort was on the undeveloped Eastern Territories.

The EIR also addressed alternatives to the proposed project. Three alternatives were analyzed in response to CEQA requirements including the No Project; Reduced Urban Land Use Designation and Alternative Site. In addition, two alternatives were analyzed in anticipation of future potential revisisions to the proposed General Plan. All of these alternatives are discussed in Section 5.0 of the Draft EIR.

As stated previously, this document is an informational document only. The basic purpose of the EIR, according to CEQA Guidelines Section 15002, is to inform governmental decision-makers and the general public about the potential, significant environmental effects of proposed activities. The EIR itself does not control the way in which a project can be built or carried out, rather the governmental agency that must respond to the information contained in the EIR in one of the seven methods outlined in Section 15002(h) which include:

(1) Changing a proposed project;

(2) Imposing conditions on the approval of the project;

(3) Adopting plans or ordinances to control a broader class of projects to avoid the adverse changes;

(4) Choosing an alternative way of meeting the same need;

(5) Disapproving the project;

(6) Finding that the changing or altering the project is not feasible;

(7) Finding that the unavoidable significant environmental damage is acceptable as provided in Section 15093.

Letters of Comment

STATE OF CALIFORNIA—OFFICE OF THE GOVERNOR
GEORGE DEUKMEJIAN, Governor

OFFICE OF PLANNING AND RESEARCH
1400 TENTH STREET
SACRAMENTO, CA 95814

Douglas D. Reid
City of Chula Vista
276 Fourth Avenue
Chula Vista, CA 92010

MAY 11 1989 May 8, 1989

Subject: Chula Vista General Plan Update EIR-88-2/ SCH# 88052511

Dear Mr. Reid:

The State Clearinghouse submitted the above named draft Environmental Impact Report (EIR) to selected state agencies for review. The review period is closed and the comments of the individual agency(ies) is(are) enclosed. Also, on the enclosed Notice of Completion, the Clearinghouse has checked which agencies have commented. Please review the Notice of Completion to ensure that your comment package is complete. If the package is not in order, please notify the State Clearinghouse immediately. Remember to refer to the project's eight-digit State Clearinghouse number so that we may reply promptly.

1

Please note that Section 21104 of the California Public Resources Code requires that:

> "a responsible agency or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency."

Commenting agencies are also required by this section to support their comments with specific documentation.

These comments are forwarded for your use in preparing your final EIR. If you need more information or clarification, we recommend that you contact the commenting agency at your earliest convenience.

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact Garrett Ashley at 916/445-0613 if you have any questions regarding the environmental review process.

Sincerely,

David C. Nunenkamp
Chief
Office of Permit Assistance

cc: Resources Agency

Enclosures

Responses to Comments

1. Comment is noted; does not address the adequacy of the EIR.

State of California — Business, Transportation and Housing Agency

Memorandum

To : STATE CLEARINGHOUSE

ATTENTION Garrett Ashley

Date : May 2, 1989.

File No.: 11-SD-5, 54, 125, 805 (City of Chula Vista)

From : DEPARTMENT OF TRANSPORTATION
District 11

Subject : DEIR (TIERED) FOR THE CITY OF CHULA VISTA GENERAL PLAN UPDATE, SCH 88052511

Caltrans District 11 comments on the issues of Noise, Open Space, and Transportation are as follows:

NOISE - The mitigation measures listed on pages 3-63, 64 and 65 acknowledge the importance of transportation generated noise in land use decisions. Page 3-65, however, states that the mitigation of that noise by the removal of truck traffic or the construction of noise walls may not be feasible. We concur. An additional mitigation measure that could be considered is a development ordinance that would orient residences away from sources of transportation generated noise, mandate, where necessary, noise walls and special construction features for second story windows, and advise home buyers of potential noise impacts from planned transportation facilities. The goals here are to have residential developers provide adequate noise mitigations for their projects and to have home buyers that will be informed about existing and future noise impacts to their property. **2**

OPEN SPACE - Examples of land uses that are compatible with open space should include crossings by future State Highways (page 3-101). Also, it should be clear in the FEIR that acreage is being reserved for those highways separately from the acreage devoted to open space. **3**

TRANSPORTATION - The FEIR should clarify that State 125 will be the easterly highway link between the International Border and State Route 56. Transportation impacts to the community character of Chula Vista and adjacent communities will be partially determined by the route that is adopted for State Route 125. **4**

Pages 1-9, 10 - Mitigations for the Interstate Route 805 interchange at "H" Street were identified with the cooperation of the City of Chula Vista. Also, some mitigations for "unmitigable" impacts to the Interstate 805 corridor could be provided by development plans that include traffic demand management measures and infrastructure improvements. **5**

2. The Noise Element of the General Plan Update contains several policies and goals to regulate the potential incompatibility of excessive noise and sensitive receptors for new development. These include:

   - o Consider the effects of noise, especially transportation, in land use decisions to ensure noise compatibility.
   - o Continue to regulate noise in residential and commercial areas through the use of general noise ordinances.
   - o Continue to utilize the environmental review process to evaluate and ameliorate noise impacts.

   Combined with the adoption of a noise-compatibility standard and inclusion of all noise reduction measures as outlined in the mitigation section of the noise assessment (Section 3.6), potential noise incompatibilities would be minimized. Future residential developers would be required to perform site-specific noise evaluations and incorporate noise mitigations, consistent with the Noise Element and mitigation measures outlined in this EIR. Existing development may not be able to incorporate mitigation measures sufficient to reduce land use incompatibility.

3. The Open Space/Conservation Element does not specify which land uses are allowed in the open space network, nor is the exact amount of open space quantified. The generalized open space network illustrated in Figure 3-5 depicts three freeways crossing the planning area; I-5, I-805 and SR-125. I-5 and I-805 currently exist and SR-125 is proposed. While the alignment has not been selected, it is anticipated that SR-125 would cross through or over the open space network west of the Otay Reservoir. This crossing would be subject to subsequent environmental review as part of the planning process, but would not be incompatible with the network.

Our contact person for State Route 54 is John Fischer, District Design Engineer, (619) 237-6724. For information on future State Route 125 contact should be made with Gary Klein, District Project Studies Engineer, (619) 237-6134. Interstate Routes 5 and 805 information can be obtained from Jim Linthicum, District Project Studies Engineer, (619) 237-6952. Contact Manuel Demetre, Chief, Regional Ridesharing Branch, at 237-POOL for traffic demand management alternatives.

JAMES T. CHESHIRE, Chief
Environmental Planning Branch

MO:yg

4. Comment is acknowledged, and revisions to the text have been made.

5. The suggested mitigation of traffic demand management measure has been added to the text.

After further evaluation of the East H Street/I-805 interchange, it was determined that adverse impacts could be mitigated. Modification of the turn lanes via restripping and synchronization of signals would minimize turn movement conflicts and mitigate impacts. These mitigation measures are within the scope and jurisdiction of the City of Chula Vista and the impact to this intersection is considered significant but mitigable. Pages I-9, 3-101 and 102 of the text have been modified to reflect this revised conclusion.

LAFCO

1600 Pacific Highway · Room 452
San Diego, CA 92101 · (619) 531-5400

San Diego Local Agency Formation Commission

April 24, 1989

Doug Reid, Environmental Review Coordinator
City of Chula Vista Planning Department
276 Fourth Avenue
Chula Vista, CA 92010

APR 28 1989

SUBJECT: Draft EIR on the Chula Vista General Plan Update

Dear Doug:

Thank you for the opportunity to comment on the Draft EIR referenced above. The EIR is thorough and addresses most of our concerns. However, the following information should be provided in the Final EIR.

1. Chapter 3, pages 71-72. According to the EIR, the Eastern Territories and Baldwin property are not designated for agricultural use in the updated general plan, although 35% of the area or 13,695 acres is currently in agricultural production. Proposed designations in the general plan include residential, commercial, open space, research and development, industrial, and public/institutional. The EIR should indicate where the agricultural land is located in relation to the proposed general plan designations. Acreage estimates of agricultural land within each of the general plan designations should also be provided. **6**

2. Chapter 3, pages 65-72. The EIR concludes that the adoption of the general plan designations would convert thousands of acres of agricultural land to urban uses causing a significant, unmitigable impact to agricultural resources. CEQA requires the adoption of a statement of overriding considerations for significant unmitigable impacts. However, the Draft EIR neither indicates if this statement will be made, nor does it provide background information that would support such a statement. If a statement of overriding considerations will be adopted, then the Final EIR should contain supporting information on the justification of converting agricultural land to nonagricultural use. **7**

Again, thank you for allowing us to comment on the EIR. If you have any questions regarding this letter, please contact Mike Ott at 531-5400.

Sincerely,

JANE P. MERRILL
Executive Officer

JPM:MDO:ih

6. The area that has been traditionally devoted to agricultural production is bounded generally by Telegraph Canyon Road to the north, the Otay Reservoir to the east, the Otay River to the south and the County landfill/Paseo Ranchero to the west. Within this area the General Plan Update designates several land uses including residential, open space, public/institutional, commercial, research and development and industrial. Although acreage estimates of agricultural land within each of these designations are not available, it can be stated that the majority of the subject acreage would be designated residential. A substantial portion would also be designated for the Eastern Urban Center and a University site with associated research park, which is designated near the future intersections of Orange Avenue and SR-125. While the major canyons and river valleys would remain in open space, these areas are not typically suited for agricultural uses.

7. As stated in Scope and Purpose of the report (Section 1.1), if the decision-makers decide to approve the proposed General Plan Update which the EIR has identified has significant, unmitigable impacts, then Findings of Overriding Consideration must be made. Based on the three potential findings identified in CEQA Section 15191, it is anticipated that the City Council will find that "specific economic, social, or other considerations make infeasible the project alternatives identified in the Final EIR". The Findings will be adopted at the time the Final EIR is certified.

March 27, 1989

To: Environmental Review Coordinator
Planning Department

From: Carol Gove
Fire Marshal

8

Subject: EIR - General Plan Update

I fine no mention of water availability to certain areas of the Montgomery Community; specifically Woodlawn Park. This area is served by California-American Water Company.

8. The text has been amended to include a discussion of the California-American Water company.

FEB 10 1989

February 10, 1989
File # YE-001

9

TO: Doug Reid, Environmental Review Coordinator

FROM: Cliff Swanson, Deputy Director of Public Works/City Engineer

VIA: Steve Thomas, Associate Civil Engineer

SUBJECT: Preliminary Comments on Draft EIR for the General Plan

The Engineering Division has no comments regarding the subject draft EIR.

CST:llb

(A\MEMOS\DRAFTEIR.DOC)

9. The comment is noted; does not address adequacy of EIR.

THE CITY OF
SAN DIEGO
CITY OPERATIONS BUILDING • 1222 FIRST AVENUE • SAN DIEGO CA 92101-4154
TELEPHONE: (619)

ENGINEERING and DEVELOPMENT DEPARTMENT

May 10, 1989

Mr. Doug Reed
Environmental Review Coordinator
City of Chula Vista
P.O. Box 1087
Chula Vista, California 92012

Dear Mr. Reed:

We have reviewed the draft Environmental Impact Report for the Chula Vista General Plan update. We have concerns regarding the inconsistencies between Chula Vista's proposed circulation element and the City of San Diego's circulation element. Our comments are the same as stated in our letter (attached) to Mr. George Krempl, Director of Planning, City of Chula Vista, dated February 9, 1989. Namely, we do not believe that adequate study has been done to support Chula Vista's proposed deletion of Alta Road and Otay Lakes Road (La Media extension) south of Otay Lakes Park Road.

10

SANDAG has run travel forecasts showing the impacts of not extending Otay Lakes Road and Alta Road south to Otay Mesa. SANDAG is currently analyzing the results of these forecasts and will be setting up a meeting with the County and the Cities of Chula Vista and San Diego to discuss their findings. Until these issues and all potential traffic impacts have been fully addressed, Chula Vista's certification of the EIR and adoption of the proposed General Plan amendment would be premature. Based on this, we urge you not to finalize the EIR at this time.

11

If you have any questions, please contact David Sorenson at 236-7246.

Allen Holden, Jr.
Deputy Director

DKS:kmb

Attachment

cc: Jim McLaughlin
Walt Huffman
George Parkinson
Mary Lou Gonzalez
Mike Hix, SANDAG
Herm Rosenthal, County
Dave Potter, EQD
Ellen Mosley, EQD

10. The traffic consultant (JHK & Associates) has prepared a Circulation Element which provides an adequate transportation network for the land uses assumed in the General Plan Update. Te network has undergone extensive modelling through SANDAG. This modelling assumed the deletion of Alta Road and the La Media extension of Otay Lakes Road.

11. This meeting was held on Monday, May 22, 1989. In attendance were staff members from the City of Chula Vista, City of San Diego, SANDAG and JHK & Associates. It was stated at that meeting that if these two roads were incorporated into the system they would carry approximately 75,000 ADT; 50,000 ADT on La Media and 25,000 ADT on Alta Road. Approximately 20 to 40,000 are locally generated (within the Chula Vista Planning Area). The remainder would be generated by diverted regional trips, specifically Otay Mesa. If these two roads are deleted this traffic would be diverted to I-805 and SR-125. The staff of the City of Chula Vista feel that the Circulation Element as currently proposed is adequate to serve the needs of the proposed plan and the environmental impacts of that plan have been satisfactorily addressed in the EIR.

THE CITY OF
SAN DIEGO
CITY OPERATIONS BUILDING • 1222 FIRST AVENUE • SAN DIEGO, CA 92101 • 4154
TELEPHONE: (619) 236-6040

ENGINEERING AND
DEVELOPMENT
DEPARTMENT

February 9, 1989 File No.: 482.(Chula Vista General Plan)

Mr. George Krempl
Director of Planning
City of Chula Vista
276 Fourth Avenue
Chula Vista, CA 92010

Subject: Chula Vista General Plan

Dear Mr. Krempl:

We have reviewed the Circulation Element of the Chula Vista draft General Plan. Our review focused on the area adjacent to our common city limit lines. The draft General Plan is not in conformance with our proposed circulation element, particularly in the vicinity of proposed State Route 125. The following roadways differ between our circulation element (see attached sketch) and your draft General Plan:

1. La Media Road is classified as a six-lane primary arterial in San Diego. The road, which parallels the eastern boundary of Brown Field, was to extend into Chula Vista and intersect with Otay Lakes Park Road. The draft General Plan does not identify the extension of La Media into Chula Vista. **12**

2. Our latest travel forecast had assumed that Otay Lakes Park Road would be a major arterial from I-805 to east of SR-125, with a full interchange at SR-125. Your draft General Plan has Otay Lakes Park Road classified as a collector street with no access to SR-125. **13**

3. Our latest forecast assumed that Alta Road (a major arterial in San Diego County's network) would extend north to Otay Lakes Park Road. Your draft General Plan does not show this connection. **14**

We are very concerned about these discrepancies in travel forecast assumptions. In 1985, the cities of Chula Vista and San Diego, along with San Diego County, participated in and jointly funded a series of travel forecasts in the South Bay area. Since 1985, over twenty travel forecasts have been conducted in the area. Sometime between 1985 and now, each jurisdiction proceeded with their own independent travel forecasts. As a result, land use and road network assumptions vary among Chula Vista, San Diego and County forecasts. **15**

12. The comment is noted. See response to #11.

13. The comment is noted. The Circulation Element of the General Plan is deemed adequate to serve the traffic generated by the proposed Land Use Element.

14. The comment is acknoweldged. Refer to response #11.

15. City of Chula Vista staff has met with SANDAG and the City of San Diego to discuss this matter, most recently on May 22, 1989. The Circulation Element, as currently proposed, is adequate to serve the needs of the City of Chula Vista Land Use Element. While the planning effort is far from complete, the network, as illustrated, satisfies the currently forecasted needs of the City of Chula Vista.

A meeting was held on January 6, 1989 with the three jurisdictions and SANDAG to compare travel forecast assumptions. As a result of this meeting, SANDAG agreed to provide one more travel forecast with common assumptions. Preliminary results of this study should be available within a month. In the interest of providing a well planned regional circulation system, we recommend that you delay adoption of the Circulation Element until this new forecast has been reviewed and considered.

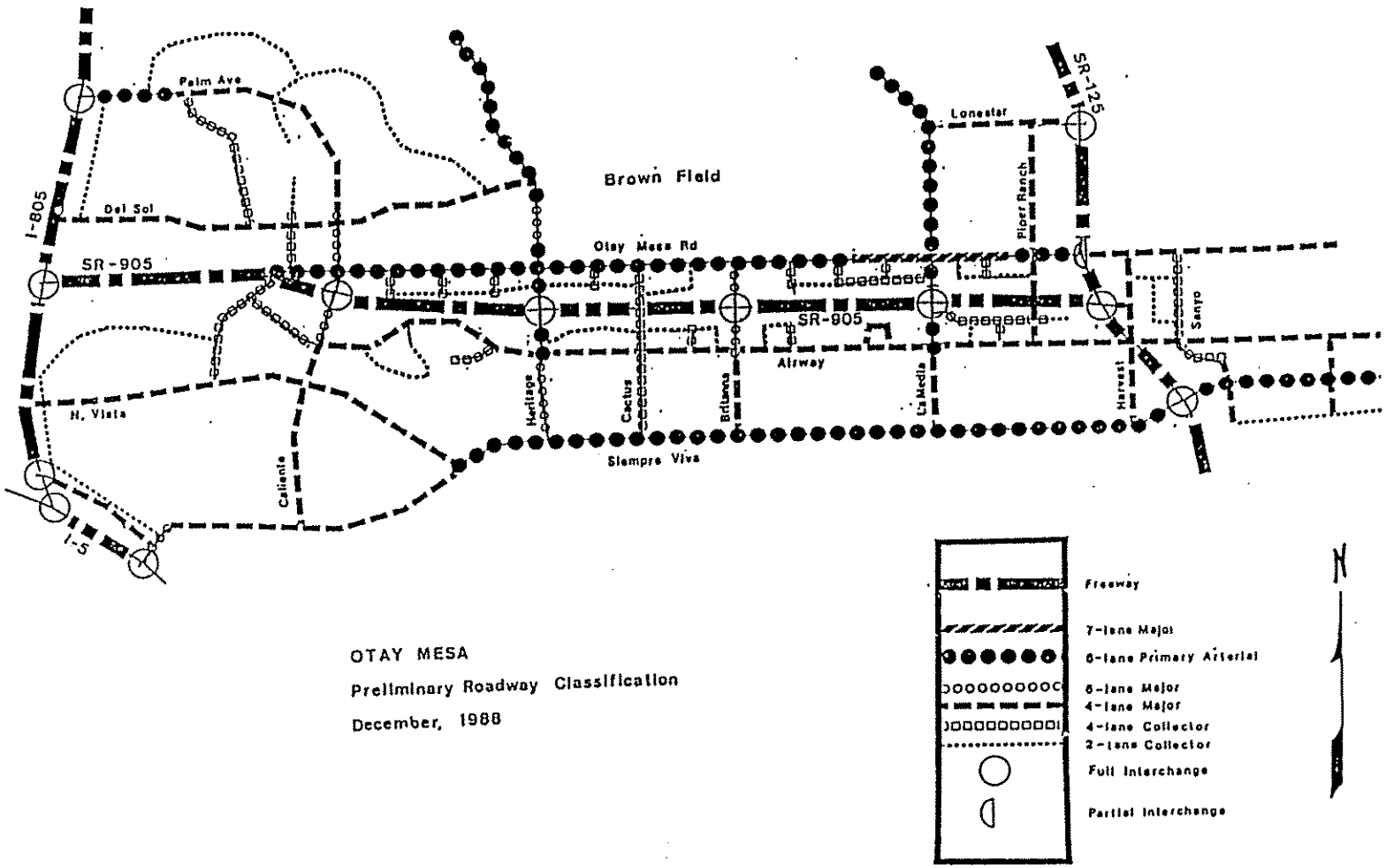
Sincerely,

Allen Holden, Jr.
Deputy Director

DKS:ja

Attachment

cc: Jonathan Levy
Mary Lee Balko
Mike Stang
Mike Hix
Rachel Hurst
J. P. Casey
Severo Esquivel
Dave Potter
Walt Huffman
George Parkinson
Sid Pazargadi
Frank Yates
Larry Van Wey



OTAY MESA

Preliminary Roadway Classification

December, 1988

San Diego
ASSOCIATION OF
GOVERNMENTS

Suite 524, Security Pacific Plaza
1200 Third Avenue
San Diego, California 92101
(619) 236-5300

April 24, 1989

APR 2 6 1989

Mr. Douglas D. Reid
Environmental Review Coordinator
P.O. Box 1087
Chula Vista, CA 92012

Dear Mr. Reid:

The SANDAG staff has reviewed the Draft EIR for the City of Chula Vista General Plan Update. The staff has the following comments, which have not been reviewed by the SANDAG Board.

1. Removing La Media Road as a north/south arterial crossing the Otay River Valley and connecting to the future industrial areas in Otay Mesa may result in significant regional impacts for access in and out of Otay Mesa. It will force intercommunity trips between Chula Vista and Otay Mesa to use the SR125 freeway instead of arterials, a major objective of the new regional arterial system in the Regional Transportation Plan. **16**

2. The SANDAG Board, acting as the Airport Land Use Commission, has adopted a revised Airport Noise/Land Use Compatibility Matrix (enclosed). The Board has requested all cities within Airport Influence Areas to adopt the new matrix. While Chula Vista is not located within the Brown Field Infuence area, adoption of the ALUC matrix would make the City of Chula Vista's noise matrix agree with the regional matrix which currently applies in the unincorporated area. **17**

Thank you for the opportunity to review and comment on this draft EIR.

Sincerely,

RICK ALEXANDER
Director of Land Use &
Public Facilities Planning

RA/ce

C89-13

Enclosure

16. Deletion of La Media Road from the Chula Vista Circulation Element would divert north-south trips to I-805 and SR-125. This assumption was used in modelling for the proposed Circulation Element and was made prior to the public distribution of the Regional Transportation Plan with the regional arterial objective.

17. The City of Chula Vista is not located within the Brown Field Influence Area and the suggested Airport Noise/Land Use Compatibility matrix would not apply to land uses within its jurisdiction. It is recommended in the Draft EIR that the City update the Noise Element with adoption of a noise compatibility matrix created specifically for the City or adopt the City of San Diego Standards.

AIRPORT NOISE/LAND USE COMPATIBILITY MATRIX

LAND USE	Annual Day Night Average Sound Level in Decibels 55	60	65	70	75
1. OUTDOOR AMPHITHEATERS					
2. NATURE PRESERVES, WILDLIFE PRESERVES, LIVESTOCK FARMING NEIGHBORHOOD PARKS AND PLAYGROUNDS					
3. SCHOOLS, PRESCHOOLS, LIBRARIES		45			
4. RESIDENTIAL-SINGLE FAMILY, MULTIPLE FAMILY MOBILE HOMES, RESIDENTIAL HOTELS, RETIREMENT HOMES, INTERMEDIATE CARE FACILITIES, HOSPITALS, NURSING HOMES		45			
5. HOTELS AND MOTELS, OTHER TRANSIENT LODGING AUDITORIUMS, CONCERT HALLS, INDOOR ARENAS, CHURCHES		45	45		
6. OFFICE BUILDINGS-BUSINESS, EDUCATIONAL, PROFESSIONAL AND PERSONAL SERVICES; R&D OFFICES AND LABORATORIES			50		
7. RIDING STABLES, WATER RECREATION FACILITIES, REGIONAL PARKS AND ATHLETIC FIELDS, CEMETERIES OUTDOOR SPECTATOR SPORTS, GOLF COURSES					
8. COMMERCIAL-RETAIL; SHOPPING CENTERS, RESTAURANTS, MOVIE THEATERS			50	50	
9. COMMERCIAL-WHOLESALE: INDUSTRIAL; MANUFACTURING					
10. AGRICULTURE (EXCEPT RESIDENCES AND LIVESTOCK), EXTRACTIVE INDUSTRY, FISHING, UTILITIES, & PUBLIC R-O-W					

COMPATIBLE
The outdoor day night average sound level is sufficiently attenuated by conventional construction that the indoor noise level is acceptable, and both indoor and outdoor activities associated with the land use may be carried out with essentially no interference from aircraft noise.

45

CONDITIONALLY COMPATIBLE
The outdoor day night average sound level will be attenuated to the indoor level shown, and the outdoor noise level is acceptable for associated outdoor activities.

INCOMPATIBLE
The day night average sound level is severe. Although extensive mitigation techniques could make the indoor environment acceptable for performance of activities the outdoor environment would be intolerable for outdoor activities associated with the land use.

This matrix should be used with reference to the Implementation Directives shown on the reverse.

AIRPORT NOISE/LAND USE COMPATIBILITY MATRIX IMPLEMENTATION DIRECTIVES

All the uses specified are "compatible" up to the noise level indicated. Specified uses are also allowed as "conditionally compatible" in the noise levels shown if two specific conditions are met and certified by the local general purpose agency:

- Proposed buildings will be noise attenuated to the level shown on the matrix based on an acoustical study submitted along with building plans.

- In the case of discretionary actions, such as approval of subdivisions, zoning changes, or conditional use permits, an avigation easement for noise shall be required to be recorded with the County Recorder as a condition of approval of the project. A copy shall also be filed with the affected airport operator. For all property transactions, appropriate legal notice shall be given to all purchasers, lessees and renters of property in "conditionally compatible" areas which clearly describes the potential for impacts from airplane noise associated with airport operations. Notice also will be provided as required on the state Real Estate Disclosure form.

Identified uses proposed in noisier areas than the level indicated on the matrix are considered "incompatible."

The directives below relate to the specific "conditionally compatible" land use categories identified by number on the matrix.

3. New schools, preschools and libraries located within the 60-65 dB DNL contours must be subjected to an acoustical study to assure that interior levels will not exceed 45 dB DNL.

4. New residential and related uses located within the 60-65 dB DNL contours must be subjected to an acoustical study to assure that interior levels will not exceed 45 dB DNL. Appropriate legal notice shall be provided to purchasers, lessees, and renters of properties in this conditionally compatible zone in the manner previously described.

   "Residential hotels" are defined as those that have 75% or more of accommodations occupied by permanent guests (staying more than 30 days) or those hotels which have at least 50 percent of their accommodations containing kitchens.

5. Transient Lodging is defined as hotels and motels, membership lodgings (Y's, etc.), suite or apartment hotels, hostels, or other temporary residence units, not defined as residential hotels, above. Within the 60-70 dB DNL contours, buildings must be subjected to an acoustical study to assure that interior levels do not exceed 45 dB DNL. Appropriate legal notice shall be provided to purchasers, lessees, and renters of properties in this conditionally compatible zone in the manner previously described.

6. Office buildings include many types of office and service uses: business and business services; finance, insurance, real estate; personal services; professional (medical, legal and educational); and government, research and development and others. Within the 65-70 dB DNL contours, buildings must be subjected to an acoustical study to assure that interior levels do not exceed 50 dB DNL. Appropriate legal notice shall be provided to purchasers, lessees, and renters of properties in this conditionally compatible zone in the manner previously described.

8. For new commercial retail uses located within the 65-75 dB DNL contours, buildings must be subjected to an acoustical study to assure that interior levels do not exceed 50 dB DNL. Appropriate legal notice shall be provided to purchasers, lessees, and renters of properties in this conditionally compatible zone in the manner previously described.

[illegible]
NATIONAL CITY
[illegible]

May 9, 1989

Mr. Doug Reid
Environmental Review Coordinator
City of Chula Vista
276 Fourth Avenue
Chula Vista, CA 92010

RE: DRAFT CHULA VISTA GENERAL PLAN

Dear Doug:

We have reviewed the Draft Environmental Impact Report for the Chula Vista General Plan Update and offer the following comments.

In my letter of February 8, 1989, regarding the Draft Chula Vista General Plan, my comments centered around the idea that all specific plans within the City should have similar status vis a vis the General Plan. As such, the Rancho del Rey Specific Plan should be incorporated by reference into the General Plan and, therefore, be deemed consistent with the General Plan. The General Plan Environmental Impact Report should also reflect this as suggested below. **18**

Introduction/Project Description

Page 1-1, paragraph 2...The EIR states that "the updated General Plan incorporates without change the following documents: Bayfront Specific Plan, the Montgomery Specific Plan and the Sweetwater Community Plan." The Rancho del Rey Specific Plan should be included in this list. **19**

Page 2-9...The EIR incorporates by specific reference all three of the Rancho del Rey certified environmental documents and the Bonita Long Canyon EIR. This further supports incorporation of the Rancho del Rey Specific Plan into the General Plan.

Land Use

Page 3-79, paragraph 3...(Existing Specific and Community Plans). "Within the project area there are three large-scale land use plans which have been incorporated by reference in the General Plan Update." The Rancho del Rey Specific Plan should be included here and described like the other plans. It appears that the City is differentiating between City-initiated and developer-initiated Specific Plans. **20**

18. This change has been made to the text on page I-1.

19. The EIR has incorporated the Rancho del Rey Specific Plan.

20. The text has been modified to incorporate Rancho del Rey Specific Plan.

Page 3-82, paragraph 4..."The Bayfront, Montgomery and Sweetwater communities would be built in accordance with their adopted specific plans." Since the Rancho del Rey Specific Planning area lies within the Sweetwater community, it appears here that the Rancho del Rey Specific Plan is being incorporated. This should be explicitly stated.

21

Traffic

Traffic consultant, Kenneth M. Bankston (Bankston/Pine Associates), has reviewed the "Transportation/Access" section at our request. His comments are attached.

Thank you for the opportunity to review the General Plan Update Draft Environmental Impact Report. Please call me if you have any questions regarding these comments.

Sincerely,

RANCHO DEL REY PARTNERSHIP

Ken Baumgartner

KB:rlm

21. The text has been modified to incorporate the Rancho del Rey Specific Plan.

Bankston/Pine Associates, Inc.

2030 Addison Street, Suite 310
Berkeley, California 94704
(415) 843-9746

April 27, 1989

Mr. Kenneth Baumgartner
McMillin Development, Inc.
2727 Hoover Avenue
National City, CA 92050

Subject: Chula Vista General Plan, Draft E.I.R., Transportation/Access.

Dear Mr. Baumgartner,

As a result of our review of the above noted D.E.I.R., we have the following comments:

22 1. P. 3-128...para, 2,...reference to Bankston/Pine is incorrect. We have made no studies of the Broadway/ "H" Street intersection.

2. P. 3-133...para, 4,..."the I-805 southbound off-ramp at East H Street. Here, there would be about 66,000 daily entering vehicles." Our estimate of daily entering vehicles is 58,500 which falls below the DEIR "threshold of 65,000...entering **23** vehicles per day...considered tolerable." The DEIR consultants may have incorrectly included the southbound I-805 to westbound East H Street movement in their calculation.

3. P. 3-137...para, 5,..."CALTRANS has jurisdiction over policies and improvements at the interchange. " (I-805/East H Street). This implies that the City of Chula Vista has no jurisdiction over making improvements to the subject interchange to presumably mitigate the alleged problem created by the 66,000 entering vehicles noted above. In fact, the City of Chula Vista **24** has recently entered into anagreement with CALTRANS to determine future improvements needed at this interchange, and to design and construct those improvements under CALTRANS supervision. This action is expected to mitigate both nearterm and longterm traffic impacts at this interchange.

Please let us know if there are any questions regarding our comments.

Sincerely,
BANKSTON/PINE ASSOCIATES, INC.
Kenneth M. Bankston
Kenneth M. Bankston, P.E.
Principal

22. The reference is incorrect and has been deleted.

23. The number of entering vehicles per day is calculated by suming the number of vehicles exiting southbound from I-805 and the traffic traveling both east and west on East H Street and dividing that sum by two. The components of this calculation were taken from year 2010 buildout trip estimates as forecasted by JHK and Associates. The number of daily entering vehicles (66,000) is correct as stated.

24. Please refer to response #5 for a discussion of the I-805/East H Street intersection and changes to the text pages I-9, 3-101 and 3-102.

SAN MIGUEL PARTNERS
DEVELOPER OF RANCHO SAN MIGUEL

May 1, 1989

MAY 2 1989

George Krempl
Director of Planning
City of Chula Vista
1276 4th Ave
Chula Vista, Ca 92010

RE: Comment Concerning the Draft Environmental Impact Report prepared for the City of Chula Vista General Plan.

Dear George:

The following comments relate to the alternative land use opportunity for Rancho San Miguel included in the Draft Environmental Impact Report for the City of Chula Vista General Plan.

The Rancho San Miguel alternative discussed in the Draft Environmental Impact Report concerns the potential for the development of 476 dwelling units on approximately 425 acres. The 425 acres is a portion of an 1,862 acre ownership which includes Mother Miguel Mountain. Although the unit count and acreage to be utilized for development purposes is schematic in nature, it should be noted that site specific studies have been undertaken which have significantly reduced both the number of units as well as the developed acreage involved. The number of units proposed by site specific design is 376, while the number of acres involved in development would be approximately 350. Based upon this effort, there would be approximately 1,450 acres available for both active and passive open space usage. The Open Space Amenities Plan which has also been developed as part of an overall developement scenario for this 1,862 acres includes uses such as a campground and Bed and Breakfast Inn along with an Interpretive Center, hiking trails and other open space opportunities. The kinds of uses suggested by the Open Space Amenities Plan are representative of recreation and open space uses which are found in State and National Parks, and as a result would seem to offer a minimal impact to the community in terms of the loss of passive open space. Additionally, because of the nature of the site specific studies, the retention of Mother Miguel as a significant land form in the Chula Vista community would be accomplished. The opportunity to establish the northeast link of the open space belt around the City as envisioned by the Draft General Plan could also be accomplished by this suggested alternative.

25

The minimum amount of sensitive development envisioned by this alternative land use plan is intended to compliment the open space opportunities rather than detract from them. The sensitivity of the plan is based upon extensive efforts by planners, engineers and biologists to insure that the areas suggested for development are consistent with the City's concerns relative to visual impacts, grading, sensitive habitat and species, retention of the land form and protection of the Sweetwater Reservoir. The Sweetwater Authority has

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25. The comments throughout this letter are noted and added to the Final EIR as additional information for the decision-makers of the City of Chula Vista. As stated in the DEIR, the discussion of Rancho San Miguel is provided as information to assist the City Council and the public in their evaluation of the proposed project. The discussion is general in nature, in accordance with the degree of specificity of the General Plan Update itself and the conceptual alternative plans. The City of Chula Vista encourages and welcomes a sensitive development plan for the Rancho San Miguel property. At this time, the EIR must address a worst-case evaluation of development in accordance with the proposed land use designation. The current EIR can not assume that development will proceed with a sensitivity to important resources or even that development will incorporate mitigation measures. Thus, the EIR identified the potential for significant and unmitigated impacts which will require subsequent environmental review.

authorized its staff to proceed with a developer financed study concerning reservoir protection. The mitigation measures suggested in the Environmental Impact Report are consistent with the constraints analysis that was performed in the creation of the land use concept that has been submitted for evaluation.

Concern for sensitive habitat areas on the property including that which is supportive of the California Gnatcatcher, have been evaluated and the proposed plan reflects the initial findings of that evaluation. Efforts are however, continuing relative to investigation of the Gnatcatcher habitat and range including the undertaking of an extensive observation and banding program of the species. Prior efforts as well as the on going investigation and banding program are described in the attached report from Southwest Biological Services. The areas of Riparian Woodland which are shown in the General Plan resource maps are not being proposed for development. Impacts to grassland areas are unclear, since they are poorly defined and broken up. Additionally because of limited site specific grading, very little grassland area is likely to be impacted. Archeological investigations are also being undertaken to evaluate the extent of possible resources on the property. Initial investigations undertaken several years ago concerning this potential constraint are not complete and as a result, a new study has been undertaken.

Concerns relative to the alteration of Mother Miguel Mountain, a significant land form in the South Bay area which rises to 1,525 feet, are legitimate. Because of the concern by the community as well as the developer relative to Mother Miguel Mountain, the concept which has been prepared offers extreme sensitivity to issues of grading, visual impact and placement of potential development only on the foothills and lower plateaus adjacent to the mountain land form. Residential development is restricted to an elevation no greater than 775 feet, thus leaving the upper 750 feet of Mother Miguel in its existing pristine state. Slopes with the steepness of 25% or greater have been avoided and the developement has been tailored to the topography as contrasted to the alteration of topography to meet development. This has been accomplishment through the virtual elimination of grading except for the roadways and small portions of individual development sites where grading is necessary to create access or a minimal development area. The thrust of the development concept involves the use of post and beam construction, stem walls and retaining walls to create usable areas for development and recreation as constrasted to the grading of a flat padded area similar to the majority of development that has been done in the community. Development sites have been selected for each lot which are intended to accomplish the goals of minimal grading and minimal visual impact while indentifying the best location on the individual sites for a residential structure.

The provision of utility services to any development that may occur on this site or other areas in the eastern territories portion of the Chula Vista General Plan will be an expensive and a challenging undertaking for both the development community as well as the City. Although for the most part,

many of the critical services are not in place relative to the development of this property, solutions are available and specific studies will be undertaken to insure that the impact to the community is minimized. Provision of fire protection which is a very critical service to this property as well as to the community generally has been evaluated on a preliminary basis relative to the development concept suggested as an alternative for this property. Based upon the proposed upgrading of standards as part of the General Plan update, adequate fire protection can be provided to this property as evidenced by the attached letter from Marty Chase concerning the fire departments preliminary analysis of this proposal.

Both the Sweetwater Union High School District and the City of Chula Vista Elementary School District have been contacted concerning this project and have provided input to the developer which is reflected by the concept plan. School facilities for the Chula Vista Elementary School District may be required on the site while facilities for the Sweetwater Union High School District are provided in the area generally south of 'H' Street as depicted by their exisiting Master Plan. Transportation considerations are also an important aspect of the proposed development concept and as such have been extensively evaluated. Provision of a connecting link from 'H' Street to San Miguel Road through the southerly portion of this project has been depicted on a land use concept along with an alternative location for an interchange with future Highway 125 as depicted by the General Plan. The alternative roadway alignments and connecting links suggested by the site specific evaluation would not be substantially impacted by the inclusion of approximately 5,000 additional vehicle trips which is the approximate number suggested as a result of the land use alternative evaluated in the EIR.

Summary: The land use alternative which has been prepared by San Miguel Partners is intended to be as sensitive to the land form, habitat and needs of the community as any development could be, and as a result is constantly undergoing an evolutionary process. The final project will be the result of the evaluations performed by the City concerning land use planning, circulation, and environmental impacts as well as the site specific studies taken by the developer. The final product is expected to undergo a rigorous analysis by the City and set the tone for the sensitive development of the Eastern Territories portion of the City of Chula Vista.

Sincerely yours,

Wayne A. Loftus
Project Manager

WL/nh

attachments: Status Report - California Gnatcatchter
Fire Prevention Evaluation - Marty Chase

The Baldwin Company
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May 16, 1989

Mr. Doug Reid
City of Chula Vista
276 Fourth Avenue
Chula Vista, CA 92010

Subject: Letter of Comment, Chula Vista General Plan EIR
(SCH# 88052511; EIR # 88-2)

Dear Doug:

The Baldwin Company appreciates this opportunity to present our comments on the Chula Vista General Plan EIR. General comments are presented below followed by comments on specific issue area. Our comments focus primarily on the analysis of potential effects associated with development in the Eastern Territories.

General Comments

We are concerned that the EIR does not accurately and fully document the extent to which measures have been incorporated into the General Plan to mitigate adverse impacts. The General Plan preparation process has been directed at developing a sensitive plan for the future development of all of Chula Vista and the Eastern Territories in particular. The General Plan document contains many measures which would mitigate the impacts identified as significant and unmitigable in the EIR. These measures should be documented in the EIR.

26

In addition, the EIR lacks a plan-to-plan analysis. Many open space, biological and landform protections are included in the updated General Plan which are not afforded by the existing Chula Vista General Plan or their County General Plan. For example, the 9,500-acre portion of the Otay Ranch property is designated agriculture and reserve in the current Chula Vista General Plan is designated agricultural and residential by the County General Plan. The designation of Salt Creek, Wolf Canyon and Poggi Canyon as open space in the updated Chula Vista General Plan provides a level of protection for these areas which does not currently exist.

27

The EIR only focuses on adverse impacts associated with implementation of the updated General Plan and does not document the benefits which would result, particularly from the standpoint of a plan-to-plan analysis. In the Eastern Territories these benefits include substantial increases in parks and natural open space which would remedy current deficiencies in the Central Chula Vista area as well as significant benefits to the community tax base.

28

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26. The Draft EIR does incorporate policies, goals and guidelines contained in the General Plan Update. When determining the significance of an impact as identified with implementation of the Plan Update, the mitigation measures outlined in the Plan text and suggested in the EIR were considered. In several instances the impacts were considered significant and unmitigated, even with incorporation of measures as described in the Draft EIR and General Plan text. It should be noted that as specific development proposals are subject to environmental review, these conclusions and analyses of significance may change. This could occur due to creation of new mitigation measures or a reevaluation of existing conditdions.

27. In the Land Use Section of the Draft EIR (Section 3.9) the analyses of potential impacts contains both a plan-to-plan and a plan-to-existing comparison. The plan-to-plan comparison evaluates the proposed Plan Update in relationship to the existing City of Chula Vista General Plan. Although the Eastern Territories does not currently lie within the City of Chula Vista boundaries, it is within its sphere of influence, and an agreement has been signed between the City and the majority land-holder in this area to coordinate development with the provision of services and infrastructure from the City. For these reasons, the plan-to-plan analysis did not consider a comparison of existing County designations to the proposed Plan Update.

28. While the Draft EIR does identify a number of adverse impacts associated with implementation of the Plan Update, it does not exclude the potential benefits of the plan. As stated in Community Tax Structure (Section 3.11) "additional development in the Central Chula Vista Planning area ... and Eastern Territories planning area should result in a positive net fiscal impact. ... Additionally, in Montgomery, a major addition to the City's park land is proposed, in order to correct the current deficiency in available park land".

Specific Comments

Biology - Thresholds of significance are presented on page 3-23. It is unclear how these threshold were derived. For example, it is stated that on a project-by-project basis loss of 40-acres of open space and 5-acres **29** of coastal sage scrub should be regarded as significant. These thresholds must be placed in contest. Loss of 40-acres of previously disturbed open space should not be regarded as significant from a biological standpoint. Loss of 5-acres of coastal sage scrub may or may not be significant depending upon the quality of the habitat and its relationship to other off-site habitat.

These significance thresholds must also be considered in the contest of the General Plan's open space proposals. The EIR notes that the majority of the General Plan's proposed open space is located in the Eastern Territories - 48% of the entire EAstern Territories (11,000 acres). **30** Designation of such open space would afford a level of open space protection for these area and their assocaited biological resources not offered by the existing General Plan's agricultural and reserve designations orb by the County's agricultural and residential designations.

Parks, Recreation and Open Space - The absence of a plan-to-plan analysis is of particular concern in this section. The open space analysis identifies any undeveloped land as open space which is not the case. As noted above, the proposed General Plan offers significantly greater **31** protection of open space areas in the Eastern Territories than is provided by the current General Plan's agriculture and reserve designation. In addition it should be noted that planned development in the Eastern Territories provides for an increase in parks and open space remedying deficiencies in the existing developed area of the City.

Air Quality - The air quality section does not document measures which have been incorporated into the General Plan to mitigate air quality **32** impacts or the development of additional Transportation Systems Management (TSM) measure which could mitigate impacts. The General Plan includes significant commitments to alternative transportation modes including mass transit. These should be documented in the EIR.

Agriculture - As stated on page 3-69 of the Draft EIR, the State Department of Agriculture has identified five relatively small area of prime agricultural lands: 2 are located in the Montgomery Planning Area and three are on Otay Mesa south of the Otay River in the vicinity of I-805. In addition, the U.S. Department of Agriculture and County do not **33** recognize any of the soils as prime. However, the impact analysis identifies a significant impact associated with the conversion of agricultural land in the EAstern Territories. This area has not been identified as "prime" for agriculture by any agency and the conclusion that significant impacts would result from urban development in that area is not appropriate. Significance is based safely on the possibility that water may be available in the future.

29. The biological thresholds provided in the Draft EIR were recommended by a qualified biologist. These standards are meant to serve as guidelines for future planning efforts. Subsequent biological reconnaissance on a project-by-project basis may result in cases where these standards do not apply, particularly if habitat quality is not high. However, for the purposes of this plan level analysis and to serve as a future guidelines, these standards are considered valid.

30. The General Plan Update does provide for a substantial amount of area to be retained in open space as part of the circumferential open space network. This open space network would retain the majority of the Otay River valley, Rock Mountain, Mother Miguel Mountain and several canyons, including Poggi Canyon, Wolf Canyon and Salt Creek in open space. While this network would assure that no major development would occur in these areas, the open space network does allow for construction of an access road and human activity which could degrade the habitat within the network. Existing agricultural operations eliminate native habitat, but they also provide foraging habitat. The significant impact to biological resources is related to the cumulative loss of open field, native habitat and degradation of habitat by human intrusion.

31. The General Plan Update does provide for a substantial increase in park acreage which serves to compensate for the existing, unsatisfactory condition. While the Plan Update does provide for an open space network, a substantial portion of the Eastern Territories would be developed with urban uses consisting of residential, commercial and educational uses. This urban development would occur in an area designated "Interim Open Space, Agricultural Preserve", in the Open Space Element of the existing General Plan. Because of the existing agricultural operations in this area, the Eastern Territories are currently perceived as open space. The change in designation from "Interim Open Space" to a mixture of urban designations, and the change from existing rural agricultural operations would be a change in actual designations and perceived conditions.

32. In the mitigation measures section of the Air Quality Section (Section 3.5) of the Draft EIR it reads, "Encourage, as stated in the Circulation Element, a regional transit system along the SR-125 route corridor, an east-west bus route to connect the existing urban core and future eastern urban center, and an urban core/bayfront shuttle".

The EIR notes that there would be indirect impacts associated with urban development of the Eastern Territories resulting in premature conversion of surrounding agricultural lands, particularly Otay Mesa. Gradual
34 conversion of the Eastern Territories to urban uses would not significantly increase pressure for conversion of other agricultural lands - such pressure already exists in Otay Mesa in conjunction with development in the City of San Diego.

Landform - The EIR concludes that significant unmitigable landform alternation impacts would be associated with implementation of the General Plan. The EIR does not document the extensive measures which have been incorporated into the General Plan to mitigate landform alteration impacts. The EIR does not consider current planning
35 techniques available to ensure minimal landform impacts including landform grading techniques; preservation of significant slopes and open space area on a project-by-project basis; large-lot estate development in topographically constrained area; clustering; and preservation of public view area through sensitive grading design and location of development. All of these measures have been incorporated in the General Plan and should be documented in the EIR.

Traffic - Again, the EIR does not document measures which have been incorporated into the General Plan to mitigate traffic impacts including
36 commitments to alternative transportation modes and TSM programs. The EIR also does not note that the City's current Level of Service C threshold requirements would mitigate traffic impacts.

Mineral Resources - The mitigation recommendations pertaining to mineral resources on page 3-11 state that MRZ-2 classified areas should be avoided for development. This is not consistent with the State Surface Mining and Reclamation Act (SMARA) which states only that the lead agency must balance mineral value and the economic viability of resource
37 extraction with alternative land uses. The mitigation measure should reflect the policies of the SMARA. The mitigation recommendation to avoid MRZ-2 areas without further, study, as recommended elsewhere in the EIR, is unnecessarily restrictive and could result in preservation of unusable deposits and delay implementation of the Otay Valley greenbelt. We recommend that the mitigation measure be revised to require evaluation of impacts on a project-by-project basis.

Conclusion

Due to the absence of a plan-to-plan analysis and the incomplete representation of the updated General Plan, the Draft EIR does not appropriately credit the Eastern Territories with provision of substantial open space area, needed park facilities, and significant contributions to the community tax base. We recommend that the Draft EIR
38 be revised and expanded to incorporate the essential plan-to-plan analysis and reference features of the updated General Pan which could contribute to mitigation of identified impacts. We feel that this would be of benefit to the City of Chula Vista enabling them to adopt an

33. While the Eastern Territories contain only five relatively small areas of prime agricultural lands, most of the remaining acreage is categorized as Farmland of Local Importance and Grazing Land. Because of the climate, the agricultural lands within the Eastern Territories are capable of producing "off season" crops of tomatoes, vegetables and field-grown floral crops, most of which have statewide and national importance. The conversion of several thousand acres of agricultural land to urban uses is considered a significant, unmitigable impact. The scarcity of water in the area does not change this conclusion because the water resource may be available when future supply increases.

34. Comment is acknowledged.

35. The planning techniques referenced in the comment landform grading, clustering, etc., are contained in the Community and Urban Design section of the Land Use Element. As stated in the mitigation measures section of the Draft EIR (Landform/Aesthetics Section 3.8) "all development should conform to the policies and guidelines contained in the Community and Urban Design section of the Land Use Element." Even incorporating these measures to minimize impacts, the alteration of the mesas, hills and canyons of the Eastern Territories could result in significant impacts to landform.

36. The Draft EIR (Transportation/Access Section 3.14) lists several goals, policies and objectives from the Circulation Element to be implemented by the City as mitigation measures. Reference to the SR-125 route corridor and the east-west bus route as described in the General Plan text has been added to the EIR.

As part of the traffic impact analysis, a general test of the circulation system was made to evaluate the network in relation to the standards of the Threshold Policy. In some segments, as identified in the text, projected traffic volumes would be in excess of those associated with level of service C, which is not in conformance with the Threshold Policy. For reasons clarified in the text, it may not be possible to rectify the situation and assure compliance with the Threshold Policy. Implementation of the Circulation Element as currently planned would result in isolated areas that are not in conformance with the Threshold Policy. Therefore, implementation of the Threshold Standards itself would not mitigate traffic impacts.

updated General Plan which minimized significant unmitigable impacts and reduces the necessity for Findings and Statement of Overriding Considerations; this will also facilitate environmental review of subsequent projects which are consistent with the updated General Plan.

Sincerely,

The Baldwin Company

Rikki Alberson
Director of Planning

cc: George Krempl, Director of Planning

37. The mitigation measures section of the Geology/Soils/Mineral Resources section (Section 3.1, page 3-12) has been modified to incorporate project-by-project evaluation of aggregate resources to determine quality.

38. See responses 26 through 37.

RLB/1877

ATTACHMENT "A"

COUNTY CIRCULATION ELEMENT ROADS

Chula Vista Road Name	Limits of Subject Road	City Proposed	County CE
Sweetwater Road	State Route 54 to Bonita Road Bridge	4 Lanes/88-94'	4 Lanes/102'
San Miguel Road	Central Avenue to Bonita Road	4 Lanes/88-94'	4 Lanes/102'
Bonita Road Bridge	Sweetwater Road to San Miguel	4 Lanes/88-94'	4 Lanes/102'
Sweetwater Road	National City Boundary to Willow Road	4 Lanes/88-94'	4 Lanes/102'
Willow Road	Sweetwater Road to Bonita Road	4 Lanes/88-94'	4 Lanes/102'
Corral Canyon Road	Blacksmith Road to E. "H" Street	2 Lanes/72'	4 Lanes/84'
Proctor Valley Road	Hunte Parkway to Otay Lake	4 Lanes/88-94'	4 Lanes/102'
Telegraph Canyon Road	Chula Vista Boundary to Hunte Parkway	4 Lanes/104'	6 Lanes/126'
Otay Lakes Road	South of Orange Avenue to River	None	4 Lanes/102'
Otay Lakes Park	State Route 125 to End	2 Lanes/72'	4 Lanes/84'

GRANVILLE M. BOWMAN
DIRECTOR
(619) 694-2213
LOCATION CODE 7801

County of San Diego

DEPARTMENT OF PUBLIC WORKS

5555 OVERLAND AVE. SAN DIEGO, CALIFORNIA 92123-1295

COUNTY ENGINEER
COUNTY AIRPORTS
COUNTY ROAD COMMISSIONER
TRANSPORTATION OPERATIONS
COUNTY SURVEYOR
FLOOD CONTROL
LIQUID WASTE
SOLID WASTE

May 1, 1989

RECEIVED

MAY 12 1989

Mr. Douglas Reid
Environmental Review Coordinator
Planning Department
City of Chula Vista
276 Fourth Avenue
Chula Vista, CA 92010

Dear Mr. Reid:

Subject: Review of Draft Environmental Impact Report for the City of Chula Vista General Plan Update

The County has reviewed the Draft Environmental Impact Report (EIR) for the City of Chula Vista General Plan Update. We have comments on the issues concerning transportation circulation and drainage and flood control.

Circulation Element

39 The roads listed in Attachment "A" appear on the County's Circulation Element, but the County's proposed improvements differ from those proposed by the City. The road names used to identify the road segments are from the City's Circulation Element.

The County cannot provide right-of-way protection for roads not shown on the County's Circulation Element or at locations that differ from the County's approved alignment. The following roads show different alignments than the County's Circulation Element.

Road	Location
San Miguel Road	East of State Route 125
Proctor Valley Road	East of State Route 125
Otay Lakes Road	Chula Vista City Boundary to Otay Lake
Hunte Parkway	Proctor Valley Road to Orange Avenue
Orange Avenue	East of State Route 125
Palomar Street	Oleander Avenue to Paseo Ranchero
Paseo Ranchero	Telegraph Canyon Road to Otay Valley Road

39. It is anticipated that all of the area in the Eastern Territories currently within the jurisdiction of the County of San Diego will be annexed to the City of Chula Vista prior to development. It is therefore, not necessary to initiate a General Plan Amendment to the County General Plan to guarantee right-of-way for the circulation elements which differ.

Roads not shown on or shown in a different location from the County's Circulation Element require a General Plan amendment to add or change alignment for those roads within the County area. If you desire the County of San Diego to assist in protection of right-of-way in these locations, it will be necessary for you to process a General Plan Amendment and institute those changes to the County's Circulation Element of the General Plan. Attached for your convenience is a map of your proposed Circulation Element with the County's Circulation Element superimposed.

Drainage and Flood Control

40 Drainage and flood control issues are adequately addressed.

Thank you for the opportunity to comment on this matter. If you have any questions, please contact Bill Hoeben at 694-3244.

Very truly yours,

David S. Solomon

for JOHN S. BURKE
Deputy Director

DAVID S. SOLOMON
Deputy County Engineer

JSB:LDL:sej

Attachments

cc: Chuck Stuck, DPW (0336)
Larry Hurt, DPW (0338)
Harry Crossley, DPW (0338)
Bill Spalding, DPW (0336)
Herm Rosenthal, DPLU (0650)
Sally Finch, DPLU (0650)

RLB/1876

40. The comment is noted.

CHULA VISTA CITY SCHOOL DISTRICT

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EACH CHILD IS AN INDIVIDUAL OF GREAT WORTH

May 10, 1989

Mr. Doug Reid
Environmental Review Coordinator
City of Chula Vista
276 Fourth Avenue
Chula Vista, CA 92010

RE: Draft Environmental Impact Report - General Plan Update
Case No: EIR-88-2 / SCH No: 88052511

Dear Mr. Reid:

Thank you for the opportunity to review and comment on the Draft Environmental Impact Report for the City of Chula Vista's General Plan Update.

I have a few minor corrections which I will make first. On page 3-104, it should state Chula Vista City Schools District has 30 elementary schools, not 29, with a current population of 16,712. The last sentence in that paragraph, dealing with classroom usage, should be deleted. While it is true that, over the years, the District has added new programs such as special education and childcare, the statement that these uses prevent accommodation of new students is misleading and somewhat erroneous. Also on that page, Chula Vista Elementary should be called Chula Vista Hills. Page 3-105 describes planned schools. Reference to the site at the intersection of Paseo Ranchero and East J Street should be deleted, and a site located in the Sunbow development and a second school in EastLake added.

41

Under Existing Conditions, page 3-104, reference should be made to the current overcrowding condition in the western area of the District, from Second Avenue to the Bay. The significant growth which is occurring here appears to be due mainly to changing demographic patterns, infill and redevelopment. The District will add 12 relocatable classrooms to 5 schools in this area for school year 1989/90, and additional relocatables may need to be placed at these or other schools during the coming year. Many of these sites are small, and adding additional buildings and students, thereby reducing playground area, may not be a good solution. The District has also undertaken implementation of a five-track program at a school in this area, Mueller, which will increase capacity at this facility by approximately 20 percent.

42

41. The changes have been made.

42. This information has been added to the text.

Under Potential Impacts, page 3-111, the chart shows 39 elementary schools needed, and states the Land Use Element provides for 37. The EIR should address the other 2 sites
43 which will be required as a result of General Plan buildout. In addition, a statement that the City will assist and support the school district in assuring that these sites and facilities are obtained should be included.

Under Mitigation Measures, page 3-117, there needs to be a section added defining how the problems identified above will be mitigated. The absence of vacant land and the high costs associated with acquiring developed land make enlarging
44 existing school sites or building new facilities extremely difficult. Further, given the inadequacy of developer fees to finance school facilities, a strong statement that the City will condition project approval on requiring compliance with the District's mitigation recommendations, through Mello-Roos Community Facilities Districts or other alternative forms of financing is needed.

Under Mitigation Measures, page 6-4, Utilities and Services, as stated previously, payment of developer fees won't provide
45 adequate school facilities. A statement conditioning project approval on compliance with the recommendations of the school district should be inserted here.

Sincerely,

Kate Shurson

Kate Shurson
Director of Planning

KS:dp

43. The evaluation of potential impacts has been amended to incorporate a discussion of the projected 2 site shortfall. Also, a statement that the City will assist and support the school district has been added.

44. The mitigation measures sections has been modified to incorporate these suggestions. Refer to Section 3.13, page 3-119.

45. The text has been modified.

EXTRACT FROM MINUTES OF PLANNING COMMISSION MEETING OF MAY 10, 1989

3. PUBLIC HEARING - DRAFT ENVIRONMENTAL IMPACT REPORT - EIR-88-2 - GENERAL PLAN UPDATE

This being the time and the place, the public hearing was opened.

Matt Peterson

46

Members of the Planning Commission, my name is Matt Peterson, of the law firm of Peterson and Price, 530 "B" Street, #2300, San Diego, CA 92101. As you know, we represent Chula Vista Investors with regard to their proposed Chula Vista Bayfront Project. I apologize for this late submittal of the letter I have just submitted this evening. Unfortunately, we are experiencing some communication problems with your staff and did not find out about this hearing until this afternoon. Further, my client was never notified by any formal notice of this hearing even though, certainly, his property interests may be affected by this as well as the General Plan Update.

As the Planning Commission is aware, our client is currently processing plans through the City to put the Chula Vista Bayfront Project. Because the proposed uses on the site are different from the previously approved Specific Plan and Local Coastal Program, we would request that a new Alternative be prepared and incorporated into the EIR for the General Plan. This new Alternative -- this, by the way, -- this Alternative would be similar to the ones you just heard about, the Mother Miguel Mountain Alternative and the Olympic Training Site Alternative. It is not an extremely detailed Alternative for the Chula Vista Bayfront but something similar in character. This new Alternative would be titled, obviously, the Chula Vista Bayfront Project Alternative. We have recently submitted to staff revised project plans which are diagrammatic in nature and we would be available and willing to work with P&D Technologies as well Keller Environmental, who is doing the environmental work on the Bayfront, to develop the wording and appropriate documentation to be put into the EIR for the General Plan Amendment.

At the Planning Commission and City Council hearings regarding the Draft Chula Vista General Plan, we will be requesting that minor modification be made to both the text and the General Plan Land Use Map. I have attached for your review a copy of sections of the Land Use Map. You can see here the Special Plan Area designation we feel would be appropriate for the Chula Vsita Bayfront site. The reason we feel it is appropriate is that if the General Plan goes forward as it is, the land use designations that are currently on the Map would become part of the General Plan. If we proceed forward with our proposed project - Bayfront Project - those uses invariably would be different from these as shown. Therefore, we would request that the designation of Special Plan Area be placed over the entire site so that it would allow the City to have flexibility in dealing with the proposed project and then wouldn't have to come back forward again with another General Plan Amendment in the future based upon the new uses, if it so proved. If for some reason, the City does not approve the Chula Vista Bayfront Project, then the previously

46. On May 10, 1989 the Planning Commission held a public hearing to receive comments of the General Plan Update EIR. This hearing coincided with the final day of the public review period on the EIR. The public hearing was a forum for the EIR only. Any comments received on the General Plan Update text itself were referred to the subsequent Commission hearing to be held May 31, 1989. All comments received at the hearing are part of the public record and are reproduced below.

The request for a Special Plan designation in the General Plan Update was made to the Planning Commission. The Planning Commission determined not to pursue this option. The Bayfront Alternative/Special Plan designation is a comment more appropriate to the General Plan Update hearing (May 31, 1989). Because the extra work necessitated by the request would delay the EIR process, specific environmental review of the Chula Vista Bayfront Alternative within this document will not be completed.

approved project would still be in place, still be existing, and, obviously, would be consistent with the Special Plan designation. So, we would respectfully request that you first direct P&D Technologies to prepare an Alternative to be placed into the EIR (and we would be willing to work with them and help with them so that we don't lose any time at this point). And, secondly, direct the Planning Department to look at the text and the Map itself and incorporate these changes so there is a Special Plan designation on the property. Thank you very much.

Comm. Cannon — What is staff's position on the request that Mr. Peterson made. It makes sense to me.

Director Krempl — Madam Chairman, with respect to the designation of the property on the General Plan itself, I believe that comment should be appropriately considered when we consider the General Plan on the 31st of May, and not at the hearing this evening. With respect to the request regarding including a Bayfront Alternative in the Environmental Impact Report Analysis and directing P&D to do the same, we believe that is not appropriate from the standpoint of timing and would inordinately delay consideration of the EIR and General Plan. We think the consideration of an Alternative on the Bayfront, the Environmental Review should stand alone and would be amended at the appropriate time. If we had had the request in a sufficient prior period of time to have incorporated it into the General Plan as an Alternate, I think we would have done so, but the timing was no such to allow that.

Mr. Peterson — Chairman Carson, I just need to respond to that quickly. We have no intention of delaying the EIR at this point. We did present this concept to staff well over 2 months ago. It has just gone on and on and we have never been able to get anywhere with this particular request. So as an alternative to giving a full analysis now, maybe, as an alternative that could be easily drafted into the EIR, it would just be a Special Plan designation for the site rather than a full analysis of the Chula Vista Bayfront Project as we conceive it now. That certainly shouldn't delay them any weeks.

Chm Carson — Thank you, Mr. Peterson. Are you satisfied with your answer? Mr. Jeff Brinton.

Mr. Brinton — Good evening, members of the Commission. My name is Jeff Brinton. My address is 401 "B" Street, San Diego, CA 92101. I am an attorney who is representing Mr. Herbert Beckett, property owner, whose 40 acre parcel lies at the end of San Miguel Road in the City's Sphere of Influence and thus is being designated under the proposed General Plan Update. Currently, Mr. Beckett's land is designated for Residential use. Under the proposed General Plan, it would become Open Space. We are opposed to this change. We appreciate the City's mandate to plan for open space, and its development of open space..... Certainly, that mandate is outlined in the Environmental and other documents that the City has prepared. However, we are more concerned with those associated mandates or intentions as specified by the Legislature which appear on Open Space designations. Namely, that the Legislature's mandate is not intended to justify Open Space designation for other than health, safety and welfare reasons. Furthermore, it is certainly not a license or intended as a license for local governments to take private property without just compensation.

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47. The comment pertains to the General Plan Update text and is not a substantive comment regarding the EIR, see response #46.

Apparently, the City's justification for the Open Space designation in the area of Mr. Beckett's property would be Visual Relief and, perhaps, Reservoir Protection. Insofar as Visual Relief, I don't think that is going to measure up to the health and safety aspect. Mr. Beckett's property, just for reference purposes, if you save just south of Sweetwater Reservoir, the circular area that says "See Alternative Section of EIR" -- it's in that area -- 40 acre piece so it doesn't fill that entire area but that's the location. Reservoir Projection can certainly rise to the level of health and safety, however, there is insufficient data presented in the EIR to justify or explain the Open Space designation for that reason.

Neither are there Alternatives presented in the EIR. I know, the reference says "See Alternative Section of EIR" - that pertains, I'm sure you realize, to the Ranch of San Miguel Alternative which does not include Mr. Beckett's property, although it is adjacent to it. The Rancho San Miguel Alternative is, in any event, not really an Alternative in the CEQA sense. A potential Alternative to the Beckett property, I'm not suggesting anything specific at this point, but as an example of the kinds of things that should be looked at is the County's current land use designation for that area. As you may know, the County, for the last several months culminating just recently, went to a great deal of time and effort to evaluate the Sweetwater Community Plan. It has revised that Plan. It specifically looked at the Beckett property and some of the characteristics of the Beckett property. The result was that the Beckett property received an Estate 17, Estate Residential 17, in the County's Plan designation category, which basically allows one dwelling unit per 2 acres. Rural residential use, but certainly not Open Space. In our opinion, that type of approach -- and let me just back up and say that the issue of Residential Protection which has been a major concern, I know, for the local community and I'm sure yourselves as well -- is addressed by the County through the imposition of a site plan requirement whereby future development would not be allowed except that - except after a (garbled) protection plan was submitted and approved in order to allow development to proceed. In our opinion, this is the kind of creative approach that needs to be dealt with by your Commission and the City of Chula Vista as it was with the County.

In conclusion, we are opposed to Open Space designation. We feel that the property is adjacent to other developed properties along San Miguel Road. It is not inherently different from those properties other than the fact that it is one step removed, adjacent to. It is also an area that is not restricted by steep slopes as is adjacent area on San Miguel Mountain -- Mother Miguel Mountain. The property is certainly available and for development and conducive to development on a rural scheme such as one dwelling unit per 2 acres. Any Reservoir Protection issues can be addressed through the site plan requirement and appropriate runoff protection measures rather than putting a blanket Open Space designation. Insofar as the EIR -- the Open Space designation that is contained in the General Plan and discussed in the EIR is really quite vague and ambiguous as far as what kinds of uses are going to be allowed under Open Space. There is no substantiating information to back up that designation, neither are there reasonable alternatives discussed insofar as the Beckett property. That concludes my remarks and I am available for any questions.

Chmn Carson — Thank you very much. Ruth, will you catch the light because it was going the entire time that he was making his presentation. I apologize for that.

Comm. Cannon — What is staff's position with regard to the Beckett property and with regard to the San Miguel Alternative?

Director Krempl — Madam Chairman, it was not part of the Rancho San Miguel Alternative. I believe there is some explanation as to the rationale for it being Open Space in the General Plan text although be it not in the EIR. Also, in the General Plan text there is reference to what uses would be allowed in the Open Space category. We would be more than happy to meet with Mr. Brinton on that.

Chm Carson — Thank you. Mr. Adriance.

Mr. Adriance — Good evening, my name is Doug Adriance. I live at 467 Oriole Court, Chula Vista, 92011. I am not an attorney. I am here tonight with some concerns. I'm not really speaking in opposition to this EIR Report but do have some concerns about some of the things I have read in it. I haven't had a lot of time to read it, in fact, I just got the book today. But I have read the Update of the General Plan

48 from cover to cover. My main concerns are, I guess, I can remember Chula Vista when it was one-lane streets - just a little town. That was back in the 1950s when I used to ride my bike around. When I read this Report and the Updated General Plan, it looks like we are going to become a suburb of Los Angeles here before long, with what I see described as what is going to happen to the streets and the number of people who propose to move here. Specifically in my neighborhood (I live off East Palomar which is generally a very quiet area beside the new Boys' and Girls' Club) and from here to my house on East Palomar at this time, about 900 cars a day travel through that street. As I read this Report and the General Plan Report, there are proposing that 30,000 cars may go through that street which is right in front of my house. I question that a bit. I think that is too much of an increase. I think it is going to impact my house and my neighborhood in a bad way.

It's a little depressing also when I read in this Report, specifically on page 365, the people who wrote this make this statement, "Given that mitigation may be infeasible or impractical, it is anticipated that some significant unmitigable impacts will occur." I would like to know -- we're the people who live here now. I can't be worried about people that are being proposed -- they're not voters, they're not tax payers, they don't live here now -- and I don't want to have to be forced to sell my house, move to EastLake or someplace where I can't afford. I can barely afford the house that I'm in right now. If I have to go out to EastLake or someplace - maybe, one of the newer developments in the Eastern Territories which sound like they are going to be pretty nice places to live; because they are being well-planned. But where I live, the houses were built in 1978, and that was well-planned at the time. But now what is being proposed here is a poorly major street going through my back yard basically. Part of the street is going to be in my bedroom and the buffer area is in my kitchen and I don't like it. It's obvious I'm not the best.

48. The comments in these two paragraphs refer to the General Plan Update text; see response #46.

unmitigable impacts that have been generally found to exist upon implementation of the General Plan as identified in the EIR. Some of these include, for example, biology. The biology section of the EIR has referenced certain thresholds of significance but it is not really clear where some of these were derived from. For example, it is stated on a project-by-project basis loss of 40 acres could be considered significant. But it is not considering the overall context of Open Space. Is it disturbed? Is it a high quality (garbled)? Is it -- what is it? (Garbled) request some consideration be given in identifying significant impacts with respect to the contex within which the resource is located, or the Open Space is located.

With respect to Open Space, which is held to be significant, unmitigable loss, the EIR contains no plan-to-plan analysis. For example, Otay Ranch is currently designated largely as Urban Reserve and Agriculture in the City of Chula Vista. The property is located in the County of San Diego. The County of San Diego Plan designates it for Residential and Agricultural uses. The existing General Plan don't provide any hard protection for the Open Space or the biologic resources. The proposed General Plan certainly does. Following along significant areas such as Poggi Canyon and Salt Creek, all identified as Open Space. The existing General Plans, both the County and the City, don't have those hard designations in there. Again, we would suggest that maybe some look could be taken at the Open Spaces especially signficant, unmitigable across the boardwalk because they are significant areas

(portion missing in turning tape)...measures in transportation management that are included in the General Plan are, perhaps, not hit as hard in the EIR.

We are concerned about Agriculture. The EIR singled out just the Baldwin Holdings in the Eastern Territories as significant agricultural lands even though the U.S. Department of Agriculture, the County and State did not find these soils to be prime in the sense of the word. The significant finding is based on the fact that there is water available so the lands would be suitable for a higher level of agriculture. But there is no consideration given to the economic feasibility, the pure physical feasibility of getting water in there, the cost of getting water in there, the fact that the cost of water is rising not going down. So, again, we would request that the entire Ag section be revisted and perhaps some consideration given to soils actual cost by this plan and to water availability.

With respect to Land Form, the EIR again identifies it being significantly unmitigable for the Eastern Territories. The General Plan includes large, large section devoted to criteria for land form grading. It could widely mitigate a lot of these impacts. So we question the wholesale finding of significant and unmitagable. Perhaps that should be compared on a project-by-project basis.

Similarly with respect to Parks and Open Space, the General Plan designations that exist don't (garbled) space.

Mineral Resources. It is suggested that MRZ zones be completely avoided. But there have been studies in the Valley that should have

public speaker but -- it just seems to me that -- maybe 10 or 15 or 20 years from now -- when I'm retired out, my house is going to be a very good place to live.

Another thing I notice is that when you talk about all these decibel levels and everything -- they are talking about the inside of the house. Well, this is Southern California and I know I spend, and I'm sure that you spend, a lot of time in your garden or outside your house. And they're just talking about in this book, some of the problems just in the inside of your house. Like the guy up on "L" Street that's been down here four or five times trying to get that area wall in front of his house. I don't want to have to have that happen at my house. I like to be able to spend some quality time outside and some good time inside too. It just seems to me that these levels are too high. I even question the levels themselves.
49 They are using a noise model that is about 11 years old here. I question that - I think that's too old a value.

I also question -- I took time to read the Fire Service -- I'm a fire fighter so I took the time to read the Fire Service Master Plan and I really question the response time that is being used for that
50 model. I think they are too long. I think they are going to stretch the Fire Stations in the City too thin as proposed. They are moving stations out of the old neighborhoods where they were and I disagree with it and a lot of the fire fighters in Chula Vsita disagree with it too. We haven't had any input into that.

These books are a little bit hard to read also. I couldn't really tell in reading whether there was going to be an interchange at 805 and East Palomar or not. I read this book and looked at the map. It shows a half a one there and then it's not mentioned anymore in the book. I found that throughout all these books, especially the other one because I read that one really well, it was kind of hard to understand exactly how big some of the streets that were proposed
51 were actually going to be. It was hard to read and I couldn't quite understand it. I plan to follow up my kind of poor public speaking here with some written letters to your Commission and maybe City Council -- something I can take more time with. And I also plan to read this better and be back at the next meeting. I hope you keep some of the things I've said. I grew up in this town. I've lived here for a long time. Some of the things I see, I like. Some of the things I see happening, I really dislike and I don't think it's going to be to the benefit of our children or future generations. Thank you very much.

Chm Carson — Thank you very much. Ms. Rikki Alberson.

Madam Chairwoman, Members of the Commission. My name is Rikki Alberson and I represent the Baldwin Company whose offices are located at 11975 El Camino Real, San Diego, 92130. I would like to thank you for this opportunity to review the Environmental Impact Report. We
52 do have a few concerns and I just wanted to review those very quickly.

The General Plan that has been prepared, we feel has been designed to be sensitive as possible to the Eastern Territories. We feel it contains a great number of mitigation measures in it already. With that in mind, we are little concerned about the number of significant,

49. The noise model referenced is the Federal Highway Traffic Noise Prediction Model (FHWA-RD-77-108, December 1978). While the model was developed eleven years ago, the input (future ADT) used in the model is current and based on the Circulation Element forecast prepared by JHK and Associates in 1988.

50. Communication with the Fire Department and Threshold Standards proposed for providing adequate protection to the City of Chula Vista have indicated that there would not be a significant, unmitigated impact for fire service.

51. The proposed half-diamond interchange (north-bound only) has been included in the Circulation Plan as a transportation system alternative. The feasibility of implementing this interchange will be confirmed by the City with input from CalTrans. The final decision as to when and if this interchange should be constructed will be made by the City.

The Circulation Element is depicted graphically in the General Map map by the use of different tape widths to represent various street classfications. The street classifications are described in the Circulation Element text and in the text of the EIR.

52. Ms. Rikki Alberson prepared a letter of comment which is included in this Final EIR. Please refer to responses #26 to 38. All of the issues raised at this public hearing have been addressed in these previous responses.

shown those resources are not high quality. Complete avoidance until the resource is mined out could also materially delay implementation of the Otay Green Belt. Perhaps something could be considered on a case-by-case basis.

I realize I am out of time. I have a number of other concerns. I have drafted up a letter that will be forthcoming shortly and I thank you very much.

Chm Carson — Thank you. Jackie McQuade

Ms. McQuade — My name is Jackie McQuade. I live at 339 East "J". I didn't get to read the EIR. I didn't find out about it in time. But I have some questions. My first question - when I picked up the General Plan, the Open Space Element wasn't complete. Is it complete now? **53**

Bud Gray — The Open Space Element was complete when the Draft General Plan was distributed. If your copy did not have the Open Space Element, it was omitted by error.

Ms. McQuade. — Okay, thank you. I understood that San Diego had said as far as Open Space, that if there was a 25 percent grade that building would be prohibited. Is there a similar thing in the Chula Vista Open Space Element?

Bud Gray — The criteria of 25 percent slope is one of many criteria in evaluating what should be Open Space and not Open Space. Simply a 25 percent slope in and of itself was not sufficient to designate an area Open Space necessarily -- also, where it was, it's size, it's relationship to other land forms -- so the Open Space, 25 percent was not any hard and fast criteria in the General Plan, but it was a Guideline.

Ms. McQuade — It is in there on a certain page so that I can come to the Planning and read it and see what it does apply to?

Bud Grady — There is a reference to the 25 percent slope, but it is not an exclusive criteria.

Doug Reid — Madam Chairman, this hearing is on the Draft Environmental Impact Report and not on the General Plan and the contents of that document.

Ms. McQuade — Thank you, I meant to say that but I know that is going to be covered on the 31st. Right? Okay. There are still some things I have that need to be covered tonight. One is that on page I-59, the East "J" Area has already been designated as a Scenic Route and it's not in this General Plan designated as a Scenic Route. In the pages and on the map it is not designated so that needs to be added.

Chm Carson — Ms. McQuade, since that is to be carried another time and you are very laboriously reading through that, I suggest that you take your little comments on things and give it to the staff concerning those items. Because, as Chairman, if I allow you to address the General Plan, I have to allow everybody else and I'm trying to be consistent.

Ms McQuade — Okay. The other two questions relate to the EIR. The threshold standards, as I understand it, for Open Space is 2 acres of park for every 1,000 residents? You mentioned the threshold standards.

53. All of the comments from Mrs. McQuade concern the General Plan Update text, and, as such, do not apply to the EIR. See response #46.

Doug Reid — That standard is 3 acres east of 805.

Ms. McQuade — Three acres for every 1,000 east of 805. Do you have a standard for Open Space as well as Parks?

Doug Reid — No. The standards for Parks and Recreation....

Ms. McQuade — Okay, then my fourth and last question. The drawing of the reservoir and Mother Miguel Mountain and the resort that is proposed there? Is that resort the Pointe?

Gary Wood — No, that's not the Pointe. The resort is a small resort associated with a proposal for Rancho San Miguel development. The Pointe Resort is on the other side of the reservior - outside the General Plan Area.

Ms. McQuade — Thank you.

Chm Carson — Thank you. Bill Hauf

Mr. Hauf — Thank you. I'm Bill Hauf, General Partner of San Miguel Partners. We are the owners of Rancho San Miguel, 12707 High Bluff Drive, San Diego, CA 92130. First of all, I just want to thank staff for the time and the effort they have put in the Report. We have spent 8 months preparing the plan, the concept plan, taking into consideration the environmental aspects of the Alternate that is proposed on the property. We have hired biologist and archeologists and we have done our reconnaisance and prepared what we consider to be a very sensitive plan for the area. Since the EIR basically addresses the Alternate, we have prepared a booklet to summarize the concept plan. We have a copy for each of the Commission members. This booklet simulates or duplicates the presentation that was given to the Commission during the workshop session and we hope that it will help answer any questions that any of the Commission members may have regarding the proposal. We have also made a comment in letter form to staff regarding the EIR Report. I won't get into those specific comments at this time. But I will say that the concept plan that we have put together we could not have done in isolation just as a developer. It was done in concert with staff. It was done in concert with community soliciting inputs from the various community groups of which the many we were able to get in contact with have seen our proposal and have a chance to give us some direct inputs. We have attempted to incorporate those particular inputs into our concept plan, keeping in mind, of course, that sensitivity of the property that we do own is of utmost importance and keeping Mother Miguel as pristine is a primary concern to us. So in developing the Alternative, we have basically tried to look at some specific area that we consider to be a potential for development as well as emphasizing the fact that we have done a tremendous amount of work to provide amenities that will fit in with the environment and provide things to the community.

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54. Mr. Bill Hauf prepared a letter of comment which is included in this Final EIR, refer to response #25.

We realize this is not a time to talk of the General Plan and only the EIR. I just again want to emphasize that we have done an awful lot of work and staff has also spent time and we appreciate the time that they have spent in helping us address the concerns in trying to put together a plan that we hope the community and the Commission and the City will be able to accept and find appropriate. Thank you very much.

Chm. Carson — Thank you. I have no further slips. Is there anyone else in the audience who would like to speak on the Environmental Impact Report? I close the public hearing.

Mr. Reid — Madam Chairman, I believe the representative from Baldwin indicated that their letter of comment would be forthcoming. We would recommend that that also be accepted even though late.

NOTE: Commissioners present at this meeting were: Chairman Carson, Commissioners Cannon, Fuller, Grasser, Shipe and Tugenberg. Commissioner Casillas excused.

DRAFT
ENVIRONMENTAL IMPACT REPORT
CITY OF CHULA VISTA
GENERAL PLAN UPDATE

SCH #88052511

EIR #88-2

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March 1989

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Victor Magallanes

From: Lindsey Walters
Sent: Thursday, January 24, 2008 8:52 AM
To: Sheree Kansas
Cc: Silvia Cosio; Barry Edwards; Victor Magallanes
Subject: New Boxes for Offsite Storage


PWE-1819.xls


PWE-1818.xls

i Sheree,

I'm over in Public Works now, but before I moved, I inventoried 2 boxes worth of files to be sent offsite. They're still over there and I can have them sent to you, and here are the inventories. Is that fine?

Barry/Victor - They're the boxes under my old desk, labeled PWE-1819 and PWE-1818. If you could just deliver those, whenever is convenient for you both, to Sheree at the Clerk's Office? Thanks!

Lindsey Walters
Public Works Specialist
(619) 397-6067 Business
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1.0 INTRODUCTION AND SUMMARY

1.1 SCOPE AND PURPOSE OF THE REPORT

All governmental discretionary actions defined as projects by the California Environmental Quality Act (CEQA) require environmental assessment. Those actions which could result in significant physical impacts to the environment require the preparation of an Environmental Impact Report (EIR).

This document is an EIR which addresses the proposed update of the Chula Vista General Plan. The proposed update substantially revises the Land Use, Circulation, and Public Facilities Elements of the General Plan, and modifies the other existing Elements for consistency. The updated General Plan incorporates without change the following documents:

- Bayfront Specific Plan
- Montgomery Specific Plan
- Sweetwater Community Plan
- El Rancho del Rey Specific Plan
- Rancho del Rey SPA I Plan
- EastLake I SPA Plan.

The purpose of this EIR is to provide an accurate and concise informational document which analyzes the environmental consequences of adoption of the proposed updated and modified Elements. The EIR is not a decision-making document, rather, the information contained herein is intended to provide guidance to the City of Chula Vista decision-makers in their consideration of approval of the proposed General Plan update. It should be noted that there is no proposed development associated with this project, as the "project" is the Plan Update. Accordingly, as specified by CEQA Guidelines, Section 15146, the degree of specificity of this EIR corresponds to the degree of specificity in the General Plan Update document. This document is a "tiered" Environmental Impact Report (EIR) (CEQA Guidelines Section 15152). The General Plan Amendment tiering concept is designed to promote efficiency in the environmental review process. It allows agencies to deal with broad environmental issues in EIRs in early planning stages

and then provide more detailed examination of specific projects in EIRs in later development projects that are consistent with or implement the plans. The later EIR's are excused from repeating the analysis of the broad environmental issues examined in the earlier EIRs. It should be noted that the conclusions made in this report are based on assumed worst-case conditions and general development concepts. At the time of actual development, project-specific, site-specific evaluation will be undertaken. At that time the conclusions and analyses of significance may change.

The scope of the EIR was determined by the City to include those issues which could potentially be affected by adoption of the General Plan update. These issues include:

- o Geology
- o Soils
- o Groundwater
- o Drainage
- o Mineral Resources
- o Landform
- o Conversion of Agric. Lands
- o Air Quality
- o Water Quality
- o Parks, Recreation and Open Space
- o Mobile Noise Source
- o Biology
- o Archaeology
- o Paleontological Resources
- o Historical Resources
- o Land Use/Gen. Plan Elements/Zoning
- o Aesthetics
- o Community Social Factors
- o Community Tax Structure
- o Utilities and Services
- o Transportation/Access

The EIR also examines alternatives to the project, growth inducing impacts, and other environmental summaries as required by CEQA.

The lead agency for this project is the City of Chula Vista. CEQA defines the lead agency as "the public agency which has the principal responsibility for carrying out or approving a project". The City has solicited comments from responsible agencies and interested parties regarding potential environmental effects by use of a Notice of Preparation (NOP). The NOP and comments received as a result of its circulation appear in Appendix A.

The environmental consultant responsible for the preparation of this report is P&D Technologies, Inc, of San Diego, California. Preparers of and contributors to this report are listed in Section 11.0.

This report is a Draft EIR. Upon completion of the public review period, the receipt of public comments, and the Planning Commission hearing on the Draft, the Final EIR will be prepared. The Final will include this Draft and the comments and responses. Prior to making a determination on the project, the EIR shall be reviewed and considered by the decision-makers. If the decision-makers decide to approve the proposed project or alternatives which have significant, unmitigable impacts identifed, then Findings of Overriding Considerations must be made (Section 15093). Also, one of three potential findings (CEQA Guidelines Section 15191) must be made for each significant impact. These findings are:

1) Changes or alterations have been required in, or incorporated into, the project which avoid or substantially lessen the significant environmental effects as identified in the Final EIR.

2) Such changes or alterations are within the responsibility and jurisdiction of another public agency and not the agency making the finding.

3) Specific economic, social, or other considerations make infeasible the mitigation measures or project alternatives identified in the Final EIR.

For the City of Chula Vista to approve the proposed project they must make the ultimate finding, present substantial evidence to support these findings, and present some explanation to supply the logical step between the ultimate finding and facts in the record.

1.2 SUMMARY OF IMPACTS AND MITIGATION

The Chula Vista General Plan Update area includes the City of Chula Vista, its sphere of influence and some area in addition to its currently defined sphere which is within its planning area. This area extends from San Diego Bay east to the Otay Reservoirs, north to SR-54 and the Sweetwater River and south to Otay Mesa.

This section provides a summary of the environmental analysis that was conducted for each of the fifteen issue areas analyzed. Existing conditions are briefly stated and the potential environmental impacts and mitigation are identified.

Geology, Soils, and Mineral Resources - The Planning Area is characterized by several distinct geologic formations. Beginning in the west, along the bayfront and the river valleys, alluvium and slopewash predominate; going east, the region is underlain by marine sandstone, the San Diego formation and finally the Otay formation and Mission Valley formation. Numerous soil types also exist, the predominant soil series in the Eastern Territories is the Diable series, which is a well-drained clay soil with high shrink-swell potential. The Otay Valley is identified by the State Mining and Geology Board as containing mineral resources; a 2,780 acre area is classified by the State as Sector R and is estimated to contain approximately 10 million short tons of resources. The Planning Area is crossed by the La Nacion fault zone and contains both ancient and/or recent landslides and areas of liquifaction.

As a result of these hazards, and the known instability of some of the geologic formations present in the Planning Area, significant impacts to future development could occur. These impacts could be reduced to a level of less than significant by various mitigation measures. Measures include project specific detailed geotechnical analyses; avoidance of landslide areas and alluvium near streambeds; and specified investigations to define fault locations and determine setbacks.

Hydrology/Water Quality - The Planning Area contains several major drainages and one reservoir. The Sweetwater River, Otay River and Telegraph Canyon drainage flow east to west and empty into San Diego Bay. The Sweetwater River carries flows from Long Canyon and Rice Canyon. Prior to entering the Planning Area it feeds the Sweetwater reservoir. The Otay Reservoir captures flow from several drainages in the east including Jamul Creek and Procter Valley Creek.

Future development would result in overcovering of the soil and increased surface water runoff. Potentially adverse impacts would result if drainage facilities were not sized to accommodate future flow. Compliance with the Public Facilities Element of the General Plan and Drainage Master Plan of the City would reduce

this possibility and no significant impacts would result. No significant impacts to water quality are expected from future land uses designated by the General Plan Update.

Biology - The Planning Area contains several large areas of undeveloped, undisturbed land covered with native vegetation which support known sensitive animal and plant species. The predominant vegetation is sage scrub. Full development of the Planning Area would result in replacement of a substantial portion of this native vegetation with non-native vegetation and urban land uses. The Chula Vista Greenbelt system would retain the Otay River Valley and other smaller canyons in open space which would preserve some habitat, but the overall land use plan would involve impacts to a substantial portion of the native vegetation. Several sensitive species would be impacted. Specific mitigation is recommended to minimize potential impacts to particular species on a project-by-project basis. These would be implemented during the environmental review process. A plant species list has been recommended for inclusion in revegetation plans to avoid the introduction of non-native species. A land clearing permit has also been suggested to minimize the loss of sensitive shrublands often incurred during land clearing or creation of fuel reduction zones. However, adoption of the General Plan Update and eventual buildout would result in significant cumulative impacts to biological resources which are unmitigable.

Archaeology/Paleontology - The Planning Area contains several known significant archaeological sites and several areas have yielded important fossil remains. Areas which have been identified as having potential for archaeological and paleontological resources have been mapped as part of this work effort. The potential for future development to significantly impact resources is high. Mitigation measures to minimize impacts include archaeological surveys of undisturbed land and preservation or data recovery of cultural resources identified as significant. Also, a paleontological monitor would be present at the original cutting of previously undisturbed sediment of high and medium potential and fosil recovery would be completed as necessary. It is anticipated that all future impacts would be mitigated by these measures.

Air Quality - Development of future projects in the Planning Area would result in increased traffic on new and existing roadways with an associated increase in air

emissions. Fugitive dust released from construction is considered a short-term nuisance and would not be a significant impact. Some intersections near freeways currently, and would at buildout, experience congestion which can lead to creation of carbon monoxide "hot spots". The City of Chula Vista has run several air quality models at these congested intersections and no "hot spots" have been identified. However, the potential does exist and is considered a significant impact. Congestion at these intersections is not anticipated to be mitigated by any improvements in circulation and impacts to air quality are unmitigable in these areas. Buildout of the Plan area is not consistent with the 1982 SIP growth projections and some residual impacts could occur. Assuming the SIP revisions, which are currently being initiated with growth projections consistent with the Plan Update, are completed prior to buildout, and all individual projects are in compliance with the SIP measures, no adverse impacts are expected.

Noise - The increase in traffic would result in additional noise generated along roadways. In the existing urban areas some sensitive receptors, primarily residential development, may be subject to exterior noise levels in excess of 65 dB(A). Given that mitigation may be infeasible or impractical, it is anticipated that some significant, unmitigated impacts would occur. Undeveloped areas would be subject to site and project specific environmental review to minimize noise levels and assure no sensitive receptors are subject to incompatible levels. As long as projects comply with measures to reduce noise levels, no significant impacts are anticipated in the area of future development, specifically the Eastern Territories.

Conversion of Agricultural Land - The Eastern Territories contains several thousand acres of land within the Coastal and Maritime climates which have the ability to produce off-season tomatoes, vegetables and floral crops, most of which have statewide and national importance. All of this acreage would be converted to other, urban uses as part of the General Plan Update which is considered a significant impact. Mitigation of this impact can only be achieved by retaining the existing agricultural designations; because this is not proposed the impacts to agricultural land are considered significant and unmitigated.

Landform/Aesthetics - The Chula Vista landform is characterized by three areas; the coastal area which is a low, relatively flat plain; the rolling hills east of I-805

and west of Otay Lakes; and, mountain foothills. In the Eastern Territories, where land is currently vacant and undeveloped, land use changes associated with the proposed Plan Update would result in a significant change to the existing landform and visual quality. The majority of the landform and visual resources such as mesas and hilltops would be significantly altered. The only way to fully mitigate this significant impact would be by preservation. Because this measure is considered infeasible, impacts to landform and visual quality are considered significant and unmitigated.

Land Uses/General Plan/Zoning - The General Plan area contains five communities: Bayfront, Montgomery, Central Chula Vista, Sweetwater and Eastern Territories. The Plan Update incorporates, by reference, the recently adopted specific and community plans for the Bayfront, Montgomery and Sweetwater. Central Chula Vista would not be substantially altered. The Plan Update would involve substantial changes to the Eastern Territories as currently rural land would be developed with urban uses. Because this area was previously designated for future urban development, this is not regarded as a significant impact. Potential land use incompatibilities would be alleviated by adherence to policies and guidelines contained in the Land Use Element. However, if existing zoning is not consistent with the Land Use Element, significant impacts would result.

Community Social Factors - The 1986 population of the City was 116,295; the target population of the proposed General Plan Update is 209,400 persons. It should be noted that some of this increase would be due to annexation of land area; however eventual General Plan development would increase the population of the Planning Area by more than half and involve a corresponding increase in housing stock. Such development would represent an adverse impact to the infrastructure and transportation system of the City. Given implementation of the goals, objectives and policies of the General Plan Update and Area Plans, increased infrastructure would be required to assure that future development would not create significant impacts.

Community Tax Structure - Adoption of the proposed Plan Update would result in additional demands for services provided by the City as well as generate income for the City from increased property and sales tax. The net fiscal impact from

development was calculated by area and city-wide. The net impact would be positive in the Eastern Territories and Central Chula Vista (including Bayfront) Planning Areas. A slightly negative fiscal impact would be expected in the Montgomery and Sweetwater Planning Areas. Overall, the net fiscal impact would be positive.

Parks, Recreation and Open Space - The City of Chula Vista currently contains 297 acres of community and neighborhood parks, with an average of 2.56 acres of park per 1,000 population. This does not meet the park standard contained in the existing General Plan. The neighborhoods in the area north of L Street and west of I-805 have the greatest deficit of park facilities. Implementation of the Proposed Plan Update would allow for expansion of park facilities resulting in a total of 5.33 acres of park land per 1,000 population. This exceeds the Standard contained in the Threshold Policy and no adverse impacts are expected. Adoption of the proposed Plan would result in the loss of 8,547 acres of open space, land which is currently viewed as vacant and rural. Although this acreage is designated as interim open space and planned for eventual development, the loss of this substantial amount of open space is considered significant and unmitigable except by preservation.

Utilities and Services - Implementation of the General Plan Land Use Element would result in additional population and housing units which would generate school age children. The Plan Update incorporates site locations for future school facilities. All future development projects would be evaluated by the City and School Districts for compliance with pertinent policies and would be subject to school fees and assessments as established by the State and City, therefore no significant impacts are expected.

Project development would place additional demand on police protection providers which would require a substantial increase in personnel and construction of a second policy facility. Funding would be provided by taxes generated from future development. With adequate facilities and personnel provided, no significant impacts would occur. Construction of fire stations in conformance with the Fire Station Master Plan would result in fire protection and emergency medical service being available to all residents of the Planning Area within an acceptable time period.

Water supply to the Planning Area, via the two aqueducts operated by CWA, is not adequate during current peak demand periods. The increased demand for water would place greater demand on the already strained supply. This represents a significant impact. Mitigation is possible by increasing the water supply, which could be accomplished by construction of a new aqueduct or additional storage facilities. The OWD is currently negotiating with the Sweetwater Authority and the City of San Diego to increase storage capacity in their facilities. They are also planning to construct additional storage facilities to serve long-term needs. To minimize the demand for water, a serious effort at conservation should be implemented on a regional level. Also, conformance with the standards in the Threshold Policy would ensure that no development would be allowed without a guaranteed water supply from the local provider.

Buildout of the General Plan would result in a substantial increase in wastewater generated, particularly in the undeveloped Eastern Territories areas. Until the San Diego METRO system upgrade is complete, there is not enough capacity to treat the sewage to be generated. The City of Chula Vista should work closely with the City of San Diego in upgrading the METRO system with an emphasis on reclamation to minimize the quantity of flow requiring treatment. To ensure that sewage facilities are not overburdened, the wastewater standard of the Threshold Policy should be enforced. This requires the preparation of a 12 to 15 month development forecast to detail the amount of capacity used or committed, ability of facilities to absorb growth and an evaluation of funding. This will allow both METRO and the City to identify and plan for phasing of development with adequate sewage capacity. This would forge a link between phase development and the improvement of infrastructure. There would be no significant impacts to provision of utilities from future buildout of the General Plan area.

Transportation/Access - The proposed circulation network for the City of Chula Vista would be adequate to accommodate future land uses and traffic growth in most areas. Three roadway segments have been identified as having future ADT which would result in LOS below C which is regarded as a significant impact. Mitigation measures to minimize the projected, future congestion include decreasing trips or increasing capacity. Given the constraints of existing development, both measures are considered infeasible. Congestion on these roadway segments is considered a significant and unmitigable impact.

One new intersection, Paseo Ranchero at Otay Valley Road, has been identified as potentially congested and will require design, but not necessarily implementation of mitigation measures. Mitigation can be provided via grade-separation of the intersection to eliminate turn movement conflicts. The I-805/East H Street interchange has also been identified as congested and would require mitigation. ~~However, not enough information is available from the Chula Vista traffic model to develop specific mitigations.~~ Congestion could potentially be relieved via traffic reduction measures for the I-805 corridor. These could include a high occupancy vehicle and/or express bus service on I-805 and traffic demand management measures. ~~Both of t~~These measures would require region-wide cooperation and are beyond the jurisdiction of the City of Chula Vista. It is possible to reduce turn-movement conflicts by modification of the lane geometry and synchronization of traffic signals. With implementation of these measures, the adverse impacts and this intersection are considered mitigable. ~~For purposes of this analysis,~~ this is ~~considered a significant, unmitigable impact.~~

Hazardous Waste/Risk of Upset - Within the City of Chula Vista there are 27 known and listed hazardous waste sites as well as one hazardous waste treatment site. Future development, consistent with proposed General Plan Land Use Element may result in significant impacts if such development allows greater contact between humans and hazardous waste. This potential impact can be reduced to a level below insignificance with implementation of mitigation measures to avoid contact between sensitive land uses and known hazardous waste sites.

2.0 PROJECT DESCRIPTION

2.1 PROJECT LOCATION AND SETTING

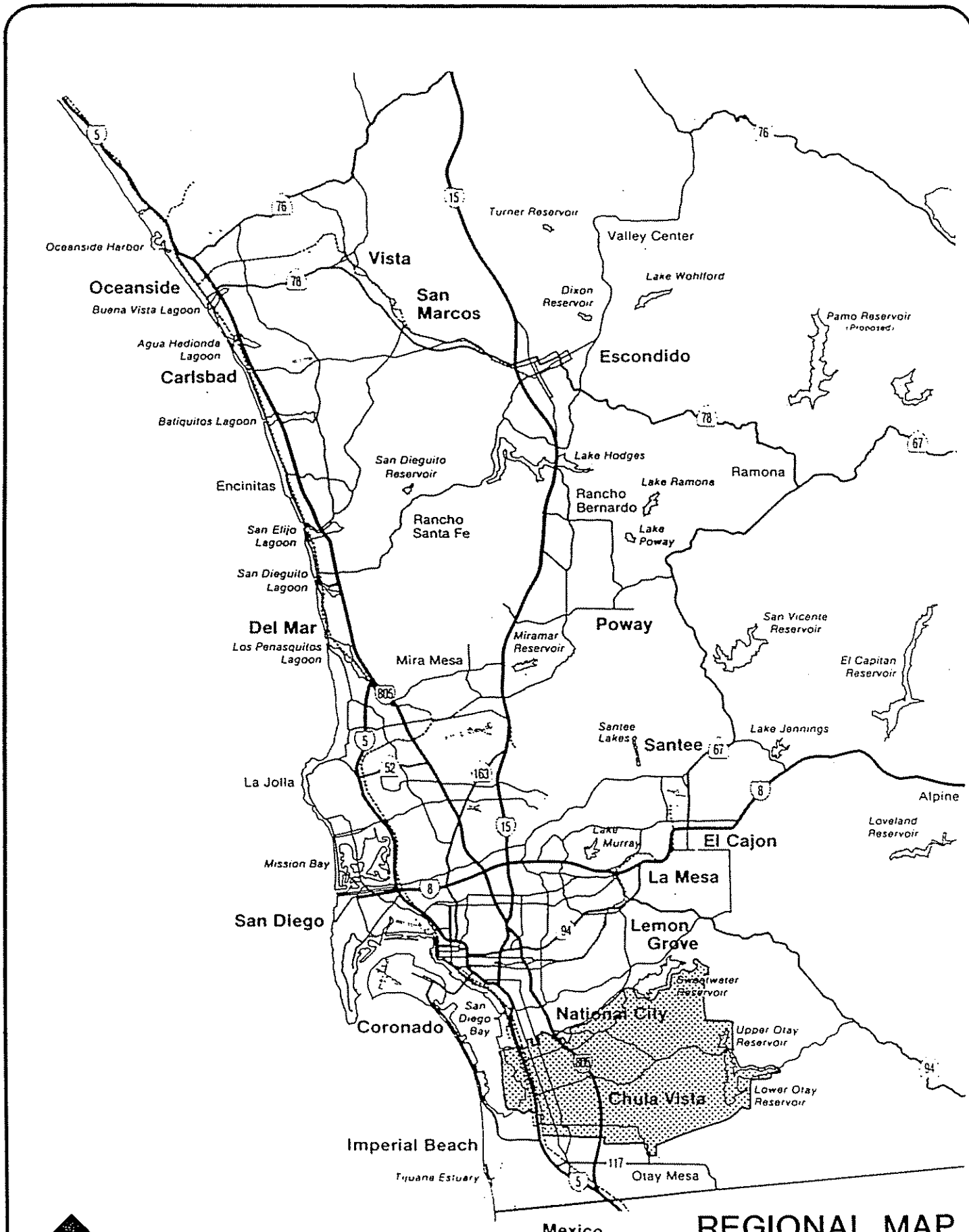
The Chula Vista General Plan area (project area) includes the City of Chula Vista and its Planning Area, which is the City's Sphere of Influence. Also, the update substantially revises the Land Use, Circulation, and Public Facilities Elements and modifies the other existing Elements for consistency. Figures 2-1 and 2-2 show the regional project location and the General Plan area, respectively. The project area is located in the southwestern portion of San Diego County, approximately 10 miles from downtown San Diego, and 4 miles from the Mexican border.

The western portion of the project area has undergone extensive urbanization, whereas the eastern portion is mostly undeveloped. Development has been steadily moving toward the eastern areas in the past few years. The eastern portion of the General Plan area includes a portion of the County's jurisdiction, and, is surrounded by County lands in this area. To the north of the project area is the City of National City, to the south is the City and County of San Diego, and to the west is the San Diego Bay.

2.2 GENERAL PROJECT CHARACTERISTICS AND BACKGROUND

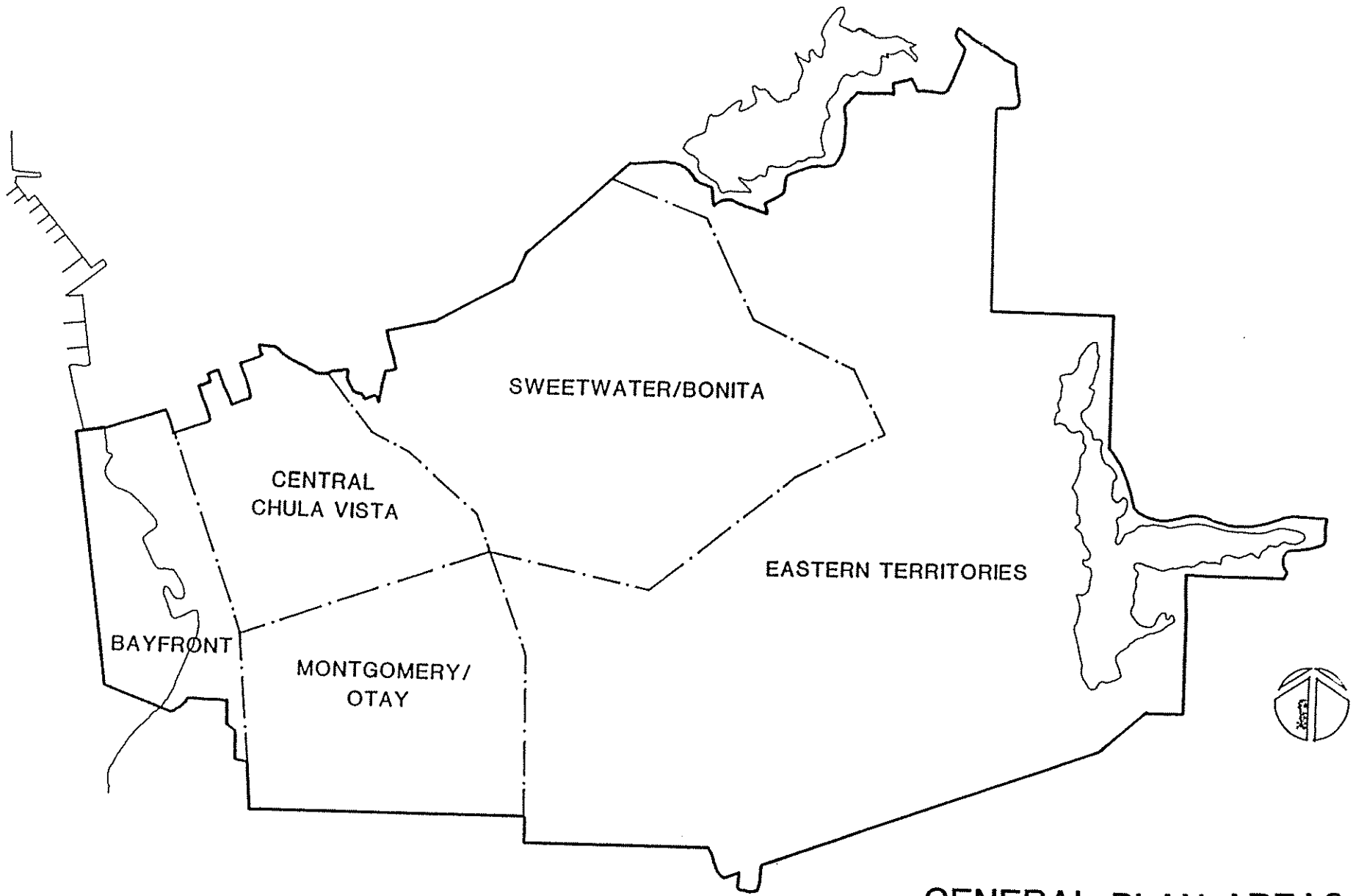
The City of Chula Vista has updated its General Plan in accordance with the Planning and Zoning Law of the State of California (Government Code Section 65000, et seq.). The Chula Vista General Plan was originally adopted in 1970, with additional elements and amendments adopted since that time. Significant, recent amendments are the Bayfront Specific Plan, adopted in 1985, the new Housing Element, adopted in 1987 and the Montgomery Specific Plan, adopted in 1987. Also, the Sweetwater Community Plan has been recently created, is under consideration by the Board of Supervisors for approval, and will become another amendment to the General Plan.

Thus, the updated General Plan is consistent with these plans for the Bayfront Area, the Sweetwater Community, the Montgomery area, and generally with



REGIONAL MAP

Figure 2-1



GENERAL PLAN AREAS

Figure 2-2

existing developments and land uses. The principal departure of the General Plan from existing uses occurs in the eastern portion of the City and its Sphere of Influence which is called the Eastern Territories. The Updated General Plan is "Scenario 4", the final scenario created for the General Plan update planning process. Scenario 4 evolved through a series of alternative proposals which are described below. Scenario 4 was presented to the City Council of Chula Vista in December 1987 and is described in a briefing paper entitled "The City of Chula Vista General Plan Update, Eastern Territories General Plan, Scenario 4", which is available for inspection at the City of Chula Vista Planning Department. On February 9, the City Council directed further study be conducted for Scenario 4, including an Environmental Impact Report (EIR) and economic studies. Economic studies have been prepared by P&D Technologies, Inc. and are summarized in the Community Tax Structure discussion of this EIR (Section 3.11).

The plan for Eastern Territories contained in Scenario 4 proposes predominantly low (0-3 dwelling units (du) per gross acre) to low-medium (3-6 du per gross acre) density residential designations. Pockets of residential at 6-11; and 11-18 du per gross acre are also proposed. A major regional commercial and employment center, including higher education uses, is proposed for the area near the intersection of the proposed State Route 125 and extension of Orange Avenue. Industrial uses are proposed north and south of the Otay River and in the northern central Planning Area. Open space designations are proposed for Mother Miguel Mountain, Rock Mountain, areas surrounding the Otay Reservoirs, and in the major canyons and drainages.

The proposed major circulation system to serve Eastern Territories consists of proposed State Route 125, easterly extensions of Orange Avenue and Otay Valley Road, extension of Otay Lakes Road south of Telegraph Canyon Road, and new north-south routes. The Circulation Element and proposed Land Use Element are reproduced in Figure 2-3 and contained in a map pocket with the General Plan Update text.

Prior to development of Scenario 4, the Chula Vista City Council reviewed three alternative scenarios for Eastern Territories which envisioned alternative community characters: Scenario 1 would maintain the area's semi-rural character and substantially restrict growth which might occur in the area; Scenario 2 would lead

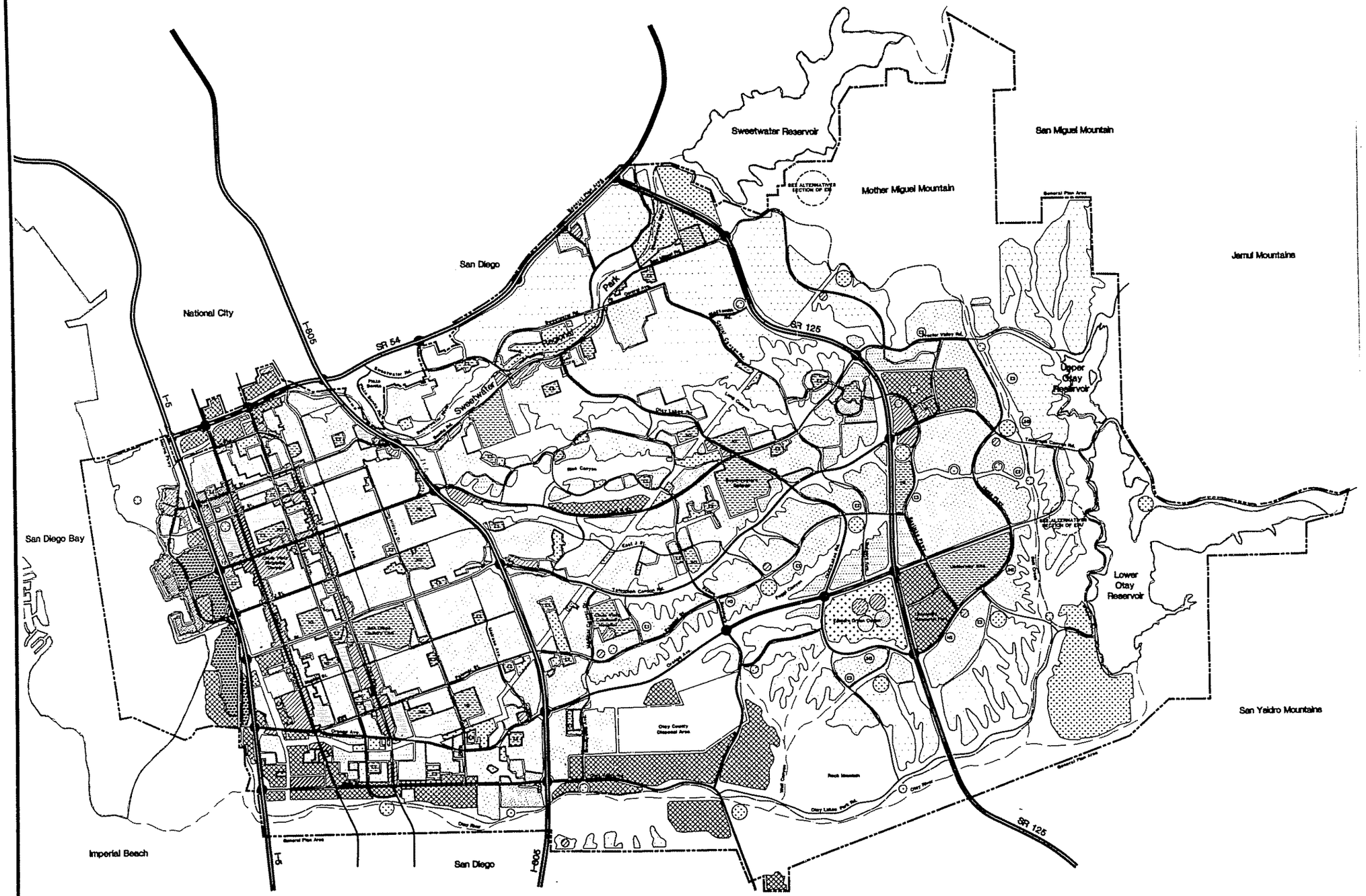


Figure 2-3

GENERAL PLAN/LAND USE

to an urban residential community, with introduction of commercial and employment uses consistent with current market trends; Scenario 3 would actively encourage location and development of regional activities, including higher education, in Eastern Territories and additional residential uses. A comparison of each Scenario is shown on Table 2-1. Scenario 4 combined various desireable aspects of all three, including an open space system, mainly low to low-medium density residential, regional commercial and employment center, and a higher education center.

In 1987, the City Council of Chula Vista established a Threshold Policy and Growth Management Oversight Committee (GMOC). The goal of the Threshold Policy is to create a program that will allow growth and development and simultaneously assure maintenance of a high quality environment and adequate public services. The program involves implementation of standards, or thresholds, as determined by the GMOC. Standards have been determined for eleven issues; fire/emergency medical service, police, traffic, parks/recreation, drainage, libraries, air quality, economics, schools, sewer and water. The GMOC is responsible for periodic review of the Threshold standards and compliance with the standards. The GMOC must prepare a yearly status report to the City Council. If any standards are being exceeded, the GMOC must prepare correction recommendations. Funding and enforcement of suggested recommendations are the responsibility of the City Council.

In addition, project-by-project review is required for seven of the eleven issues; fire, police, sewer, water, parks/recreation, traffic and drainage. This review is scheduled to occur during the environmental review phase. For each issue, the relationship between anticipated project impacts and Threshold standards must be evaluated. In compliance with the Threshold Policy program, pertinent issue analyses will incorporate an evaluation of the proposed project for conformance with the applicable Threshold Policy standards. A summary of the findings on each applicable standard is contained in Section 4.0 Compliance with Threshold Policies.

Previous Environmental Documentation - The certified environmental documents prepared for various specific planning areas within the General Plan area are being incorporated by reference into this EIR. These documents include:

Table 2-1

CHULA VISTA GENERAL PLAN UPDATE
EASTERN TERRITORIES SPECIFIC PLAN
SUMMARY COMPARISON OF ALTERNATIVE DEVELOPMENT SCENARIOS

	SCENARIO 4 - Preferred Alternative	SCENARIO 1	SCENARIO 2	SCENARIO 3
Overall Character	Low density Mixed land use residential community	Residential community	Mixed land use residential community	Balanced residential and employment community
Goals and Objectives	o Provide for new development consistent with regional growth forecasts. o Limit new residential development to low density residential consistent with approximately 7,000 sq. ft. lot standard for Chula Vista. o Encourage location and development of regional facilities including higher education, commercial and employment uses.	o Maintain the area's semirural and residential character as much as possible. o Limit new developments to mostly low density residential, accompanied by neighborhood services, and to areas adjacent to existing public services. o Restrict growth to a rate less than forecast for the region.	o Provide for market-induced, new developments consistent with regional growth forecasts. o Encourage development of employment uses as well as residential and neighborhood services. o Guide future conversion of rural to urban land according to a logical phasing of infrastructure construction and serviced areas.	o Encourage location and development of regional activities, including higher educational, commercial, and industrial uses as well as residential and neighborhood services. o Encourage and assist in early construction of backbone infrastructure systems, which enable development of diverse subareas of Eastern Territories. o Rate of growth may exceed the forecasted regional average.

Table 2-1

	SCENARIO 4 - Preferred Alternative	SCENARIO 1	SCENARIO 2	SCENARIO 3
Projected Population				
o For planning horizon 2005				
Eastern territories	45,350	28,000	46,700	63,200
Chula Vista General Plan Area	197,050	175,100	198,400	220,300
o At buildout				
Eastern territories	57,600	39,500	69,800	74,400
Chula Vista General Plan Area	209,400	186,600	221,500	231,500
Land Use	Low to low-medium residential density dominant development patterns. Employment uses divided between Eastlake area and Otay Valley, Major regional commercial, employment and higher education center south of Orange Avenue in the vicinity of Route 125, but expected to be largely developed after the horizon year of 2005. Extensive greenbelt system and expansion of County Park at Lower Otay Reservoir.	Primarily a low-density, residential community. Commercial uses limited to neighborhood and some community commercial. Industrial and R&D uses limited to Otay Valley and secondarily to EastLake. Village Center at EastLake is expected to be the largest community focus. Dispersed and limited system of neighborhood and community parks.	Low to medium density residential. Employment uses balanced between Otay Valley and EastLake. Moderate density community/ commercial/employment center in the vicinity of Route 125/Orange Ave. intersection. Community parks supplemented by a limited greenbelt system.	Major regional commercial and employment center in the vicinity of Route 125/Orange Avenue intersection. Possible location of a large-scale institutional use, such as a university, in this area. Low to medium density residential with allowance for high density residential near the regional center. Extensive greenbelt system and expansion of County Park at Lower Otay Reservoir, funded by increased development activities.
Transportation	Route 125 is built as a four-lane road from Route 54 to Orange Avenue and extended to the international border near the end of the plan horizon. Orange Avenue and Route 125 together act as the new principal arterial through Eastern Territories, relieving impacts on East H Street and Telegraph Canyon Road.	Route 125 is built from Route 54 to Telegraph Canyon Road only; limit growth-inducing impact of Route 125. Extension of Palomar Road is the only additional east-west connector. Increased impacts on East H Street and Telegraph Canyon Road.	Route 125 is built as a four-lane road from Route 54 to the international border. Orange Avenue, as well as Palomar Road, is extended to Route 125. Orange Avenue and Route 125 together act as the new, principal arterial through Eastern Territories, relieving impacts on East H Street and Telegraph Canyon Road.	Route 125, Orange Avenue, and Palomar Road are built as in Scenario 2, perhaps with added capacities. In addition, Otay Valley Road is extended to Route 125 and east of Route 125 as a park access road, resulting in three new east-west connectors in Eastern Territories.

- Final Environmental Impact Report for the Bayfront Specific Plan, EIR 85-1, 1985 (SCH No. 84103108)

- Final Environmental Impact Report Bonita Long Canyon, EIR 79-2, February 1979

- Final Supplemental Environmental Impact Report for Amendments to the Chula Vista Bayfront Specific Plan, EIR 86-1, 1986 (SCH No. 86021919)

- El Rancho del Rey Specific Plan Amendment Final Environmental Impact Report, EIR 83-2, 1985 (SCH No. 83060803)

- El Rancho del Rey Specific Plan Amendment Final Supplemental Environmental Impact Report, EIR 83-2 (B), March 1985 (SCH No. 83060803)

- Rancho del Rey Sectional Planning Area (SPA) I. Final Environmental Impact Report, EIR 87-1, (SCH NO. 87070102)

- EastLake Final Environmental Impact Report, EIR 81-03, 1982 (SCH No. 80121007).

Also, previous environmental documentation prepared for the City for various development projects will, upon verification, be used as secondary source information. These documents are listed in Section 11.0, References. All documents are available for inspection at the City of Chula Vista Planning Department.

3.0 ENVIRONMENTAL ANALYSIS

3.1 GEOLOGY, SOILS AND MINERAL RESOURCES

Existing Conditions

Geology

The existing geologic setting of the Planning Area is shown on Exhibit 1 contained in a map pocket. Very distinct separation of geologic formations occur from the western to the eastern portion of the area. Beginning in the west, along the bayfront, and along the river valleys, alluvium and slope wash predominate; next is a region underlain by the Bay Point Formation with unnamed marine sandstone; the next area is largely underlain by the San Diego Formation with intrusions of the Lindavista Formation; and the most easterly portion of the area is underlain by both the Otay Formation in the central and south areas, and the Mission Valley Formation in the north. As shown by the figure, other intrusions and formations also occur in more limited areas within the Planning Area. A listing of map units is included in Appendix B and a description of formations is provided in the paleontology report, Appendix D.

Soils

Numerous soil types exist in the Planning Area, though, except for the Eastern Territories, and the river valleys, most of the soils have been covered over by development. ~~The soils in the General Plan Area are illustrated in Exhibit 2 which is provided in a map pocket in this document. The list of map symbols is provided in Appendix B.~~ The predominant soil series in the Eastern Territories is the Diablo series which consists of well-drained, moderately deep to deep clays which are derived from soft sandstone and shale. These soils exist on upland areas, such as the Eastern Territories, and have slopes of 2 to 50 percent. Diablo soils are used mainly for range, agriculture and housing development (USDA, 1973). The potential for shrink-swell behavior in Diablo soils is high, requiring various remedial tactics during grading. Except for steep slope areas, the erosional potential is low.

Another soil located in major portions of the Eastern Territories is the Olivenhain cobbly loam and Olivenhain-Urban land complex. These soils have moderate shrink-swell behavior, however, the erodibility is considered severe (USDA, 1973). Again, these soils, depending on site specific conditions such as slopes, could require remedial grading action for development. Other soils encountered in the Eastern Territories are described in Table 3-10 in Section 3.7.

Hazards

Seismicity - As shown on Exhibit 1, the north-south trending La Nacion fault traverses the Eastern Territories. It is considered a potentially active fault but is not within an Alquist-Priolo special studies zone. Earthquake faults within 40 miles of the Planning Area include the Rose Canyon Fault, which travels under San Diego Bay; the Coronado Bank and San Diego Trough zones under the Pacific Ocean; and the Elsinore and San Miguel Faults zone to the east. No earthquake measuring greater than 4.0 on the Richter Scale has been experienced on these faults in the recent past. The greatest magnitude quake expected on the La Nacion Fault is estimated at 6.0 (Kern, 1988). Table 3-1 shows magnitude and intensity estimates for faults which could affect the Planning Area. In the event of a major earthquake (magnitude 6.0 or greater) from a fault in the Southern California area, the Planning Area could be subject to severe groundshaking. Table 3-2 shows the effects of different levels of groundshaking.

Landslides - Because of the quantity of clay-type soils on-site, a number of ancient and/or recent landslides are present in the Planning Area. These are shown in Exhibit 1.

Other - Areas of liquefaction may occur in the Planning Area, and some portions of the Planning Area are also susceptible to water seepage.

Mineral Resources

The State Department of Conservation, under the direction of the State Mining and Geology Board, has designated certain areas in San Diego as "regionally significant construction aggregate resource areas". In order to meet the high demand in San

Table 3-1

SUMMARY OF MAGNITUDE AND INTENSITY ESTIMATES

	Maximum Magnitude		Maximum Intensity*
Fault	Estimated	Historical	San Diego
La Nacion	6.2 - 6.6	no record	no record
Rose Canyon	6.2 - 7.0	6.0 - 6.5	VIII - IX
Coronado Bank	6.0 - 7.7	no record	VI - VIII
San Diego Trough	6.1 - 7.7	no record	VI - VII
Elsinore	6.9 - 7.6	6.0	VII - VIII
San Miguel	6.0	6.0 - 6.8	no estimate
San Jacinto	6.9 - 7.3	5.8 - 7.0	V - VII
San Andreas	7.3 - 7.9	5.0 - 6.5	VI - VII

* Based on Mercalli Intensity Scale; see Table 3-2.

Source: Kern, 1988

Table 3-2

THE MERCALLI INTENSITY SCALE

(As modified by Charles F. Richter in 1956 and rearranged)

INTENSITY	EFFECTS OBSERVED
I.	Earthquake shaking not felt. But people may observe marginal effects of large distance earthquakes without identifying these effects as earthquake-caused. Among them: trees, structures, liquids, bodies of water sway slowly, or doors swing slowly.
II.	Effect on people: Shaking felt by those at rest, especially if they are indoors, and by those on upper floors.
III.	Effect on people: Felt by most people indoors. Some can estimate duration of shaking. But many may not recognize shaking of building as caused by an earthquake: the shaking is like that caused by the passing of light trucks.
IV.	Other effects: Hanging objects swing. Structural effects: Windows or doors rattle. Wooden walls and frames creak.
V.	Effect on people: Felt by everyone indoors. Many estimate duration of shaking, but they still may not recognize it as caused by an earthquake. The shaking is like that caused by the passing of heavy trucks, though seometimes, instead, people may feel the sensation of a jolt, as if a heavy ball had struck the walls. Other effects: Hanging objects swing, standing autos rock, crockery clashes, dishes rattle or glasses clink. Structural effects: Doors close, open or swing. Windows rattle.
VI.	Effect on people: Felt by everyone indoors and by most people outdoors. Many now estimate not only the duration of shaking but also its direction and have no doubt as to its cause. Sleepers wakened. Other effects: Hanging objects swing. Shutters or pictures move. Pendulum clocks stop, start or change rate. Sanding autos rock. Crockery clashes, dishes rattle or glasses clink. Liquids disturbed, some spilled. Small unstable objects displaced or upset. Structural effects: Weak plaster and Masonry D* crack. Windows break, doors close, open or swing.

Table 3-2 (Continued)

VII. Effect on people: Felt by everyone. Many are frightened and run outdoors. People walk unsteadily.

Other effects: Small church or school bells ring. Pictures thrown off walls. Knicknacks and books off shelves. Dishes or glasses broken. Furniture moved or overturned. Trees, bushes shaken visibly, or heard to rustle.

Structural effects: Masonry D* damaged; some cracks in Masonry C*. Weak chimneys break at roof line. Plaster, loose bricks, stones, tiles, cornices, unbraced parapets and architectural ornaments fall. Concrete irrigation ditches damaged.

VIII. Effect on people: Difficult to stand. Shaking noticed by auto drivers.

Other effects: Waves on ponds; water turbid with mud. Small slides and caving in along sand or gravel banks. Large bells ring. Furniture broken. Hanging objects quiver.

Structural effects: Masonry D* heavily damaged: Masonry C* damaged, partially collapses in some cases; some damage to Masonry B*; none to Masonry A*. Stucco and some masonry walls fall. Chimneys, factory stacks, monments, towers, elevated tanks twist or fall. Frame houses moved on foundations if not bolted down; loose panel walls thrown out. Decayed piling broken off.

IX. Effect on people: General fright. People thrown to ground.

Other effects: Changes in flow or temperature of springs and wells. Cracks in wet ground and, on steep slopes. Steering of autos affected. Branches broken from trees.

Structural effects: Masonry D* destroyed: Masonry C* heavily damaged, sometimes with complete collapse; Masonry B* is seriously damaged. General damage to foundations. Frame structures, if not bolted, shifted off foundations. Frames racked. Reservoirs seriously damaged. Underground pipes broken.

X. Effect on people: General panic.

Other effects: Conspicuous cracks in ground. In areas of soft ground, sand is ejected through holes and piles up into a small crater, and, in muddy areas, water fountains are formed.

Structural effects: Most masonry and frame structures destroyed along with their foundations. Some well-built wooden structures and bridges destroyed. Serious damage to dams, dikes and embankments. Railroads bent slightly.

Table 3-2 (Continued)

XI. Effect on people: General panic.

Other effects: Large landslides. Water thrown on banks of canals, rivers, lakes, etc. Sand and mud shifted horizontally on beaches and flat land.

Structural effects: General destruction of buildings. Underground pipelines completely out of servicve. Railroads bent greatly.

XII. Effect on people: General panic.

Other effects: Same as for intensity X.

Structured effects: Damage nearly total, the ultimate catastrophe.

Other effects: Large rock masses displaced. Lines of sight and level distorted. Objects thrown into air.

* Masonry A: Good workmanship and mortar, reinforced, designed to resist lateral forces.

* Masonry B: Good workmanship and mortar, reinforced.

* Masonry C: Good workmanship and mortar, unreinforced.

* Masonry D: Poor workmanship and mortar and weak materials, like adobe.

Diego County for construction quality aggregate, these areas with known or likely significant deposits of this mineral resource have been identified and mapped by these departments. A substantial amount of this resource has been available in the County, yet, urban expansion has been a major cause of a decline in the availability of the resource. Sand and gravel resources constitute Chula Vista's most important mineral resource, both in terms of quantity and economic value.

The Surface Mining and Reclamation Act of 1975 (SMARA) requires that "a lead agency's land use decisions involving designated areas are in accordance with its mineral resource management policies". Also, "a lead agency, in determining land use in aggregate-designated areas, must balance mineral value against alternative land uses and consider the importance of the designated mineral resources to their market region as a whole, and not just their importance to the lead agency's area of jurisdiction". (Department of Conservation, 1985). The City of Chula Vista's Conversation Element includes the following policy regarding aggregate resources: "To protect and manage sand and gravel resources for the benefit of the general public".

The State Mining and Geology Board has adopted mineral resource goals and policies to guide local government in the use of SMARA's process. One goal relevant to this proposed project is:

> Mineral lands classified MRZ-2 or designated as areas of regional significance should be protected from preclusive and incompatible land uses so that the mineral resources within these lands and areas are available when needed.

Incompatible land uses are defined as:

> Land uses inherently incompatible with mining and/or that require a high public or private investment in structures, land improvements, and landscaping and that would prevent mining because of the higher economic value of the land and its improvements.

The MRZ-2 classification areas are defined as:

> "areas where adequate information indicates that significant mineral deposits are present or where it is judged that there is a high likelihood for their presence exists. This zone shall be applied to known mineral deposits or where well-developed lines of reasoning, based upon economic geologic principles and adequate data, demonstrates that the likelihood for occurrence of significant mineral deposits is high:"

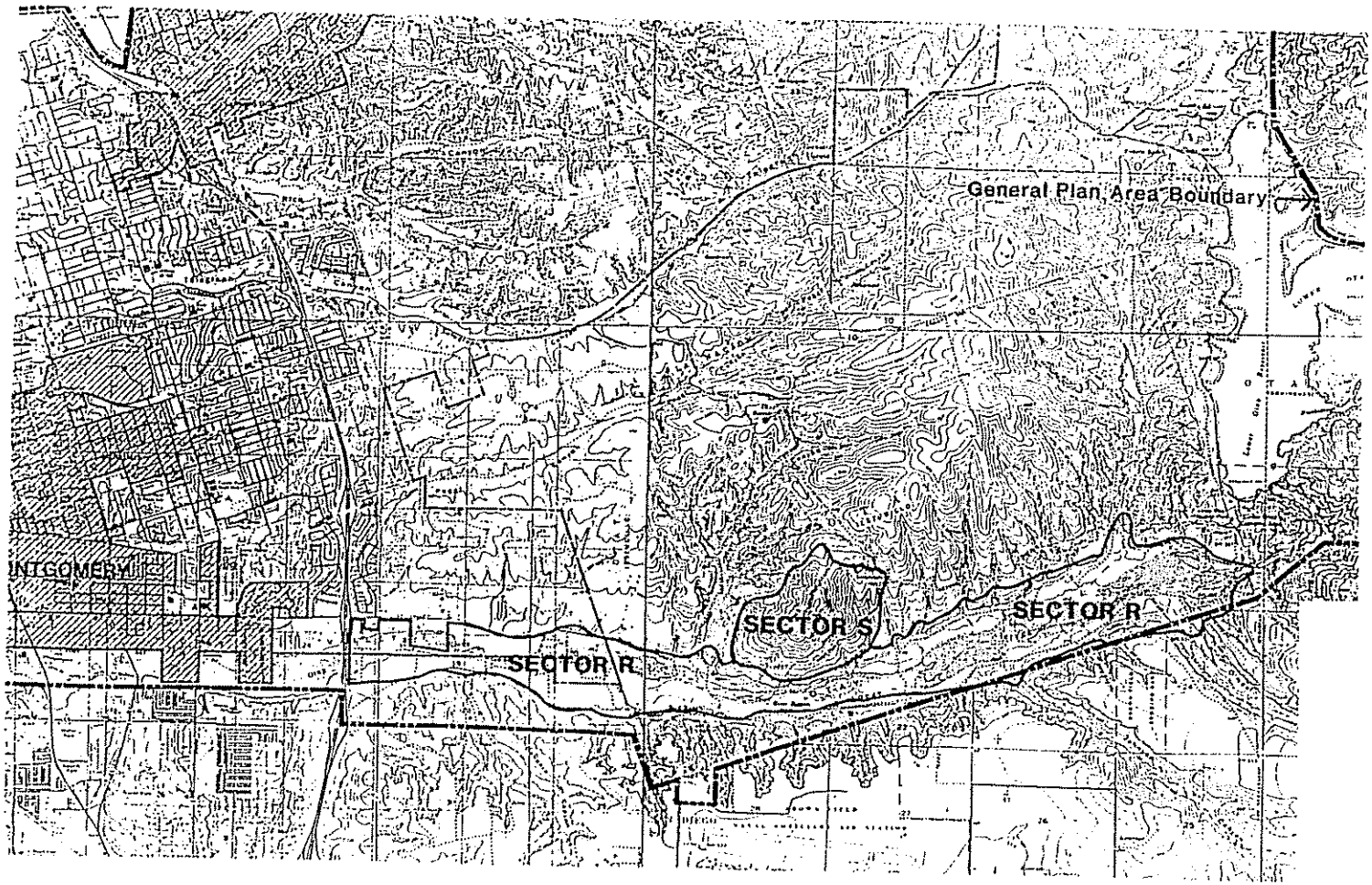
The Otay River Valley and adjacent mesa deposits, and the Sweetwater Valley deposits are two of 22 resource sectors in San Diego County that contain aggregate resources that remain available from a general land use perspective, and are the areas the State Mining and Geology Board consider as being of regional significance. The Otay Valley contains two sectors as defined by the State. Sector R is the largest contiguous sector in the area, encompasses approximately 2,780 acres and is estimated to contain approximately 10 million short tons of resources, including reserves. Sector S encompasses a 360-acre mass of metavolcanic rock. The total aggregate resource in this sector is 250 million tons. Both sectors and the MRZ-2 boundaries in the Otay River area are illustrated in Figure 3-1.

There is only one small sector in the Sweetwater River Valley resource area within the Planning Area, Sector N. This sector is about 150 acres and is estimated to contain 10 million tons of sand. The County of San Diego has condemned this property to build the Sweetwater Regional Park and the aggregate resources are not expected to be recovered.

In one site specific study (Otay Rio Business Park 1987), the resource at this location in Section R did not meet criteria for fine aggragate. It appears that site specific analysis is necessary to determine the quality of the resource.

Potential Impacts

Geology and Soils - No development is proposed as part of this project, thus no direct impacts would occur. Indirect impacts include the potential risk to future developments from existing geologic and soils conditions:



SCALE: 1-48,000

Figure 3-1

MINERAL RESOURCES

- Alluvium and Slopewash: These materials may be compressible and could settle appreciably under superimposed loads.

- San Diego Formation: Generally this formation possesses excellent shear strength, low compressibility and low expansive characteristics in either an undisturbed or a properly compacted condition. Cut and fill slopes at inclinations of 2:1 should be stable (with respect to deep-seated failure) to a height of approximately 30 feet. However, grain-size distribution and low cohesion render the formation susceptible to erosion.

- Lindavista Formation: This formation also possesses excellent compressibility characteristics, and cut and fill slopes at 2:1 are generally stable to heights in excess of 50 feet.

- Otay Formation: The sandier portions of the Otay Formation are typically of low to moderate expansive potential and possess suitable shear strength for foundation and slope stability.

- Diablo Series: Due to the potential for shrink-swell behavior, these soils, if not properly treated, could significantly impact future development. The same is true for the Olivenhain series; due to its high erodibility potential, which is may also pose significant hazards to future structures built on them.

Hazards - Hazards refers to impacts related to seismicity, landslide and other conditions such as liquefaction.

- Seismicity: Due to the presence of active and potentially active faults in and near the Planning Area, the groundshaking from an earthquake has the potential to significantly impact future developments in the Planning Area. As shown by Tables 3-1 and 3-2, the maximum intensity of groundshaking estimated for these faults could produce moderate to severe levels of groundshaking. This situation is not unique to the Planning Area; California, due to its situation over actively moving earthplates, is subject to a continuous amount of earth movement. Faults occur throughout the entire California area, as well as offshore. Thus, the potentially significant impacts

to future development in the Planning Area are shared by all Californians. This fact does not reduce its importance, and measures must be achieved to guarantee that the safest building standards are implemented with each future development proposal.

- o Landslides: Potentially significant impacts could occur to structure if developed over or immediately adjacent to landslide areas.

- o Other Conditions: Liquefaction could also pose significant hazards to structures if constructed over areas subject to this condition.

Mineral Resources - The Land Use Map of the updated General Plan proposed open space and/or parks along both the Sweetwater River and the Otay River, where the MRZ-2 classifications (including Sector R) are located. Sand and gravel extraction is planned for selected areas of the Otay River Valley prior to and during the implementation of the Chula Vista Greenbelt. Further extraction is not anticipated in the Sweetwater River Valley in the General Plan Area. It does appear, however, that some of the fringes of the classified areas along the Otay River Valley have other urban land use designations proposed. Since these are relatively minor compared to the amount proposed for open space and parks, where the resource is planned to be extracted, the impacts are not considered significant.

Mitigation

Generally, for each future development proposal, site specific/project specific detailed surface and subsurface geotechnical studies must be conducted to ascertain specific site conditions and potential hazards.

- o Redmedial grading techniques must occur for areas identified as not suitable in their existing state for development. The remedial trechniques are numerous, often including removal, recompaction, and/or refilling with suitable materials. All grading should be performed in accordance with the City of Chula Vista's Grading Ordinance.
- o Certain areas should be avoided for development. These include landslide areas, alluvium near streambeds (where groundwater levels could also be

high), MRZ-2 classified areas, and the La Nacion fault. Site specific investigations should occur to accurately define the fault location since in some places it is inferred. Setbacks should be at least 30 feet. Site specific, project-by-project evaluation to determine the quality of the aggregate resource should be undertaken. If the quality does not warrant extraction then development could occur without prior removal of the aggregate.

- All sand and gravel extraction operations shall include a restoration plan that relates to the goals of the Chula Vista Greenbelt and will assist in its implementation through creation of trails, parks and restored habitat.

Analysis of Significance

The La Nacion fault crosses through the Planning Area and some existing geologic formations and soils are unstable. As a result, potentially significant impacts to future development could occur. The impacts would be reduced to a level of less than significant by various mitigation measures. These include project specific detailed geotechnical analyses; avoidance of landslide areas, alluvium near stream-beds; and specific investigations to define fault locations and determine setbacks. Mineral resources would be extracted from Sector R prior to creation of the Greenbelt and no significant impacts are expected.

3.2 HYDROLOGY/WATER QUALITY

Existing Conditions

This section discusses the major hydrologic characteristics of the Planning Area, including drainage, surface waters, groundwater, and water quality.

The San Diego coastal province is approximately 3,900 square miles and includes all hydrographic basins which drain into the Pacific Ocean between the Mexican border and Laguna Beach. The elevations range from 200 to 6,000+ feet, and, due to the seasonal rainfall pattern, most streams in the region are of an ephemeral type.

Eleven major hydrographic units, which are the entire watershed of one or more streams, make up the coastal province. These units are further divided into subunits, which are major tributaries or groundwater basins within the unit. The Planning Area is located within the Sweetwater and the Otay hydrographic units, and largely within the Lower Sweetwater and the Otay subunits. The Sweetwater Hydrographic unit encompasses an area of approximately 230 square miles, and the Otay unit approximately 145 square miles.

Drainage/Surface Waters - Because of the topography of the region, characterized by mountains to the east and coastal plain to the west, the major drainages in the Planning Area trend westerly, all which eventually flow into the San Diego Bay.

Just out of the Planning Area to the north is the Sweetwater Reservoir, which is mainly used as a municipal water storage facility. It is fed by surface water mainly from the Sweetwater River and several minor streams to the north and east, such as Wild Man's Canyon and Coon Canyon drainages. The reservoir has a dam and filtration plant on the western edge and a spillway elevation of 241 feet. From the reservoir, the Sweetwater River flows through the Planning Area along the Sweetwater Valley in the Bonita/Sunnyside area to a marsh in the Chula Vista bayfront.

The Sweetwater River Valley is the location of the Sweetwater Regional Park which utilizes the river resources for both passive and active recreation. Two significant drainage courses empty into Sweetwater River. Long Canyon begins its flow in the Eastlake area and converges with the Sweetwater River in the vicinity of Rohr Park. The Rice Canyon flow, with several minor tributaries, orignates in the El Rancho del Rey property, runs westward, parallels I-805, and finally joins with the Sweetwater River north of Bonita Road.

The Otay Reservoir, though presently not within the City of Chula Vista boundaries, is located within the General Plan area. Its use is also for municipal storage, obtaining its water from both imported water and surface runoff. The reservoir is actually two bodies of water, one spilling into the other. To the north of Otay Lakes Road is the Upper Otay Reservoir with a spillway elevation of 551 feet. The lake is fed from the Proctor Valley creek and a number of streams from the north which originate in the San Miguel and Jamul Mountains. Lower Otay

Reservoir, south of Otay Lakes Road, is much larger and considerably lower with a spillway elevation of 491 feet. Jamul Creek, one of the few area streams which flow year-round, empties into the reservoir in the east. Savage Dam and Lower Otay Filtration Plant are sited at the southernmost part of the reservoir.

Otay River meanders along the Otay Valley from the Lower Otay Reservoir westerly to the San Diego Bay. A number of tributaries from both north and south empty into the river valley. These include flows from O'Neal Canyon (the San Ysidro Mountains), John Canyon, and Wolf Canyon. Salt Creek, a significant southerly trending water course, joins with the Otay River just west of Lower Otay Reservoir. The Poggi Canyon creek flows southwesterly to meet Otay River west of I-805.

One other drainage course is of significance in the Chula Vista area. The Telegraph Canyon flow originates in the vicinity of Eastlake just west of Salt Creek. It then runs along Telegraph Canyon Road (in a concrete culvert near I-805), meanders through residential areas of Chula Vista, and finally empties into the San Diego Bay north of the San Diego Gas & Electric Plant.

The City of Chula Vista operates and maintains its own drainage and flood control facilities. This system is made up of improved and unimproved flood control channels, storm drains, bridge crossings, detention basins and various other facilities. In general, the facilities are in good condition, however, as could be expected, the facilities have hydraulic limitations.

In general, the City of Chula Vista is relatively free of serious drainage or flooding problems. This is largely because the major basins are controlled by dams which provide some degree of flood control protection, as well as municipal water storage supply. Also, the floodplains have remained largely free of development. The greatest existing flooding problems usually occur in localized areas in the western, or downstream, portion of the city, where roadway culverts are undersized to convey the larger runoff flows which have resulted from recent urban development. Areas of constriction include the downstream ends of Palm Canyon and, due to anticipated development, Poggi Canyon and Upper Bonita Long Canyon. Channel improve-ments to the downstream ends of Telegraph Canyon are currently underway which will eliminate problems in this area.

The City's Threshold/Standards Policy addresses drainage in the City. The goal regarding drainage is to provide a safe and efficient storm water drainage system to protect residents and property in the City; and the objective is that individual projects will provide necessary improvements consistent with Drainage Master Plans and City Engineering Standards in order that storm water flows and volumes won't exceed the Standards. The City's Growth Management Oversight Committee reviews the performance of the City's storm drain system to determine whether the goal and objectives are being met.

Groundwater - Groundwater occurs in the Planning Area though its use is extremely limited. Depth of groundwater varies throughout the Planning Area depending on topographic and subsurface conditions. Generally, shallow depths occur along stream valleys and in the bayfront. Historically, groundwater was used for agriculture and drinking water purposes in the Planning Area, however, due to poor water quality, and the accessibility of imported water, groundwater is no longer used in this area.

Water Quality - The Regional Water Quality Control Board (RWQCB) is responsible for regulating local point sources of water pollutants. The County Department of Health Services established enforceable maximum contaminant levels for various compounds in drinking water. The RWQCB and the California Department of Water Resources (DWR) take surface and groundwater quality measurements at various regional locations. Information on water quality in the area is sparse, as there is no formal monitoring program by these agencies.

In the RWQCB's Comprehensive Water Quality Report Plan (July, 1975), surface water quality along the Sweetwater River varies along its length. Total dissolved solids (TDS) range from 185 mg/l to 2,135 mg/l. Groundwater quality is poor, with TDS content varying from 2,000 to 5,000 mg/l, and with high concentration of sodium and chloride ions.

Surface water quality of the Otay River and the reservoir has ranged from approximately 230 to 830 mg/l TDS. Groundwater quality is poor, with TDS rangng from 500 to almost 4,000 mg/l, and typically has high chloride concentrations.

Impacts

Drainage/Surface Waters - The Land Use Element of the General Plan proposes over 11,000 acres of open space in the Eastern Territories, which is approximately 48 percent of the total land uses proposed. Additionally, 1,533 acres would be in water use (reservoir), and 866 acres in parks and recreation. Thus fifty-eight percent of Eastern Territories is not proposed to be developed with urban uses.

In the other portions of the Planning Area, approximately 35 percent in the Central and Bayfront area, 18 percent in the Montgomery area, and 24 percent in the Sweetwater area are devoted to open space, water area and parks and recreation. The Central, Bayfront and Montgomery areas are already largely developed, with existing drainage facilities in place.

As shown on the Land Use map, Figure 2-3, the proposed open space areas are interwoven throughout the entire Eastern Territories area, and generally, follow the major drainages throughout the other areas. The Eastern Territories also include the Upper and Lower Otay Reservoirs and surrounding open space, and Mother Miguel Mountain, both which comprise significant amounts of open areas. The importance of open space, water areas, and parks is that permeable surfaces remain for rainwater to penetrate. The major hydrologic concern with development is the amount of impermeable surfaces created which increase surface runoff, concurrently reduce groundwater recharge, and, in a Planning Area as large as this, this concern relates to potential inadequacy of drainage facilities and flooding.

The Eastern Territories were the major emphasis in the General Plan update, as the other areas are already developed and/or already planned. Thus, the change to the General Plan, or the area of impact would be largely in this area. However, water moves toward the west, and through the other areas, thus the cumulative impact must also be considered. Also, the Land Use Element impacts must be considered in conjunction with the Public Facilities Element which addressed drainage facilities.

As shown on the proposed Land Use map (Exhibit 1), open spaces are largely associated with existing major surface hydrologic features, including the Sweetwater Reservoir, the Otay Reservoir, Sweetwater River, Otay River and Salt Creek. The major reason for open space in these areas is to preserve the integrity of the reservoirs and major drainages, especially regarding their water quality.

The Eastern Territories Area Plan designates all three reservoirs as part of the Chula Vista Greenbelt, a contiguous system of city open space. The Greenbelt includes the water surface of the reservoirs and the adjacent defining slope. The Greenbelt also follows the courses of the Otay River, Sweetwater River, and Salt Creek, and, as much as possible, includes the slopes on either side of the streams. The creation of the Greenbelt is consistent with a goal of the Open Space/Conservation Element which states that the City "needs to encourage the establishment or maintenance of adequate open space adjacent to these waterways. This would erve to reduce flood damage hazards...." By leaving open space around these surface water features, overland surface water flow has a greater change to be absorbed into the ground before the water bodies are reached. This reduces the potential for flooding, and reduces the potential amount of water-borne pollutants to reach the surface water bodies.

However, due to the approximate 42 percent of the Eastern Territories which could be developed under this Land Use plan, the potential for a significant increase in surface water runoff from impermeable surfaces still remains. Goal 3 of the Public Facilities Element states that "It is the goal of the City to properly regulate design of future facilities such that the effectiveness of the existing drainage facilities are not degraded." It is infeasible to quantify the amount of surface water increase from future Planning Area buildout because of the numerous and interrelated contributing factors, including:

1) existing soil properties - clay soils are fairly impermeable, creating naturally high amounts of surface water runoff. Much of the Eastern Territories has clay topsoils, though, portions of the Diablo series (clay) are permeable.

2) project design - amount of future proposed impermeable surfaces versus open areas

3) topography - future proposed site-specific topographic changes.

Surface water increase could impact the Planning Area drainages by increasing the quantity of water flowing through and potentially contributing to flooding conditions during storms. The area of most concern is the western Planning Area near the terminus of the major drainages. If adequate drainage structures/facilities and/or flooding area is not present, significant drainage/flooding impacts could occur.

The Public Facilities Element, citing a City-sponsored comprehensive drainage study performed in 1987, discusses design criteria for design flood (100-year), sediment control and grading, detention basins, and hydraulics. The Element states recommendations for each of the drainages identified earlier, with significant changes to the facilities for Telegraph and Poggi Canyon drainages which are expected to experience the highest level of new development based on the Land Use Element. Drainage policies include:

- o use of the Drainage and Flood Control Master Plan;
- o encourage the maximum use of natural drainageways in new development
- o developer responsibility to bear the cost of necessary new improvements for new developments
- o City checks to verify that adequate facilities are in place prior to approval of a development application
- o City-mandated development of on-site detention basins so that downstream facilities are not overloaded
- o City-required on-site sediment control.

Groundwater

Some reduction in the amount of groundwater recharge is expected, however, this amount is not expected to be significant for the following reasons:

1) much of the Eastern Territories, where the majority of existing open space is located, contains soils of the Diablo series which have a high clay content. These soils are often fairly impermeable, creating higher amounts of surface

water runoff than areas with more porous soils. Thus, groundwater recharge is already not extremely high in areas consisting of these soils.

2) Over 12,000 acres, or 52 percent, of the Eastern Territories will remain in open space, or will be developed as park and recreation areas. Thus, over half of this portion of the Planning Area has the potential for groundwater recharge, if the soils permit.

3) Groundwater is generally not used in the Planning Area for domestic or agricultural water supply due to its high mineral and TDS content. Thus, depletion of the basin is not a significant concern in this area.

Thus, no significant impacts to groundwater supply/recharge are expected with ultimate buildout of the proposed Land Use Element. No changes to the other Elements would impact groundwater.

Water Quality

The Land Use Element proposes mostly residential land uses, and some commercial, industrial and institutional uses. No agricultural uses are proposed. Thus, the major change to both surface and groundwater quality will be from the types of pollutants expected from urban developments. Presently, water quality in the Planning Area is affected by the rock and soils of the area, the urban contributions from automobiles, industries, sand and gravel operations, and agricultural operations. With future buildout of the Land Use Element, agriculture would be replaced by urban uses. Thus, the types of pollutants from these existing land uses, which include large amounts of phosphates, nitrates, pesticides, and sediments would be replaced by oils, greases, heavy metals and some pesticides from landscaping.

Proximity of development to the Sweetwater Reservoir and the Otay Lakes Reservoirs raises concern regarding water quality impacts. The Land Use Element, via the Greenbelt, has maintained a buffer ranging from a few hundred feet to thousands of feet around these reservoirs in order to protect water quality.

Though not expected, if any of the future industrial developments would use water, and then discharge wasted water into percolation or sedimentation ponds, then the RWQCB would require a Waste Discharge Requirements Permit from that industry. If any of the industrial developments discharge wasted water into the sewage system, then the development would fall under the City of San Diego's Industrial Pre-treatment Program.

No significant impacts to water quality are expected from future land uses designated by the General Plan.

Mitigation

Potentially significant impacts to the capability of existing drainage facilities to handle increased levels of surface water runoff from future development is mitigated by compliance with the Public Facilities Element of the General Plan, and with the City's Drainage and Flood Control Master Plan. Both of these plans contain specific planning and design criteria for new developments, as well as for maintenance of existing facilities.

When future projects are proposed in the Planning Area, the specific effects to drainage can be determined by evaluation of the proposed project infrastructure improvements and their relationship to existing facilities. Thus, site specific/project specific impacts should be evaluated when future projects are proposed in the Planning Area, and this evaluation should also include a cumulative impact analysis.

As no impacts were anticipated to groundwater or water quality, no mitigation is necessary.

Analysis of Significance

Future development in the Planning Area would result in overcovering of the soils and increased surface water runoff. Potentially adverse impacts would result if drainage facilities are not sized to accommodate future flow. Compliance with the Public Facilities Elements and Drainage Master Plans of the City would reduce

this possibility and no significant impacts would result. No significant impacts to water quality are expected from future land uses designated by the General Plan.

3.3 BIOLOGY

An evaluation of biological resources known from the Chula Vista Genera Plan area was made by Pacific Southwest Biological Services. The work effort included review of previous literature and a verification site visit to compile a list of known sensitive plants and animals. A detailed location map has been provided to the City of Chula Vista. The potential impacts to identified species were described and recommendations to minimize impacts were made. Both the compilation of sensitive species and impact report are contained in Appendix C.

Existing Conditions

The potential resources of the Chula Vista region are influenced by the proximity of the northwestern Baja California floral region as well as the coastal location of the region and its sedimentary soils. The General Plan area contains a variety of biological resources, with mixed sensitivity. These resources are mapped and provided as Exhibit 2 in a map pocket. In the older, urban area, most sensitive vegetation has been displaced. The exceptions are along the bayfront where large contiguous areas of freshwater marsh are present and in the Montgomery area where riparian woodland exists along the banks of the Otay River. The only mapped vegetation type within the Central area is eucalyptus; several groves occur in parks and the golf course.

The majority of the known native vegetation is located in the Sweetwater and Eastern Territories areas and the predominant type is sage scrub. Sage scrub vegetation has been substantially reduced in San Diego County and currently covers approximately 25% to 30% of its original extent. This species covers Mother Miguel, the undeveloped areas of Rice Canyon, and the undisturbed canyons of the Baldwin holdings. A substantial portion of the Baldwin property has been farmed and all native vegetation in this area has been replaced with cultivated crops or exotic species. Other vegetation types known in the Planning Area include chaparral, grassland, riparian and vernal pool habitat.

Sensitive Species - The Planning Area contains numerous identified sensitive plants and animal species. Several of the plants in the Chula Vista area represent the northernmost point of their distributions. These are plants which also occur in Mexico and the Otay Mesa area but may be rare there. The animal resources currently present in the area are substantially less than the original faunal component of the region. At one time pronghorn and bear existed in the area, as well as a substantially larger number of water fowl. The reptile and amphibian aspect of the regional fauna are suffering decline due to collection of San Diego Horned Lizards, habitat destruction in areas of orange-throated whiptail and competition with native amphibians by introduced, aggressive bullfrogs and clawed frogs.

Despite this loss of wildlife, an important remnant remains. A complete list of sensitive species known in the General Plan area is contained in the Appendix. The actual location of each sensitive species is mapped on a 1,500 scale map available at the City. For purposes of this EIR, an exhibit (Exhibit 3) is provided in a map pocket which identifies the generalized locations of known plant and animal species. This exhibit does not identify the actual species; it is intended to be a guide for planning purposes. For an identification of specific species a 1,500 scale map is on file at the City of Chula Vista and should be consulted.

Potential Impact

Adoption of the proposed Plan Update would not result in direct impacts to biological resources. Future development as designated by the Plan Update would result in adverse impacts to resources. The following assessment of impacts considers each vegetation type and numerous sensitive species. The proposed Land Use map was compared to the data base maps and potential impacts were classified as Significant, Non-significant or No Impact. The assessment considers the biological requirements of the subject habitats or organisms as they occur in the region of San Diego County. Several species may be more common in Baja California, Mexico, but are very rare in the Planning Area and County. For purposes of this analysis, their status in Mexico was given only nominal consideration.

Also included in the assessment are levels of acceptable preservation, on a project-by-project basis, to reduce significant imapcts to levels less than significant. Several species are so endangered that any impact is considered unacceptable.

Vegetation Types

Regional Open Space - Significant Impact

The massive tracts of open fallow fields, sage scrub, and grasslands that lie east of the present Chula Vista and Bonita urban areas are foraging habitat for the large raptor populations of that region. The chaparral on mountain slopes is less valuable in this regard since rodent and reptile prey species have better cover protection there. Loss of open space areas greater than 40 acres should be considered significant from the perspective of wildlife foraging use on a project-by-project basis.

The fallow fields and annual grasslands are not significant from a botanical perspective due to prior disturbance. The proposed General Plan Land Use Plan retains large open space tracts but only at 10% of the current extent.

Sage Scrub - Significant Impact

The remaining sage scrub vegetation of San Diego County represents approximately 25 to 30% of the original extent. Past land clearing for agriculture and urban development is responsible for this reduction. Increased fire frequency does not allow this vegetation to recover sufficiently and the vegetation usually succumbs to a non-native grassland condition. Most of the remaining sage scrub occurs on slopes and the proposed General Plan Update would involve a loss of about 60% of the present sage scrub. The loss of adjacent open field ecotone or buffer, however, further reduces the biological quality of post-development sage scrub extent. On a project-by-project basis, the loss of more than 5 acres of sage scrub habitat should be considered significant.

Chaparral - No Impact

This fire-prone vegetation is minimally represented in the Planning Area and would not be affected by any planned development.

Vernal Pools - Significant Impact

Several areas of vernal pools or associated mima mound topography occur in the planning area and some just outside the Planning Area. Most are in planned open space or park areas but some, as yet unidentified, vernal pools may be impacted by future development. The increasing restrictions of state and federal wetland regulations will preclude destruction of these unique features without compensation. It is important when planning development in adjacent areas that sufficient buffers occur about these features and that the pools' watershed not be impacted by fill or excavation. Expansion of the county dump may be seriously restricted by the presence of these pools to the east. Loss of any functional vernal pool habitat is considered a significant impact.

Riparian Woodland and Freshwater Marsh - Significant Impact

The streamside woodlands of the Planning Area are very degraded and are usually infested with Tamarisk or other exotic plants. The highest quality woodlands occur at the back of Sweetwater and Otay reservoirs and in the county park along the Sweetwater River, downstream of the Willow Street bridge. A significant willow woodland also lies upstream of the Otay River trolley crossing, extending eastward to the I-805 freeway. Upstream from this point the willow woodland exists as sporadic high-quality habitat surrounded by Tamarisk.

The remaining riparian woodland areas either have isolated tree canopies or are a dry phase, ephemeral stream growth of Mule-fat. Because of the degraded condition of much of the riparian woodland vegetation in the Planning Area, substantial opportunities exist for enhancement or restoration of these habitats. Modification of landscape guidelines to prohibit the use of Tamarisk, Pampas Grass, Fountain Grass, Natal Grass, Giant Cane, and St. Augustine Grass would be very beneficial in reducing the spread of these plant pests into wetlands.

Both riparian woodland and freshwater marsh are scarce habitats in the mediterranean climate of San Diego County. The known locations of such habitat appear to be generally preserved within open space on the proposed Land Use map, with the exception of a few road crossings. As long as these habitat are retained and undisturbed in open space there would be no impact. It is possible that future

activities within open space (mineral resource recovery or creation of active park facilities) may involve adverse impacts to these habitats. On a project-by-project basis, the loss of any riparian woodland or marsh habitat should be considered significant.

Coastal Salt Marsh - Significant Impact

Coastal salt marsh is a valuable habitat that has been substantially reduced by regional coastal development. Any impact to such habitat is considered significant. However, due to strict state and federal regulations of development in coastal wetland areas, it is assumed that no impacts short of expansion and enhancement are likely to occur in the future. Any unforeseen impacts would require a significant compensation ratio of replacement habitat to impacted habitat, possibly 10:1. The replacement habitat must be functional before implementation of the project.

Native Grassland - Significant Impact

Although the Planning Area contains large tracts of open grassy areas, most of these are non-native, annual grasslands. Impacts to native perennial grassland over 0.5 acres in size represents a significant impact due to the limited extent of this habitat and its association of rare plants.

Sensitive Plants

Known sensitive plant and animal species were also evaluated for potential impacts. With the same impact classification system; Significant, Non-significant and No Impact. In addition, a priority value was determined for each species to be used in future planning decisions. The priority ranges from 1 to 3 with 1 considered a high priority species and 3 considered a relatively low priority. The complete evaluation is contained in the Appendix. For purposes of this section, only those species with significant impacts are reproduced below. The planning priority value is denoted as PP1 through PP3.

San Diego Thorn Mint - Significant Impact - PP1

This cryptic plant is easily overlooked and even in the spring season can be difficult to detect. Its presence in open areas of clay makes it vulnerable to destruction by off-road vehicles as well as grading. The plant is exceedingly rare and any preserved area should have at least a 50-foot wide buffer. The plant can be successfully transplanted, but only to the proper soil conditons and with extreme pro-active maintenance and monitoring.

San Diego Ambrosia - Signifianct Impact - PP1

No substantial populations are currently known in the Planning Area.

Orcutt's Brodiaea - Significant Impact - PP2

Development of mesa tops will severely impact this species.

Seaside Calandrinia - Significant Impact - PP1

The known population in the Planning Area is no longer extant following recent development of the site. It is very rare elsewhere in San Diego County.

Western Dichondra - Significant Impact - PP2

Preservation of naturally vegetated areas will be necessary to preserve this plant, especially north-facing slopes.

San Diego Hasseanthus - Significant Impact - PP1

The bulbous plant is evident in winter and spring, usually occurring on mesa tops and clay slopes. Buildout of areas with scrub vegetation will further reduce the extent of this species in the Planning Area.

Palmer's Ericameria - Significant Impact - PP2

The few plants in the Planning Area are vulnerable to loss from ORV use.

Large-Leaf Filaree - Signifcant Impact - PP1

This plant is heavily out-competed by non-native weeds. Although it has a low range-wide rarity, it is extremely rare in San Diego County and southern California.

San Diego Barrel Cactus - Significant Impact - PP1

Loss of mesa tops and naturally vegetated slopes will further decrease the extent of this barrel cactus. Field collection for horticulture is a further threat. Salvage for horticultural purposes are not considered as a suitable mitigation measure. Conservation of 75% of project populations (by individual plant count) is a threshold level between significant/non-significant.

Chocolate Lily - Significant Impact - PP2

This plant is locally uncommon and heavily impacted by collection. Loss of native grasslands would further reduce the plant's range.

Palomer's Grappling Hook - Significant Impact - PP2

The open clay field habitat of this annual would be severely impacted by development in the Planning Area.

Otay Tarplant - Significant Impact - PP1

Open field habitats of this species would be heavily impacted by the proposed Plan Update. The annual habit of this species makes it difficult to detect in years of poor rainfall. Preservation of 75% of identified population acreage along with 50-foot buffers is a threshold level beween significant/non-significant.

San Diego Golden-Star - Significant Impact - PP1

The clay field habitats of this plant would be severely impacted under the proposed Plan. Preservation of all identified sites would be necessary to preserve this species. No transportation has yet proved successful, although the plant has been cultivated for a limited period of time.

Little Mouse-Tail - Significant Impact - PP1

This vernal pool associate is extremely rare and should be preserved wherever it occurs.

San Diego Navarretia - Significant Impact - PP1

This vernal pool associate is extremely rare and should be preserved wherever it occurs or compensated by equivalent acquisition of 3 to 1.

California Adder's Tongue - Significant Impact PP1

This cryptic fern is severely impacted by sage scrub habitat destruction. Preservation of 75% of the population acreage would be the threshold level between significant/non-significant.

Snake Cholla - Significant Impact -PP1

Sunny slopes with sage scrub are impacted by the proposed plan. Preservation of 75% of identified habitat acreage is the threshold level between significant/non-significant.

California Orcutt Grass - Significant Impact - PP1

This vernal pool plant is very rare and is to be preserved wherever it occurs. Mitigation by acquisition of equivalent habitat should be at a 3 to 1 ratio.

Greene's Ground Cherry - Significant Impact - PP1

The known population on a sunny slope above Otay Valley Road may be threatened by road widening. Preservation of 75% of the population would represent a threshold level between significant/non-significant.

Loma Alta Mesa-Mint - Significant Impact - PP1

This species occurs in vernal pools of Otay Mesa and is to be preserved wherever it occurs. Mitigation by acquisition of equivalent habitat will be at a 3 to 1 ratio. It is the rarest plant in the Planning Area.

Cleveland Sage - Significant Impact - PP2

The unique soil association of this plant in the Planning Area should be conserved. The principal impact would be from ORV activity since known sites occur in areas designated as open space in the proposed Plan.

San Diego Needlegrass - Significant Impact - PP2

The level of impact to this species is difficult to assess since the habitat preference of the plant is poorly known. Based upon the habitat in Spring Canyon on Otay Mesa, the north-facing slopes of Otay Valley could provide similar habitat.

Narrow-Leaved Nighshade - Significant Impact - PP2

This plant occurs uncommonly in sage scrub and chaparral. Preservation of 75% of the population would represent a threshold level between significant/non-significant.

Animals

Sage Sparrow - Significant Impact

This species shows a preference for slopes and, as with the Rufous-crowned Sparrow, slope fill show be curtailed in habitat where this sparrow has been sighted. Populations are generally localized within the Chula Vista Sphere of Influence and multiple sightings of this species at one locale should precipitate protective measures for its slopes habitat.

Rufous-Crowned Sparrow - Significant Impact

Significant loss of light phase Diegan Sage Scrub vegetation is likely to reduce potential habitat for this species. A preference for steeper slopes should, to some extent, offset this impact as development generally proceeds on more gradual slopes. Slope fill should be curtailed in habitat where this sparrow has been sighted.

Grasshopper Sparrow - Significant Impact

The grassland habitat for this migrating sparrow is likely to be severely impacted by future development. Hillside patches of native Stipa grassland are considered optimal habitat for this species.

Golden Eagle - Significant Impact

This raptor nests in the Mother Migule/Mt. San Miguel area. Substantial loss of annual grasslands in the vicinity could encourage abandonment of this nesting locale.

Burrowing Owl - Significant Impact

Loss of grassland and agricullltural lands can be expected to significantly reduce population size. Also nests in open sage scrub locales where it would potentially be impacted.

Cactus Wren - Significant Impact

This resident bird occupies mature stands of Coast Cholla and Coast Prickly Pear Cactus. Such habitats are very limited, being best developed below Sweetwater Dam and in Poggi and Salt Creek canyons. A disproportionate percentage of the entire coastal Cactus Wren population occurs within the Chula Vista Sphere of Influence. Recent research (A.Rea) indicates the coastal population is quite distinct from the desert race and may merit species status.

Northern Harrier - Significant Impact

Loss of annual grasslands to development can be expected to reduce population size. Known nesting sites within primarily native vegetation should be retained whenever possible.

Black Shouldered Kite - Significant Impact

A healthy population of this foraging raptor occurs within the Chula Vista Sphere of Influence. Loss of annual grasslands to development can be expected to

significantly reduce population size. Known nesting sites within primarily native vegetation should be retained whenever possible.

California Balck-Tailed Gnatcatcher - Significant Impact

The association of this resident bird with sage scrub makes loss of such habitat significant. Currently listed by California as endangered, the bird will probably be so listed federally. Such an action will pose a serious restrction to development in sage scrub habitat.

Sites with more than one pair of gnatcatchers present should attempt to conserve the appropriate sage scrub territories for these pairs within development plans. Loss of multiple gnatcatcher nesting territories should be mitigated by off-site purchase of equivalent habitat with known gnatcatchers at a 1 to 1 ratio for dedication as open space. Although ornithological studies have yet to establish typical or optimal acreage for the territory of a single pair of mated gnatcatchers, 5 acres should be considered a feasible size until such time as scientific studies verify specific acreage. Undoubtedly, biological conditions vary from site to site; however, particality precludes a site-by-site fluctuation in expected mitigation acreages at a general plan level. Sites with just one pair of gnatcatchers present should attempt to conserve the appropriate habitat on site.

Amphibians and Reptiles

Southwestern Pond Turtle - Significant Impact

Permanent ponds not surrounded by typical wetland vegetation are potential habitat for this turtle. All such sites should be examined for this increasingly rare species.

Orange-Throated Whiptail - Significant Impact

This species is widespread in the Chula Vista area and to be expected in every sizeable tract of native sage scrub. Population declines will roughly correlate with the percentage of total sage scrub acreage which is developed. As a result, significant declines can only be avoided through the preservation of extensive areas of Diegan Sage Scrub.

California Coachwhip - Significant Impact

The local abundance of this snake (at the northern limits of its range in the Chula Vista area) is not well understood. Impacts are therefore difficult to assess at the current time.

Coast Horned Lizard - Significant Impact

Although not occurring in the numbers of the Orange-throated Whiptail, it shares a similar habitat with a preference for open, sandy areas and a readily available food source of ants. Isolated sage scrub habitats in an urban setting are likely to be eventually depopulated of Coast Horned Lizards due to predation from household pets and natural predators, as well as collection by humans. Normal recruitment in such settings is exceedingly difficult for lizards. Therefore, extensive tracts of undeveloped sage scrub are necessary to maintain a healthy population of the Coast Horned Lizard.

Other Impacts - Other general impacts to biological resources include competition from non-native plants, land clearing prior to permit issuance and clearing for fire threat reduction.

Many problems with habitat degradation involve non-native plants which out-compete more desireable native plant species. Most vulnerable to this threat are wetland habitats. The Telegraph Creek channel is becoming heavily infested with Pampas Grass. The Otay River channel, in places, is predominantly Tamarisk trees. The Bayshore wetlands are seriously infested by Lindley's Saltbush. The widespread use of hydroseeding to revegetate disturbed sites allows for quick infestation of such sites when seeds are supplied by unreliable dealers. This is a potentially significant impact.

Construction of structures adjacent to native shrub vegetation increases the potential for fire damage to such structures. To minimize this potential, such vegetation is systematically cleared from the surrounding area. Such clearing reduces fire damage potential but destroys the native habitat. Aside from chaparral areas on San Miguel and Otay mountains, shrublands in the remainder of the Planning Area are sage scrub. This vegetation, unlike chaparral, is not fire-

adapted and recovers very slowly and poorly following its burnings. Fuel loads of such vegetation are significant usually only on north-facing slopes. The practice of fuel reduction conflicts with the preservation of native vegetation, especially shrublands, and is considered a potentially significant impact.

Buildout of the General Plan Update as proposed would result to significant impacts to numerous vegetation types and sensitive plant and animal species. Several mitigation measures have been suggested in the discussion above on a species-by-species case which would minimize such impacts to less than significant. However, the cumulative loss of several sensitive species and habitat types represents a significant, unmitigable impact.

Mitigation Measures

- All mitigation measures recommended on a species-by-species basis in the previous discussion should be implemented as part of the environmental review process of the City.
- As a guide for planning purposes, landscape plant material selection should not include the following plants:

  Tree of Heaven
  Giant Cane
  Pampas Grass
  Cardoon
  Statice (precluded from coastal zone only)
  Kikuyugrass
  Fountain Grass
  Feathertop
  Natal Grass
  German Ivy
  Tamarisk

- The planning of developments adjacent to shrublands which are to be preserved must include consideration of the need to provide a fuel reduction zone. For purposes of determining natural open space, such fuel reduction zones should not be included. Such zones should be indicated on grading and landscape plans.

- To preclude the destruction of native habitat from clearing completed prior to permit issuance, a land clearing ordinance should be enacted which

requires a clearing permit. This control should be interfaced with any brush control or weed abatement regulation monitoried by the Fire Department to ensure consistency and concurrence of City intent.

Analysis of Significance

Several mitigation measures have been recommended to reduce significant impacts to specific species and these would be implemented by the City during the environmental review process. A plant species list has been recommended for revegetation to avoid the introduction of non-native species. A land clearing permit has been suggested to minimize the loss of sensitive shrublands often incurred during land clearing or creation of fuel reduction zones. However, adoption of the General Plan Update and eventual buildout would result in significant cumulative impacts to biological resources which are unmitigable.

3.4 ARCHAEOLOGY/PALEONTOLOGY

Existing Conditions

An evaluation of the cultural resources contained in the Planning Area was completed by Brian Smith in October 1988. The information obtained from this evaluation is provided below and a list of recorded sites identified in the research effort is contained in Appendix D. A report on the paleontological resources of the Planning Area was prepared by PaleoServices, Inc., is summarized below and is also contained in Appendix D.

ARCHAEOLOGY

The Chula Vista General Plan covers a large region of southern San Diego County, extending from San Diego Bay to the San Ysidro Mountains, and from Otay Mesa to the Sweetwater River Valley. Within this large area, a wide variety of environmental settings have existed that have provided the elements necessary to support occcupation by prehistoric cultures over the past 7,000 years. Furthermore, the region has also supported several early historic homesteads and communities that

were significant to the history of the region. In light of the potential for the existence of cultural resources within this region, it becomes a priority to consider these resources for planning purposes.

Prehistoric Site Patterns

In order to evaluate the prehistoric site patterns within the General Plan area, research pertaining to the records of previously discovered archaeological sites was conducted at the San Diego Museum of Man and San Diego State University. The archaeological sites files at these two institutions revealed that 212 sites have been recorded to date within the General Plan area. The majority of these site recordations resulted from cultural resource surveys of private developments or public facilities projects. While an exact calculation has not been attempted, it appears that the 212 site records resulted from surveys of approximately 10% of the General Plan area. A list of the recorded sites and their general characteristics has been provided in the appendix.

The site listings provided in the Appendix indicate that a variety of site types (villages, quarries, subsistence gathering sites, milling sites, lithic scatters and workshops, minor campsites) comprise the archaeological record in the study area. The cultural trends observed in these records suggest that the primary cultures responsible for the sites in the region were the late prehistoric Kumeyaay Indians who inhabitated the area for the past 1,500 years, and the La Jolla Complex, who occupied this portion of the County for approximately 5,000 years (between 7,000 and 2,000 years before the present). Numerous site records included the projection that the San Dieguito Complex may have been associated with sites in the area. The San Dieguito Complex was the oldest cultural tradition in this region (approximately 12,000 to 9,000 years before the present); however, the occupation of the area by this culture has not yet been substantiated by radiocarbon dating. Recent focused studies in this area have led many researchers to the tentative conclusion that sites once considered to be representative of the San Dieguito Complex may actually be associated with the La Jolla Complex in what appears to be a regional variation in the lithic composition of the La Jolla Complex tool typology. The increased use of radiocarbon dates has substantiated the interpretation of the widespread occupation of the La Jolla Complex in the Chula Vista

area and the consideration that the San Dieguito Complex may never have actually utilized the area.

The majority of the recorded sites are located within the Eastern Territories section of the General Plan area. This is due primarily to the fact that this area has experienced the least amount of urbanization and has been subjected to fairly recent environmental impact studies. These recent environmental studies have included cultural and historical resources as an issue of concern. Fewer sites have been discovered in the Central Chula Vista, Bayfront, and Montgomery/Otay sections of the General Plan due to the existence of older, developed areas which greatly reduce the potential for cultural resources discovery. The Sweetwater/Bonita region of the General Plan area includes areas of undeveloped land which contain cultural resources, although not in the quantity or complexity recorded in the Eastern Territories region. Thus, from the standpoint of potential for the existence of significant cultural resources, the regions of the General Plan are ranked as follows from highest potential to lowest:

1) Eastern Territories
2) Sweetwater/Bonita
3) Montgomery/Otay
4) Central Chula Vista
5) Bayfront

The pattern of sites observed, especially in the Eastern Territories, Sweetwater/Bonita, and Montgomery/Otay regeions of the General Plan indicates that the prehistoric occupations were governed by resource "draw" - a term used to indicate the focus of a human response to a desired resource. Numerous large sites are situated on knolls and flood plains (especially in the Otay River Valley) which represent food collection and living areas. In this area, it appears that the occupants were less concerned about proximity to major water sources that they were about proximity to food resources. Another major draw noted repeatedly in the site record forms consisted of many lithic quarry locations, especially near the San Ysidro Mountains, where high quality, fine-grained, metavolcanics are found in great quantities. The major food draw in the rolling hills region of the Eastern Territories is unknown at this time, although the lack of hunting-related artifacts

at these locations and the association of most sites with the La Jolla Complex would suggest that the focus of the subsistence pattern was plants - fruits, roots, berries, seeds, and other vegetative materials.

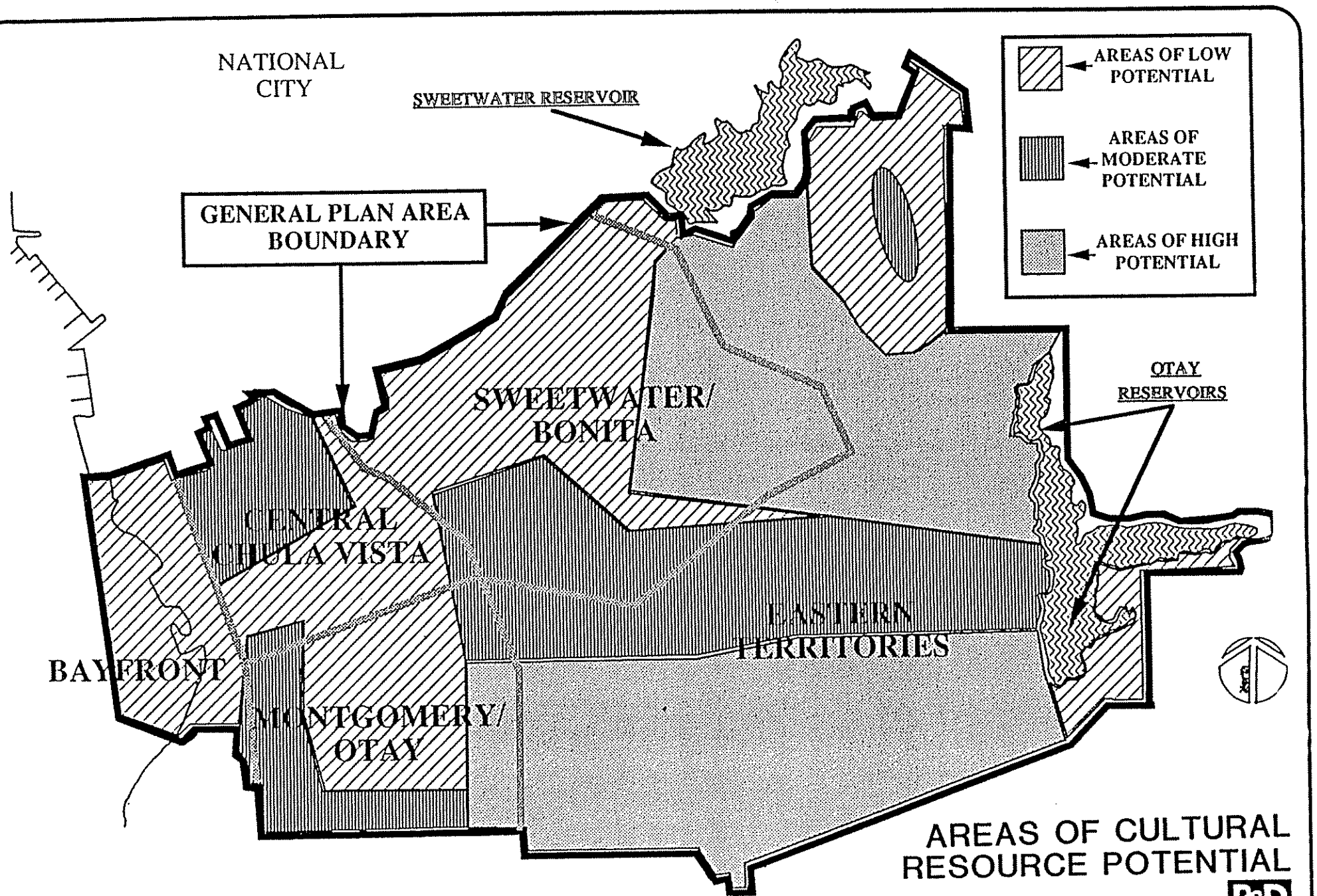
Historic Site Patterns

The Chula Vista General Plan area also contains elements of numerous historically sensitive locations. The General Plan area corresponds to portions of Spanish and Mexican land grants, including the Otay, Janal, La Nacion, Jamul, and Jamacho Ranchos (Pourade 1969). The majority of the lands included in these ranchos was used for grazing cattle, as cattle constituted the main economic resource for the Spanish and Mexican occupants of California prior to 1850. There is little evidence that the portions of the ranchos within the General Plan area contain structures that would represent the pre-1850 era.

During the early American period after 1850, settlers gradually moved into the region to establish small farms and cattle ranches. The majority of these small farms were located in the Otay River Valley and Sweetwater River Valley. Many of these are documented on the United States plat maps drawn in the 1870s and 1880s. The plats were not studied as part of this assessment, however, these should be reviewed as individual development programs are proposed. Toward the end of the 1800s, more substantial development occurred in the General Plan area, especially with the foundation of the town of Otay in 1887 and the construction of the Otay Dam in 1896 (Stein 1978). Families which left their mark on the General Plan area include the Daneris, the Poggis, the Kueblers, the O'Neals, and the Johnsons. Unfortunately, many of the early homesteads in the Otay River Valley were destroyed in 1916, when the Otay Dam burst and water swept through the valley, destroying the town of Otay and many ranch and farm buildings. Many of these destroyed elements of the valley were never rebuilt.

Cultural Resource Management

The purpose of this General Plan review study section is to provide direction in the management of cultural resources within the various zones of the plan area. Areas of relative potential for the existence of cultural resources are shown in Figure 3-2. A more detailed graphic is contained in Exhibit 4 which delineates areas of



AREAS OF CULTURAL RESOURCE POTENTIAL

Figure 3-2

low, moderate or high potential for cultural resources. The undeveloped portions in the eastern and southern regions of the General Plan area possess a very high potential for the presence of cultural resources. Within the Baldwin property included in the Eastern Territories region of the General Plan, Berryman estimated that sites may be expected to occur with a frequency of one site per 100 acres (Berryman 1987: 118). Berryman based this estimate on archaeological site files record searches and limited field surveys. While no complete inventory of archaeological data or summary of the surveys and field investigations which have been conducted in the area have yet been compiled, it is clear that the majority of the areas in the Eastern Territories have not yet been subject to archaeological surveys. This is especially true of the Baldwin property, although this property has been the subject of several focused studies by Berryman (1987).

PALEONTOLOGICAL RESOURCES

According to the paleontological resources report, the Chula Vista General Plan area is comprised of a number of distinct geologic formations that signify the potential for paleontological resources. The degree of resource potential (low, medium, high) has been mapped for the General Plan area and is shown in Exhibit 5.

The geologic setting of the Chula Vista General Plan area shows that it covers two distinct geomorphic provinces. One province is the foothills of the Peninsular Range Province as exposed east of Lower Otay Lake. The other is the Coastal Plain Province as exposed west of Lower Otay Lake. It is the Coastal Plain Province that is of particular importance. This geomorphic province is underlain by a "layer cake" sequence of marine and non-marine sedimentary rock formations that range in age from 2-3 million years old (Pliocene age) to 45 million years old (Eocene age).

The geologic formations that possess the highest potential for paleontological resources within the General Plan area are the San Diego Formation and the Otay Formation. The San Diego Formation is a marine sedimentary deposit that dates back to the Pliocene age (approximately 2-3 million years old). The Otay Formation, on the other hand, is primarily a non-marine sedimentary rock of Oligocene age (approximately 27 million years old) that is noted for its vertebrate

fossil remains. Exhibit 5 indicates that the locations of areas with high potential for paleontological resources are east of Hilltop Drive and east of I-805.

The San Diego Formation, which is exposed extensively throughout the Sweetwater/Bonita Region between I-805 and Long Canyon, in the western portion of the Eastern Territories region, and in the eastern portions of the Central Chula Vista and Montgomery/Otay Regions immediately adjacent to I-805, has yielded extremely important fossil remains of many types of marine invertebrates (clams, scallops, snails, crabs, barnacles, and sand dollars) and marine vertebrates (sharks, rays, bony fishes, sea birds, walrus, fur seal, sea cow, dolphins, and baleen whales). In addition, rare remains of terrestrial mammals, including cat, camel, deer, peccary, and horse, have been recovered from this formation. (Demere, 1988)

The Otay Formation is exposed throughout the Eastern Territories Region west of Lower Otay Lake and along portions of valley slopes in the Sweetwater/Bonita Region. Fossils from this formation were not discovered until the initial phases of construction of the Eastlake development in 1986. The fossil remains located in this formation include lizards, snake, tortoise, birds, shrew, rodents, rabbit, dog, fox, rhino, camels, and mouse-deer. The Otay Formation is now considered the richest source of late Oligocene terrestrial vertebrates in California. (Demere, 1988)

Potential Impacts

ARCHAEOLOGY

Based upon the review of the limited information which has been recorded for the area, it is apparent that the Chula Vista General Plan constitutes an unique resource district of archaeological sites. Consequently, the potential to significantly impact resources from development is high.

Undeveloped areas should be approached as potentially sensitive resource locations. Although many sites may be present within the General Plan aera, this is no reason to lessen the significance of the prehistoric site pattern. Each site within the pattern, whether a surface scatter, a quarry, or an occupation site, represents an

important link in the as yet poorly understood occupation of the Otay and Sweetwater areas.

In addition, the historic element is equally significant within the area. In the undeveloped areas, the potential remains for the discovery of elements of homesteads and ranches of the Mexican and early American periods. Such deposits may contain information that could significantly add to our understanding of the early Hispanic and Anglo settlement in the community. Within the urbanized areas of Chula Vista, the potential also exists for the presence of architecturally and/or historically sensitive structures which are part of the heritage of the citizenry and need to be considered in the scheme of future development plans.

PALEONTOLOGICAL RESOURCES

The Chula Vista General Plan area contains significant potential for paleotological resources. Consequently, earth work activities, such as mass excavation projects, that cut into geological deposits (formations) within which fossils are buried, could potentially impact resources. These impacts are in the form of physical destruction of fossil remains. Fossils of the remains of prehistoric animals and plant life are considered a nonrenewable resource. Therefore, such impacts are considered potentially significant.

Mitigation Measures

The following measures should be implemented to prevent potentially significant impacts to archaeological resources:

(1) In the Eastern Territories, Sweetwater/Bonita, and Montgomery/Otay regions, any future development projects should be subjected to archaeological surveys. Such surveys are necessary to document the potential for the existence of sites that could be impacted by development.

(2) In the Bayfront and Central Chula Vista areas, archaeological surveys may be required of any development projects that include vacant or previously undisturbed acreage.

(3) In the Central Chula Vista region, particular care should be taken to require historical studies for any structures that appear to be architecturally or historically sensitive.

(4) In the event that any of the future cultural resources studies do document either a prehistoric or historic site, then in accordance with California Environmental Quality Act, these resources will need to be further evaluated to determine their significance and the potential for adverse impacts from proposed development. Potentially adverse impacts to cultural resources should be mitigated through either preservation of the resource or data recovery programs of sufficient detail and scope to compensate for the loss of any significant site.

Potential impacts to paleontological resources can be mitigated through the implementation of the following measures:

(1) Prior to issuance of a grading permit, a project applicant should present a letter to the City of Chula Vista indicating that a qualified paleontologist has been retained to carry out an appropriate mitigation program. (A qualified paleontologist is defined as an individual with a MS or PhD in paleontology or geology who is familar with paleontological procedures and techniques.)

(2) A qualified paleontologist should be at any pregrade meeting to consult with grading and excavation contractors.

(3) A paleontological monitor should be onsite at all times during the original cutting of previously undisturbed sediments of high potential geologic formations (i.e., San Diego and Otay formations) to inspect cuts for contained fossils. A paleontological monitor should be onsite on at least a half-time basis during the original cutting of previously undisturbed sediments of moderate potential geologic formations (i.e., unnamed marine terrace deposits, unnamed river terrace deposits, and Sweitzer, Sweetwater, and Mission Valley formations) to inspect cuts for contained fossils. In the event that fossils are discovered in moderate potential formations, it may be necessary to increase the per/day field monitoring time. Conversely, if

fossils are not being found then the monitoring should be reduced (refer to Exhibit 4 to determine resource potential.) (A paleontological monitor is defined as an individual who has experience in the collection and salvage of fossil materials. The paleontological monitor should work under the direction of a qualified paleontologist.)

(4) When fossils are discovered, the paleontologist (or paleontological monitor) should recover them. In most cases, this fossil salvage can be completed in a matter of minutes. However, some fossil specimens (such as a complete whale skeleton) may require an extended salvage time. In these instances, the paleontologist (or paleontological monitor) should be allowed to temporarily direct, divert, or halt grading to allow recovery of fossil remains in a timely manner. Because of the potential for the recovering of small fossil remains such as isolated mammal teeth, it may be necessary in certain instances to set up a screen-washing operation on the site.

(5) Fossil remains collected during the monitoring and salvage portion of the mitigation program should be cleaned, sorted, and cataloged and deposited in a scientific institution with paleontological collections such as the San Diego Natural History Museum.

Analysis of Significance

Several areas of high and medium potential for archaeological and paleontological resources have been identified in the Planning Area. The potential for future development to significantly impact resources is high. Mitigation measures to minimize impacts include archaeological surveys of undisturbed land and preservation or data recovery of cultural resources identified as significant. Also, a paleontological monitor would be present at the original cutting of previously undisturbed sediments of high and medium potential formations and fossil recovery would be completed as necessary. It is anticipated that future impacts would be mitigated to a level of less than significant by these measures.

3.5 AIR QUALITY

An evaluation of the existing air quality conditions in Chula Vista and the changes associated with adoption of the proposed plan was completed by Mestre & Greve Associates. The report is reproduced in Appendix E and summarized below.

Existing Conditions

Climate - The climate of the Chula Vista area, as with all of Southern California, is controlled largely by the strength and position of the subtropical high pressure cell over the Pacific Ocean. It maintains moderate temperatures and lower humidities, and limits precipitation to a few storms during the winter "wet" season. Temperatures are normally mild with rare extremes above 100 degrees F or below freezing. The annual mean temperature is 62 degrees F and daily and seasonal variations are infrequent.

Winds in the City of Chula Vista are almost always driven by the dominant land/sea breeze circulation system. Regional wind patterns are dominated by daytime on-shore sea breezes at 20 miles per hour with an average of 7 miles per hour. At night the wind generally slows and reverses direction traveling towards the sea. Wind direction is altered by local canyons, with winds tending to flow parallel to the canyons.

Chula Vista is dominated by the coastal type climate with a significant amount oceanic influence on the relative humidity. The relative humidity ranges from 40 percent to 80 percent in the winter and 30 to 60 percent in the summer. This is an average of 250 clear (not overcast) days per year.

Air Pollution Meterology - The onshore flow of air provides the driving mechanism for both air pollution transport and dispersion. The winds described above control the horizontal transport in the region. The interior valleys of San Diego County also have numerous temperature inversions that control the vertical extent through which pollutants can be mixed. When the onshore flow of cool, marine air undercuts a large dome of warm, sinking air within the oceanic high pressure area, it forms a marine/subsidence inversion. These inversions allow for good local

mixing, but they act like a giant lid over the area. As air moves inland, sources add pollution from below without any dilution from above. The boundary between the cool air near the surface and the warm air aloft is a zone where air pollutants become concentrated. As the air moves inland and meets elevated terrain of inland foothill communities such as Alpine, these communities are exposed to many of the trapped pollutants within this most polluted part of the inversion layer.

A second inversion type forms when cool air drifts into lower valleys at night and pools on the valley floor. These radiation inversions are strongest in winter when nights are longest and air is coldest. They may lead to stagnation of ground-level pollution sources such as automobile exhaust near freeways or major parking facilities.

Air Quality Management - The proposed project is located in the San Diego Air Basin and, jurisdictionally, is the responsibility of the San Diego Air Pollution Control District (SDAPCD) and the California Air Resources Board (CARB). The SDAPCD sets and enforces regulations for stationary sources in the basin. The CARB is charged with controlling motor vehicle emissions.

The SDAPCD, in coordination with the San Diego Association of Governments (SANDAG), has developed and updated the "1982 State Implementation Plan Revision for the San Diego Air Basin". The plan has the goal of achieving healthful levels of air quality by 1987, and is mandated by state and federal laws. Included in the plan are new stationary and mobile source controls; carpooling, vanpooling, and other ride-sharing programs; and energy conservation measures. The air plan is designed to accommodate a moderate amount of new development and growth throughout the basin. This air quality planning document is based on SANDAG's adopted Series V regional growth forecasts.

Air Quality Setting - To assess the air quality impact of the proposed Plan Update, that impact, together with the baseline air quality levels, must be compared to the Ambient Air Quality Standards (AAQS). These standards are the levels of air quality considered safe, to protect the public health and welfare.

The Clean Air Act Amendment of 1970 first established national AAQS. States retained the option to adopt more stringent standards or to include other pollution

categories. Because California already had standards in existence prior to 1970 and because of unique meteorological problems in California, there is considerable diversity between state and federal clean air standards. The standards current in effect in California are shown in Table 3-3.

Monitored Air Quality - Air quality at any site is dependent on the regional air quality and local pollutant sources. Regional air quality is determined by the release of pollutants throughout the air basin. Within the San Diego Air Basin it has been calculated that mobile sources are the major source of regional emissions and are responsible for approximately 73 percent of the smog emissions in San Diego County ("Climate and Smog in San Diego County", SDAPCD).

The nearest air monitoring station operated by the SDAPCD is on H Street in Chula Vista. The data collected at this station is considered to be representative of the air quality experienced in the vicinity of the project area. Air quality data for 1982 through 1986 for the Chula Vista station is provided in Table 3-4.

The air quality data indicate that ozone is the air pollutant of primary concern in the project areas. Ozone is a secondary pollutant; it is not directly emitted. Ozone is the result of the chemical reactions of other pollutants, most importantly hydrocarbons and nitrogen dioxide, in the presence of bright sunlight. Pollutants emitted from morning rush hour traffic react to produce the oxidant concentrations experienced in Chula Vista. Ozone is the primary component of the photochemical oxidants and it takes several hours for the photochemical process to yield ozone levels which exceed the standard. All areas of the San Deigo County Air Basin contribute to the ozone levels experienced at Chula Vista, with the more significant areas being those directly upwind. The ozone levels at Chula Vista have not significantly increased or decreased over the last 6 years. On occasion the wind and weather patterns are such that oxidants produced in Los Angeles County are blown southward contributing to the smog level readings in San Diego County.

Particulate matter (PM-10) refers to suspended particulates which are respirable. PM-10 levels in the area are due to natural sources, grading operations, and motor vehicles. The federal standards for particulates have not been exceeded at the Chula Vista station since before 1982.

Table 3-3

NATIONAL AND CALIFORNIA AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Standards		National Standards		
		Concentration	Method	Primary	Secondary	Method
Ozone	1 Hour	0.09 ppm (180 ug/m3)	Ultraviolet Photometry	0.12 ppm (235 ug/m3)	Same as Primary Std.	Ethylene Chemiluminescence
Carbon Monoxide	8 Hour	9.0 ppm (10 mg/m3)	Non-dispersive Infrared Spectroscopy (NDIR)	9.0 ppm (10 mg/m3)	Same as Primary Stds.	Non-dispersive Infrared Spectroscopy (NDIR)
	1 Hour	20 ppm (23 mg/m3)		35 ppm (40 mg/m3)		
Nitrogen Dioxide	Annual Average	-	Gas Phase Chemilumi-nescence	0.053 ppm (100 ug/m3)	Same as Primary Std.	Gas Phase Chemilumi-nescence
	1 Hour	0.25 ppm (470 ug/m3)		-		
Sulfur Dioxide	Annual Average	-	Ultraviolet Fluorescence	80 ug/m3 (0.03 ppm)	-	Pararosoaniline
	24 Hour	0.05 ppm (131 ug/m3)		365 ug/m3 (0.14 ppm)	-	
	3 Hour	-		-	1300 ug/m3 (0.5 ppm)	
	1 Hour	0.25 ppm (655 ug/m3)		-	-	
Suspended Particulate Matter (PM_{10})	Annual Geometric Mean	30 ug/m3	Size Selective Inlet High Volume Sampler and Gravimetric Analysis	-	-	-
	24 Hour	50 ug/m3		150 ug/m3	Same as Primary Stds.	Inertial Seperation and Gravimetric Analysis
	Annual Arithmetic Mean	-	-	50 ug/m3		
Sulfates	24 Hour	25 ug/m3	Turbidimetric Barium Sulfate	-	-	-
Lead	30 Day Average	1.5 ug/m3	Atomic Absorption	-	-	Atomic Absorption
	Calendar Quarter	-		1.5 ug/m3	Same as Primary Std.	
Hydrogen Sulfide	1 Hour	0.03 ppm (42 ug/m3)	Cadmium Hydr-oxide STRactan	-	-	-
Vinyl Chloride (chloroethene)	24 Hour	0.010 ppm (26 ug/m3)	Tedlar Bag Collection, Gas Chromatography	-	-	-
Visibility Reducing Particles	1 Observation	In sufficient amount to reduce the prevailing visibility to less than 10 miles when the relative humidity is less than 70%		-	-	-

Table 3-4

AIR QUALITY LEVELS MEASURED AT THE CHULA VISTA AMBIENT AIR MONITORING STATION

Pollutant	California Standard	National Standard	Year	Maximum Level	Days Federal Std. Exceeded
Ozone	0.1 ppm for 1 hr.	0.12 ppm for 1. hr.	1982	0.20	5
			1983	0.21	6
			1984	0.15	4
			1985	0.20	4
			1986	0.14	2
Particulate matter	100 ug/m3 for 24 hr.	206 ug/m3 for 24 hr.	1982	112	0
			1983	103	0
			1984	88	0
			1985	96	0
			1986	119	0
CO	9 ppm for 8 hour	9 ppm for 8 hour	1982	9	0
			1983	9	0
			1984	7	0
			1985	7	0
			1986	7	0
NO_2	.25 ppm for 1 hour	0.05 ppm annual average	1982	.18	0
			1983	.18	0
			1984	.20	0
			1985	.16	0
			1986	.14	0

NOTES:

1. Standards for sulfer dioxide and sulfates were not exceeded.

The carbon monoxide standards have not been exceeded over the past several years. The trend in maximum carbon monoxide concentrations experienced is less clear. A one hour high of 9 ppm has been reached twice in the last six years. Carbon monoxide is generally considered to be a local pollutant. That is, carbon monoxide is directly emitted from several sources (most notably motor vehicles), and the highest concentrations experienced are directly adjacent to the source.

Lead and sulfur oxides levels are also well below state and federal standards. Sulfur oxides levels are not exceeded anywhere in the San Diego Air Basin; primarily due to the lack of major industrial sources. Due to the introduction and increased usage of unleaded gasoline, lead concentrations are now well below the federal and state standards throughout the basin.

Potential Impacts

Adoption of the proposed General Plan Update would not result in any direct impacts to air quality. However, future development as anticipated under the Plan would result in increased emissions. These emissions would result from construction activities which would generate dust and increased mobile emissions associated with additional traffic on new and existing roadways.

Construction Impacts - Soil disturbance to prepare specific development sites within the Planning Area would generated considerable quantities of fugitive dust during the construction phase. Soil dust is typically chemically inert and much of the dust is comprised of large particles that are readily filtered by human breathing passages and also settle out on nearby surfaces. It comprises more of a potential soiling nuisance than an adverse air quality impact.

Construction activities for large development projects are estimated by the U.S. Environmental Protection Agency to add 1.2 tons of fugitive dust per acre of soil per month of activity. If water or other soil stabilizers are used to control dust, the emissions can be reduced by up to 50 percent. While project related dust emission levels would be substantial during construction, their air quality impact would be generally minimal.

In addition to fugitive dust, construction activities would also cause combustion emissions to be released from on-site construction equipment and from off-site vehicles hauling materials. Heavy duty equipment emissions are difficult to quantify because of day-to-day variability in construction activities and equipment used. Typical emission rates for a diesel powered scraper is provided in Table 3-5, and were obtained from the San Diego Air Quality Management Division Air Quality Handbook (April 1987). A diesel powered scaper is the most common equipment used for grading operations.

Table 3-5
EMISSION RATES FOR GRADING SCRAPER

POLLUTANT	EMISSION RATE (Grams/Hr)
Carbon monoxide	660
Nitrogen oxides	2,820
Hydrocarbons	284
Sulfur oxides	210
Particulates	184

The emission rates above are provided in grams per hour. To provide a regional perspective of construction emissions generated by projects, the projected emissions for San Diego County (Year 2000) have been provided for comparison. These emissions are based on future construction of land uses and regional transportation facilities consistent with the "1982 State Implementation Plan Revisions for the San Diego Air Basin", and are given in units of tons/day.

Table 3-6
REGIONAL SAN DIEGO EMISSIONS
(Year 2000)

POLLUTANT	TOTAL EMISSIONS (Tons/Day)
Carbon monoxide	660
Nitrogen oxides	143
Particulates	255
Hydrocarbons	284

Mobile Source Impacts - Impacts to air quality result primarily from automobile emissions. The proposed General Plan Update would result in development of new transportation corridors in the Eastern Territories and additional traffic on existing corridors which would result in an increase in air emissions. At this level of analysis it is difficult to anticipate the full air quality impact. In general, if future development has been anticipated in the 1982 SIP then air quality impacts are considered mitigated by adherance to the measures as outlined in the SIP. Buildout of the General Plan area is consistent with SANDAG Series VII projects and the 1982 SIP is based on Series V projections. Typically, Series VII projections are higher than Series V. Adherance to the policies and measures in the 1982 may result in some residual impacts as not all growth has been anticipated.

The EPA has given notice to the State of California that the 1982 SIP is now inadequate and a more recent revision has been requested. APCD and SANDAG are in the initial stages of planning for the revisions to the SIP based on Series VII data and no completion date has been set. SANDAG staff is completing a Transportation Demand Management Plan as part of the Regional Transportation Plan effort. The transportation control measures recommended in the Transportation Demand Management Plan will be the basis for such measures in the SIP. When the revised SIP, based on Series VII forecasts, is adopted, the General Plan Update will be in conformance. Until then, some residual air quality impacts would result. It should be noted that buildout of the area is not anticipated for twenty to thirty years. Although Because the Plan is not in conformance with the current SIP, the Update would result in significant impacts to air quality. Ffuture SIP's would develop measures for the growth anticipated in the Plan and the impacts to air quality would not be reduced and no longer considered significant. On a cumulative basis, the additional emissions, combined with future emissions basin-wide, may be significant.

The volume of carbon monoxide released when a large volume of slow moving vehicles are contained in one small area can create air pollution "hot spots". Often such "hot spots" can occur where intersection congestion is LOS D or below. In the urban core of the City of Chula Vista there are some intersections that are presently at LOS D during peak period. Typically these intersections are located near freeway ramps. These intersections are anticipated to remain at LOS D, but not worsen, with adoption of the Plan Update. While this is consistent with the

Threshold Policy, this congestion may allow the creation of air polluation "hot spots" which are potentially significant.

It should be noted that the City of Chula Vista has run several air quality models to evaluate the level of CO at these intersections and no "hot spots" have been identified. The potential does exist for "hot spots" to occur given the increased ADT associated with future growth.

Mitigation Measures

Continued support by the City of Chula Vista of the measures contained in the 1982 SIP would be necessary to minimize air emissions in the immediate future. All measures recommended in future SIP planning efforts should be adopted and enforced by the City. Since the air quality impacts in the County result primarily from automobile traffic, the most substantial mitigation measures will take the form of regional VMT reduction programs. These programs require participation from local governments. Measures specific to the City include:

- Encourage the use of alternate transportation modes by promoting public transit usage and providing secure bicycle facilities;
- Provide mass transit accommodations for convenience of customers (bus shelters) and vehicles (bus turnouts). Currently, bus turnout lanes and accommodations are not indicated in the Plan Update;
- Encourage, as stated in the Circulation Element, a regional transit system along the SR-125 route corridor, an east-west bus route to connect the existing urban core and future eastern urban center, and an urban core/bay-front shuttle.

To avoid creation of air pollution "hot spots" at intersections, the circulation system at that intersection must be improved. Improving the LOS to C or better to decreasing congestion would minimize the number of idling cars that may be releasing carbon monoxide into the air. The proposed General Plan Update Circulation Element does not propose to accomplish this at intersections where LOS is currently D, and no other mitigation is proposed.

Analysis of Significance

Development of future projects would result in increased traffic on new and existing roadways and additional air emissions. Fugitive dust released from construction is considered a short-term nuisance and would not be a significant impact. Buildout of the Plan area is consistent with SANDAG Series VII projects and not the Series V projections associated with the 1982 SIP which may result in some residual is considered a significant impacts. Assuming the SIP revisions, which are currently being initiated using Series VII projections, are completed prior to buildout, and all projects are in compliance with the SIP measures, no adverse these significant impacts are expected to be minimized. Cumulatively, the additional air emissions are anticipated to result in some adverse impacts to the air basins. Air pollution "hot spots" may be created at intersections near freeway off-ramps. This is a potentially significant, unmitigatable impact.

3.6 NOISE

Existing Conditions

Sound is mechanical energy transmitted by pressure waves in a compressible medium such as air. Noise is generally defined as unwanted sound. The sound pressure level has become the most common descriptor used to characterize the loudness of an ambient sound level. The unit of sound pressure ratioed to an assumed zero sound level is called a decibel (dB). Since the human ear is not equally sensitive to all sound frequencies within the entire spectrum, noise levels at maximum human sensitivity (middle A) are factored more heavily into sound descriptions in a process called "A-weighting" written as dB(A).

Time variations in noise exposure are typically expressed as a statistical description of the sound level that is exceeded over some fraction of a given observation period. Community noise receptors are more sensitive to unwanted noise intrusion during the evening and at night. To incorporate this fact, State law requires that for planning purposes, an artificial dB increment be added to quiet time noise levels in a 24-hour noise descriptor called the Community Noise

Equivalent Level (CNEL). An interior CNEL of 45 dB(A) is mandated by the State of California for multi-family dwellings. A 45 dB CNEL is also typically considered a desirable noise exposure for single-family dwelling units. Since normal noise attenuation within residential structures with closed windows is about 20-25 dB, an exterior noise exposure of 65 dB CNEL is generally the noise land use compatibility guideline for new residential dwellings in California.

The City of Chula Vista Noise Element does not currently contain specific noise compatibility standards, other than those mandated by the State for multi-family residential units. And, as stated in the General Plan Noise Element, the City currently experiences some noise problems. These problems occur primarily where truck routes pass through residential areas, adjacent to outdoor recreation sites, and near Scripps Memorial Hospital and Frederick Manor retirement center. Alternative truck routes which may reduce these areas of incompatibility were considered as pasrt of the previous General Plan effort, but alternatives do not yet exist for the east-west through routes (E Street and L Street) or for the north-south truck routes (Broadway and Fourth Avenue). When SR-54 and SR-125 are completed some alternatives would be available.

For purposes of land use planning, the City of San Diego has established a complete set of community noise standards. These standards establish maximum allowable noise levels for various types of land developments and are reproduced on Table 3-7. Under these standards, the maximum exterior noise level for schools, residential development, hopsitals, parks and playgrounds is 65 dB(A). Office buildings, auditoriums and churches may have exterior noise levels up to 70 dB(A). Commercial uses, including retail, wholesale, and industrial may have exterior levels up to 75 dB(A).

Potential Impacts

Adoption of the proposed General Plan Update would result in urban development of currently rural areas. Future development would increase the number of automobiles travelling on new and existing roadways which would increase the noise levels along these roadways. Development would also introduce new noise sources from additional population, as well as new noise-sensitive receptors in

Table 3-7

CITY OF SAN DIEGO COMMUNITY NOISE STANDARDS

	Land Use	Annual Community Noise Equivalent Level in Decibels 50	55	60	65	70	75
1	Outdoor Amphitheaters (may not be suitable for certain types of music.						
2	Schools, Libraries						
3	Nature Preserves, Wildlife Preserves						
4	Residential-Single Family, Multiple Family, Mobile Homes, Transient Housing						
5	Retirement Home, Intermediate Care Facilities, Convalescent Homes						
6	Hospitals						
7	Parks, Playgrounds						
8	Office Buildings, Business and Professional						
9	Auditoriums, Concert Halls, Indoor Arenas, Churches						
10	Riding Stables, Water Recreation Facilities						
11	Outdoor Spectator Sports, Golf Courses						
12	Livestock Farming, Animal Breeding						
13	Commercial-Retail, Shopping Centers, Restaurants, Movie Theaters						
14	Commercial-Wholesale, Industrial Manufacturing, Utilities						
15	Agriculture (except Livestock), Extractive Industry, Farming						
16	Cemeteries						

COMPATIBLE
The average noise level is such that indoor and outdoor activities associated with the land use may be carried out with essentially no interference from noise.

INCOMPATIBLE
The average noise level is so severe that construction costs to make the indoor environment acceptable for performance of activities would probably be prohibitive. The outdoor environment would be intolerable for outdoor activities associated with the land use.

areas where no receptors currently exist. To address the potential impacts from increased noise associated with additional traffic volumes, the future noise levels on specific roadways were modelled. The modelling was completed by Mestre & Greve Associates. The spreadsheet calculations are contained in Appendix F.

The traffic noise levels projected were computed using the Highway Noise Model published by the Federal Highway Administration ("FHWA Highway Traffic Noise Prediction Model", FHWA-RD-77-108, December 1978). The FHWA Model uses traffic volume, vehicle mix, vehicle speed, and roadway geometry to compute the noise level. A computer code has been written which computes equivalent noise levels for each of the time periods used in CNEL. Weighting these noise levels and summing them results in the CNEL for the traffic projections used. The traffic volumes used to project these noise levels was derived from the Circulation Element provided by JHK & Associates and the lanes computed were selected by the City of Chula Vista. The traffic mixes and time distributions assumed in this study for the arterials are presented in Table 3-8. The traffic mix data for the arterials is based on measurements for roadways in Southern California and is considered typical for arterials in this area. The traffic mix for the freeway was derived from CalTrans data.

Table 3-8
TRAFFIC MIX FOR ARTERIALS

	Percent of Average Daily Trips		
	Day	Evening	Night
Automobile	75.51	12.57	9.34
Medium Truck	1.56	0.09	0.19
Heavy Truck	0.64	0.02	0.08

The results of the noise model are presented in Table 3-9. This table gives the distance from the centerline from each prospective roadway to the various noise contours considered useful for planning purposes. The distances given assume straight attenuation with no intervening topography or mitigation measures to muffle noise, and are considered the worst-case scenario.

Table 3-9

FUTURE CNEL NOISE CONTOURS

ROADWAY	LINK	70 CNEL	65 CNEL	60 CNEL
Broadway	33rd St to SR 54	94	202	436
	SR 54 to C St	111	238	514
	C St to E St	94	203	437
	E St to Davidson St	84	181	389
	Davidson St to Palomar St	61	132	284
	Palomar St to Anita St	53	114	246
	Anita St to Main St	47	101	217
	Main St to City Boundary	37	80	173
4th Avenue	30th St to SR 54	68	146	314
	SR 54 to Trousdale Dr	128	275	592
	Trousdale Dr to C St	112	241	520
	C St to McIntosh St	103	222	479
	McIntosh St to Park Way	70	151	326
	Park Way to Roosevelt St	64	138	296
	Roosevelt St to Manikato St	55	119	257
	Manikato St to Kearney St	49	105	227
	Kearney St to L St	45	98	211
	L St to Nickman St	48	103	221
	Nickman St to Naples St	42	91	196
	Naples St to Oxford St	39	85	183
	Oxford St to Anita St	38	82	178
	Anita St to City Boundary	34	74	160
3rd Avenue	4th Ave to Marietta St	31	67	144
	Marietta St to E St	34	73	158
	E St to Davidson St	40	86	185
	Davidson St to Madrona St	44	95	205
	Madrona St to H St	52	112	242
	H St to I St	57	122	264
	I St to Moss St	60	129	277
	Moss St to Palomar St	58	124	268
	Palomar St to Orange St	54	116	249

Table 3-9

FUTURE CNEL NOISE CONTOURS

(Continued)

ROADWAY	LINK	70 CNEL	65 CNEL	60 CNEL
3rd Avenue	Orange Ave to Anita St	50	108	233
	Anita St to City Boundary	464	99	214
Paseo Ranchero	Rice Canyon to East H St	18	39	84
	East H St to East J St	42	91	196
	East J St to Telegraph Canyon Rd	47	101	217
	Telegraph Canyon Rd to Palomar St	88	189	407
	Palomar St to Orange Ave	104	225	485
	Orange Ave to Otay Valley Rd	135	290	625
	Otay Valley Rd to City Boundary	145	313	675
Otay Lakes Road	Bonita Rd to H Street	103	223	480
	H St to Telegraph Canyon Rd	114	245	527
	Telegraph Cnyn Rd to Palomar St	85	182	393
	Palomar St to Orange Ave	111	239	515
	Orange Ave to SR 125	131	281	606
	SR 125 to Eastlake Parkway	110	237	510
	Eastlake Parkway to Orange Ave	62	133	287
Eastlake Parkway	SR 125 to Telegraph Canyon Rd	50	107	231
	Telegraph Canyon Rd to Palomar St	57	123	266
	Palomar St to Orange Ave	46	98	212
	Orange Ave to Otay Lakes Rd	65	139	300
	South-east of Otay Lakes Rd	69	149	321
Hunte Parkway	Orange Ave to Telegraph Canyon Rd	39	84	181
	Telegraph Cyn Rd to Proctor Vly Rd	22	48	103
	North of Proctor Valley Rd	19	41	89
E Street	Marina Parkway to I-5	44	94	203
	I-5 to Woodlawn	68	146	314
	Woodlawn to Broadway	59	127	274
	Broadway to 3rd Ave	47	100	217
	3rd Ave to 1st Ave	54	116	250
	1st Ave to Bonita Rd	62	133	286

Table 3-9

FUTURE CNEL NOISE CONTOURS

(Continued)

ROADWAY	LINK	70 CNEL	65 CNEL	60 CNEL
Bonita Road	E St to I-805	68	146	316
	I-805 to Andorra Way	76	163	351
	Andorra Way to Willow St	66	143	308
	Willow St to Allen School Rd	80	172	370
	Allen School Rd to Palm Dr	73	157	338
	Palm Dr to Sweetwater Rd	60	129	279
Sweetwater Road	Edgemere Ave to Prospect St	23	50	108
	Prospect St to SR-54	26	56	120
	SR-54 to Plaza Bonita Rd	44	96	206
	Plaza Bonita Rd to Valley V Way	37	80	172
	Valley Vista Way to Willow St	44	94	202
J Street	Tidelands Ave to I-5	22	47	102
	I-5 to Jefferson Ave	57	123	266
	Jefferson Ave to Broadway	50	108	232
	Broadway to Beach St	43	93	200
	Beach St to Fig Ave	38	83	179
	Fig Ave to Carla Ave	33	72	154
	Carla Ave to Myra Ave	17	36	78
	Myra Ave to I-805	10	22	47
East J Street	I-805 to Paseo Ranchero	9	19	42
H Street	Walnut to I-5	26	56	121
	I-5 to Oaklawn Ave	107	230	495
	Oaklawn Ave to Smith Ave	99	213	459
	Smith Ave to Brightwood Ave	104	225	485
	Brightwood Ave to 3rd Ave	93	201	433
	3rd Ave to Hilltop Dr	103	221	477
	Hilltop Dr to I-805	121	261	563
East H Street	I-805 to Ridgeback Rd	135	290	625
	Ridgeback Rd to Paseo Del Rey	95	205	442
	Paseo Del Rey to Otay Lakes Rd	85	182	393

Table 3-9

FUTURE CNEL NOISE CONTOURS

(Continued)

ROADWAY	LINK	70 CNEL	65 CNEL	60 CNEL
East H Street	Otay Lakes Rd to Corral Cyn Rd	48	104	224
	Corral Cyn Rd to SR-125	64	138	296
L Street	I-5 to Jefferson Ave	52	112	241
	Jefferson Ave to 3rd Ave	40	87	187
	3rd Ave to 1st Ave	45	97	209
	1st Ave to I-805	40	87	187
Telegraph Canyon Rd	I-805 to Oleander Ave	105	227	488
	Oleander Ave to Paseo Del Rey	80	173	374
	Paseo Del Rey to Paseo Ladera	72	156	336
	Paseo Ladera to Paseo Ranchero	58	126	271
	Paseo Ranchero to Otay lakes	73	157	339
	Otay Lakes Rd to SR-125	90	194	418
	SR-125 to Eastlake Parkway	113	243	523
	Eastlake Parkway to Unknown Rd	77	166	358
	Unknown Rd to Hunte Parkway	44	95	205
	Hunte Parkway to Orange Ave	36	78	169
	East of Orange Ave	47	102	220
Palomar Street	I-5 to Hollister St	114	245	529
	Hollister St to Crann Ave	98	211	454
	Crann Ave to 3rd Ave	44	95	204
	3rd Ave to Judson Way	47	102	220
	Judson Way to I-805	53	114	246
	I-805 to Paseo Ranchero Rd	54	115	249
	Paseo Ranchero Rd to Otay Lakes	38	82	176
	Otay Lakes Rd to Eastlake Parkway	45	97	209
Orange Avenue	Palomar St to 3rd Ave	42	92	197
	3rd Ave to 2nd Ave	52	112	242
	2nd Ave to Larkhaven Dr	58	124	267
	Larkhaven Drive to Melrose Ave	66	143	308
	Melrose Ave to I-805	76	164	354

Table 3-9
FUTURE CNEL NOISE CONTOURS
(Continued)

ROADWAY	LINK	70 CNEL	65 CNEL	60 CNEL
	I-805 to Oleander Ave	132	283	611
	Oleander Ave to Rancho Paseo	122	262	565
	Rancho Paseo Rd to SR-125	166	357	769
	SR-125 to Hunte Parkway	83	178	383
	Hunte Pkwy to Telegraph Canyon Rd	34	74	160
Main Street	Frontage Road to I-5	17	36	77
	I-5 to Jacqua Street	63	135	290
	Jacqua St to Hermosa Ave	50	107	231
	Hermosa Ave to 3rd Ave	44	96	206
	3rd Ave to Date St	56	121	261
	Date St to Melrose Ave	62	134	288
	Melrose Ave to I-805	69	149	322
	I-805 to Brandywind Ave	112	242	522
	Brandwine Ave to Nirvana Ave	104	223	481
	Nirvana Ave to Paseo Ranchero	58	126	272
No Name - South of East Orange Street	Paseo Ranchero to Otay Lakes	72	155	334
I-5	SR-54 to E St	575	1,239	2,669
	E St to H St	552	1,190	2,565
	H St to J St	530	1,142	2,461
	J St to L St	512	1,103	2,376
	L St to Orange Ave	495	1,067	2,300
	Orange Ave to Main St	468	1,008	2,172
	Main St to City Boundary	445	959	2,067
I-805	SR-54 to E St	611	1,317	2,839
	E St to H St	590	1,271	2,738
	H St to J St	553	1,191	2,567
	J St to L St	492	1,060	2,284
	L St to Naples St	517	1,114	2,400
	Naples St to Palomar St	462	995	2,145

Table 3-9

FUTURE CNEL NOISE CONTOURS

(Continued)

ROADWAY	LINK	70 CNEL	65 CNEL	60 CNEL
I-805	Palomar St to Orange Ave	414	891	1,920
	Orange Ave to City Boundary	464	1,001	2,156
SR-54	I-5 to Broadway	197	425	916
	Broadway to 4th Ave	240	516	1,113
	4th Ave to I-805	270	582	1,254
	I-805 to Sweetwater Rd	369	795	1,713
	Sweetwater Rd to SR-125	343	740	1,594
SR-125	SR-54 to San Miguel Rd	452	973	2,097
	San Miguel Rd to East H Street	436	939	2,023
	East H St to Telegraph Canyon Rd	408	878	1,892
	Telegraph Canyon Rd to Otay Lakes	397	855	1,842
	Otay Lakes Rd to City Boundary	418	900	1,939

The noise contours calculated by the modelling process and listed in Table 3-9, assume full buildout of the Planning Area and total improvement of the Circulation Element. To anlyze the potential impacts, the projected 65 dB(A) noise contours were compared to the proposed land use map. Areas of sensitive noise receptors, particularly residences, were noted. Where the exterior noise levels were projected to be in excess of 65 dB(A) potentially significant impacts were identified. This effort was completed at a cursory level only and was intended to identify and highlight areas of potential noise conflicts. Actual site specific analyses will be required on a project-by-project basis to more clearly define conflicts.

As stated in the Noise Element, there are areas in the existing urban areas where noise levels are currently at incompatible levels. The construction of SR-125 and 54 may provide alternate routes for truck travel, which would reduce noise levels on certain streets, but the increase in automobile travel is expected to produce noise levels at least equal to, and probably higher, than the existing levels.

Based on a review of the contours of the proposed land use element, two areas of existing residential development may be adversely impacted by noise. One is along Broadway between C and E Street and the other is on H Street between 2nd Avenue and I-805. The volume of traffic projected on these streets would result in a 65 dB(A) contours 203 feet and 221 feet from centerline, respectively. It appears that a portion of the existing subdivisions would be subject to noise levels in excess of acceptable noise levels.

In the Planning Area east of I-805 there are also several street lengths that may be impacted. Otay Lakes Road, between Bonita Road and Telegraph Canyon Drive, is characterized by residential and educational uses. The 65 dB(A) contour in this area varies between 223 to 245 feet from centerline and there is the potential for residents in the area to be adversely affected. A similar situation exists along Paseo Ranchero between Palomar and Orange, on the unnamed street south of Orange Avenue connecting Paseo Ranchero and Otay Lakes Road, and East H Street between Paseo Ranchero and Otay Lakes Road. In areas where residential development is designated but not constructed, mitigation measures can be designed to reduce noise levels to an acceptable level. In areas where development is existing, noise levels would be raised with few options for mitigation. This is the case in the existing urban areas of the City. Given the scenario of increasing traffic volumes adjacent to existing residenteial developments, some noise sensitive receptors would be subject to significant impacts.

Mitigation Measures

To mitigate noise impacts to future development, the City should require all future development to conform to the policies contained in the Noise Element including:

- using the Environmental Review process to evaluate noise impacts, specifically more detailed noise analyses at a site specific level;
- consider the effects of noise, especially transportation, in land use decisions to ensure compatibility.

The predominantly residential corridors listed below have been identified as locations of potential conflict, primarily due to transportation-related noise levels.

These areas should be reviewed, prior to approval of development plans, to assure that noise levels do not result in adverse impacts. The noise contours provided in Table 3-9 should be used as one source to evaluate compatibility, additional studies would be warranted at the site specific level.

- Otay lakes road, from Bonita to Telegraph Canyon Road,
- Paseo Ranchero, from Palomar to Orange,
- Unnamed street south of Orange connecting Paseo Ranchero and Otay Lakes Road, and
- East H Street, from Paseo Ranchero to Otay Lakes Road.

It should be noted that these streets are not the only segments on which such conflicts may occur. If traffic volumes are different than currently projected, the impacts of noise could be felt on corridors not currently anticipated. Site specific evaluation should be completed along all major thoroughfares.

Also, Chula Vista should establish a noise-compatibility standard, or adopt the one established by the City of San Diego (Table 3-7), to ensure consistent implementation of and review of proposed projects. This should be made a part of the Noise Element. For purposes of implementation it could also be adopted as a Threshold Standard as part of the GMOC Threshold Policy.

Mitigation to reduce noise levels to an acceptable level include construction of noise attenuation barriers (walls), special construction materials in windows and walls, and site design to place sensitive receptors within adequate noise contours. All of these measures should be reviewed and implemented on a site specific basis.

In areas where development is existing and future noise levels would be incompatible, there are similar opportunities for mitigation, although they are more difficult to implement. The preferred option is a noise wall, however, often there is not enough right-of-way to construct a wall. Another option is to eliminate trucks from the roadway, which can reduce the noise generated by 2-3 dB(A). Finally, remedial action can be taken to reduce the interior level to 45 dB(A) primarily by installation of double-paned windows, room or central air conditioning,

weather-proofing and insulation. These actions minimize the amount of noise entering the house and may be successful in some cases. The mitigation measures described above may be infeasible in the case of a wall or removal of truck traffic; or impractical, in the case of the installation of windows, on a large scale.

Analysis of Significance

The increase in traffic would result in additional noise generated along roadways. In the existing urban areas some sensitive receptors, primarily residential development, may be subject to exterior noise levels in excess of 65 dB(A). Given that mitigation may be infeasible or impractible, it is anticipated that some significant, unmitigable impacts would occur. Undeveloped areas would be subject to site and project specific environmental review to minimize noise levels and assure no sensitive receptors are subject to incompatible levels. No significant impacts are anticipated in the areas of future development, specifically the Eastern Territories.

3.7 CONVERSION OF AGRICULTURAL LAND

Existing Conditions

The Chula Vista General Planning area contains a mixture of urban, highly developed areas as well as rural, agricultural areas. The Central Chula Vista, Bayfront and Montgomery Planning Areas are urban; highly developed with residential, commercial, retail and some industrial uses. The Sweetwater/Bonita area is slightly less dense with typically more residential development. Some large lots support horses and other livestock. The Eastern Territories has been traditionally rural with large landholdings devoted to agriculture.

Within the Eastern Territories there are two major landholdings which support agricultural uses; Baldwin (Rancho Otay) and Eastlake (formerly Rancho Janal). The Baldwin holdings within the Eastern Territories totals approximately 9,000 acres and Eastlake, approximately 3,000 acres. Together these two large holdings within the Planning Area represent approximately 12,000 acres, or 50% of the Eastern Territories.

In the County of San Diego Otay Subregional area, which includes much of the Eastern Territories, 35% or 13,695 acres of all land is in agricultural production. Approximately 4,000 acres are planted each year in row crops such as tomatoes, celery or peppers (San Diego County, 1979). The principal production area is in Otay Mesa, which is outside of the General Plan Update area. In 1979, the Otay Subregional area contained about 12 percent of the County production acreage. The average cost for irrigated land was 35 percent below the County average but the cost of water was 32 percent above the County average (San Diego County, 1979).

The 3,000 acres of EastLake contained, prior to current development, 2,800 plus acres that were tillable. Until the 1950's, beans and grains were cultivated on-site. The only crop currently grown is dry-farm barley. This is a low cost, low yield, low return crop which is not highly valued in terms of Countywide agricultural value or as a crop itself. When EastLake is fully developed, consistent with its approved and proposed plans, no land will remain in agricultural production. The impact of this conversion of agricultural land to urban development was addressed in the Final EastLake EIR (WESTEC, 1982).

The Baldwin holdings contain approximately 3,500 acres potentially capable of supporting agricultural production (WRT, 1988). Agricultural operations historically associated with Rancho Otay include dry land farming, beef-cattle, and fresh market crops including tomato, zucchini, crook-neck squash and green peppers (Buckner, 1980). In the later 1970's, dry farm barley became the only crop cultivated on-site. After harvest, cattle are grazed on the barley stubble.

Climate

The City of Chula Vista and the General Plan Update area is situated within the maritime and coastal climates. The maritime climate receives the most influence from the ocean and includes the more urbanized areas of the City. The coastal climate lies further inland; the Eastern Territories lie predominately within this climate. Because the ocean influence diminishes farther inland, the coastal climate has a greater range in temperature and less fog. Conditions in both areaclimates are mild and allow the production of vegetable crops during months when few, if any, areas in the country can produce such crops outside greenhouses.

A weather station is maintained in Chula Vista where mean temperatures range from 44.0°F in December to 72.8°F in September. According to the University of California Agricultural Extension Service, Chula Vista has a growing season of 350 days. Average annual rainfall is 10.32 inches which is below the minimum required by most farm crops, thus imported water is required.

Soils

The following soils information is based upon the U.S. Department of Agriculture Soil Conservation Service Soil Survey. The soils types found in the Eastern Territories are listed in Table 3-10 as well as the Capacity classification and Storie ratings for each soil. Their rated suitability for the five principal crops grown in San Diego County is also provided. As shown, the predominant soils are not rated as suitable for avocados, citrus crops, truck crops and in most cases, flowers. Several soils are, however, rated fair to good suitability for tomato cultivation.

The Capability class and Storie ratings express the relative suitability of the soils for agricultural purposes. The Storie Index is based on soil characteristics only and expresses, numerically, the relative degree of suitability of a soil for general intensive agriculture. Capability ratings encompass such factors as crop suitability, potential for soil damage, soil conservation, and crop management. Capability classes are designated by Roman numerals I through VIII which indicate progressively greater limitations and narrower choices for practical use of soil. Class I soils have the fewest limitations and Class VIII soils have limitations that restrict their use to recreation, wildlife or water supply purposes.

The Capability subclasses are soil groups within one class and are described by a small letter. The letter "e" in the capability class number indicates that the main limitation is risk of erosion unless close-growing plant cover is maintained.

All land which is rated Class I or II in the Capability classification and rated 80 through 100 in the Storie Index rating is defined as "prime" agricultural land under Government Code Section 512.01 of the California Land Conservation Act of 1965 (Williamson Act). According to this definition only two soil types, Salinas sandy loam and Reiff sandy loam, are considered "prime" in the Eastern Territories. In

Table 3-10
ANALYSIS OF SOILS IN EASTERN TERRITORIES (excluding urban complexes)

Soil Name	Map Symbol	Percent Slope	Class	Storie Index	Crop Suitability If Irrigated (G=Good, F=Fair, N=Not Rated) Avocados	Citrus	Truck Crops	Tomatoes	Flowers
Diablo clay	DaC	2-9	IIe-5	42	N	N	N	G	N
Diablo clay	DaD	9-15	IIIe-5	47	N	N	N	F	N
Diablo clay	DaE	15-30	IVe-5	30	N	N	N	F	N
Diablo clay	DaE2	15-30	IVe-5	27	N	N	N	F	N
Diablo olivenhain complex	DOE	9-30	IVe-5	23	N	N	N	N	N
Friant rocky fine sandy loam	FXe	9-30	VIIIs-8	5	N	N	N	N	N
Gaviota fine sandy loam	GaE	9-30	VIIe	10	Not analyzed				
Huerhuero loam	HrC	2-9	IIIe	41	N	N	F	G	F
Huerhuero loam	HrC2	5-9	IVe	38	N	N	F	G	N
Huerhuero loam	HrD2	9-15	IVe	36	N	N	F	N	F
Huerhuero loam	HrE2	15-30	VIe-3	32	N	N	N	N	N
Linne clay loam	LsE	9-30	IVe-1	14	N	N	N	N	N
Linne clay loam	LsF	30-50	VIe-1	6	N	N	N	N	N
Olivenhain cobbly loam	OhC	2-9	VIe-7	29	N	F	N	N	N
Olivenhain cobbly loam	OhE	9-30	VIe-7	20	N	F	N	N	N
Olivenhain cobbly loam	OhF	30-50	VIIe	10	Not analyzed				
*Reiff fine sandy loam	RkB	2-5	IIe	86	G	G	F	G	G
River wash	Rm	--	VIIIw	40	Not analyzed				
*Salinas clay loam	SbA	0-2	I	81	N	F	F	G	F
*Salinas clay loam	SbC	2-9	IIe-7	73	N	F	F	G	F
San Miguel Exchequer rocky silt loam	SnG	9-70	VIIe-8	8	N	N	N	N	N
Stockpen gravelly loam	SuA	0-2	IIIs	36	N	N	F	G	F
Stockpen gravelly loam	SuB	2-5	IIIs	34	N	N	F	G	F
Terrace Escarpments	TeF	--	VIIIe	10	Not analyzed				

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

San Diego County, almost all of the significant acreages of prime soils have been developed with urban uses. However, a wide variety of crops can be grown easily in non-prime soils with the proper climate and water. Because of this, the agricultural potential of soils in San Diego is more accurately reflected by the soil survey ratings because they consider the kinds of production which occur in the County. This system rates soils as "good" or "fair" for five crops; avocadoes, citrus, truck crops, tomatoes and flowers. Those soils which do not meet the "fair" criteria are "not rated". (Refer to Table 3-10).

Important Farmlands

The State of California, Department of Conservation, prepares a map which locates and defines farmland within the County. Farmland is classified between Prime, the best for production of agricultural crops, and Grazing Land on which the soil is suited to the grazing of livestock. Intermediate ratings include Farmlands of Statewide Importance - good for production of agricultural crops; Unique-lesser quality soils used for agricultural cash crops; and Farmlands of Local Importance - non-irrigated soil units of significant economic importance to the County. The most recent map (1986) locates five relatively small areas of prime agricultural importance is within the General Plan area (see Figure 3-3). Two are located in the Montgomery Planning Area, near the bay and surrounded by urban development. The remaining three are just south of the Otay River, close to I-805, also surrounded by planned or existing development. Most of the land within the Eastern Territories is defined as Farmland of Local Importance and Grazing Land.

Water Availability

The Otay Water District (OWD), which buys its water from the County Water Authority, serves the Eastern Territories Planning Area. The OWD is currently having some difficulty providing water to its existing commitments during peak periods (Arroyo, 1988). The agricultural uses in the area are not irrigated. To produce coastal dependent crops, water is a necessity. These crops use as much water per acre as does residential development at five to six units per acre (Buckner, 1980). Supplying the agricultural land within the Planning Area with water is a problem because water is very expensive and in short supply in this area and domestic and agricultural uses must compete for this scarce resource.

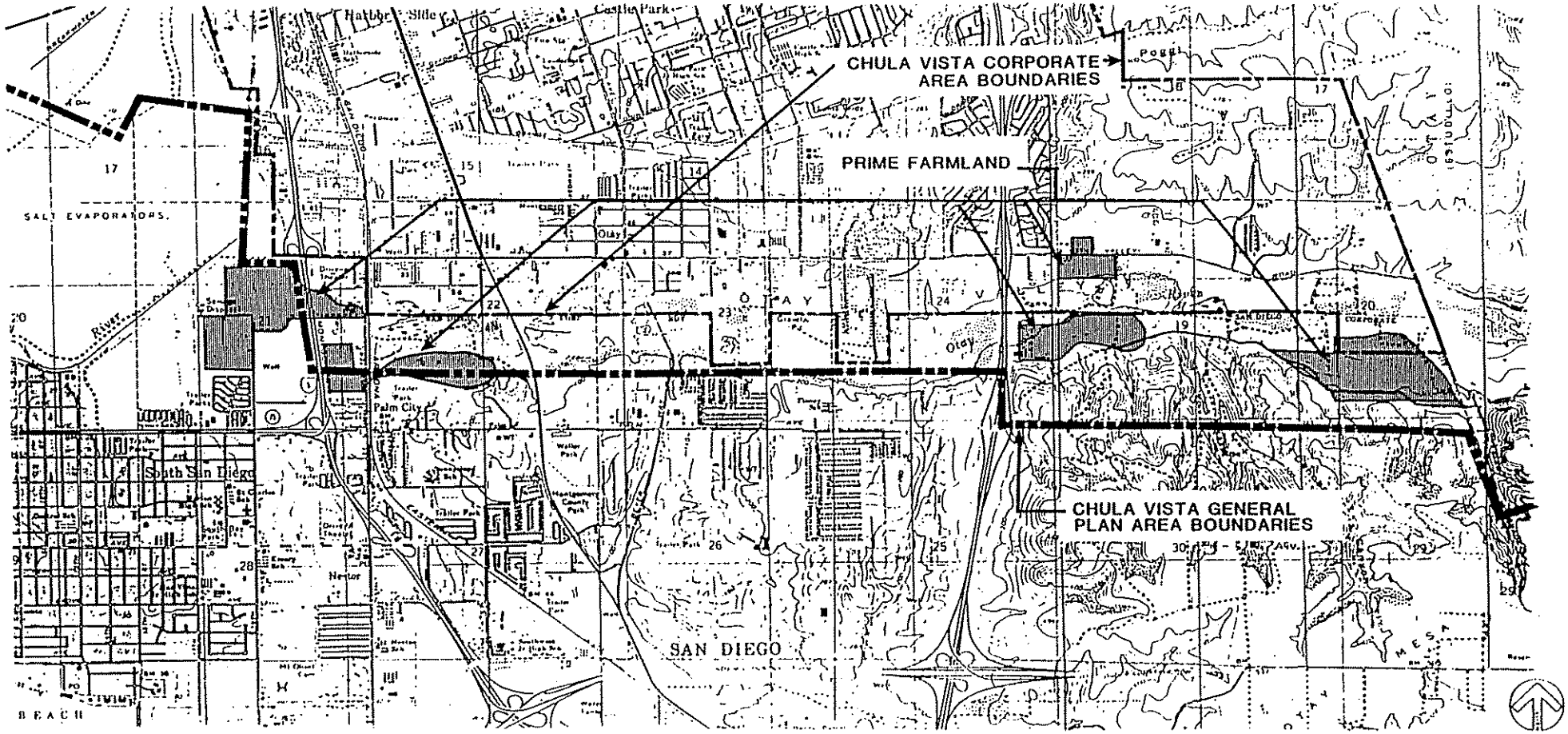


Figure 3-3

PRIME AGRICULTURAL SOILS

Potential Impacts

The proposed updated Land Use Element includes new designations over the Eastern Territories. Currently the land within the Baldwin holdings is designated as land suitable for agricultural use in the Conservation Element of the General Plan; and interim open space, and agricultural preserve in the Open Space Element. The updated Land Use Element does not contain an agricultural designation. New designations include residential, commercial, open space, R&D industrial and public/institutional. Adoption of the Element would allow the conversion of land from agricultural land uses to urban uses consistent with the revised Element. This conversion represents a significant impact in terms of the loss of potential production of coastal-dependent crops.

The actual loss of barley production is not considered to be significant because barley is a low cost, low yield, low return crop which is not highly valued in terms of countywide agricultural volume. Cultivation of barley is not dependent on or confined to coastal lands. Many vegetable crops are, however, dependent upon coastal proximity for production. The majority of the area, given irrigation, would be well-suited for the production of coastal-dependent vegetables due to its location in the coastal climate and suitability of soils. The loss of this potential resource is considered significant. The scarity of water in the area does not change this conclusion because the water resource has the capability of future supply increases.

Changes in the land use designations in the Eastern Territories may have a secondary effect on area agriculture, specifically Otay Mesa to the south. Urbanizing pressures may stimulate the premature conversion of surrounding agricultural land through the extension of public services and appreciation of land value. It should be noted that the construction of the Donovan Correction Facility and various industrial uses on the Mesa have already resulted in the extension of infrastructure and transportation facilities into the Otay area. The encroachment of urbanizing influences on the Mesa is currently placing pressure on agricultural land to convert. This pressure is independent of the proposed Plan Update. The pressure from development currently approved by the City and County of San Diego, combined with the urbanizing pressure associated with the Plan Update, could result in cumulative impacts to the loss of agriculture in the area.

Agricultural lands in the coastal and maritime areaclimates have the ability to produce and market off-season fresh tomatoes, vegetables and field-grown floral crops, most of which have statewide and national importance. Continued conversion of these lands to urban uses will eventually result in the loss of ability to produce these crops. Also of special concern is the fact that San Diego is one of the few areas in the United States that contains the maritime and coastal climate zones necessary for "off-season" production.

Mitigation

Mitigation of the impacts to agricultural resources can only be achieved by retaining the existing agricultural designations over portions of the Planning Area.

Analysis of Significance

The conversion of several thousands of acres of agricultural land to urban uses is considered a significant, unmitigable impact; particularly because of the unique areaclimates of the region and crop suitability, which could allow for "off-season" vegetable production.

3.8 LANDFORM/AESTHETICS

Existing Conditions

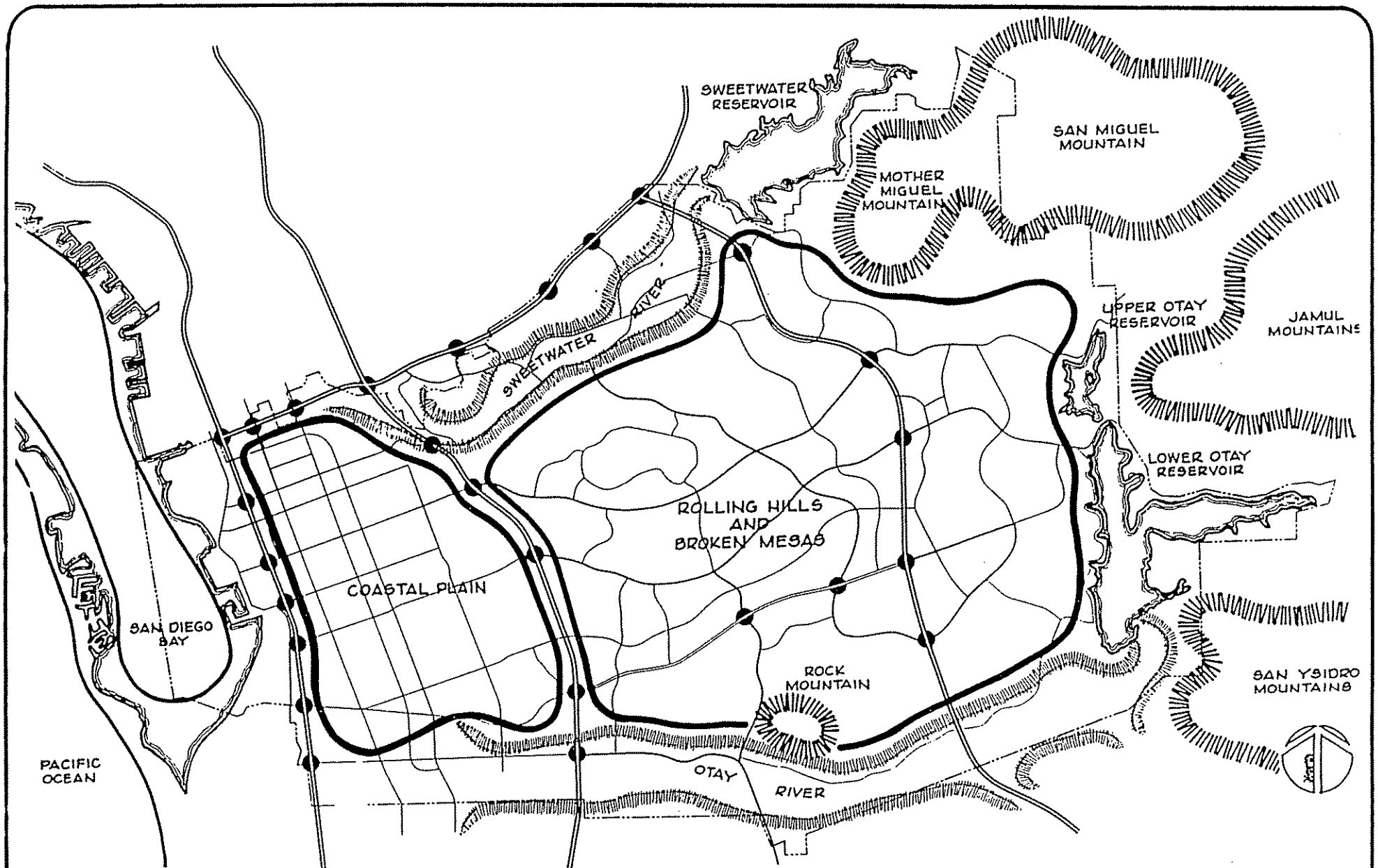
Chula Vista is located in southern San Diego County which has a dry, mild, Mediterranean climate. Natural vegetation is, for the most part, short (3-4 feet in height) and characterized by muted colors and earth tones. When irrigated, however, the land will support lush, green vegetation.

The landform of Chula Vista is comprised of three characteristic areas generally progressing from the shore to the mountains. The coastal area extends from the bayfront to I-805 (approximately) and is a low, relatively flat plain. The second area is the low rolling hills generally east of I-805 and west of the Otay Lakes. In this area of higher elevation, water courses have cut through the mesa and created

rolling hills and canyons. Canyons and creeks in this area include Long Canyon, Wolf Canyon, Poggi Canyon, Rice Canyon and Salt Creek. The Otay Lakes which form the eastern edge of this area are man-made reservoirs which serve as visual and recreation resources to the City. The third area is mountain foothills. Most of this area, including the mountains themselves, are located east of the planning area. Mother Miguel Mountain is located in the northeast portion of the planning area, a smaller version of the San Miguel Mountain immediately to the east. Rock Mountain is located in the middle of the southern edge of the Planning Area and, although smaller than Mother Miguel, is unique in that it exists separated by several miles from the foothills of the San Ysidro Mountains to the east. Two rivers, the Sweetwater and the Otay, cross the Planning Area and flow from the mountains to the coast. The Sweetwater and Otay Rivers serve as the general northerly and southerly boundaries respectively of the Planning Area. The three areas are illustrated in Figure 3-4.

The visual characteristics of the Planning Area also vary from the coast to the foothills. Views along the bayfront include open marsh land, park land, a marina, and industrial uses. The SDG&E operations plant and Rohr facility are the most visable features on the bayfront from I-5. The coastal plain area, which corresponds roughly to Central Chula Vista and Montgomery, contains a built urban environment with commercial and retail corridors and mixed residential land uses. The flat landform has led to a community designated in rectulinear grid streets. Landscaping in the urban area provides these urban areas with trees and greenery.

East of I-805, where the terrain becomes different, the visual quality is different. The topographic relief, while not extreme, has led to a different pattern of circulation. Instead of a grid street pattern, circulation is provided via a curvilinear pattern to avoid canyons and other terrain constraints. Development of urban uses has followed a similar pattern. The views of the Sweetwater/Bonita area are of undulating terrain with traditional retail and residential development in the flatter areas and clustered development on the mesa tops. In the Eastern Territories, where much of the land is vacant, views consist of gently rolling hills, generally green in the rainy season and dry and brown during the rest of the year. However, urban development is encroaching upon this vacant area and changes to visual quality are occurring, specifically in the EastLake development area and



LANDFORM

Figure 3-4

along Telegraph Canyon Road. Residential development is replacing previously vacant areas, thus the views are correspondingly changing from rural to residential.

Potential Impacts

Adoption of the General Plan Update would result in substantial changes to the landform and visual quality of the currently vacant parcels in the Planning Area, specifically within the Eastern Territories. The Plan Update would involve little change to the existing landform or visual quality of the Bayfront, Montgomery or Central Chula Vista areas as the areas are flat and mostly urbanized. Proposed land uses would be consistent with the existing ones and would not represent a significant aesthetic impact. The Sweetwater area, which contains more varied terrain and visual resources, would not be altered significantly by implementation of the proposed Land Use Element.

In the Eastern Territories, where terrain and visual quality are generally undisturbed by development, the change would represent a significant impact. As stated previously, the area is characterized by mesas, hills, canyons and drainages. Adoption of the Land Use Element would result in visible changes to the mesas and hilltops in the area as they would be graded for development. The views of rolling hills and mesas would be replaced by a terraced, urban landscape in these areas. The major canyons and creeks, Wolf Canyon, Poggi Canyon and Salt Creek, as well as Rock Mountain and the Otay River would remain undeveloped and in open space.

Although almost half of the Planning Area (11,393 acres) or 48% would remain in open space, the remaining acreage (12,310 acres) would be permanently changed from rural and/or vacant land to urban. This change would be irreversible and is regarded as a significant landform and visual impact.

Mitigation

To minimize potential impacts from development, specifically hillsides, all policies and guidelines contained in the hillside development section of the Land Use Element should be adhered to. Additionally, all development should conform to the policies and guidelines contained in the Community and Urban Design section of the Land Use Element.

Otherwise, potential visual quality and landform impacts from future development in the Eastern Territories and corresponding loss of aesthetic component cannot be mitigated except by preservation.

Analysis of Significance

Adoption of the General Plan Update would involve little, substantiative change to the landform and visual quality of the built environment of Chula Vista, including the Montgomery, Bayfront, Center and Sweetwater areas. However, in the Eastern Territories, where land is currently vacant and undeveloped, land use changes associated with the General Plan Update would result in a significant change to the existing landform or visual quality. Although almost half of the area would remian in open space, the majority of landform and visual resources such as mesas and hilltops would be significantly altered. The only way to fully mitigate this significant impact would be by preservation. Because this measure is considered infeasible, the impacts to landform and visual quality are considered significant and unmitigable.

3.9 LAND USES/GENERAL PLAN ELEMENTS/ZONING

The subject area of the proposed General Plan Update includes the City of Chula Vista, its Sphere of Influence and an additional area not currently within the Sphere of Influence. The existing General Plan for the City of Chula Vista encompasses a smaller area than the current project area. Because these two areas vary in size, it is not possible to provide a detailed comparison of both the existing General Plan Land Use map and the proposed Land Use map update. Rather, the general characteristics of each will be described and similarities and differences will be delineated. The existing conditions section will describe the existing General Plan Land Use map, and the changes associated with the proposed General Plan Land Use Map will be discussed in the Impacts section.

Existing Conditions

The Original General Plan for the City of Chula Vista was adopted in 1964 and was last amended in 1981. The Chula Vista General Plan contains five communities

including Central Chula Vista, Bayfront, Montgomery/Otay, Sweetwater/Bonita, and the Eastern Territories. A general description of the exisiting land uses of each community and the existing specific and community plans is provided in the following paragraphs.

Existing Land Uses - The Central Chula Vista area contains approximately 4,040 acres most of which are built out. Over half of the area is occupied by residential uses, approximately one-fifth by commercial, industrial and institutional uses and the remainder is streets and freeways. Retail uses are located primarily along Broadway from E to L Streets and along Third Avenue from E to H Streets. Scattered industrial uses occur along Interstate 5 and adjacent to National City. A number of different residential areas exist in Central Chula Vista. Well maintained, single-family neighborhoods built on approximately 7,000 square foot lots are located east of Second Avenue and south of H Street. Residential areas west of Second Avenue and north of I Street, and areas west of Broadway and south of I Street are currently in transition. There are isolated pockets of strictly single-family homes but large portions of this area have been zoned for multi-family residential. As a result, both large-scale complexes and walk-up apartments have been developed over the years.

The Central Chula Vista area has three commercial districts: Third Avenue, Chula Vista Shopping Center, and Broadway. The Chula Vista Shopping Center is a 750,000 square foot retail mall which serves the South Bay regional market. Broadway, which connects Chula Vista with National City and south San Diego, is classified as thoroughfare commercial. The retail uses along Broadway serve Chula Vista residents as well as residents of neighboring communities and north-south travelers. The Third Avenue commercial area is located between E Street and I Street, with most of the retail occurring between E Street and D Street. Most of the office activity is located between G and I Streets east and west of Third Avenue. Major office uses in this area are the Chula Vista Civic Center, the South Bay Regional Center, and a mix of financial, medical and other professional services. The Third Avenue commercial center primarily serves residents that live within or adjacent to the downtown area. Retail uses on Third Avenue are predominantly shops offering neighborhood serving goods and services. Few industrial uses exist in the Central Chula Vista area.

The Bayfront community encompasses approximately 790 acres along the San Diego Bay and is comprised of vacant, formerly agricultural land, industrial and commercial uses. Vacant areas, scattered throughout, include wetlands, stockpiled and hydraulic fills and both neighborhood and community parks. The San Diego Gas & Electric Company, (SDG&E), Rohr Corporation and the Atchison, Topeka and Santa Fe Railway own most of the property in this community. Industrial uses are located in the area south of G Street. The area south of J Street is used predominantly for the power plant operations of SDG&E. Other uses include a park site and marina, an industrial park and an auto wrecking yard. North of G Street, the predominant use was agricultural (formerly Vener Farms). This landholding has recently been sold and the agricultural operations abandoned. A coastal demolition permit has been issued and the existing buildings are expected to be raised. Futured development has not been determined. Wetlands, which are now part of the Sweetwater National Wildlife Refuge, occupy an area of approximately 200 acres consisting of Sweetwater Marsh, Paradise Connector Channel, E Street Marsh, F-G Marsh, a seasonal freshwater marsh and Vener Pond. Industrial uses located at the end of F Street include a ship repair facility and the Rayne water purification plant. Highway commercial uses are located between I-5 and the railroad right-of-way.

The Montgomery Community has a diversity of land uses - residential, commercial, and industrial. Residential uses are scattered throughout the community and occupy 50 percent of the land area. Residential uses include single-family (30%), mobile homes (9%), multiple-family (9%), and duplex (3%).

Approximately eight percent of the Montgomery Community is being utilized for commercial uses. The commercial uses are located in a strip pattern along Broadway, Main Street and Third Avenue. Industrial uses are located predominantly in the sub-communities of Harborside "B" and Otay. The major industrial concentrations are characterized by a wide range of different industrial uses. The remainder of this community consists of a small amount of public park land, a 150-acre golf course and vacant and agricultural lands.

The Sweetwater community is comprised predominantly of residential neighborhoods with individual custom homes. Multiple family development has been

concentrated along Briarwood Road and Bonita Road near Interstate 805. Commercial development is located along Bonita Road, Briarwood Road, Glen Abby Boulevard and Central Avenue. The predominant uses are office/professional, neighborhood retail, real estate, restaurants, the Bonita Museum, Post Office and library. Within the Sweetwater Community there exists approximately 4,435 acres of undeveloped land.

The Eastern Territories community consists predominantly of vacant land with some limited agricultural uses. Developed land uses occur north of Telegraph Canyon Road and adjacent to Interstate 805. The Eastern Territories contains approximately 23,700 acres. Of this 23,700 acres, approximately 11,200 acres are suitable for development. Existing land uses consist of scattered residential development and there is industrial located along Otay Valley Road. The existing land use pattern consists of 1,032 acres of residential, 8 acres of commercial, 222 acres of industrial, 82 acres of public/quasi-public uses, 38 acres of parks and recreation, 1,533 acres of water and 20,788 acres of open space.

Existing Specific and Community Plans - Within the project area there are three six large-scale land use plans which have been incorporated by reference into the General Plan Update. Specific plans have been prepared and adopted by the City of Chula Vista for the Bayfront and Montgomery areas and a community plan has been adopted by the County Board of Supervisors for the Sweetwater area. Several EIRs were prepared for the Bayfront Specific Plan in response to the evolving nature of the document. The EIRs have been certified and are on file at the City of Chula Vista. The Montgomery Specific Plan was subject to environmental review and a Negative Declaration was prepared and certified by the City Council. An EIR was also prepared for the Sweetwater Community Plan which has been certified and adopted by the County Board of Supervisors. A Specific Plan has been adopted by the City of Chula Vista for the El Rancho del Rey project and an EIR was certified in March 1985. This Specific Plan and the Sectional Planning Area Plan (SPA I Plan) for the first phase of development of El Rancho de Rey have been incorporated by reference in the General Plan Update. The SPA Plan for EastLake is also incorporated by reference. A Final EIR for this development plan was certified in February 1982. A brief description of the characteristics of each plan is provided below.

The Bayfront Specific Plan is consistent with the Bayfront community boundaries and includes 790 acres along San Diego Bay. The majority is designated for public open space with the next largest land use designation being industrial. The Bayfront land uses and acreage associated with each land use are provided in Table 3-11.

The Montgomery Specific Plan Specific Plan consists of approximately 1,770 acres, half of which are designated residential. A golf course, commercial industrial and public uses complete the planning are. A summary of the land uses associated with the plan is provided in Table 3-12.

The Sweetwater Community Plan is located along the Sweetwater River within the County of San Diego and contains approximately 8,000 acres. It does not include the Bonita area within Chula Vista. The land uses and acres associated with each land use are summarized in Table 3-13.

Table 3-11
BAYFRONT SPECIFIC PLAN

Land Use	Total Acres
Industrial	
General	260.9
Business park	19.2
Subtotal	280.1
Commercial	
Office park	46.7
Highway-related	23.4
Marine-related	21.1
Specialty retail	8.0
Hotel	14.0
Subtotal	113.2
Landscaped parking/right-of-way	41.2
Public open space	
Wetlands	222.5
Wetland buffers	33.8
Upland resources	14.9
Parks	39.0
Subtotal	310.2
TOTAL	790.3

Table 3-12

MONTGOMERY SPECIFIC PLAN

Land Use	Total Acres
Residential	522.18
Single Family	47.51
Two-Family	153.76
Multiple Family	154.98
Mobile Home	
Subtotal	878.43
Commercial	144.52
Industrial	309.92
Public-Quasi Public	83.26
Golf Course	150.53
Vacant and Other	202.36
TOTAL	1,769.02

Table 3-13

SWEETWATER COMMUNITY PLAN

Land Use	Total Acres
Residential	2,956
Commercial	43
Multiple Rural Use/Estate	3,846
Open Space/Special Purpose	314
Impact Sensitive Use	959
TOTAL	8,118

The El Rancho del Rey Specific Plan (November, 1985) consists of 1,592 acres to be developed with residential, school, park, employment and open space uses. A total of 4,088 residential units are planned over 860 acres. Employment opportunities comprise 112 acres, school sites and parks 99 acres, and the remaining 521 acres are designated open space.

Rancho del Rey SPA I (October, 1987) consists of an 809 acre portion within the El Rancho del Rey Specific Plan area. The land uses within this SPA plan are

consistent with the Specific Plan and include residential (390 acres), employment park, (112 acres), school (10 acres), park (55 acres), and open space (242 acres). These designations are also incorporated by reference in the General Plan Update.

EastLake I SPA Plan (December, 1984) is a land use plan for 1,268 acres. Designations include 633 acres of residential (3,683 total units), 145 acres of employment park, 34 acres of office and commercial, 290 acres of open space and 166 acres of public facilities. The General Plan Update is consistent with the land use plan approved by the City for EastLake I SPA Plan.

Potential Impacts

The potential impacts associated with adoption of the General Plan Update are evaluated in three ways. One is an evaluation of the proposed General Plan as compared to the existing General Plan and the impacts associated with the proposed changes. A second evaluation compares the existing land uses with the proposed General Plan. The final impact analysis addresses land use compatibility.

Proposed General Plan/Existing General Plan - The Central Chula Vista area is almost entirely built out and the proposed General Plan Update would not result in substantially different land use designations. The proposed General Plan Update would result in the following changes:

- density reduction in some residential areas;
- development of a mixed use designation near Town Centre I;
- revitalization of Town Centre II and Broadway Strip;
- development of mixed residential and office between the E and H Street trolley stations.

An additional 49 acres of commercial, 18 acres of public, quasi-public and open space, and 28 acres of mixed use is planned in order to accommodate these new designations. This would reduce the number of acres designated for residential in the Central Chula Vista area by 81, and the number of acres designated for industrial would decrease by 14.

The Bayfront, Montgomery and Sweetwater communities would be built out in accordance with their adopted specific plans, as well as the areas wtihin the El Rancho del Rey Specific Plan, Rancho del Rey SPA I Plan and EastLake I SPA Plan. The proposed General Plan Update would not deviate from these adopted specific plans, therefore no impacts would occur.

The Eastern Territories community is the largest Planning Area covered by the General Plan. The existing General Plan for this area delineates most of the area as agriculture and reserve. As stated in the Open Space and Conservation Element of the existing General Plan, this area is considered "Interim Open Space", to be used for agriculture and held in reserve for future urban development. The proposed General Plan Update does not contain an agricultural designation. New designations include residential, commercial, research and development, industrial, public/institutional, and open space. Adoption of an updated Land Use Element will result in the conversion of agricultural land and open space to urban uses which is regarded as a significant impact to agriculture and open space and addressed in Sections 3.7 and 3.12 of this EIR. However, the intent of future development, as stated in the existing General Plan, is being implemented by the proposed General Plan and the land use impacts of the General Plan Update are not regarded as significant.

Proposed General Plan/Existing Land Uses - As was stated previously, the Central Chula Vista area is almost entirely built out. Table 3-14 is a comparison of existing land use with proposed land use.

The proposed General Plan Update Land Use Plan closely follows the existing land use pattern of Central Chula Vista with the exception of the Urban Core. However, the land uses in the Urban Core are complementary and no impacts would occur in the Central Chula Vista Community as a result of implementation of the proposed General Plan.

The General Plan Update assumed incorporation of the existing Bayfront and Montgomery Specific Plans and the Sweetwater Community Plan. Exisiting land uses were the basis for development of these specific plans, therefore, no adverse impacts would occur as a result of the updated Land Use Element.

Table 3-14

EXISTING AND PROPOSED LAND USE

CENTRAL CHULA VISTA

Designation	Existing Net Acreage	Proposed Net Acreage
Residential	2,140	2,059
Commercial	386	435
Industrial	120	106
Public, Quasi-Public, Open Space	209	227
Mixed Use	-0-	28
Streets	874	874
Freeways	307	307
TOTAL	4,036	4,036

Source: City of Chula Vista, Parcel File, P&D Technologies.

Existing land uses in the Eastern Territories Community consist primarily of vacant land and limited agriculture. The proposed General Plan Update would involve conversion of coastal-dependent agricultural land to urban uses. A thorough analysis of this impact on agriculture is provided in Section 3.7 of the EIR. The Update would also involve a significant change to the vast tracts of open space in the Eastern Territories, because open space would be developed with urban land uses. This is addressed in more detail in Section 3.12 of this EIR. Development of urban uses would represent a substantial change from the current situation. This development would be a continuation of the urban and residential pattern to the west, north and south of the Eastern Territories Planning Area. This continuation of urban land uses was anticipated in the previous General Plan via the "Interim Open Space" designation and is being implemented by the proposed General Plan. Therefore the change to urban land uses is regarded as substantial but not significant.

Land Use Compatibility - Land use compatibility issues associated with the Montgomery, Bayfront and Sweetwater communities were addressed in environmental review of the Plans. As stated earlier, this Update does not propose to change any land use designations in these areas. Thus, no impacts from this Update would occur.

The proposed Land Use map closely follows the existing land use pattterns of Central Chula Vista. Existing single-family neighborhoods would be retained with some density reduction in areas. Commercial and mixed uses would be designated in compatible areas, along the Broadway Strip and adjacent to I-5 between the E and H Street trolley stations. In general, land uses within the Urban Core are compatible and there would be no adverse impacts associated with the proposed plan update. However, there is one area in the Urban Core where land use incompatibility may occur. Land uses along H Street between Second Avenue and I-805 are established residential. Under the proposed plan they are designated low (0-3 du/ac) to low-medium (3-6 du/ac) residential. Hilltop High School is located on this street near I-805. With buildout of the Circulation Element, H Street would become a 6 lane major road with an ADT in excess of 35,000. Although this roadway classification would accommodate projected flows at LOS C, and no congestion would result, there would be some incompatibility between existing residential uses and the future roadway, particularly for those residents which currently front the street. This is regarded as a significant impact. A more detailed discussion of the potential impacts to community character associated with the Circulation Element is included in the Transportation Section (Section 3.14). Potential noise impacts are discussed in the Noise Section (Section 2.6).

Development of the Eastern Territories consistent with the General Plan Update would result in a balance of residential, commercial and industrial land uses. Regional retail and office commercial would be located in the designed Eastern Urban Center to facilitate a balance in the whole of Chula Vista. Development of this shopping and employment center would ensure satisfactory employment and retail services in the vicinity of new residential development. Also, major employment and retail facilities in the Central Chula Vista area would not be adversely taxed by new residential development in the Eastern half of the City. Other retail and commercial development would be located in Eastlake Village Center and the adjacent business park. Industrial development would be located along Otay Valley Road, south of the landfill and buffered by open space, as well as adjacent to SR-125 in the Eastern Urban Center and along East H Street in the Rancho del Rey urban park. These industrial centers would provide necessary employment but would be placed in areas with minimum contact with residential uses. Residential development in the Eastern Territories would be an extension of

the residential character of the existing Chula Vista area. Residential development would occur in a variety of densities ranging from low (0-3 du/acres lots) to high (18-27 du/acre). Generally, higher density uses would be located adjacent to retail and commercial land uses. A variety of policies petaining to clustering, hillside and highrise development are contained in the Land Use Element. Compliance with General Plan policies regarding urban design would result in development that is compatible with surrounding land uses. Impacts to land use compatibility are not considered significant.

San Diego Gas & Electric has a major 200 foot wide easement which crosses the General Plan area west to east through the Montgomery area and then in a diagonal from southwest to northeast through the Eastern Territories. The easement has been retained as open space through the majority of the plan area to allow SDG&E flexibility in future use of this easement. It is anticipated that at least one and possibly two major transmission lines would be added to the existing line in this easement. The facilities involved in such transmission lines are large, and although they would be anticipated as a future land use, and surrounding development could be designed to be compatible, they would be visually obtrusive. In several areas along the length of the easement small parks would cross the area. SDG&E policy allows certain secondary land uses within their easements as long as maintenance and operation is not adversely affected. There is the potential for adverse impacts if secondary uses conflict with SDG&E maintenance and operation.

Brown Field General Aviation Airport is located just south of the Planning Area, three miles east of I-805 and approximately a mile and one-half north of the Mexican border. The airport contains two east-west runways. Land uses around the airport include open space, agriculture, industrial and airport related commercial. No land uses in the Chula Vista Planning Area lie within the 65 CNEL contour, and any land within the 60 CNEL contour is designated as open space.

An Airport Master Plan for Brown Field was adopted in 1980. Based on the projected operations (440,000+ annual operations in the year 2000), and general plan land use designations at the time, airport operations were considered compatible with the surrounding area. The implementation of the Airport Master Plan and Comprehensive Land Use Plan would assure continued operational

efficiency for the airport and simultaneous minimization of noise and safety hazards (SANDAG, 1981).

A revision to the 1980 Master Plan is currently being undertaken by members of the City of San Diego and consulting staff. The revisions are still early in the planning stages, however other runway alignments, which may alter aircraft flight paths to impact the Chula Vista Planning Area, are being considered. SANDAG has initiated a work effort to study alternate locations for Lindbergh Field which includes Brown Field as an option. If Brown Field is selected then aircraft operations would increase dramatically with resultant noise impacts.

The areas within the Brown Field 60 CNEL contour are designated open space under the Chula Vista Land Use Element Update. This is consistent with the approved Airport Master Plan, and no impacts are anticipated. If new landing fields are constructed and flight paths are altered under the revised Master Plan, the 60 CNEL contour may change and land uses may be incompatible. The impacts associated with this change would be addressed as part of the environmental evaluation of the proposed revised Master Plan, when the revised Plan is completed. The potential exists for land use and noise incompatibility associated with the revised Master Plan. This is regarded as a potentially significant impact which cannot be defined until the revised plan is prepared and evaluated.

Zoning - Current State of California law requires that zoning be consistent with land use designations. Adoption of the proposed General Plan Update would necessitate implementation of zoning consistent with the varying land use designations shown in the land use map. In general, this means zoning should not allow a use of higher intensity than the General Plan land use designation. This zone change was not a part of the current work effort. If the General Plan Update is adopted a significant impact could result if zoning is not consistent with the adopted General Plan designation.

Mitigation

The potential for noise impacts, relative to Brown Field's new Master Plan are unknown at this time. Should impacts occur as a result of the new Master Plan,

mitigation should be proposed as part of the environmental evaluation accompanying the new Master Plan.

Park activity which could conflict with maintenance of SDG&E equipment in the easement would be mitigated by careful review of any proposed park plans within the easement by SDG&E staff. All active park facilities should be located outside of the easement and only passive park uses such as walkways and bike paths, should be allowed with the easement. Any secondary uses within the SDG&E easement should be reviewed by SDG&E to assure the proposed use is consistent with pertinent SDG&E policies regarding such development.

In order to assure land use compatibility, all policies and guidelines pertaining to land use and community and urban design should be adhered to in the planning and approval process.

A work effort should be initiated by the City to review all land use designations associated with the General Plan Update and existing zoning to evaluate consistency.

To fully mitigate the potential land use incompatibility between residences along H Street between Second Avenue and I-805, the roadway classification would need to be changed to a roadway with less traffic. This would not accomplish the goals of the Circulation Element and congestion could result. The incompatibility is considered unmitigable.

Analysis of Significance

Adoption of the proposed General Plan Update would result in no substantial changes to the existing General Plan or land uses in the Montgomery, Bayfront, Central Chula Vista or Sweetwater Planning Areas. In one area of the Central Chula Vista core, the proposed Plan would result in significant, unmitigable land use incompatibility where a 6 lane major roadway would be adjacent to predominately residential uses. The Plan Update would involve substantial changes to the existing land uses in the Eastern Territories as currently rural land would be developed with urban land uses. Land use designations would be substantially different as well. However, because this area was previously designated for future

urban development this is not regarded as a significant impact. The buildout of the Eastern Territories would result in signficant changes to the land form, open space and agricultural characteristics of the Eastern Territories. These impacts have been addressed in Section 3.8, 3.12 and 3.7 respectively in this EIR. Potentially significant impacts could result from park development within the SDG&E easement which would be mitigated by careful planning and review by SDG&E. Potential land use incompatibilities would be alleviated by adherence to policies and guidelines contained in the Land Use Element. No significant, unmitigated impacts to land use would result from adoption of the General Plan. If the existing zoning were not updated to be consistent with the Land Use Element then the City of Chula Vista would not be in compliance with state law and a significant impact would result.

3.10 COMMUNITY SOCIAL FACTORS

Existing Conditions

The City of Chula Vista was incorporated in 1911 with a population of 500 (Chamber of Commerce, 1983). By 1920 the population had grown to 1,718 and by 1986 had reached 116,295. The dramatic population increase in 1986 was partially related to the annexation of the Montgomery area. The best estimate of the population for the entire general planning area is provided in the SANDAG Series VII data. Subregional Areas (SRA's) #20 (Sweetwater) and #21 (Chula Vista) represent a close approximation of the planning area, although slightly smaller. A portion of the community of Bonita and a small area north of the Upper Otay Reservoir are not included in this area. The two SRA's combined extend from the bay to the Otay lakes, north to National City and south to the Otay River. The total population of both SRA's in 1986 was 126,266. This is a slightly higher population than the incorporated city because it includes land within the sphere of influence and outside the City boundaries. Population within these two areas is expected to exceed 199,900 by the year 2010. The vast majority of this growth is expected to occur in the Sweetwater SRA which is projected to increase by 196% at an average annual percent change of 4.6. Conversely, the Chula Vista SRA population is expected to decrease slightly until 2000 and eventually increase 2.4

percent from 1986 levels. This projected decrease is due to decreasing household size and minimal housing stock increase within the City. The overall growth projections reflect the growth expected to occur in the currently vacant land of the Eastern Territories.

According to 1980 census data, the average age of City of Chula Vista residents is 30.5 years. This is slightly higher than the County's average age of 28.8 years which is a result of the higher percentage of population between the ages of 35 and 65. A slightly higher percentage of women reside in the City of Chula Vista, 51.5 percent as opposed to 48.5 percent in the County. When compared to the County, the City of Chula Vista has a smaller percentage of white residents (73.8% vs. 68.12%) and a higher concentration of persons of Hispanic origin (14.8% vs. 23.4%).

Based on SANDAG's January 1, 1987 housing estimates a total of 47,904 housing units existed in SRA's #20 and 21. The Chula Vista SRA (#21) contained 36,468 units, of which 16,881 (46%) were single-family, 16,272 (45%) were multi-family and 3,315 (9%) were mobile homes. The Sweetwater SRA (#21) contained 11,436 units, of which 9,417 (82%) were single-family, 1,837 (16%) were multi-family and 182 (2%) were mobile homes. The vacancy rates varies between 2.3% in the Sweetwater SRA and 2.5% in the Chula Vista SRA. The average population per household varies between 3.5 in the Sweetwater SRA and 2.5 in the Chula Vista SRA.

In the Series VII forecasts for the Sweetwater SRA, housing units are projected to increase by 25,855 units between 1986 and 2010 in the Sweetwater SRA. This would be a 251.8 percent increase at an average annual percent change of 5.4. This growth would result in a total of 36,122 units by 2010. The greatest percentage growth is expected to occur in single-family units. In contrast, the Chula Vista SRA is projected to contain 39,112 units by the year 2010 which would be a 12.7 percent change over the period 1986 to 2010. The yearly percentage change would be 0.5. The greatest growth is expected to occur in multiple family units. These projections reflect the anticipated growth in the currently undeveloped areas of the Eastern Territories.

Chula Vista, formerly a city whose economy was heavily dependent upon agriculture, has experienced significant economic development. Rohr Industries, an

aerospace manufacturer which is among the largest employers in the County, has maintained its plant operations in Chula Vista since 1941. Chula Vista's civilian labor force totaled 36,576 in 1980, with an unemployment rate of 7.3 percent. The retail sales industry employs the largest percentage of workers, 21.5 percent. The durable manufacturing category follows, employing 14 percent of the workers. Approximately 9.6 percent are employed in educational services.

Potential Impacts

The target population for buildout of the proposed General Plan is 209,400 persons. This target population is 83,100 persons more than the 1986 population of both SRA's and represents a 67% increase. The SANDAG Series 7 population forecast for both SRA's in the year 2010 is 199,900. SANDAG projects a population growth of 73,600, a 65% increase, during the same timeframe. Actual growth in population may be more or less than the target, depending on regional trends and policy decisions made by local jurisdictions.

The General Plan buildout is expected to generate 209,400 persons, while SANDAG forecasts a buildout population of 199,900 persons (Series 7), a difference of 9,500 persons or 4.7 percent. It is important to note that when comparing the General Plan buildout population to Series 7 forecasts, the two numbers cover slightly different geographic areas. Series 7 describes an area slightly smaller than the General Plan area and does not include portions of the Bonita community and the area north of the Upper Otay Reservoir. The difference in geographic area may account for much of the variation in population projection. In any case, the 4.7 percent discrepancy is considered relatively small and is not regarded as an impact. Under both projections, the population in the General Planning area is expected to increase by more than half.

The increase in population is estimated to be greatest in the Eastern Territories and Sweetwater planning area, which correspond to the SRA #20. Under the proposed General Plan the population in this area is expected to increase from 42,000 persons (1988) to 106,300, which corresponds to a 153% increase. SANDAG Series 7 forecast suggests a 196% increase in the same area.

Both the proposed General Plan growth projections and the SANDAG Series 7 growth forecasts for the Chula Vista area suggest significant growth in the planning area, the vast majority within the Eastern Territories and Sweetwater planning areas. The impacts of the increased population would be most visible in the City's land use pattern, traffic conditions, and service provision. Without good planning to assure adequate infrastructure, there could be significant impacts associated with such growth.

Based on household size projections developed by SANDAG for the City of Chula Vista, a household size of 2.66 persons per unit was assumed. This was calculated by averaging the 2010 projected household sizes for SRA #20 (2.99) and SRA #21 (2.33). Given this average household size approximately 78,700 housing units would be needed to accommodate the buildout populaton of the General Plan.

The trend in household size has been toward decreasing numbers. In 1986, the average household size in SRA #20 was 3.54 persons per unit. This is expected to decrease to 3.22 in 1995 and 3.11 in 2000. Although the average household size for the the year 2010 was used in the buildout calculations, buildout of the General Plan may not be fully attained within this time period. Therefore, if the decreasing average household size trend continues, the number of households could be greater than estimated here.

The increased number of housing units at buildout would have essentially the same impacts as the increased population as the two are directly related. Significant impacts would result if good planning is not complete to assure transportation and service infrastructure in conjunction with household occupancy.

Mitigation Measures

One of the central purposes of a General Plan is to help a community accommodate growth in a manner consistent with overall community goals and objectives. Although the projected buildout population represents a significant increase of the planning area's population, the impact of this increase should, by definition, be mitigated by the General Plan since all new development associated with this growth must be consistent with the goals and policies outlined in the Plan. Specific

policies intended to ensure that the expected population would not adversely affect the overall quality of life in Chula Vista are contained in the General Plan and summarized below:

a. Land Use Compatibility

In general, land use distribution designations serve to guide future development so that all new development should be built at an appropriate density or intensity compatible with the majority of the existing surrounding land uses.

b. Circulation System Improvements

The circulation goals and objectives contained in part 3 of the Circulation Element seek to assure that safe and efficient vehicular movement on Chula Vista streets is maintained by providing adequate roadway capacity to respond to future growth.

c. Infrastructure

Policies in the Public Facilities element are provided to ensure adequate provision of water, waste water, drainage and solid waste management facilities. Up-to-date Master Plans, administered by the City, will ensure the adequacy of future facilities to meet the demands imposed by development.

d. Resoures Management

Policies to protect and enhance water resources, plant and animal resources and economic resources such as sand and gravel are contained in the Conservation and Open Space element. The Parks and Recreation element addresses the provision of park and recreation opportunities.

e. Area Plans

Area plans for the five planning areas of Chula Vista are incorporated into the General Plan which discuss specific land use proposals and provide

guidance for fuure development of specific areas. More detailed land plans for each area are contained as well as more detailed policies regarding the linkage between future development, infrastructure and the provision of mixed residential/employment uses.

Analysis of Significance

Eventual General Plan development would increase the population of the planning area by more than half and involve a corresponding increase in housing stock. Such development would represent an adverse impact on the infrastructure and transportation system of the City. However, given implementation of the goals, objectives and policies of the General Plan and the area plans, adequate infrastructure would be required to assure future development would involve no significant impact.

3.11 COMMUNITY TAX STRUCTURE

Existing Conditions

A Fiscal Impact Analysis of the Generan Plan Update was prepared by P&D Technologies, Inc. in January 1988. Several revisions and addendums have been completed, most recently in July 1988, to reflect City comments and revisions to the land use plan. All of the analyses are contained in Appendix F.

To determine the fiscal effects of future development on the City as a whole and in each planning area, a "marginal" evaluation was made. This evaluation considered the revenues and expenditures generated by the additional population and land uses associated with the proposed plan. Determination of the net fiscal impact of the General Plan Update required estimation of both operating costs associated with providing new residents and businesses in the various planning areas with municipal services, as well as the operating revenues accruing to the City and special districts from various taxes, fees and state subventions resulting from development of the areas. To derive these data, the City of Chula Vista's municipal budget was analyzed and discussions held with City representatives to determine the City's current operating costs and revenues for major budget items. The municipal budget from 1986-87 was utilized for this task.

It is important to note that only the City's operating costs and revenues were considered in this analysis. It was assumed that all capital costs for major infrastructure not installed by State and/or County agencies would be provided and financed through a combination of development fees and special assessment districts (e.g. Mello Roos) at no cost to the City of Chula Vista.

Potential Impact

Adoption of the proposed Plan Update would result in additional demands for services provided by the City as well as generate income for the City. It was determined in the fiscal analysis that the net fiscal impact City-wide would be positive. Additional development in the Central Chula Vista Planning area (Bayfront was included in this area for the purpose of this study) and Eastern Territories planning areas should result in a positive net fiscal impact. Net fiscal impact for the remaining areas are slightly negative. This is due to the lack of any substantial increase in commercial and industrial land uses in these areas. Additionally, in Montgomery, a major addition to the City's park land is proposed, in order to correct the current deficiency in available park land.

By the year 2005 additional development in the City should generate an annual revenue, total of all planning areas, of $21,891,000. During this timeframe, the annual net operating revenues would total $3,787,000 for the entire planning area. As shown in Table 3-15, additional net operating revenues would range from a deficit of $164,000 in Montgomery to a surplus of $2,673,000 in the Eastern Territories.

Mitigation Measures

No adverse impacts to community tax structure would be associated with the project and no mitigation measures are necessary.

Analysis of Significance

Because the net fiscal impact of development of the proposed General Plan would be positive there would be no adverse impacts to the community tax structure.

Table 3-15

SUMMARY OF NET FISCAL IMPACT

(in Thousands of 1986 Dollars)

	Central Chula Vista*	Montgomery	Sweet-Water	Eastern Territories	Total General Plan Area
Annual Operating Revenues	$ 2,199	$ 728	$5,968	$12,996	$ 21,891
Annual Operating Expenses	808	892	6,071	10,323	18,104
Net Surplus (Deficit)	$ 1,381	$(164)	$(103)	$ 2,673	$ 3,787

* Central Chula Vista includes the Bayfront area in this study.

3.12 PARKS, RECREATION AND OPEN SPACE

Existing Conditions

The City of Chula Vista General Plan Open Space Element designates those areas within its jurisdiction that should be considered suitable for preservation and conservation as open space. (Chula Vista General Plan, 1984). The open space designation allows for the preservation and management of natural resources, the protection of areas of historic, scenic or cultural value, and the preservation of undeveloped land for recreational use, visual relief, and public safety. These open space areas may be publicly owned, such as parks and schools, or privately owned, as in the case of some golf courses, easements, farmland and unused land.

The open space designation may also be applied to undeveloped areas as an interim measure. With further study more specific designations can be determined as the pressure to develop these areas occurs. A majority of the area that is currently called the Eastern Territories is designated interim open space for this reason. Ths area is currently characterized as a rural and agricultural area with gently rolling hills and vacant land.

Recognizing the importance of an integrated system of parks and open space, the City of Chula Vista has incorporated a Parks and Recreation Element within its General Plan to complement its Open Space Element. Consequently, not only is a standard provided to determine the adequacy of park facilities for the population size, but policies are set forth that will insure that there is sufficient open space for future development of parks and recreation areas.

The City of Chula Vista currently has more than 256 acres in use as public parkland. These park and recreation areas vary in size and function and are located throughout the City. The parks within the public park system are classified as community parks, neighborhood parks, mini-parks, and special purpose parks.

Community parks typically vary between 15-100 acres and have a service area of ½ to 3 miles. These parks generally provide for a variety of activities including playgrounds, ball fields, tennis courts and swimming pools. The City of Chula Vista contains four community parks for a total of 136 acres. The location, acreage and improvements of each park are listed in Table 3-16.

Table 3-16
EXISTING COMMUNITY PARKS

Name	Acreage	Location	Improvements
Eucalyptus	19.8	Central Chula Vista	Tennis courts, ballfields, archery range, multi-purpose courts, picnic facilities, tot-lot.
Greg Rogers	47.0	Telegraph Canyon	Ballfield, turfed play area, picnic facilities, tot-lot.
J Street Marina* and Bayside	27.0	Bayfront	600-slip marina, fishing pier, picnic facilities, turfed play area.
Rohr-Sweetwater	42.2	Bonita	Swimming pool, turfed play area, picnic facilities, recreation hall, tot-lot.

* The marina is not operated by the City. The City is only responsible for maintaining the park area at the marina.

Neighborhood parks, on the other hand, range in size from a minimum of 5 acres up to 20 acres. These parks serve as neighborhood focal points and provide near-at-hand recreation facilities which generally serve the area within ½ mile of the facility. The City currently has 17 neighborhood parks and 3 private parks with some community access in East Lake. The 114 acres of neighborhood parkland (plus 23.8 acres in East Lake) is distributed as shown in Table 3-17.

Table 3-17

EXISTING NEIGHBORHOOD PARKS

Name	Acreage	Location
Marina View	2.6	Bayfront
City Hall & Friendship Park	5.0	Central
Memorial Park	7.1	Central
Norman Park	1.5	Central
Hilltop Park	10.9	Central
Lauderbach Park	4.0	Montgomery
Palomar	3.1	Castle Park
Orange Avenue & Reinstra Field	14.0	Montgomery
Loma Vede Park & SDG&E	13.4	Montgomery
SDG&E Park	8.0	Montgomery
Otay Park	5.3	Montgomery
Los Ninos Park	5.8	Montgomery
Valle Lindo Park	4.3	Montgomery
Halecrest Park	2.0	Sweetwater
Terra Nova Park	7.0	Sweetwater
Independence Park	4.1	Sweetwater
Tiffany Park	7.9	Sweetwater
Paseo del Rey	2.0	Sweetwater
Rancho del Rey	10.2	Sweetwater
Bonita Long Canyon	11.0	Sweetwater
East Lake*	23.8	Eastern Territories

* Private parks, includes lake, but generally available to the public.

The larger neighborhood parks have facilities much like the community parks. Memorial Park located next to the senior center in central Chula Vista, has a gymnasium, swimming pool, tot-lot and picnic facilities. Loma Verde provides a recreation center, swimming pool, play ground, picnic area and tot-lot, while the Reinstra Sports Complex has several ball fields.

Mini-parks are generally less than one acre and are normally geared toward passive recreation green space or pedestrian ways. They may also contain a very limited range of facilities (i.e., tot-lots). The City currently has nine such parks totalling 3.3 acres: Lancelot, Sherwood, Connley, Camelot, Holiday Estates, F Street Portal and three parks in the East Lake development.

Special purpose parks are less common than community parks, neighborhood parks and mini-parks. These parks vary in size and contain specialized themes or facilities that are oriented to serving the entire City. Special purpose parks are normally geared exclusively to camping, equestrian, nature preserves, cultural or other activities. Chula Vista has only one park that could be considered a special purpose park, the Nature Interpretive Center. It is Chula Vista's newest park located on a 3.4 acre site in the Bayfront Community.

Other parks and recreation areas included in the City's park inventory are school-associated parks and golf courses. School-associated parks are encouraged in order to increase the potential for joint use as a neighborhood activity center. At this time, there are four parks associated with elementary schools located in central Chula Vista. The Tennis Center at Southwestern College also meets this criteria. In addition, there are a total of two golf courses in Chula Vista, with one golf course in Bonita.

Additional recreation opportunities are provided by two regional parks, the Sweetwater Regional Park, and the Otay Lake County Park. Both of these parks are located outside the boundaries of the City, but within or close to the General Plan area. Consequently, these regional parks form an integral part of the city's park and recreation plan.

The Sweetwater Regional Park, which is planned to include 5,000 acres, follows the Sweetwater River from the Sweetwater Reservoir westerly to Interstate 805. The park provides a variety of recreation activities including equestrian use, natural habitat open space, picnic areas, camping and commercial use. A Master Plan for the Park is currently being prepared by the County of San Diego.

The Otay Lake County Park is located at the southern tip of Lower Otay Lake. Projected to include 4,900 acres, the park provides family and group picnic facilities. In addition, the park has a campground with both tent and tent trailer sites. Boating and fishing are permitted in season.

To determine if the existing community and neighborhood park facilities are adequate to meet the needs of Chula Vista's current population, the Parks and Recreation Element of the existing General Plan provides a standard of 2.0 acres of park and open space per 1,000 people. Based on the City's 1986 population of 116,295 people and a total of 297.2 acres in use as community and neighborhood parks, there are 2.56 acres of community and neighborhood park land for every 1,000 people. This total acreage of parkland currently available to City residents does not meet the the standard set in the existing General Plan. Due to the geographical distribution of these parks, some neighborhoods have a greater deficit in park facilities than others. These neighborhoods include the area north of L Street and west of Interstate 805.

Potential Impacts

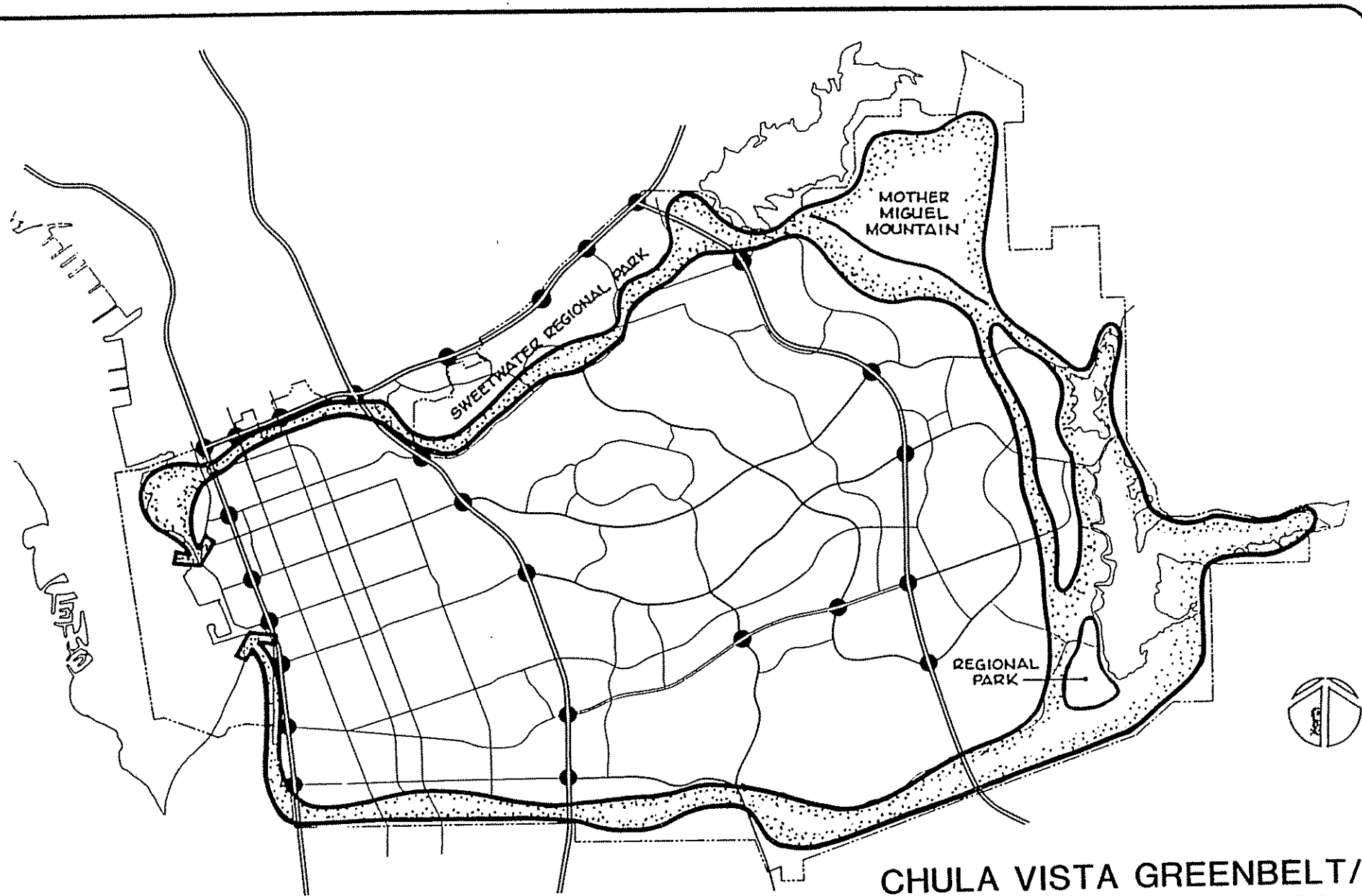
Adoption of the proposed General Plan would involve changes to the Parks and Recreation and Open Space and Conservation Elements, as well as Land Use. The projected population at project buildout of the entire General Plan area is 209,400 people. This increase in population will create a greater need for park and recreation areas and open space. To meet this demand, at least 22 new park and recreation areas are proposed. Of these 22 parks, eleven are proposed community parks and eleven are proposed neighborhood parks. The general location of existing and proposed neighborhood and commercial parks are illustrated in the General Plan text (Figure 7-2 of the Parks and Recreation Element). Additional neighborhood parks, mini-parks, special purpose parks and recreation areas would be located when more detailed planning of developing areas is completed.

Based on the projected population of the General Plan area and a total of 1,116 acres of park land within the General Plan area, a total of 5.33 acres of park land would be provided for every 1,000 people. The Threshold Policy contains a Standard of 3 acres of neighborhood and community park land per 1,000 residents. This standard was adopted by the City Council in the Park Development Ordinance. The park and recreation facilities associated with the proposed General Plan Update would more than satisfy such a standard. The General Plan Update would not result in significant impacts to the provision of park and recreation facilities in the City.

The vast majority of open space in the planning area is contained in the Eastern Territories. As stated in the General Plan text, existing open space in the Eastern Territories includes a total of 20,826 acres consisting of 20,788 acres of open space and 38 acres of park land. With adoption of the proposed Plan Update a substantial amount of open space (8,567 acres), would be developed with other land uses. The open, rolling hills which currently characterize the planning area would be irretrievably altered by development. It should be noted that this open space is designated interim open space to be developed at a later date. As discussed in the land use section (Section 3.9) the change in land use from open space to urban development is not regarded as a significant impact to land use. However, the loss of open space itself is seen as a significant impact.

As part of the General Plan Update, an open space greenbelt would be created around the planning area. This would designate the Otay and Sweetwater River areas as open space as well as Mother Miguel Mountains and the Upper and Lower Otay Reservoirs (see Figure 3-5). The greenbelt is envisioned as the backbone of an open space and park system to extend throughout the City. The circumferential greenbelt would utilize existing developed and undeveloped open space and new open space linkages to effect a continuous 28 mile system around the City. Developed parks are to be located along the greenbelt, however the majority of the acreage would be comprised of undeveloped open space. Commercial recreation uses, such as golf courses, are considered compatible land uses.

The developed parks within the greenbelt are to be linked by a hiking and bicycling trail system that would form a continuous loop around the City. To assure access



CHULA VISTA GREENBELT/
OPEN SPACE NETWORK

Figure 3-5

for maintenance and security patrols, the greenbelt would include the equivalent of a one-lane paved road, approximately eleven feet wide, with a structural design to allow maintenance vehicles to use the trail.

To implement this continuous system, the General Plan Update recommends creation of a single regional park entity to manage and maintain the existing and future facilities in the greenbelt. This entity, to be formed at an early date, would oversee the management and maintenance of the park lands and the preparation of a master plan for the park system to include a detailed master plan for existing public parks and open space and a conceptual master plan for future additions. The responsibilities of this body would include property acquisition, master planning, phasing, maintenance, and coordination with other governmental entities.

While this planned greenbelt would provide for a continuous 28-mile open space and park system around the City, it would not mitigate the loss of open space associated with development of 8,567 acres of open space.

Mitigation Measures

The conversion of 8,567 acres of open space land to urban uses is considered a significant, unmitigable impact to open space. Although the policies contained in the Conservation Element would provide for preservation of mountain land forms and water resources, mitigation to reduce impacts below a level of significance can only be achieved by retaining the existing open space designations.

The City of Chula Vista currently requires developers to dedicate land or pay in-lieu fees for the acquisition, development, improvement, and ongoing operation of parks and recreational facilities within the City. The updated General Plan also provides a strong policy framework for such actions by setting forth guidelines that would enable the implementation of the Chula Vista Greenbelt and the continued administration, maintenance, and expansion of the existing park and recreation areas. Future development in accordance with the policies contained in the General Plan would result in provision of parks adequate to serve the expected population.

Analysis of Significance

Implementation of the proposed Plan would allow for continued expansion of park facilities in the General Plan area and the added population associated with buildout of the Plan would be provided with adequate recreation facilities. There would be no significant impacts to Parks. Adoption of the proposed plan would result in the loss of 8,567 acres of open space, land which is currently viewed as vacant and rural. Although the acreage is designated interim open space and planned for eventual development, the loss of this substantial amount of open space is considered significant and unmitigable except by preservation.

3.13 UTILITIES AND SERVICES

Existing Conditions

SCHOOLS

There are a variety of schools located within the City of Chula Vista and the surrounding area that offer a wide range of educational opportunities for all levels and ages. These educational facilities include pre-schools, elementary schools, junior and senior high schools, private schools, adult schools, and a junior college. The planning area is served by the Chula Vista School District for grades K-6, the Sweetwater Union High School District for grades 7-12, and the Southwestern Community College District.

The Chula Vista School District is comprised of ~~29~~ 30 elementary schools, ten of which operate on a year-round program which is a repeating schedule of 45 days of class followed by 15 days of vacation. Enrollment in the District reached a high of 17,000 students in 1972 and although enrollment had been declining, there are indications that increasing numbers of students are returning to the District. Enrollment has increased ~~10%~~ almost 20%, from 14,000 during the 1983-84 school year to 16,700 ~~15,500~~ in the ~~1987-88~~ 1989-90 year. In the western portion of the District, from Second Avenue to the Bay, changing demographic patterns, infill and redevelopment, have resulted in overcrowding of existing facilities. The District

plans to add 12 relocatable classrooms to 5 schools in this area during the 1989-1990 school year and additional relocatables may be necessary in the future. The District has also implemented a five-track program at a school in this area (Mueller) which will increase capacity in this facility by approximately 20 percent. ~~Classrooms that became vacant after 1972 have been converted for use in childcare, special education programs, learning/resource centers, and are no longer available to accommodate increased enrollment.~~

The District is currently in the process of planning for new school facilities. An elementary school is under construction in EastLake on Hillside Drive and ~~It~~ is scheduled to be completed in fall 1989. A new elementary school, Chula Vista Hills ~~Elementary~~, on Buena Vista Road south of East H Street opened in early 1989. There are approximately 320 students currently enrolled at the facility. One other school facility has been financed by a bond act and the money is available for construction when there is sufficient demand. This school will be located in EastLake, Terra Nova or Rancho del Rey depending on the phases of development. Other elementary schools being planned include Terra Nova, in SPA I of Rancho del Rey ~~and the site located at the intersection of Paseo Ranchero and East J Street~~ and one in the Sunbow development.

The Sweetwater Union High School District receives students from four elementary school districts: National City, Chula Vista, San Ysidro and South Bay Union. The District maintains 23 facilities including nine junior highs, eight senior highs, two special education and four adult schools. The four junior highs that service the Chula Vista Planning area include Bonita Vista, Chula Vista, Hilltop and Montgomery. Enrollment as of December 1987 at these four facilities totalled 5,416 students. The four senior highs in the area are Bonita Vista, Chula Vista, Hilltop and Castle Park, and their combined enrollment is 6,514 students. A high school, as yet unnamed, is planned in the Eastlake community. It is anticipated this facility will open in the fall of 1991 and will accommodate up to 2,400 students, grades 9-12. The District is considering construction of a junior high in the same neighborhood, but a site has not been selected. Preliminary planning has begun on the middle school facility within Rancho del Rey SPA III, south of H Street on Paseo Ranchero. The school district is currently negotiating for purchase of the site.

The Sweetwater Union High School District has adopted a policy to maximize the use of existing facilities. As part of this effort, all high schools are being established as four year institutions (grades 9-12) and all junior highs as two year institutions (grades 7 and 8). Relocatable facilities will be used to their fullest extent. The policy is expected to increase capacity, within existing facilities, by one-third. One option which may be attempted on a trial basis is the establishment of some high school and junior highs as year-round facilities.

Student enrollment totals for both junior and senior high schools has increased steadily over the recent past; from 24,600 in 1985 to 26,285 in 1987. The District, given the constantly changing conditions in the area, does not make projections for future enrollments.

Enrollment in adult schools has remained fairly constant between 9,000 -11,000 students.

Southwestern College, located at Otay Lakes Road and Telegraph Canyon Road, is a two-year community college which offers Associate of Arts (AA) and Associate of Science (AS) degrees and Certificates of Completion in a number of subjects. The college serves the entire South Bay area and has an enrollment of approximately 14,000 students (Fall 1988).

LAW ENFORCEMENT

Police protection for the incorporated City of Chula Vista is provided by the Chula Vista Police Department, which is headquartered in the Civic Center Complex at Fourth Avenue and F Street. All police operations are based in this one centralized facility. The Department provides the full range of law enforcement and police protection services including animal control. At present there are 205 employees, 139 of which are sworn officers from the rank of police officer through captain. An animal control staff is also maintained with a staff of seven employees (Winters, 1988).

Police protection for areas outside of the city limits is provided by the County of San Diego Sheriff's Department. Officers are dispatched from two substations. A substation at 3240 Main Street in Lemon Grove is the base for officers patrolling the northern portion of the Eastern Territories and a substation at 845 Imperial

Beach Boulevard provides service for the southern unincorporated area. Jail facilities for the City and unincorporated area are provided by the County of San Diego. A standard for police emergency response has been adopted in the Threshold Policy wherein properly equipped and staffed police units shall respond to emergency calls throughout the City within 5 minutes in 75% of the cases and 7 minutes in 90% of the cases. This is to be assessed annually as well as on a project-by-project basis during project environmental review.

FIRE PROTECTION

Fire protection for the incorporated City of Chula Vista is provided by the Chula Vista Fire Department. There are currently five stations operated by the fire department. The main station (Station #1) is located in the Civic Center Complex at 447 F Street and is the largest in terms of apparatus available and personnel. Station #2 is located at 80 East J Street, just west of I-805. Station #3 is located in the Castle Park area at 226 East Oneida Street. Station #4 is located at 861 Otay Lakes Road across from Southwestern College and serves the Sweetwater and Eastlake areas of the city. The Castle Park/Montgomery area is served by Station #5 at 391 Oxford Street. This station was previously part of the Montgomery Fire Protection District which was dissolved in December 1985. The City of Chula Vista has assumed responsibility for the area.

Residents in the Sweetwater Valley are served by the Bonita/Sunnyside Fire Protection District. The District has two facilities; the administrative facility at 4035 Bonita Road, and the active station at 4940 Bonita Road. The station is generally staffed with a four person crew.

According to a recent evaluation of the existing stations in Chula Vista and Bonita, roughly 92% of all emergency calls are responded to within 7 minutes. The average response time is approximately 4.4 minutes (Fire Station Location Study, 1988).

The remainder of the General Plan area not served by the City of Chula Vista or the Bonita/Sunnyside Fire Protection District is within the Jamul Fire District. This district encompasses an area over 700 square miles. In undeveloped areas such as the Eastern Territories only wildland protection is available. This service is provided by the California Department of Forestry.

WATER

San Diego is a semi-arid region with very limited surface and groundwater supplies. Less than 10 percent of the region's water supply is provided locally, thus over 90 percent is imported. Imported water is provided to the Metropolitan Water District from the Colorado River and the California Water Project (Feather River). The water is then made available by the Metropolitan District to various agencies and water companies for distribution including the San Diego County Water Authority (CWA). The CWA has many local member agencies including the City of San Diego Water Department, Otay Water District (OWD), and Southbay Irrigation District, which store and distribute water to the public within the General Plan area. The boundaries of the Water Districts within the Planning Area is illustrated in Figure 3-6.

The Southbay Irrigation District encompasses portions of the City of Chula Vista, National City and unincorporated communities of Bonita, Sunnyside and Lincoln Acres. The District's supply system includes a connection to the Second San Diego Aqueduct, Sweetwater and Loveland Reservoirs, and two deep wells in National City. The reservoirs have a combined capacity of 53,100 acre-feet. ~~which is more than two years supply for the districts consumers.~~ Not all of this capacity is available for distribution. Between 2,000 and 3,000 acre-feet must remain in each reservoir as a minimum pool in addition to 10,000 acre-feet which is stored in Loveland Reservoir for emergency situations. At maximum capacity, approximately 37,000 acre-feet would be available for distribution. Typically these reservoirs operate at one-quarter to one-half full.

The water distribution system is leased by the Sweetwater Authority, a joint powers agency comprised of the district, the City of National City and the City of Chula Vista to operate and maintain water service in the City jurisdictions and surrounding unincorporated areas. The Sweetwater Authority purchases imported water from the aqueduct, stores it in the reservoirs and then treats the water for consumption. Excess water purchased and stored in the winter months is used to augment the available aqueduct water during the peak-demand summer months.

The City of San Diego Water Utilities Department serves the City of San Diego including west Otay Mesa which is in the planning area. The Department also owns

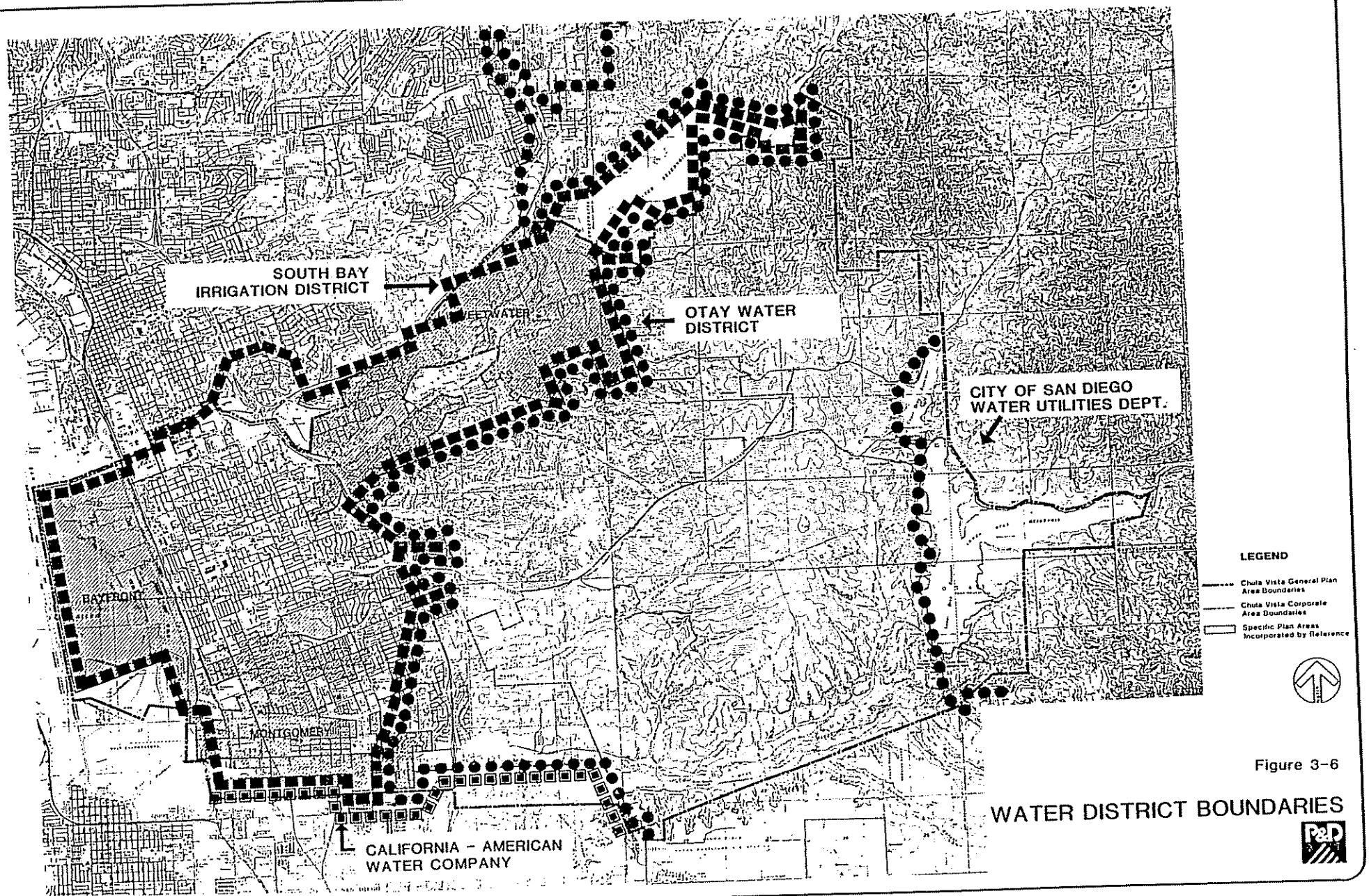


Figure 3-6

WATER DISTRICT BOUNDARIES

and operates the Otay Reservoirs. Lower Otay Reservoir, with a capacity of 56,519 acre-feet, stores local runoff from Barrett and Morena Reservations released through Dulzura Creek, as well as impounds local runoff. Upper Otay Reservoir, with a volume of 2,795 acre-feet, impounds water from a 10-square mile subbasin but is not currently used as an active part in the City's water supply system.

The California-American Water Company is a privately owned company that purchases water from the City of San Diego for distribution to its customers. Its service area includes Coronado, Imperial Beach, South San Diego and the southern portion of the City of Chula Vista. The area south of Main Street, and the Woodlawn Park neighborhood is served by this company. The California-American Water Company owns two storage tanks with a combined capacity of 4.5 mgd and a transmission system to service 19,826 connections.

The Otay Water District encompasses a 128 square mile area between the City of El Cajon and the International Border. In 1987, approximately 30% of its service area was developed and 9% of its water was used for irrigation. The OWD's central area is bounded by I-805, the Otay River, the Lower Otay Reservoir and Bonita which are the approximate boundaries of the Eastern Territories. Water is provided to the area by the Second San Diego Aqueduct. The OWD does not own any reservoirs.

According to the OWD, during peak demand periods the District is sometimes unable to provide full service to all commitments. This is due primarily to the lack of adequate water availability to meet short-term peak demands. The two aqueducts operated by the CWA to import water into the San Diego region reach capacity during peak demand periods; the infrastructure of the importation system itself is occasionally not adequate to meet peak water quantity demand. To address this issue, the CWA is planning to construct an additional aqueduct, tentatively to be completed by 1994. The OWD receives excess water during non-peak periods to serve the additional demand during peak periods, however, the District does not have sufficient water storage facilities to assure year round availability. The District is currently negotiating with the Sweetwater Authority and the City of San Diego to increase their storage ability to ensure adequate water service during peak periods.

The OWD is currently forming Improvement District Number 27 to serve the District's central area, which is basically the Eastern Territories of the Planning Area. The purpose of the Improvement District is to provide a strategy and financing plan for construction of storage facilities. The goal of the Improvement District is to increase storage capacity to provide 5 day emergency water service for all customers.

WASTEWATER

The City of Chula Vista operates and maintains its own sanitary sewer system with connections to the City of San Diego Metropolitan Sewer System (METRO). This system consists of approximately 270 miles of sewers ranging in size from 6 to 36 inch, 10 raw sewage pump stations and 4 independent metered connections to METRO.

As a member of the METRO system, Chula Vista has contracted for capacity rights corresponding to 17.1 mgd average daily flow. When the City assumed operation of the Montgomery Sanitation District, an additional 2.0 mgd METRO capacity rights were obtained. The total contract capacity for Chula Vista is currently 19.1 mgd. The existing sewer system is illustrated in the General Plan text and described below. The northern portion of the City gravitates to the Spring Valley Interceptor located generally in Sweetwater Road. The City contributes approximately 1.4 mgd to this line, which terminates at a connection to METRO near Sea Vale Street. Central Chula Vista wastewater flows are carried via two trunks. One is the "G" Street trunk sewer which carries approximately 2.6 mgd. The other is the "H" Street trunk sewer which begins on Otay Lakes Road near EastLake and terminates at a METRO connection at the end of "J" Street. This trunk sewer currently transports 3.9 mgd. The southern portion of Chula Vista is served by the Main Street/Avenue Faivre Street trunk sewers which begin east of 805 and at Main Street. Approximately 4.1 mgd is transported via these two trunks. The current wastewater flow generated in the City of Chula Vista is approximately 12.0 mgd. The OWD currently operates a small wastewater treatment facility which provides treated water for irrigation of landscaping. Future plans include irrigation of a golf course in the East Lake community, with reclaimed water.

UTILITIES

Several important facilities in the SDG&E electrical system are located in Chula Vista. A generating plant, the second largest such plant in San Diego, is located in the Bayfront area and has generating capacity of 706 megawatts. Several major transmission rights-of-way run through the City, with one of the largest contained in a 200' easement which runs southwest to northeast through the Eastern Territories. Several substations exist within the City, and SDG&E has plans for constructing several additional substations.

Potential Impacts

SCHOOLS

Buildout of the General Plan would result in an increased population which would generate additional students and require new school construction. Although the City is not directly responsible for providing schools, any new school construction would generate demand for land. This land demand could have other implications for the City including limiting the number of potential sites for park acquisition or open space. Schools can also impact traffic and circulation within their immediate vicinity.

The General Plan has a target population of 209,400 people which are assumed to be housed in approximately 78,700 units. Based on generation rates supplied by the school districts, buildout is expected to result in 23,600 elementary, 7,900 middle-school and 14,900 high school age children. Table 3-18 details the number of students generated by grade level and the corresponding number of schools required to accommodate those students.

Table 3-18

PROJECTED SCHOOL REQUIREMENTS

General Plan Buildout	Elementary (K-6)	Junior High (7-9)	High School (10-12)	Total
Number of Students	23,600	7,900	14,900	46,400
Number of Schools	39	8	7	54
Number of Acres	390	200	263	853

The proposed General Plan Land Use Element map illustrates the location of existing (both built and planned via existing approved development plans) and future school sites. The future school sites are indicated as a possible location only. The Land Use element provides for 37 elementary schools; 30 of which are either built or shown on approved specific plans, and seven which are shown in a future to be determined location. Five junior high and five high school sites are shown as existing or approved in concept. Future sites are illustrated for three junior high schools and for two high schools. The number of school sites, either existing or planned in the General Plan totals 52. A comparison of the projected needs in Table 3-18 shows that junior high and high school sites have been adequately planned for in the proposed Land Use element; there will be a short-fall of 2 sites at the elementary school level. Although the City is not directly responsible for providing schools, the General Plan Land Use element incorporates existing and future school sites to meet projected demand. The City will assist and support the school district in assuring that these sites and facilities are obtained. As proposed, the Land Use Element update would not adversely impact junior high and high schools. There would, however, be a potentially significant impact to elementary schools.

It should be noted that the school district boundaries include an area outside of the City boundaries. Some students which may live within the City of Chula Vista would attend schools, still within the Chula Vista City School District, but located in the City of San Diego. This could occur primarily in the Montgomery area along the southern boundaries of the City. While, for planning purposes, this does not eliminate the need for 2 school sites, there is the possibility that when actual development occurs, the number of school facilities required may be different than currently anticipated.

LAW ENFORCEMENT

Implementation of the proposed General Plan would result in increased population in a currently undeveloped area of Chula Vista. This would place additional demand on the police protection providers in the area. It is expected that the Eastern Territories will annex to the City of Chula Vista, thus primary law enforcement responsibility would shift from the Sheriff's Department to the City of Chula Vista Police Department.

The Chula Vista Police Department is contained in Central Chula Vista; a significant amount of travel time would be involved with any response to the eastern portion of the City which would respresent an adverse impact. If response times do not meet the standards determined in the Threshold Policy, actions as outlined in the Policy would be required. Providing service to the newly developing area would require an increase in manpower. Assuming an officer ratio of 1:1,000 population, and a buildout population of 209,400, at least 209 personnel would be required. This would be an increase of at least 70 persons in the law enforcement staff. When the Eastern Territories are fully developed, the single police facility would not be sufficient to handle the increased manpower necessary or to provide response within the required time period as established by the Threshold Policy (Winters, 1988).

The Police Department is aware of the proposed growth and is evaluating their needs. According to Chief Winters, the Department is recommending slightly different standards for the Threshold Policy. The revised standards would require a 5 minute response in 68% of the cases and 7 minute response time in 85% of the cases. This would ensure emergency calls adequate response but provide some leeway for non-emergency calls. The Department is also addressing the need for a second police facility to be located somewhere in the Eastern Territories. Assuming police personnel and facilities are upgraded to serve the additional population, no significant impacts would result.

FIRE PROTECTION

Implementation of the proposed Land Use Element would result in little change to the developed areas of the City of Chula Vista - Bayfront, Montgomery and Central Chula Vista. It is anticipated that little, if any, new demand for fire protection would be created in these areas as a result of the adoption of the Land Use Element. Development in the Sweetwater and Eastern Territories planning area would result in addition of new urban land uses and an increase in population which would place additional demands for fire protection. When the Eastern Territories are annexed to the City of Chula Vista, primary responsibility would shift from the Department of Forestry to the City of Chula Vista.

In anticipation of this occurrence, the City of Chula Vista has prepared a document entitled Draft Fire Station Location Study. This study reviewed the long-term fire coverage needs within the City's Planning Area, based on the proposed Land Use Element, and prepared a fire station network to serve the projected population at buildout. The location study was designed so that future fire response times would be in conformance with the standards contained in the Threshhold Policy, which states that fire and medical units should respond to calls within seven minutes in 85% of the cases.

The fire station network proposed in the Location Study would provide for 8 stations throughout the City. Of the six existing stations, five in Chula Vista and one in Bonita, three would be relocated. Station #4 would be relocated to EastLake, Station #3 would be relocated to Sun Bow, the Bonita Station would be rebuilt and possibly relocated. New stations would be located at Rancho del Rey and in the Baldwin holdings. If this network is implemented, 98.8% of the planning area's dwelling units would be within a seven minute response time of fire and medical units. Based on development of fire station facilities in accordance with the Draft Fire Station Location Study, all future development associated with the proposed General Plan Update would be provided satisfactory fire and emergency medical response. There would be no significant impact to fire protection associated with the proposed Plan Update.

WATER

Adoption of the proposed Land Use Element would result in an increased demand for water, particularly in the Baldwin holdings where there are currently few land uses which require imported water. To address future growth in the area two Water Master Plan Updates have been completed, one each for the Sweetwater Authority and Otay Water District.

The Sweetwater Authority prepared a Water Master Plan Update in 1985. This undertaking was based on future land uses as described in the existing General Plan. This evaluation found that water supply facilities would require expansion including a 15.4 mgd expansion of the treatment plant and an 18 million gallon increase in storage facilities. Old cast iron pipes would need replacement and the

36" and 42" pipeline between ~~National City~~ Bonita and Chula Vista would require installation of interconnecting pipes. Based on the land use assumptions contained in the Master Plan, improvements as recommended would assure adequate water ~~supply~~ delivery to the service area and there would be no significant impacts to water supply associated with development. ~~However, if t~~The land uses associated with the proposed Land Use Element ~~vary from~~ are very similar to the land uses assumed in the Master Plan Update~~,~~. A comparison of land uses assumed in the Master Plan Update and the proposed General Plan Update has been made by the Sweetwater Authority. This evaluation found that planned improvements to infrastructure would be adequate to serve the proposed Plan Update. (Personal Communcation, Dick Reynolds and Joe Gray, May 9, 1989.) Approximately 85% of the area served by the Sweetwater Authority is built. The planned development of the remaining 15% is anticipated in the Master Plan and no adverse impacts are expected. The Master Plan provides for construction of infrastructure to delivery water as needed; however, the supply of water from the Colorado River and Northern California is not assured. The increased demand for water represents a cumulatively significant impact which must be addressed at a regional level. ~~water demands may not be completely anticipated and infrastructure may not be adequate. The potential for an adverse impact to water exists if water facilities are constructed to the Master Plan specifications without review of the land use assumptions contained in the General Plan Update to assure consistency between the Master Plan and Proposed Land Use Element.~~

A similar Water Master Plan Update was prepared by the Otay Water District in 1987. This update did not assume eventual development of the Baldwin area, however, a second system evaluation was completed by an outside consultant which did consider land use assumptions consistent with the proposed Land Use Element in this area. Based on these analyses, several substantial improvements to water transportation and storage facilities would be required. Projected future demand is 45.5 mgd which would require numerous water pipelines, an additional 163 million gallons of emergency storage and expansion of two pump stations. Separate facilities, including a supply connection to the aqueduct system, would be necessary to serve the Baldwin area. As stated previously, during peak periods the water supply from the two aqueducts has not been adequate to meet demand. The increased demand for water, in a situation where water demands are currently not fulfilled during peak periods, is regarded as a significant impact.

The Metropolitan Water District (MWD) receives its water from the Colorado River aqueduct. MWD's current allotment from the Colorado River is approximately 1.2 million acre-feet. However, once the Central Arizona Project is complete, and utilizing its total allotment, MWD's allotment could decrease to 450,000 acre feet. The Central Arizona Project, scheduled to have been completed in 1985, is behind schedule, and there is presently a surplus of water in the Colorado River water, thus allowing MWD to receive its historical share. However, it can be seen that the water supply from the Colorado River to MWD is in a state of flux, and will probably decrease in the next few years. MWD is negotiating with the Imperial Irrigation District to use IID's excess water for some compensation. Also, there is water available from the State Water Project (northern California), but it is presently impossible to obtain the yield necessary for southern California without a new canal. Thus, the availability of water supply in southern California is for the time being adequate, but changes to this situation may occur in the future.

WASTEWATER

In 1987 the City evaluated the adequacy of the existing wastewater system for projected flows in the year 2005 and buildout conditions. The land use information and population densities used in this analysis were similar to those in the proposed General Plan Update. Based on that study, the average daily wastewater flow is projected to be 25.0 mgd at the year 2005 and 29.6 mgd by buildout. Increased wastewater flows would result in a need for major modifications to the existing system including paralleling or replacing new lines and installation of lines in areas previously not served.

The Central Chula Vista and Bayfront areas would require the least amount of new lines. In the Montgomery area, the Main Street and Faivre trunk sewers would require almost complete paralleling to accommodate future flows. This action would be necessitated by the need for transmission of flows generated in the Eastern Territories. All flows generated in the Eastern Territories would need to be carried to the connections with the METRO system. These connectors are located in the Montgomery area. New sewers would be required in areas of Long Canyon, Procter Valley and Wild Man's Canyon in the Sweetwater planning area. The most substantial improvement effort would be required in the Eastern

Territories where new lines would be installed in areas that previously had none. Development of infrastructure consistent with the recommendations contained in the City's evaluation would ensure that a City-wide sewerage system would be installed to adequately transport wastewater from the point of generation to points of access to the METRO System.

The City of Chula Vista has capacity rights of 19.1 mgd in the City of San Diego METRO System. With a current generation of 12.0 mgd, sufficient capacity (7.1) mgd remains to provide for expected growth in the near future. However, treatment capacity would not be adequate to accommodate the projected flow rate of 25.0 mgd or ultimate buildout flow of 29.6 mgd. The City of San Diego is currently in the process of planning for eventual upgrading of the METRO System which should increase capacity. Upgrading will include new interceptors, pump stations and treatment plants. Additional capacity to treat future flows should be available from this system, however, the exact amount of capacity available in the future is unknown.

Projected future flows would exceed the current City of Chula Vista capacity rights in the METRO system. Expansion of the METRO System is currently in the planning stages. The planning effort assumes all current METRO members will remain and no new members will join. The upgrade is being designed to accommodate year 2050 treatment needs (as anticipated by SANDAG) with a capacity somewhere in the range of 350 mgd. Because the General Plan Update involves future growth consistent with SANDAG growth projections (Section 3.10) the wastewater needs of the expanded population would be adequately served by the sewer upgrade (personal communication, Alan Philpot, San Diego Metro Sewer Task Force December 13, 1988). If the population increase is phased so that wastewater generated does not exceed wastewater treatment capacity, no adverse impacts are expected.

UTILITIES

Adoption of the proposed Land Use Element would result in development of urban land uses in currently undeveloped land and an associated population increase which would result in an increased demand for energy. SDG&E is committed to meeting

the energy needs of this projected population, and no adverse impacts are expected. The issues of potential land use incompatibility and conflict between SDG&E facilities has been addressed in the Land Use Section of this EIR (Section 3.9).

Mitigation Measures

SCHOOLS

Although the City is not responsible for providing schools to accommodate the needs of future residents, the General Plan does plan for ~~the~~ future junior high and high school sites to meet expected demand. As currently planned there is a shortfall of two school sites to meet anticipated elementary school demand. This shortfall can be addressed via identification of additional school sites in areas where needed. This need can better be determined as buildout progresses. Also, planned or existing facilities may be modified to year-round facilities. This modification can increase the capacity of a school by several hundred students. As stated in the Potential Impacts, because the District boundaries indicate a different area than the City boundaries, some students may attend schools outside of the City of Chula Vista, minimizing the need for additional facilities.

All future development ~~projects~~ should be evaluated on a project-by-project basis for their impacts to the school system and consistency with the General Plan Land Use Element as related to schools. The City can also help facilitate the provision of schools by working closely with the school districts during the site selection and development process. All developers would pay school fees of $1.53 per square foot of habitable space for residential development and $.25 per square foot of commercial development, as required by state law.

Other mechanisms are available to fund construction of school facilities; the most frequently used is the Mello-Roos Assessment District. Several Mello-Roos Districts have been formed in the City and several are currently being formed to provide funding for new school construction. The City may condition project approval on requiring compliance with the School District's mitigation recommendations, through Mello-Roos districts or other alternative forms of financing as needed.

LAW ENFORCEMENT

In order to minimize the increased demand placed on police providers, preventive measures should be implemented at the neighborhood level. These include organization of crime watch programs and careful review of residential design to ensure that structures do not create situations where crime may be easily committed.

When the Eastern Territories area is developed with urban land uses the single police facility would not be adequate to satisfy demand. To ensure adequate protection for new development, the Police Department should work with developers in the developing areas as well as with other City departments to determine appropriate locational, accessibility and land use compatibility standards for the police station site selection. It is the responsiblity of the Police Department to ensure all residents are provided police protection in accordance with the Standards contained in the Threshold Policy.

FIRE PROTECTION

The development of urban uses in a currently rural area would place additional demand on the Fire Department to provide protection. To ensure that all recommendations contained in the Fire Station Location Study and Thresholds Policy are implemented, the City of Chula Vista should review each development proposal for consistency. The City already completes this review and is committed to continue with the practice. No other mitigation is necessary.

WATER

New development would result in an increased demand for water which would require new treatment, storage and transmission facilities. The need for these facilities should be determined by periodic revisions to the pertinent Master Plans for the Sweetwater Authority and Otay Water District, at least every five years or whenever land use designations are modified. ~~Because the land use assumptions contained in the Sweetwater Authority Master Plan may be different than the Land Use Element, these assumptions should be reviewed and the land uses associated with the proposed Land Use Element should be incorporated.~~

Also, in compliance with the standards as described in the Threshold Policy, the City should prepare an annual 15-month development forecast for the CWA, Sweetwater Authority and OWD. This forecast would provide for periodic review of water demand and facilities to clarify water availability, ability to absorb forecasted growth and site and funding availability. Prior to approval of development plans, the developer shall request and obtain a water service availability letter from the Water District for each project. By tying the issuance of development permits to the assured availability of water, the City will phase development to match the current water supply. This will assure development would only occur when the supply of water is adequate to service that particular area.

The City of Chula Vista should work with the OWD and Sweetwater Authority to achieve construction of a third aqueduct to supply water into the region and to coordinate storage and transmission needs throughout the area. As stated in the Impacts Section the shortage of water is not a problem unique to Chula Vista; it is a regional problem. To mitigate this problem serious efforts at water conservation should be made, which is beyond the scope of the current project. The City shall also encourage and monitor water conservation techniques and programs by implementation of the policies contained in the General Plan Element including:

- Mandate the use of water conservation devices in new development including low water use toilets, shower fixtures and other amenities.
- Promote low water usage landscaping that is drought tolerant.
- Mandate the use of reclaimed wastewater for all reasonable applications except in severe hardship cases.
- Establish, in concert with the water agencies, a public information program to educate the community concerning water conservation and the use of reclaimed wastewater.
- Establish a water conservation monitoring program.

WASTEWATER

Buildout of the General Plan area with land uses consistent with those contained in the Master Plan would result in increased sewage flows, requiring construction and

upgrading of transmission facilities. Adherence to the policies contained in the General Plan Text (Section 3.0 Public Facilities), and development of these facilities as outlined in the Wastewater Master Plan, would ensure adequate facilities to accommodate increased flows. In all future development projects, sewage flows and volumes shall not exceed City Engineering Standards.

The current City of Chula Vista's capacity rights in METRO would not be adequate to accommodate flows at buildout (29.6 mgd); however, the expansion of METRO would increase the available capacity to 350 mgd which would assure an adequate treatment capacity. The City should actively participate in the METRO expansion planning process and where appropriate, evaluate reasonable alternative to dependence on METRO. A phased reclamation program should be designed to promote drinking water conservation. Wastewater reclamation facilities, such as the one operated by OWD, should be maximized. This would reduce the amount of wastewater requiring treatment as well as the amount of water demanded for such uses as irrigation. It should be noted that reclamation alone cannot solve the limited sewage capacity problem but it can reduce the amount of wastewater requiring treatment in the METRO system. All of the policies regarding Wastewater Service Policies contained in the Public Facilities Element should be implemented.

Also, in compliance with the Standards as described in the Thresholds Policy, the City should prepare a 12 to 15 month development forecast for the METRO Authority. The City Engineering staff should detail the amount of capacity used or committed, ability of facilities to absorb growth and an evaluation of funding. With this information, METRO will be able to evaluate these projects for consistency with the City's purchased capacity rights. METRO will also be able to evaluate their ability to accommodate the forecasted growth. This system will allow both METRO and the City to identify and plan for phasing of development with adequate sewage capacity.

UTILITIES

No adverse impacts to the provision of utilities would be associated with plan adoption or future buildout of the project area, and thus no mitigation would be required.

Analysis of Significance

SCHOOLS

Implementation of the General Plan Land Use element would result in additional population and housing units which would generate school age children. Although the provision of school facilities is not the responsibility of the City, the Land Use element does incorporate existing and future site locations to meet projected demand. If all development projects are evaluated by the City and the School District for compliance with the policies of the school district's financial mechanisms and the Land Use element, there would be no significant impacts.

LAW ENFORCEMENT

Projected development in the undeveloped Eastern Territories would place additional demand on the police protection providers in the area, specifically the Chula Vista Police Department. A substantial increase in personnel would be necessary, as well as a second policy facility to mitigate significant impacts. Mitigation would be possible through an expanded police force funded by taxes generated in the undeveloped areas.

FIRE PROTECTION

Development of fire stations in conformance with the Fire Station Master Plan would result in fire protection and emergency medical service being available to all residents of the Planning Area within acceptable time period. Review of each development proposal for compliance with the recommendations contained in the Location Study and the standards in the Threshold Policy would assure that there would be no significant impact to fire protection.

WATER

The land uses assumed in the Sweetwater Authority Water Master Plan are not consistent with the land uses proposed by the General Plan and the recommended facilities ~~may not~~ will be adequate to serve the future demand. Although

infrastructure would be constructed to serve demand, the supply of water from the Colorado River and Northern California is not guaranteed. This is a regional water availability issue which represents a cumulatively significant impact. ~~This is regarded as a significant impact which can be mitigated by revision of the Master Plan to incorporate these land uses and continued upgrading of water facilities~~.

Water supply, via the two aqueducts operated by CWA, is not adequate during current peak demand periods. Increased demand for water would place greater demand on the already strained water supply which is considered a significant impact. Mitigation to a level below significance is possible by increasing the water supply available from CWA to OWD and the Sweetwater Authority which would require construction of a new aqueduct or establishment of additional storage facilities to stockpile water during non-peak periods. As stated previously, the amount of water received by California from the Colorado River is expected to be reduced greatly and an alternate supply of water is not guaranteed. This is a regional, State-wide concern which is beyond the scope of this project but should be evaluated at a regional level. To minimize the demand for water, a serious effort at conservation should be implemented on a regional level. Water from wastewater reclamation facilities should be used for irrigation and all other activities as allowed by RWQCB.

WASTEWATER

Buildout of the proposed General Plan would result in a substantial increase in wastewater generated, particularly in the undeveloped Eastern Territories area. An adequate transmission system of new and improved pipelines has been designed to accommodate this flow. The City of Chula Vista does not have capacity rights in the San Diego METRO System to accommodate all flow at buildout which is regarded as significant. If the METRO System is upgraded, sufficient capacity rights should be available. The City of Chula Vista should work closely with the City of San Diego in upgrading the system and place an emphasis on reclamation to minimize the quantity of flow requiring treatment.

UTILITIES

There would be no significant impacts to provision of utilities from Plan or by future buildout of the General Plan area.

3.14 TRANSPORTATION/ACCESS

The following section contains a discussion and analysis of the Chula Vista Circulation System. The current Circulation Element is described in the Existing Conditions section, as well as the actual operating conditions of the circulation system and the current differences between the adopted Circulation Element and the built environment. The proposed circulation system is briefly described in the Potential Impacts section and an analysis of its projected future operation is provided. Based on this analysis, mitigation measures are suggested to assure traffic continues to flow at acceptable levels.

Existing Conditions

Existing General Plan - The current Circulation Element of the General Plan was developed during the early 1970's. It defines vehicular trafficway classes, right-of-way development standards for roads, and the role of public transit in the City of Chula Vista. The existing Circulation Element defines three classes of vehicular trafficways: freeways, major roads and collector roads. The current Circulation Element states that new freeways should complement the City's thoroughfare system with respect to right-of-way, location, siting and spacing of interchanges. The freeway network includes the following elements:

- I-5 (Montgomery Freeway) serves the industrial belt in Chula Vista;
- I-805 (Jacob Dekema Freeway) serves the heart of the Chula Vista residential area; and
- SR-54 (South Bay Freeway) passes to the north of Sweetwater Valley, north of the City.

The major road system consists of improved existing routes and new routes designed to accommodate four to five times the traffic volumes of the early 1970's. Major roads are typically 4 lanes within a 100 foot right-of-way and are designed for maximum traffic flow rather than for access to individual properties. New routes are intended to serve the eastern parts of the Planning Area where few roads are currently built. Major roads are designated about one-half to one mile apart in the established parts of the City and one to two miles apart in the

undeveloped Eastern Territories area. The major road system consists of east-west and north-south routes, as summarized in Table 3-19.

Table 3-19
CHULA VISTA MAJOR ROAD SYSTEM
(Existing Circulation Element)

Road(s) and Direction	Location	Status
East-West:		
E Street - Bonita Road - San Miguel Road	traverses City	existing
H Street - Rice Canyon - Proctor Valley Road	traverses City	existing, part unpaved
L Street -Telegraph Canyon Road	traverses City	existing
Orange Avenue - Poggi Canyon Road	traverses City	eastern half not dedicated
North-South:		
Broadway	west of I-805	existing
Fourth Avenue	west of I-805	existing
Hilltop Drive	west of I-805	existing
Otay Lakes Road	east of I-805	existing
San Miguel - Proctor Valley Artery	east of I-805	proposed/undeveloped

Collector roads complete the thoroughfare network of the City of Chula Vista. These roads are also typically 4 lanes within an 80 foot right-of-way. Their main purpose is to provide alternative routes to major roads and to efficiently distribute traffic. Collector roads seldom have interchanges with freeways.

In addition to freeways, major roads, and collector roads, two classes of streets complete the street system: residential collector streets and residential streets.

These essentially local streets are not individually described in the existing Circulation Element but they are discussed briefly in the text. Residential collector streets distribute local traffic from major and collector roads and are designed to be discontinuous so as not to attract unnecessary through traffic. Residential streets further distribute local traffic to the individual properties. Both residential collector streets and residential streets are typically 2 lanes within a 51-55 foot right-of-way.

Right-of-way development standards are based on the number of lanes needed to handle anticipated traffic volumes on roads and streets. These standards include requirements for median dividers, left-turn pockets, on-street parking, sidewalks and landscaping.

Existing Circulation Conditions - The existing circulation system covers the central area of the City, the Bayfront and Montgomery and the Sweetwater areas. It does not include a transportation system for the areas south of Telegraph Canyon Road, east of Brandywine or east of Otay Lakes Road. It is illustrated in Figure 3-7.

West of I-805, traffic in Chula Vista flows on a grid network. The grid serves industrial, commercial and residential areas. The street system and the land uses are essentially built out in this area. East of I-805, traffic flows on a few major

roads and many local streets. The predominant land use in this area is residential, although there is a community college, two major hospitals, and several shopping areas. The eastern area is accessible from I-805 via Bonita Road, East H Street and Telegraph Canyon Road. In contrast, the western part of the City is served by four I-805 interchanges and five I-5 interchanges.

The existing circulation system of Chula Vista operates somewhat differently than designated in the current General Plan. Some of the street and highway names are different as well. The differences between the General Plan designations and existing conditions are summarized below:

- H Street, a major road, continues as East H Street to the East Lake development. The road terminates at this development, located east of Otay Lakes Road.

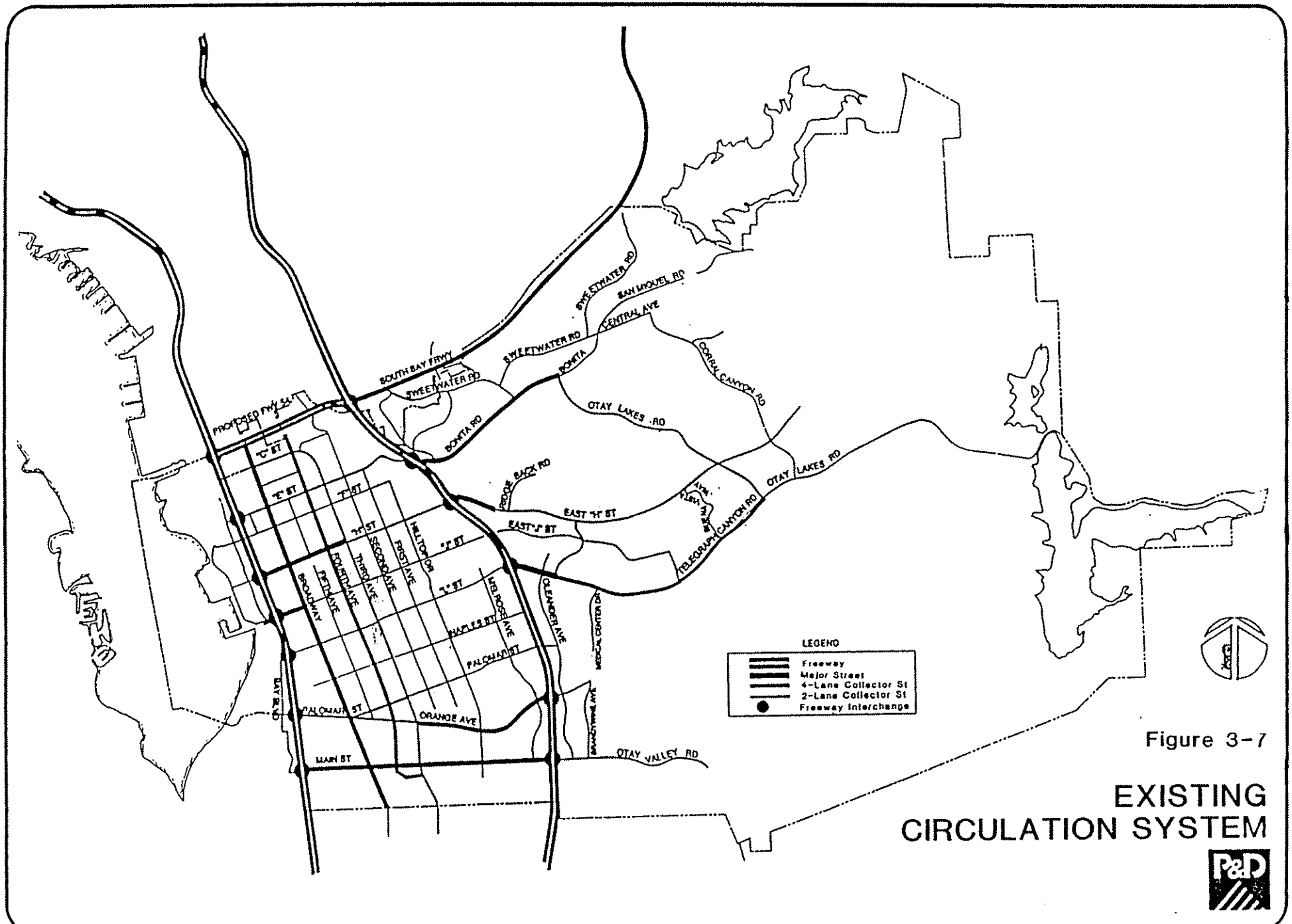


Figure 3-7

EXISTING CIRCULATION SYSTEM

- Telegraph Canyon Road continues as Otay Lakes Road eastward to the Otay Lakes, eventually connecting with SR-94.

- Orange Avenue connects to Palomar Street before reaching I-5. The two roads split east of I-5.

- Poggi Canyon Road does not exist.

- E Street-Bonita Road is part of San Diego County route S-17.

- The San Miguel-Proctor Valley artery does not exist. Proctor Valley Road continues as a dirt road from its terminus at San Miguel Road. Proctor Valley Road has no connections with other roads until reaching the Indian Springs area near SR-94, east of Chula Vista.

- San Miguel Road continues eastward from Bonita Road into a residential area. The road terminates in the Sweetwater area.

Roads which are not designated as Major Roads in the existing element, but which are important trafficways, include Third Avenue and Palomar Street. Major roads, as unofficially updated by the previous discussion, currently carry the heaviest surface street traffic volumes in the City of Chula Vista. In general, the maximum daily volumes are achieved near I-5 and I-805.

The City of Chula Vista maintains standards for intersection operations as described in the Threshold Policy. In general, signalized intersections are to operate at LOS "D" or better during the peak two hours of the day. Intersections west of I-805 are not to operate at a LOS below their 1987 LOS. No intersections may reach LOS "F" during the average weekday peak hour. Intersections of City arterials with freeway ramps are exempted from this policy.

In general, most intersections operate within the City's standards. West of I-805, Broadway and H Street operates at LOS "E" during the PM peak hour (1986). Based on the available information this is the only non-freeway intersection which operates at an LOS less than LOS "D" during the weekday peak hours. ~~(Bankston/Pine Associates, 1988).~~

The most heavily-used intersections in the City and the Planning Area are those between I-805 and the three main east-west roads: Bonita Road (S-17), East H Street, and Telegraph Canyon Road. The average daily surface traffic volume on each of these roads is between 36,000 and 41,000 near I-805. The I-805 freeway ramp connections create congested intersections.

Potential Impacts

The following analysis represents a cursory overview of the future Chula Vista circulation system as proposed by the General Plan Update. The evaluation will focus primarily on the ability of the proposed circulation system to accommodate future traffic volumes within acceptable standards as proposed. The opportunity exists at this time to make adjustments to the future circulation system based on future land uses and future traffic projections.

Development of the New Circulation Element - The Planning Area for the proposed revised Circulation Element is the same as the existing. However, the methods used to develop the two circulation plans varied considerably. The existing circulation plan was created based on a grid system with a few roads aligned through canyons stretching out to lightly-developed areas east of I-805. The new circulation plan was generated based on a computer model which simulated traffic flows generated by existing and future development. The model used for the Circulation Element Update assumes full buildout of the Planning Area and incorporates regional growth, particularly east of I-805 and on Otay Mesa. Otay Mesa lies within the City and County of San Diego, directly south of the Planning Area. The relatively undeveloped area is projected to be built with primarily industrial uses. The model also includes the traffic growth associated with the development of the SR-125 corridor. SR-125 would have a regional function, serving the entire South Bay area, not just Chula Vista-oriented traffic. The Chula Vista model would be refined as future development plans become more final. This is especially true of the Eastern Territories area, where development plans and roadway alignments are still tentative.

Description of the New Circulation Element - The proposed Circulation Element is contained in the General Plan Update and was prepared for the City of Chula Vista

by JHK and Associates, December, 1988. A complete description of the setting and roads of the new Circulation Element is contained in this Element. The following text provides a comparison of the existing and proposed circulation systems and analyzes the traffic impacts of build-out of the circulation system and adjacent land uses. The proposed Circulation Element differs from the existing Circulation Element primarily in terms of roadway classifications and the eastern part of the Planning Area (east of I-805).

The existing Circulation Element contains five roadway classifications (in descending order of importance): freeways, major roads, collector roads, residential collector streets, and residential streets. The proposed Circulation Element contains eight roadway classifications (in descending order): freeways, expressways, 6-lane prime arterials, 6-lane major streets, 4-lane major streets, class 1 collectors, class 2 collectors and class 3 collectors. Freeways, expressways and prime arterials are intended to serve longer trips with little or no direct service to adjacent property. While also serving longer trips, major streets have a secondary function of providing access to abutting property. Collector streets function both to distribute traffic and to provide access to abutting property. The proposed classifications represent a more refined breakdown of street functions. This is especially true for what are now called major roads. The approximate relationships between the existing and the proposed classifications are described in Table 3-20.

East of I-805, the topography prohibits the creation of a grid system. The alternative, as proposed in the Circulation Element Update, is a system of major roads aligned along natural topography and connecting to existing routes. The network is illustrated in Figure 3-8. In essence, East H Street, Palomar Street, and Orange Avenue would continue eastward to connect with SR-125. Otay Lakes Road would continue southward, cross Orange Avenue and connect to SR-125. East of SR-125 it would turn northward as Hunte Parkway. San Miguel Road would continue southward along Proctor Valley Road's existing alignment, and EastLake Parkway would continue southward. Three completely new north-south routes would be added east of I-805: Medical Center Drive/Brandywine Street, Paseo del Ranchero and SR-125. New land uses in eastern Chula Vista and development on Otay Mesa would be the primary generators of traffic on those new roads. The primary network connectors between Otay Mesa and the Planning Area would be

Table 3-20

CIRCULATION ELEMENT ROADWAY CLASSIFICATIONS

EXISTING VS. PROPOSED

Existing Element			Proposed Element			
Classification	No. of Lanes	R.O.W.	Classification	No. of Lanes	R.O.W.	ADT at LOS C
Major Road	4	100'	Expressway	6	128'	70,000
Collector	4	80'	6-Lane Prime Arterial	6	128'	50,000
Residential Collector	2	55'	6-Lane Major	4	128'	40,000
Residential	2	51'	4-Lane Major	4	104'	30,000
			Class I Collector	4	88'/94'	22,000
			Class 2 Collector	2	72'	12,000
			Class 3 Collector	2	60'	7,500

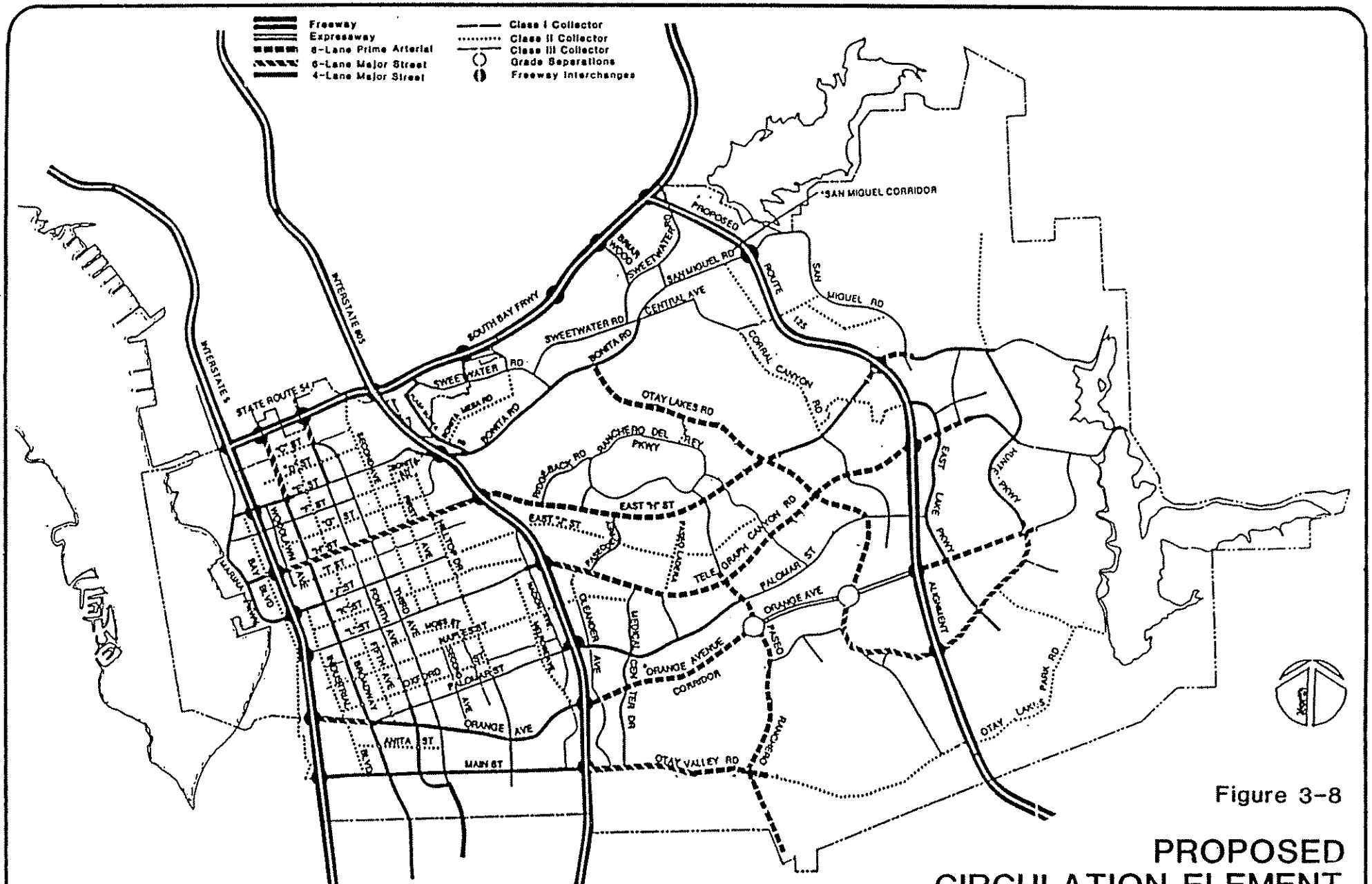


Figure 3-8

PROPOSED CIRCULATION ELEMENT

*Alignment of this facility is tentative and subject to further traffic, land use and environmental analysis.

I-805, Raseo Ranchero and SR-125. It should be noted that the future alignment of SR-125 has not been determined. This road, which will be the easterly highway link between the International Border and SR-54, is currently the subject of site specific environmental and planning review initiated by CalTrans.

Traffic Impacts of the Circulation Element - The proposed circulation network has been developed based on traffic volumes generated by the model as described above. The roadway classifications as designated reflect the roadway widths required to accommodate the expected volumes. Because the model created a network specifically designed to accommodate projected traffic, congestion would be theoretically eliminated. To test this theory a review of the projected ADT and classifications was made for major roadway segments and intersections. To check the roadway segments, the projected ADT was compared to the approximately ADT carried by a specific roadway classification at LOS C (See Table 3-20). If the project ADT was in excess of the LOS C ADT as given in the Element, then a potentially significant impact (congestion) was identified. To identify potential congestion impacts at intersections, a comparison was made between expected intersection volumes and volume thresholds as identified by the City.

When the actual projected ADT was compared to LOS C ADT on specific roadway segments, ~~two~~ several areas of potential congestion were identified. One is along Bonita Road in the vicinity of the Otay Lakes Road. Bonita Road is classified as a 4-lane major street with an LOS C of 30,000 ADT. ADT in this area approaches 40,000 ADT which would result in a reduction in service below LOS C. At this level of analysis it is difficult to predict the actual future LOS, but it is assumed that congestion would occur during peak periods. This is a significant impact.

~~The other~~ Another area of concern is located in the existing urban core and is identified as the Third and Fourth Avenue corridors. Both segments are designated as class 1 collectors with an LOS C volume of approximately 22,000 ADT. Third Avenue is projected to have a future ADT greater than 22,000 in the length between Palomar Street and H Street. Fourth Avenue is projected to have a volume greater than 22,000 ADT in the length between H Street and E Street. Because the projected ADT are in excess of 22,000, future service is expected to be reduced to a level below C. This is considered a significant impact.

The third segment identified is Otay Valley Road between I-805 and Brandywine Avenue. This segment is identified as a 6-lane major street with an LOS C capacity of 40,000 ADT. At buildout, volumes are projected between 41,000 and 42,600 ADT for this segment. At this level of analysis, it is difficult to predict actual future LOS, but it is anticipated that some congestion would occur. This is a potentially significant impact.

A list of these potentially congested segments is produced below. It should be noted that projected volumes exceed the LOS C capacity by as few as 500 trips and as much as 5,000 trips. With this variation, and at the level of analysis involved with this plan, it is difficult to determine the exact impact on each segment. For purposes of this analysis this is considered a potentially significant impact. This analysis could change after additional segments of the circulation system are constructed and project-by-project environmental review determines appropriate mitigation measures.

ROAD	SEGMENT	LOS "C" CAPACITY	PROJECTED VOLUMES
Orange Avenue	I-5 - Industrial	40,000	40,700
Main Street	Melrose - I-805	30,000	32,200 - 37,100
Orange Avenue	Hilltop - I-805	30,000	25,500 - 38,300
Palomar Street	Melrose - I-805	22,000	22,000 - 24,800
Naples Street	Moss - Melrose	12,000	8,900 - 16,100
H Street	I-5 - Industrial	22,000	23,000
E Street	I-5 - Broadway	30,000	23,300 - 32,000
E Street	3rd - Bonita Glen	22,000	22,200 - 28,300
Otay Lakes Road	East H - Tel. Canyon	40,000	40,700 - 43,600
Orange Avenue	I-805 - Oleander	50,000	52,900
East H Street	I-805 - Ridgeback	50,000	54,800
East H Street	Hilltop - I-805	40,000	45,600 - 48,000
Proctor Valley Road	San Miguel - Hunte	30,000	34,400
Paseo Ranchero	unnamed - City Limit	50,000	54,800 - 61,400
EastLake Parkway	s/o Hunte Parkway	30,000	33,000
Otay Lakes Road	Orange - SR-125	40,000	43,700 - 51,000
Unnamed	Paseo Ranchero - Otay L.	30,000	35,000
Hilltop Drive	L - Orange	12,000	10,600 - 12,500

The City of Chula Vista has placed thresholds on the amount of traffic that may enter an intersection without some required planning action. The thresholds are as follows:

- 65,000 or fewer entering vehicles per day is considered tolerable.
- 65,000-75,000 entering vehicles per day requires design of, but not necessarily implementation of, mitigating measures.
- Over 75,000 entering vehicles per day requires the implementation of mitigation measures to allow the intersections to flow smoothly.

An overview of the major intersections was undertaken to evaluate the projected intersection volumes and their compliance with the City limits. Of the intersections analyzed, three were projected to have entering volumes in excess of 65,000. These intersections are Orange Avenue at Paseo Ranchero, Orange Avenue at Otay Lakes Road and Paseo Ranchero at Otay Valley Road. The Orange Avenue/Paseo Ranchero and Orange Avenue/Otay Lakes Road interesections have been designed in the proposed element as grade-separated intersections. The grade-separation would eliminate potential congestion by eliminating conflicting movements and no significant impacts would be expected. However, the model projects approximately 69,100 entering vehicles at the Paseo Ranchero/Otay Valley Road with no special design to accommodate this volume. This is a potentially adverse impact which would require design of mitigation measures.

Intersections between freeways were also analyzed. The only congested freeway intersection, as apparent from the model, would be at the I-805 southbound off-ramp at East H Street. ~~Here,~~ At this intersection, there would be about 66,000 daily entering vehicles. This number is the sum of the number of vehicles coming southbound from I-805 plus the traffic traveling both east and west on East H Street, divided by 2. This volume is within the range for which the City would not necessarily require the implementation of mitigation, however, mitigation should be designed. This represents a potentially adverse impact.

Two important factors are involved in considering traffic operations at freeway interchanges. First, freeways and interchanges with freeways are under the jurisdiction of CalTrans. CalTrans, therefore, sets policies for traffic levels at

these locations. It is the responsibility of CalTrans to review and implement proposed mitigation at freeway interchanges. Second, traffic operations at interchanges are interdependent. That is, the close spacing of freeway ramps along a particular surface street necessitates analysis of the operations of the whole ramp/street system. The Chula Vista model, and other traffic models, do not produce the results needed for such analyses. More detailed information on vehicle turning movements, delays and queue lengths at freeway interchanges would be needed to accurately analyze future operations.

Community Character Impacts of the Circulation Element - The proposed Circulation Element plans for buildout of the entire planning area and assumes associated future ADT. This network would be substantially different than the existing network and somewhat different than the currently adopted Circulation Element. The ADT projected to be generated by the proposed Plan Update would require construction of new streets as well as improvements to existing streets. These changes would result in some impacts to the community character of the area immediately adjacent to new or improved roadways.

The most substantial change in the circulation network would occur east of I-805. The existing network consists of four major east-west streets, Otay Valley Road, Bonita/San Miguel Road, East H Street and Telegraph Canyon Road which turns into Otay Lakes Road. The three primary north-south routes are Otay Lakes Road (prior to its connection with Telegraph Canyon Road), Corral Canyon Road and Oleander Avenue. The east-west roads are typically four lanes near I-805 and two lanes to the east. All of the north-south routes operate as two-lane roads.

With adoption of the proposed Circulation Element, this pattern would change substantially. The existing east-west links would be improved to six lanes, with the exception of Bonita Road which would remain four lanes, and two new links would be added. Palomar Street would be extended as a four lane road to SR-125 and Orange Avenue would be extended as a 6-lane prime arterial and expressway. SR-125 is planned as a freeway to extend north-south through the planning area. Otay Lakes Road is designated a 6-lane link and a new 6-lane link (Paseo Ranchero) is designated between Orange Avenue and Otay Valley.

The existing community character of low density residential development and agricultural land is reflected in the existing circulation system. When the Eastern Territories are developed the circulation network will be consistent with the urban land uses designated for the area. The potential for conflict between the land uses and the network occurs where existing residential development fronts the east-west streets which will be substantially improved, primarily on East H Street and Otay Lakes Road. Although this potential exists, the developments in this area (i.e. Rancho del Rey) have been designed assuming future improvement of these streets. Impacts to community character, related to circulation improvements, are not considered significant in this area.

The other potential conflict area is in the older, urban area of Chula Vista where the existing network would remain intact with improvements to a few key segments. H Street would be widened from its existing 4-lane width to a 6-lane major street between I-5 and I-805. Both Broadway and Fourth Avenue would be widened to six lanes near SR-54. Widening H Street can be accomplished by removal of on-street parking, modification of striping and possibly some road construction. In areas along H Street where the existing community is characterized by residential development, which may front the street, this would represent a significant impact as parking may be eliminated and traffic levels would increase substantially. There are no measures to mitigate the impacts to community character. This issue is also addressed in the Land Use Section (Section 3.9). A discussion of the possible noise mitigation measures is contained in Section 3.6.

The Circulation Plan was designed to accommodate the land use density and patterns described in the General Plan Update. It is important to note that the circulation system is a working document, detailed enough to provide direction for future development but flexible enough to accept change when more specific land use plans become finalized. This reflects the dynamic nature of land use planning. In particular, two alignments are considered tentative within the Plan, the Orange Avenue corridor and the San Miguel corridor. Both are subject to future traffic, land use and environmental analysis.

Mitigation Measures

The Circulation Element would serve as the guideline for roadway classifications and access policies. All of the goals, policies and objectives of the Element should be implemented by the City, specifically:

- Plan and implement a circulation system such that the operational goals of the City's Growth Management Plan can be achieved and maintained. This objective includes the periodic evaluation of traffic patterns on the circulation element system.
- Plan for high capacity regional freeway and transit facilities to adequately serve the regional travel demand resulting from the land uses associated with the Otay Mesa.
- Ensure that any new development can be accommodated by the transportation system.
- Minimize adverse impacts of the transportation system on adjacent land uses.
- Promote the development of well planned communities which will tend to be self supportive and thus reduce the length of the vehicular trip, reduce the dependency on the automobile and encourage the use of other modes of travel.
- Develop patterns of land use which will allow the elimination of certain trips and the reduction of overall trip lengths, particularly the home to work trip.
- Conduct periodic analysis of the existing circulation system to verify that acceptable levels of service are provided on circulation element streets and at major intersections as a part of a comprehensive growth management program.
- Encourage a regional transit system along the SR-125 route corridor, an east-west bus route to connect the existing urban core and future eastern urban center, and an urban core/bayfron shuttle.

All major development projects should receive project-by-project traffic impact evaluation to identify the potential impacts to the existing traffic network and provide for phased construction of the planned system. All future projects should

be evaluated for consistency with the standards of the Threshold Policy. Developers should be assessed fees to fund roadway improvements or construct new roads based on their share of responsibility.

~~Three~~ Several roadway segments have been identified as having future ADT which would result in LOS less than C. This is regarded as a significant impact. These ~~are~~ include Bonita Road in the vicinity of Otay Lakes Road, the Third Avenue corridor between Palomar and H Street, and the Fourth Avenue corridor between H Street and E Street, among others. To mitigate this impact, either the volumes of the road should be reduced, or the road should be designed to accommodate additional flows or the intersections at either end of the segment should be designed to minimize turn-movement conflicts. In general, the redesign of these segments is limited by lack of right-of-way due to existing development on either side. The possibility of reducing traffic flows on the roadway is also not likely. The congestion expected on these streets is considered a significant, unmitigated impact at this level of analysis. While road segments may exceed recommended capacity, it may be possible to mitigate impacts to intersections to minimize the congestion. This can be determined on a project-by-project basis.

It should be noted that the Circulation Element proposes improvement of roadways and an increase in capacity beyond current size in several locations. This action would result in creation of transportation corridors in the existing urban core adjacent to residential development where this residential development currently faces a much smaller, less-traveled street. This incompatibility represents a significant, unmitigable impact to community character. A discussion of the noise impacts and possible mitigation measures is contained in Section 3.6

The Paseo Ranchero/Otay Valley Road and I-805 southbound off-ramp at East H Street intersections have been identified as potentially congested and would warrant further design considerations. Paseo Ranchero/Otay Valley Road would be a new intersection. During the planning stage, mitigation for this intersection should be considered to eliminate conflict between turn movements. This could include possible grade-separation. This mitigation measure should be analyzed more fully using the traffic model.

I-805 at East "H" Street is an existing freeway interchange. CalTrans has jurisdiction over policies and improvements at the interchange. More detailed information on turning movements and intersection geometrics would be needed to determine specific mitigation for this location. Without mitigation, vehicles may divert to less congested interchanges. Traffic reduction measures for the I-805 corridor and development plans which include traffic demand management measures could serve as mitigation for the East H Street interchange. These measures could include a high-occupancy vehicle and/or express bus service on I-805. Traffic management measures include staggered work hours and carpooling. ~~Both of t~~These measures would require region-wide cooperation and are beyond the scope of only the City of Chula Vista. The design of the intersection is such that turn conflicts would be minimized. Several measures exist to mitigate potential conflicts including restripping to add more lanes and synchronization of signals. Impacts to the intersection are considered significant but mitigable by a combination of these measures. Additional detailed study must be undertaken to realize the most efficient lane geometry and signal coordination. For purposes of this analysis, this is considered a significant, but ~~un~~mitigable impact.

Analysis of Significance

The proposed circulation network for the City of Chula Vista would be adequate to accommodate future land uses and traffic growth in most areas. Three roadway segments have been identified as having future ADT which would result in LOS less than C which is regarded as a significant impact. Mitigation measures to minimize the projected, future congestion include decreasing trips or increasing capacity. Given the constraints of existing development, both measures are considered infeasible. Congestion on these roadway segments is thus considered a significant and unmitigable impact.

One new intersection, Paseo Ranchero at Otay Valley Road, has been identified as potentially congested and will require design, but not necessarily implementation mitigation measures. Mitigation can be provided via grade-separation of the intersection to eliminate turn movement conflicts. The I-805/East H Street interchange has also been identified as congested and would required mitigation. However, not enough information is available from the Chula Vista traffic model to

develop specific mitigation. Congestion could potentially be relieved via traffic reduction measures for the I-805 corridor. These could include a high occupancy vehicle and and/or express bus service on I-805 and traffic demand management measures in future projects. Both of these measures would require region-wide cooperation and are beyond the scope of only the City of Chula Vista. The intersection geometry and signals could be coordinated to minimize turn-movement conflicts. For purposes of this analysis, this is considered a significant, but unmitigable impact.

Roadway improvements on H Street would have significant impacts to the existing community character as existing residential development would front a major thoroughfare. To fully mitigate the impacts the roadway classification would need to be changed to a roadway with less traffic. This would not accomplish the goals of the Circulation Element and congestion could result. The impact to community character is considered unmitigable.

3.15 HAZARDOUS WASTE/RISK OF UPSET

Existing Conditions

Pursuant to AB 3750 (Cortese, Chap. 1048, Stats 1986) the State Office of Planning and Research has been instructed to maintain a list of the various identified hazardous waste and substance sites in California. This list is to be updated and distributed to City and County planning agencies on a semi-annual basis, in February and August. Information included on this list is provided from the State Department of Health Services, the State Water Resources Control Board and the California Waste Management Board.

Within the City of Chula Vista and community of Bonita there are 27 locations where hazardous materials have been identified and listed. As shown in Table 3-21 the majority are existing or former service stations located in the Central ChulaVista urban core. Hazardous wastes in service stations include petroleum products such as gasoline, oils and transmission fluids which have been disposed of

Table 3-21

IDENTIFIED HAZARDOUS WASTE SITES

SITE	LOCATION	PROPOSED DESIGNATION
Nelson and Sloan	7th Street and Main	Industrial
Ind. Gas Station	Broadway and J Street	Commercial
Rohn Industries/Aircraft	Foot of H Street	Industrial
Transportation Department	1130 5th Avenue	Residential (Low-Medium)
Oasis Petrol Service Station	12 North 4th Avenue	Retail
Thrifty Service Station #159	1401 Hilltop Drive	Commercial
Thrifty Service Station #414	1725 Broadway	Industrial/Open Space
Union Service Station	201 Third Avenue	Commercial/Industrial
Mobile Service Station	3 Naples Street	Commercial/Industrial
Chula Vista Sanitary Service	3441 Main Street	Industrial
Jack Harrison Buick	363 E Street	Retail
Thrifty Service Station #122	407 E Street	Retail
Apache Services	4551 Otay Valley Road	Industrial
Omar Rendering Company	4826 Otay Valley Road	Industrial
H Street Auto and Gas Bar	498 Broadway	Commercial
Firestone Tire and Rubber	598 5th Street	Retail
Thrifty Service Station #88	666 H Street	Throughfare
Former Texaco Service Sation	696 Broadway	Commercial
Prudential Overall Supply	740 F Street	Commercial
U.S. Post Office	750 Third Avenue	Public/Institutional
Fire Station #2	80 E "J" Street	Public/Institutional
Fire Station #4	861 Otay Lakes Road	Public/Institutional
Union Service Station	898 Broadway	Commercial
PHD Lease Way	910 Industrial Boulevard	General
Tank #1602, South Bay Plant	990 Bay Boulevard	General
Otay Sanitary Landfill	Otay Valley Road	Open Space
Arco Service Station	4498 Bonita Road	Commercial

in areas on-site. The larger sites include Rohr Industries, Chula Vista Sanitary Service on Main Street, the Omar Rendering Company, and the Otay Sanitary Landfill.

There are two non-active hazardous waste disposal sites listed within the General Plan area. One is the Class I (hazardous waste) disposal site at the Otay Landfill, the other is the Omar Rendering's facility. Both are located on Otay Valley Road. The Otay Landfill Hazardous Waste Disposal site occupies approximately 22 acres and received wastes ranging from acids to solvents and pesticides. The facility is currently operating under a closure plan and is being monitoried. As part of the closure plan, the facility will be monitored for release of hazardous substances in perpetuity, or as long as known wastes exist on-site. The 40-acre Omar Rendering facility accepted waste from 1959 to 1978. During this period, it accepted various hazardous wastes including alkaline wastes, acids, solvents and pesticides, which were stored in unlined ponds. The site has been designated a State Superfund site and a Remedial Investigation Feasibility Study has been scheduled.

One hazardous waste storage and transfer facility currently operates in the City. The Appropriate Technologies II (APTEC II) facility is a fully permitted hazardous waste treatment facility location on Otay Valley Road, just south of the Otay Solid Waste Landfill. The facility is permitted to receive all hazardous wastes for treatment with the exception of explosives, radioactive wastes and PCB's. Suspended solids are removed through a settling process which produces sewerable water and a filter cake material which is then transported to another facility.

Potential Impacts

The hazardous materials sites identified by the State Deparmtent of Health Services and the APTEC II facility are known hazardous waste locations. Such sites are incompatible, without remedial treatment, with any land use which may bring people into contact with waste. Some land uses, such as residential, human hospitals, schools and day care centers are considered particularly sensitive. Any new designation associated with the proposed General Plan which would bring additional people into contact with the waste would be a significant impact. Any sensitive land uses designated adjacent to a known hazardous waste site could also be adversely impacted.

The Otay Landfill contains both hazardous and non-hazardous buried waste. Although the landfill is designated open space in the proposed General Plan, the proximity of buried waste represents a potential conflict with surrounding uses. In order to avoid any potential conflicts, land use designations in the vicinity of the landfill were made in accordance wiht the following guidelines:

1. 2000 feet minimum between hazardous waste material and residential designations, and
2. 1000 feet minimum between non-hazardous, buried waste and residential designations.

To calculate the minimum distance, the ultimate waste burial area was assumed. Based on the open space land use designation which would assure no development activity on-site, and compliance with the above guidelines, there would be no hazardous waste impacts associated with the landfill.

The remaining sites listed in Table 3-21 are provided a variety of designations under the proposed General Plan. The majority are existing uses, including the post office, fire stations, gas stations, etc., that are surrounded by existing development. In these cases the designations merely acknowledge the site and surrounding designations simply reflect existing surrounding land uses. Adverse impacts, however, may result from future development on or near sites identified in Table 3-21. The land use designation, although consistent with the existing use which accommodates the on-site waste, would not preclude eventual development of another consistent land use which would not accommodate the on-site waste. For example, if a gas station were replaced with a new commercial operation, the wastes disposed on-site could result in impacts to the new activity. In the case of the Transportation Department site, future residential use may occur which is considered incompatible with any hazardous waste. The potential also exists for new development adjacent to identified waste sites to be adversely affected. These impacts could be mitigated by remedial treatment of the site prior to redevelopment or other action to avoid disturbance of the identified waste.

Mitigation Measures

The Public Facilities Element of the General Plan contains the following policies regarding hazardous waste:

a. The City shall work with the County to encourage, through community education, a reduction in household hazardous waste generation by promoting safe subsitututes and recycling.

b. The City shall encourage the safe disposal of household hazardous wastes by working with the County in providing convenient disposal alternatives to the residents of Chula Vista.

c. The City shall encourage the development of low hazardous waste producing industries within the General Plan area and shall properly screen and identify new or proposed development that will be using hazardous materials and generating hazardous wastes.

These policies involve methods of addressing the reduction and disposal of household waste and encourage the development of industries which produce minimal amounts of hazardous waste. More specific mitigation measures to prevent future contamination and to protect the public from existing and future hazardous contamination problems are provided below:

d. The City should work with the County of San Diego Health Department's Hazardous Materials Management Unit, the Regional Water Quality Control Board, and the Air Pollution Control District when developments are proposed that may discharge waste materials to the land, air or water to ensure proper permitting and regulation of development.

e. The City should maintain the most current Hazardous Waste and Substances Site List as prepared by the State Office of Planning and Research. This list should be consulted prior to approval of development permits to verify the potential for direct or indirect impacts to hazardous waste.

f. When a development is proposed on a known hazardous waste site, an analysis should be prepared to determine the extent of contamination. If it is in excess of the State standards, a secondary analysis should be completed to determine the exact size of the contamination and its characteristics, as well as provide an estimate for cleanup.

g. When a development is proposed near a known hazardous waste site, an analysis should be prepared to verify potential impacts, and appropriate buffering or clean-up measures should occur.

Analysis of Significance

Within the City of Chula Vista there are 27 known and listed hazardous waste sites as well as one hazardous waste treatment site. Future development, consistent with proposed General Plan Land Use element may result in significant impacts if such development allows greater contact between humans and hazardous waste. This potential impact can be reduced to a level of insignificance with implementation of mitigation measures as described above.

4.0 COMPLIANCE WITH THRESHOLD POLICY

As stated in the Background discussion (Section 1.0) the City of Chula Vista has adopted a series of Threshold Standards and Policies as part of its Growth Management Program. Of the eleven issue areas addressed in the Policy, seven require project-by-project review. As part of the preceding environmental analysis these seven issues were evaluated for compliance. The following discussion provides a summary of the previous analysis.

Drainage - The goal of the drainage standard in the Threshold Policy is to ensure "individual projects will provide necessary improvements consistent with the Drainage Master Plan(s) and City Engineering Standards". Although the General Plan Update would not result directly in a development project, it would allow for future projects in an area currently undeveloped, which would place an added demand on drainage facilities. Compliance with City's Drainage and Flood Control Master Plan would be required for all new developments as part of mitigation. The Plan Update is consistent with the Threshold Standard.

Parks and Recreation - The Threshold Policy goal is to "provide a diverse and flexible park system which meets both the active and passive recreational needs of the citizens of Chula Vista". It sets a standard ratio requiring three (3) acres of neighborhood and community park land with appropriate facilities per 1,000 population. Under the proposed plan, a total of 5.33 acres of park land would be provided for every 1,000 people. This acreage exceeds the Threshold Standard.

Traffic - The main traffic objective contained in the Threshold Policy is to ensure adequate capacity while maintaining acceptable levels of service. Threshold Standards apply particularly to intersections. A general test of the circulation system was made to evaluate the projected intersection operation. The Rancho Paseo/Otay Valley Road intersection was found to require some mitigation to ensure smooth flow. Other intersections appeared to operate within the Threshold Standards or had been mitigated to produce compliance. It should be noted that future traffic analyses will be necessary when the projects are more clearly defined and compliance with the Standards of the Threshold Policy will be addressed at that time as well.

Police - The Threshold objective is to "ensure that police staff, equipment and training levels are adequate to provide police service at the desired level throughout the City". The Police Department is planning to meet the demands of future populations by construction of a new facility to be located in the Eastern Territories. Assuming the facility is constructed in a manner phased with development, the Threshold Standard would be met. It is the responsibility of the Police Department to ensure that all residents are provided protection in accordance with the Standards during the interim period.

Fire Protection - The objective of this Standard is to "ensure that fire and emergency medical service staff are properly equipped, trained and funded to provide the desired level of service throughout the City". The City of Chula Vista has prepared a Draft Fire Station Location Study to plan for the future facilities needed at buildout of the proposed General Plan Update. This study was created so that future response times would be in conformance with the Standards in the Threshold Policy. If future facilities are constructed as planned in the study then no difficulties with compliance are anticipated.

Water - The Threshold Standards for water involve two actions; the developer must request and deliver to the City a service availability letter from the water district and the City must annually provide development forecasts to the Otay Water District, Sweetwater Authority and County Water Authority. Service availability for buildout of the Plan is assured only if additional water supplies and storage facilities are available. If this Standard is required on a case-by-case basis then all future development would be phased to be in sync with water availability. The Standards have been made a mitigation measure of the project and it is in compliance with the Threshold Policy.

Sewer - As stated in the objective, "individual projects will provide necessary improvements consistent with Sewer Master Plans and City Engineering Standards". This is to be accomplished by ensuring sewage flows and volumes do not exceed City Engineering Standards, which is a mitigation measure in the Plan Update EIR. Also included as mitigation is the provision of a Citywide development forecast to be presented by the City to the City of San Diego. Adherence to these mitigation measures would result in compliance with the Threshold Policy.

5.0 ALTERNATIVES

CEQA requires a description of a range of "reasonable alternatives to the project, or to the location of the project, which could feasibly attain the basic objectives of the project," and to evaluate the comparative merits of the alternatives. The discussion of alternatives "shall focus on alternatives capable of eliminating any significant adverse environmental effects or reducing them to a level of insignificance, even if these alternatives would impede to some degree the attainment of project objectives, or would be more costly". CEQA also requires analysis of the "no project" or existing conditions alternative. The range of alternatives required in an EIR is governed by "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The key issue is whether the selection and discussion of alternatives fosters informed decision-making and informed public participation. An EIR need not consider an alternative whose effects cannot be reasonably ascertained and whose implementation is remote and speculative.

The following discussion concerns five project alternatives. Three alternatives have been analyzed in response to CEQA requirements. The first alternative is the No Project Alternative; the second is the Reduced Urban Land Use Designation Alternative which was created to eliminate significant adverse impacts as identified in the Impacts Section (3.0), and the third is the Alternate Site Location which was created in response to the recent Goleta case. In addition, two alternatives are analyzed in anticipation of future potential revisions to the proposed General Plan. As shown on the Land Use Element map, two areas have been noted "see Alternatives Section of the EIR". One area is near Mother Miguel Mountain, and called the Rancho San Miguel Alternative. The other area is on the west side of the Lower Otay River, referred to as the Olympic Training Site Alternative.

As part of the process of preparing the General Plan Update, several alternative scenarios for development in the Eastern Territories were created. Scenario 1 would have maintained the area's semi-rural character and substantially restricted growth; Scenario 2 would have led to an urban residential community, with introduction of limited commercial and employment uses; and Scenario 3 would

have actively encouraged location and development of regional activities, including higher education and additional density. A tabular comparison of the 3 alternatives is provided as Table 2-1 in the Project Description.

Scenario 2 would have resulted in approximately the same overall density development as the proposed alternative and would result in generally the same environmental impacts as the proposed Plan Update. As designed, it would not satisfy the goals and objectives of the City in planning for future development of the Eastern Territories to accommodate anticipated regional projections. Scenario 3 would have resulted in greater density development than the proposed project. This increased urban density would result in increased traffic generation, more noise, increased air quality emissions, additional demand placed on infrastructure and more taking of land for urban uses. Designation of more land for urban uses would result in additional impacts to biology, archaeology, land form, aesthetics, and open space, among others. The proposed General Plan Update would satisfy the goals of the City with less significant impacts to the environment. For this reason Scenarios 2 and 3 were not preferred over the proposed Plan Update and are not discussed further in this section.

Scenario 1, however, would result in less urban development than the proposed General Plan Update. In general, Scenario 1 consists of a predominantly residential community which would limit new developments to mostly low density residential accompanied by neighborhood services, and would restrict growth to a rate less than forecast for the region. It would not incorporate the Chula Vista Greenbelt as proposed under the Plan Update. The proposed Plan Update provides for development consistent with regional growth forecasts and encourages location of regional facilities including higher education, commercial and employment uses as well as residential. Under Scenario 1 the projected population would be much less than under the proposed Plan Update, 28,000 in the Eastern Territories in 2005 vs. 39,500 under the Plan Update in the same year. At buildout the Eastern Territories population is anticipated to be 57,600 under the proposed Plan Update and 39,500 under Scenario 1.

Adoption of Scenario 1 instead of the proposed Plan Update would result in buildout of a different urban pattern in the Eastern Territories. The less-dense development associated with Scenario 1 would not however, eliminate the significant

environmental impacts to open space, landform, agriculture and biology associated with the Plan Update. As envisioned under Scenario 1 residential development would occur throughout the Eastern Territories, only on much larger lots. This more rural development would be less dense but would still involve adverse impacts to open space, landform and agriculture as the natural rolling hills of the Eastern Territories, which are now capable of producing valuable agricultural crops, would be overcovered by development. The developed area may actually include more area than under the proposed Plan Update as the greenbelt would not exist. The less intense development of Scenario 1 may, however, reduce the significance of these impacts by allowing for retention of more open space in private lots. This available open space may also result in retention of more natural vegetation and sensitive species and involve less significant impacts to biology.

Although Scenario 1 would reduce the cumulative significant impacts associated with the Plan Update, it would not fulfill the goals and objectives of the Plan Update which is to plan for eventual, coordinated urban development of the Eastern Territories in sync with regional growth projections. The proposed Plan Update provides for development consistent with regional growth and economic forecasts. Scenario 1 would allow for only a partially coordinated response to economic forces. Because Scenario 1 would not eliminate the significant environmental impacts associated with the proposed Plan Update and would not fulfil the goals and objectives of the City, Scenario 1 is not considered further.

To facilitate clear evaluation of the potential impacts, a matrix has been prepared with the vertical axis containing the 15 subject areas addressed in the Impacts Section of this EIR and the horizontal axis containing classifications of impacts. The impact classifications include:

No Impact - This finding suggests that, based on this general alternatives evaluation, no impacts to the subject area would be expected with implementation of the alter-native. It should be understood that when additional information is available, this analysis may change and these subject areas should be given some further attention.

Potential Impact - This finding suggests that a potential impact appears to exist with implementation of the alternative, and additional investigation would be necessary to determine if such impacts would occur.

Significant Impact - This finding states that impacts are expected with approval of the alternative and that further evaluation would be necessary to define and/or quantify the impact and to propose mitigation as necessary.

As stated in the definition of the classifications, each subject area may require additional evaluation. In some subjects, the impacts will be very clear and the scope of further evaluation will be well-defined. Other subjects may require additional evaluation to clearly identify the potential impacts; in these cases the scope of future study will be more general. The evaluation provided in these documents merely highlights the subject areas which would likely be impacted by the proposed project.

5.1 NO-PROJECT

Under the No Project Alternative all existing land use designations and the existing elements contained in the General Plan would remain unchanged. The existing General Plan (adopted in 1972) was created to guide development through the year 1990 and does not consider the future growth patterns expected to occur in the next 20 years. In particular, it does not provide for development planning of the Eastern Territories. A summary of the impacts of adoption of this alternative is provided in Table 5-1.

Geology/Soils: The existing General Plan would still allow for development of undeveloped land where unstable soils or fault traces may be located. Geologic and soils investigations would be necessary to identify potential impacts and devise mitigation.

Hydrology/Groundwater/Water Quality: Certain areas in the Sweetwater and Eastern Territories communities which are currently undeveloped would be

Table 5-1

NO PROJECT ALTERNATIVE

IMPACTS SUMMARY MATRIX

	No Impact	Potential Impact	Significant Impact
Geology/Soils		X	
Hydrology/ Groundwater/ Water Quality		X	
Biology		X	
Archaeology/ Paleontology		X	
Air Quality		X	
Noise		X	
Conversion of Agricultural Land	X		
Landform/ Aesthetics	X		
Land Uses/ General Plan/ Zoning			X
Community Social Factors		X	
Community Tax Structure		X	
Parks/ Open Space	X		
Utilities		X	
Transportation			X
Hazardous Waste/ Risk of Upset		X	

developed under the existing General Plan. Potential impacts to groundwater and drainage could occur as identified under the proposed Plan. By compliance with the recent Threshold Policy and measures contained in the existing General Plan, these impacts should be mitigated.

Biology: The current General Plan maintains considerably more area as open space which would preserve additional biological resources. However, a certain amount of vacant land, which may support sensitive species, would be impacted. The impact is potentially significant.

Archaeology/Paleontology: The impacts to archaeology/paleontology associated with the current General Plan are similar to the proposed Plan Update wherein significant resources could be impacted by development in undeveloped areas. Although the current plan maintains more open space and the future development area may be less, the impacts are regarded as potentially adverse.

Air Quality/Noise: Development of the current General Plan would not result in the quantity of traffic associated with the proposed Plan Update. The increase in traffic assumed with full buildout of the General Plan may result in some adverse impacts but these would not be on the same scale as the proposed Plan Update.

Conversion of Agricultural Land: A substantial portion of the Plannning Area is maintained as open space/agricultural preserve under the current General Plan. No impacts would result.

Landform/Aesthetics: Because the majority of the Eastern Territories would be maintained as open space and the landform and aesthetic value of the area retained in its natural form, no significant impacts would result.

Land Uses/General Plan/Zoning: The current General Plan does not plan for anticipated growth in the Eastern Territories. Failure to plan for future development of this area could result in haphazard placement of uses, and inadequate infrastructure, which is regarded as unsatisfactory. Because the goal of the City of Chula Vista is to create a planning document to direct future development and redevelopment, particularly development in the rural Eastern Territories, the

failure of the current General Plan to meet this goal is regarded as a significant impact.

Community Social Factors: The current General Plan does not assume urban development in the Eastern Territories. Population, employment and housing figures are not consistent with SANDAG Series VII forecasts and potential impacts could result.

Community Tax Structure: The fiscal analysis prepared as part of the proposed Plan Update effort indicated that the net fiscal impact would be positive. This is primarily due to urban development in the Eastern Territories which would make up for the negative fiscal impact projected for the Montgomery and Central Chula Vista planning areas. If the Eastern Territories are not developed with urban uses and only limited sales and property taxes are generated, the overall net fiscal impact may not be positive.

Parks/Open Space: The current General Plan designates a substantial area for open space and contains an adequate park standard to ensure park facilities are available to new residents. No adverse impacts are anticipated.

Utilities: Development of the current General Plan would also place additional demands on service providers. Because a large amount of the Planning Area would remain in open space, the demand is anticipated to be less than under the proposed Plan Update. Still, the additional demand would have potential impacts.

Transportation: The current General Plan was prepared several years ago and has not been updated to reflect regional growth, or incorporated recent transportation facilities such as the MTDB trolley. Buildout of the circulation system as currently designated could result in significant congestion, not necessarily from growth within the City but also from regional growth around the City.

Hazardous Waste/Risk of Upset: The existing General Plan does not provide for buffers around the Otay Landfill and other known potentially hazardous uses. There is the potential for adverse impacts to occur if land is developed without due consideration of identified hazardous wastes sites.

Summary: The No-Project Alternative would involve continued implementation of the current General Plan. Under this alternative there would be no significant impacts to agricultural lands, landform/aesthetics, or open space. However, continued implementation of the current General Plan would not allow for future planning of the Eastern Territories. Failure to plan for future development of this area could result in haphazard placement of uses, and inadequate infrastructure, which is regarded as unsatisfactory. The goal of the City of Chula Vista is to create a planning document to direct future growth, specifically in the rural Eastern Territories. The proposed General Plan contains policies and guidelines to assure that future development would provide for coordinated development of the Eastern Territories land uses, circulation, infrastructure as well as to provide for parks and open space. The existing General Plan does not accomplish this goal, and is therefore not considered the preferred alternative.

5.2 REDUCED URBAN LAND USE DESIGNATION

As stated in the impacts section, adoption of the proposed General Plan Update would result in significant, unmitigable impacts to open space, landform and agriculture. These impacts would result from urban development of the majority of the Eastern Territories. To mitigate these impacts, a reduction in urban land uses would be necessary. This would allow the retention of valuable agricultural land for productive uses, rolling hills and open space for visual relief.

The intent of this alternative is to minimize the impacts to agriculture, open space and landform associated with urban development to a level regarded as less than significant. To reduce this impact to a level of insignificance, the amount of urban land uses designated should be reduced. It is estimated that a substantial reduction in urban land use designations would be necessary to reduce the impacts to less than significant. This judgement is extremely subjective. To some citizens, any loss of open areas within the rural Eastern Territories is considered significant. Other citizens may regard the benefits associated with development, including opportunities for new housing and employment, to be more valuable than retention of open space. The exact amount of reduction is not quantifiable by the environmental consultant because of its subjective nature. To evaluate the potential

impacts associated with this alternative, the fifteen issue areas addressed in the text of this EIR are discussed below and summarized in Table 5-2.

Geology/Soils: Although this alternative would allow for less urban density within the Eastern Territories, development may still occur on unstable soil, near fault traces or near mineral resources. Potentially significant impacts could result from future development throughout the remainder of the Planning Area which would require mitigation.

Hydrology/Groundwater/Water Quality: Some areas which are currently undeveloped would still be developed regardless of the new designations in the Eastern Territories. Potential impacts to drainage and water quality could result from this development which is considered potentially significant.

Biology: This alternative would result in more area designated for open space or less intense land uses which may preserve biological resources. Still, a certain amount of vacant land, which may support sensitive species, could be impacted. The impact is regarded as potentially significant.

Archaeology/Paleontology: The impacts to archaeology/paleontology associated with this alternative would be similar to the proposed Plan Update where valuable resources could be impacted by development. Although this alternative would retain additional open space, development in currently undeveloped acreage with high potential for resources could still occur. This is regarded as a potentially adverse impact.

Air Quality/Noise: Buildout of this alternative would not result in the same quantity of traffic as the proposed Plan Update. The increase in traffic could, however, be of a large enough scale to cause potential adverse impacts.

Conversion of Agricultural Land: Under this alternative a large amount of agricultural land would remain available for production and no significant impacts would be expected.

Landform/Aesthetics: This alternative has been created to minimize adverse impacts to landform/aesthetics and no significant impacts would result from its adoption.

Table 5-2

REDUCED URBAN LAND USE ALTERNATIVE

IMPACTS SUMMARY MATRIX

	No Impact	Potential Impact	Significant Impact
Geology/Soils		X	
Hydrology/ Groundwater/ Water Quality		X	
Biology		X	
Archaeology/ Paleontology		X	
Air Quality		X	
Noise		X	
Conversion of Agricultural Land	X		
Landform/ Aesthetics	X		
Land Uses/ General Plan/ Zoning			X
Community Social Factors		X	
Community Tax Structure		X	
Parks/ Open Space	X		
Utilities		X	
Transportation		X	
Hazardous Waste/ Risk of Upset	X		

Land Uses/General Plan/Zoning: This alternative would minimize urban development in the Eastern Territories, but it would not fulfill the goals and objectives of the City. As land in the coastal areas is developed and population increases, economic forces will naturally encourage urban development of land to the east, specifically the Eastern Territories. The alternative would allow for only partial response to this force. The failure of this alternative to meet the goals of the City and to respond to economic forces could result in a significant impact.

Community Social Factors: The proposed alternative would allow development of less density and would reduce the number of allowed residences and employment opportunities. This may not be consistent with SANDAG Series VII projections and is considered a potentially significant impact.

Community Tax Structure: The net fiscal impact associated with the proposed Plan Update is due primarily to the anticipated income from the urban development of the Eastern Territories. If this development is reduced, less income would be generated by sales and property taxes and the net fiscal impact to the City may not be positive. This is a potentially significant impact.

Parks/Open Space: The alternative would increase the amount of open space and no adverse impacts are anticipated. The greenbelt and other park facilities would remain as planned and no significant impacts to parks would result.

Utilities: Because much of the Eastern Territories would remain at reduced density development, the demand on service providers is anticipated to be less than under the proposed Plan Update. Even so, the additional demand may have some potential impacts.

Transportation: This alternative would allow for improvements to be made to the circulation system and would reduce traffic generated. Although the reduction in traffic generated would reduce trips allocated to the circulation system in the Eastern areas, the impacts to the existing system would not be mitigated. Some adverse impacts to circulation would occur even with adoption of this alternative.

Hazardous Waste/Risk of Upset: This alternative would provide for buffers around the Otay Landfill and other known hazardous sites. No impacts are expected.

Summary: Although this alternative would result in elimination of significant impacts as described above, it would not fulfill the goals and objectives of the proposed Plan Update, which is to plan for the eventual, coordinated urban development of the Eastern Territories. As land in the coastal areas is developed and the population expands, economic forces will naturally encourage urban development of land in this area. The proposed Plan Update accommodates these natural changes and plans for the future urban development in a coordinated manner. The alternative, however, would allow for only a partially coordinated response to economic forces. The strength of forces may eventually encourage haphazard development in areas not planned for by this alternative. Because this alternative could eventually result in hapazard development in the Eastern Territories, and would not fulfill the goals and objectives of the City, this alternative is not preferred over the proposed project.

5.3 ALTERNATE SITE LOCATION

This alternative is included in response to the recent Goleta case, in which the court ruled that EIRs must evaluate alternate sites for a project in addition to project alternatives located upon the same site. Although alternate site analysis may not be required in all cases, in practice it has been applied in instances where EIR's have evaluated General Plan Amendments. The implications of this decision are not clear and the decision is being appealed in a higher court.

The proposed project is the update of the Chula Vista General Plan which can be considered, by definition, an amendment to the General Plan which would warrant the inclusion of an alternate site location discussion. However, an amendment to the existing General Plan is substantially different in scope and breadth than a complete update of the plan. In the case of Chula Vista the General Plan Update involves planning for urban development of an extremely large (+15,000 acre), currently rural area (Eastern Territories). This area is currently designated "interim open space" in the existing General Plan and much of it is considered to be within the planning sphere of influence of the City.

An alternate site location for such a project is considered unrealistic and impractical for a variety of reasons. The first is that the Plan Update involves the

City of Chula Vista, its Sphere of Influence, and other areas deemed important to the City of Chula Vista, and, thus, that is the only location the City's planning efforts could realistically involve. Secondly, in San Diego County there are few contiguous, rural, developable areas of this magnitude in existence. Although many large, rural areas do remain they are, in general, not privately owned; instead they are owned by the U.S. Navy, National Parks system or other public entities. Other large developable areas are within the planning sphere of other municipalities. The Otay Mesa area to the south of the Planning area is one such example, as it is located within the jurisdictional boundaries of the County and City of San Diego.

Currently the Otay Mesa area contains several thousand acres of vacant and agricultural land. The primary developed uses include Brown Field, the Donovan Correction Facility and some industrial complexes. Both the City and County of San Diego have prepared development plans for the area with a primary focus on creation of a regional industrial center to maximize the area's proximity to Mexico. Some limited residential development is designated; however, due to uncertainty over the future role of Brown Field in the region's system of airports this development may never occur. Given that the Otay Mesa area is suitable for and planned to accommodate regional industrial development, which the proposed General Plan Update does not include, and that residential development as anticipated under the General Plan may not be allowed to occur on the Mesa, this alternate site location is not considered feasible or practical.

Summary: Locating an alternate site for the proposed General Plan Update project is considered impractical. Also, identification of a vacant, developable site of comparably size is extremely difficult. In general, areas which may be suitable are unavailable, either because of public ownership or because of existing development plans which would be in conflict with the proposed project (i.e., Otay Mesa). Finally, there is some question regarding the intent of the Goleta case and whether it applies to actual General Plan Updates. For these reasons, a detailed evaluation of an actual alternate site location is not warranted. The proposed project is applicable only in the Chula Vista planning sphere of influence.

As mentioned previously, the remaining two alternatives are analyzed, not in response to CEQA requirements, but in anticipation of potential changes in the

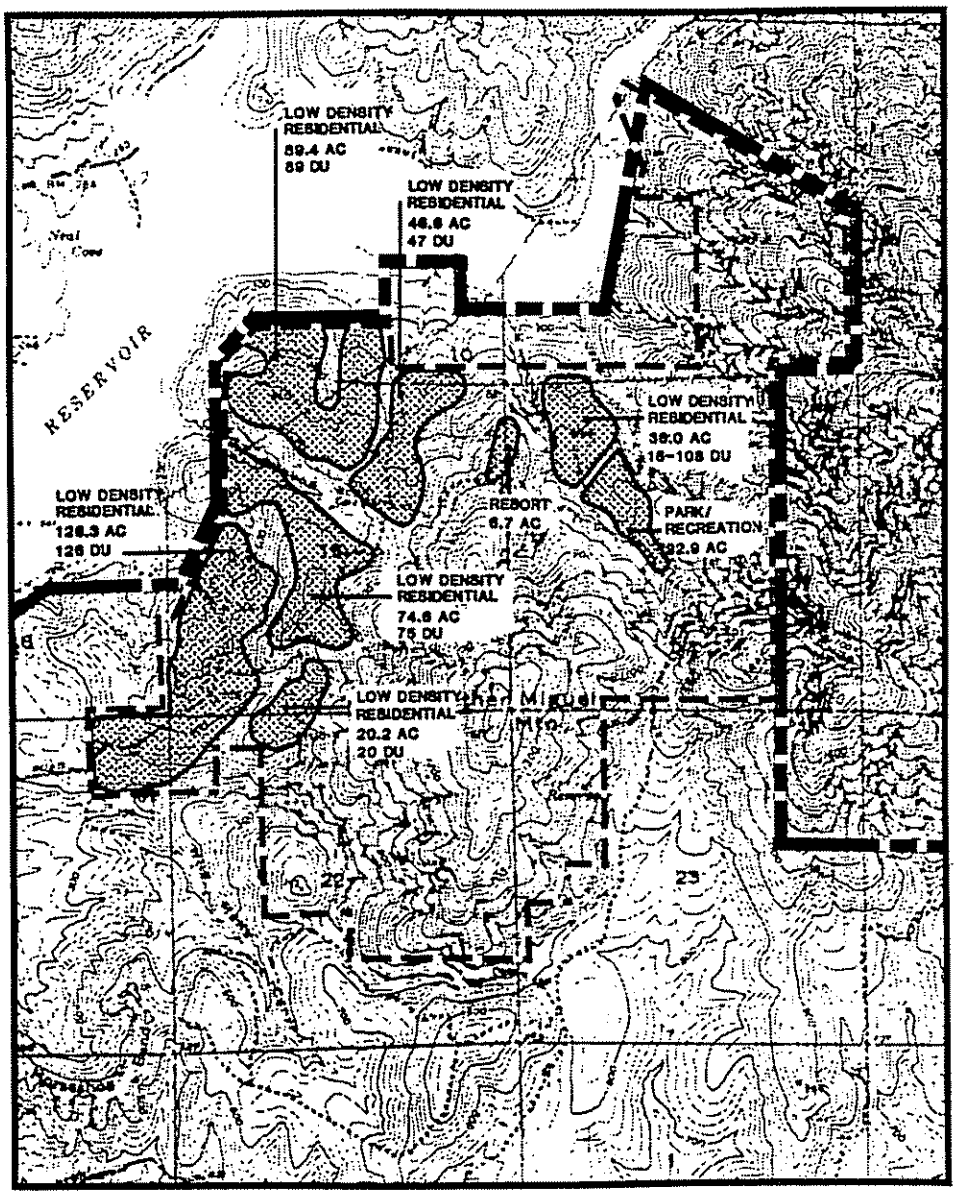
proposed Plan. This analysis contains a brief description and map of the proposed alternative, an overview of the potential impacts and general mitigation measures. The results of this analysis should be used as a basis for further analysis of the impacts associated with each alternative and possibly to refine development plans prior to inclusion, if so decided, in the General Plan itself. It should be noted that adoption of any portion of these two alternative scenarios is a public policy decision. The analysis provided in the following text is provided as information to assist the City Council and the public in their evaluation of the proposed alternatives.

5.4 RANCHO SAN MIGUEL ALTERNATIVE

This alternative involves the area including and surrounding the northern side of Mother Miguel Mountain in the northeastern-most corner of the planning area. Under the proposed General Plan Update this area is designated Open Space, due to the combination of steep slopes, sensitive habitat and proximity to Mother Miguel Mountain and the Sweetwater River. Mother Miguel Mountain, a volcanic rock mountain, rises 1,525 feet above the Sweetwater River Valley.

Under this alternative the northern portion of the site is envisioned to be a low density (average 1 D.U. per acre) residential planned community of approximately 465 units. The residential product types would be predominantly large single-family lots consistent with the character of the existing Bonita-Sweetwater Community. A resort center is contemplated for a 6.7 acre site which is envisioned as a Bed and Breakfast Inn. An urban campground, possibly for use by such groups as the Boy Scouts or Girl Scouts, would be located on a 22.9 acre parcel in the north central portion of the site. The remaining project area, over 1,600 acres, would be devoted to park and open space uses which may include hiking trails, equestrian trails, and habitat preservation with associated interpretive centers and observation areas. A schematic map of the proposed alternative is provided in Figure 5-1.

To analyze the potential impacts associated with this alternative, the project boundaries have been placed on the six resource maps created as part of this work



Rancho San Miguel Alternative Boundary

Chula Vista General Plan Area Boundary

RANCHO SAN MIGUEL ALTERNATIVE

Figure 5-1

SCALE 1"-3000'

effort. These graphics illustrate the known geologic, soils and vegetation resources in the area, the location of sensitive animal and plant species, and the areas of potential paleontological and archaeological resources. The potential impacts associated with the proposed alternative were then identified given the resources known to exist at this time. It should be noted that this impact analysis is based on conceptual, generalized plans and does not constitute complete environmental review. This discussion serves only to highlight potential impact areas for General Plan decision-making purposes. The EIR text addresses fifteen issue areas. This generalized, alternative analysis addresses the same fifteen areas in matrix form (see Table 5-3) and includes a discussion of the identified impacts and general mitigation measures in the following text.

Geology/Soils: As shown in Figure 5-2, the majority of the site is overlain by the Santiago Peak volcanic formation which is characterized on the surface by rock outcrops of an igneous origin and is considered stable. Two areas of alluvium are located in canyon bottoms in the central area of the property. These areas consist mostly of poorly consolidated stream deposits of sand, silt and cobble-sized particles derived from bedrock sources. Alluvial materials may be compressible and could settle under superimposed loads. Development of the site would require blasting of the volcanic rock as well as other remedial grading techniques to remove alluvial soils. Also, the subsurface of these areas would need to be thoroughly examined to accurately depict the nature of the subsurface structure and stability.

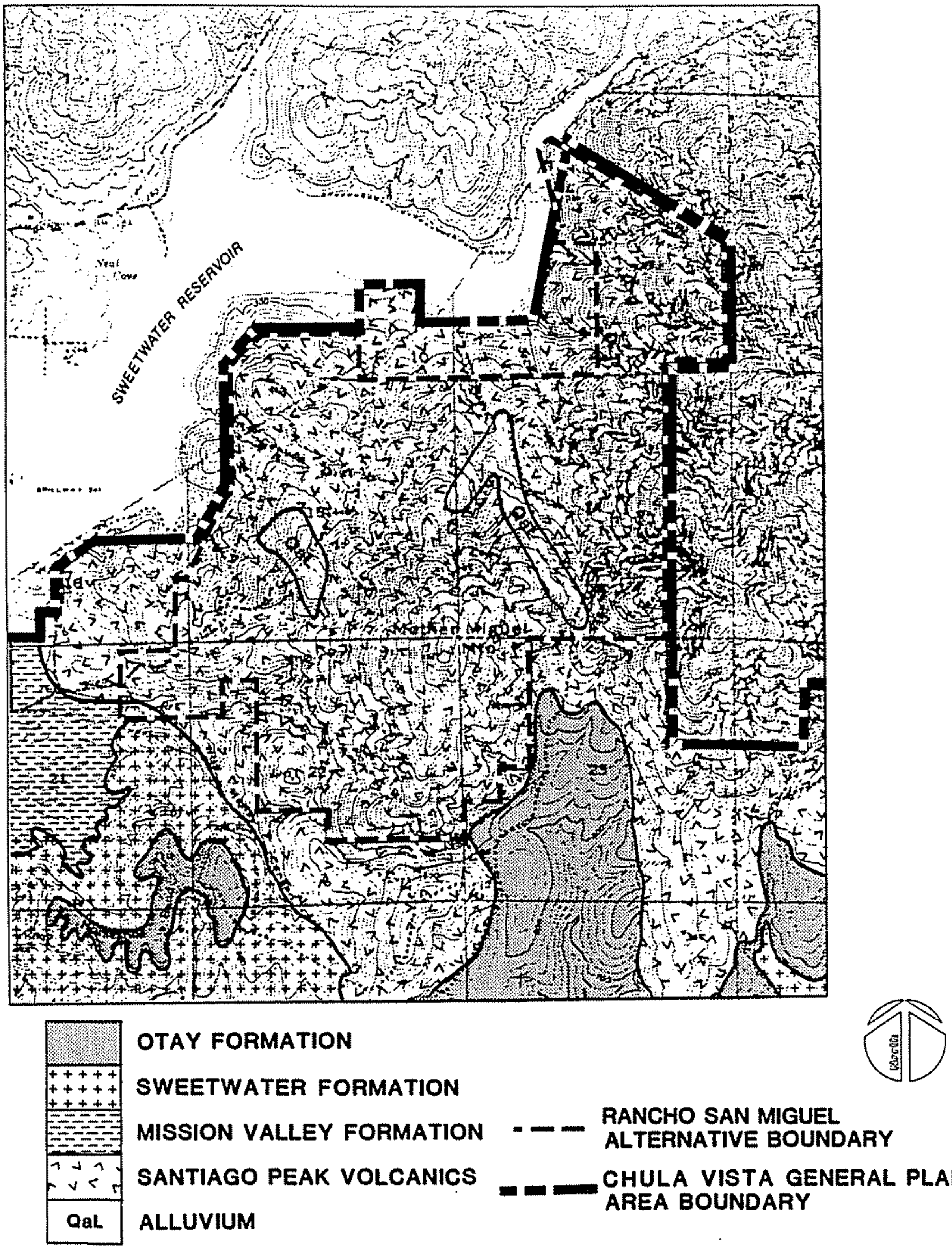
Soils on-site appear to be limited to San Miguel Exchequer rocky silt loams (Figure 5-3). This classification is composed of about 50% San Miguel silt loam and 40% Exchequer silt loam with the remaining areas covered by rock outcrops. The San Miguel series consists of well-drained, shallow to moderately deep silt loams that have a clay subsoil. These soils are derived from metavolcanic rock. Exchequer series soils consist of shallow and very shallow, well-drained silt loams that form in material weathered from hard metabasic rock. Drainage in these soils is good, runoff is medium to rapid, and the erosion hazard is moderate to very high. These soils are used chiefly for wildlife habitat and watershed.

Table 5-3

RANCHO SAN MIGUEL ALTERNATIVE

IMPACTS SUMMARY MATRIX

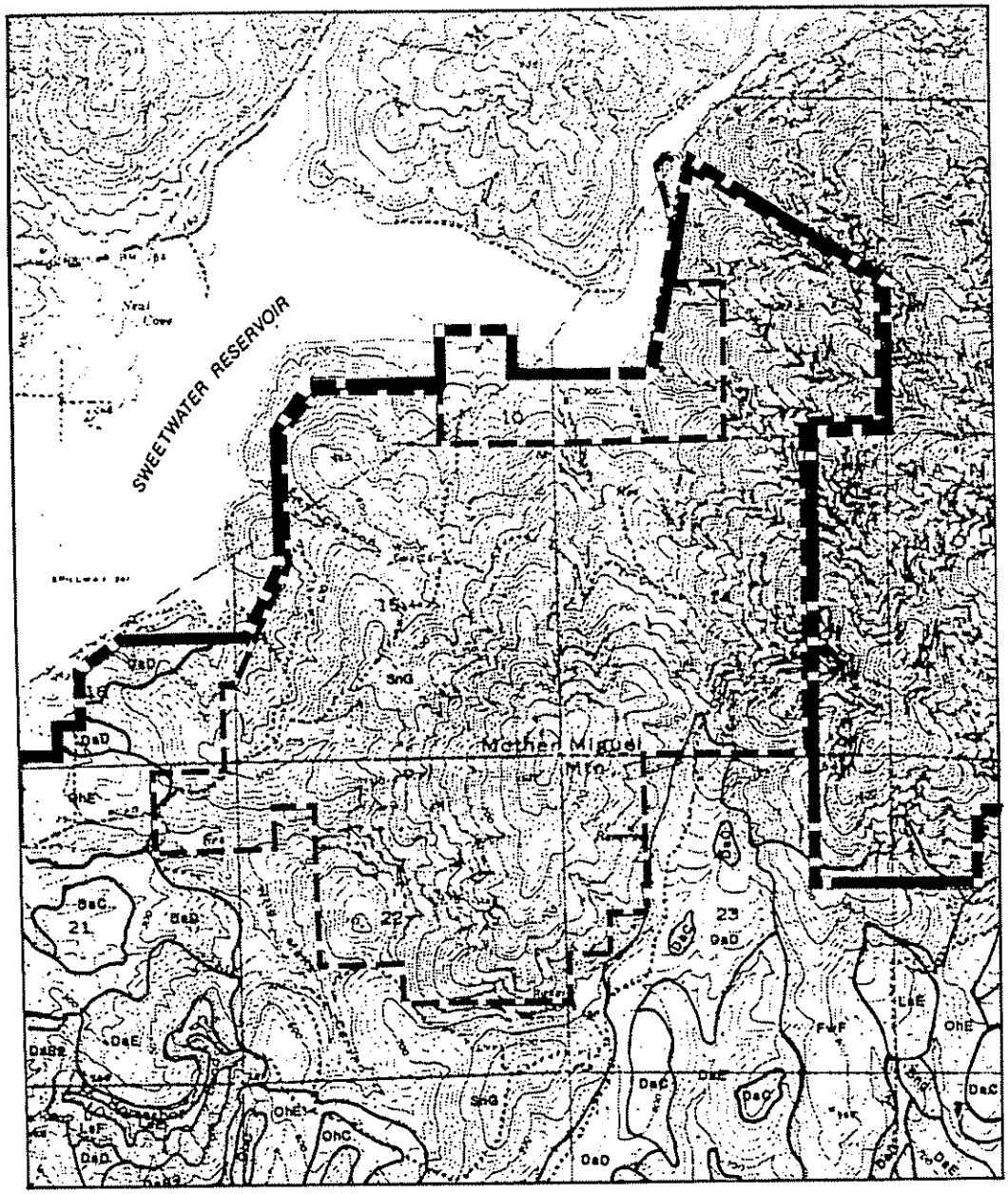
	No Impact	Potential Impact	Significant Impact
Geology/Soils		X	
Hydrology/ Groundwater/ Water Quality		X	
Biology			X
Archaeology/ Paleontology		X	
Air Quality		X	
Noise		X	
Conversion of Agricultural Land	X		
Landform/ Aesthetics			X
Land Uses/ General Plan/ Zoning		X	
Community Social Factors		X	
Community Tax Structure		X	
Parks/ Open Space			X
Utilities		X	
Transportation		X	
Hazardous Waste/ Risk of Upset	X		



GEOLOGIC RESOURCES

Figure 5-2

SCALE 1"-3000'



MAP SYMBOL	SOIL NAME	PERCENT SLOPE
DaC	Diablo clay	2–9
DaD	Diablo clay	9–15
DaE	Diablo clay	15–30
DaE2	Diablo clay	15–30
LsE	Linne clay loam	9–30
LsF	Linne clay loam	30–50
OhC	Olivenhain cobbly loam	2–9
OhE	Olivenhain cobbly loam	9–30
SnG	San Miguel Exchequer rocky silt loam	9–70
FwF	Friant fine sandy loam	30–50

RANCHO SAN MIGUEL ALTERNATIVE BOUNDARY

CHULA VISTA GENERAL PLAN AREA BOUNDARY

SOILS MAP

Figure 5-3

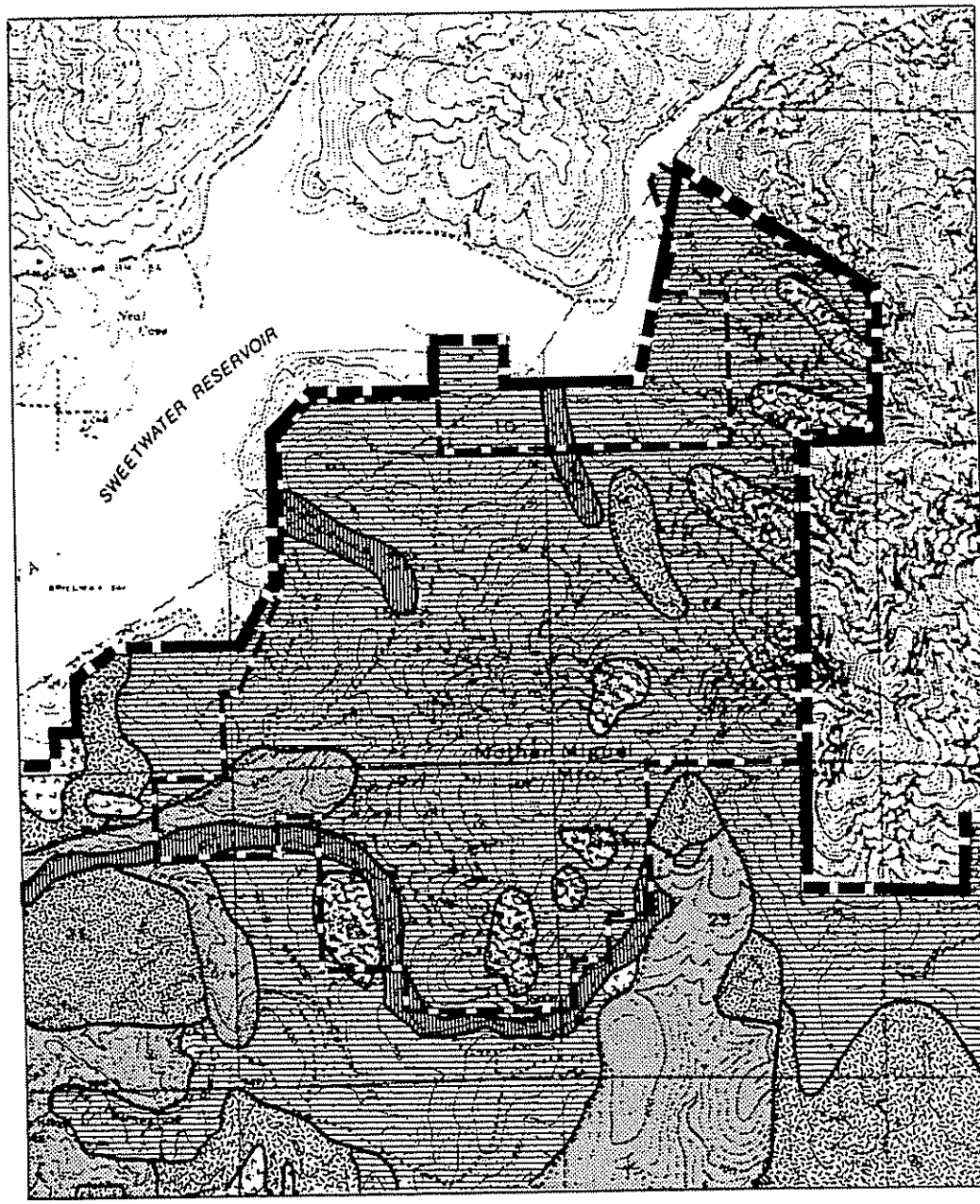
SCALE 1"=3000'

Hydrology/Water Quality: The proposed development area is in the watershed of the Sweetwater Reservoir which supplies drinking water to National City, a portion of Chula Vista and the County. the City of San Diego. Urban runoff associated with development could have a potentially significant impact to this water quality if urban wastes such as oil by-products and fertilizers enter the drinking supply. To eliminate this possibility the proponent would be required to construct a drainage feature to capture and divert flows away from the reservoir and into the Sweetwater River below the Sweetwater Dam. Water from the river is not potable and is used mainly for golf course irrigation. Some amounts of urban runoff are not considered adverse in this water supply (personal communication; Al Sorenson, Operations Manager, Sweetwater Authority, March 2, 1989). Although impacts are potentially adverse, they could be minimized to a less than significant level.

Overcovering of the soil would also result in an increase in the amount of runoff as less water would be able to perculate into the soil. Compliance with the City's Drainage and Flood Control Master Plan and Public Facilities element would assure that all existing and future drainage facilities are reviewed to evaluate their ability to accommodate increased runoff. Any facilities that are found to be inadequate would be improved by the project proponent, according to the project's share of responsibility.

Biology: The predominant vegetation type on-site is sage scrub. Several pockets of chaparral occur along the eastern and southern boundaries of the site and a single pocket of grassland habitat occurs in the northeastern quadrant. Several strips of riparian woodland occur in drainages on-site. Two are in the northwestern quadrant and one occurs along the southern boundary and extends west and off-site. Some disturbed vegetation also occurs in the southwestern quadrant. The vegetation types on-site and directly adjacent to the property are illustrated in Figure 5-4.

The locations of sensitive species identified on-site are illustrated in Figure 5-5. This graphic does not identify the actual species but it does describe general locations of sensitive species and differentiates between plants and animals. As is shown, the property supports a number of identifed sensitive species. These include plants such as San Diego Golden Star, San Diego Barrel Cactus, Otay



URBANIZED AREAS

FARMED OR DISTURBED AREAS

SAGE SCRUB

CHAPARRAL

RANCHO SAN MIGUEL ALTERNATIVE BOUNDARY

CHULA VISTA GENERAL PLAN AREA BOUNDARY

RIPARIAN WOODLAND

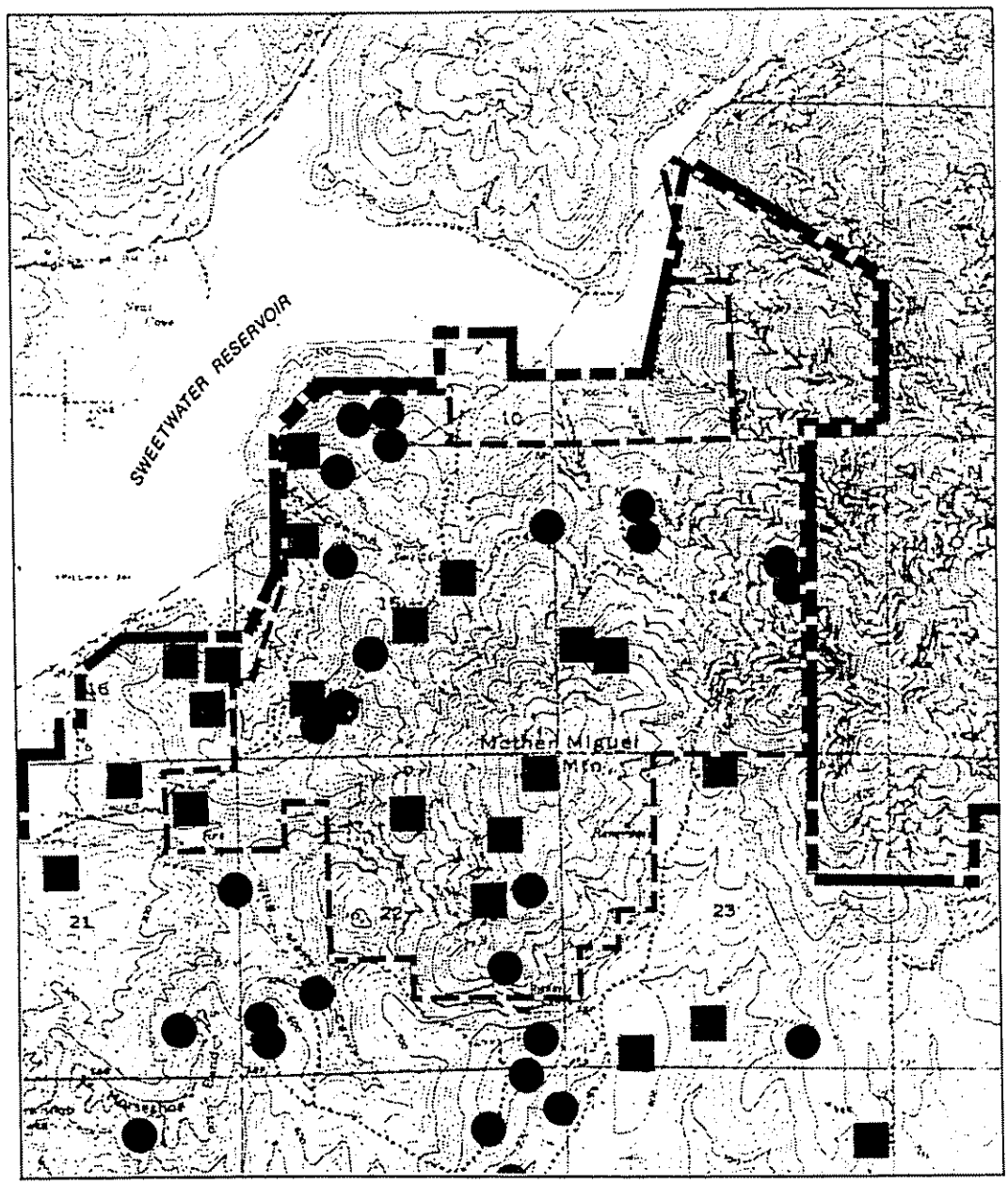
VERNAL POOL HABITAT/MIMA MOUNDS

GRASSLAND

VEGETATION/ BIOLOGICAL RESOURCES

Figure 5-4

SCALE 1"=3000'



● PLANTS

■ ANIMALS

RANCHO SAN MIGUEL ALTERNATIVE BOUNDARY

CHULA VISTA GENERAL PLAN AREA BOUNDARY

AREAS OF SENSITIVE SPECIES

Figure 5-5

A MORE DETAILED MAP WHICH CLEARLY IDENTIFIES ALL PLANT AND ANIMAL SPECIES IS ON FILE AT THE CITY OF CHULA VISTA

SCALE 1"-3000'

Manzanita, California Adolphia and Munz Sage. Sensitive animal species include birds such as the Black Shouldered Kite, Golden Eagle, and the California Black-tailed Gnatcatcher. The Black-tailed Gnatcatcher is considered particularly sensitive by state and Federal agencies. The California Fish and Game classifies this bird as a Species of Special Concern and the U.S. Fish and Wildlife is currently initiating steps to classify this bird as endangered.

The proposed project would involve construction of homes, roads and recreation facilities on-site. As shown on the illustrative graphic (Figure 5-1), several conceptual, development bubbles are shown along the western and northern edges of the property. These bubbles suggest development impacts to riparian woodland, sage scrub, grassland and disturbed habitat. These vegetation types are known to support sensitive species, particularly the Black-tailed Gratcatcher which occurs in sage scrub habitat. Depending on the extent of disruption associated with development, there may be significant impacts to sensitive plant and animal species. At this level of detail it is difficult to clarify impacts, however due to the sensitive nature of the species on-site, the impacts are considered potentially significant.

Several mitigation measures are available to minimize impacts including:

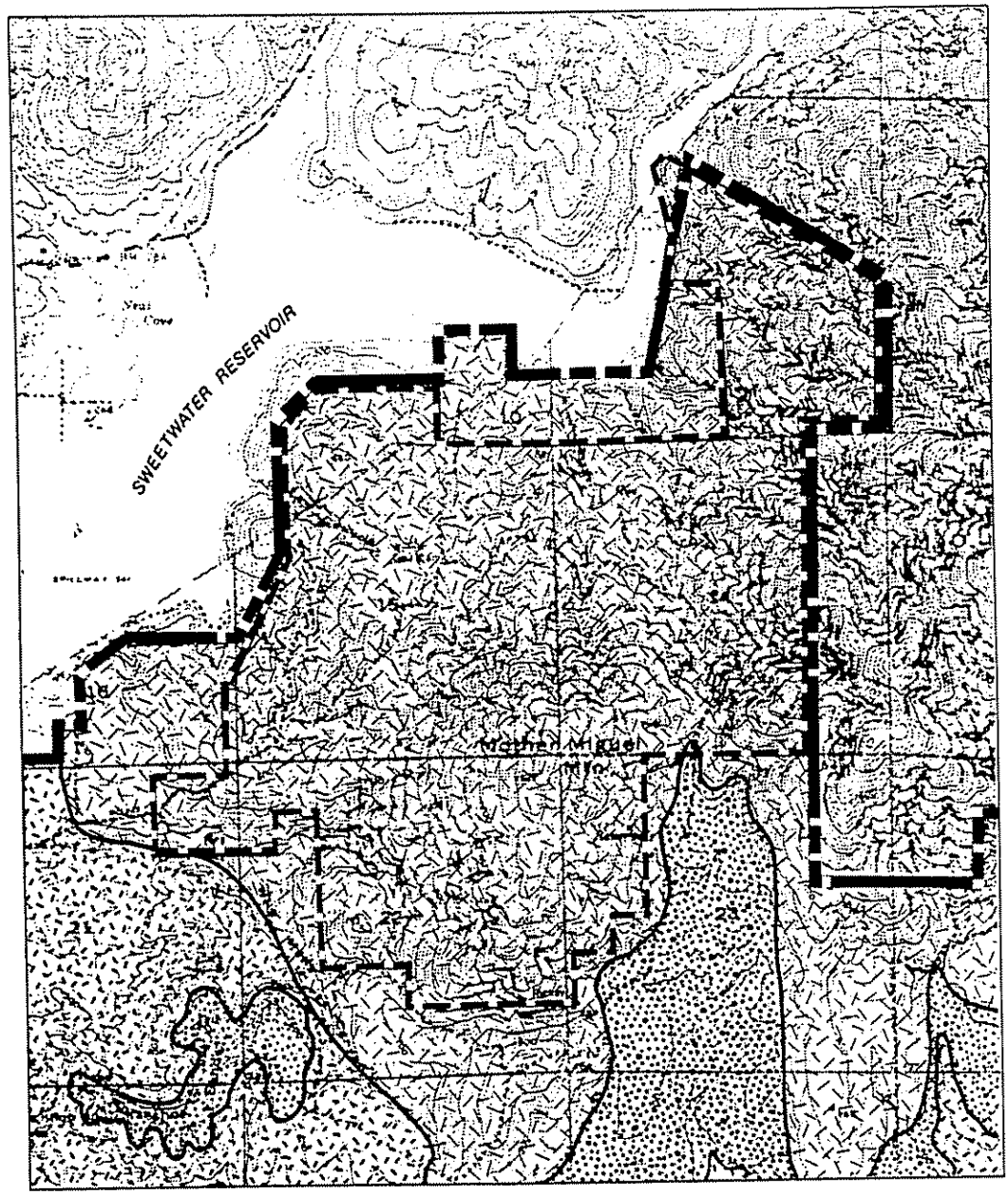
- careful site design to minimize destruction of native habitat, particularly riparian habitat within the development bubbles, and to minimize human/animal contact,
- preservation of sage scrub habitat which is known to support Black-tailed Gnatcatchers,
- construction of pedestrian/equestrian paths to follow existing dirt roads or contours to preclude disturbance of open space by unnecessary paths and trails,
- construction of culverts or bridges to allow free animal movement and reduce animal/automobile contact, and
- hydroseed bare slopes and landscaping with native plant species.

The loss of multiple gnatcatcher nesting territories should be mitigated by off-site purchase of equivalent habitat with known gnatcatchers at a 1-to-1 ratio for dedication as open space. Until such time that scientific studies verify a specific acreage, 5 acres should be considered feasible.

Archaeology/Paleontology: As shown on Figure 5-6, the project site has low resource potential for the location of paleontological resources. Based on the low probability of location resources, the alternative is not expected to have any adverse impacts to paleontology and no mitigation is required.

The majority of the site is identified as having low resource potential for archaeological sites as well (see Figure 5-7). However, there is one area northeast of Mother Miguel Mountain where the potential is moderate and there is an area of high potential in the area along the southwestern boundary. Based on a record search completed at the Museum of Man in 1974, no sites have been recorded for the project area. Because the possibility has been identified and future development is planned to occur in an area of high resource potential, there is the potential for adverse impacts to occur to archaeology. A detailed archaeological investigation should be undertaken to locate any archaeology sites in the areas to be disturbed by development. Areas which have not been carefully reviewed because of their previous designations may contain unidentified archaeological sites. Mitigation to minimize such impacts includes mapping of sites located during future surveys, significance testing, and collection of resources as determined necessary by a qualified professional.

Air Quality and Noise: The proposed alternative would result in generation of some traffic trips where none would be anticipated. This would involve a corresponding increase in noise levels and air emissions, creating a potential impact. Air quality impacts are considered significant if projected emissions are not consistent with the most recent air quality regional plans (SIP revisions). Measures would need to be incorporated into project design to assist regional efforts to minimize emissions. If noise levels exceed the standard for residential areas (65 dB(A)) then impacts could be signficiant. Noise levels can be reduced via construction of noise walls and careful site design to orient sensitive receptors away from noise sources. In a low-density residential development such as envisioned by the alternative, traffic



HIGH RESOURCE POTENTIAL

MODERATE RESOURCE POTENTIAL

LOW RESOURCE POTENTIAL

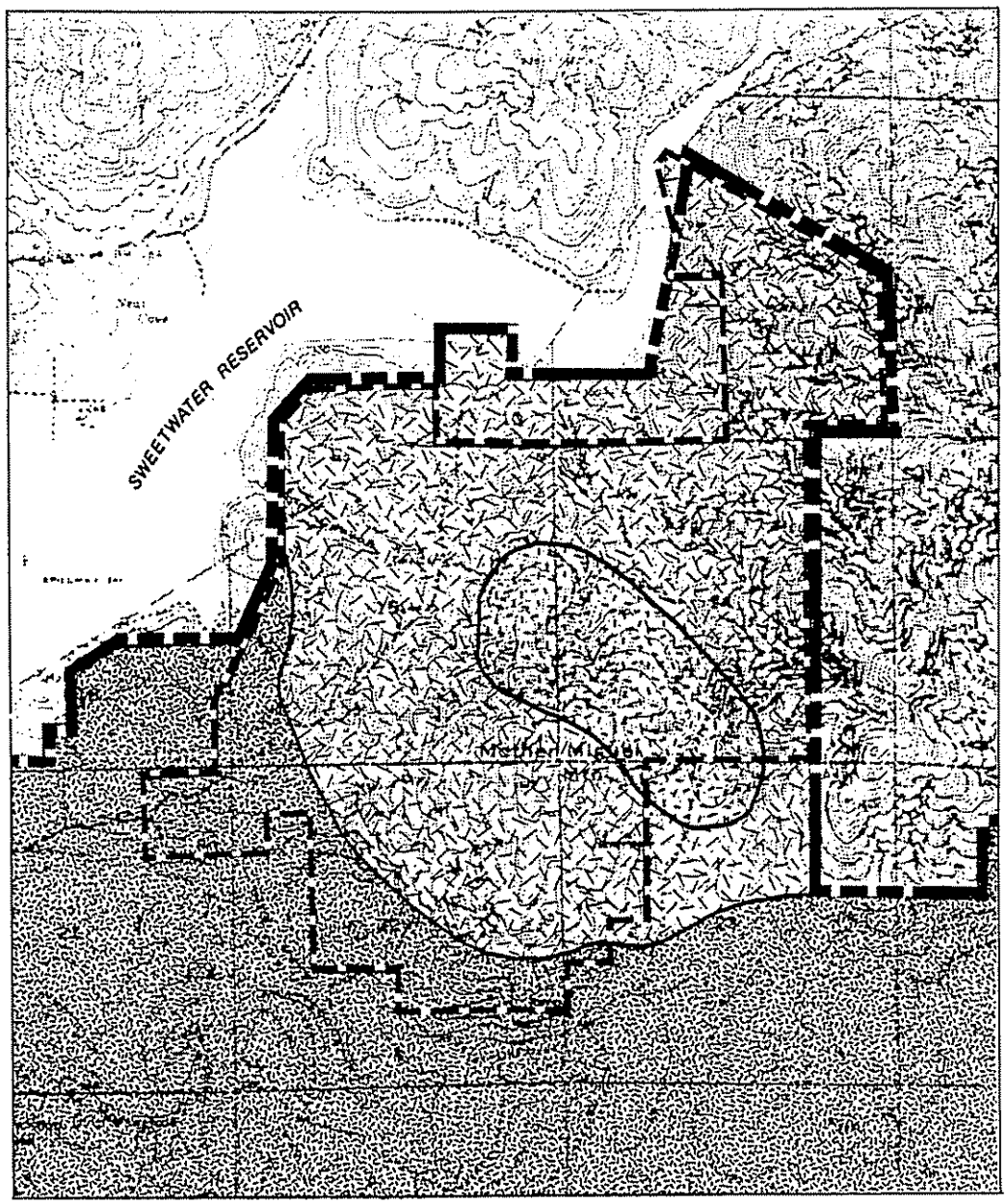
RANCHO SAN MIGUEL ALTERNATIVE BOUNDARY

CHULA VISTA GENERAL PLAN AREA BOUNDARY

AREAS OF POTENTIAL PALEONTOLOGICAL RESOURCES

Figure 5-6

SCALE 1"=3000'



HIGH RESOURCE POTENTIAL

MODERATE RESOURCE POTENTIAL

LOW RESOURCE POTENTIAL

RANCHO SAN MIGUEL ALTERNATIVE BOUNDARY

CHULA VISTA GENERAL PLAN AREA BOUNDARY

AREAS OF POTENTIAL CULTURAL RESOURCES

Figure 5-7

SCALE 1"=3000'

volumes are anticipated to be moderate and mitigation is not likely to be warranted.

Conversion of Agricultural Land: The site has not been traditionally used for agriculture and because of its steep slopes and unsuitable soils, does not appear to be a valuable agricultural resource. There are no adverse impacts expected to agriculture and no mitigation measures are warranted.

Landform/Aesthetics: The majority of the project site is characterized by extremely steep topography and a visually prominant mountain peak, Mother Miguel Mountain. The proposed alternative would result in alteration of slopes by placement of roads, building pads and resort facilities. Given the sloping terrain this is regarded as a potentially significant impact. Also, because the development areas are placed on slopes facing the reservoir, some visual impacts may occur as open space is replaced by developed, residential uses. Mother Miguel Mountain would be preserved in open space and the landform would remain unchanged in this area. To minimize impacts to landform, grading and development activity could be limited to areas of less than 25% slopes and slopes in excess of 25% could be retained in open space. All nature trails and access roads should follow existing dirt roads to minimize landform alteration.

General Plan/Land Uses: The alternative would not be consistent with the proposed General Plan Update which designates this area for open space. Under the proposed General Plan, this area is a major part of the Chula Vista Greenbelt open space network which is envisioned to circle the City. If this alternative were implemented, portions of this area would be developed with residential and recreation uses including an urban campground and Bed and Break-fast Inn. The designation of higher intensity land uses and modification of the greenbelt is not considered compatible or consistent with the proposed Plan Update and would be an adverse impact. A reduction in the scope of the project may minimize impacts; however, the project is not consistent with the intent of the General Plan at this time. It should be noted that the intent of the General Plan is a public policy and planning decision. The City Council may direct a change in the General Plan to accomplish new goals or benefits as determined important by the City. If the City Council directs a change in the General Plan to accommodate this alternative, then the inconsistency would be eliminated.

Parks, Recreation and Open Space: The entire site is currently designated open space and is a major component of the greenbelt network. If the alternative is adopted then approximately 425 acres of natural open space would be lost to development of homes, a Bed and Breakfast facility and an urban campground. As planned, over 1,600 acres would remain in open space and would be more readily available for recreation uses via the creation of a proposed trails system and interpretive center. Given the resource value of the property and its role in the Chula Vista Greenbelt, the loss of 425 acres (25% of the site) from open space to development use is considered cumulatively significant. To fully mitigate this impact, the site should retain its open space designation. To minimize the impact the project should be designed to maximize the amount of natural open space within the development areas. The loss of open space has been identified as a cumulatively significant impact under the proposed General Plan Update and any additional loss would represent cumulative impacts as well.

Community Social Factors: Implementation of the alternative would result in increased population in this area which may or may not be consistent with SANDAG forecasts. If growth forecasts are exceeded then impacts could result to public infrastructure designed to accommodate these growth forecasts. Depending on the amount of growth which exceeds that forecasted, this may or may not be a significant impact. Coordination of planning efforts with similar efforts of public service providers would serve to notify such providers of potential problems. The proponent would be assessed impact fees to cover any additional costs associated with upgrading facilities.

Community Tax Structure: The site would be redesignated from open space to urban uses which would require provision of services as well as generate tax income. A more detailed analysis of the net result would be necessary to determine the adverse or beneficial impacts associated with such action.

Utilities: The provision of water to the project area from OWD is uncertain and development of urban uses in an area currently designated for open space, with associated increases in demand for water, is regarded as a potentially significant impact. If a third regional aqueduct is constructed, and storage and transmission facilities are also constructed, then water should be available. However, there is a

region-wide water shortage that must be addressed with serious efforts at conservation and reclamation. The existing Wastewater Master Plan and Fire Location Study which were initiated to address future facility needs, based roughly on the proposed General Plan Update, do not include additional land uses and densities associated with the proposed alternative. If the alternative is approved these master plans should be modified to assure adequate service to the alternative uses and minimize impacts, and the developer should coordinate efforts to become consistent with those plans. Some additional demands would be placed on the police and school system which could be mitigated by payment of school fees and coordination with the local service provider.

Transportation: The Circulation Element does not currently provide for extensive access into this area nor does it consider distribution of trips generated by such uses. The number of trips to be generated is expected to number over 5,000 daily, assuming 10 trips per dwelling unit plus the trips anticipated from the resort and urban campground. The applicant would be required to design an internal street system to accommodate the trips expected according to the standards of the City of Chula Vista. As these trips are distributed to the surrounding street network there may be some adverse impacts. A transportation analysis should be completed to accurately define the number of trips to be generated by on-site uses, as well as attracted to the recreation amentities on-site and these trips should be distributed to the circulation network to evaluate their impact. If all affected roadways are projected to operate at LOS C then no adverse impacts would occur. If the network is found to operate at a level of service less than acceptable to the City then the applicant would be required to mitigate. This mitigation could include widening of streets, reconfiguration of intersections and/or modification of the internal system.

Hazardous Wastes/Risk of Upset: No hazardous wastes have been identified in this area and no impacts are expected.

Summary: The proposed Rancho San Miguel development alternative would result in urban land uses, residential and resort, in an area designated for open space under the General Plan Update. This action would result in significant impacts to biology, landform, and open space. The impacts to biology, landform, and open

space may be minimized by, among other measures, avoidance of sensitive species, revegetation of impacted areas, careful site design to accommodate landform features and retention of the maximum amount of open space. However, due to the impacts associated with the General Plan Update to these same issues areas, the impacts under this alternative represent a cumulatively significant impact. Potentially significant impacts have been identified to geology/soils, hydrology/groundwater, land use, air quality/noise, archaeology/paleontology, community social factors and tax structure, utilities and transportation. These impacts may be mitigated to a level of less than significance with further study and implementation of mitigation measures as necessary. No impacts are anticipated to agricultural lands or hazardous waste and no mitigation measures are warranted.

From an environmental planning perspective, the proposed alternative involves greater, or more significant impacts, after mitigation than the proposed project in at least three issue areas, biology, open space and landform. These impacts are related to the change in open space land use designation and the cumulative impacts associated with the Plan Update. For this reason the proposed Rancho San Miguel is not environmentally preferred over the proposed Plan Update.

As discussed in Section 1.0 (Introduction), the environmental review process is only one element of the information gathering process used when making a land use policy decision. If the City Council determines that there are other economic or social benefits associated with a project then they may make a Statement of Overriding Considerations. Although there are significant, unmitigable impacts to the environment, should the Statement of Overriding Considerations determine that the project provides benefits which the Council deems valuable, the project may be approved. A Statement of Overriding Considerations will be necessary to adopt the proposed General Plan Updated in any of the alternative scenarios because of significant, unmitigable impacts to biology, open space, landform and conversation of agricultural land. Although the Rancho San Miguel Alternative is not the environmentally preferred alternative compared to the proposed Plan Update designations, the City Council could make a decision to adopt the alternative based on other planning, economic and social criteria. The Statement of Overriding Considerations used to adopt the Plan Update could be written to accommodate adoption of this alternative at the same time as adoption of the General Plan Update.

5.5 EASTLAKE VISTAS/OLYMPIC TRAINING SITE ALTERNATIVE

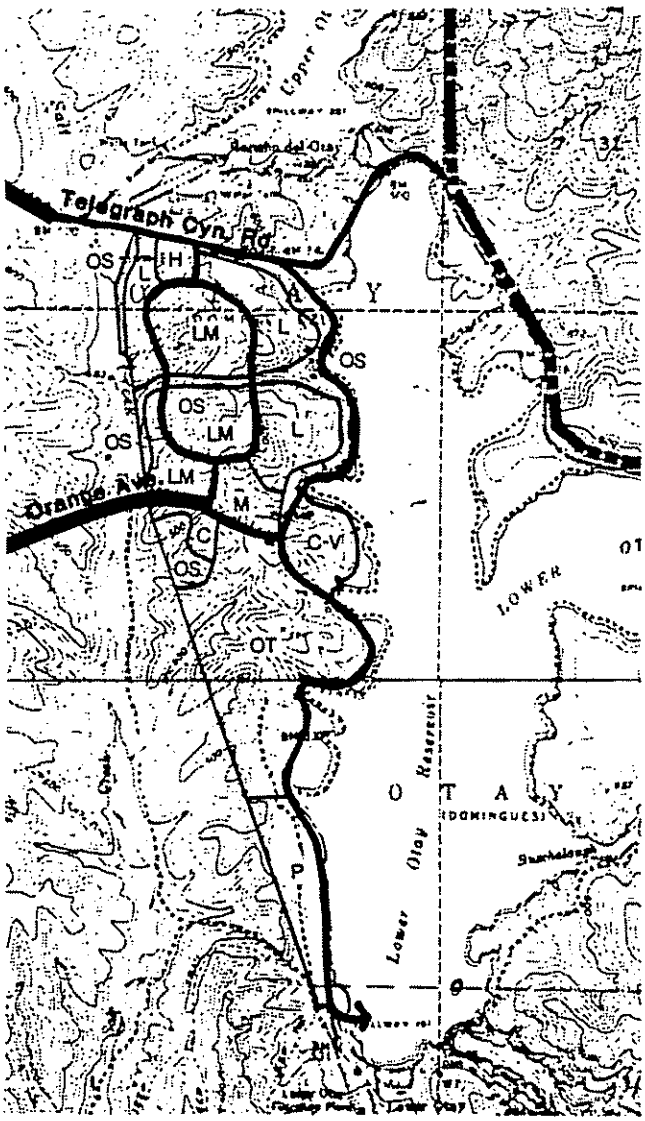
This alternative is proposed west of the Lower Otay Reservoir, south of Telegraph Canyon Road near the end of the planned extension of Orange Avenue. In the proposed Land Use Element this area is designated low density residential (0-3 du/acres), with a maximum of 666 units over 222 acres. Approximately 39 acres are designated for a regional park and the remaining 233 acres would be designated open space, primarily adjacent to the Reservoir. This alternative includes an Olympic Training Site, a variety of residential options and retail and visitor commercial land uses. A comparison of the proposed designation by acreage, is provided in Table 5-4 and the basic features of these designations are discussed below. Figure 5-8 provides a schematic illustration of the proposed General Plan and alternative for comparison purposes.

The training facility itself is intended to become the major training center in the nation for Olympic sports (water sports, track and field, etc.). Activities would include short and long term training for elite-and development-level athletes, seminars, clinics, and conferences, as well as sports medicine and sports science research. The character of the facility is intended to be campus-like, with sports areas and buildings sited within open space. While the main use of the site would be for sports training activities, the site would also provide housing and dining for athletes, offices, laboratories, meeting rooms, parking and storage. Housing for athletes could increase from 300 to 1,000 at buildout.

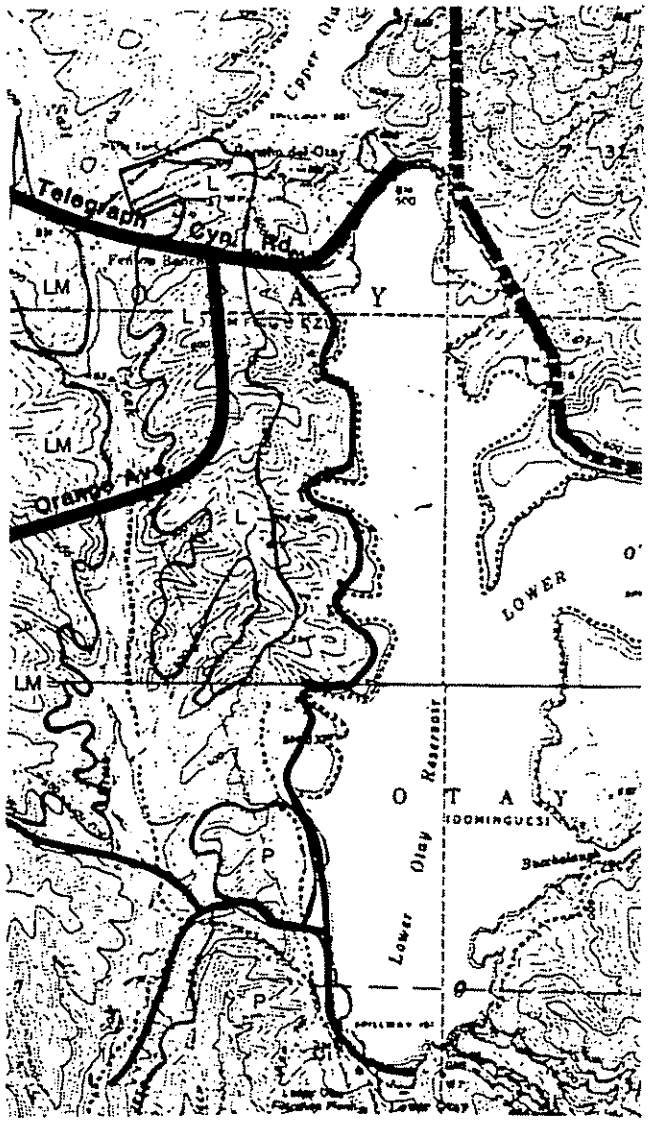
The potential Olympic training facility extends from the designated regional park area north to a realigned Orange Avenue. The realignment would create an intersection of Orange Avenue with Wueste Road, where a Visitor Commercial parcel (approximately 31 acres in size) would be located. Development on this parcel could provide lodging for those associated with the training facility or could constitute a destination resort itself. The intended character is proposed to be a low intensity "lodge" type facility, possibly with minor resort amenities. It could also accommodate visitors or tourists attracted to the training site for participation in short term events or spectators for athletic events.

A retail commercial parcel would be included on Orange Avenue, west of the training site. This area (approximately 15 acres) is projected for development as a

ALTERNATIVE LAND USE



PROPOSED GENERAL PLAN LAND USE



RESIDENTIAL

	LAND USE	DU/AC
L	Low	0-3
LM	Low/Medium	3-6
M	Medium	6-11
H	High	18-27

NON-RESIDENTIAL

	LAND USE
C	Retail
C-V	Visitor
PQ	Public & Quasi-Public
P	Parks & Recreation
OT	Olympic Training Site
OS	Open Space/Other

CIRCULATION SYSTEM

Major Street (4 Lanes)

Collector Street (2 Lanes)

North

SCALE 1" = 3000'

EASTLAKE VISTAS/ OLYMPIC TRAINING SITE ALTERNATIVE

P&D

Figure 5-8

Table 5-4

COMPARISON OF OLYMPIC SITE ALTERNATIVE VS. GENERAL PLAN UPDATE

Land Use	Designation (in Acres) General Plan Update	Olympic Training Alternative
Residential		
Low (0-3 du/ac)	222	98
Low/Medium (3-6 du/ac)	0	97
Medium (6-11 du/ac)	0	22
High (18-27 du/ac)	0	6
Subtotal	222	223
Regional Park	39	43
Open Space	233	51
Olympic Site	0	150
Commercial		
Retail	0	15
Visitor	0	31
Circulation	not calculated	23
TOTAL	494	536

commercial "village" with casual shopping, dining and entertainment uses. It would cater to both the athletes in training and visitors, and, to a certain extent, the community residents. It is intended to have a low intensity character, influenced by its proximity to the training facility.

The alternative also includes an increased number and wider range of residential units. Low density designations are proposed for property nearest the Otay Lake edge north of Orange Avenue and adjoining Telegraph Canyon Road. These uses would surround the more intense uses. Three parcels of low-medium density, one medium density parcel and one high density parcel would be between Orange Avenue and Telegraph Canyon Road. A total of 1,052 dwelling units would be planned for this area.

To analyze the potential impacts of this alternative, the project boundaries have been placed on the six resource maps created as part of this work effort. These

graphics illustrate the known geologic, soils, and vegetation resources in the area, the location of sensitive animal and plant species, and the areas of potential paleontological and archaeological resources. The potential impacts associated with the proposed alternative were then identified given the resources known to exist at this time. It should be noted that this impact analysis is based on conceptual, generalized plans and does not constitute complete environmental review. This discussion serves only to highlight potential impact areas for decision-making purposes. The EIR text addresses fifteen issue areas. This generalized, alternative analysis addresses the same fifteen areas in matrix form (see Table 5-5) and includes a discussion of each in the following text.

Geology/Soils: As shown in Figure 5-9 the project area is underlain by the Sweetwater formation with pockets of the Otay formation appearing in the northeastern corner. A minor landslide area has been identified along the northeastern edge of the site and trends toward the Otay reservoir. The Sweetwater formation is a non-marine rock unit which consists of mudstone and sandstone. It attains its maximum thickness of about 210 feet in the area adjacent to Lower Otay lake. The Otay formation is primarily a non-marine sedimentary rock unit with exposures of sandstone and claystone. The claystone is waxy and consists almost exclusively of bentonite.

Bentonitic clays are unsuitable for building and must be removed. It is anticipated that these materials can be excavated with heavy rippers. A more detailed geotechnical investigation to evaluate the exact location of such clays would be necessary and any recommendations contained in the study should be incorporated into project design. The landslide area also poses potentially significant impacts. This area must be stabilized by buttressing and subdrain installation or removed and recompacted during grading operations. If future investigation suggests the landslide mass is too large to be practially stabilized, then the area should be designated for open space.

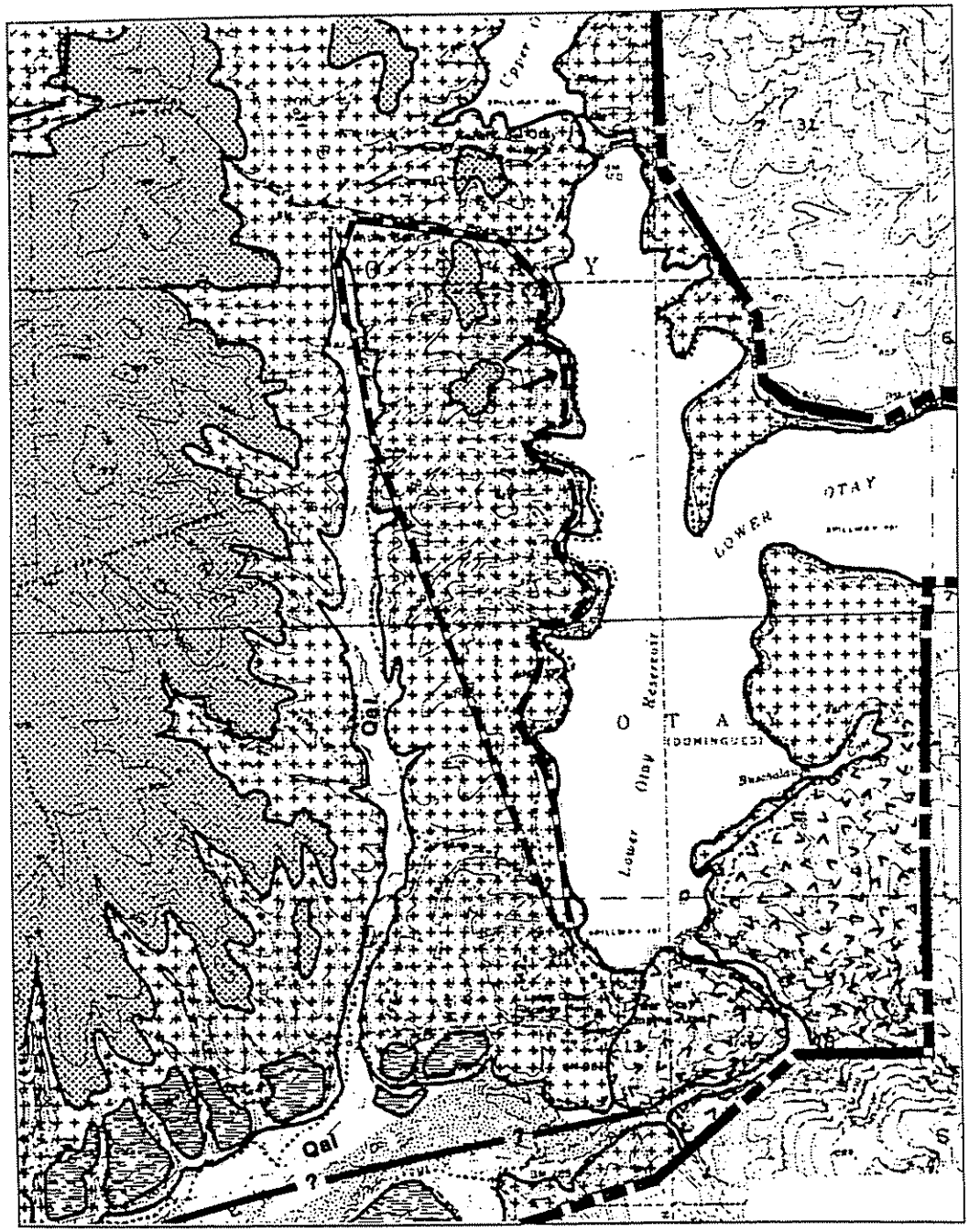
Soils on-site are mapped in Figure 5-10 and consist primarily of soils from the Diablo clay and Olivenhain series. Although the Olivenhain series has more suitable engineering characteristics than the Diablo clay, both exhibit shrink-swell behavior which could pose significant hazards to future structures built on them. Develop-

Table 5-5

OLYMPIC TRAINING SITE ALTERNATIVE

IMPACTS SUMMARY MATRIX

	No Impact	Potential Impact	Significant Impact
Geology/Soils		X	
Hydrology/ Groundwater/ Water Quality		X	
Biology	X		X
Archaeology/ Paleontology		X	
Air Quality		X	
Noise		X	
Converison of Agricultural Land			X
Landform/ Aesthetics			X
Land Uses/ General Plan Zoning			
Community Social Factors		X	
Community Tax Structure		X	
Parks/ Open Space			X
Utilities		X	
Transportation		X	
Hazardous Waste/ Risk of Upset	X		



RIVER TERRACE DEPOSITS

OTAY FORMATION

SWEETWATER FORMATION

SANTIAGO PEAK VOLCANICS

OLYMPIC TRAINING SITE ALTERNATIVE BOUNDARY

CHULA VISTA GENERAL PLAN AREA BOUNDARY

LANDSLIDE

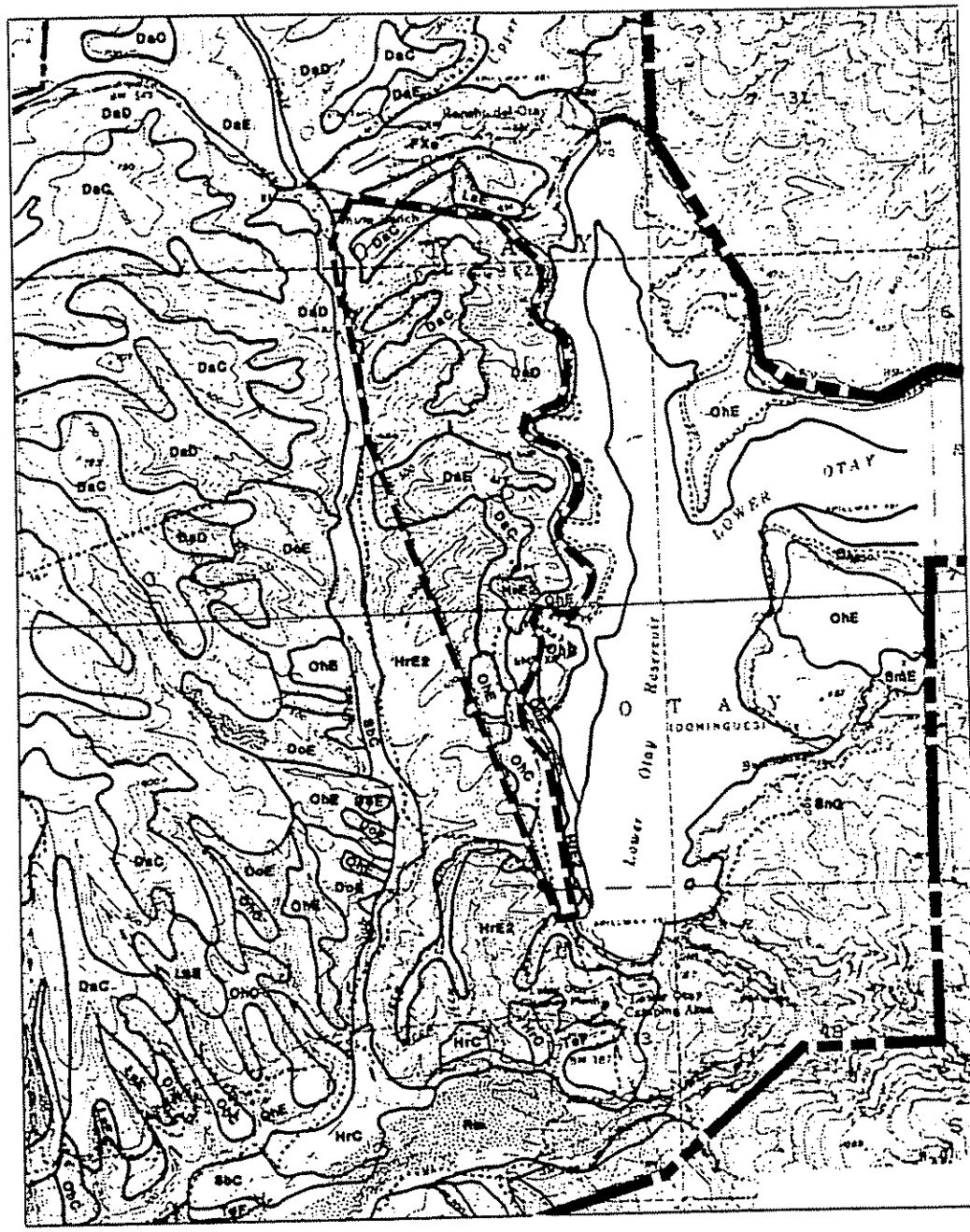
EARTHQUAKE FAULT QUERIED WHERE INFERRED

Qal ALLUVIUM

GEOLOGIC RESOURCES

Figure 5-9

SCALE 1"=3000'



MAP SYMBOL	SOIL NAME	PERCENT SLOPE
DaC	Diablo Clay	2-9
DaD	Diablo Clay	9-15
DaE	Diablo olivenhain complex	9-30
FXe	Friant rocky fine sandy loam	9-50
HrC	Huerhuero loam	2-9
HrE2	Huerhuero loam	15-50
LaE	Linne clay loam	9-50
OhC	Olivenhain cobbly loam	2-9
OhE	Olivenhain cobbly loam	9-30
OhF	Olivenhain cobbly loam	30-50
Rm	River wash	
SbC	Salinas clay loam	2-9
TeF	Terrace Escarpements	

SOILS MAP

Figure 5-10

OLYMPIC TRAINING SITE ALTERNATIVE BOUNDARY

CHULA VISTA GENERAL PLAN AREA BOUNDARY

SCALE 1"=3000'

ment of building structures on-site would require removal of the top 2 to 3 feet of clays and replacement with properly engineered fill. Additional soils investigation would be necessary to clarify the exact amount of soil removal and any other required stabilizing measures.

Hydrology/Groundwater/Water Quality: This alternative would result in an increase in urban development, and associated runoff, directly adjacent to the Lower Otay Reservoir. Because this water supply is used for drinking, this is regarded as a potentially significant impact. Compliance with the City's Drainage and Flood Control Master Plan and Public Facilities Element would assure that existing drainage facilities are reviewed to evaluate their ability to accommodate increased runoff. Any facilities which are deemed inadequate would be improved by the project proponent, according to the project's share of responsibility. Facilities that are designed to accommodate all future flows and divert runoff from entering the natural flow into the reservoir would eliminate drainage problems and assure that urban runoff does not enter the reservoir.

Increased boating activity associated with the Olympic Training site has the potential to diminish water quality. The issue of water quality must be addressed by the City of San Diego Water Utilities Department which owns and maintains both Otay Reservoirs. The Water Utilities Department is aware of the Olympic Training site project, and has determined that the currently proposed activities would have no adverse impact to the reservoir. (Personal Communication, Jim Brown, Water Utilities Department, February 24, 1989)

Biology: Over one-half of the site has been farmed and is considered disturbed vegetation (Figure 5-11). Sage scrub occurs along the eastern edge of the property adjacent to the reservoir, and in the southern portion of the site. Two areas of vernal pool habitat are known to exist in the southern half of the site. One of these areas is contained in the proposed Olympic training site and the other is in open space in the park. Vernal pool habitat supports several extremely sensitive species and impacts are considered significant. The distribution of sensitive species in the project area is illustrated in Figure 5-12. All of the sensitive species are located in the southern half of the site.

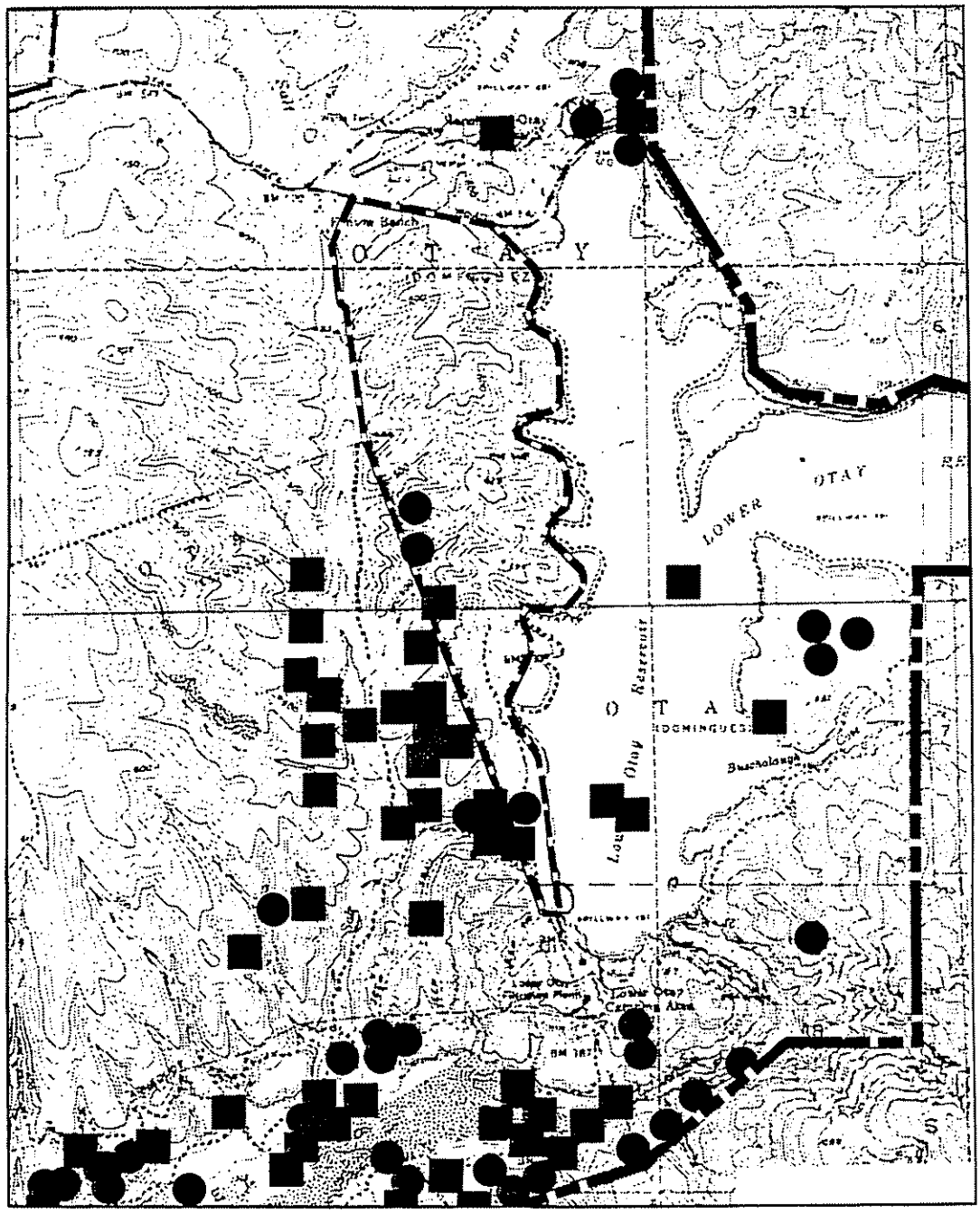
EUCALYPTUS TREES
FARMED OR DISTURBED AREAS
SAGE SCRUB
CHAPARRAL
RIPARIAN WOODLAND
OLYMPIC TRAINING SITE ALTERNATIVE BOUNDARY

VERNAL POOL HABITAT/MIMA MOUNDS
FRESHWATER MARSH
GRASSLAND
OPEN WATER

VEGETATION/ BIOLOGICAL RESOURCES

Figure 5-11

SCALE 1"-3000'



● PLANTS

■ ANIMALS

— — — — — OLYMPIC TRAINING SITE ALTERNATIVE BOUNDARY

━ ▪ ▪ ▪ CHULA VISTA GENERAL PLAN AREA BOUNDARY

AREAS OF SENSITIVE SPECIES

A MORE DETAILED MAP WHICH CLEARLY IDENTIFIES ALL PLANT AND ANIMAL SPECIES IS ON FILE AT THE CITY OF CHULA VISTA

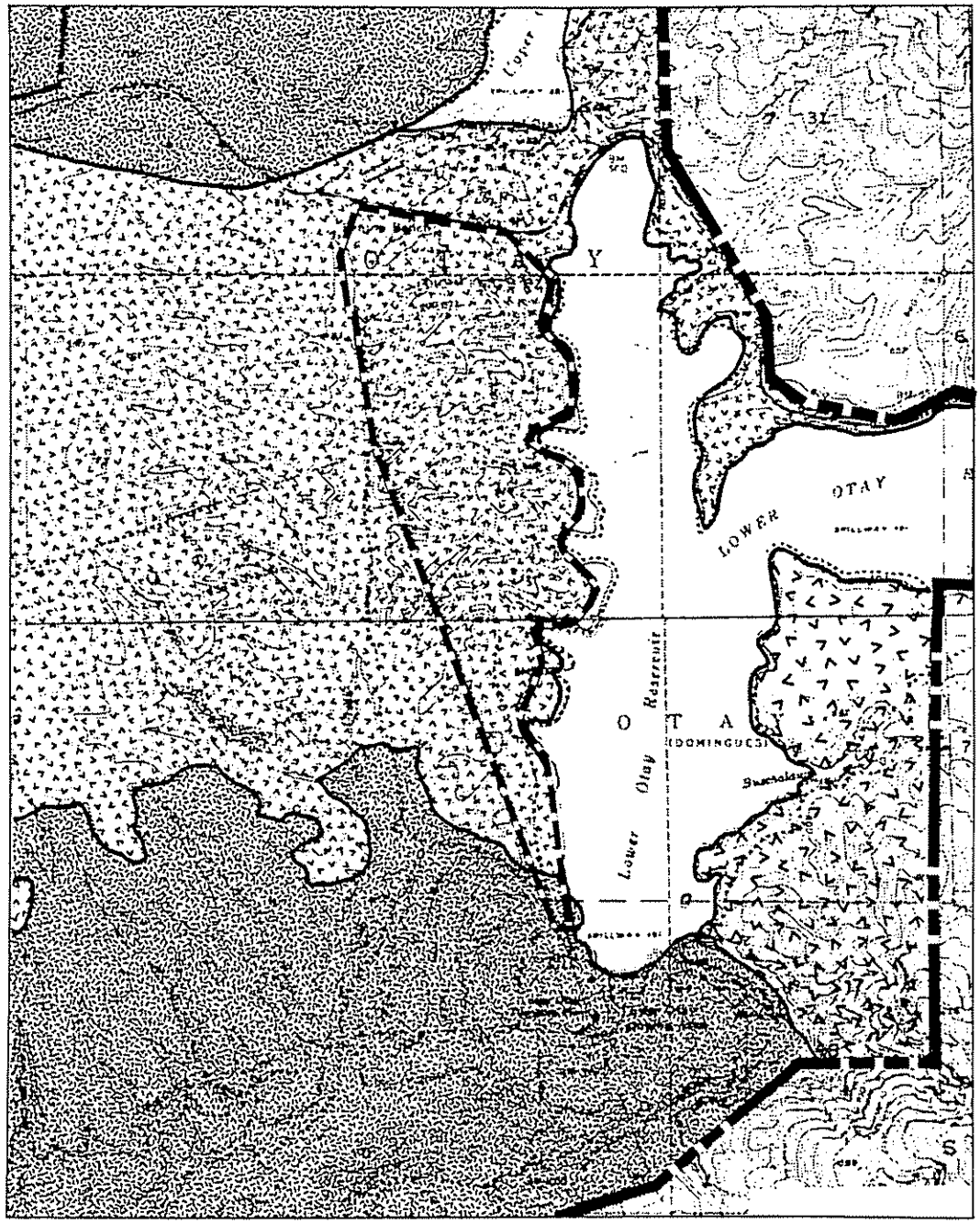
SCALE 1"-3000'

Figure 5-12

Mitigation to minimize potentially significant impacts includes preservation of the maximum amount possible of vernal pool habitat and sage scrub in the park and designated open space area. Detailed site investigation should be accomplished to accurately locate the vernal pool area in relationship to the proposed Olympic training site facilities. It should be noted that vernal pools are adversely affected not only by grading of the habitat area itself but also by alteration of the surrounding runoff patterns which provide a water supply to the pools. To avoid any significant impacts the pools and their drainage basin should be preserved. Given the scope of the development proposed it is highly unlikely that all of the vernal pools will be preserved. Although this conclusion could be modified after careful delineation of the vernal pool habitat, watershed and proposed plans, impacts are considered potentially significant. Consultation with the U.S. Army Corps of Engineers will be required if the proposal includes filling the vernal pools.

In May 1989, the City began review of a screencheck Draft EIR entitled "EastLake III/Olympic Training Center Draft Supplemental EIR" prepared by ERCE (formerly WESTEC). As part of this document, a site specific biological evaluation was prepared. Of particular importance is the relationship of the Olympic Training Site to the vernal pools which are known to the area. The biologist was able to locate the vernal pools and found them to be contained entirely within the regional park where they will be preserved. The acreage to be developed with urban uses and the Olympic Training facility has no biological resources. Because the sensitive species and known biological resources would be preserved in the park, there would be no significant impacts to biology associated with this alternative.

Archaeology/Paleontology: The site has been identified as having moderate potential for both archaeological and paleontological resources (see Figures 5-13 and 5-14). Adoption of this alternative would involve development in areas previously designated for open space which could result in disturbance of soils containing archaeological or paleontological resources. Destruction of such resources could result in potentially significant impacts. A detailed archaeological investigation should be undertaken to locate any archaeology sites in the areas to be disturbed by the Olympic Training Site. Areas which may not have been carefully reviewed because of their open space designation may contain uniden-



HIGH RESOURCE POTENTIAL

MODERATE RESOURCE POTENTIAL

LOW RESOURCE POTENTIAL

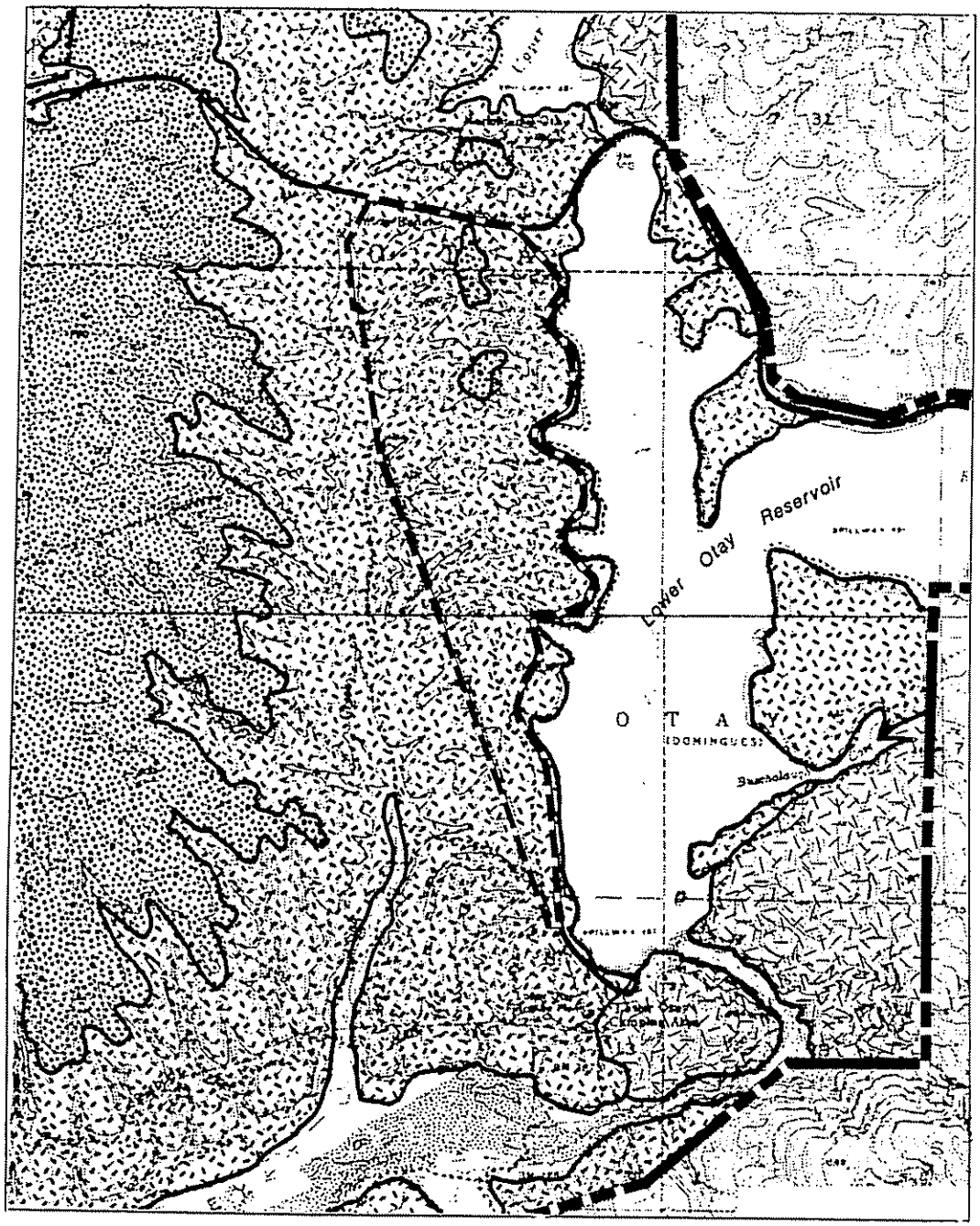
OLYMPIC TRAINING SITE ALTERNATIVE BOUNDARY

CHULA VISTA GENERAL PLAN AREA BOUNDARY

SCALE 1"=3000'

AREAS OF POTENTIAL CULTURAL RESOURCES

Figure 5-13



HIGH RESOURCE POTENTIAL

MODERATE RESOURCE POTENTIAL

LOW RESOURCE POTENTIAL

OLYMPIC TRAINING SITE ALTERNATIVE BOUNDARY

CHULA VISTA GENERAL PLAN AREA BOUNDARY

AREAS OF POTENTIAL PALEONTOLOGICAL RESOURCES

Figure 5-14

SCALE 1"=3000'

tified archaeological sites. Migation to minimize such impacts includes mapping of sites identified during future surveys, significance testing and collection of resources as determined necessary by a qualified professional. Impacts may be mitigated to below a level of significance but this determination can only be made after detailed, site specific evaluation.

Air Quality/Noise: The alternative would involve a substantial increase in traffic trips which would correspondingly increase noise levels and emissions, creating a potential impact. If noise levels exceed the City standards (65 dB(A)) in residential areas then impacts would be considered significant. Noise levels can be reduced via construction of noise walls and site design to orient sensitive receptors away from noise sources. Air quality impacts would be considered significant if projected emissions are not consistent with the most recent air quality regional plans (SIP revisions). Measures which should be incorporated into project design to assist regional efforts to minimize emissions include providing secure bicycle facilities and mass transit accommodations for the convenience of customers.

Conversion of Agricultural Land: Over half of the site has been used for agricultural purposes. Under both the alternative and the proposed General Plan Update, this area would be converted to urban uses. The loss of this agricultural acreage, combined with the losses associated with future development of the Eastern Territories under the General Plan Update, represents a cumulatively significant impact.

Landform/Aesthetics: The alternative would involve higher intensity development in an area currently envisioned as a low-intensity fringe of the Chula Vista urban area and as such would involve additional grading and placement of urban land uses adjacent to the Otay Reservoir. The reservoir viewshed would be altered substantially with hilltops graded for building pads. This is regarded as a potentially significant impact.

Impacts could be minimized by landscaping, particularly along Wueste Road and the eastern edge of the proposed development, and/or by relocating development away from the ridgeline that rims the reservoir. All development which would be visable from the reservoir should be subject to design review by the City of Chula Vista.

Depending on the amount of development visable along the reservoir, impacts may be minimized to below a level of significance, although this finding can only be made after careful review of actual site plans. To minimize potential visual and land use conflicts between the regional park and the Olympic training site, the boundary between the two should be buffered by vegetation and the lowest intensity activity facilities should be placed nearest the park.

Land Uses/General Plan Elements/Zoning: The alternative would not be consistent with the intent of the proposed General Plan Update which is to designate this area for low-density residential development and open space adjacent to the reservoir. The addition of higher intensity residential and commercial land uses is not considered compatible or consistent and would be an adverse impact. To minimize this impact the proposed density could be reduced and the setbacks from the reservoir could be increased.

It should be noted that the intent of the General Plan is a public policy and planning decision. The City Council may direct a change in the General Plan to accomplish new goals as determined important by the City. If the Council directs a change in the General Plan to accommodate this alternative, then the inconsistency would be eliminated.

Community Social Factors: Implementation of the alternative would result in increased population in this area which may or may not be consistent with SANDAG forecasts. If growth forecasts are exceeded, then adverse impacts could result to public infrastructure designed to accommodate these growth forecasts. Depending on the amount of growth which exceeds forecast levels, this may or may not be a significant impact. Coordination of planning efforts with similar efforts of public service providers would serve to notify such providers of potential problems. The proponent should be assessed impact fees to cover any additional costs associated with upgrading facilities.

Community Tax Structure: The site would be redesignated to a higher intensity use which would require provision of additional public services, but it would also increase tax income. A more detailed analysis of the net result would be necessary to determine the adverse or beneficial impacts associated with such action. The Olympic training site is a unique use and would require a thorough evaluation to determine its net fiscal impact.

Parks, Recreation and Open Space: The regional park would remain as designated under the proposed plan; however, open space would be substantially decreased by the inclusion of several new uses and the increase in residential density. Given that this open space was intended to serve as a visual and planning buffer between the reservoir and the urban land uses, and that the loss of open space is considered a cumulatively significant impact under the proposed Plan Update, this is regarded as a significant impact. An increase in the amount of open space provided adjacent to the reservoir could minimize the impact. The placement of open athletic fields associated with the Olympic facility toward the reservoir would create a visual and planning buffer. However, this would not reduce the cumulatively significant impact associated with the Plan Update.

It should be noted that the Parks and Recreation Department of the City of Chula Vista is generally supportive of the Olympic Training Facility; however, they have expressed concerned regarding the loss of open space and potential loss of public access to the lower Otay Reservoir. These are potential impacts that must be addressed by further clarification of the role of the training facility. It is the position of the Parks Department that inclusion of public park and recreation facilities and open space within the Olympic Training site area would be desirable. (Memo from Manuel A. Molinedo, Director of Parks and Recreation, to Doug Reid, Environmental Review Coordinator, February 22, 1989.).

Utilities: The provision of water from OWD is uncertain. The increased demand for water associated with the project, is regarded as a potentially significant impact. If a third regional aqueduct is constructed, and storage and transmission facilities are also constructed, then water should be available. However, there is a region-wide water shortage that must be addressed with serious efforts at conservation and reclamation. The existing Wastewater Master Plan and Fire Location Study, which were initiated to address future facility needs based generally on the proposed General Plan Update do not include additional land uses and densities associated with the proposed alternative. If the alternative is approved these master plans should be modified to assure adequate service to the alternative uses and minimize impacts, and the developer should coordinate efforts to become consistent with those plans. Some additional demands would be placed on the police and school system which could be mitigated by payment of school fees and coordination with the local service provider.

Transportation: This alternative would result in higher intensity development and a modification to the circulation network as proposed under the Plan Update. To more clearly identify the potential impacts to the circulation element, the City requested that the applicant prepare a traffic analysis to calculate future ADT and distribute those trips to evaluate the impacts on the circulation network. JHK & Associates was retained to complete this analysis. A copy of their report is included in Appendix H and the findings are summarized below.

The study compared land uses and intensities to generate the total number of trips anticipated under the proposed Plan Update and alternative. Due to the modeling process, the traffic study area was slightly larger than the alternative area discussed throughout this analysis and included some trips generated by a zone immediately west of the site. The total number of trips generated by the proposed Plan Update is 63,300. The total number anticipated under the alternative is 102,088, a difference of 38,788. Under the proposed alternative, there would be a 61% increase in trips generated. The predominant generator of new trips would be the Olympic Training Site and associated commercial support facilities which would generate 27,030 trips. Other increased trips would be generated by higher intensity residential uses.

The alternative would distribute additional trips to Orange Avenue, Hunte Parkway, Wueste Road, Telegraph Canyon Road and the internal collector which links Orange Avenue and Telegraph Canyon Road. Traffic volumes would double along Telegraph Canyon Road and Orange Avenue just east of Hunte Parkway, from approximately 12,000 ADT to over 25,000 ADT. Volumes on the source streets west of Hunte Parkway would increase by 5,000 to 6,000 ADT. Trips on Hunte Parkway between Telegraph Canyon Road and Orange Avenue would increase from approxi-mately 13,000 to 16,000.

These preliminary projected ADTs were compared to the circulation element to evaluate the ability of the planned network to accommodate future flows within an acceptable level of service. Four areas of potential conflict were identified; Orange Avenue between Hunte Parkway and the internal loop road, Orange Avenue east of the internal loop road, Telegraph Canyon Road between Hunte Parkway and the internal loop road and the internal loop itself. Both Orange Avenue and

Telegraph Canyon Road east of Hunte Parkway are designated Class I collector roads which are four lanes with an LOS C ADT of 22,000. On both of these links, projected ADT is anticipated to be in excess of the acceptable ADT for LOS C (between 25,200 and 28,100) which represents a potentially significant impact. Orange Avenue east of the interal loop road is not classified under the proposed General Plan circulation network, nor is the interal loop system. Under the Olympic Training site alternative, trips would be distributed to these roads and they would be added to the circulation network. Orange Avenue east of the internal loop road would carry just under 2,000 ADT. The internal loop road would carry approximately 16,000 ADT.

An additional impact associated with the Olympic Trainig site alternative is the interchange of Orange Avenue at SR-125 which would appear to operate at critical volumes.

This preliminary analysis is adequate to identify potential impacts to street links. When a more final project description of the alternative is available, then a more detailed traffic analysis should be completed including intersection analysis. Potential impacts identified as part of this analysis can be mitigated by reclassification of the proposed Circulation Element network. The JHK analysis recommends the following reclassifications to mitigation potential impacts.

Circulation Element Facility Impacted	Draft General Plan Element	With Olympic Training Site Alternative
Telegraph Canyon Road Hunte Parkway to Internal Loop Road	Class I Collector	4-lane Major
Orange Avenue Hunte Parkway to Internal Loop Road	Class I Collector	4-lane Major
Orange Avenue East of Internal Loop Road	N/A	Class I Collector
Internal Loop Road Orange Avenue to Telegraph Canyon	Class I Collector	Class I Collector/ Class II Collector

Traffic operations at the Orange Avenue/SR-125 interchange may require special geometric treatement due to the increased east-west demand along Orange Avenue. The specific geometrics must be addressed when more detail traffic analyses are completed as part of the approval process.

Hazardous Waste/Risk of Upset: There are no known hazardous waste sites in the vicinity and no impacts would be expected.

Summary: The proposed Olympic Training Site Alternative would result in higher density development south of Telegraph Canyon Road, closer to the reservoir and placement of commercial and visitor land uses and a multi-purpose training facility in an area previously designated for low-density residential and open space. This action would result in potentially significant impacts to biology, conversion of agricultural land, landform/aesthetics and open space, and would be inconsistent with the intent of the General Plan as currently envisioned. The impacts to biology, landform/aesthetics and open space may be minimized by, among other measures, avoidance of sensitive species, revegation of impacted areas, careful site design to avoid ridgelines near the reservoir and retention of the maximum amount of open space. These measures may require some modification to the project, particularly in the residential development closest to Otay Lakes. It should be noted that because of impacts associated with the General Plan Update to these same issue areas, the impacts under this alternative represent a cumulatively significant impact.

Potentially significant impacts have also been identified to geology/soils, water quality, air quality/noise, archaeology/paleontology, community social factors and tax structure, transportation and utilities. These may be minimized by the inclusion of various mitigation measures which have been briefly described above. Other mitigation measures could be designed when impacts can be more clearly defined. There are no adverse impacts anticipated to hazardous waste and no mitigation measures are warranted.

From an environmental planning perspective, the proposed alternative involves greater or more significant impacts after mitigation than the proposed project in at least three issue areas, biology, open space and landform/aesthetics. Impacts to

agriculture are cumulatively significant under the alternative and the proposed Plan Update. These impacts are primarily related to increased density and decreased open space between the reservoir and urban uses. For this reason, the Olympic Training Site Alternative is not environmentally preferred over the proposed Plan Update.

As discussed in Section 1.0 (Introduction), the environmental review process is only one element of the information gathering process used when making a land use policy decision. If the City Council determines that there are other economic or social benefits associated with a project then they may make a Statement of Overriding Considerations. Although there are significant, unmitigable impacts to the environment, should the Statement of Overriding Considerations determine that the project provides benefits which the Council deems valuable, the project may be approved. A Statement of Overriding Considerations will be necessary to adopt the proposed General Plan Updated in any of the alternative scenarios because of significant, unmitigable impacts to biology, open space, landform and conversion of agricultural land. Although the Olympic Training Site Alternative is not the environmentally preferred alternative contrasted to the proposed Plan Update designations, the City Council could make a decision to adopt the alternative based on other planning, economic and social criteria. The Statement of Overriding Considerations used to adopt the Plan Update could be written to accommodate adoption of this alternative at the same time as adoption of the General Plan.

6.0 SUMMARY OF ENVIRONMENTAL CONSEQUENCES

6.1 UNAVOIDABLE IMPACTS

The eventual conversion of undeveloped land in the Eastern Territories to urban uses would result in certain impacts which cannot be avoided. The unavoidable impacts which would occur as a result of implementation of the proposed General Plan Update include:

- Incremental increase in traffic generation and distribution with an associated increase in noise levels, mobile source emissions, and change in the character of certain communities.
- The destruction/loss of existing archaeological and paleontological resources located within the development areas of the Planning Area.
- Loss of valuable agricultural land and open space.
- The potential loss of significant biological resources, including several sensitive plant and animal species.
- The additional demand for public services and utilities, particularly water.

6.2 SIGNIFICANT ENVIRONMENTAL IMPACTS

The EIR addressed 15 issue areas in the Environmental Analysis section (Section 3.0). The proposed General Plan Update would not result in significant impacts to every issue area, however several significant impacts are anticipated. Development of the Planning Area would have adverse impacts to biological resources including several habitat types which support sensitive plant and animal species. Major landform features would be significantly affected as well as the amount of open space. Valuable agricultural land would be permanently removed from crop production which is a significant impact. Community character would be significantly changed when roadway improvements occur adjacent to existing residential development. Other impacts associated with the proposed plan are either not significant or can be reduced to a level of less than significant if appropriate mitigation measures are implemented.

6.3 MITIGATION MEASURES

Several mitigation measures are recommended to either reduce or eliminate potential impacts to a level below significance. These mitigation measures are summarized below.

Soils/Geology/Mineral Resources - Development in landslide areas, alluvium near streambeds and MRZ-2 classified areas would be avoided. Soil types identified as not suitable for development would be subject to remedial grading techniques in accordance with the City of Chula Vista's Grading Ordinance.

Hydrology/Ground Water/Water Quality - All future developments would comply with the Pubic Facilities Element of the General Plan and the City Drainage and Flood Control Master Plan. Site specific drainage review would occur on a project-by-project basis.

Biology - Several species specific mitigation measures have been recommended for implementation on a project-by-project basis. These include minimum acreage of preservation for certain species and minimum buffer widths. A suggested list of landscaping material was also provided to minimize the introduction of non-native species. To minimize the destruction of native habitat from unnecessary clearing, a clearing permit was suggested. This would provide the City with some control over clearing of land to potentially reduce the amount of native vegetation disturbed from this activity.

Archaeology/Paleontology - Any future development would be subjected to archaeological surveys. In areas where the potential for paleontological resources is considered medium to high, a qualified paleontologist would be on-site during original cutting of previously undisturbed sediments.

Air Quality - All recommendations contained in the current SIP and SIP currently being revised should be adopted and enforced by the City. The most substantial mitigation measures will take the form of regional VMT reduction programs. Several regional transit elements should be encouraged by the City including a transit system along the route 125 corridor, an east-west bus route between the eastern core and future eastern urban center, and an urban core/bayfront shuttle.

Noise - To ensure consistent implementation of and review of proposed projects, the City should establish a noise-compatibility standard, or adopt the one established by the City of San Diego (Table 3-7). Mitigation measures to reduce noise levels to an acceptable level include construction of noise attenuation barriers (walls), special construction materials in windows and walls, and site design to place sensitive receptors within adequate noise contours. All of these measures should be reviewed and implemented on a site specific basis.

Conversion of Agricultural Land - Preservation would be required to fully mitigate the adverse impacts to agricultural lands. The proposed plan does not preserve agricultural land. The impact is considered significant and unmitigable.

Landform/Aesthetics - Significant, unmitigable impacts to landform and aesthetics would occur. Preservation of the rolling hills and open vistas of the Eastern Territories would be required to fully mitigate these impacts, which is not proposed as part of the General Plan Update.

Land Uses/General Plan/Zoning - Careful review of secondary uses proposed in SDG&E right-of-way would minimize potential conflicts. Adherence to the policies and guidelines in the proposed Land Use Element would alleviate any land use incompatibilities. Existing zoning should conform to General Plan designations.

Community Social Factors - Implementation of the goals, objectives and policies of the General Plan Elements, as a whole, would provide adequate infrastructure and service provisions to assure no significant impacts.

Community Tax Structure - No adverse impacts are anticipated and no mitigation would be necessary.

Park, Recreation and Open Space - Parks and Recreation facilities would be built in accordance with the policies and guidelines in the Parks and Recreation Element to provide adequate facilities for the future population of the Planning Area. The loss of a substantial amount of open space acreage in the Eastern Territories (8,567 acres) is considered significant and unmitigable.

Utilities and Services - All developers would pay school fees as required by State law to fund the acquisition of new school sites and facilities. Also, project approval may be conditioned on compliance with the recommendations of the school district, particularly with respect to financing. Preventive measures would be implemented to minimize demand placed on police providers. Developers would work with the police department to coordinate placement of a new police facility in the Eastern Territories to best serve future growth. All future development proposals would be consistent with the recommendations contained in the Draft Fire Station Location Study. The City and developers would work with the CWA, OWD and Sweetwater Authority to achieve greater storage capacity and increase the flow of water into the region. Water conservation measures would be devised and aggresively implemented to minimize water demand and wastewater generation.

Traffic - All of the goals, policies and objectives of the Circulation Element and Traffic section of the Threshold Policy should be implemented by the City. These policies concern the operational goals of the local circulation system and the regional transit network. All large-scale development projects should receive project-by-project traffic evaluation to identify the potential impacts to the existing network and provide for phased implementation of the planned system. Developers should be assessed fees to fund roadway improvements or construct new roads as deemed appropriate by the City.

Hazardous Waste/Risk of Upset - The City would work with the County to encourage a reduction in household waste generation and safe disposal of waste. Prior to approval of development plans the City shall refer to the State Hazardous Waste and Substances Site List to verify the potential for direct or indirect impacts to hazardous waste. When any development is proposed on or near a known hazardous waste site, an analysis would be prepared to verify potential impacts and devise a clean-up method if necessary.

6.4 NON-SIGNIFICANT IMPACTS

Of the issue areas analyzed for potential impacts, four were identified as having significant, unmitigable impacts. As described in Section 3.0, significant, un-

mitigable impacts would occur to agricultural land, landform, biology and open space. The identified impacts in the remaining issue areas would be mitigated to a level of below significance, except in localized incidences. These include significant air quality "hot spots" at congested intersections near freeways, localized congestion impacts on Bonita Road near Otay Lakes Road, the Fourth Avenue Corridor between H Street and E Street and the Third Avenue Corridor between Palomar and H Street, and localized community character impacts along H Street.

7.0 RELATIONSHIP BETWEEN LOCAL SHORT-TERM USES OF MAN'S ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

Projects which accommodate the unavoidable significant impacts of development and enhance quality of life for the community also improve the overall regional environment. Economic and social pressures for growth in San Diego County are such that complete protection of the environment at the expense of community growth and well-being is not feasible. Therefore, a balance must be sought that accommodates the needs of the growing population of the Southern California region, while maintaining the integrity of the environment. It is the degree to which this balance is achieved in a given development that establishes the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity.

Development of the Planning Area consistent with the mixed land uses proposed by the General Plan Update would intensify the short-term uses of man's environment. The long-term productivity of the undeveloped portions of the Planning Area, primarily the Eastern Territories, is the continued maintenance of the area as a valuable natural resource. This area contains a variety of biological, archaeological, and palentological resources. The soils are capable of supporting valuable agricultural crops. The natural landform and open space provides many scenic opportunities.

Approval of the proposed General Plan Update would eventually permit the development of an urban community in this area including residential, employment and educational opportunities. A substantial portion of the Eastern Territories (48 percent) would remain in open space. The effect of this action would be to increase the supply of housing stock, create additional employment, and educational opportunities and cause increased social and economic productivity in the area versus its continued existing function solely for open space and agricultural productivity. Although agricultural opportunities would be eliminated, the General Plan Update provides for preservation of the open space and natural integrity of the area.

8.0 IRREVERSIBLE ENVIRONMENTAL CHANGES

Adoption and eventual implementation of the General Plan Update would result in significant irreversible changes to the Planning Area's existing environmental setting, specifically in the Eastern Territories. The proposed Plan would incrementally increase population, energy and water consumption and air pollution emissions in the Chula Vista and adjacent area. Increased traffic levels, mobile noise emissions, wastewater generation and the need for increased public services would also occur. Future buildout of the Planning Area would expand employment opportunities, create additional housing and provide new educational facilities.

Certain biological habitats which contain sensitive plant and animal species would be destroyed. Habitat in areas adjacent to development would also be altered due to increased human presence and activity. Grading and development of the Eastern Territories would irreversibly alter the open space and visual character of the area and valuable agricultural land would be eliminated. Localized significant impacts have been identified for air quality, noise, community character and traffic. Emissions from congested intersections may create carbon monoxide "hot spots". Projected volumes on segments of Bonita Road, Third Avenue, and Fourth Avenue would exceed LOS C capacity and congsetion would result. In areas along H Street, future traffic levels, although not great enough to result in congestion, would create noise impacts to existing residents and alter the community character. Significant, unmitigable impacts have been identified in four issue areas; Landform/Aesthetics, Conversion of Agricultural Land, Biology and Open Space.

9.0 CUMULATIVE IMPACTS

The goal of the General Plan Update is to create a planning document with guidelines, policies and objectives to direct future growth, specifically in the rural Eastern Territories. The Planning Area addressed in the General Plan Update includes the City boundaries, the Sphere of Influence and the area outside the sphere which has a relationship to the City. Future development of individual projects in the Planning Area would have incremental impacts on a project-by-project basis, which may be significant on a cumulative basis. Any cumulative impacts associated with future development in the area have been analyzed in the Impacts Section (Section 3.0) of this report.

In general, cumulative impacts would occur to biology, conversion of agricultural lands, landform, visual quality, air quality, and open space. Cumulative traffic impacts would occur at interchanges near I-805 and I-5 at specific intersections as mentioned in the text, as well as along segments of Bonita Road, Third Avenue and Fourth Avenue. Cumulative impacts to biology, agricultural land, landform, visual quality and open space are regarded as significant. The remaining cumulative impacts would not exceed the significance threshold.

10.0 CERTIFICATION STATEMENT OF ENVIRONMENTAL CONSULTANT

I hereby affirm that, to the best of our knowledge, the statements and information contained herein are in all respects true and correct, and that all known information concerning the potentially significant environmental effects of the project have been included and fully evaluated for this project.

Diana Gauss Richardson

Diana Gauss Richardson
Project Manager

11.0 SOURCES

11.1 REFERENCES

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