Cuyamaca College Master Plan

FINAL ENVIRONMENTAL IMPACT REPORT
SCH No. 2003051013

April 2004

Prepared for:

Grossmont-Cuyamaca Community College District
8800 Grossmont College Drive
El Cajon, California 92020-1799

Prepared by:

HELIX Environmental Planning, Inc.
8100 La Mesa Boulevard, Suite 150
La Mesa, California 91941-6476

CUYAMACA COLLEGE MASTER PLAN
FINAL ENVIRONMENTAL IMPACT REPORT

Final Environmental Impact Report
Cuyamaca College Master Plan
SCH No. 2003051013

Introduction

A Draft EIR was prepared by the Grossmont–Cuyamaca Community College District on the proposed project in compliance with all criteria, standards and procedures of the California Environmental Quality Act (CEQA) of 1970 (California Public Resources Code, Sections 21000, et seq.) and the State CEQA Guidelines (California Code of Regulations, Section 15000 et seq.). The Draft EIR was circulated for a 55-day review period beginning on December 24, 2003 and ending on February 16, 2003. A supplemental review of the Draft EIR was conducted by several local agencies, including the County of San Diego, from March 1, 2004 through March 22, 2004, pursuant to Section 15086 of the State CEQA Guidelines. During the initial review period, the State Clearinghouse distributed the document to appropriate state agencies for review and notice was published in the local newspaper. Written comments were received on the Draft EIR from two state agencies, the California Department of Fish and Game and the State Department of Toxic Substances Control, and one local citizen's organization, Valle De Oro Community Planning Group.

Pursuant to Section 15132 of the State CEQA Guidelines, the Final EIR must be comprised of the following documents:

- A list of the persons, organizations, and public agencies that commented on the Draft EIR
- Comments and recommendations received during public review and corresponding lead agency responses to significant environmental points raised in the review and consultation process
- Revisions to the Draft EIR

This report is organized in three parts: the first part is the Responses to Comments, the second part contains the revisions to the Draft EIR and the third part is the Mitigation Monitoring Program (MMP). Each of these parts has its own purpose and serves to aid the reader in fully understanding the project and its implications. A brief description of each part of the Final EIR follows.

The Responses to Comments provide the District's written responses to the comments received on the adequacy of the Draft EIR Copies of the letters received during public review have been provided for the reader's reference. The comments have been bracketed and numbered to provide reference to the numbered responses. The State Clearinghouse acknowledgement of compliance with public review requirements and an affidavit of publication from the newspaper that printed the public notice are also included in this section.

The Response to Comments is followed by the Errata, which contains minor changes/revisions to show where the text of the EIR has been modified to improve text clarity and in response to comments received on the Draft EIR. All changes are presented in strike-out/underline format. If a change is in response to a comment received on the Draft EIR, the page(s) affected by the comment are noted in the written response from the District.

The MMP, which has been prepared in accordance with Section 15097 of the CEQA Guidelines, is the final part of this Final EIR. The MMP was developed to ensure that all feasible mitigation measures are implemented by the lead agency (i.e., District).

Responses to Comments

All letters received during public review for the Draft EIR are reproduced in their entirety and are addressed in the following Responses to Comments section. Numbered responses correspond to the numbered comments at the point the comment occurs for the purposes of continuity. The following constitute the District's responses to the California Department of Fish and Game, the State Department of Toxic Substances Control and the Valle De Oro Community Planning Group.

SECTION 1.0

RESPONSE TO COMMENTS

STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse and Planning Unit

Arnold Schwarzenegger
Governor

Jan Boel
Acting Deputy
Director

February 9, 2004

Dale Switzer
Grossmont-Cuyamaca Community College District
8800 Grossmont College Drive
El Cajon, CA 92020-1799

Subject: Cuyamaca College Master Plan
SCH#: 2003051013

Dear Dale Switzer:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. On the enclosed Document Details Report please note that the Clearinghouse has listed the state agencies that reviewed your document. The review period closed on February 6, 2004, and the comments from the responding agency (ies) is (are) enclosed. If this comment package is not in order, please notify the State Clearinghouse immediately. Please refer to the project's ten-digit State Clearinghouse number in future correspondence so that we may respond promptly.

Please note that Section 21104(c) of the California Public Resources Code states that:

> "A responsible 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. Those comments shall be supported by specific documentation."

These comments are forwarded for use in preparing your final environmental document. Should you need more information or clarification of the enclosed comments, we recommend that you contact the commenting agency directly.

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 the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

Terry Roberts

Terry Roberts
Director, State Clearinghouse

Enclosures
cc: Resources Agency

Document Details Report
State Clearinghouse Data Base

SCH#	**2003051013**
Project Title	Cuyamaca College Master Plan
Lead Agency	Grossmont-Cuyamaca Comm. College District

Type **EIR** Draft EIR

Description The proposed project consists of a Master Plan that identifies facilities need to accommodate an 8,000 student increase in student enrollment to 15,000 students at an existing community college. Proposed facilities include new building construction and renovation/remodel of existing buildings to provide expanded academic and administrative buildings, parking lots and physical education facilities. The Master Plan as a horizon year of 2015.

Lead Agency Contact

Name Dale Switzer
Agency Grossmont-Cuyamaca Community College District
Phone 619.644.7807 ***Fax***
email
Address 8800 Grossmont College Drive
City El Cajon ***State*** CA ***Zip*** 92020-1799

Project Location

County San Diego
City El Cajon
Region
Cross Streets Fury Lane & Rancho San Diego Parkway
Parcel No.
Township 15S ***Range*** 1W ***Section*** 25,36 ***Base*** Jamul Q.

Proximity to:

Highways 54 & 94
Airports
Railways
Waterways Sweetwater River and Reservoir
Schools
Land Use Community College Campus

Project Issues Aesthetic/Visual; Air Quality; Archaeologic-Historic; Cumulative Effects; Drainage/Absorption; Flood Plain/Flooding; Geologic/Seismic; Growth Inducing; Noise; Population/Housing Balance; Public Services; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Wildlife

Reviewing Agencies Resources Agency; Department of Conservation; Department of Fish and Game, Region 5; Department of Parks and Recreation; Department of Water Resources; Caltrans, District 11; Native American Heritage Commission; Regional Water Quality Control Board, Region 9; Department of Toxic Substances Control; California Highway Patrol

Date Received 12/24/2003 ***Start of Review*** 12/24/2003 ***End of Review*** 02/06/2004

Note: Blanks in data fields result from insufficient information provided by lead agency.

Affidavit of Publication

HELIX ENVIRONMENTAL PLANNING
8100 LA MESA BLVD., #150
LA MESA, CA 91941
ATTN: MELISSA WHITTEMORE

STATE OF CALIFORNIA} ss.
County of San Diego}

The Undersigned, declares under penalty of perjury under the laws of the State of California: That....She is a resident of the County of San Diego. THAT....She is and at all times herein mentioned was a citizen of the United States, over the age of twenty-one years, and that ....She is not a party to, nor interested in the above entitled matter; that ....She is.............................. Chief Clerk for the publisher of ....

The San Diego Union-Tribune

a newspaper of general circulation, printed and published daily in the City of San Diego, County of San Diego, and which newspaper is published for the dissemination of local news and intelligence of a general character, and which newspaper at all the times herein mentioned had and still has a bona fide subscription list of paying subscribers, and which newspaper has been established, printed and published at regular intervals in the said City of San Diego, County of San Diego, for a period exceeding one year next preceding the date of publication of the notice hereinafter referred to, and which newspaper is not devoted to nor published for the interests, entertainment or instruction of a particular class, profession, trade, calling, race, or denomination, or any number of same; that the notice of which the annexed is a printed copy, has been published in each regular and entire issue of said newspaper and not in any supplement thereof on the following date, to-wit:

DECEMBER 24, 2003

Chief Clerk for the Publisher

Affidavit of Publication of

Legal Classified Advertisement
Ad # 8740325
Ordered by: MELISSA WHITTEMORE

NOTICE OF COMPLETION OF THE CUYAMACA COLLEGE MASTER PLAN DRAFT ENVIRONMENTAL IMPACT REPORT

The Grossmont-Cuyamaca Community College District (District) has prepared a Draft Environmental Impact Report (EIR) pursuant to the State Guidelines for the Implementation of the California Environmental Quality Act (CEQA). The Draft EIR addresses potential environmental effects associated with implementing the Cuyamaca College Master Plan, which is proposed as a comprehensive land use plan that would serve as a framework document for the physical development of the campus to accommodate growth to an enrollment of 15,000 students. The EIR assesses the anticipated individual and cumulative impacts of the college's physical development, identifies means of avoiding or minimizing potential adverse environmental impacts, and evaluates a reasonable range of alternatives.

The purpose of this Notice is to notify agencies and the public of the Draft EIR's availability and to invite comments on the adequacy of the Draft EIR. During the public review period, which will extend for a 45-day period starting December 24, 2003 and ending on February 16, 2004, the Draft EIR will be available at the Cuyamaca College Learning Resources Center, as well as at the following off-campus public libraries:

San Diego County
Public Library,
Casa De Oro Branch
9805 Campo Road
Spring Valley, CA 91977

San Diego County
Public Library,
Rancho San Diego
Branch
11555 Via Rancho
San Diego
El Cajon, CA 92019

In addition, the Draft EIR will be available at the Proposition "R" Program Headquarters on the Cuyamaca College campus (next to the Child Development Center) and at the District offices located at 8800 Grossmont College Drive, El Cajon, California 92020 during normal business hours (8:00 a.m. to 5:00 p.m., Monday through Friday, excluding holidays).

Written comments must be directed to:

Dale Switzer, Director
Facilities Planning
and Development
Grossmont-Cuyamaca
Community College
District
8800 Cuyamaca
College Drive
El Cajon, California
92020
Fax: 619-644-7911

COMMENTS

RESPONSES

STATE OF CALIFORNIA-THE RESOURCES AGENCY ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF FISH AND GAME
South Coast Region
4949 Viewridge Avenue
San Diego, California 92123
(858) 467-4201
FAX (858) 467-4299

February 9, 2004

Mr. Dale Switzer, Director
Facilities and Planing Development
Grossmont-Cuyamaca Community College District
8800 Grossmont College Drive
El Cajon, California 92020-1799

Comments on the draft Environmental Impact Report for the Cuyamaca College Master Plan (SCH# 2003051013)

Dear Mr. Switzer:

The Department of Fish and Game (Department) appreciates this opportunity to comment on the above-referenced draft environmental impact report (DEIR), relative to impacts to biological resources. The Department is a Trustee Agency and a Responsible Agency pursuant to the California Environmental Quality Act (CEQA), Sections 15386 and 15381 respectively. Pursuant to Section 1802 of the Fish and Game Code, the Department has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants and habitat necessary for biologically sustainable populations of those species. Under the California Endangered Species Act (CESA), it is the policy of the State to conserve, protect, restore, and enhance any endangered species or any threatened species and its habitat (Section 2052 of the Fish and Game Code). The Department also administers the Natural Community Conservation Planning Program.

The proposed Master Plan consists of the construction of the following over the next 10 to 15 years: student center, science laboratories, communication arts buildings, business/computer science building, physical education facilities, classroom/administration building, social/behavioral science building, and surface parking lots. Several of the proposed buildings may be phased due to funding limitations. In addition, remodels and expansions of existing buildings are proposed, including but not limited to, the classrooms, library and warehouse buildings. These projects would increase space on campus by nearly double the existing space on campus to service up to 15,000 students.

The roughly 165-acre Cuyamaca College Campus is located approximately three miles east of the communities of Spring Valley and Casa de Oro, and five miles south of the City of El Cajon, in the County of San Diego (County). The campus contains habitat (primarily coastal sage scrub) which is designated as preserved in the County Multiple Species Conservation Program (MSCP) Subarea Plan, and was set aside for long-term preservation per the conditions of Cuyamaca College's Habitat Management Plan. The Grossmont-Cuyamaca Community

COMMENTS

Grossmont Coll. Maint. Fax:619-644-7911 Feb 9 '04 23:51 P.04/10

Mr. Switzer
February 9, 2004
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College District (District) prepared the HMP pursuant to the County's issuance to the District of a Habitat Loss Permit (HLP) in 1994, and to subsequent negotiations to hard line the biological preserve areas on the campus. The native upland habitats on campus are 41.4 acres of coastal sage scrub (CSS), 6.3 acres of baccharis scrub, 0.7 acre of maritime succulent scrub, and 9.2 acres of non-native grassland (NNG). The 3.34 acres of wetland habitats on site are comprised of 1.06 acres of southern arroyo willow riparian forest (SWRF), 1.13 acre of southern cottonwood willow riparian forest (SCWRF), 0.68 acre of southern willow scrub (SWS), 0.04 acre of riparian scrub, 0.03 acre of freshwater marsh, and 0.30 acre of tamarisk scrub.

The Department offers the following comments and recommendations and requests that they be addressed prior to finalizing the CEQA process to assist the District in avoiding and minimizing and mitigating potential project impacts to sensitive native plants and wildlife, and to ensure that the project is consistent with ongoing regional habitat conservation.

1

1. The DEIR explains that the HLP which the County issued to the District in 1994 obligated the District to preserve 47.5 acres of CSS on site as part of the MSCP preserve. The District has not achieved conformance with the requirements of the HLP, as the existing preserve includes 41.4 acres of CSS, not the required 47.5 acres. In addition, implementation of the Master Plan would reduce the CSS to 39.1 acres, plus 3.8 acres of baccharis scrub and 0.7 acre of maritime succulent scrub. Assuming that the two latter habitats are applicable to the HLP's requirement for 47.5 acres of CSS, the District proposes to mitigate for the 3.9-acre deficiency by expanding the preserve area and the restoration of disturbed CSS or non-CSS areas within the preserve. It is difficult to ascertain whether the District's proposed actions are adequate to come into conformance with the HLP. Because of this, and because of on-going concerns about the District's management of the MSCP preserve, we request that District arrange a meeting with the Department, the U.S. Fish and Wildlife Service, and the County of San Diego (MSCP staff) to discuss the status of the MSCP preserve on campus, and to resolve outstanding issues related the District's conformance with the 1994 HLP. The meeting should occur prior to the finalization of the EIR and its review for approval. We request that the District provide the following documentation to ~~the entities identified above prior to the meeting.~~

    a. a current areal photograph of the campus with an overlay of the boundaries of the proposed MSCP previous (County, 1994), current (District's Master Plan mapping), and proposed (per the DEIR) MSCP preserve;

    b. a figure of the campus with the boundaries of the proposed MSCP preserve delineating the habitat types within the preserve (e.g., CSS, disturbed CSS, baccharis scrub, maritime succulent scrub);

    c. a figure that clearly depicts where the impacts within the preserve would occur, including impacts from staging areas;

    d. a copy of the 1994 HLP;

RESPONSES

California Department of Fish and Game (CDFG), February 9, 2004

1. The District was issued a Habitat Loss Permit (HLP) for Cuyamaca College by the County of San Diego in 1994. The District has every intent to comply with that agreement with the County. In fact, over the 10 years since the permit was issued, the District has respected the open space boundaries established in the HLP and has not purposely or mistakenly removed any habitat within the preserve. Discrepancies in the amount of coastal sage scrub preserved on the Cuyamaca College campus are well documented in the Draft EIR. They are attributable to prior mapping inaccuracies and acreage discrepancies discovered during the preparation of the Draft EIR, the inclusion of utility easements in the 1994 preserve (which allow habitat removal by others) and unauthorized intrusions into the open space by others. The proposed Master Plan does not propose the removal of any habitat in the preserve. More importantly, all of the proposed projects described in the Master Plan will occur within the "take authorized" portion of campus. The reduction in preserved coastal sage scrub cited from the Draft EIR is theoretical and based on the assumption that the District could impact any area of campus outside the open space preserve mapped in the Master Plan. However, with adjustments in the preserve boundaries in place to better encompass sensitive habitats on campus (MM 4.4-4), impacts to only an isolated patch (0.3 acre) of disturbed coastal sage scrub within the "take authorized" portion of the campus are expected to occur (refer to Figure 4.4-2). None of the projects proposed in the Master Plan would result in the direct removal of high quality coastal sage scrub. The District has committed to imposing several mitigation measures on themselves to meet the intent of the 1994 HLP, including increasing preservation on campus, adding signage/fencing/landscaping and conducting habitat restoration. It is the District's opinion that with the stated mitigation measures in place, all impacts would be mitigated to below a level of significance and the District would be consistent with its HLP agreement with the County of San Diego. Should the County or CDFG desire to meet and discuss the matter further outside the context of the CEQA document, the District would consider such a request at that time.

COMMENTS

1 cont.

e. a table similar to Table 4.4-6 in the DEIR;

f. a draft of the restoration plan proposed in the DEIR for the MSCP preserve area;

g. a draft Property Analysis Record, or similar analysis, to estimate ongoing annual costs of managing the MSCP preserve on campus; and

h. documentation that reflects the District's possession of, or intent to establish, a financial mechanism (e.g., a non-wasting endowment) to ensure that adequate funding is available to manage the MSCP preserve on campus.

2

2. The DEIR indicates that protocol-level surveys for the federally threatened coastal California gnatcatcher (*Polioptila californica californica*, gnatcatcher) were conducted in 2001 and 2003. Though the DEIR indicates that the species was observed in 2001 during a general biological survey and not during the protocol-level survey, the DEIR does not provide the results of the 2003 surveys. The Department typically considers the results of biological surveys to be current for up to one year. Because the District proposes to remove approximately 2.3 acres of CSS on site, and the MSCP preserve includes virtually all the CSS on the campus (page 4.4-12), we recommend that protocol-level surveys for gnatcatcher be no more than one year old at the commencement of construction of any phase of the Master Plan which results in the loss CSS.[1]

3

3. As a third-party beneficiary to the County's MSCP take authorization for this species, the District must comply with the requirements to protect the individuals within the MSCP preserve. These include a prohibition on the clearing of gnatcatcher-occupied habitat within the preserve between March 1 and August 15.

4

4. The DEIR indicates that the fulfillment of the Master Plan as now contemplated would result in the loss of 0.04 acre of SWRF, 0.18 acre of SCWRF, 0.09 acre of SWS, 0.03 acre of freshwater marsh, and 0.17 acre of tamarisk scrub (i.e., a total of 0.51 acre of wetland habitats). The DEIR includes a mitigation measure calling for avoidance of impacts on jurisdictional areas in the final designs for Master Plan projects. The Department strongly supports this measure and highly recommends that the District not only avoid jurisdictional habitats but also provide a minimum 100-feet wide buffer, particularly for the SWRF, SCWRF, and SWS, to protect them from edge effects.[2] If this is infeasible, the following comments apply.

1 It appears that all the CSS on site is within the MSCP preserve.

2 Edge effects are defined as undesirable anthropogenic disturbances beyond urban boundaries into potential reserve habitat (Kelly and Rotenberry 1993). Edge effects, such as disturbance by humans, trampling, noise, and lighting, and decreases in avian productivity (Andren and Angelstam 1988), are all documented effects that have negative impacts on sensitive biological resources in southern California. Development and open space configurations should minimize adverse edge effects (Soulé 1991).

RESPONSES

2. Protocol-level surveys for the California gnatcatcher were not conducted in 2003; only a general wildlife survey was conducted in conjunction with the vegetation map update (refer to page 4.4-1 of the Draft EIR for a summary of the surveys conducted on campus). The District concluded that protocol surveys from 2001 would be sufficient for the purposes of evaluating Master Plan impacts in a programmatic EIR. As noted above in response to comment #1, none of the Master Plan projects will result in the removal of coastal sage scrub within the preserve. However, as noted under the mitigation discussion (MM 4.4-3), the Draft EIR requires that future projects within 500 feet of the preserve prepare pre-construction surveys to assess indirect impacts on the gnatcatcher from construction noise. Those surveys will be conducted within one year and, preferably, immediately prior to construction as suggested in this comment. A text change has been made in Section 4.4 of the Final EIR (page 4.4-24) to reflect the timing recommendation in this comment.

3. As noted above in response to comment #1, no direct removal or clearing of coastal sage scrub is proposed within the preserve. In addition, all construction and habitat removal proposed by the Master Plan would occur within the "take authorized" portion of campus shown in the County MSCP Subarea Plan. Therefore, the mitigation measure suggested in this comment is neither applicable nor required.

4. The preliminary configuration of the parking lots depicted in the Master Plan (Figure 3-2 in the Draft EIR) leaves a 30 to 40 foot wide buffer between the parking lots and the riparian habitat. Final designs for the parking lots have not been developed at this time. When the District chooses to design the parking lots in the future, every effort will be made to avoid impacts to riparian areas and to maximize the buffer distance adjacent to the drainage. At its southernmost point, the campus drainage is separated from the Sweetwater River by approximately 600 feet of residential development and public right-of-way (i.e., SR-54/Jamacha Road). It should be noted that the District has placed the area east of the drainage adjacent to Fury Lane into open space as part of the Master Plan, thus providing a 100 to 300-foot buffer between the Fury Lane and the habitat. In addition, it should be recognized that the parking lots would not result in the level of edge effects (e.g., noise, predation, lights) as the commercial and residential development that exists nearby. Landscaping will be used to screen the riparian habitat from the parking lot(s). Because of the isolated nature of the drainage, the urban character of the surrounding land uses and the proposed buffer on both sides of the drainage, the District feels that the proposed buffer is sufficient and that enforcing a minimum 100-foot buffer in this location is not necessary.

COMMENTS

5 a. The DEIR indicates that, even though the federally and State endangered least Bell's vireo (*Vireo bellii pusillus*, vireo) occurs along the reach of the Sweetwater River 600-700 feet from the site, there is only a low to moderate potential for the vireo to occur on site because the habitat is limited and isolated by development. There are many pairs of vireo lined up along the reach of the Sweetwater River across Jamacha Road from the campus (pers. comm., Arthur Davenport, Davenport Biological Services & former U.S. Fish and Wildlife Service employee, 2/9/04), and we believe that there is a high potential for vireo to be use the on-site riparian habitat. The presence of Jamacha Road, and the development to its north, between the Sweetwater River and the on-site riparian habitat is unlikely to dissuade the vireo from using the on-site habitat. Therefore, we recommend that protocol-level surveys for the vireo be conducted no more than one year prior to the commencement of construction of any phase of the Master Plan which would result in the loss of the on-site riparian habitat. Construction includes any disturbance of the habitat such as, but not limited to, clearing of vegetation, grading, and establishment of staging areas.

6 b. We also recommend that protocol-level surveys for the federally and state endangered southwestern willow flycatcher (*Empidonax traillii extimus*, flycatcher) be conducted no more than one year prior to the commencement of construction of any phase of the Master Plan which would result in the loss of potential flycatcher habitat.

7 c. As a third-party beneficiary to the County's MSCP, the District must comply with the prohibition on the clearing of any vireo- and flycatcher-occupied (i.e., inside and outside the preserve) between March 15 and September 15. If the District does not conduct protocol-level surveys for the vireo and flycatcher, we recommend that the District presume presence of these species in the riparian habitat on site, and comply with the MSCP seasonal requirement.

8 d. The DEIR does not acknowledge that the proposed removal of riparian habitats would likely require a streambed alteration agreement (SAA) from the Department if these habitats are within our jurisdiction.[3] If the project would directly affect riparian habitats, including those areas which the DEIR concludes would not be within our jurisdiction (e.g., tamarisk scrub), we recommend that the District file a SAA notification with us.[4]

i. The notification should include a jurisdictional delineation of the riparian resources on site, including a wetland delineation pursuant to the U.S. Fish and Wildlife

3 The removal of habitat may also require a permit from the U.S. Army Corps of Engineers.

4 A SAA notification form may be obtained by writing to the Department of Fish and Game, 4949 Viewridge Avenue, San Diego, California 92123-1662, or by calling (858) 636-3160, or by accessing the Department's web site at www.dfg.ca.gov/1600. The Department's SAA Program holds regularly scheduled pre-project planning/early consultation meetings. To make an appointment, please call our office at (858) 636-3160.

RESPONSES

5. As discussed above, the habitat impacts disclosed in the EIR are worst-case and would occur as each individual project is implemented during the planning period of the Master Plan (i.e., the next 10 to 12 years). Far fewer impacts are actually anticipated as a result of Master Plan implementation. Every effort will be made to avoid impacts to riparian habitat during the preparation of design drawings for nearby projects. If the design for the parking lot(s) would result in the fill of jurisdictional areas containing suitable vireo habitat, the District will address the need for protocol-level surveys for the least Bell's vireo with the resource agencies during the wetland permitting process.

6. The Draft EIR indicates that the potential for southwestern willow flycatcher is low on campus. The potential to occur is based on the fact that no willow flycatchers have been observed upstream of the Sweetwater Reservoir in recent times and the fact that suitable habitat (i.e., expanses of mature willows near open water away from urbanized areas) does not exist on campus. As noted above in response to comment #4, the biology analysis conservatively assumed that all areas outside the open space preserve could be impacted in the future. However, if the design for the future projects would result in the fill of jurisdictional area containing suitable willow flycatcher habitat, the District will address the need for protocol-level surveys for the southwestern willow flycatcher with the resource agencies during the wetland permitting process.

7. If the District proposes a future Master Plan project which would clear suitable habitat for the vireo or flycatcher during their breeding season, a discussion of the seasonal restriction will be conducted with the resource agencies during the wetland permitting process.

8. The Draft EIR indicates that permits would be required for impacts to jurisdictional areas (refer to page 4.4-15 for clarification). The District acknowledges that a Streambed Alteration Agreement must be issued pursuant to Section 1602 of the State Fish and Game Code if a project would directly impact areas that are within the jurisdiction of the CDFG. The Draft EIR provides the rationale for why the tamarisk scrub is not jurisdictional based on field observations. At a point in time when the District proposes to impact that tamarisk scrub, a delineation of the habitat will be conducted and provided to the CDFG in conjunction with other supporting information. The District recognizes that jurisdictional boundaries for the ACOE permits and CDFG Streambed Authorization Agreements can vary.

COMMENTS

Mr. Switzer
February 9, 2004
Page 5

8 cont.

Service definition (Cowardin 1979) adopted by the Department. Please note that wetland and riparian habitats subject to the Department's authority may extend beyond the jurisdictional limits of the U.S. Army Corps of Engineers (Corps).

ii. The DEIR indicates that a wetland restoration plan would be prepared. The SAA notification should include this plan.

iii. The DEIR identifies ratios that would be applied for losses of wetland habitats. The negotiations for the SAA would determine the mitigation requirements.

9

e. A CESA Permit (Section 2081 of the Fish and Game Code) or, if applicable, a Consistency Determination (Section 2080.1 of the Fish and Game Code),[5] must be obtained if the project has the potential to result in "take" of species of plants or animals listed under CESA (e.g., vireo, flycatcher), either during construction or over the life of the project. CESA Permits are issued to conserve, protect, enhance, and restore State-listed threatened or endangered species and their habitats. Early consultation is encouraged, as significant modification to a project and mitigation measures may be required to obtain a CESA Permit.[6]

10

f. The Department is concerned about the long-term edge/indirect effects of the proposed project on the riparian habitat. The DEIR indicates that the MSCP preserve in the eastern portion of the campus is in poor to moderate condition as a result of human activities such as off-road bike use and illegal trash dumping. Based on Figure 2 in the DEIR, it appears that the proposed easternmost parking area would lie within 30-40 feet from the newly contoured (i.e., post-construction/loss of riparian habitat) riparian area. As previously indicated, we recommend that the District establish a minimum of a 100-foot wide buffer on both sides of the riparian habitat to protect it from edge effects and retain the riparian biological function and values.[7] For the same reasons, we also recommend the installation of (i) signs along the perimeter of each buffer to inform

5 If the Corps issues a permit for impacts on jurisdictional habitat and if they require a Section 7 consultation (pursuant to the federal Endangered Species Act) with the U.S. Fish and Wildlife Service for the potential impacts on the vireo, the Department would prepare a Consistency Determination.

6 Revisions to the Fish and Game Code, effective January 1998, may require that the Department issue a separate CEQA document for the issuance of a 2081 permit unless the project CEQA document addresses all project impacts to listed species and specifies a mitigation monitoring and reporting program that will meet the requirements of a 2081 permit. For these reasons, the:
a. biological mitigation monitoring and reporting proposals should be of sufficient detail and resolution to satisfy the requirements for a CESA Permit, and
b. a Department-approved Mitigation Agreement and Mitigation Plan are required for plants listed as rare under the Native Plant Protection Act.

7 Edge effects are defined as undesirable anthropogenic disturbances beyond urban boundaries into potential reserve habitat (Kelly and Rotenberry 1993). Edge effects, such as disturbance by humans, trampling, noise, and lighting, and decreases in avian productivity (Andren and Angelstam 1988), are all documented effects that have negative impacts on sensitive biological resources in southern California. Development and open space configurations should minimize adverse edge effects (Soulé 1991).

RESPONSES

9. Comment noted. At a point in time when the District proposes a specific project that would impact riparian habitat that is suitable for vireo or willow flycatcher, the District will coordinate with the CDFG on whether a CESA permit is needed.

10. Comment noted. Refer to response to comment # 4 regarding the District's position on the 100-foot buffer. As noted under the biological resources mitigation discussion (MM4.4-7), signage will be posted adjacent to the open space preserve on campus. As noted in Figure 4.4-3, the riparian habitat will be entirely within the open space preserve on campus upon implementation of project mitigation. The above-referenced signage would notify visitors of the sensitivity of the habitat. Instead of fencing, the District will install landscape material at the edge of the proposed parking lots that would provide a natural impediment to pedestrians and screen them from the habitat, while still allowing wildlife movement. A text change has been made to MM4.4-7 which incorporates the landscape screening requirement. It should be noted that the majority of pedestrians on campus would park and walk away from the drainage toward the center of campus or to the One Stop Center along Rancho San Diego Parkway. There are and will continue to be walkways and sidewalks to guide visitors to the most appropriate pathways through campus. The District does not anticipate encroachments into the drainage during implementation of the Master Plan.

COMMENTS

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10 cont. people of the preserved status of the habitat and to prohibit encroachment into the habitat, and (ii) fencing outside of and adjacent to the perimeter of each buffer to discourage entry by humans on foot, bicycle, etc., but not passage by wildlife (e.g. split rail fencing).

11 g. The DEIR indicates that at least some of the wetland mitigation would occur on site as an expansion of the existing wetland habitat that is within preserve area. All on- and off-site wetland mitigation would require management in perpetuity to protect its biological functions and values. For on-site mitigation, we would expect that a monitoring and management plan (MMP) include the extant wetland so that the habitat is managed as an ecological system. Therefore, activities such as invasive-species removal should occur in both the mitigation area and the remaining wetland habitat. To best achieve protection of the riparian habitat in perpetuity, we recommend that it be placed in a conservation easement and that a funding commitment be developed for the conservation easement. A Property Analysis Record, or similar analysis, should be used to estimate initial start-up costs, and ongoing annual costs, of implementing the MMP. A financial mechanism (e.g., a non-wasting endowment) should be established to ensure that adequate funding is available to implement the MMP. The funding mechanism should be established prior to the initiation of construction, and the MMP should be implemented prior to, or concurrent with, the initiation of construction.

12 5. The DEIR indicates that implementation of the Master Plan would result in the loss of 5.3 of the 9.2 acres of the NNG on the campus, but requires no mitigation for this loss. Non-native grasslands and ruderal areas in San Diego County provide important foraging habitat for raptors. The project site provides potential raptor nesting habitat and significant area for foraging. The DEIR indicates that several raptor species [red-shouldered hawk (*Buteo lineatus*), white-tailed kite (*Elanus leucurus*), turkey vulture (*Cathartes aura*), Cooper's hawk (*Accipiter cooperi*), and the common barn owl (*Tyto alba*)] have a moderate to high potential to occur on site, either foraging and/or nesting. In fact, the DEIR includes a mitigation measure to protect active raptor nests from construction. Primarily due to development, raptor foraging areas are rapidly disappearing in San Diego County. Cumulatively, raptor foraging habitat loss may be significant, and impacts to this resource warrant mitigation. Therefore, we recommend that the final EIR require mitigation for the loss of NNG in a agency-approved mitigation bank. In addition, if the remaining NNG is isolated from other habitat types (i.e., not adjacent to the riparian habitat), we recommend that the total amount of NNG on site (i.e., 9.2 acres) be presumed lost and appropriately mitigated.

13 6. In addition to the mitigation measure to protect breeding raptors and their nests, the DEIR includes a similar measure for the gnatcatcher. We recommend that the final EIR include a similar measure to protect all active avian nests to comply with the California Fish and Game Code sections 3503, 3503.5 and 3513.

14 7. The Department is concerned about the direct and indirect effects of development on

RESPONSES

11. Comment noted. The District concurs that wetland mitigation can take the form of enhancement, restoration or creation. The District will consider the CDFG comments in the future, if and when impacts to riparian habitat are proposed and a wetland mitigation plan is developed and implemented.

12. The expanded Master Plan would preserve 4.2 acres of non-native grassland and projects under the Master Plan could impact up to 5.0 acres (refer to Table 4.4-6 in the EIR). Impacts to non-native grassland would occur within the "take authorized" portion of campus. Therefore, preservation of habitat on campus per the MSCP combined with compliance with the HLP conditions would offset the loss of non-native grassland and other habitats within the "take authorized" area of campus. The non-native grassland mitigation suggested in this comment is, therefore, not required.

13. The District has third party beneficiary status from the County that provides take authorization for covered species (and their nests) listed in the County MSCP Subarea Plan. Enforcement of the cited sections of the Fish and Game Code would create seasonal restrictions within the take authorized area for non-covered, non-listed species, which is not a significant impact under CEQA. As most areas of the campus proposed for potential development are developed or disturbed, the likelihood of encountering avian nests within the take authorized area is limited to the undeveloped portions of campus where non-native grassland, baccharis scrub and an isolated patch (approximately 0.3 acre) of disturbed coastal sage scrub occur. The potential for nesting birds in these habitats is considered low. Therefore, the District does not agree that this seasonal restriction should be enforced on future projects at Cuyamaca College.

14. Section 4.6 of the Draft EIR lists the typical best management practices (BMPs) the District may implement on campus to comply with the Phase 2 requirements under the National Pollutant Discharge Elimination System (NPDES) program. The District is participating with other school districts in developing stormwater pollution prevention measures to be implemented during construction and operation of future projects on campus. The Draft EIR is a programmatic analysis of the Master Plan. Until specific design drawings and Stormwater Pollution Prevention Plans (SWWP) are prepared for the individual Master Plan projects and the Phase 2 compliance becomes a requirement, the specific BMPs to be used on campus cannot be identified. The BMP suggestions in this comment will be considered when the specific measures are identified in the future.

COMMENTS

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Page 7

14 cont.

streams and other wetlands and the terrestrial and aquatic life dependent on them.[8] In this case, we are concerned about the on-site creek and associated habitat, and the Sweetwater River (600-700 feet downstream of the campus) to which the surface flows from much of the campus ultimately discharge. The DEIR indicates that measures would be implemented to minimize the impacts from surface flows during and after construction, but provides no detail on the measures that would be used, or their locations. All structural best management practices (BMPs) should be placed within the development footprint, outside of all preserve areas, and all post-construction surface flows should be attenuated to pre-construction flow rates prior to leaving the development footprint. The DEIR indicates that permeable pavement may be used in the parking areas. While it is favorable to retain as much pervious substrate as possible, consideration should be given to the depth to groundwater in the various proposed parking areas, and the potential for contaminating the groundwater. For example, the location of the easternmost proposed parking lot is very close to the creek on site, and may also be close to groundwater. In addition, permeable pavement needs to be appropriately maintained (see the fact sheet on porous pavement at http://www.stormwatercenter.net/) to ensure that it performs as intended and to remove any accumulated pollutants (e.g., hydrocarbons). The BMPs should be designed to attenuate the post-construction surface flows sufficiently so as to obviate the need for riprap or other attenuation measures at storm drain outfalls outside of the development footprint.

15

8. Please reconcile the following apparent discrepancy. On page 2-3, the DEIR indicates that the riparian area on site occupies 4.8 acres, whereas page 4.4 (Table 4.4-4) indicates that the riparian habitats occupy 3.25 acres.

The Department appreciates the opportunity to comment on this DEIR. We are available to work with the District and their consultants to obtain any necessary permits for the proposed project. We would appreciate the opportunity to review the District's responses to our comments on the EIR prior to its finalization and review for approval. Please contact Libby Lucas of the Department at (858) 467-4230 if you have any questions or comments concerning this letter.

Sincerely,

For William E. Tippets
Deputy Regional Manager

8 In addition to modifications in peak flows, we are concerned about changes in the velocity, volume, duration, and frequency of wet- and dry-weather flows and flows from less than the100-year events upon which the hydrological and flooding analyses are generally based. Over time, these changes can seriously damage stream habitats. Increases in flows from impervious surfaces associated with urbanization can result in: 1) stream bed scouring and habitat degradation: 2) stream bank widening; 3) loss of aquatic species; and 4) decreased baseflow (USEPA 1999).

RESPONSES

15. The size of the riparian area on campus is approximately 3.0 acres based on the biological resource mapping conducted as part of the Draft EIR. The acreage noted in Section 2-3 was taken from the Master Plan and is a generalized area. The text on page 2-3 of the Draft EIR has been corrected to be consistent with the biological resources analysis.

COMMENTS

RESPONSES

cc: County of San Diego (Tom Oberbauer)
Department of Fish and Game (Dave Mayer)
U.S. Fish and Wildlife Service (Kathleen Brubaker)

Literature Cited

Andren, H. and P. Angelstam. 1988. Elevated predation rates as an edge effect in habitat islands: experimental evidence. Ecology 64: 1057-1068.

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COMMENTS

Department of Toxic Substances Control

Terry Tamminen
Agency Secretary
Cal/EPA

Edwin F. Lowry, Director
1011 N. Grandview Avenue
Glendale, California 91201

Arnold Schwarzenegger
Governor

January 21, 2004

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Mr. Dale Switzer
Grossmont-Cuyamaca Community College District
8800 Grossmont College Drive
El Cajon, California 92020-1799

DRAFT ENVIRONMENTAL IMPACT REPORT FOR GROSSMONT-CUYAMACA COMMUNITY COLLEGE DISTRICT, CUYAMACA COLLEGE MASTER PLAN, FURY LANE AND RANCHO SAN DIEGO PARKWAY, RANCHO SAN DIEGO, SAN DIEGO COUNTY, CALIFORNIA
(SCH 2003051013)

Dear Mr. Switzer:

The Department of Toxic Substances Control (DTSC) has reviewed the Draft Environmental Impact Report (EIR), dated December 2003, for the subject project. The due date to submit comments is February 6, 2004.

Based on a review of the EIR, DTSC is providing the following comments:

1 1. Because the project is school site related, DTSC recommends that an environmental review, such as Phase I Environmental Site Assessment (Phase I) and/or Preliminary Endangerment Assessment (PEA), be conducted to determine whether there has been or may have been a release or threatened release of a hazardous material, or whether a naturally occurring hazardous material is present, based on reasonably available information about the property and the area in its vicinity. This environmental assessment should be conducted as part of EIR process.

2 2. Grossmont-Cuyamaca Community College District (GCCCD) is invited to participate in DTSC's School Property Evaluation and Cleanup Program authorized by AB 387, SB162, AB 2644 and AB 972. If GCCCD elects to proceed to conduct a PEA at the site, it shall enter into an Environmental Oversight Agreement (EOA) with DTSC to oversee the preparation of the PEA.

3 3. The onsite building was built before 1980, lead-based paint may be present. It is recommended that DTSC's guidance, "Interim Guidance for Evaluating Lead-Based Paint and Asbestos-Containing Materials At Proposed School Sites, dated July 2001", be followed to address the lead-based paint concerns.

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RESPONSES

State Department of Toxic Substances Control (January 21, 2004)

1. The project site for the Master Plan is an existing community college campus. The areas where new development is proposed are either developed with turf/landscaping or undeveloped land. There is no potential for hazardous materials since prior to becoming a campus, the land was undeveloped and there is no knowledge of past or present sites that would have resulted in a release of hazardous substances. Therefore, the District does not feel it is necessary to conduct an environmental site assessment as part of the EIR as suggested in this comment.

2. Comment noted. The District will not conduct an environmental site assessment as discussed above in response to comment #1.

3. Several of the buildings were constructed prior to 1980. If lead-based paint is present in any of the structures proposed for demolition or remodel, its removal will be required prior to construction and will be managed by the construction contractor in accordance with all applicable laws for such removal and disposal.

COMMENTS

Mr. Dale Switzer
January 21, 2004
Page 2

4 4. The project site has been historically used as agricultural operations, pesticides (such as DDT and DDE) and fertilizers (usually containing heavy metals) which were commonly used as part of past farming operations may be present. These agricultural chemicals are persistent and bio-accumulative toxic substances. DTSC has developed the "Interim Guidance for Sampling Agricultural Soils (Second Revision)", dated August 2002. This Guidance should be followed for sampling agricultural properties.

DTSC is also administering the $85 million Cleanup Loans and Environmental Assistance to Neighborhoods (CLEAN) Program which provides low-interest loans to investigate and cleanup hazardous materials at properties where redevelopment is likely to have a beneficial impact to a community. These loans are available to developers, businesses, schools, and local governments.

For additional information on the EOA or CLEAN Program, please visit DTSC's web site at www.dtsc.ca.gov. If you would like to discuss this matter further, please contact me at (818) 551-2860.

Sincerely,

for Ken Chiang
Senior Hazardous Substances Scientist
School Property Evaluation and Cleanup Division

cc: Mr. Michael O'Neill
School Facilities Planning Division
California Department of Education
1430 N Street, Suite 3207
Sacramento, California 95814

Mr. Scott Morgan
State Clearinghouse
1400 Tenth Street
P.O. Box 3044
Sacramento, California 95812-3044

Department of Toxic Substances Control
CEQA Tracking Center
1001 I Street, 22nd Floor
P.O. Box 806
Sacramento, California 95812-0806

SPECD Reading File

CEQA Reading File

RESPONSES

4. The college campus has never been in active agricultural production; it was a homestead and used for grazing over 50 years ago prior to the use of pesticides noted in this comment. The campus has been present on site for over 30 years. There is no potential for unhealthful levels of residual pesticides in the soil of the remaining undeveloped portions of the campus.

COMMENTS

Grossmont Coll. Maint. Fax:619-644-7911 Mar 18 '04 20:05 P.02/02

VALLE DE ORO COMMUNITY PLANNING GROUP
P.O. BOX 3958
LA MESA, CA 91944-3958

March 17, 2004

Dale Switzer
Director, Facilities Planning and Development
Grossmont-Cuyamaca Community College District
8800 Cuyamaca College Drive
El Cajon, California 92020

SUBJECT: Cuyamaca College Master Plan; Draft Environmental Impact Report

At the meeting of March 16, 2004, this Planning Group conducted a public hearing on the Draft EIR for the Cuyamaca College Master Plan.

1 VDOCPG voted unanimously (13-0) that the Draft EIR is inadequate in its analysis of the significant impacts to traffic and intersection level of service caused by the projected enrollment of 15,000 students by the year 2015. Additionally, the mitigation proposed for these significant impacts is falsely conceived, undocumented, with no basis in fact; and fails to comply with CEQA guidelines.

2 The Draft EIR correctly identifies five roadway segments and eight intersections that would be significantly impacted. For mitigation, the Draft EIR states "buildout of the County of San Diego General Plan Circulation Element is assumed" and "Construction of these planned improvements by the County would reduce significant project impacts in the Existing Plus Project to below a level of significance." CEQA guidelines prohibit assuming away significant impacts. If buildout of the County's Circulation Element is to be a viable mitigation, the Draft EIR must include a verifiable schedule from the County detailing the timing and nature of roadway improvements and projected completion dates. The Cuyamaca College Master Plan should then be phased with the roadway improvements schedule in order that traffic and intersection level of service elements do not reach the significant impact condition.

3 Additionally, the Draft EIR is incomplete in its analysis in that it fails to include the lack of full access SR94/125 interchange ramps. With the projected increased enrollment and the potential for increased student travel between the College and La Mesa or San Diego, the alternative routes such as Fury Lane/Avocado Blvd/Fuerte Drive may also be significantly impacted.

Sincerely,

Jack L. Phillips
Chairman, VDOCPG

RESPONSES

Valle De Oro Community Planning Group (March 17, 2004)

1. Comment noted. The District does not concur with this comment; however, they are planning on attending the Community Planning Group's next public meeting on April 6, 2004 and are willing to meet with a subcommittee beforehand, if needed.

2. The District shares the Community Planning Group's concern about traffic congestion in the local community and especially around the campus. As noted in this comment, the Draft EIR identifies project and cumulative impacts in 14 locations, along six roadway segments and eight intersections in the vicinity of the campus. At 11 of these locations, the impacts stated in the Draft EIR are triggered by the project's contribution to existing or future degraded traffic conditions in the area surrounding the campus. The Draft EIR concludes that cumulatively significant impacts would occur at those locations. In other words, if enrollment at the campus did not increase, the stated impacts would still occur. The contribution anticipated under the proposed project would be negligible. The Existing Plus Project condition (where impacts for the remaining locations would occur) conservatively assumes that student enrollment (and campus traffic) would immediately increase to 15,000 upon project approval and that County-planned improvements to the circulation network would not be in place (refer to page 4.1-9 of the Draft EIR). It paints a worst-case picture of the short-term effects of this long-term project at the three impacted locations (i.e., one roadway and two intersections). In reality, student enrollment at community colleges is driven by regional population growth, accessibility to other higher educational facilities and availability of state funding to build facilities and hire instructors. Traffic associated with enrollment would be phased gradually as new and renovated educational facilities are developed over a 10- to 12-year planning period. It is reasonable to assume that over that same time period the County of San Diego would implement some of its planned circulation improvements. Furthermore, the District is without statutory authorization to fund any off campus traffic improvements and to do so could constitute an impermissible gift of public funds (see Government Code section 54999.1[d], *San Marcos Water District v. San Marcos Unified School District* [1986] 42 Cal. 3d 154; California Const., art. XVI, Section 6 and and *City of Marina v. Bd. of Trustees of the Cal. State Univ.* [2003] 109 Cal. App. 4th 1179). Therefore, making the District pay for traffic mitigation and/or phasing the Master Plan in concert with the County of San Diego General Plan is not reasonable and would not avoid cumulatively significant impacts at most locations. The District acknowledges a Statement of Overriding Considerations will be needed to approve the project. Although it is unfortunate that an incremental increase in regional traffic would result, the District feels there would be numerous benefits to the Rancho San Diego community from campus expansion should the Master Plan gain Board approval.

3. The District disagrees with this comment. The SR-94/125 interchange is outside the study area defined for the project. The study area analyzed for the Master Plan was defined based on criteria contained in the SANDAG Congestion Management Plan (as stated on page 4.1-1 of the EIR). Based on those criteria, the preliminary traffic modeling concluded that the project would not add 50 or more peak hour trips to that freeway because of the quick dissipation of project-related trips on the freeway. The Draft EIR does analyze project impacts on segments of Fury Lane and Avocado Boulevard and their intersections with Fuerte Drive (refer to Tables 4.1-4 through 4.1-7 in the Draft EIR).

SECTION 2.0

ERRATA

Errata to Cuyamaca College Master Plan Draft EIR

Changes have been made to the Cuyamaca College Master Plan Draft EIR to clarify text and to address comments received during public review and are reflected in this errata. Changes are presented below in ~~strikeout~~/<u>underline</u> format. They do not affect the overall conclusions of the EIR.

Pages ES-6 and 4.1-25, MM 4.1-4 and MM 4.1-5

These mitigation measures originally stated:

MM 4.1-4: The improvement of Willow Glen Drive between Steele Canyon Road and Hillsdale Road from a two-lane collector to a four-lane major standard.

MM 4.1-5: The improvement of Jamacha Boulevard between Sweetwater Springs Road to San Miguel Street from a two-lane collector to a four-lane major standard.

They have been changed to:

MM 4.1-4: The ~~improvement~~ <u>widening</u> of Willow Glen Drive between Steele Canyon Road and Hillsdale Road from a two-lane collector to a four-lane major standard.

MM 4.1-5: The ~~improvement~~ <u>widening</u> of Jamacha Boulevard between Sweetwater Springs Road to San Miguel Street from a two-lane collector to a four-lane major standard.

Pages ES-7 and 4.1-25, MM 4.1-6

This mitigation measure originally stated:

MM 4.1-6: The District shall change the signal phasing and timing on the east-west approaches from split to protected phasing at the intersection of Fury Lane and Rancho San Diego Parkway/Brabham Street.

It has been changed to:

MM 4.1-6: <u>To the extent permitted by law,</u> ~~T~~<u>t</u>he District ~~shall change~~ <u>may work with the County of San Diego to revise</u> the signal phasing and timing on the east-west approaches from split to protected phasing at the intersection of Fury Lane at Rancho San Diego Parkway/Brabham Street.

Pages ES-8, ES-9 and 4.1-26, MM 4.1-8 through MM 4.1-10

These mitigation measures originally stated:

MM 4.1-8: The District shall revise the signal phasing and timing to include southbound to westbound and westbound to northbound right-turn overlap phases at the intersection of SR-54/Jamacha Road at Chase Avenue.

MM 4.1-9: The County of San Diego will construct a westbound through lane at the SR-94/Campo Road and Jamacha Boulevard intersection as part of the SR-54/-94 improvement project. In addition, prior to enrolling 8,820 students, the District shall participate with the County to make the following additional improvements to the intersection in conjunction with the County improvements:

- Restripe the northbound approach to include one share through lane/left-turn and two dedicated right-turn lanes
- Revise the signal phasing for the northbound and southbound approaches to split phasing.
- Revise the signal phasing and timing to include a northbound and southbound right-turn overlap phase.

MM 4.1-10: The County of San Diego will construct two left-turn lanes, three through lanes and a dedicated right-turn lane along SR-54/Jamacha Road at the SR-54/Jamacha Road and Willow Glen Drive intersection as part of the SR-54/-94 improvement project. In addition, prior to enrolling 9,060 students, the District shall provide for the following additional improvements at the intersection:

- Install two left-turn lanes, one through lane and a dedicated right-turn lane at the existing driveway.
- Install two left-turn lanes, one through lane and a share through/right-turn lane at the Willow Glen Drive.

They have been changed to:

MM 4.1-8: To the extent permitted by law, the District ~~shall~~ may work with the County of San Diego to revise the signal phasing and timing to include southbound to westbound and westbound to northbound right-turn overlap phases at the intersection of SR-54/Jamacha Road at Chase Avenue.

MM 4.1-9: The County of San Diego will construct a westbound through lane at the SR-94/Campo Road and Jamacha Boulevard intersection as part of the SR-54/-94 improvement project. Prior to enrolling 8,820 students and to the extent permitted by law, the District may ~~shall~~ participate with the County to make the following additional improvements to the intersection in conjunction with the County improvements:

- Restripe the northbound approach to include one share through lane/left-turn and two dedicated right-turn lanes.
- Revise the signal phasing for the northbound and southbound approaches to split phasing.
- Revise the signal phasing and timing to include a northbound and southbound right-turn overlap phase.

MM 4.1-10: The County of San Diego will construct two left-turn lanes, three through lanes and a dedicated right-turn lane along SR-54/Jamacha Road at the SR-54/Jamacha Road and Willow Glen Drive intersection as part of the SR-54/-94 improvement project. In addition, prior to enrolling 9,060 students and to the extent permitted by law, the District ~~shall provide for~~ may participate with the County to make the following additional improvements at the intersection:

- Install two left-turn lanes, one through lane and a dedicated right-turn lane at the existing driveway.
- Install two left-turn lanes, one through lane and a share through/right-turn lane at the Willow Glen Drive.

Pages ES-10 and 4.1-29, MM 4.1-12 and MM 4.1-13

These mitigation measures originally stated:

MM 4.1-12: The District shall revise the signal timing and phasing on the eastbound approach to include a right-turn overlap phase at the intersection of Avocado Boulevard at Fuerte Drive.

MM 4.1-13: The District shall revise the signal phasing and timing on the westbound approach to include a right-turn overlap phase at the intersection of Avocado Boulevard at Fury Lane.

They have been changed to:

MM 4.1-12: <u>To the extent permitted by law</u>, ~~T~~the District ~~shall~~ <u>may</u> revise the signal timing and phasing on the eastbound approach to include a right-turn overlap phase at the intersection of Avocado Boulevard at Fuerte Drive.

MM 4.1-13: <u>To the extent permitted by law</u>, ~~T~~the District ~~shall~~ <u>may</u> revise the signal phasing and timing on the westbound approach to include a right-turn overlap phase at the intersection of Avocado Boulevard at Fury Lane.

Pages ES-12 and 4.2-23, MM 4.2-6

This mitigation measure originally stated:

MM 4.2-6: Graded residential lots shall be hydroseeded to provide interim stability prior to the installation of permanent buildings, pavement and landscaping

It has been changed to:

MM 4.2-6: Graded ~~residential lots~~<u>construction sites</u> shall be hydroseeded to provide interim stability prior to the installation of permanent buildings, pavement and landscaping

Pages ES-13 and 4.3-10, MM 4.3-1

This mitigation measure originally stated:

MM 4.3-1: The design of future construction projects shall incorporate the use of non-reflective exterior building materials to minimize glare.

It has been changed to:

MM 4.3-1: The design of future construction projects shall ~~incorporate~~ minimize the use of ~~non-~~reflective exterior building materials to minimize glare.

Pages ES-15 and 4.4-24, MM 4.4-2, 1st sentence

This sentence originally stated, "If clearing or grading is planned to occur during the breeding season for raptors (February 1 through July 31), a pre-construction survey shall be conducted to determine the presence or absence of these species within 500 feet of proposed construction."

It has been changed to state, "If clearing or grading is planned to occur during the breeding season for raptors (February 1 through July 31), a pre-construction survey shall be conducted no more than one year prior to construction to determine the presence or absence of these species within 500 feet of proposed construction."

Pages ES-16 and 4.4-24 through 4.4-25, MM 4.4-3

This mitigation measure originally stated:

MM 4.4-3: If clearing or grading is planned to occur during the breeding season for coastal California gnatcatchers (February 15 through August 15) and/or raptors (February 1 through July 31), a pre-construction survey should be conducted to determine the presence or absence of these species within 500 feet of the proposed construction. Preliminary clearing or grading shall be monitored by a qualified biologist who shall have the power to stop the activity or move it further away from any active nest of a gnatcatcher or raptor if deemed necessary to avoid nest abandonment.

It has been changed to:

MM 4.4-3: If clearing or grading is planned to occur during the breeding season for coastal California gnatcatchers (February 15 through August 15) ~~and/or raptors (February 1 through July 31)~~, a pre-construction survey ~~should~~ shall be conducted no more than one year prior to construction to determine the presence or absence of ~~these~~ this species within 500 feet of the proposed construction. If any nesting coastal California gnatcatchers are observed, one of two actions shall be taken: (1) development shall be postponed until all nesting has ceased or until after August 15, or moved far enough away to not impact the birds; or (2) a temporary noise barrier or berm shall be constructed within the edge of the development footprint (not within the proposed preserve) to ensure that noise and activity levels do not impact the nesting birds. Preliminary clearing or grading shall be monitored by a qualified biologist who shall have the power to stop the activity or move it further away from any active nest of a gnatcatcher or raptor if deemed necessary to avoid nest abandonment.

Pages ES-16 and 4.4-25, MM 4.4-4, 1st sentence

This sentence originally stated, "The proposed Master Plan biological preserve shall be increased in areas adjacent to the biological preserve where sensitive habitat occurs and development is not proposed."

It has been changed to state, "The proposed Master Plan biological preserve shall be increased in ~~areas~~ size adjacent to the biological preserve where sensitive habitat occurs and development is not proposed."

Pages ES-18 and 4.4-27, MM 4.4-7

This mitigation measure originally stated:

MM 4.4-7: All open space areas shall be posted with signage containing information regarding habitat sensitivity and citing that dumping or disturbance of habitat is prohibited. In addition, a split-rail or other form of fencing shall be built to indicate to the public that the habitats adjacent to Fury Lane are protected.

It has been changed to state:

MM 4.4-7: All open space areas shall be posted with signage containing information regarding habitat sensitivity and citing that dumping or disturbance of habitat is prohibited. In addition, a split-rail or other form of fencing shall be ~~built~~ installed to ~~indicate to~~ restrict ~~the~~ public access to ~~that~~ the habitats adjacent to Fury Lane ~~are protected~~ and a landscape barrier shall be installed between campus development and the riparian habitats in the eastern drainage.

Pages ES-18 and 4.4-27, MM 4.4-8

This mitigation measure originally stated:

MM 4.4-8: All construction equipment storage areas and new buildings or athletic facilities shall be lit with low illumination fixtures that are shielded and directed downwards and away from adjacent native habitat areas.

It has been changed to:

MM 4.4-8: All construction equipment storage areas and new buildings or athletic facilities adjacent to MSCP open space shall be lit with low illumination fixtures that are shielded and directed downwards and away from adjacent native habitat areas.

Page 2-3, 2nd paragraph, 3rd sentence

This sentence originally stated, "Other undeveloped lands on campus include a 4.8-acre riparian area near the eastern campus boundary (Figure 2-10, *Riparian Corridor*), 5.6 acres of steep slopes generally located along the western campus boundary and the area in the southeast portion of campus."

It has been changed to state, "Other undeveloped lands on campus include ~~a 4.8-acre~~ an approximately 3-acre riparian area near the eastern campus boundary (Figure 2-10, *Riparian Corridor*), 5.6 acres of steep slopes generally located along the western campus boundary and the area in the southeast portion of campus."

SECTION 3.0

MITIGATION MONITORING PROGRAM

Mitigation Monitoring Program

Introduction

The California Environmental Quality Act (CEQA) requires the adoption of feasible mitigation measures to reduce the severity and magnitude of potentially significant environmental impacts associated with project development. The Final Environmental Impact Report (EIR) for the Cuyamaca College Master Plan, SCH No. 2003051013, recommends that the District's Governing Board adopt mitigation measures and institute administrative measures to mitigate, to the extent feasible, the environmental impacts that could result from the Master Plan. The purpose of this Mitigation Monitoring Program for the Master Plan is to ensure compliance with adopted mitigation measures, verify that required measures effectively mitigate identified impacts, and provide guidance for future actions. The program was prepared for the District, in conjunction with the proposed Cuyamaca College Master Plan EIR, in accordance with Section 15097 of the State CEQA Guidelines.

Project Description Summary

The proposed project identifies the facilities needed to accommodate a maximum enrollment of 15,000 students at Cuyamaca College through the year 2015 and is based on the *Educational Master Plan* developed for the campus. The Master Plan includes 20 future construction and remodel projects proposed for development to accommodate the anticipated growth of the campus. Projects include the construction and remodeling of academic and administrative buildings, expansion of parking lots and physical education facilities, and renovation of existing buildings for code compliance and technology upgrades. Development of these projects would total a maximum of 125,000 assignable square feet (asf).

Mitigation Monitoring Procedures

Facilities Planning and Development at the District will have oversight responsibility (or may delegate its responsibility to a designated representative[s]) for the implementation and monitoring of Master Plan mitigation measures. The Facilities Planning and Development or its designated representative[s] will also enforce the implementation of mitigation measures and monitoring activities in the field, as necessary.

There are two categories of mitigation contained in the Cuyamaca College Master Plan Final EIR: Campus-wide Administrative Measures and Project-specific Measures. Monitoring procedures and timing vary depending on the type of mitigation. In general, monitoring consists of documenting that the measures have been implemented by the responsible party(s) at the appropriate time. The following is a description of the two categories of measures and how they will be implemented on the Cuyamaca College campus.

Campus-wide Administrative Measures

Mitigation measures have been identified in the Final EIR to address the effects of campus growth on the surrounding community. In the case of Cuyamaca College, the Campus-wide Administrative Measures are directed at addressing off campus traffic and biological resources impacts. These measures are monitored based on the mitigation timing established in this program, and in some cases require coordination with the County of San Diego. The monitoring procedures for such measures would consist of describing the status of actions undertaken by the District to implement these mitigation and future actions to be initiated. Description of the actions will be contained in an internal memo prepared annually or as needed during the planning horizon of the Master Plan (i.e., Year 2015).

Project-specific Measures

Monitoring for specific projects would determine the consistency of the project with the overall program (or Master Plan) approved for the campus and identify all relevant measures from the Master Plan EIR that will be incorporated into the project design or contractor specifications as project revisions to avoid potential impacts. Should review of the proposed project determine there is an inconsistency with the Master Plan, the monitoring procedures will include the identification of the need for any subsequent CEQA analysis and incorporation of any additional project-specific mitigation measures based on that analysis. All subsequent mitigation measures arising from a project-specific CEQA analysis will be added to or be refinements of the relevant Master Plan measures contained in this program. Each project proposed under the Master Plan will have its own Mitigation Monitoring Program to be implemented during project construction and operation.

Documentation Procedures

Documentation of specific monitoring activities will utilize a checklist type format, with additional narrative attached as separate sheets if necessary. The checklist will consist of a copy of Table 1 from this program with all relevant measures checked accordingly and with notations on when the measures were implemented and whether alternative measures were used to achieve the same results.

A record of this Mitigation Monitoring Program and all project-specific programs will be maintained at the Grossmont-Cuyamaca Community College District: Facilities Planning and Development, 8800 Grossmont College Drive, El Cajon, CA 92020-1799.

TABLE 1

CUYAMACA COLLEGE MASTER PLAN
MITIGATION MONITORING PROGRAM

MITIGATION NUMBER	MITIGATION MEASURE	MITIGATION TIMING	RESPONSIBILITY FOR MONITORING AND REPORTING	INCORPORATED INTO PROJECT-SPECIFIC DESIGN	COMPLETION DATE
	TRAFFIC/PARKING				
MM 4.1-6	To the extent permitted by law, the District may work with the County of San Diego to revise the signal phasing and timing on the east-west approaches from split to protected phasing at the intersection of Fury Lane at Rancho San Diego Parkway/Brabham Street.	Ongoing and dependant on County	Facilities Planning and Development to work with County		
MM 4.1-8	To the extent permitted by law, the District may work with the County of San Diego to revise the signal phasing and timing to include southbound to westbound and westbound to northbound right-turn overlap phases at the intersection of SR-54/Jamacha Road at Chase Avenue.	Ongoing and dependant on County	Facilities Planning and Development to work with County		
MM 4.1-9	The County of San Diego will construct a westbound through lane at the SR-94/Campo Road and Jamacha Boulevard intersection as part of the SR-54/-94 improvement project. In addition, prior to enrolling 8,820 students and to the extent permitted by law, the District may participate with the County to make the following additional improvements to the intersection in conjunction with the County improvements: - Restripe the northbound approach to include one share through lane/left-turn and two dedicated right-turn lanes. - Revise the signal phasing for the northbound and southbound approaches to split phasing. - Revise the signal phasing and timing to include a northbound and southbound right-turn overlap phase.	Prior to enrolling 8,820 students and dependant on County timing for SR-54/94 improvement project	Facilities Planning and Development with input from Admissions and Records and Research and Institutional Planning		

TABLE 1 (CONT.)

MITIGATION NUMBER	MITIGATION MEASURE	MITIGATION TIMING	RESPONSIBILITY FOR MONITORING AND REPORTING	INCORPORATED INTO PROJECT-SPECIFIC DESIGN	COMPLETION DATE
	TRAFFIC/PARKING (CONT.)				
MM 4.1-10	The County of San Diego will construct two left-turn lanes, three through lanes and a dedicated right-turn lane along SR-54/Jamacha Road at the SR-54/Jamacha Road and Willow Glen Drive intersection as part of the SR-54/-94 improvement project. In addition, prior to enrolling 9,060 students and to the extent permitted by law, the District may provide for the following additional improvements at the intersection: - Install two left-turn lanes, one through lane and a dedicated right-turn lane at the existing driveway. - Install two left-turn lanes, one through lane and a share through/right-turn lane at the Willow Glen Drive.	Prior to enrolling 9,060 students and dependant on County timing for road widening	Facilities Planning and Development with input from Admissions and Records and Research and Institutional Planning		
MM 4.1-12	To the extent permitted by law, the District may work with the County of San Diego to revise the signal timing and phasing on the eastbound approach to include a right-turn overlap phase at the intersection of Avocado Boulevard at Fuerte Drive.	Immediately following Master Plan approval	Facilities Planning and Development to work with County		
MM 4.1-13	To the extent permitted by law, the District may work with the County of San Diego to revise the signal phasing and timing on the westbound approach to include a right-turn overlap phase at the intersection of Avocado Boulevard at Fury Lane.	Immediately following Master Plan approval	Facilities Planning and Development to work with County		
	AIR QUALITY				
MM 4.2-1	Multiple applications of water shall be applied during grading between dozer/scraper passes.	Prior to in contractor specifications and during project construction	Facilities Planning and Development		

TABLE 1 (CONT.)

MITIGATION NUMBER	MITIGATION MEASURE	MITIGATION TIMING	RESPONSIBILITY FOR MONITORING AND REPORTING	INCORPORATED INTO PROJECT-SPECIFIC DESIGN	COMPLETION DATE
AIR QUALITY (CONT.)					
MM 4.2-2	Paving, chip sealing or chemical stabilization of internal roadways shall be implemented after completion of grading.	Prior to in contractor specifications and after completion of grading	Facilities Planning and Development		
MM 4.2-3	Sweepers or water trucks shall be used to remove "track-out" at any point of public street access.	Prior to in contractor specifications and after completion of grading	Facilities Planning and Development		
MM 4.2-4	Grading activities shall be terminated if wind speeds exceed 25 mph.	Prior to in contractor specifications and after completion of grading	Facilities Planning and Development		
MM 4.2-5	Soil (or other material) storage piles shall be stabilized by chemical binders, tarps, fencing or other erosion control measures.	Prior to in contractor specifications and after completion of grading	Facilities Planning and Development		
MM 4.2-6	Graded construction sites shall be hydroseeded as soon as feasible to provide interim stability prior to the installation of permanent buildings, pavement and landscaping.	Prior to in contractor specifications and after completion of grading	Facilities Planning and Development		

TABLE 1 (CONT.)

MITIGATION NUMBER	MITIGATION MEASURE	MITIGATION TIMING	RESPONSIBILITY FOR MONITORING AND REPORTING	INCORPORATED INTO PROJECT-SPECIFIC DESIGN	COMPLETION DATE
	AESTHETICS/VISUAL QUALITY				
MM 4.3-1	The design of future construction projects shall minimize the use of reflective exterior building materials to minimize glare.	During project design	Facilities Planning and Development		
MM 4.3-2	All proposed outdoor lighting shall be shielded and directed to minimize spillover onto adjacent residential areas.	During project design	Facilities Planning and Development		
	BIOLOGICAL RESOURCES				
MM 4.4-1	The final designs for projects that would affect wetland habitats, such as the eastern parking lots, should be modified to avoid impacts to the jurisdictional areas. If impacts to wetland habitats cannot be avoided during the design phase of new facilities, the District shall replace wetland habitats at a ratio of 3:1, consisting of 1:1 wetland creation and 2:1 wetland enhancement, restoration or creation, based on the extent and quality of habitat impacted. Thus, up to 0.29 acre of wetland creation would be required (0.03 acre of southern arroyo willow riparian forest, 0.17 acre of southern cottonwood willow riparian forest and 0.09 acre of southern willow scrub) and up to 0.58 acre of enhancement, restoration or creation (0.06 acre of southern arroyo willow riparian forest, 0.34 acre of southern cottonwood willow riparian forest and 0.18 acre of southern willow scrub), for a total wetland mitigation requirement of 0.87 acre for the entire Master Plan. The location of the mitigation area(s) and other details of the restoration effort shall be contained in a wetland restoration plan that would be prepared by a qualified biologist and approved by the resource agencies.	During project design and prior to impacting wetland habitat(s)	Facilities Planning and Development with concurrence from resource agencies		

MITIGATION NUMBER	MITIGATION MEASURE	MITIGATION TIMING	RESPONSIBILITY FOR MONITORING AND REPORTING	INCORPORATED INTO PROJECT-SPECIFIC DESIGN	COMPLETION DATE
BIOLOGICAL RESOURCES (CONT.)					
MM 4.4-2	If clearing or grading is planned to occur during the breeding season for raptors (February 1 through July 31), a pre-construction survey shall be conducted no more than one year prior to construction to determine the presence or absence of these species within 500 feet of proposed construction. If there are no sensitive birds nesting within this area, construction activities shall be allowed to proceed. However, if any sensitive birds are observed nesting within this area, one of two actions shall be taken: (1) development shall be postponed until all nesting has ceased or until after July 31, or moved far enough away to not impact the birds or (2) a temporary noise barrier or berm shall be constructed within the edge of the development footprint (not within the proposed preserve) to ensure that noise and activity levels do not impact the nesting birds.	No more than one year prior to construction during the raptor breeding season (February 1 through July 31) and during project construction	Facilities Planning and Development		
MM 4.4-3	If clearing or grading is planned to occur during the breeding season for coastal California gnatcatchers (February 15 through August 15), a pre-construction survey shall be conducted no more than one year prior to construction to determine the presence or absence of this species within 500 feet of the proposed construction. If any nesting coastal California gnatcatchers are observed, one of two actions shall be taken: (1) development shall be postponed until all nesting has ceased or until after August 15, or moved far enough away to not impact the birds; or (2) a temporary noise barrier or berm shall be constructed within the edge of the development footprint (not within the proposed preserve) to ensure that noise and activity levels do not impact the nesting birds. Preliminary clearing or grading shall be monitored by a qualified biologist who shall have the power to stop the activity or move it further away from any active nest of a gnatcatcher if deemed necessary to avoid nest abandonment.	No more than one year prior to construction during the gnatcatcher breeding season (February 15 through August 15) and during project construction	Facilities Planning and Development		

TABLE 1 (CONT.)

MITIGATION NUMBER	MITIGATION MEASURE	MITIGATION TIMING	RESPONSIBILITY FOR MONITORING AND REPORTING	INCORPORATED INTO PROJECT-SPECIFIC DESIGN	COMPLETION DATE
BIOLOGICAL RESOURCES (CONT.)					
MM 4.4-4	The proposed Master Plan biological preserve shall be increased in size adjacent to the biological preserve where sensitive habitat occurs and development is not proposed. The preserve area in the west, north and northeastern sides of the Master Plan footprint shall be expanded as shown in Figure 4.4-3, *Biological Preserve Additions*, of the EIR. A total of 45.8 acres of coastal sage habitat shall be conserved on the campus within the biological preserve. The 1.7-acre deficit of coastal sage scrub preservation shall be compensated through the restoration of 1.7 acres of coastal sage scrub habitat within disturbed or non-coastal sage scrub areas of the MSCP preserve on the campus. A restoration plan shall be prepared and implemented by a qualified biologist and shall specify the site preparation requirements, location of the restoration area(s), proposed plant palette and monitoring requirements.	Immediately following project approval	Facilities Planning and Development		
MM 4.4-5	Restoration of disturbed areas and appropriate protection of habitat shall be implemented to maintain the conservation values of the proposed biological preserve. Measures shall include removal of invasive exotics, including the patch of giant reed in the preserve near Fury Lane, removal of any off-road moguls, restoration of disturbed and non-native habitats within the biological preserve to coastal sage scrub, restoration of disturbed coastal sage scrub areas including the area restored during the mid-1990s and provision of signage and some form of fencing to prevent access to the preserve by the public from Fury Lane. Actions to accomplish this shall be detailed in a restoration plan to be prepared by a qualified biologist.	Immediately following project approval	Facilities Planning and Development		

MITIGATION NUMBER	MITIGATION MEASURE	MITIGATION TIMING	RESPONSIBILITY FOR MONITORING AND REPORTING	INCORPORATED INTO PROJECT-SPECIFIC DESIGN	COMPLETION DATE
	BIOLOGICAL RESOURCES (CONT.)				
MM 4.4-6	For any development adjacent to the proposed preserve, temporary construction fencing shall be erected to demarcate the boundary of disturbance. A biological monitor shall be present daily for all habitat clearing and shall monitor grading and construction to ensure compliance with all avoidance, permitting and mitigation measures during construction.	Prior to construction as part of contractor specifications and during construction	Facilities Planning and Development		
MM 4.4-7	All open space areas shall be posted with signage containing information regarding habitat sensitivity and citing that dumping or disturbance of habitat is prohibited. In addition, a split-rail or other form of fencing shall be installed to restrict public access to the habitats adjacent to Fury Lane and a landscape barrier shall be installed between campus development and the riparian habitats in the eastern drainage.	Immediately following project approval and during project design	Facilities Planning and Development		
MM 4.4-8	All construction equipment storage areas and new buildings or athletic facilities adjacent to MSCP open space shall be lit with low illumination fixtures that are shielded and directed downwards and away from adjacent native habitat areas.	During project design and construction	Facilities Planning and Development		

MITIGATION NUMBER	MITIGATION MEASURE	MITIGATION TIMING	RESPONSIBILITY FOR MONITORING AND REPORTING	INCORPORATED INTO PROJECT-SPECIFIC DESIGN	COMPLETION DATE
		CULTURAL RESOURCES			
MM 4.5-1	The District or construction contractor shall retain the services of a qualified archaeologist to implement an archaeological monitoring and recovery program. The retained archaeologist shall attend the pre-construction meeting and shall be present half-time during grading/excavation at the beginning of project grading and/or excavation and shall be increased or decreased depending on initial results (per direction of the archaeologist). In the event of a discovery, the archaeologist shall have the authority to temporarily halt or redirect construction activities in the area of discovery to allow for preliminary evaluation of potentially significant archaeological resources. The archaeologist, in consultation with the District, shall determine the significance of the discovery, if applicable. For significant resources, a recovery program shall be prepared and carried out to mitigate impacts before ground disturbing activities in the area of discovery are resumed. A report summarizing the results, analysis and conclusions of the monitoring program shall be submitted to the District within three months following termination of monitoring activities.	Prior to and during grading/excavation in future parking lots sites 12 and 16	Facilities Planning and Development		

MITIGATION NUMBER	MITIGATION MEASURE	MITIGATION TIMING	RESPONSIBILITY FOR MONITORING AND REPORTING	INCORPORATED INTO PROJECT-SPECIFIC DESIGN	COMPLETION DATE
GEOLOGY/SOILS					
MM 4.7-1	If deemed necessary by the project engineering geologist(s), site-specific geotechnical investigations conducted prior to all new construction proposed under the Master Plan shall include an investigation of potential corrosion hazards by a qualified corrosion engineer. The results of these analyses shall be incorporated into the final project design, as appropriate, to mitigate potential corrosion impacts, and may include (but not be limited to) measures such as: excavation (or overexcavation) and treatment, and/or removal and replacement (i.e., with engineered fill) of corrosive materials; use of non-corrosive and/or corrosion-resistant building materials in appropriate locations; and installation of cathodic protection devices.	During project design	Facilities Planning and Development		
PALEONTOLOGY					
MM 4.8-1	A qualified paleontologist will be retained to implement a paleontological monitoring and recovery program as a condition of the project construction contract. A qualified paleontologist is defined as an individual with an M.S. or Ph.D. in paleontology or geology who is a recognized expert in the identification and recovery of fossil materials.	Prior to construction as noted in contractor specifications for projects that would grade/ excavate to depths of 10 feet or more within undisturbed Jurassic metavolcanic or medisedimentary rocks	Facilities Planning and Development		
MM 4.8-2	The qualified paleontologist will attend the project pre-construction meeting to discuss proposed grading plans with the project contractor(s). If the qualified paleontologist determines that proposed grading/ excavation activities will likely extend to depths of 10 feet or more and include more than 1,000 cy of material within undisturbed portions of high sensitivity Jurassic metavolcanic or metasedimentary rocks, then monitoring will be conducted as outlined in MM 4.8-3.	Prior to construction	Facilities Planning and Development		

TABLE 1 (CONT.)

MITIGATION NUMBER	MITIGATION MEASURE	MITIGATION TIMING	RESPONSIBILITY FOR MONITORING AND REPORTING	INCORPORATED INTO PROJECT-SPECIFIC DESIGN	COMPLETION DATE
	PALEONTOLOGY (CONT.)				
MM 4.8-3	The project paleontologist or a paleontological monitor will be onsite during original cutting of the above noted geologic units. A paleontological monitor is defined as an individual who has experience in collection and salvage of fossil materials, and who is working under the direction of a qualified paleontologist. Monitoring of the noted geologic units will be at least half-time at the beginning of excavation, and will be either increased or decreased depending on initial results (per direction by the project paleontologist).	During original cutting of the sensitive geologic units	Facilities Planning and Development		
MM 4.8-4	In the event that well-preserved fossils are discovered, the project paleontologist will have the authority to temporarily halt or redirect construction activities in the discovery area to allow recovery in a timely manner (typically on the order of 1 hour to 2 days). All collected fossil remains will be cleaned, sorted, catalogued and deposited in an appropriated scientific institution such as the San Diego Museum of Natural History.	During project construction	Facilities Planning and Development		
MM 4.8-5	A report (with a map showing fossil site locations) summarizing the results, analyses and conclusions of the above described monitoring/recovery program will be submitted to the District within three months of terminating monitoring activities.	Within three months of terminating monitoring activities	Facilities Planning and Development		

TABLE 1 (CONT.)

MITIGATION NUMBER	MITIGATION MEASURE	MITIGATION TIMING	RESPONSIBILITY FOR MONITORING AND REPORTING	INCORPORATED INTO PROJECT-SPECIFIC DESIGN	COMPLETION DATE
		NOISE			
MM 4.10-1	The District shall require by contract specifications incorporation of the following construction noise attenuation measures during construction activities: - Construction equipment shall be properly maintained and equipped with noise mufflers or other noise-reduction devices to minimize construction noise. - Stationary construction equipment (i.e., generators, pumps) shall be located, to the extent possible, a minimum of 100 feet from noise-sensitive land uses. - Laydown and construction staging areas shall be located, to the extent feasible, a minimum of 100 feet from noise sensitive land uses. - Construction activities shall be limited to the hours between 7:00 AM and 7:00 PM, Monday through Saturday. No construction shall occur on Sundays and legal holidays, except in the case of emergency, to minimize disruption to area residents and on-campus noise sensitive uses. - Within 72 hours of the commencement of construction activities, the District shall notify in writing academic, administrative and residential areas adjacent to construction activities of the construction activities, hours and duration, including a point of contact in which to report construction noise complaints.	Prior to construction as noted in contractor specifications and during construction	Facilities Planning and Development		

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CUYAMACA COLLEGE MASTER PLAN

DRAFT ENVIRONMENTAL IMPACT REPORT
SCH No. 2003051013

December 2003

Prepared for:

GROSSMONT-CUYAMACA COMMUNITY COLLEGE DISTRICT
8800 Grossmont College Drive
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Prepared by:

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La Mesa, California 91941-6476

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EXECUTIVE SUMMARY

INTRODUCTION

The Cuyamaca College Master Plan (Master Plan) identifies the facilities needed to accommodate a maximum enrollment of 15,000 students at Cuyamaca College through the year 2015 and is based on the *Educational Master Plan* developed for the campus. The Master Plan includes 20 future construction and remodel projects proposed for development to accommodate the anticipated growth of the campus. Projects include the construction and remodeling of academic and administrative buildings, expansion of parking lots and physical education facilities, and renovation of existing buildings for code compliance and technology upgrades. Development of these projects would total a maximum of 125,000 assignable square feet (asf).

The Grossmont-Cuyamaca Community College District (District) is the Lead Agency and will review and consider written comments received on this Draft EIR (DEIR) in making its decision whether to certify the EIR as complete and in compliance with CEQA, to approve or deny the Master Plan, or take action on a project alternative. The District concluded that the Cuyamaca College Master Plan could result in potentially significant environmental impacts to the following issues: traffic and parking, air quality, aesthetics/visual quality, biological resources, cultural resources, hydrology/water quality, geology/soils, paleontology, utilities/services systems, noise, and population and housing.

The scope of analysis for this DEIR was determined by the District as a result of the preparation of a Notice of Preparation (NOP), dated April 28, 2003, to all Responsible and Trustee Agencies, as well as various governmental agencies including the State Clearinghouse. In addition, a public scoping meeting was held on May 8, 2003 to solicit input from interested agencies, individuals and organizations regarding the range of actions, alternatives, mitigation measures and significant effects to be analyzed in this Program EIR. During the NOP public review period and scoping meeting, written and verbal comments were received from both public agencies and individuals. A copy of the scoping meeting notice, scoping meeting transcript, NOP and the comment letters are contained in Appendix A of this document.

ENVIRONMENTAL SETTING

Cuyamaca College is located at 900 Rancho San Diego Parkway in the unincorporated community of Rancho San Diego in the County of San Diego, approximately two miles south of the City of El Cajon and 3.4 miles east of the City of La Mesa. The campus encompasses 165 acres, 83 of which are developed with community college facilities and 82 acres remain undeveloped, including a biological preserve area. Regional access is provided via State Route 94 (SR-94) and local access is provided via Jamacha Road (also known as State Route 54 [SR-54] and County Route S17), Fury Lane and Avocado Boulevard. Rancho San Diego Parkway serves as the primary access to the campus and Cuyamaca College Drive West provides secondary access to the site.

Cuyamaca College is characterized by gently rolling topography that slopes from northwest to southeast with steeper hillsides located in the western and northern portions of campus. On-site elevations range from approximately 350 feet above mean sea level (AMSL) at the southeastern corner of the campus to approximately 590 feet AMSL at the steep slopes along the western campus boundary. Approximately three percent (5.6 acres) of the campus is comprised of slopes of 25 percent or greater gradient. Existing drainage patterns convey on-site runoff south and east into the drainage that generally runs parallel to the eastern campus boundary and flows southerly toward the Sweetwater River.

The campus consists of academic and administrative buildings, physical education/recreation facilities, surface parking lots and undeveloped land. Academic and administrative buildings comprise approximately 24.3 acres of the campus and are generally located in the western portion of the campus configured around a seven-acre "Central Green." The Central Green is a large commons that serves as a central focal point of the campus and is characterized by grass lawns, ornamental landscaping and numerous pedestrian pathways. Other campus facilities include the Heritage of Americas Museum, the Outdoor Horticulture area, the Water Conservation Garden, Child Development Center and the Student Services One-Stop Center. Physical education/recreation facilities are generally located within the Physical Education (P.E.) Core in the northern portion of the campus. Outdoor P.E. facilities comprise approximately 18.7 acres of the campus. Existing parking at Cuyamaca College is provided by a number of paved and unpaved surface lots located throughout the campus. Parking areas encompass 14.7 acres and provide a total of 1,351 spaces.

A biological preserve area, containing Diegan coastal sage scrub and other habitats, is located along the western hillsides, portions of the northern valley that wraps around the P.E. field area and along the eastern edge of campus, near Fury Lane. The biological preserve also contains riparian habitat near the eastern campus boundary and steep slopes generally located along the western campus boundary.

PROJECT DESCRIPTION

During the 2002-2003 school year, approximately 8,000 students were enrolled at Cuyamaca College. The Master Plan identifies the facilities needed to accommodate a maximum enrollment of 15,000 students at Cuyamaca College and is based on the *Educational Master Plan* developed for the campus, which presents the educational programs and services for the planned campus capacity. The *Educational Master Plan* provides objectives for educational programs and administrative and student support services to enable Cuyamaca College to become comprehensive and to serve the learning needs of the students in the community. The *Educational Master Plan* projects program development based on enrollment to determine facilities requirements. Thus, implementation of the *Educational Master Plan* is dependent upon timely facilities development. The existing facilities have nearly reached maximum utilization, thereby hindering potential growth and comprehensiveness of the campus.

The purpose of the Master Plan is to guide the physical development and identify major and minor capital improvements for the campus through the year 2015. The *Cuyamaca College Master Plan* map identifies 20 future construction and remodel projects proposed for development to accommodate the anticipated growth of the campus.

The proposed Master Plan described herein is based on the following District objectives for Cuyamaca College:

- Develop facilities (approximately 125,000 asf), capital improvements and services that enable the campus to achieve its projected enrollment of 15,000 students contained in the *Educational Master Plan*.

- Foster an environment that promotes academic excellence, innovation, creativity and social responsibility through a diverse curriculum and services.

- Provide the community with high-quality learning opportunities which maximize the personal, social and intellectual experiences of its students.

- Protect, preserve and enhance the natural environment of the campus.

- Site new buildings in locations that offer programmatic advantages due to proximity to related academic disciplines.

- Design new buildings compatible in scale and style with existing structures.

- Provide adequate accessibility for the disabled in new and renovated buildings.

- Provide additional parking to accommodate anticipated enrollment increases.

Discretionary actions from the District include, but are not limited to approval of the Cuyamaca College Master Plan. Key permits required from other agencies include National Pollutant Discharge and Elimination System (NPDES) General Construction Permit and Municipal Stormwater Permit (Regional Water Quality Control Board [RWQCB]); NPDES Dewatering Waste Discharge Permit, if required (RWQCB); and Permits to Construct and/or Permits to Operate (San Diego County Air Pollution Control District).

SUMMARY OF ENVIRONMENTAL EFFECTS AND MITIGATION

The environmental effects discussed in Section 4.0 of the EIR are summarized in Table ES-1. In addition, this table summarizes the mitigation measures identified in Section 4.0 that would reduce project impacts. Impacts that have not been reduced to below a level of significance are also noted in the final column for each environmental impact issue, the detailed analyses and conclusions of which are found in Sections 4.1 through 4.11 of this report. Cumulative impacts, if applicable, are included along with direct impacts under the specific issue area in Table ES-1.

OTHER CEQA SECTIONS

The proposed Master Plan would not induce growth in the region because the construction of new campus facilities and parking lots and renovation of existing structures is directed at attracting students that already reside or are projected to reside in the District. People in the region, as well as individuals who reside outside the area would fill the majority of faculty and staff positions. Therefore, the Cuyamaca College Master Plan is expected to have minimal effect on regional population and would be considered a growth-accommodating proposal.

Implementation of the Master Plan would result in potential significant, irreversible impacts to biological and cultural resources through the development of new facilities. However, District participation in the County MSCP would ensure impacts to sensitive habitats and species are minimized and compensated through open space preservation afforded by the proposed biological preserve. Potential effects on unrecorded historic resources would represent a loss to those resources, which would be compensated through monitoring conducted during construction. The irreversible commitment of non-renewable resources, such as fossil fuels, natural gas, petroleum products, lumber and other construction materials is anticipated during Master Plan implementation. Increased energy demand associated with new buildings would be slightly offset through the renovation and update of existing structure on campus. No extension of new infrastructure or expansion of roads beyond levels anticipated in planning documents would be required to accommodate the Master Plan enrollment levels. The District would comply with all regulations and standards governing the use, storage, transport and disposal of hazardous materials which would reduce the likelihood and severity of any potential accidents that could cause irreversible environmental damage.

Based on a review of the project, the District determined that the proposed Master Plan would not have the potential to cause significant adverse effects associated with agricultural resources, hazards/hazardous materials, land use, mineral resources, noise (mobile and stationary sources), public services (fire, police, schools and parks) and recreation.

Table ES-1
SIGNIFICANT IMPACTS AND PROPOSED MITIGATION

IMPACT	MITIGATION MEASURES	ANALYSIS OF SIGNIFICANCE AFTER MITIGATION
4.1 TRAFFIC AND PARKING		
Under the Existing Plus Project and Long-term scenarios, impacts to the following roadway segments would be considered significant (on a project and/or cumulative level) and would require mitigation: • SR-94/Campo Road, from Jamacha Boulevard to SR-94/Campo Road • SR-54/Jamacha Road, from Cuyamaca College Drive West to Fury Lane • SR-54/Jamacha Road, from Fury Lane to Willow Glen Drive • SR-54/Jamacha Road, from Calle Albara to Hillsdale Road • Jamacha Boulevard, from Sweetwater Springs Road to San Miguel Street	<u>Existing Plus Project Conditions</u> The following recommended improvements are planned by the County as part of the SR 54/94 project, as described in the Phases 2 and 3 Preliminary Project Report (County of San Diego 2002): MM 4.1-1: The widening of SR-54/Jamacha Road between Cuyamaca College Drive West to Fury Lane from a four-lane major to a six-lane prime arterial standard. MM 4.1-2: The widening of SR-54/Jamacha Road between Fury Lane and Willow Glen Drive from a four-lane major to a six-lane prime arterial standard. The following roadway improvements are planned as part of the County Circulation Element and would mitigate both project and cumulative impacts to these roadway segments: MM 4.1-3: The widening of SR-54/Jamacha Road between Calle Albara to Hillsdale Road from a four-lane major to a six-lane prime arterial standard. MM 4.1-4: The improvement of Willow Glen Drive between Steele Canyon Road and Hillsdale Road from a two-lane collector to a four-lane major standard. MM 4.1-5: The improvement of Jamacha Boulevard between Sweetwater Springs Road to San Miguel Street from a two-lane collector to a four-lane major standard.	Less than Significant.

Table ES-1 (cont.)		
IMPACT	**MITIGATION MEASURES**	**ANALYSIS OF SIGNIFICANCE AFTER MITIGATION**
4.1 TRAFFIC AND PARKING (cont.)		
	Because SR-94, from Jamacha Boulevard to SR-94/Camp Road, is built to its County Circulation Element roadway classification and no additional improvements are planned by the County because of right-of-way limitations, the Master Plan would result in a significant unmitigable impact on both a project and cumulative level to this roadway segment. <u>Long-term Conditions</u> There is no feasible mitigation to reduce project and cumulatively significant impacts to SR-94/Campo Road (from Jamacha Boulevard to SR-94) and SR-54/Jamacha Road (from Cuyamaca College Drive West to Fury Lane) to below a level of significance due to the right-of-way constraints.	Significant, unmitigable.
Impacts to the following eight intersections under the Existing Plus Project and Long-term scenarios would be considered significant at a project and/or cumulative level: • Fury Lane at Rancho San Diego Parkway/Brabham Street • Avocado Boulevard at Fuerte Drive • Avocado Boulevard at Fury Lane • SR-94/Campo Road at Jamacha Boulevard • SR-54/Jamacha Road at Brabham Street • SR-54/Jamacha Road at Chase Avenue • Cuyamaca College Drive on campus • SR-54/Jamacha Road at Willow Glen Drive • Jamacha Boulevard at Sweetwater Spring Boulevard	<u>Existing Plus Project Conditions</u> MM 4.1-6: The District shall change the signal phasing and timing on the east-west approaches from split to protected phasing at the intersection of Fury Lane and Rancho San Diego Parkway/Brabham Street. MM 4.1-7: The County of San Diego will implement the following improvements to the intersection of SR-54/Jamacha Road and Brabham Street as part of the SR-54/-94 improvement project: – Restripe the westbound approach to include one left-turn lane, one through lane and one right-turn lane. – Revise the signal timing and phasing to include an eastbound right-turn overlap phase.	Less than significant.

Table ES-1 (cont.)		
IMPACT	MITIGATION MEASURES	ANALYSIS OF SIGNIFICANCE AFTER MITIGATION
4.1 TRAFFIC AND PARKING (cont.)		
	MM 4.1-8: The District shall revise the signal phasing and timing to include southbound to westbound and westbound to northbound right-turn overlap phases at the intersection of SR-54/Jamacha Road at Chase Avenue. MM 4.1-9: The County of San Diego will construct a westbound through lane at the SR-94/Campo Road and Jamacha Boulevard intersection as part of the SR-54/-94 improvement project. In addition, prior to enrolling 8,820 students, the District shall participate with the County to make the following additional improvements to the intersection in conjunction with the County improvements: – Restripe the northbound approach to include one share through lane/left-turn and two dedicated right-turn lanes. – Revise the signal phasing for the northbound and southbound approaches to split phasing. – Revise the signal phasing and timing to include a northbound and southbound right-turn overlap phase. Capacity improvements are planned by the County for Jamacha Boulevard and Willow Glen Drive as part of the Circulation Element. Provided those improvements are implemented in a timely manner by the County and they include intersection capacity increases, the following additional mitigation would not be required:	Less than significant.

<table>
<tr><th colspan="3">Table ES-1 (cont.)</th></tr>
<tr><th>IMPACT</th><th>MITIGATION MEASURES</th><th>ANALYSIS OF SIGNIFICANCE AFTER MITIGATION</th></tr>
<tr><td colspan="3">4.1 TRAFFIC AND PARKING (cont.)</td></tr>
<tr><td></td><td>MM 4.1-10: The County of San Diego will construct two left-turn lanes, three through lanes and a dedicated right-turn lane along SR-54/Jamacha Road at the SR-54/Jamacha Road and Willow Glen Drive intersection as part of the SR-54/-94 improvement project. In addition, prior to enrolling 9,060 students, the District shall provide for the following additional improvements at the intersection:
– Install two left-turn lanes, one through lane and a dedicated right-turn lane at the existing driveway.
– Install two left-turn lanes, one through lane and a share through/right-turn lane at the Willow Glen Drive.

MM 4.1-11: The County of San Diego shall provide for the reconfiguration of the southbound approach to include a dedicated left-turn lane, two through lanes and a dedicated right-turn lane at the intersection of Jamacha Boulevard at Sweetwater Springs in conjunction with future widening of Jamacha Boulevard consistent with its classification in the Circulation Element.</td><td></td></tr>
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Table ES-1 (cont.)		
IMPACT	**MITIGATION MEASURES**	**ANALYSIS OF SIGNIFICANCE AFTER MITIGATION**
4.1 TRAFFIC AND PARKING (cont.)		
	Long-term Conditions Implementation of the mitigation measures listed above under Existing Plus Project conditions plus the measures listed below would reduce significant impacts to intersections below a level of significance. MM 4.1-12: The District shall revise the signal timing and phasing on the eastbound approach to include a right-turn overlap phase at the intersection of Avocado Boulevard at Fuerte Drive. MM 4.1-13: The District shall revise the signal phasing and timing on the westbound approach to include a right-turn overlap phase at the intersection of Avocado Boulevard at Fury Lane.	
The Master Plan would not be significantly affect freeway segment operating conditions in the long-term.	None required.	Less than significant.
The Master Plan would not substantially increase hazards due to a design feature (i.e., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment). Therefore, impacts would be less than significant.	None required.	No impact.
The Master Plan would not result in inadequate emergency access. Therefore, impacts related to emergency access would be less than significant.	None required.	No impact.

Table ES-1 (cont.)		
IMPACT	**MITIGATION MEASURES**	**ANALYSIS OF SIGNIFICANCE AFTER MITIGATION**
4.1 TRAFFIC AND PARKING (cont.)		
Construction activities could potentially result in temporary removal of on-campus parking. Measures would be included in the traffic control plan that would ensure that student parking would not be adversely affected by construction activities. Therefore, for each project impacts related to temporary loss of parking during construction activities would be less than significant.	None required.	Less than significant.
The Master Plan would not conflict with adopted policies, plans or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).	None required.	No impact.
4.2 AIR QUALITY		
The Master Plan would not conflict or obstruct the implementation of the San Diego RAQS or applicable portions of the SIP.	None required.	No impact.
Construction of the Master Plan would result in fugitive dust emissions, which exceed the significance criterion of 100 lbs/day.	Standard measures to reduce the amount of fugitive dust generated from construction projects under the Master Plan and their respective control efficiencies include the following: MM 4.2-1: Multiple applications of water shall be applied during grading between dozer/scraper passes. MM 4.2-2: Paving, chip sealing or chemical stabilization of internal roadways shall be implemented after completion of grading. MM 4.2-3: Sweepers or water trucks shall be used to remove "track-out" at any point of public street access.	Less than significant.

Table ES-1 (cont.)		
IMPACT	**MITIGATION MEASURES**	**ANALYSIS OF SIGNIFICANCE AFTER MITIGATION**
4.1 TRAFFIC AND PARKING (cont.)		
	MM 4.2-4: Grading activities shall be terminated if wind speeds exceed 25 mph. MM 4.2-5: Soil (or other material) storage piles shall be stabilized by chemical binders, tarps, fencing or other erosion control measures. MM 4.2-6: Graded residential lots shall be hydroseeded to provide interim stability prior to the installation of permanent buildings, pavement and landscaping.	
The Master Plan would not exceed quantitative thresholds for O_3 precursors, oxides of nitrogen (NO_X) and Volatile Organic Compounds (VOCs).	None required.	Less than significant.
Diesel exhaust particulate matter emitted during construction from heavy equipment used in the construction process would be temporary in nature and would not result in long-term emissions of diesel exhaust particulate matter.	None required.	No impact.
The Master Plan would not result in significant operational impacts related to emissions of particulate matter, criteria pollutants or creation of CO "hot spots."	None required.	Less than significant.

Table ES-1 (cont.)		
IMPACT	**MITIGATION MEASURES**	**ANALYSIS OF SIGNIFICANCE AFTER MITIGATION**
4.3 AESTHETICS/VISUAL QUALITY		
The Master Plan would not result in a substantial adverse effect on a scenic vista.	None required.	No impact.
The Master Plan would not affect scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.	None required.	No impact.
Development of the Master Plan would alter the existing visual character of the campus. This change, however, would not substantially degrade the existing visual character or quality of the site and its surroundings.	None required.	Less than significant.
The Master Plan would create new sources of light or glare that would incrementally increase the ambient lighting on campus and its immediate environs, which could potentially affect day or nighttime views in the area, particularly at adjacent residential uses.	MM 4.3-1: The design of future construction projects shall incorporate the use of non-reflective exterior building materials to minimize glare. MM 4.3-2: All proposed outdoor lighting shall be shielded and directed to minimize spillover onto adjacent residential areas.	Less than significant.

Table ES-1 (cont.)		
IMPACT	**MITIGATION MEASURES**	**ANALYSIS OF SIGNIFICANCE AFTER MITIGATION**
4.4 BIOLOGICAL RESOURCES		
Construction of new facilities to the full extent of the proposed Master Plan would impact eight sensitive vegetation communities on the campus, including 0.03 acre of southern arroyo willow riparian forest, 0.17 acre of southern cottonwood willow riparian forest, and 0.09 acre of southern willow scrub.	Impacts to sensitive upland and non-jurisdictional wetland habitats on the campus are considered fully mitigated by fulfillment of the District's MSCP obligations. MM 4.4-.1: The final designs for projects that would affect wetland habitats, such as the eastern parking lots, should be modified to avoid impacts to the jurisdictional areas. If impacts to wetland habitats cannot be avoided during the design phase of new facilities, the District shall replace wetland habitats at a ratio of 3:1, consisting of 1:1 wetland creation and 2:1 wetland enhancement, restoration or creation, based on the extent and quality of habitat impacted. Thus, up to 0.29 acre of wetland creation would be required (0.03 acre of southern arroyo willow riparian forest, 0.17 acre of southern cottonwood willow riparian forest and 0.09 acre of southern willow scrub) and up to 0.58 acre of enhancement, restoration or creation (0.06 acre of southern arroyo willow riparian forest, 0.34 acre of southern cottonwood willow riparian forest and 0.18 acre of southern willow scrub), for a total wetland mitigation requirement of 0.87 acre for the entire Master Plan. The location of the mitigation area(s) and other details of the restoration effort shall be contained in a wetland restoration plan that would be prepared by a qualified biologist and approved by the resource agencies.	Less than significant.

Table ES-1 (cont.)		
IMPACT	**MITIGATION MEASURES**	**ANALYSIS OF SIGNIFICANCE AFTER MITIGATION**
4.4 BIOLOGICAL RESOURCES (cont.)		
Construction of projects proposed in the Master Plan might impact a few individuals of San Diego sunflower, a CNPS List 4 and County Group D sensitive plant species. Impacts to the San Diego sunflower would be less than significant due to compliance with the County MSCP Subarea Plan.	None required.	No impact.
Implementation of projects proposed in the Master Plan would impact habitats that support sensitive animal species observed on the campus, including coastal California gnatcatcher, orange-throated whiptail, coastal whiptail, southern California rufous-crowned sparrow, yellow warbler and San Diego black-tailed jackrabbit. Due to the low sensitivity of these species, with the exception of the gnatcatcher, impacts would be adverse but not significant.	Impacts to sensitive animal species on campus are considered fully mitigated by fulfillment of the District's MSCP obligations.	Less than significant.
Construction of the proposed project would potentially impact raptor or other sensitive bird species nesting habitat.	MM 4.4-2: If clearing or grading is planned to occur during the breeding season for raptors (February 1 through July 31), a pre-construction survey shall be conducted to determine the presence or absence of these species within 500 feet of proposed construction. If there were no sensitive birds nesting within this area, construction activities shall be allowed to proceed. However, if any sensitive birds are observed nesting within this area, one of two actions shall be taken: (1) development shall be postponed until all nesting has ceased or until after July 31, or has been moved far enough away to not impact the birds; or (2) a temporary noise barrier or berm shall be constructed within the edge of the development footprint (not within the proposed preserve) to ensure that noise and activity levels do not impact the nesting birds.	Less than significant.

Table ES-1 (cont.)			
IMPACT	**MITIGATION MEASURES**		**ANALYSIS OF SIGNIFICANCE AFTER MITIGATION**
4.4 BIOLOGICAL RESOURCES (cont.)			
Construction-related noise may significantly impact coastal California gnatcatchers and other sensitive birds that may be nesting within 500 feet of the proposed development areas.	MM 4.4-3:	If clearing or grading is planned to occur during the breeding season for coastal California gnatcatchers (February 15 through August 15) and/or raptors (February 1 through July 31), a pre-construction survey should be conducted to determine the presence or absence of these species within 500 feet of the proposed construction. Preliminary clearing or grading shall be monitored by a qualified biologist who shall have the power to stop the activity or move it further away from any active nest of a gnatcatcher or raptor if deemed necessary to avoid nest abandonment.	Less than significant.
The proposed biological preserve contained in the Master Plan would result in a 3.9-acre deficiency in coastal sage scrub from the preservation requirements in the 1994 Habitat Loss Permit (HLP).	MM 4.4-4:	The proposed Master Plan biological preserve shall be increased in areas adjacent to the biological preserve where sensitive habitat occurs and development is not proposed. The preserve area in the west, north and northeastern sides of the Master Plan footprint shall be expanded as shown in Figure 4.4-3, *Biological Preserve Additions*. Table 4.4-6, *Habitats and Proposed Preserve Areas*, contains a summary of the habitats preserved by the expanded biological preserve. A total of 45.8 acres of coastal sage habitat shall be conserved on the campus within the biological preserve. The 1.7-acre deficit of coastal sage scrub preservation shall be compensated through the restoration of 1.7 acres of coastal sage scrub habitat within disturbed or non-coastal sage scrub areas of the MSCP preserve on the campus. A restoration plan shall be prepared and implemented by a qualified biologist and shall specify the site preparation requirements, location of the restoration area(s), proposed plant palette and monitoring requirements.	Less than significant.

Table ES-1 (cont.)		
IMPACT	**MITIGATION MEASURES**	**ANALYSIS OF SIGNIFICANCE AFTER MITIGATION**
4.4 BIOLOGICAL RESOURCES (cont.)		
Deterioration of habitat quality in the eastern portion of the biological preserve, degradation of the previous restoration area and the lack of habitat management have undermined the value of the more accessible portions of preserved habitat.	MM 4.4-5: Restoration of disturbed areas and appropriate protection of habitat shall be implemented to maintain the conservation values of the proposed biological preserve. Measures shall include removal of invasive exotics, including the patch of giant reed in the preserve near Fury Lane, removal of any off-road moguls, restoration of disturbed and non-native habitats within the biological preserve to coastal sage scrub, restoration of disturbed coastal sage scrub areas including the area restored during the mid-1990s and provision of signage and some form of fencing to prevent access to the preserve by the public from Fury Lane. Actions to accomplish this shall be detailed in a restoration plan to be prepared by a qualified biologist. MM 4.4-6: For any development adjacent to the proposed preserve, temporary construction fencing shall be erected to demarcate the boundary of disturbance. A biological monitor shall be present daily for all habitat clearing and shall monitor grading and construction to ensure compliance with all avoidance, permitting and mitigation measures during construction.	Less than significant.
Potential surface water quality effects on biological resources would be avoided by District compliance with control requirements of the NPDES enforced by the Regional Water Quality Control Board during the construction and operation of the proposed facilities.	None required.	Less than significant.

Table ES-1 (cont.)		
IMPACT	**MITIGATION MEASURES**	**ANALYSIS OF SIGNIFICANCE AFTER MITIGATION**
4.4 BIOLOGICAL RESOURCES (cont.)		
Fugitive dust dispersal onto sensitive vegetation could be significant; however, implementation of dust control mitigation measures required under Air Quality would reduce dust impacts to less than significant.	None additional required.	Less than significant.
Colonization by non-native plant species in non-impact areas and the resulting degradation of habitat used by native species would be considered a significant impact; however, impacts potentially would be less than significant because these areas already contain a prevalence of weeds and the surrounding area would be restored with native species.	None required.	Less than signficant.
Human activity includes such activities as creation of new trails, removal of existing vegetation and illegal dumping, all of which may significantly impact the surrounding native habitat.	MM 4.4-7: All open space areas shall be posted with signage containing information regarding habitat sensitivity and citing that dumping or disturbance of habitat is prohibited. In addition, a split-rail or other form of fencing shall be built to indicate to the public that the habitats adjacent to Fury Lane are protected.	Less than significant.
Roadkill impacts would be considered significant if it resulted in adverse effects to federally or state listed species; however, ingress and egress from the campus is mostly through urban areas. Therefore, effects from roadkill are expected to be less than significant.	None required.	Less than significant.
Night lighting on native habitats may result in altered behavioral patterns of wildlife species, and possibly a decrease in native species diversity of the site.	MM 4.4-8: All construction equipment storage areas and new buildings or athletic facilities shall be lit with low illumination fixtures that are shielded and directed downwards and away from adjacent native habitat areas.	Less than significant.

Table ES-1 (cont.)

IMPACT	MITIGATION MEASURES		ANALYSIS OF SIGNIFICANCE AFTER MITIGATION
4.5 CULTURAL RESOURCES			
Parking lot construction for the Master Plan could result in potentially significant impacts due to the potential to encounter historic resources associated with past farming on campus property.	MM 4.5-1:	Prior to commencement of grading/excavation in the future sites of parking lots 12 and 16, the District or construction contractor shall retain the services of a qualified archaeologist to implement an archaeological monitoring and recovery program. The retained archaeologist shall attend the pre-construction meeting and shall be present half-time during grading/excavation at the beginning of project grading and/or excavation and shall be increased or decreased depending on initial results (per direction of the archaeologist). In the event of a discovery, the archaeologist shall have the authority to temporarily halt or redirect construction activities in the area of discovery to allow for preliminary evaluation of potentially significant archaeological resources. The archaeologist, in consultation with the District, shall determine the significance of the discovery, if applicable. For significant resources, a recovery program shall be prepared and carried out to mitigate impacts before ground disturbing activities in the area of discovery are resumed. A report summarizing the results, analysis and conclusions of the monitoring program shall be submitted to the District within three months following termination of monitoring activities.	Less than significant.
The Master Plan would not disturb any human remains, including those interred outside of formal cemeteries.	None required.		No impact.

Table ES-1 (cont.)		
IMPACT	**MITIGATION MEASURES**	**ANALYSIS OF SIGNIFICANCE AFTER MITIGATION**
4.6 HYDROLOGY/WATER QUALITY		
The Master Plan would not substantially alter existing drainage patterns.	None required.	No impact.
Construction of new impervious surfaces would increase runoff volumes and velocities within the campus by reducing infiltration capacity and measuring potential for erosion and contaminant loading. Implementation of and conformance with NPDES Phase II Permit requirements would reduce potential impacts related to increased runoff volumes and velocities below a level of significance.	None required.	Less than significant.
Increased storm flows both within and downstream of the campus would be minimized through conformance with NPDES Phase II Permit requirements. Therefore, impacts related to storm drain capacity or associated flooding hazards would be less than significant.	None required.	Less than significant.
The Master Plan would not place housing within a mapped Federal Emergency Management Agency (FEMA) 100-year flood hazard area, or place structures within a 100-year flood hazard area such that flood waters would be impeded or redirected.	None required.	No impact.
The Master Plan would not deplete groundwater supplies or interfere with groundwater recharge.	None required.	No impact.

Table ES-1 (cont.)		
IMPACT	**MITIGATION MEASURES**	**ANALYSIS OF SIGNIFICANCE AFTER MITIGATION**
4.6 HYDROLOGY/WATER QUALITY (cont.)		
The Master Plan would not violate any standards related to surface or groundwater quality, violate any waste discharge requirements, or otherwise substantially degrade water quality (including through project-generated erosion/sedimentation).	None required.	No impact.
4.7 GEOLOGY/SOILS		
The Master Plan would not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death, involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure (including liquefaction) or landslides.	None required.	Less than significant.
The Master Plan could potentially include manufactured (cut and fill) slopes and/or rigid concrete or masonry retaining walls, which can be subject to instability effects. Implementation of appropriate design measures and conformance with technical recommendations/industry standards would reduce potential impacts below a level of significance.	None required.	Less than significant.
The potential for occurrence of expansive materials on the campus is considered generally low. Implementation of appropriate measures and conformance with technical recommendations/industry standards would reduce potential impacts related to expansive soils below a level of significance.	None required.	Less than significant.

Table ES-1 (cont.)		
IMPACT	**MITIGATION MEASURES**	**ANALYSIS OF SIGNIFICANCE AFTER MITIGATION**
4.7 GEOLOGY/SOILS (cont.)		
The campus could potentially contain corrosive soils. Associated potential impacts on underground structures are considered potentially significant.	MM 4.7-1: If deemed necessary by the project engineering geologist(s), site-specific geotechnical investigations conducted prior to all new construction proposed under the Master Plan shall include an investigation of potential corrosion hazards by a qualified corrosion engineer. The results of these analyses shall be incorporated into the final project design, as appropriate, to mitigate potential corrosion impacts, and may include (but not be limited to) measures such as: excavation (or overexcavation) and treatment, and/or removal and replacement (i.e., with engineered fill) of corrosive materials; use of non-corrosive and/or corrosion-resistant building materials in appropriate locations; and installation of cathodic protection devices.	Less than significant.
4.8 PALEONOTOLGY		
The Master Plan would result in potentially significant impacts related to disturbance of fossiliferous formations with high paleontological resource sensitivity.	MM 4.8-1: A qualified paleontologist will be retained to implement a paleontological monitoring and recovery program as a condition of the project construction contract. A qualified paleontologist is defined as an individual with an M.S. or Ph.D. in paleontology or geology who is a recognized expert in the identification and recovery of fossil materials.	Less than significant.

Table ES-1 (cont.)		
IMPACT	**MITIGATION MEASURES**	**ANALYSIS OF SIGNIFICANCE AFTER MITIGATION**
4.8 PALEONOTOLGY (cont.)		
	MM 4.8-2: The qualified paleontologist will attend the project pre-construction meeting to discuss proposed grading plans with the project contractor(s). If the qualified paleontologist determines that proposed grading/excavation activities will likely extend to depths of 10 feet or more and include more than 1,000 cy of material within undisturbed portions of high sensitivity Jurassic metavolcanic or metasedimentary rocks, then monitoring will be conducted as outlined below. MM 4.8-3: The project paleontologist or a paleontological monitor will be onsite during original cutting of the above noted geologic units. A paleontological monitor is defined as an individual who has experience in collection and salvage of fossil materials, and who is working under the direction of a qualified paleontologist. Monitoring of the noted geologic units will be at least half-time at the beginning of excavation, and will be either increased or decreased depending on initial results (per direction by the project paleontologist). MM 4.8-4: In the event that well-preserved fossils are discovered, the project paleontologist will have the authority to temporarily halt or redirect construction activities in the discovery area to allow recovery in a timely manner (typically on the order of 1 hour to 2 days). All collected fossil remains will be cleaned, sorted, catalogued and deposited in an appropriated scientific institution such as the San Diego Museum of Natural History.	

Table ES-1 (cont.)		
IMPACT	**MITIGATION MEASURES**	**ANALYSIS OF SIGNIFICANCE AFTER MITIGATION**
4.8 PALEONOTOLGY (cont.)		
	MM 4.8-5: A report (with a map showing fossil site locations) summarizing the results, analyses and conclusions of the above described monitoring/recovery program will be submitted to the District within three months of terminating monitoring activities.	
4.9 UTILITIES/SERVICE SYSTEMS		
Increased demand on water service and sewer service would be accommodated by existing capacity in the infrastructure surrounding the campus. Regional water supplies for San Diego and southern California are sufficient to satisfy the future needs of the campus.	None required.	Less than significant.
The Master Plan would not be serviced by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.	None required.	Less than significant.
4.10 NOISE		
Noise generated during construction activities would result in a temporary substantial increase in noise on the campus and at the existing residential uses to the south. Therefore, construction noise impacts on off-campus residential uses are considered potentially significant.	MM 4.10-1: The District shall require by contract specifications incorporation of the following construction noise attenuation measures during construction activities: • Construction equipment shall be properly maintained and equipped with noise mufflers or other noise-reduction devices to minimize construction noise. • Stationary construction equipment (i.e., generators, pumps) shall be located, to the extent possible, a minimum of 100 feet from noise-sensitive land uses.	

Table ES-1 (cont.)		
IMPACT	**MITIGATION MEASURES**	**ANALYSIS OF SIGNIFICANCE AFTER MITIGATION**
4.10 NOISE (cont.)		
	• Laydown and construction staging areas shall be located, to the extent feasible, a minimum of 100 feet from noise sensitive land uses. • Construction activities shall be limited to the hours between 7:00 AM and 7:00 PM, Monday through Saturday. No construction shall occur on Sundays and legal holidays, except in the case of emergency, to minimize disruption to area residents and on-campus noise sensitive uses. • Within 72 hours of the commencement of construction activities, the District shall notify in writing academic, administrative and residential areas adjacent to construction activities of the construction activities, hours and duration, including a point of contact in which to report construction noise complaints.	Less than significant.
4.11 POPULATION AND HOUSING		
The Master Plan would not induce substantial population growth, either directly or indirectly.	None required.	No impact.
The Master Plan would not displace existing housing or people, necessitating the construction of replacement housing elsewhere.	None required.	No impact.

ALTERNATIVES

No Project Alternative

The No Project Alternative assumes that the Master Plan would not be adopted, no expansion or remodel of the existing academic and student support uses would be implemented and no new parking lots would be built on campus. Existing campus facilities at Cuyamaca College would not be retrofitted for code compliance and technology systems. Student enrollment would essentially be capped at 8,000 students under the No Project Alternative. Under this condition, student growth anticipated in the region would have to be accommodated at Grossmont College and the other campuses in the adjacent community college districts (i.e., Southwestern College, Mesa College or Miramar College). Because Grossmont College's ability to grow may be capped at 20,000 students by their proposed Master Plan, many prospective students would have travel to classes outside the District to satisfy their educational needs. The 1991 Master Plan in place at Cuyamaca College would be the comprehensive plan for guiding any student support facilities to serve the existing population.

The No Project Alternative would eliminate impacts of the proposed Master Plan on air quality, cultural resources, geology/soils, paleontology, utilities/service systems and noise. Significant project impacts to traffic would be avoided by eliminating future vehicular trips; however, the campus would still contribute to certain cumulative impacts because future (long-term) traffic conditions without the project would be unacceptable in the future.

Under the No Project Alternative, the Biological Preserve proposed in the Master Plan would not be implemented on campus, however, the western/northern/eastern portions of the campus would still be contained in open space as part of the campus compliance with their habitat loss permit (HLP) and the County Multiple Species Conservation Program (MSCP) Subarea Plan. Since no new development would occur on campus, direct impacts to sensitive habitats, including wetlands, would not occur. Indirect impacts to the habitat preserved in the open space would continue since there are no measures in place to protect the resources.

Under the No Project Alternative, the amount of impervious surfaces on campus would not increase nor would runoff or run-on from campus. Runoff quantities or velocities would not change and the existing campus storm drain system would not be expanded or modified to accommodate runoff. The campus would eventually be required to comply with the storm water pollution prevention planning (SWPPP) efforts identified for MS4s. However, if no new construction were proposed on campus, then the construction-related NPDES requirements would not be needed. No new sources of contaminates would be developed.

The No Project Alternative would not allow the expansion of a community college campus whose campus population is projected to increase along with local population growth. Besides conflicting with the basic project objectives outlined above, the No Project Alternative would not assist the District in building more capacity into the existing facilities.

Reduced Enrollment Alternative

Under the Reduced Enrollment Alternative, an expansion of facilities and student enrollment at Cuyamaca College would occur, although only to levels that would avoid the significant traffic impacts of the proposed Master Plan. If campus enrollment is capped at 10,000 students (or 2,000 more students than existing levels), then the additional vehicular trips associated with this alternative would be 2,400 or less, which is a level that would not be considered a large-scale project by the SANDAG Congestion Management Plan Update. Small-scale projects do not require detailed traffic analysis because it is assumed that their impacts would be less than significant. The size of projects constructed under this alternative would be less than under the proposed Master Plan. In addition, identified expansions of existing and proposed campus buildings, such as the Science and Technology Mall, Learning Resources Center (LRC), Student Center, Communication Arts and P.E. facilities, would not likely be implemented. Some expansion of course offerings would occur, as would retrofit/renovation of existing facilities for code compliance and technology systems.

Potentially significant impacts to biological resources, cultural resources, geology/soils, paleontology and noise, similar to impacts of the Master Plan, would occur under the Reduced Enrollment Alternative. This alternative would avoid significant direct traffic impacts of the proposed Master Plan, although cumulatively significant impacts on traffic would not be avoided. In addition, it would lessen project effects on air quality and utilities/service systems caused by increasing campus population. Similar to the proposed Master Plan, no impacts to population and housing would occur under the Reduced Project Alternative since any campus construction would only accommodate, rather than trigger, population growth. However, this alternative would conflict with the basic project objectives of fostering academic programs that are consistent with the *Educational Master Plan* and achieving its predicted enrollment because not as much new construction or programs would be implemented as under the proposed Master Plan. In addition, if Cuyamaca College were not expanded as proposed, the District would lose students to other campuses that offered more comprehensive courses. For these reasons, the Reduced Enrollment Alternative is rejected as infeasible.

Alternative Location

The Alternative Location would entail the construction of expanded facilities at Grossmont College to accommodate the projected student population growth at Cuyamaca College (7,000 students). According to the Cuyamaca College Master Plan, Grossmont College has the potential for a student base of approximately 32,000 students by 2015 based the state-forecasted participation rates and projected population for the District (Spencer/Hoskins 2000a). In the Alternative Location condition, the District would expand campus facilities and parking supply at Grossmont College to accommodate the 7,000 additional students projected to attend Cuyamaca College. In the proposed Master Plan for Grossmont College, student enrollment would be capped at 20,000 students (Spencer/Hoskins 2000b). To handle the increased student load of 27,000 students at Grossmont College, the proposed buildings and parking facilities described in that campus' proposed Master Plan would have to be upsized and upgraded. Cuyamaca College, on the other hand, would remain at its current enrollment level of approximately 8,000 students and current course offerings would not change. Both the Educational Master Plan and Facilities Master Plan for Grossmont College would have to be modified for this alternative to be implemented.

Increased student enrollment would have a direct effect on traffic and parking in and around the Grossmont College campus. The additional 7,000 students from Cuyamaca College would produce 8,400 daily trips in the vicinity of the other campus (in addition to the 2,400 trips anticipated as part of the proposed Master Plan at that campus). The addition of future traffic from predicted growth at the Grossmont College campus plus regional growth and District growth that would be redirected from Cuyamaca College under this alternative would place additional strain on that campus' roadway network and local intersections. This alternative would likely result in significant traffic impacts, although less than anticipated near the Cuyamaca College campus because more roadway and intersection capacity appears to exist in the Grossmont College area.

This alternative could result in a significant impact to on-campus parking supply given the space limitations at the Grossmont College campus. This impact would continue to spill over onto off-campus roadways where students find alternative parking opportunities.

From an air quality perspective, in order to develop sufficient facilities at Grossmont College to handle the increased student enrollment from Cuyamaca College, construction projects would overlap and temporarily produce elevated levels of fugitive dust (PM_{10}), which could exceed the County's significance threshold of 100 pounds/day. Similar to the proposed Master Plan, standard measures to control dust would be required as mitigation for this significant impact. The increased traffic associated with this alternative would not likely produce CO hotspots because there appears to be more capacity at the intersections in the vicinity of Grossmont College. Impacts to both local and regional air quality would not be significantly impacted by this alternative.

Development of the Alternative Location condition at Grossmont College would slightly change the visual character of the campus due to the likely intensification of college uses. However, this alternative would not substantially increase project effects on aesthetics and visual quality.

Increasing student population at Grossmont College under this alternative would have minimal direct impact on biological and cultural resources, since all structures and parking required to accommodate 7,000 more students would be constructed within developed or developing areas of the campus. If additional land area were to be required to construct the necessary facilities, significant impacts to native habitat, including coastal sage scrub, would occur and significant impacts to cultural resources in undisturbed areas could occur.

Under the Alternative Location condition, the amount of impervious surfaces at the Cuyamaca College campus would not increase and minimal increase would be anticipated at the Grossmont College campus. Runoff quantities or velocities would not substantially change and the existing campus storm drain system would not likely be expanded or modified to accommodate new runoff.

No significant hydrology/water quality impacts are anticipated for this alternative.

The Grossmont College campus contains fairly deep canyon fills (i.e., 80 to 100 feet deep), which would present a substantial constraint on potential building and parking garage development on the campus (Spencer Hoskins 2000b). In addition, the campus is known to have soils that have expansive qualities, although the extent to which they are present is not known due to the amount of grading and excavation of native material that went on during the original campus construction. Therefore, there is the possibility that expanding campus development at Grossmont College in geotechnically constrained areas could result in significant impacts to those facilities that would not occur at Cuyamaca College.

The Grossmont College campus is underlain by four geologic formations known to have a moderate to high sensitivity for paleontological resources. The chances of encountering fossil bearing formations during construction are much greater at Grossmont College than at Cuyamaca College. Therefore, significant impacts would be expected for all new construction involving excavation/grading proposed under this alternative.

Under the Alternative Location condition, water and wastewater demand would be redirected from Otay Water District to Padre Dam Municipal Water District and the City of El Cajon. The service areas for these providers are heavily urbanized and infrastructure services a large amount of existing development such that the incremental increase in demand from this alternative would not adversely affect their ability to provide service in the area. Because solid waste generated from Grossmont College would likely be deposited at the same two landfills which service the Cuyamaca College area, this alternative would have the same less than significant impacts as the proposed Master Plan on landfill capacity in the region.

Construction-related noise would be produced at the Grossmont College campus under this alternative. The amount of new construction would likely be more than anticipated in the Master Plan proposed for that campus. Since the bulk of the additional Master Plan improvements would likely occur away from residents to the south of the campus, temporary construction noise impacts on off-campus residences would be less than anticipated for the proposed Master Plan. However, significant impacts to on-campus uses, such as classrooms and the library, would be similar to those anticipated at the Cuyamaca College campus.

Similar to the proposed Master Plan, increasing enrollment at Grossmont College, even above levels anticipated in the proposed Master Plan for that campus, would not induce growth in population or a need for additional housing in the area.

The Alternative Location would not achieve the basic project objectives of satisfying the Educational and Facilities Master Plan of both Cuyamaca and Grossmont Colleges. The age of the buildings at Grossmont College combined with the increased pressure to grow student population may require substantial amounts of new construction to achieve this alternative. In order to maximize the use of the usable portions of the Grossmont College campus, new construction may not be compatible in scale with existing campus buildings, which also conflicts with a project objective. For these reasons, the Alternative Location is rejected as infeasible.

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1.0 INTRODUCTION

This Draft Environmental Impact Report (EIR) addresses the potential environmental effects associated with the implementation of the Cuyamaca College Master Plan (Master Plan). The Master Plan is a comprehensive land use plan that provides a framework for the physical development of the campus to accommodate growth of Cuyamaca College to an enrollment of 15,000 students. A detailed description of future construction projects, as set forth in the Master Plan, is contained in Section 3.0, *Project Description*. This EIR assesses the anticipated individual and cumulative impacts of the College's physical development, pursuant to the Master Plan; identifies means of avoiding or minimizing potential adverse environmental impacts; and evaluates a reasonable range of alternatives.

1.1 BACKGROUND

Due to current and projected enrollment demand for higher education over the next decade, the Grossmont-Cuyamaca Community College District (District) began studying the feasibility of enrollment growth at its campuses, including Cuyamaca College. Population growth within the District's boundary is expected to substantially increase by the year 2015. While the percentage increase from 1990 to 1996 was only 10 percent, a 30 percent increase is anticipated by the year 2015. In addition, areas surrounding the campus are expected to increase in population by 50 to 100 percent within the same time period. This growth will have a major impact on enrollment at Cuyamaca College. As of 2002-03, enrollment at Cuyamaca College is approximately 8,000 students, which is expected to increase to 15,000 over the next decade. In response to this anticipated growth, the District prepared the Cuyamaca College Master Plan.

1.2 PURPOSE AND LEGAL AUTHORITY

Under the California Environmental Quality Act (CEQA) of 1970 (California Public Resources Code Section 21000 et. seq.), if a lead agency determines that there is substantial evidence in light of the whole record that a project may have a significant effect on the environment, the agency must prepare a draft EIR (State CEQA Guidelines Section 15064(a)(1). The purpose of an EIR is to inform public agency decision makers and the public generally of the potentially significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project (State CEQA Guidelines Section 15121(a)). This EIR is an informational document for use by the District, the Governing Board and members of the general public to evaluate the environmental effects of the implementation of the Cuyamaca College Master Plan.

This document has been prepared in accordance with all criteria, standards and procedures of CEQA and the State CEQA Guidelines (California Administrative Code 15000 et. seq.). The District is the Lead Agency, pursuant to Sections 15051 and 15367 of the State CEQA Guidelines, which define the Lead Agency as the public agency that has the principal responsibility for carrying out or approving a project.

1.3 TYPE OF EIR

Program EIR

The Master Plan is a comprehensive land use plan that provides a framework for the physical development of Cuyamaca College to accommodate campus growth to a maximum of 15,000 students. It does not constitute a commitment to implement any specific project, construction schedule or funding priority but rather, describes the comprehensive development of approximately 125,000 assignable square feet of academic, administrative, support and recreation space. Each development proposal included in the Master Plan must be approved individually by the District Governing Board. Thus, this EIR contains a program-level analysis that evaluates the effects of the implementation of the Master Plan as a whole. Pursuant to Section 15168 of the State CEQA Guidelines, a program EIR may be prepared on a series of actions that can be characterized as one large project and are related either: (1) geographically; (2) as logical parts in the chain of contemplated actions; (3) in connection with issuance of rules, regulations, plans or other general criteria to govern the conduct of a continuing program; or (4) as individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.

Future Environmental Review

The intent of this EIR is to provide programmatic environmental review for all proposed projects on the Cuyamaca College campus identified in the Master Plan and as much project-level review as possible given the amount of detail specified for the individual projects. When subsequent project proposals move forward through the planning and design process, the District will determine their consistency with the Master Plan and this program EIR.

Certain circumstances may arise that could trigger consideration for subsequent CEQA review of projects proposed under the Master Plan. Pursuant to Section 15162of the State CEQA Guidelines, those circumstances could consist of several conditions, including the following:

- Substantial changes are proposed in the project or substantial changes have occurred with respect to circumstance which will require major revisions of the previous EIR due to the identification of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or

- New information of substantial importance arises which shows that the project will have one or more significant environmental effects not discussed in the prior EIR or significant effects will be substantially more severe than previously examined.

Should a project not trigger the above circumstances, then significant environmental effects of the project will be determined to be adequately addressed in the program EIR (Section 15064(f)(3) of the State CEQA Guidelines) if:

- The impacts would be mitigated or avoided as a result of the prior EIR and Findings adopted in connection with that prior EIR, or

- The impacts have been examined in sufficient detail in the prior EIR to enable those effects to be mitigated or avoided by site-specific revisions, the imposition of conditions or by other means in connection with approval of the project.

The appropriate level of CEQA review (i.e., addendum, negative declaration or subsequent EIR) would be determined by the District based on a review of the degree to which the project would conform with or deviate from the basic assumptions and impacts described in the Master Plan and EIR. If the District finds that pursuant to Section 15162 of the State CEQA Guidelines, no new effects could occur or no new mitigation measures would be required, they can approve the project as being within the scope of the program EIR and no new environmental document would be required.

1.4 EIR REVIEW PROCESS

Scoping

The District, as Lead Agency, filed and distributed a Notice of Preparation (NOP) on April 29, 2003, to all Responsible and Trustee agencies, as well as various governmental agencies, including the State Clearinghouse. In addition, a public scoping meeting was held on May 8, 2003 to solicit input from interested agencies, individuals and organizations regarding the range of actions, alternatives, mitigation measures and significant effects to be analyzed in this Program EIR.

During the NOP public review period, written and verbal comments were received from both public agencies and individuals. A copy of the scoping meeting notice, scoping meeting transcript, NOP and the comment letters are contained in Appendix A of this document.

The District identified potentially significant environmental impacts associated with the following issues:

- Aesthetics/Visual Quality
- Air Quality
- Biological Resources
- Cultural Resources
- Geology and Soils
- Hydrology/Water Quality
- Noise
- Population/Housing
- Traffic/Parking
- Utilities/Service Systems

These issues, as they pertain to the proposed project, are discussed in detail in Section 4.0, *Environmental Analysis*, of this EIR. Effects that were determined not to be potentially significant are addressed in Section 5.0, *Other CEQA Sections*.

Public Review

This Draft EIR is available for review by the public and public agencies for 45 days to provide comments "on the sufficiency of the document in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the project might be avoided or mitigated" (Section 15204, State CEQA Guidelines). The public review period will begin on December 24, 2003 and end on February 16, 2004. During the public review period, the Draft EIR will be available at the Cuyamaca College Learning Resources Center, as well as at the following off-campus public libraries:

San Diego County Public Library,
Casa De Oro Branch
9805 Campo Road
Spring Valley, CA 91977

San Diego County Public Library,
Rancho San Diego Branch
11555 Via Rancho San Diego
El Cajon, CA 92019

In addition, the Draft EIR will be available at the Grossmont-Cuyamaca Community College District offices located at 8800 Grossmont College Drive, El Cajon, California 92020 during normal business hours (8:00 a.m. to 5:00 p.m., Monday through Friday, excluding holidays).

Written comments on the EIR should be addressed to:

Dale Switzer, Director, Facilities Planning and Development
Grossmont-Cuyamaca Community College District
8800 Grossmont College Drive
El Cajon, California 92020
Fax (619) 644-7911

Following the public review period, responses to comments will be prepared regarding the adequacy of the Draft EIR. The comments and responses, together with the Draft EIR and all technical appendices, and the Mitigation Monitoring and Reporting Program (MMRP) will comprise the Final EIR. The Final EIR will be considered by the District Governing Board for certification in accordance with Section 15090 of the State CEQA Guidelines. The District Governing Board must consider the Final EIR prior to any decision to approve or reject the proposed project. If the Final EIR is certified, written findings will be prepared for each significant adverse environmental effect identified in the Final EIR, as required by Section 15091 of the State CEQA Guidelines. The District must also adopt the MMRP to ensure compliance with mitigation measures identified in the Final EIR that would reduce or avoid potentially significant impacts.

Where no feasible mitigation measures exist that would otherwise reduce potentially significant impacts to below a level of significance, impacts are considered significant and unmitigable. If the District Governing Board approves a project that would result in significant unmitigable impacts, the District Governing Board shall make a Statement of Overriding Considerations, which states in writing the specific reasons for approving the project based on the Final EIR and/or any other information in the record.

1.5 INTENDED USES OF THE EIR

As previously discussed, the information and analysis in this EIR will be used by the District Governing Board in arriving at a decision to proceed with the proposed Master Plan. If the District Governing Board certifies this EIR, subsequent environmental analysis for future specific development projects, consistent with the Master Plan, will be tiered from this EIR in accordance with Section 15152 of the State CEQA Guidelines. Tiering refers to the analysis of general environmental matters contained in a program-level EIR, with subsequent focused environmental documentation for individual projects that implement the program. Subsequent tiered environmental documents will incorporate by reference the general discussions in this Program EIR and concentrate on project-specific issues. CEQA and the State CEQA Guidelines encourage the use of tiered environmental documents to eliminate repetitive discussions of the same issues.

Other public agencies that have discretionary authority over the project, or aspects of the project, are considered Responsible or Trustee agencies under CEQA. Section 15381 of the State CEQA Guidelines defines Responsible Agencies as all public agencies other than the Lead Agency which have discretionary approval power over the project. Section 15386 of the State CEQA Guidelines defines Trustee Agency as a state agency having jurisdiction by law over natural resources affected by a project which are held in trust for the people of the State of California. For the purposes of the proposed project, Responsible and Trustee Agencies include, but are not limited to, the State Water Resources Control Board, Regional Water Quality Control Board and San Diego County Air Pollution Control District. This EIR can be used by these agencies to comply with CEQA in connection with permitting or approval authority over the project. Anticipated approvals associated with the proposed project include the following:

Grossmont-Cuyamaca Community College District Governing Board

- Certification of the Final EIR
- Approval of the Cuyamaca College Master Plan
- Adoption of Findings
- Adoption of Mitigation Monitoring and Reporting Program

San Diego Regional Water Quality Control Board/State Resources Control Board

- National Pollutant Discharge Elimination System (NPDES) General Construction Activity Permit and Municipal Stormwater Permit

- NPDES Dewatering Waste Discharge Permit (if required)

San Diego County Air Pollution Control District

- Permits to Construct and/or Permits to Operate (for any new or relocated stationary sources of equipment that emit or control air contaminants, such as heating, ventilation and air conditioning units)

1.6 CONTENT AND ORGANIZATION OF THE EIR

The content and format of this EIR are in accordance with the most recent guidelines and amendments to CEQA. Technical studies have been summarized within individual environmental issue sections and the full technical studies have been included in EIR Appendices B through E.

The EIR has been organized in the following manner: Section ES is an executive summary of the EIR analysis and includes a brief discussion of the project description, an overview of project alternatives and conclusions of the environmental analysis. The conclusions focus on those impacts which have been determined to be significant but mitigated, as well as impacts considered significant and unmitigated, if applicable. Impacts and mitigation measures are provided in tabular format. Following the Executive Summary, the body of the EIR includes the sections described below.

- **Section 1.0, Introduction**, provides an overview of the background of the Master Plan, the purpose and legal authority of the EIR, the type of EIR, the EIR review process, the intended uses of the EIR and an explanation of the document format.

- **Section 2.0, Environmental Setting**, provides an overview of the regional and local setting, as well as the physical characteristics of the project site.

- **Section 3.0, Project Description**, provides a detailed description of the proposed project, including campus history, project background, project objectives, proposed future construction projects, student enrollment and parking and pedestrian circulation.

- **Section 4.0, Environmental Analysis**, constitutes the main body of the EIR impact analysis for each environmental issue. Under each issue area identified for analysis, the EIR includes a discussion of existing conditions relevant to each environmental topic, and an assessment of impacts associated with implementation of the project. Where the impact analysis demonstrates that a potential effect would occur and is found to have a substantial or potentially substantial adverse impact on physical conditions within the area affected by the proposed project, mitigation measures are provided which would minimize the significant effects. If feasible mitigation measures are not available or proposed, the significant impact is identified as one which would result in a significant unavoidable adverse impact.

- **Section 5.0, Other CEQA Sections**, includes a discussion of growth inducement, significant irreversible effects and effects found not to be significant.

- **Section 6.0, Cumulative Impacts**, addresses the cumulative impacts due to implementation of the proposed project in combination with other recently approved or pending projects in the area. The area of potential effect for cumulative impacts varies depending upon the type of environmental issue.

- **Section 7.0, Alternatives**, provides a description and evaluation of alternatives to the proposed project. This section addresses alternatives that would reduce or avoid significant impacts and compares these alternatives to the proposed project.

EIR references, organizations and persons consulted, and preparer information are provided in Sections 8.0, 9.0 and 10.0, respectively.

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2.0 ENVIRONMENTAL SETTING

2.1 PROJECT LOCATION

Cuyamaca College is located at 900 Rancho San Diego Parkway in the unincorporated community of Rancho San Diego in the County of San Diego, approximately two miles south of the City of El Cajon and 3.4 miles east of the City of La Mesa (Figures 2-1, *Regional Location Map*, and 2-2, *Project Vicinity Map*). The campus encompasses 165 acres, approximately 82 of which are developed with community college facilities and 83 acres remain undeveloped, including a biological preserve area. Regional access is provided via State Route 94 and local access is provided via Jamacha Road (also known as State Route 54 [SR-54] and County Route S17), Fury Lane and Avocado Boulevard. Rancho San Diego Parkway serves as the primary access to the campus and Cuyamaca College Drive West provides secondary access to the site. Rancho San Diego Parkway and Cuyamaca College Drive enter the campus and provide some internal circulation.

2.2 CAMPUS PROPERTY

Cuyamaca College is characterized by gently rolling topography that slopes from northwest to southeast with steeper hillsides located in the western and northern portions of campus. On-site elevations range from a low of approximately 350 feet above mean sea level (AMSL) at the southeastern corner of the campus to a high of approximately 590 feet AMSL at the steep slopes along the western campus boundary. Approximately three percent (5.6 acres) of the campus is comprised of slopes of 25 percent or greater gradient. Existing drainage patterns convey on-site runoff south and east into the drainage that generally runs parallel to the eastern campus boundary and flows southerly toward the Sweetwater River.

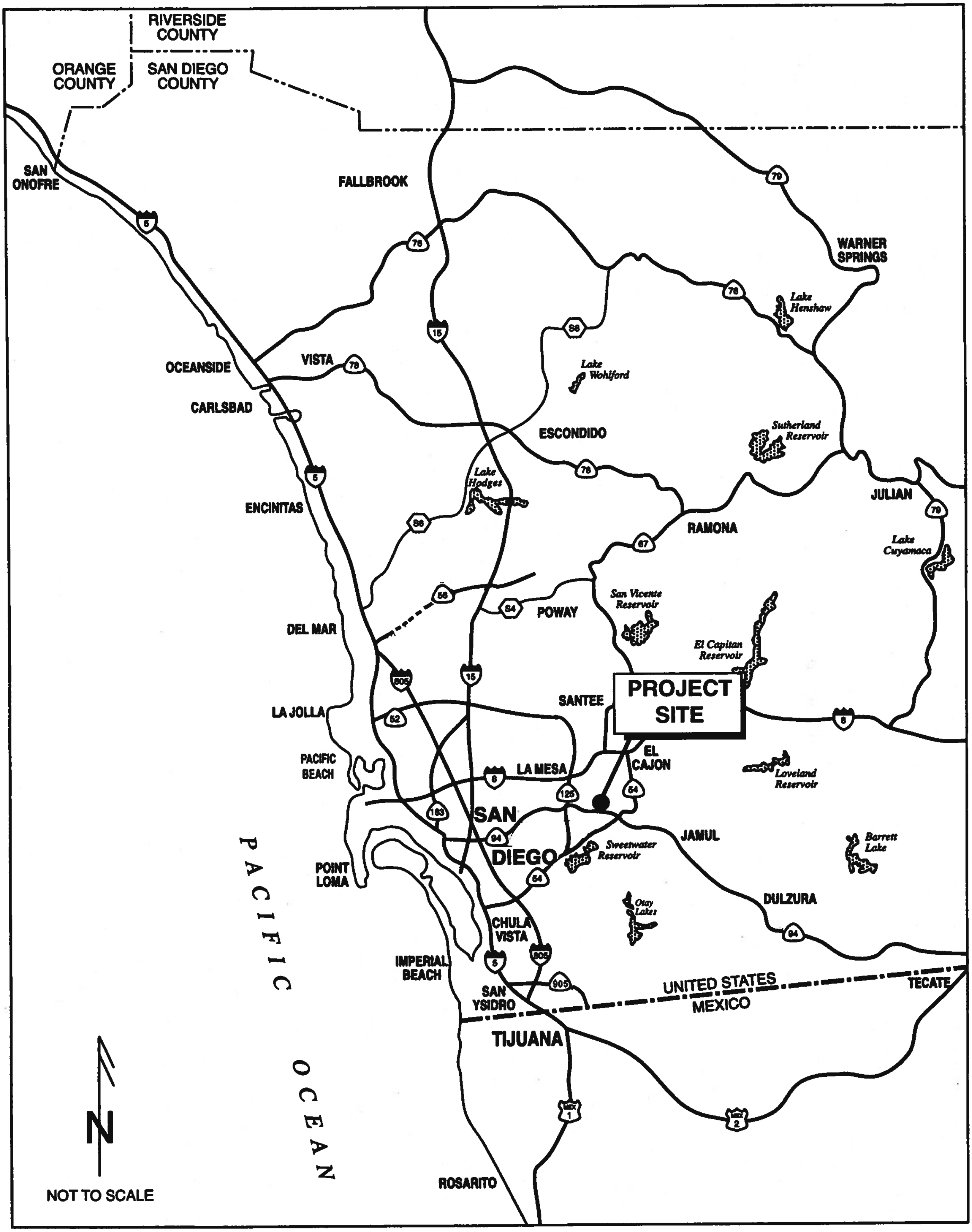
2.3 SURROUNDING LAND USES

Surrounding land uses consist of residential development and undeveloped land to the north; residential, commercial retail and Hillsdale Middle School to the east; residential and commercial retail to the south; and primarily undeveloped land to the west. Single-family residential development is located to the northeast along Fury Lane, while multi-family residential uses are located along the southern campus boundary, as well as to the east. A commercial retail strip mall is located to the south along Jamacha Road and a large regional shopping center is situated at the southeast corner of the intersection of Jamacha Road with Campo Road. Additional commercial retail uses are located adjacent to the southeast campus boundary. Undeveloped land, consisting of sloping hillsides and above-ground reservoirs owned by the Otay Water District, is located to the west. Further northwest of the campus are single-family residential developments. Figure 2-3, *Project Site and Surrounding Uses*, shows an aerial photograph of the surrounding land uses. Interstate 8 (I-8) is located approximately four miles north of the campus. Sweetwater River is located approximately 0.5 mile to the south. Gillespie Field, a general aviation airport, is located approximately five miles north of the campus.

2.4 EXISTING SITE CONDITIONS

The Cuyamaca College campus consists of academic and administrative buildings, physical education/recreation facilities, surface parking lots and undeveloped land (Figure 2-4, *Existing Land Use*). Figure 2-5, *Existing Campus Facilities*, illustrates the existing buildings and facilities on campus. Academic and administrative buildings comprise approximately 24.3 acres of the campus and are generally located in the western portion of the campus configured around a large seven-acre "Central Green." The Central Green is a large commons that serves as a central focal point of the campus and is characterized by grass lawns, ornamental landscaping and numerous pedestrian pathways (Figure 2-6, *Central Green*). Building organization is grouped according to function and discipline and includes from south to north a Vocational Core, College Services Core, Academic Core and Physical Education (P.E.) Core. Academic and administrative buildings are located within the Vocational, College Services and Academic cores and include classrooms, laboratories, administration, Student Services, Learning Resources, Student Center, Maintenance and Operations and other services and resources (Figure 2-7, *Existing Academic and Administrative Building*).

Physical education/recreation facilities are generally located within the P.E. Core in the northern portion of the campus and include a fitness center/gymnasium, baseball and soccer fields, a track around the soccer field and tennis and sand volleyball courts (Figure 2-8, *Physical Education/Recreation Facilities*). Another soccer field is located outside of the P.E. Core in the eastern portion of campus adjacent to parking lot 2.

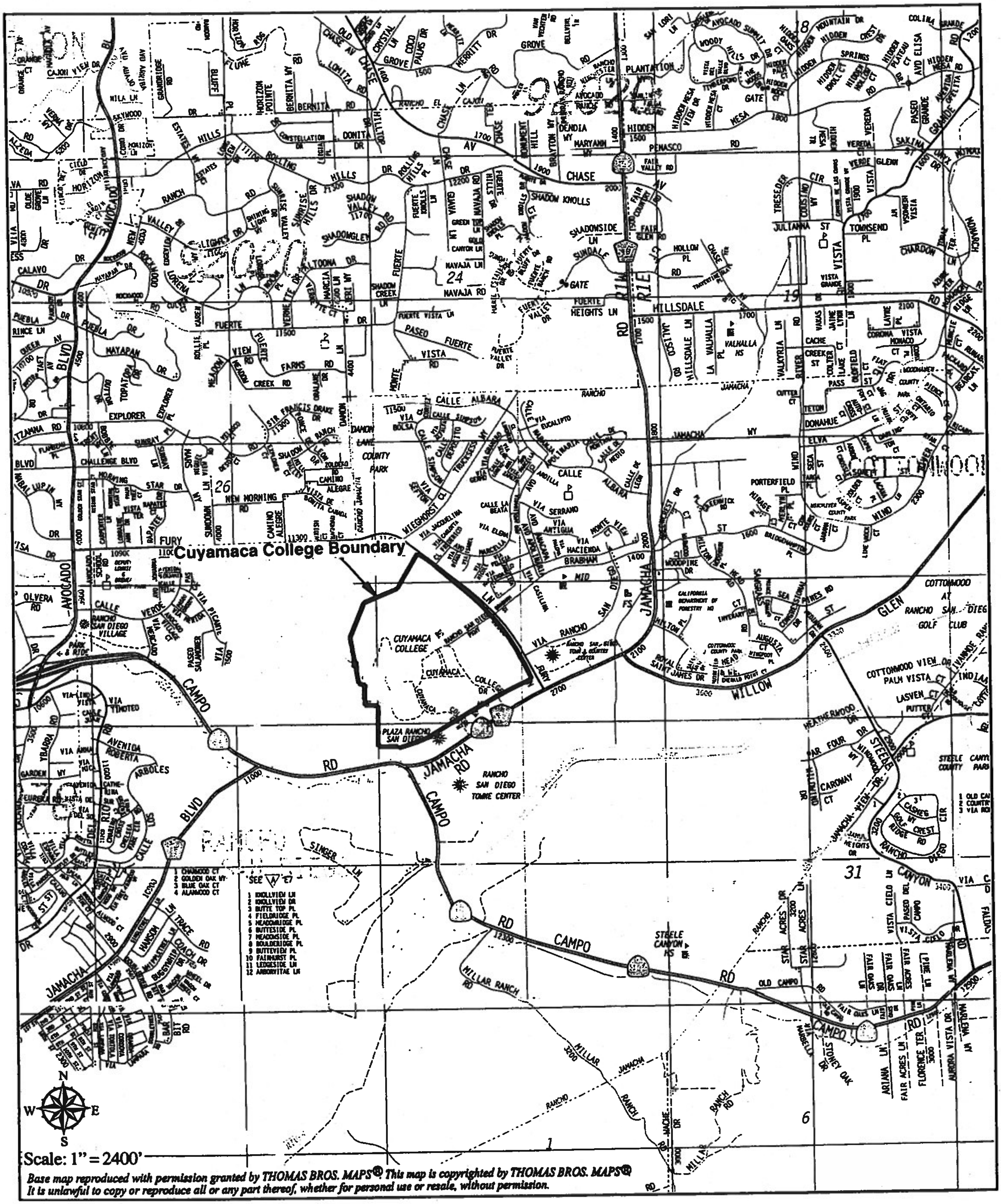


Regional Location Map

CUYAMACA COLLEGE MASTER PLAN EIR

Figure 2-1

HELIX

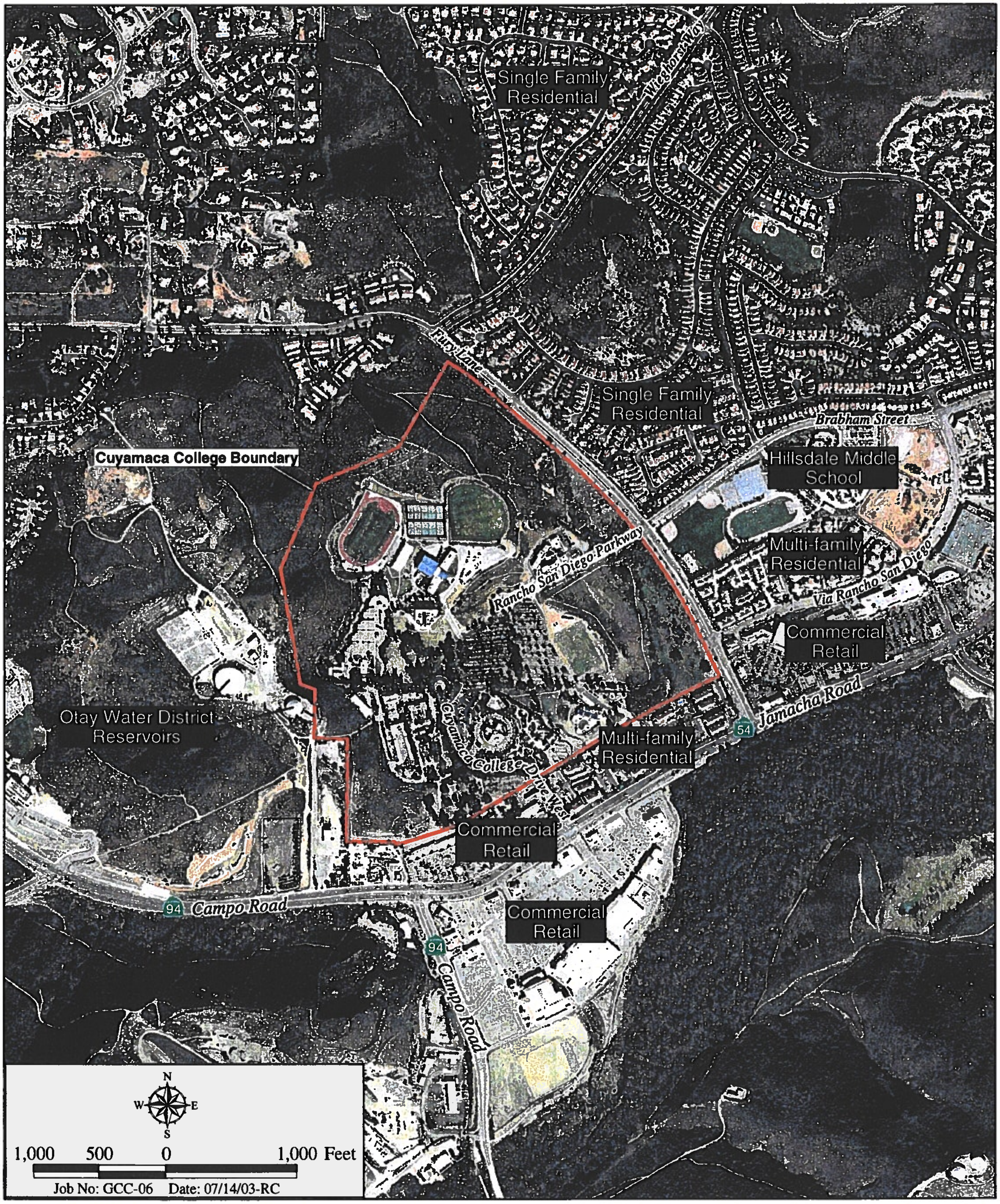


Project Vicinity Map

CUYAMACA COLLEGE MASTER PLAN EIR

Figure 2-2

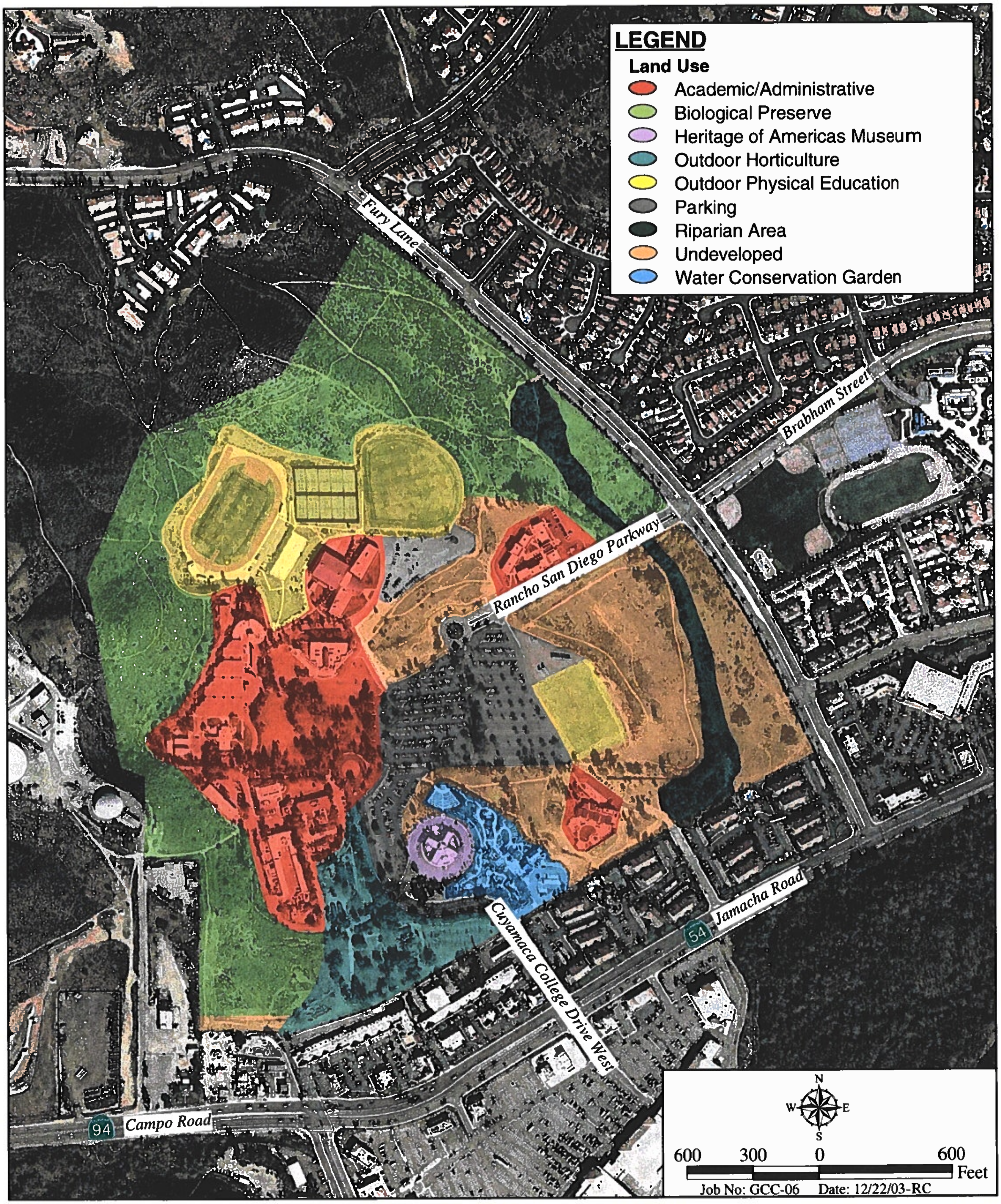
HELIX



Project Site and Surrounding Land Uses

CUYAMACA COLLEGE MASTER PLAN EIR

Figure 2-3

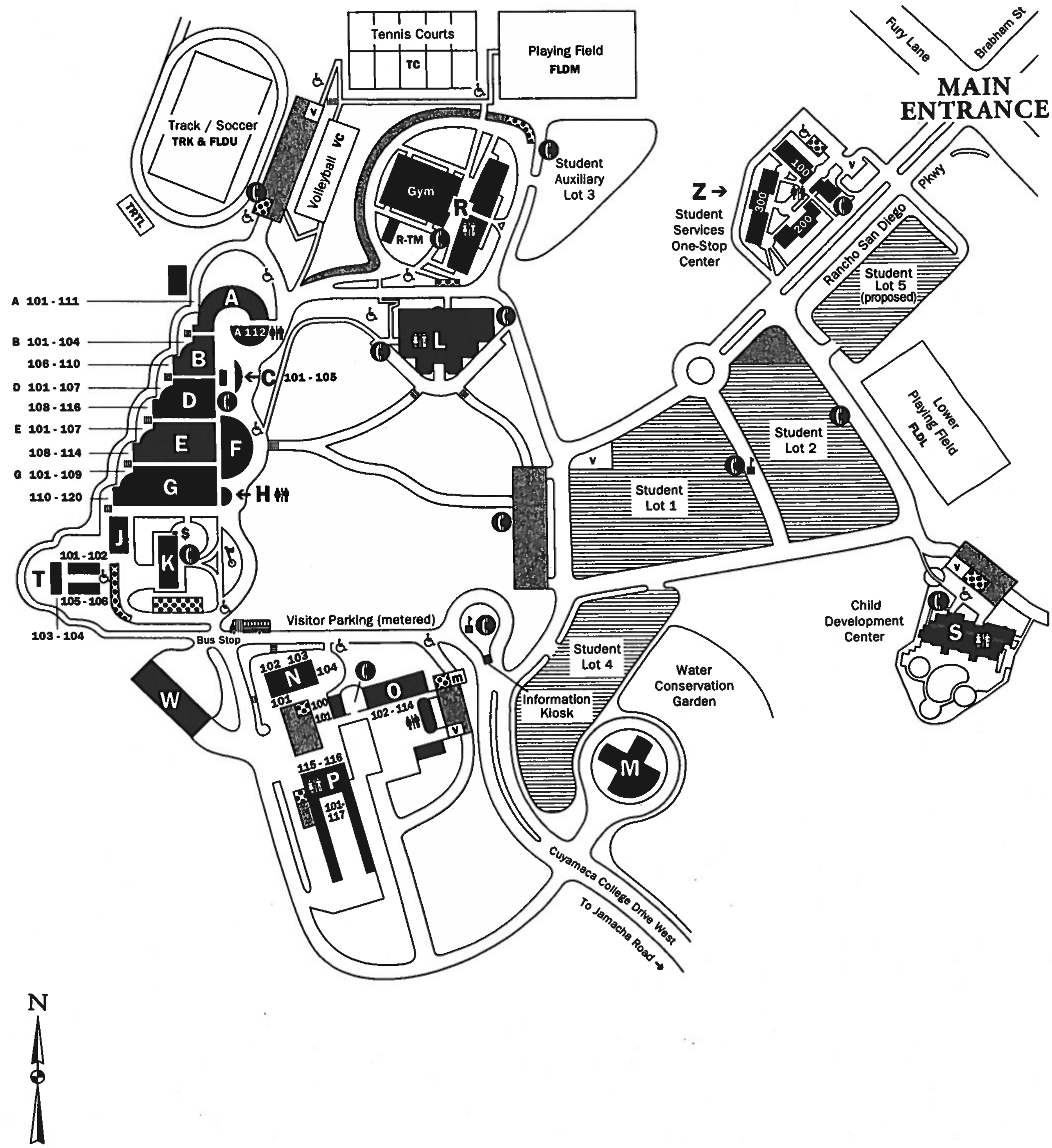


Existing Land Use

CUYAMACA COLLEGE MASTER PLAN EIR

HELIX

Figure 2-4



Existing Campus Facilities

CUYAMACA COLLEGE MASTER PLAN EIR

Figure 2-5

Central Green

CUYAMACA COLLEGE MASTER PLAN EIR

Figure 2-6

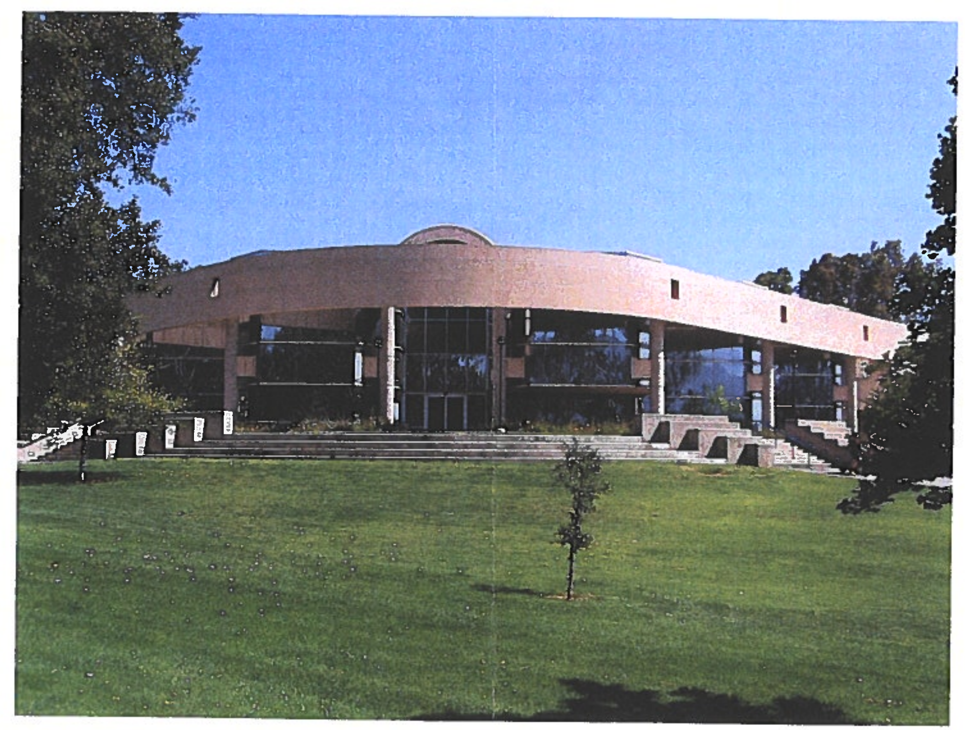
HELIX

Classrooms - Buildings G and H

Administration - Building F

Classrooms, Administration and Student Services - Building N

Bookstore, Food Service and Student Services



Learning Resource Center

Warehouse and Maintenance Building

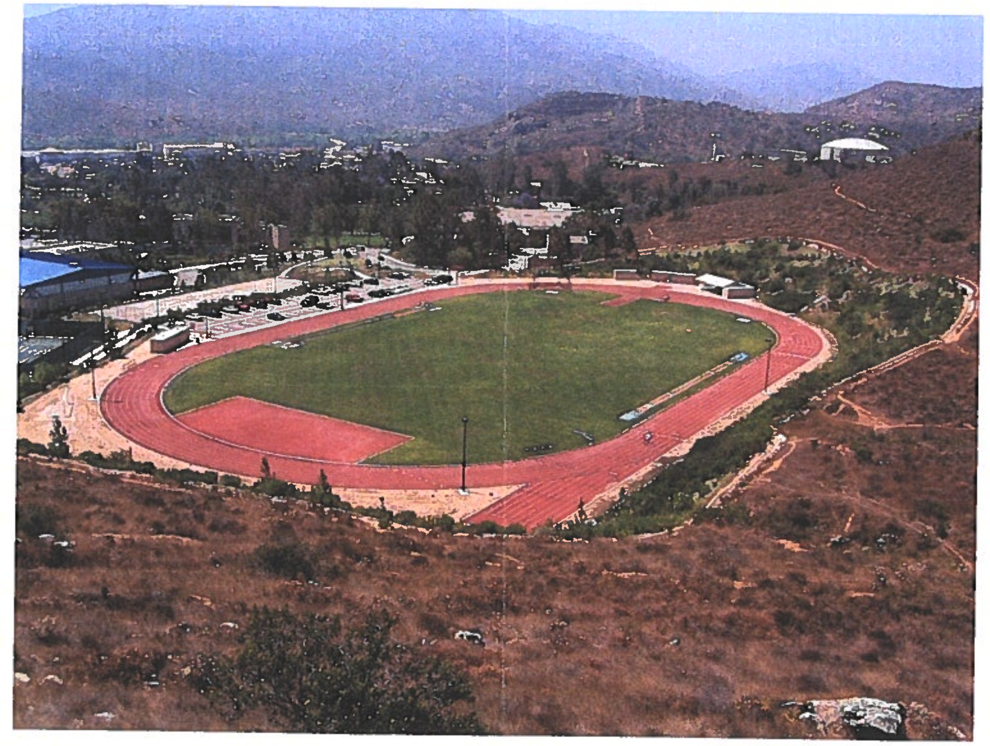
HELIX

Existing Academic and Administrative Buildings

CUYAMACA COLLEGE MASTER PLAN EIR

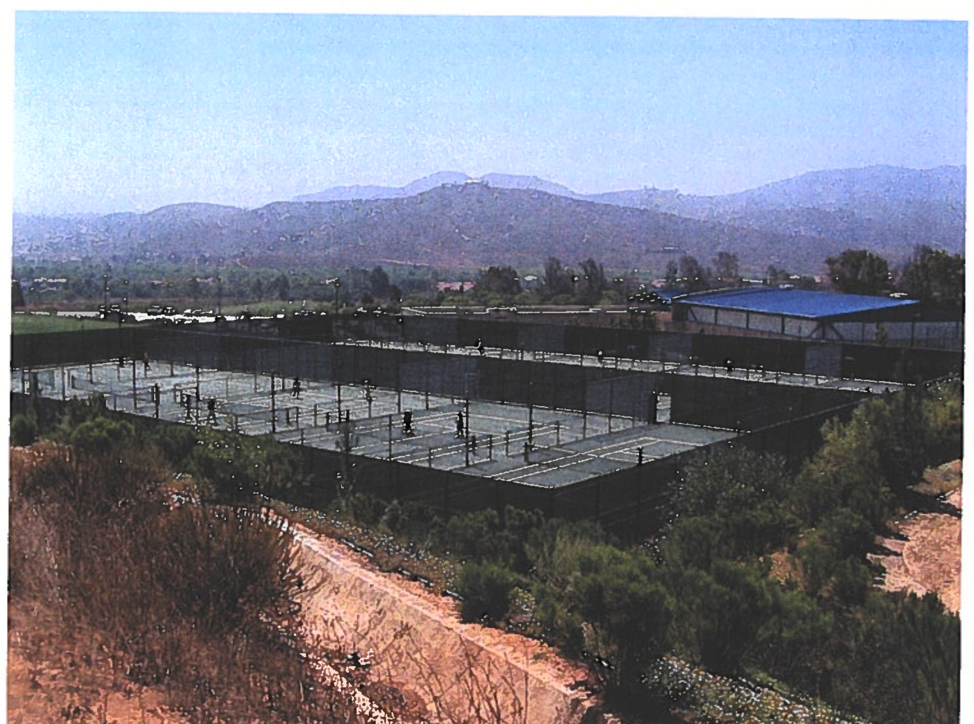
Figure 2-7

Fitness Center and Gym



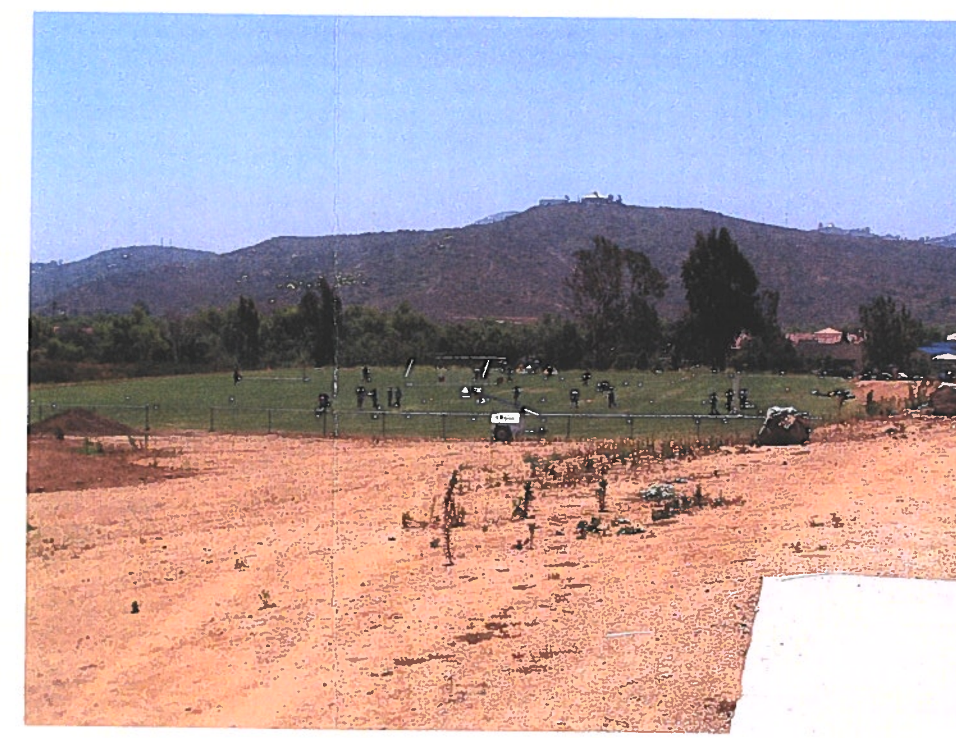
Soccer Field/Track

Ball Field



Tennis Courts

Sand Volleyball Courts



Soccer Field Adjacent to Parking Lot 2

Physical Education/Recreation Facilities

CUYAMACA COLLEGE MASTER PLAN EIR

Figure 2-8

Existing parking at Cuyamaca College is provided by a number of paved and unpaved surface lots located throughout the campus. Parking areas encompass 14.7 acres and provide a total of 1,351 spaces. Student parking is accommodated in paved lots 1 (391 spaces) and 2 (400 spaces) in the central portion of the campus, as well as three unpaved overflow areas; one immediately adjacent to and east of lot 2 (72 spaces), one across from the fitness center (112 spaces) and the other northwest of the Heritage of Americas Museum (130 spaces). A total of 1,105 spaces are allocated for student parking. Staff parking consists of 73 spaces in the main staff parking lot adjacent to lot1, 29 by Ornamental Horticulture, 19 by Automotive Technology, 68 by the soccer field/track and 24 around the P.E. Center, for a total of 189 staff parking spaces. In addition, 17 disabled spaces and 16 metered spaces are provided on campus.

A biological preserve area is located along the western hillsides, portions of the northern valley that wraps around the P.E. field area and along the eastern edge of campus, near Fury Lane (Figure 2-9, *Biological Preserve*). This preserve was established in 1994 as part of a Habitat Loss Permit issued by the County of San Diego. Other undeveloped lands on campus include a 4.8-acre riparian area near the eastern campus boundary (Figure 2-10, *Riparian Corridor*), 5.6 acres of steep slopes generally located along the western campus boundary and the area in the southeast portion of campus.

Other campus facilities include the Heritage of Americas Museum, the Outdoor Horticulture area, the Water Conservation Garden, Child Development Center and the Student Services One-Stop Center. The Heritage of Americas Museum, located atop a hill in the southern portion of campus near the campus entry along Cuyamaca College West, is a privately funded educational and cultural center featuring prehistoric and historic art, culture and natural history of the Americas (Figure 2-11, *Heritage of Americas Museum*). The museum is intended to be an adjunct to instructional programs provided at Cuyamaca College, as well as Grossmont College. The Outdoor Horticulture area encompasses 8.8 acres in the southwestern portion of campus and is used by the Ornamental Horticulture program (Figure 2-12, *Outdoor Horticulture Facilities*). The Water Conservation Garden, a 4.2-acre learning resource center that contains xeriscape garden demonstrations, an amphitheater and educational exhibits, surrounds the museum (Figure 2-13, *Water Conservation Garden*). The Water Conservation Garden was created in 1992 through the formation of a Joint Powers Agreement between Otay Water District, Helix Water District and Grossmont-Cuyamaca Community College District and is governed by the Water Conservation Garden Authority. The purpose of the Water

Conservation Garden is to provide an environment for students, staff and the community to learn about water conservation. The Child Development Center, located near the southeastern campus boundary, south of Parking Lot 2, consists of a 13,000-square foot building with an adjoining outdoor activity area (Figure 2-14, *Child Development Center*). The Student Services One-Stop Center is located off of Rancho San Diego Parkway in the eastern portion of the campus (Figure 2-15, *Student Services One-Stop Center*). A summary of the campus' land use is provided in Table 2-1.

Table 2-1

CUYAMACA COLLEGE LAND USE SUMMARY

Land Use	Area (acres)
Buildings	24.3
Surface Parking	14.7
Outdoor P.E. facilities	18.7
Outdoor Horticulture	8.8
Heritage of Americas Museum	1.9
Water Conservation Garden	4.2
Biological Preserve	49.8
Undeveloped Land	42.6
TOTAL	**165.0**

Source: Cuyamaca College Master Plan

2.5 PLANNING CONTEXT

Cuyamaca College is geographically located in the unincorporated community of Rancho San Diego within the County of San Diego, but falls within the jurisdictional boundary of the Grossmont-Cuyamaca Community College District (District). Thus, the campus is subject only to District land use plans and polices and County plans and policies generally do not apply. Cuyamaca College is, however, located within the South County Segment of the County's Multiple Species Conservation Program (MSCP) and therefore, is subject to the County of San Diego MSCP Subarea Plan. Applicable planning guidelines and policies are summarized below.

Biological Preserve

CUYAMACA COLLEGE MASTER PLAN EIR

Figure 2-9

HELIX

Riparian Corridor

CUYAMACA COLLEGE MASTER PLAN EIR

Figure 2-10

HELIX

Heritage of Americas Museum

CUYAMACA COLLEGE MASTER PLAN EIR

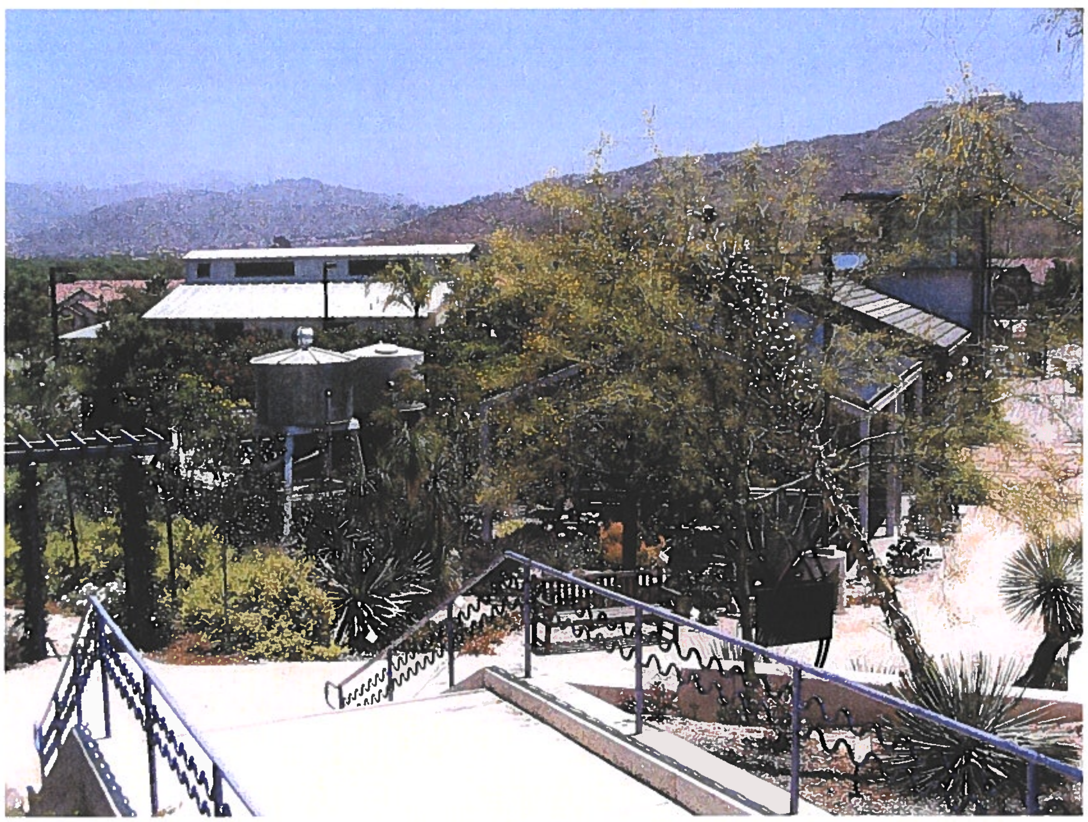
Figure 2-11

HELIX

Outdoor Horticulture Facilities

CUYAMACA COLLEGE MASTER PLAN EIR

Figure 2-12



Water Conservation Garden

CUYAMACA COLLEGE MASTER PLAN

Figure 2-13

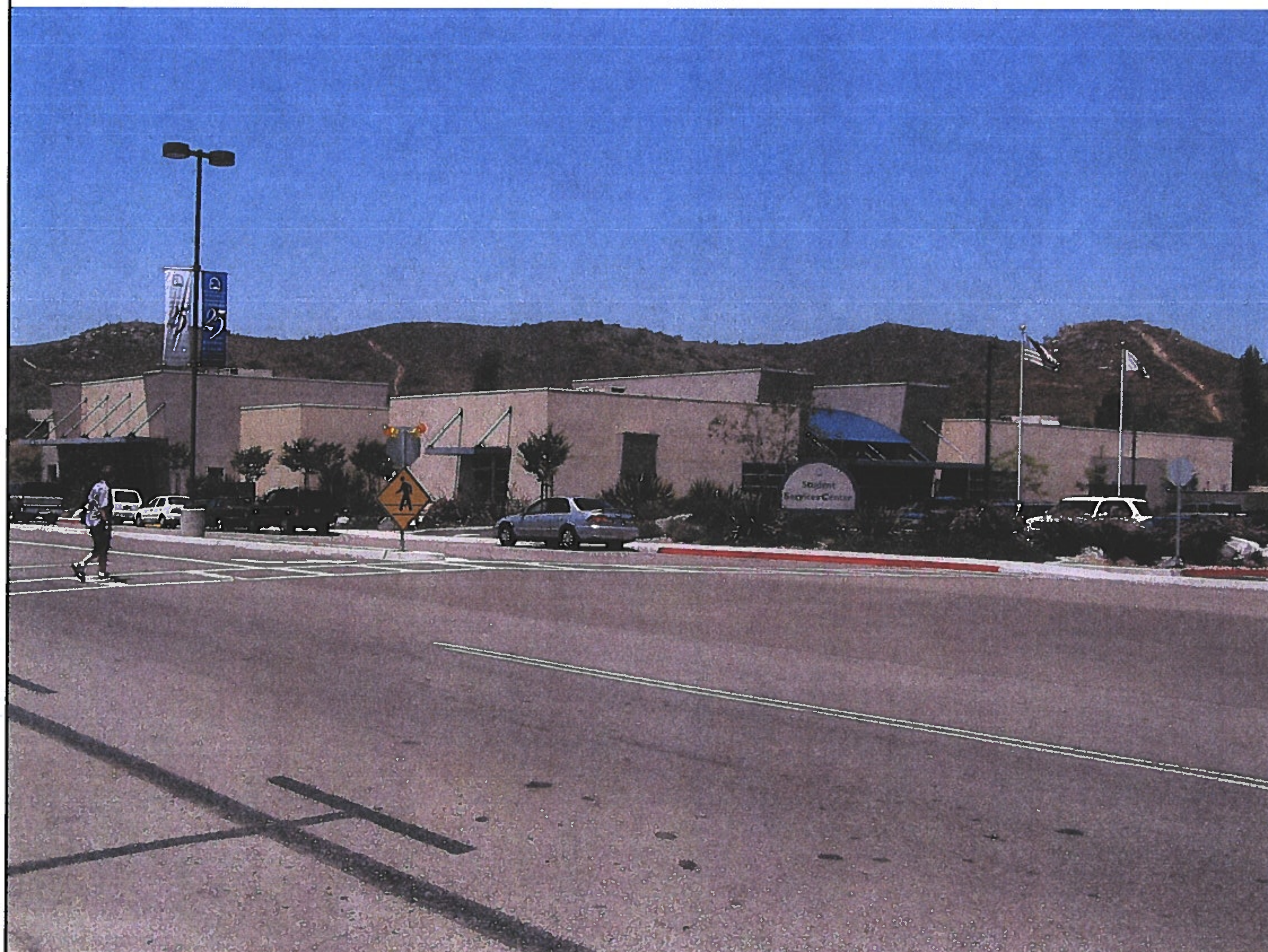
HELIX

Child Development Center

CUYAMACA COLLEGE MASTER PLAN EIR

Figure 2-14

HELIX



Student Services One-Stop Center

CUYAMACA COLLEGE MASTER PLAN EIR

Figure 2-15

HELIX

2.5.1 Grossmont-Cuyamaca Community College District Strategic and Facilities Master Plan

A district-wide master plan, Grossmont-Cuyamaca Community College District Strategic and Facilities Master Plan, was prepared in 1991 (1991 Master Plan) to provide a framework for development at both the Cuyamaca and Grossmont College campuses. The 1991 Master Plan recommended the expansion of programs at Cuyamaca College to increase enrollment to 10,000 students. Proposed development projects included construction of six new buildings around the Central Green, the addition of 14 acres of surface parking (1,750 spaces), expansion of outdoor P.E. facilities and construction of the Fury Lane entrance road. Specific building projects included Indoor Physical Education, Student Service/Administration, Food Service/Bookstore, Math/Science Complex, Classroom Building and Library Building Expansion.

2.5.2 Multiple Species Conservation Program

The MSCP is a comprehensive, long-term habitat conservation plan designed to facilitate the implementation of regional habitat preservation while allowing the issuance of take permits at the local level. The MSCP study area encompasses 12 jurisdictions and approximately 900 square miles, 393 of which (43 percent) are located in the unincorporated areas under the jurisdiction of the County of San Diego. Participating jurisdictions and special districts cooperatively designed the habitat preserve, known as the Multi-Habitat Planning Area, in partnership with the wildlife agencies (United States Fish and Wildlife Service, California Department of Fish and Game), property owners and representatives of the development interests and environmental groups. The MSCP targets approximately 172,000 acres (98,000 acres within the unincorporated area) within the MHPA for conservation.

The County of San Diego MSCP Subarea Plan, adopted on October 22, 1997 by the San Diego County Board of Supervisors, implements the MSCP within the unincorporated areas under the County's jurisdiction. The County's Subarea Plan is divided into three Segments, including Lake Hodges, Metropolitan-Lakeside-Jamul and South County. The biological preserve on campus is designated as open space on the South County Segment of the County's Subarea Plan. The remainder of the campus is designated as "take authorized" by the County MCSP Subarea Plan.

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3.0 PROJECT DESCRIPTION

This section of the EIR describes the background of the project, identifies the project's objectives, summarizes proposed future construction projects, provides an overview of student enrollment, and discusses campus parking and circulation, open space and other aspects of Master Plan implementation.

3.1 PROJECT BACKGROUND

3.1.1 Campus History

On November 8, 1960, voters approved the formation of a new college district named the Grossmont Junior College District. The Grossmont Junior College Governing Board officially began organizational meetings in July 1961 and worked to obtain voter approval of construction bonds for the purchase of land and construction of a junior college. During this period, classes convened at Monte Vista High School in Spring Valley with an opening enrollment of 1,538 students in 1961. A construction bond was passed by voters on September 18, 1962 to purchase and construct the first phase of the District's first campus, Grossmont College, which was officially opened for classes in September 1964.

In September 1972, the District purchased a 165-acre site in southeastern San Diego County to accommodate a second campus, named Cuyamaca College by the Board of Trustees. The site was at one time part of the old Monte Vista Ranch that encompassed much of the valley and surrounding hillsides. Construction of the first phase of Cuyamaca College began in 1978 and included development of Buildings A through H and phase one of the Warehouse/Maintenance Building. Cuyamaca College officially opened for classes in fall semester 1978 with an estimated enrollment of 1,900 students. The second development phase was completed in January 1980 and included Buildings N through P and phase two of the Warehouse/Maintenance Building. The Learning Resource Center (LRC) was built in 1989. Subsequent development occurred in the 1990s and 2000 and included the Heritage of the Americas Museum, Rancho San Diego Parkway entrance road, Physical Education facilities, Water Conservation Garden and Student Services Center.

3.1.2 Educational Master Plan

During the 2002-2003 school year, approximately 8,000 students were enrolled in Cuyamaca College. The proposed Master Plan identifies the facilities needed to accommodate a maximum enrollment of 15,000 students at Cuyamaca College and is based on the *Educational Master Plan* developed for the campus.

The *Educational Master Plan* for Cuyamaca College presents the educational programs and services for the planned capacity of 15,000 students through the year 2015. The *Educational Master Plan* provides objectives for educational programs and administrative and student support services to enable Cuyamaca College to become comprehensive and to serve the learning needs of the students in the community. The Educational Master Plan projects program development based on enrollment to determine facilities requirements to meet the needs of the community. Thus, implementation of the *Educational Master Plan* is dependent upon timely facilities development. The existing facilities have nearly reached maximum utilization, thereby hindering potential growth and comprehensiveness of the campus.

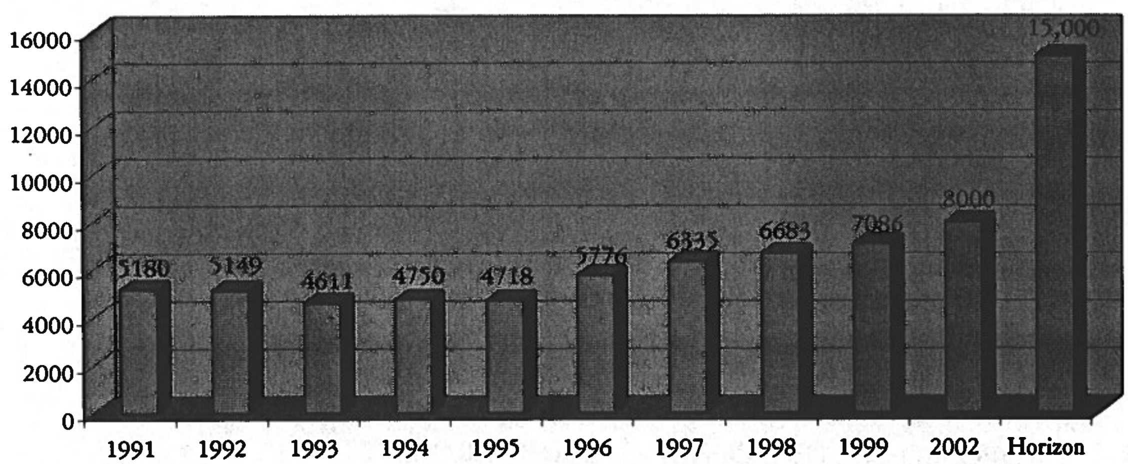
3.2 STUDENT ENROLLMENT

Student enrollment at Cuyamaca College is measured in three different metrics, including Weekly Student Contact Hours (WSCH), headcount and full-time equivalent students (FTES). WSCH relates to headcount and is an indication of the number of hours students spend in class on a weekly basis, as well as the load (in hours) on instructional facilities. This is useful for measuring the adequacy of present facilities and justifying the need for future facilities. Headcount refers to the number of individual students registered at Cuyamaca College. FTES is the number of students carrying an average of 15 weekly contact hours for the full academic year. If each student took a full-time course load, FTES would equal the student headcount enrollment. FTES enrollment, however, is somewhat lower than the student headcount because, on average, students take slightly less than a full-time course load. This difference is compounded during summer sessions when enrollment primarily consists of students who take less than the full load.

The total of each enrollment metric implies specific campus characteristics. The larger the headcount, the more demand there is for parking, while the lower the WSCH, the less classroom space is required and more parking is readily available. An elevated FTES generally increases demand for use of student support spaces, such as the LRC and Student Center. Thus, headcount generally characterizes campus parking needs, WSCH generally characterizes building space utilization and FTES generally characterizes student support usage.

As shown below in Figure 3-1, *Cuyamaca College Past and Projected Student Enrollment*, student enrollment in terms of headcount over the past ten years has ranged from approximately 4,600 to 8,000 students. Student headcount as of the 2002-03 academic year was approximately 8,000 students and the proposed Master Plan would accommodate additional growth to a maximum enrollment of 15,000 students by the year 2015. Therefore, enrollment growth under the Master Plan would be approximately 7,000 students.

Figure 3-1
Cuyamaca College Past and Projected Student Enrollment



Source: Cuyamaca College Master Plan

3.3 PROJECT OBJECTIVES

The proposed project described herein is based on the following objectives for the Cuyamaca College:

- Develop facilities (approximately 125,000 assignable square feet), capital improvements and services that enable the campus to achieve its projected enrollment of 15,000 students contained in the Educational Master Plan.
- Foster an environment that promotes academic excellence, innovation, creativity and social responsibility through a diverse curriculum and services.
- Provide the community with high-quality learning opportunities which maximize the personal, social and intellectual experiences of its students.
- Protect, preserve and enhance the natural environment of the campus.
- Site new buildings in locations that offer programmatic advantages due to proximity to related academic disciplines.
- Design new buildings compatible in scale and style with existing structures.
- Provide adequate accessibility for the disabled in new and renovated buildings.
- Provide additional parking to accommodate anticipated enrollment increases.

3.4 PROPOSED FUTURE CONSTRUCTION PROJECTS

The purpose of the Master Plan is to guide the physical development and identify major and minor capital improvements for the campus through the year 2015. The *Cuyamaca College Master Plan* map identifies 20 future construction and remodel projects proposed for development to accommodate the anticipated growth of the campus to an enrollment of 15,000 students. Each future construction project is briefly described below and its location is illustrated on Figure 3-2, *Cuyamaca College Master Plan Map*. The numerical order of the projects (noted on the map and parenthetically in the ensuing sections) generally reflects the sequence in which they are anticipated to be constructed, however, timing of development could vary, depending on specific space needs and/or procurement of funding. Each proposed future construction project does not have a development allocation (asf) to allow for flexibility of space needs over the planning horizon; however, the phased development of these projects would total a maximum of 125,000 assignable square feet (asf) of new building space. A tabular summary of the 20 projects anticipated in the Master Plan is provided in Table 3-1, *Construction Project Summary - Cuyamaca College*. It should be noted that project three (3) on the Master Plan map, the Science and Technology Mall, has already undergone project-specific environmental review (SCH#2003011116), which is incorporated by reference in this report, but has not yet been constructed.

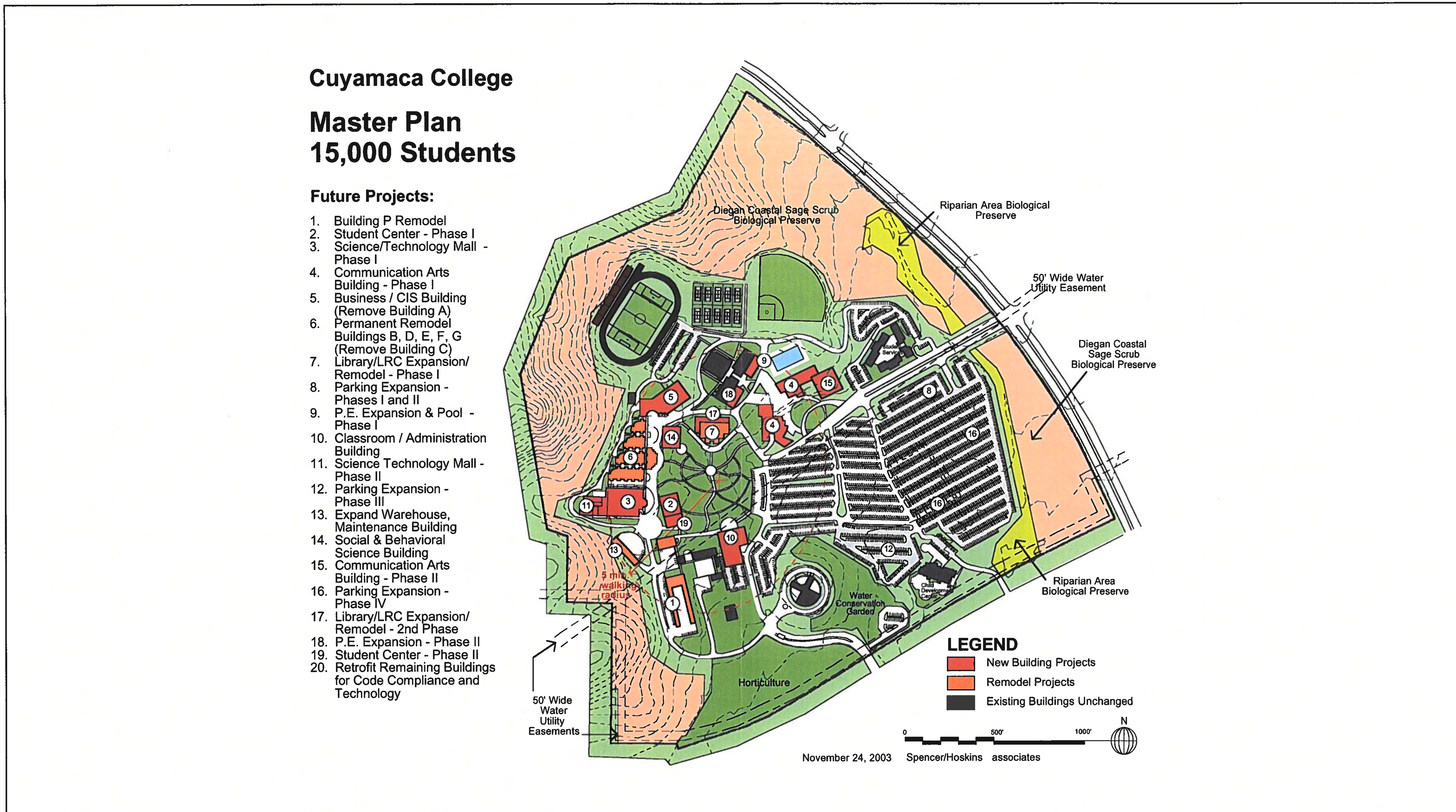
As funding for each project is secured and it moves forward in the approval process, the District will develop a design concept and size for the structure and confirm that it is consistent with the Master Plan, in terms of its cost, general program and location on campus. Both State-funded and locally funded new buildings and major remodels must go through a three-step approval process prior to construction. Funding sources for projects would vary over the years; however, several of the projects listed herein would be funded by the District-sponsored Proposition R bond measure that was approved by the vote of people in the District in November 2002.

3.4.1 Building P Remodel (1)

Building P consists of a U-shaped structure located in the southwestern portion of the campus and is utilized by the Automotive Technology Department. This one-story building, built in 1980, was originally designed to house industrial vocational labs to support the automotive technology and appliance repair programs. Building P contains labs, supply rooms, offices, shower/locker facilities and automotive garages that flank an open courtyard/work area. A large lab in the northwest portion of the building originally served as an appliance repair lab; however, since the elimination of this program, this space has been divided into a classroom and a smaller lab utilized by the automotive program. Since the completion of the Physical Education Complex (Building R complex) in 1995, the shower and locker facilities are seldom used. Air conditioning currently is not provided in Building P.

Table 3-1
CONSTRUCTION PROJECT SUMMARY - CUYAMACA COLLEGE

Map No.	Project Name	General Description of Project/Space	Approximate Construction Timing*
1	Building P Remodel	Remodel of automotive technology labs/garages/supply rooms into classroom space/offices/storage areas.	2004/05
2	Student Center - Phase I	Construction of centralized bookstore, food services, student affairs, administration, health center and other student support space.	2005/06
3	Science and Technology Mall**	Construction of computer labs, offices and instruction space.	2004/05
4	Communication Arts Buildings - Phase I	Construction of classroom, lab space and digital theatre/planetarium/lecture hall.	2005/07
5	Business and Computer Information Systems Building	Demolition of faculty offices and health/wellness center and construction of classrooms/lab space and a new access road.	2006/08
6	Buildings B, D, E, F and G Remodel and Building C Demolition	Remodel of classroom/laboratory space/offices/storage areas into classrooms and demolition of small classroom/lab complex.	2006/07
7	Library/LRC Expansion and Remodel - Phase I	Construction of expanded library space.	ND
8	Parking Lot Expansion - Phases I and II	Construction of three parking lots and a new service road.	2004/05
9	Physical Education Expansion and Pool - Phases I	Construction of a swimming pool and expanded locker room facilities.	ND
10	Classroom/Administration Building and Remodel	Construction of centralized administration space and classroom/offices and remodel of existing administration space for classrooms.	ND
11	Science and Technology Mall Expansion	Construction of expanded lecture rooms and laboratories for sciences.	ND
12	Parking Lot Expansion - Phase III	Construction of a new parking lot.	ND
13	Warehouse/Maintenance Building Expansion	Relocation and expansion of maintenance and warehouse space and vehicle storage areas.	ND
14	Social and Behavioral Science Building	Construction of classroom and laboratory space.	ND



Cuyamaca College Master Plan Map

CUYAMACA COLLEGE MASTER PLAN BIOLOGICAL TECHNICAL REPORT

Figure 3-2

HELIX

Table 3-1 (cont.)

Map No.	Project Name	General Description of Project/Space	Approximate Construction Timing*
15	Communications Arts Building – Phase II	Construction of expanded building to include assembly hall, lecture rooms and laboratories.	ND
16	Parking Lot Expansion - Phase IV	Construction of parking lot and new access driveway and demolition of soccer field.	ND
17	Library/LRC Expansion and Remodel - Phase II	Construction of expanded library space and demolition of existing minor service road.	ND
18	Physical Education Facilities Expansion - Phase II	Construction of fitness space and grandstand seating and lighting adjacent to athletic field/track.	ND
19	Student Center Expansion - Phase II	Construction of expanded student support space.	ND
20	Retrofit Existing Buildings for Code Compliance/Technology Upgrades	Modification of existing buildings for code compliance and technology upgrades.	On-going

* Construction timing has been estimated based on availability of Proposition R funds.
** This project has already undergone separate environmental review under CEQA.
ND=No funding source exists at this time for this project; therefore, no date of construction can be determined.

Building P would be remodeled to provide additional classrooms. The industrial labs would be converted primarily to classroom space and the shower/locker facilities would be remodeled as offices or storage areas. In addition, air conditioning would be provided throughout the building.

3.4.2 Student Center – Phase I (2)

The Student Center is currently housed in temporary modular buildings located in the western portion of campus, south of the Building G. The Student Center is comprised of the Bookstore, Food Services, Student Government and Student Activities. These temporary facilities are currently over-crowded and lack adequate space to effectively function for its intended purpose. The existing Student Center is the site of the recently approved Science and Technology Mall project (identified as project 3 on the Master Plan map) and must be moved in advance of that construction project. In addition, its current site does not provide a centralized location or direct access from the Central Green.

A new Student Center is proposed to be constructed in the southwestern corner of the Central Green. This location would provide a centralized activity hub within the campus and convenient access to the Learning Resource Center, as well as surrounding academic and administration buildings. The new Student Center would be developed in two phases and upon its completion would contain the Bookstore, Food Services, Student Affairs Administration and Support Staff, Health Center, Student Government, Club offices and meeting rooms, and Student Development Services and Support Staff.

3.4.3 Science Technology Mall (3)

The Science and Technology Mall would involve the construction of a approximately 58,668 gross square foot building containing critically needed science laboratory and independent learning space for the college. The proposed project addresses the current laboratory inadequacies by providing an appropriate compliment of physical and life science laboratory space, computer science laboratory space and computer art laboratory space to meet the present and future needs of the campus. The primary uses within the building would include a centralized computer mall, computer laboratories, wet laboratories, and preparation rooms. Faculty offices, support services, meeting rooms and common area spaces would also be contained throughout the structure. A one-story greenhouse would be constructed as a stand-alone structure adjacent to the first floor. Approximately 38,570 square feet of the structure would be assignable space. In addition to new construction, the proposed project would also involve demolition of the adjacent Building D (restrooms), relocation of temporary buildings, and conversion of existing laboratories vacated by the project back to classroom space and library stacks. Approximately 8,700 assignable square feet of existing laboratory space would be converted to non-wet lab use through remodeling. In addition, uses currently located on site would be moved to other locations on campus. As noted above, the project has already undergone project-specific environmental review under CEQA. Project construction is scheduled to begin in 2004.

3.4.4 Communication Arts Buildings – Phase I (4)

The Communication Arts building complex would be constructed in two phases north of the main student parking area. Phase I would include the development of two multi-story structures facing one another and separated by a pedestrian plaza. The location and orientation of phase 1 buildings would create a gateway entry from the parking area. The two structures would open into a grass courtyard to the south with circular pedestrian walkways around the perimeter that would converge into the aforementioned pedestrian plaza. In addition, a passenger drop-off area would be located on the south side of the complex off of Rancho San Diego Parkway.

Phase 1 Communication Arts buildings would consist of classroom and lab space utilized for English, English as a Second Language, Reading, Fine and Professional Arts, Speech/American Sign Language, Performing Arts and Astronomy classes. The Communication Arts buildings would contain a digital theatre that would allow for the presentation of virtual environments. This theatre space would initially be used as a planetarium and for astronomy classes. As virtual reality technologies advance, the digital theatre would also be used for digital media presentations, as well as a small lecture hall.

3.4.5 Business and Computer Information Systems Building (5)

The Business and Computer Information Systems (CIS) Building would be constructed in the western portion of the campus where existing Building A is currently located and the area to the northeast. Construction of the Business and CIS Building would require demolition of Building A, a 3,700-asf, one-story semi-circular structure built in 1978 as part of the original campus buildings that currently houses the Adjunct Faculty Office and the Health and Wellness Center. The new multi-story structure would provide classrooms and labs for CIS, Business, Economics, Paralegal Studies and Real Estate. The building site is moderately sloped and is bisected by a driveway that provides access to the upper staff parking lot adjacent to the soccer field/track. This road would be removed and a new access road would be constructed to the north of the Physical Education Complex. The building would be terraced into the slope, which would accommodate disabled access from the central area of the campus to the Physical Education Complex area.

3.4.6 Remodel Buildings B, D, E, F and G (6)

The original classroom and laboratory complex constructed in 1978 includes Buildings A through H, which encompass a total of 44,000 square feet in the western portion of campus. Buildings B, D, E and G contain mostly classrooms and labs, as well as offices and storage areas. Duplicating services and utility rooms are housed in Building C, Building F is used by Administration and restrooms are provided in Building H. Building H is scheduled to be demolished in conjunction with construction of the recently approved Science and Technology Mall project.

Buildings B, D, E, F and G would be remodeled to provide more classrooms. Current labs in this complex are becoming obsolete and cannot be expanded without removing adjacent buildings. This complex's central location near proposed lab buildings makes it ideal for classrooms and would help reduce the need to construct new classrooms within the lab buildings. Remodeling also would bring the buildings up to current fire and safety codes. Remodeling the classroom/lab complex would include the demolition of Building C, which does not contain any assignable square footage for instructional use and restricts the main pedestrian circulation spine that traverses the classroom complex in a north-south direction. Facilities housed in this building would be relocated in existing or future buildings elsewhere on the campus.

3.4.7 Learning Resource Center Expansion/Remodel – Phase I (7)

The Learning Resource Center (LRC), constructed in 1989, is centrally located within the campus north of the Central Green. It is easily accessible from the main parking lots and in close proximity to the academic core classroom complex (Buildings A through H). This location will become even more central and convenient, as new buildings are constructed around the Central Green pursuant to the Master Plan. The LRC houses a wide range of college services, including the library, computer and Disabled Students Programs and Services labs, Education Development and Services, Tutoring Center, Mathematics Engineering Science Achievement (MESA) Center, Telecourse Office and Teaching and Learning Center. The Phase I expansion activities would include enclosing the south patio on the east side of the main entrance, which was designed for future expansion when it was originally constructed, and the remodel of portions of the existing LRC.

3.4.8 Parking Expansion – Phases I and II (8)

To accommodate the anticipated student enrollment of 15,000 by the year 2015, provision of an additional 2,000 parking spaces throughout the campus would be required. Parking would be phased and constructed to correspond with development, pursuant to the Master Plan. There is no allocated number of parking spaces associated with each proposed parking lot; however, the total number of new parking spaces on campus would not exceed 2,000 spaces.

This initial phase of parking construction would entail the construction of three parking lots in the undeveloped area in the eastern portion of the campus for a total of _ spaces. Two lots would be located adjacent to the Student Services One-Stop Center; one to the north and another to the west. In addition a service road would be constructed that would connect the northern lot to the physical education area to the west. The third parking lot proposed in this phase would be located on the south side of Rancho San Diego Parkway across from the Student Services One-Stop Center.

3.4.9 Physical Education Facilities Expansion – Phase I (9)

The Physical Education Complex (Building R) was constructed in 1995 and contains the Gymnasium, Fitness Center and Office/Locker Building. Phase I of the Physical Education facilities expansion would include construction of a swimming pool and expansion of the shower/locker room facilities. The proposed pool would be built the east of the Physical Education Complex where student overflow parking lot 3 is currently located. The eastern building of the Physical Education Complex, which contains the shower/locker facilities, would be expanded to the southeast to house additional shower/locker rooms. The proposed expansion area would provide additional shower and locker facilities to accommodate anticipated student growth to 15,000 students.

3.4.10 Classroom/Administration Building (10)

Administrative functions are currently distributed throughout the campus in various buildings, many of which are inadequate in size and design. This results in fragmentation and decreased efficiency of administrative operations. As the student enrollment increases to 15,000, a central, integrated and comprehensive administration building would provide adequate administrative functions to accommodate the anticipated student growth.

The proposed Classroom/Administration Building would provide administrative functions as well as classrooms and labs. By relocating administrative functions to this building, more classroom space would be made available in buildings currently being used for campus administration. The Classroom/Administration Building would be constructed in the southern portion of the Central Green west of the student parking area.

In addition, circulation improvements would be constructed as part of this project, including removal of the road that extends westerly from the information kiosk, expansion of staff parking adjacent to and south of the proposed building, removal of the connector road from the existing staff parking lot to the service road associated with the Horticulture area, and realignment of the entry road.

3.4.11 Expansion of the Science and Technology Mall (11)

The approved Science and Technology Mall will be constructed on a 2.27-acre site on the west side of the campus, south of Building G. As part of the Science and Technology Mall project (analyzed in a separate environmental document), temporary buildings within the development footprint (i.e., Building D, the Student Center trailer, student cafeteria/bookstore, portable classrooms) would either be demolished or relocated. The Science and Technology Mall would be a two-story structure with 58,668 square feet and is anticipated to be occupied by Summer 2005. Expansion of the Science and Technology Mall would occur on the west side of the building and would provide additional lecture rooms and laboratories to accommodate the anticipated increase in student enrollment.

3.4.12 Parking Expansion - Phase III (12)

Proposed parking expansion would consist of the construction of an additional student lot immediately south of existing lots 1 and 2, northeast of the Water Conservation Garden and northwest of the Child Development Center. This lot would connect with lots 1 and 2 to the north, as well as lot 4 to the west.

3.4.13 Warehouse/Maintenance Building Expansion (13)

The Warehouse/Maintenance Building (Building W) is located south of the Bookstore/Food Services Building and includes a shop, storage and a service yard. This building provides limited space for current campus needs and is supplemented by the District maintenance and warehouse facility located at Grossmont College, which provides more specialized shop and larger warehouse storage capacity for both campuses. With an anticipated student enrollment of 15,000, the campus would warrant its own comprehensive maintenance and warehouse facility. In addition, Grossmont College is large enough to support its own maintenance and warehouse facility and would benefit by decentralizing operations to each campus. If the District moves the needs of Cuyamaca College back to that campus and decentralizes maintenance and warehouse operations to both campuses, the existing Warehouse/Maintenance Building would require expansion. Two alternatives for expansion are proposed: (1) relocate the vehicle storage function; or (2) relocate the entire facility to the southern portion of the campus. Relocation of the vehicle storage area would provide additional space for warehouse storage and shops. Relocation of the entire facility would decrease the drive time and distance for delivery vehicles and provide a site for an additional academic building. No specific location has been identified at this time, should the District elect to relocate the warehouse/maintenance building.

3.4.14 Social and Behavioral Science Building (14)

The Social and Behavioral Science Building would be constructed in the northwest corner of the Central Green between the classroom complex and the LRC and south of the proposed Business/CIS Building. The building would consist of two levels and would provide classroom and laboratory space. The Social and Behavioral Science Building would be situated along the primary pedestrian corridor that would run parallel to the classroom facilities and proposed Student Center. The building would provide a vital link between this pedestrian corridor and the Central Green below, as the first floor would be accessible from the Central Green while the second floor would be at grade with the pedestrian corridor. Programs housed in the proposed structure would include Anthropology, Sociology, Psychology, Geography, History, Political Science, Humanities, Philosophy and Religious Studies.

3.4.15 Communication Arts Buildings – Phase II (15)

The second phase of the Communication Arts Building complex would consist of the expansion of the northern structure on the southeast corner to include a 400- to 500-seat assembly hall with support facilities to accommodate a variety of college and community assembly needs. The proposed expansion also would include 10 lecture classrooms and nine laboratories.

3.4.16 Parking Expansion – Phase IV (16)

Proposed parking expansion would entail the construction of a large surface parking lot in the eastern portion of the campus to accommodate student parking. This lot would be located east of lots 1 and 2 and would encompass a portion of the large undeveloped area between these existing parking lots and Fury Lane. Proposed parking in this phase would be contiguous with the earlier phases of parking expansion to the north and southwest and an access driveway would be provided off of Rancho San Diego Parkway. In addition, construction of this parking area would displace the lower soccer field.

3.4.17 LRC Expansion/Remodel – Phase II (17)

During Phase II of the LRC Expansion/Remodel, the building would be expanded to the north and west. The proposed expansion area would consist of an L-shaped addition along the northern and western elevations. The western façade of the LRC, which was initially designed for future expansion, as well as the northern façade would be expanded to provide additional floor area. Proposed expansion activities would require the removal of an existing service road north of the LRC.

3.4.18 Physical Education Facilities Expansion – Phase II (18)

The second phase of the Physical Education facilities expansion would include expansion of the southern building of the Physical Education Complex, which contains the fitness center. The proposed expansion area would include a rectangular addition along the southeast elevation would provide additional indoor activity areas (i.e., aerobics, weight training areas). In addition, grandstand seating adjacent to the soccer field/track and provision of lighting at the athletic fields are proposed as part of Phase II facilities expansion.

3.4.19 Student Center – Phase II (19)

Phase II of the Student Center would expand the proposed building along the southern elevation to provide additional student service space. As discussed above, the Student Center would be located at the southwestern corner of the Central Green and would serve as major activity hub along the campus' main pedestrian corridor, which extends northerly from the Student Center parallel to the academic buildings and continues easterly towards the LRC. The Student Center ultimately would accommodate the Bookstore, Food Services, Student Affairs Administration and Support Staff, Health Center, Student Government, Club offices and meeting rooms, and Student Development Services and Support Staff.

3.4.20 Retrofit Remaining Buildings for Code Compliance and Technology (20)

All remaining existing buildings that would not be renovated or replaced would be renovated or retrofitted for current code compliance and/or technology system upgrades (i.e., plumbing, HVAC, mechanical and network technology). These improvements would continue throughout the planning period of the Cuyamaca College Master Plan.

3.5 PARKING AND CIRCULATION

Cuyamaca College's road network provides inner campus vehicular access and outer perimeter access. The inner access loop extends from the parking lots and circumnavigates the Central Green and LRC. The outer perimeter roads circumnavigate the major buildings on the campus. Several of the vehicular access roads intersect major pedestrian routes, particularly of the Central Green and north of the LRC. Some roads are redundant, which may confuse service and emergency vehicle operators. With the exception of the removal of some redundant roads on the campus, vehicular circulation patterns would remain the same.

Pedestrian circulation within the campus is generally directed to walkways traversing through the Central Green and along the classrooms, administrative buildings and physical education facilities. Many of these walkways coincide with service roads that pose safety hazards and restrict opportunities to enhance pedestrian routes with landscape/hardscape improvements. Implementation of the Master Plan would provide additional connections between core areas on campus via new pedestrian walkways. The proposed network of pedestrian walkways would define the Central Green as the central activity hub while also providing convenient and pedestrian-friendly paths to classrooms, laboratories, the LRC, administrative offices and student services. Landscaping and benches would be installed along proposed pathways to enhance the pedestrian experience on campus.

The existing campus parking supply includes approximately 1,350 spaces distributed over surface parking lots throughout the campus. This existing parking supply, however, is not adequate to support the anticipated student enrollment growth to 15,000 students. With the construction of proposed parking facilities (as described above), an additional 2,000 spaces would be provided to ensure adequate parking for 15,000 students.

3.6 OPEN SPACE

The Cuyamaca College campus features two types of open space: landscape greens and native habitat. The Central Green near the center of campus contains pedestrian pathways and landscaping, including mature trees and turf. The 7.0-acre Central Green is the focus for the core of the campus and would be further enhanced by improvements proposed in the Master Plan.

The Master Plan map also recognizes the biological preserve on campus, which was created in 1994 when the District received a Habitat Loss Permit (HLP) from the County of San Diego to authorize the removal of coastal sage scrub as part of constructing P.E. facilities. The biological preserve is situated along the northern, western and eastern edges of campus and contains steep slopes, native habitat and a riparian corridor. The approximately 50-acre biological preserve, described in more detail in Section 4.4, *Biological Resources*, roughly corresponds with the portion of the campus that is contained in MSCP Preserve for the County of San Diego.

3.7 DISCRETIONARY ACTIONS/PERMITS

The following actions must be taken as part of the Master Plan approval and construction process:

Grossmont-Cuyamaca Community College District Governing Board

- Certification of the Final EIR
- Approval of the Cuyamaca College Master Plan
- Adoption of Findings
- Adoption of Mitigation Monitoring and Reporting Program

San Diego Regional Water Quality Control Board/State Resources Control Board

- National Pollutant Discharge Elimination System (NPDES) General Construction Activity Permit and Municipal Stormwater Permit

- NPDES Dewatering Waste Discharge Permit (if required)

San Diego County Air Pollution Control District

- Permits to Construct and/or Permits to Operate (for any new or relocated stationary sources of equipment that emit or control air contaminants, such as heating, ventilation and air conditioning units)

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4.0 ENVIRONMENTAL ANALYSIS

4.1 TRAFFIC AND PARKING

This section of the EIR evaluates the potential for implementation of the Master Plan to result in impacts related to traffic and circulation. In support of this analysis, a traffic impact analysis for the Cuyamaca College Master Plan was prepared by Katz, Okitsu and Associates (KOA 2003) and is contained in EIR Appendix B. The results and conclusions are summarized in the applicable discussions within this section and other sections of this document.

4.1.1 Existing Conditions

Cuyamaca College is located in the Rancho San Diego community in the unincorporated area of San Diego County. Figure 4.1-1, *Existing Roadway Network and Key Project Intersections*, illustrates the existing roadway network in the project area, which is generally comprised of two freeways and several major and minor roadways.

The study area analyzed for the Master Plan can be defined based on criteria contained in the SANDAG Congestion Management Plan (CMP; 1999), which specifies that locations must be studied where project traffic would add 50 or more peak hour trips in one direction to a regionally significant arterial or more than 50 peak hour trips to a freeway. The San Diego Traffic Engineers Council and Institute of Transportation Engineers (SANTEC/ITE) guidelines require analysis of site access and all locations adjacent to the project and the first major signalized intersection in each direction.

Existing Roadway Segment Description and Operations

Street segment travel conditions are based on two factors: average daily traffic (ADT) volumes and capacity. LOS is a measure used to describe the condition of traffic flow, and is calculated by comparing ADT with the capacity of the roadway. The LOS is expressed using letter designations from "A" to "F," with LOS "A" representing the best case and LOS "F" representing the worst case. Generally LOS "A" through "C" represents free to stable flow traffic conditions with little or no delay. LOS "D" represents limited congestion and some delay that is acceptable to most people. LOS "E" and "F" represent extremely unstable flow and significant delays. When evaluating traffic conditions, LOS A-D is considered acceptable for urbanized areas where further improvement in LOS is not feasible or practical. The existing roadway segment conditions, including ADT by segment, are described below and summarized in Table 4.1-1, *Existing Daily Roadway Segment Conditions*.

State Route 94/Campo Road

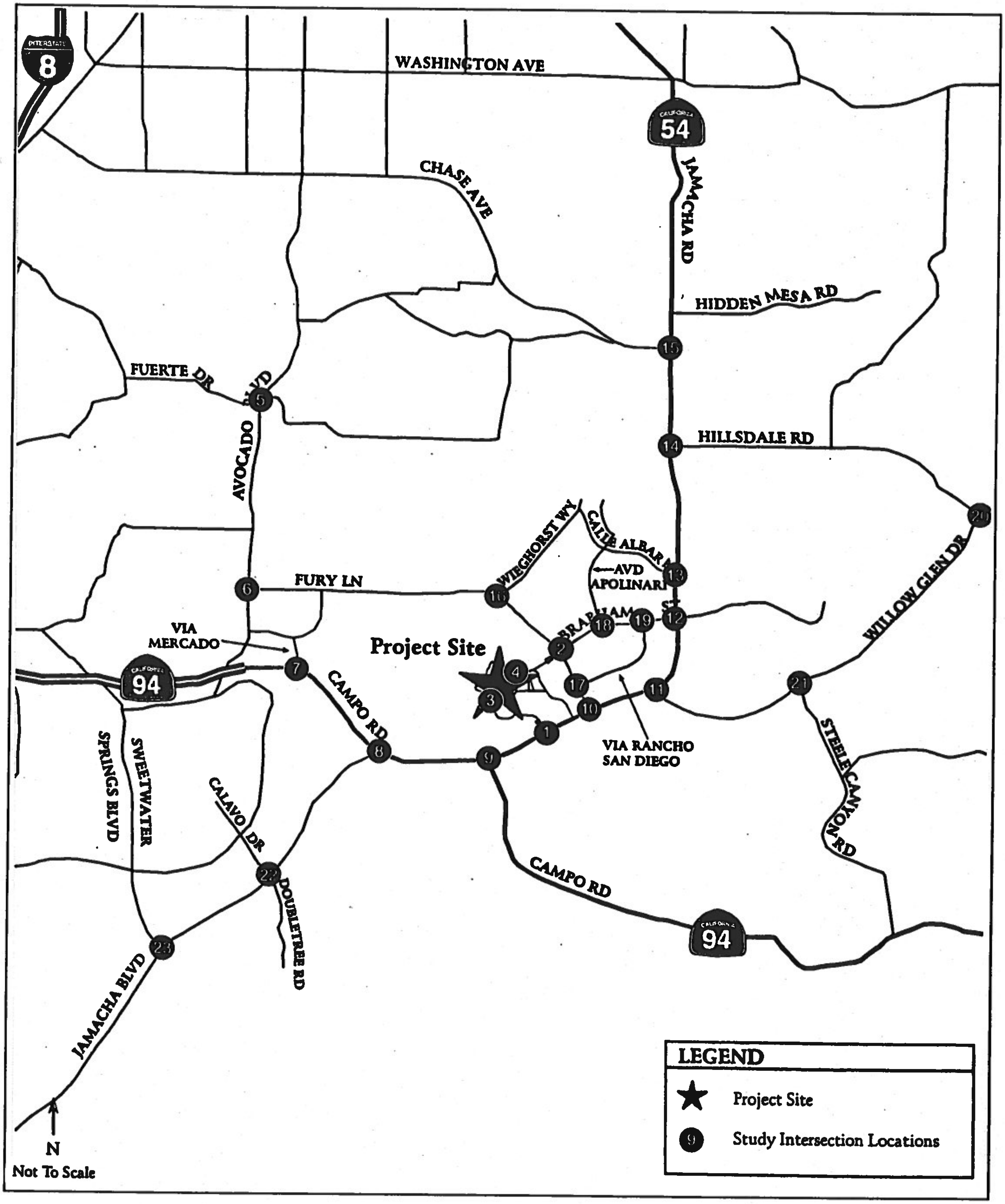
State Route 94 (SR-94) is an east-west freeway that connects downtown San Diego to Old Highway 80 in east San Diego County near Boulevard. SR-94 is located west and south of Cuyamaca College and provides regional access to the campus. SR-94 is constructed as an eight-lane freeway between downtown San Diego and Spring Street in Lemon Grove and narrows to a four-lane, divided freeway between Spring Street and Avocado Boulevard with grade-separated interchanges. At Via Mercado, SR-94 coincides with Campo Road and becomes a five-lane Prime Arterial with a raised median and bicycle lanes. The County plans to extend the grade-separated freeway to Jamacha Boulevard and improve the segment from Jamacha Boulevard to State Route 54/Jamacha Road to six-lane Prime Arterial standards.

State Route 54/Jamacha Road

State Route 54 (SR-54)/Jamacha Road extends southerly from Main Street in El Cajon to its terminus at SR-94/Campo Road. SR-54/Jamacha Road is located south and east of Cuyamaca College and is constructed as a six-lane Prime Arterial from SR-94/Campo Road to Cuyamaca College Drive West. At Cuyamaca College Drive West, SR-94/Jamacha Road becomes a four- to five-lane Major Road with a two-way left-turn lane from Willow Glen Drive to Hillsdale Road and again north of Chase Avenue. Bicycle lanes are provided along both sides of the roadway and on-street parking is not permitted.

Jamacha Boulevard

Jamacha Boulevard, located southwest of the campus, is a southwest-trending roadway connecting SR-94/Campo Road through Spring Valley and La Presa with Sweetwater Road. Jamacha Boulevard is constructed as a four-lane Major Road from SR-94/Campo Road to Sweetwater Springs Road and two lanes south of Sweetwater Springs Road. Jamacha Boulevard is classified as a four-lane Major Road in the County of San Diego Circulation Element.



Existing Roadway Network & Key Project Intersections

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Figure 4.1-1

Table 4.1-1
EXISTING DAILY ROADWAY SEGMENT CONDITIONS

ROADWAY SEGMENT	LANES/ CLASSIFICATION	CAPACITY AT LOS E	ADT	V/C	LOS
SR-94/Campo Road					
Via Mercado to Jamacha Blvd.	5/Prime Arterial	57,000	43,074	0.76	C
Jamacha Blvd. to SR-94/Campo Rd.	5/Prime Arterial	57,000	56,965	1.00	E
SR-54/Jamacha Road					
SR-94/Campo Rd. to Cuyamaca College Dr. West	6/Prime	57,000	39,058	0.69	C
Cuyamaca College Dr. West to Fury Lane	4/Major	37,000	43,558	1.18	F
Fury Lane to Willow Glen Dr.	4/Major	37,000	37,886	1.02	F
Willow Glen Dr. to Brabham St.	5/Major	37,000	27,705	0.75	C
Brabham St. to Calle Albara	5/Major	37,000	30,108	0.81	D
Calle Albara to Hillsdale Rd.	5/Major	37,000	32,067	0.87	D
Hillsdale Rd. to Chase Ave.	4/Major	37,000	28,844	0.78	C
Chase Ave. to Hidden Mesa Rd.	5/Major	37,000	27,425	0.74	C
Jamacha Boulevard					
SR-54/Campo Rd. to Calavo Dr./Doubletree Rd.	4/Major	37,000	22,004	0.59	B
Calavo Dr./Doubletree Rd. to Sweetwater Springs Rd.	4/Major	37,000	18,695	0.51	B
Sweetwater Springs Rd. to San Miguel St.	2/Collector	19,000	32,527	1.71	F
Avocado Boulevard					
Horizon Hills Dr. to Fuerte Dr.	5/Major	37,000	28,893	0.78	C
Fuerte Dr. to Fury Lane	5/Major	37,000	27,521	0.74	C
Fury Lane					
Avocado Blvd. to Wieghorst Way	3/Collector	34,200	13,521	0.40	A
Wieghorst Way to Brabham St.	4/Major	37,000	9,804	0.26	A
Brabham St. to SR-54/Jamacha Rd.	4/Major	37,000	9,189	0.25	A
Brabham Street					
Avenida Apolinari to Via Rancho San Diego Prkwy.	3/Town Collector	19,000	6,420	0.34	C
Willow Glen Drive					
SR-54/Jamacha Rd. to Steele Canyon Rd.	4/Collector	34,200	21,919	0.64	B
Steele Canyon Rd. to Hillsdale Rd.	2/Light Collector	16,200	12,275	0.76	E
Hillsdale Rd. to Camino de las Poedras	2/Light Collector	16,200	9,447	0.58	D

V/C = volume-to-capacity ratio
Source: KOA 2003a.

Avocado Boulevard

Avocado Boulevard, located northwest of the campus, is a north-south roadway that connects SR-94 with Main Street in El Cajon. Avocado Boulevard is constructed as a Major Road with four lanes and a two-way left-turn lane from Fury Lane to Horizon Hills Drive. The posted speed limit is 45 miles per hour and bicycle lanes are provided along both sides of the roadway. Avocado Boulevard is classified as a Major Road in the County Circulation Element.

Fury Lane

Fury Lane, located north and immediately east of the campus, extends easterly from Avocado Boulevard to Wieghorst Way, and then southerly to SR-54/Jamacha Road. Fury Lane is constructed as a three-lane Collector Road from Avocado Boulevard to Wieghorst Way and a four-lane Major Street with a raised median from Wieghorst Way to SR-54/Jamacha Road. Sidewalks and bicycle lanes are provided along both sides of the roadway and on-street parking is permitted. The posted speed limit is 40 mph.

Brabham Street

Brabham Street, immediately adjacent to and east of the campus, is an east-west street connecting Fury Lane with Wind River Road and generally traverses through residential neighborhoods. Brabham Street is constructed as a two-lane Town Collector with a two-way left-turn lane from Avenida Apolinari to Via Rancho San Diego Parkway. On-street parking is permitted on both sides of the street and sidewalk improvements are in place.

Willow Glen Drive

Willow Glen Drive, located east of the campus, generally runs in a north-south direction and connects SR-54/Jamacha Road to Dehesa Road. Willow Glen Drive is constructed as a four-lane Collector from SR-54/Jamacha Road to Steele Canyon Road and a two-lane Light Collector from Steele Canyon Road to Camino de las Piedras. Willow Glen Drive is classified as a Major Road in the County of San Diego Circulation Element.

Existing Intersection Operations

Intersections within the campus vicinity that were evaluated in the traffic study are shown on Figure 4.1-1, and represent intersections that would most likely be affected by traffic generated by implementation of the Master Plan. The analysis of peak hour intersection performance was based on the Highway Capacity Manual (HCM) operational analysis procedures.

Intersection LOS is based on total vehicle delay expressed in seconds. As with roadway segments, LOS A though D is considered acceptable for peak hour intersections in the County of San Diego. Table 4.1-2, *Existing Peak Hour Intersection Conditions*, below summarizes the existing peak hour intersection operating conditions for the study intersections.

Table 4.1-2
EXISTING PEAK HOUR INTERSECTION CONDITIONS

INTERSECTION	AM PEAK HOUR		PM PEAK HOUR	
	Delay	LOS	Delay	LOS
SR-54/Jamacha Rd at Cuyamaca College Dr. W	21.1	C	23.4	C
Fury Lane at Rancho San Diego Pkwy./Brabham St.	29.1	C	22.3	C
Cuyamaca College Dr. W on campus	17.7	C	9.9	A
Avocado Blvd. at Fuerte Dr.	28.3	C	40.2	D
Avocado Blvd. at Fury Lane	27.6	C	31.2	C
SR-94/Campo Road at Via Mercado	16.1	B	23.4	C
SR-94/Campo Road at Jamacha Blvd.	72.4	E	171.1	F
SR-94/Campo Road at SR-54 Jamacha Rd.	29.0	C	26.7	C
SR-54/Jamacha Road at Fury Lane	21.0	C	17.6	B
SR-54/Jamacha Road at Willow Glen Dr.	27.4	D	57.4	E
SR-54/Jamacha Road at Brabham St.	53.1	D	20.3	C
SR-54/Jamacha Road at Calle Albara	17.7	B	11.9	B
SR-54/Jamacha Road at Hillsdale Rd.	21.1	C	11.5	B
SR-54/Jamacha Road at Chase Ave.	68.5	E	104.1	F
Wieghorst Way at Fury Lane[1]	14.8	B	13.2	B
Fury Lane at Via Rancho San Diego	14.2	B	13.6	B
Avenida Apolinari at Brabham St.	17.4	B	14.2	B
Via Rancho San Diego at Brabham St.[1]	14.8	B	10.3	B
Hillsdale Rd. at Willow Glen Dr.[1]	14.7	B	15.8	C
Willow Glen Dr. at Steele Canyon Dr.	29.3	C	23.4	C
Jamacha Blvd. at Calavo Dr./Doubletree Rd.	12.3	B	13.7	B
Jamacha Blvd. at Sweetwater Springs Blvd.	43.7	D	70.5	E

[1]Unsignalized intersection
Source: KOA 2003a.

As shown in Table 4.1-2, four of the intersections currently operate at LOS E or F during the AM and/or PM peak hour periods.

Campus Parking Supply

Vehicular parking at Cuyamaca College is provided by a number of paved and unpaved surface lots located throughout the campus. The current campus parking inventory is approximately 1,350 spaces, or 4.5 students per space. Student parking is accommodated in paved lots 1 (391 spaces) and 2 (400 spaces) in the central portion of the campus, as well as three unpaved overflow areas; one immediately adjacent to and east of lot 2 (72 spaces), one across from the fitness center (112 spaces) and the other northwest of the Heritage of Americas Museum (130 spaces). A total of 1,105 spaces are allocated for student parking. Staff parking consists of 73 spaces in the main staff parking lot adjacent to lot 1, 29 by Ornamental Horticulture, 19 by Automotive Technology, 68 by the soccer field/track and 24 around the Physical Education (P.E.) Center, for a total of 189 staff parking spaces. In addition, 17 disables spaces and 16 metered spaces are provided.

Alternative Modes of Transportation

Cuyamaca College is served the Metropolitan Transit System (MTS), which consists of a federation of fixed-route public transit operators within the San Diego region, including the Metropolitan Transit Development Board (MTDB), the San Diego Transit Corporation (SDTC), San Diego Trolley, Inc. (SDTI), Chula Vista Transit, National City Transit and the Coronado-San Diego Bay Ferry. Bus service is provided to the campus throughout the day by MTDB via Routes 856 and 858. Buses enter the campus at the Cuyamaca College Drive West entrance, loop around the southwestern portion of the campus and exit at the same campus access point.

4.1.2 Impacts

Thresholds of Significance

Thresholds of significance for impacts to traffic and circulation are based on Appendix G of the State CEQA Guidelines as quantified using SANTEC/ITE guidelines. Impacts related to traffic and circulation would be considered significant if implementation of the Master Plan would result in one or more of the following:

1. Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)

2. Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways

3. Substantially increase hazards due to a design feature (i.e., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)

4. Result in inadequate emergency access

5. Result in inadequate parking capacity

6. Conflict with adopted policies, plans or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)

The SANTEC/ITE Guidelines (March 1999) were used to quantify project impacts on roadways and intersections within the campus vicinity, pursuant to significance thresholds 1 and 2 above. These guidelines define a series of thresholds based on allowable increases in volume-to-capacity ratios and delays, which become more stringent as level of service is reduced. Significant project impacts depend on both project-generated traffic and on the existing traffic conditions of the affected roadways and intersections. The acceptable LOS for roadway segments and intersections is LOS D. Where roadway segments are forecast to operate at LOS E or F, and the increase in volume-to-capacity ratio is greater than 0.02, impacts would be considered significant and mitigation would be required. Similarly, where intersections are forecast to operate at LOS E or F, and the increase in delay is greater than two seconds, impacts would be considered significant and mitigation would be required. If, however, the affected roadway segment or intersection would operate at LOS D or better despite exceeding the allowable increase in volume-to-capacity ratio or delay, such a change would not represent a significant impact.

For information purposes only, the Intersecting Lane Vehicle (ILV) analysis output requested by Caltrans has been provided in Appendix F of the traffic impact study. This ILV information has no bearing on the significance conclusions reached in this report.

Impact Analysis

The following discussion evaluates potential environmental impacts resulting from implementation of the Master Plan to transportation network operations, traffic hazards, emergency access, parking capacity and alternative modes of transportation.

Transportation Network Operations

The project traffic report analyzed Existing Plus Project (Year 2003) and Long-term (Year 2020) conditions for the study area with and without the project to determine any impact that the proposed project's traffic would have on the circulation network.

The San Diego Association of Governments (SANDAG) Congestion Management Plan (CMP) requires a traffic analysis for all large-scale projects that generate a minimum of 2,400 daily trips or 200 peak hour trips. Additionally, locations must be evaluated where the project adds 50 or more peak hour trips in one direction to a regionally significant arterial (RSA), or more than 50 peak hour trips in one direction to a freeway. Although the project would exceed the peak hour trip generation threshold, there are no CMP RSAs in the project vicinity.

Trip Generation

Trip generation is a measure or forecast of the number of vehicular trips that begin or end at the project site and is a function of the extent and type of proposed development. All or a portion of generated project trips will result in traffic increases on the surrounding street network. Vehicular traffic generation trips were estimated based on rates in the SANDAG *(Not So) Brief Guide of Vehicular Traffic Generation Rates for the San Diego Region* (2002a). This manual provides standards and recommendations for the probable traffic generation of various land uses based upon local, regional and national studies of existing development in comparable settings. As shown in Table 4.1-3, *Proposed Project Trip Generation*, proposed project trip generation was determined to be 8,400 ADT, with 1,008 trips during the AM peak period and 756 trips during the PM peak period.

Table 4.1-3
PROPOSED PROJECT TRIP GENERATION

Land Use	Intensity[1]	Trip Rate	ADT	AM Trips	In	Out	PM Trips	In	Out
Cuyamaca College	7,000 students	1.2/student	8,400	1,008	806	202	756	454	304

[1]Represents increase in existing student enrollment from 8,000 to 15,000 students.
Source: KOA 2003a.

Existing Plus Project Conditions

Under Existing Plus Project conditions, traffic generated by the implementation of the Master Plan was added to existing traffic volumes. The following analysis addresses potential project impacts on surrounding roadway segments and intersections due to project-generated traffic. The analysis represents a worst-case scenario, as it assumes immediate completion of all Master Plan construction projects and consequently, introduction of the associated 8,400 traffic trips to the surrounding transportation network. Existing Plus Project conditions do not account for traffic from planned developments in the project vicinity or planned improvements to the circulation network.

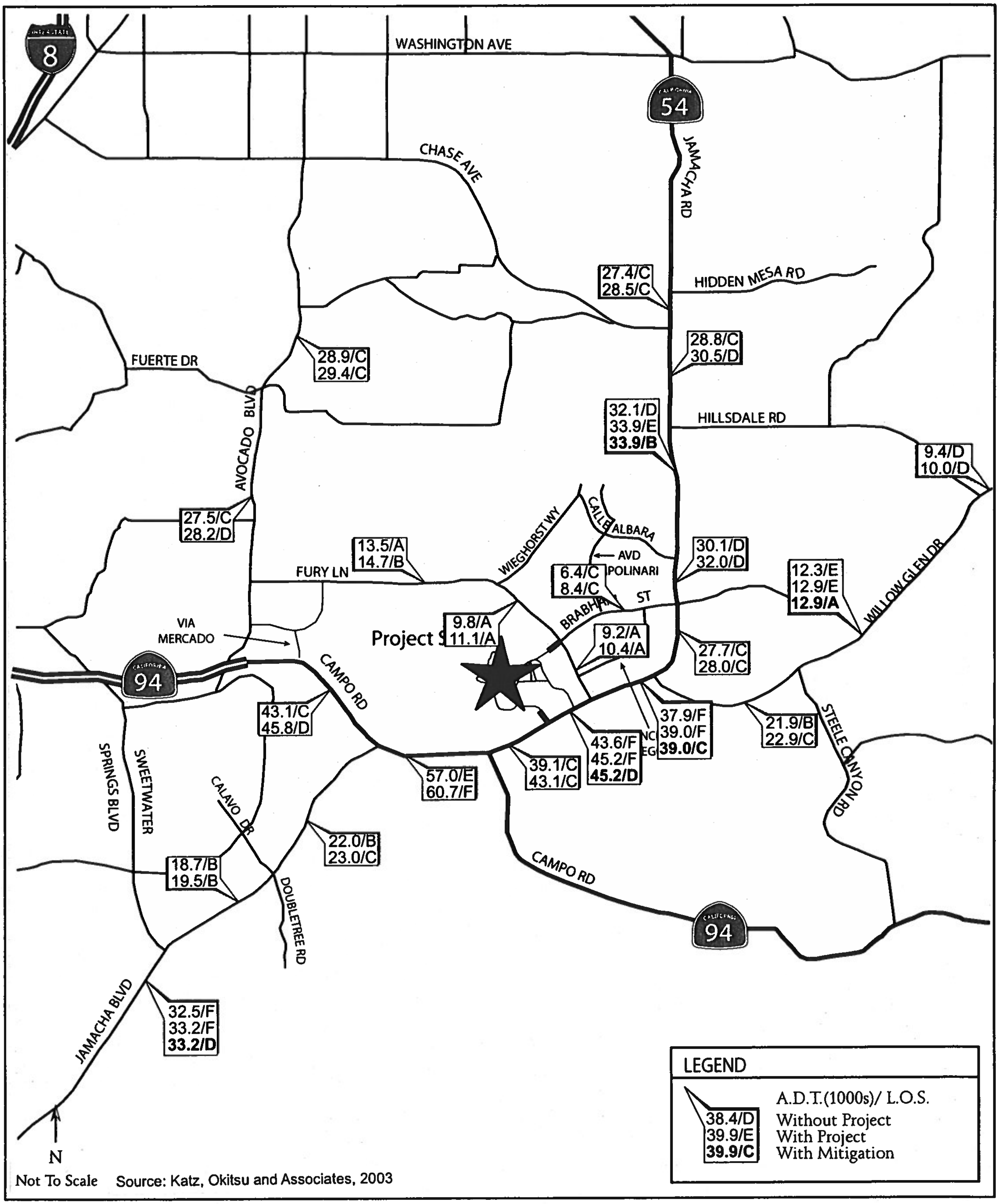
Roadway Segment Operations

Existing Plus Project service levels on study area roadway segments were determined by comparing adopted ADT thresholds for LOS (pursuant to the County of San Diego Public Road Standards [1999]), the daily capacity of the study area roadway segments and the Existing Plus Project volumes in the study area. The results of this analysis are summarized in Table 4.1-4, *Existing Plus Project Daily Roadway Segment Conditions,* and illustrated in Figure 4.1-2, *Existing Plus Project Daily Roadway Segment Conditions*.

Table 4.1-4
EXISTING PLUS PROJECT DAILY ROADWAY SEGMENT CONDITIONS

ROADWAY SEGMENT	LANES/ CLASSIFICATION	CAPACITY AT LOS E	Existing Conditions			Existing + Project Conditions				
			ADT	V/C	LOS	ADT	V/C	LOS	Δ	S
SR-94/Campo Road										
Via Mercado to Jamacha Blvd.	5/Prime Arterial	57,000	43,074	0.76	C	45,762	0.80	D	0.05	N
Jamacha Blvd. to SR-94/Campo Rd.	5/Prime Arterial	57,000	56,965	1.00	E	60,661	1.06	F	0.06	Y
SR-54/Jamacha Road										
SR-94/Campo Rd. to Cuyamaca College Dr. West	6/Prime	57,000	39,058	0.69	C	43,090	0.76	C	0.07	N
Cuyamaca College Dr. West to Fury Lane	4/Major	37,000	43,558	1.18	F	45,154	1.22	F	0.04	Y
Fury Lane to Willow Glen Dr.	4/Major	37,000	37,886	1.02	F	38,978	1.05	F	0.03	Y
Willow Glen Dr. to Brabham St.	5/Major	37,000	27,705	0.75	C	27,957	0.76	C	0.01	N
Brabham St. to Calle Albara	5/Major	37,000	30,108	0.81	D	31,956	0.86	D	0.05	N
Calle Albara to Hillsdale Rd.	5/Major	37,000	32,067	0.87	D	33,915	0.92	E	0.05	Y
Hillsdale Rd. to Chase Ave.	4/Major	37,000	28,844	0.78	C	30,524	0.82	D	0.05	N
Chase Ave. to Hidden Mesa Rd.	5/Major	37,000	27,425	0.74	C	28,517	0.77	C	0.03	N
Jamacha Boulevard										
SR-54/Campo Rd. to Calavo Dr./Doubletree Rd.	4/Major	37,000	22,004	0.59	B	23,012	0.62	C	0.03	N
Calavo Dr./Doubletree Rd. to Sweetwater Springs Rd.	4/Major	37,000	18,695	0.51	B	19,451	0.53	B	0.02	N
Sweetwater Springs Rd. to San Miguel St.	2/Collector	19,000	32,527	1.71	F	33,199	1.75	F	0.04	Y
Avocado Boulevard										
Horizon Hills Dr. to Fuerte Dr.	5/Major	37,000	28,893	0.78	C	29,397	0.79	C	0.01	N
Fuerte Dr. to Fury Lane	5/Major	37,000	27,521	0.74	C	28,193	0.76	D	0.02	N
Fury Lane										
Avocado Blvd. to Wieghorst Way	3/Collector	34,200	13,521	0.40	A	14,697	0.43	B	0.03	N
Wieghorst Way to Brabham St.	4/Major	37,000	9,804	0.26	A	11,148	0.30	A	0.04	N
Brabham St. to SR-54/Jamacha Rd.	4/Major	37,000	9,189	0.25	A	10,365	0.28	A	0.03	N
Brabham Street										
Avenida Apolinari to Via Rancho San Diego Pkwy.	3/Town Collector	19,000	6,420	0.34	C	8,352	0.44	C	0.10	N
Willow Glen Drive										
SR-54/Jamacha Rd. to Steele Canyon Rd.	4/Collector	34,200	21,919	0.64	B	22,927	0.67	C	0.03	N
Steele Canyon Rd. to Hillsdale Rd.	2/Light Collector	16,200	12,275	0.76	E	12,947	0.80	E	0.04	Y
Hillsdale Rd. to Camino de las Poedras	2/Light Collector	16,200	9,447	0.58	D	10,035	0.62	D	0.04	N

Δ = change in delay between Existing + Project Conditions and Existing Conditions.
Source: KOA 2003a.



Existing Plus Project Daily Roadway Segment Conditions

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Figure 4.1-2

As shown in Table 4.1-4, the addition of project-generated traffic would cause segments of SR-94/Campo Road, SR-54/Jamacha Road, Jamacha Boulevard and Willow Glen Drive to operate at unacceptable LOS E or F. In addition, the volume-to-capacity ratio along these segments would increase by more than 0.02. Therefore, impacts to the following roadway segments would be considered significant (on a project and/or cumulative level) and require mitigation:

- SR-94/Campo Road, from Jamacha Boulevard to SR-94/Campo Road (LOS F) (project and cumulative)
- SR-54/Jamacha Road, from Cuyamaca College Drive West to Fury Lane (LOS F) (project and cumulative)
- SR-54/Jamacha Road, from Fury Lane to Willow Glen Drive (LOS F) (project and cumulative)
- SR-54/Jamacha Road, from Calle Albara to Hillsdale Road (LOS E) (project only)
- Jamacha Boulevard, from Sweetwater Springs Road to San Miguel Street (LOS F) (project and cumulative)
- Willow Glen Drive, from Steele Canyon Road to Hillsdale Road (LOS E) (project and cumulative)

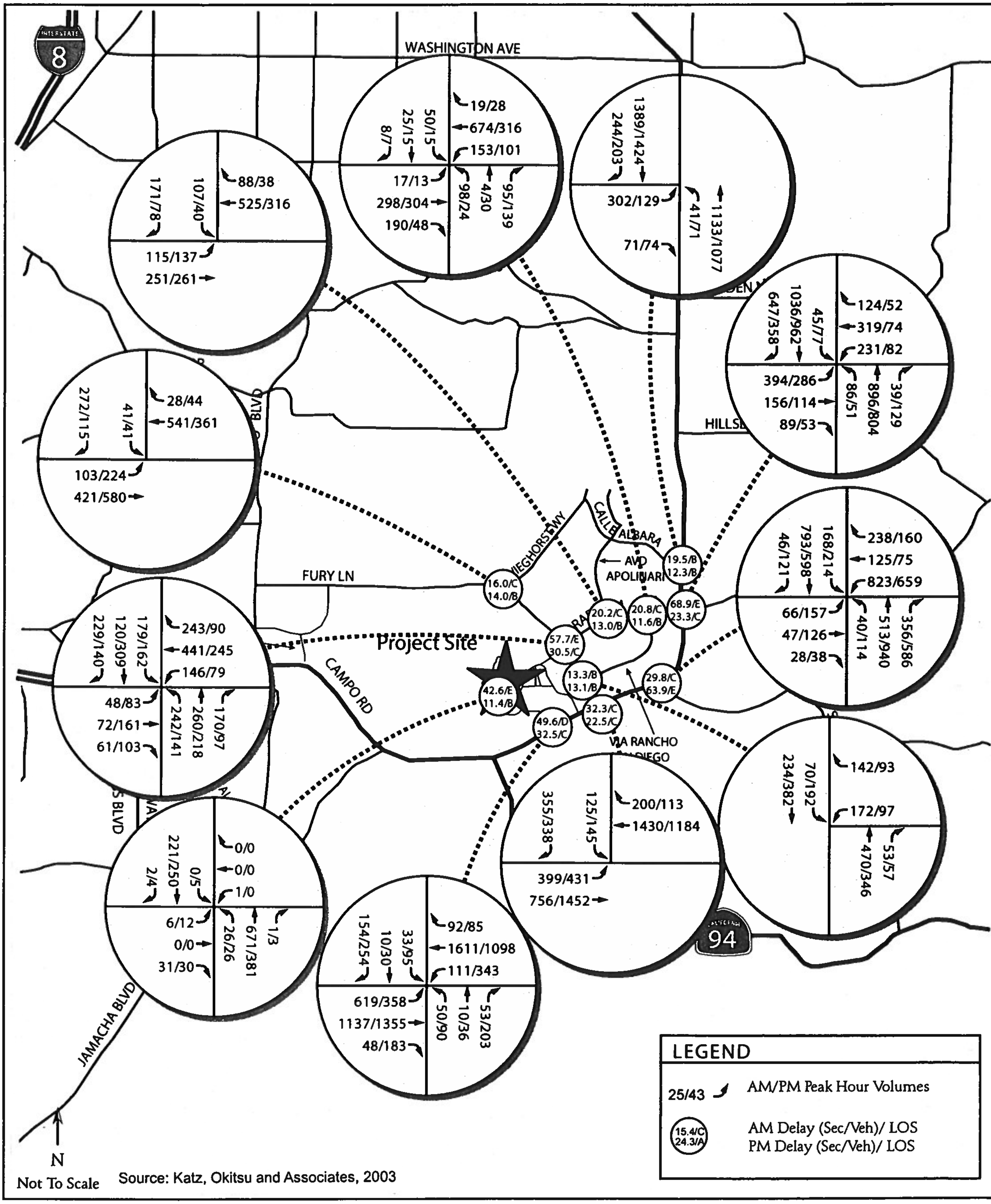
Intersection Operations

Existing Plus Project peak hour intersection conditions are illustrated in Figures 4.1-3a, *Existing Plus Project Peak Hour Intersection Conditions*, and 4.1-3b, *Existing Plus Project Peak Hour Intersection Conditions*. The addition of project-generated traffic would result in significant impacts to peak hour intersection operations under Existing Plus Project conditions. As shown in Table 4.1-5, *Existing Plus Project Peak Hour Intersection Conditions*, six intersections would operate at unacceptable LOS E or F during the AM peak hour and four during the PM peak hour. In addition to operating at substandard LOS E or F, these same intersections would experience increases in delay of greater than two seconds. Therefore, impacts to the following six intersections would be considered significant (at a project and/or cumulative level) under Existing Plus Project conditions:

- Fury Lane at Rancho San Diego Parkway/Brabham Street (AM)
- SR-94/Campo Road at Jamacha Boulevard (AM and PM)

TABLE 4.1-5
EXISTING PLUS PROJECT PEAK HOUR INTERSECTION CONDITIONS

INTERSECTION	Existing Conditions				Existing + Project Conditions							
	AM PEAK HOUR		PM PEAK HOUR		AM PEAK HOUR		Δ	S	PM PEAK HOUR		Δ	S
	Delay	LOS	Delay	LOS	Delay	LOS			Delay	LOS		
SR-54/Jamacha Rd at Cuyamaca College Dr. W	21.1	C	23.4	C	49.6	D	28.5	N	32.5	C	9.1	N
Fury Lane at Rancho San Diego Pkwy. /Brabham St.	29.1	C	22.3	C	57.7	E	28.6	Y	30.5	C	8.2	N
Cuyamaca College Dr. W on campus	17.7	C	9.9	A	42.6	E	24.9	N	11.4	B	1.5	N
Avocado Blvd. at Fuerte Dr.	28.3	C	40.2	D	30.0	C	1.7	N	42.1	D	1.9	N
Avocado Blvd. at Fury Lane	27.6	C	31.2	C	33.5	C	5.9	N	37.1	D	5.9	N
SR-94/Campo Road at Via Mercado	16.1	B	23.4	C	16.6	B	0.5	N	31.2	C	7.8	N
SR-94/Campo Road at Jamacha Blvd.	72.4	E	171.1	F	101.5	F	29.1	Y	202.1	F	31.0	Y
SR-94/Campo Road at SR-54 Jamacha Rd.	29.0	C	26.7	C	35.9	D	6.9	N	31.6	C	4.9	N
SR-54/Jamacha Road at Fury Lane	21.0	C	17.6	B	32.3	C	11.3	N	22.5	C	4.9	N
SR-54/Jamacha Road at Willow Glen Dr.	27.4	D	57.4	E	29.8	C	2.4	N	63.9	E	6.5	Y
SR-54/Jamacha Road at Brabham St.	53.1	D	20.3	C	68.9	E	15.8	Y	23.3	C	3.0	N
SR-54/Jamacha Road at Calle Albara	17.7	B	11.9	B	19.5	B	1.8	N	12.3	B	0.4	N
SR-54/Jamacha Road at Hillsdale Rd.	21.1	C	11.5	B	22.7	C	1.6	N	12.0	B	0.5	N
SR-54/Jamacha Road at Chase Ave.	68.5	E	104.1	F	80.1	F	11.6	Y	115.7	F	11.6	Y
Wieghorst Way at Fury Lane[1]	14.8	B	13.2	B	16.0	C	1.2	N	14.0	B	0.8	N
Fury Lane at Via Rancho San Diego	14.2	B	13.6	B	13.3	B	-0.9	N	13.1	B	-0.5	N



Existing Plus Project Peak Hour Intersection Conditions

CUYAMACA COLLEGE MASTER PLAN EIR

Figure 4.1-3a

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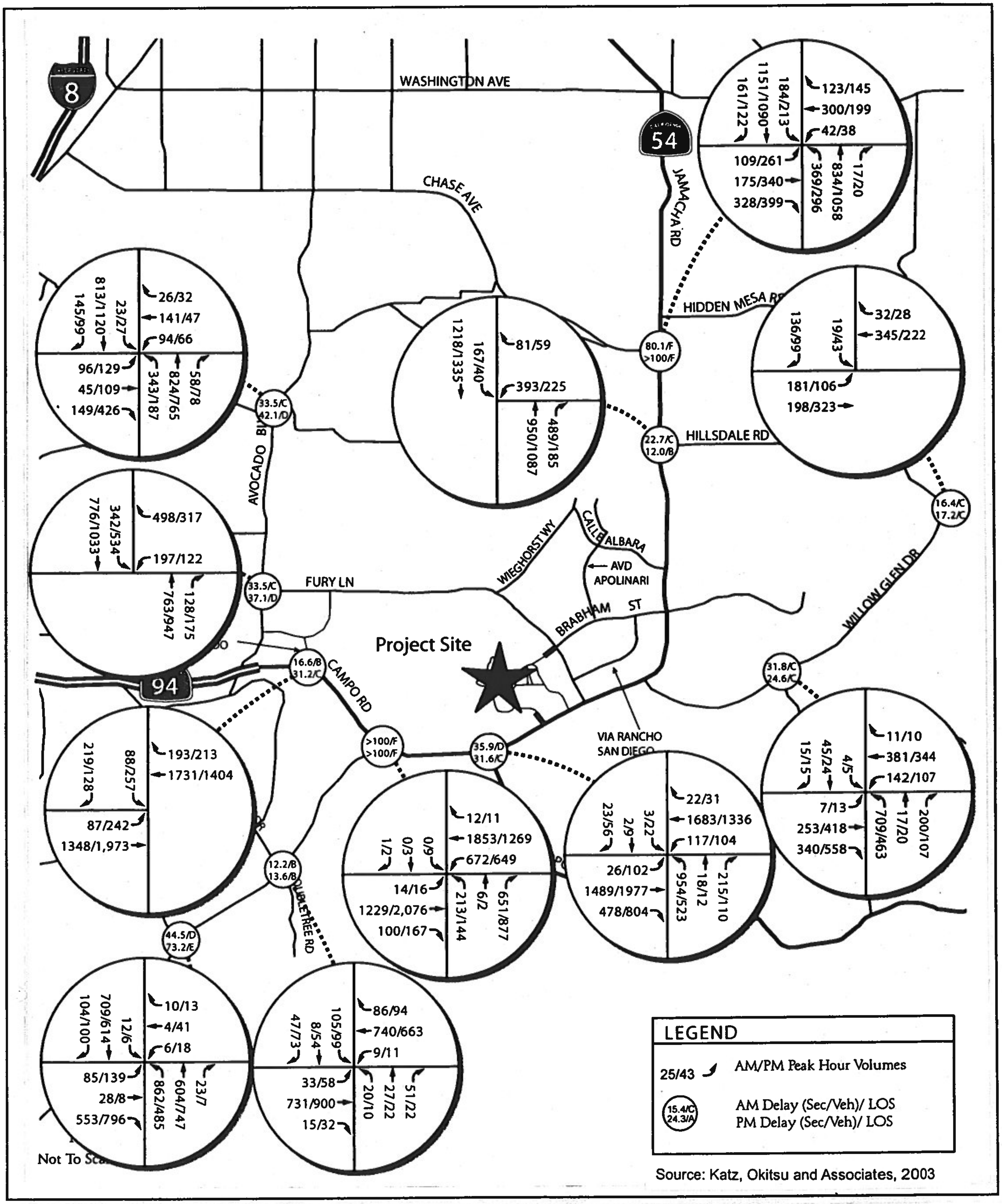


Existing Plus Project Peak Hour Intersection Conditions

CUYAMACA COLLEGE MASTER PLAN EIR

Figure 4.1-3b

HELIX

TABLE 4.1-5 (cont.)

INTERSECTION	Existing Conditions				Existing + Project Conditions							
	AM PEAK HOUR		PM PEAK HOUR		AM PEAK HOUR		Δ	S	PM PEAK HOUR		Δ	S
	Delay	LOS	Delay	LOS	Delay	LOS			Delay	LOS		
Avenida Apolinari at Brabham St.	17.4	B	14.2	B	20.2	C	2.8	N	13.0	B	-1.2	N
Via Rancho San Diego at Brabham St.[1]	14.8	B	10.3	B	20.8	C	6.0	N	11.6	B	1.3	N
Hillsdale Rd. at Willow Glen Dr.[1]	14.7	B	15.8	C	16.4	C	1.7	N	17.2	C	1.4	N
Willow Glen Dr. at Steele Canyon Dr.	29.3	C	23.4	C	31.8	C	2.5	N	24.6	C	1.2	N
Jamacha Blvd. at Calavo Dr./Doubletree Rd.	12.3	B	13.7	B	12.2	B	-0.1	N	13.6	B	-0.1	N
Jamacha Blvd. at Sweetwater Springs Blvd.	43.7	D	70.5	E	44.5	D	0.8	N	73.2	E	2.7	Y

[1]Minor-street stop-controlled intersection
Δ = change in delay between Existing + Project Conditions and Existing Conditions.
Source: KOA 2003a.

- SR-54/Jamacha Road at Willow Glen Drive (PM)
- SR-54/Jamacha Road at Brabham Street (AM)
- SR-54/Jamacha Road at Chase Avenue (AM and PM)
- Jamacha Boulevard at Sweetwater Springs Boulevard (PM)

Long-term Conditions

Long-term (Year 2020) traffic volumes were developed by adding an ambient growth factor of one percent per year to existing volumes. Year 2020 volumes documented in the Series 9 Cities/County Travel Demand Model prepared by SANDAG were less than the existing counts collected for the study area. Thus, information about approved and pending projects in the project vicinity was collected to estimate traffic growth in the near term. Assuming that all cumulative projects would be built and operating by the year 2009, calculations showed that approximately one percent growth per year would occur between 2003 and 2020. Therefore, existing volumes were increased by 17 percent to estimate long-term traffic volumes.

Under Long-term conditions, buildout of the County of San Diego General Plan Circulation Element is assumed, which would increase the capacity of some of the study area roadways. Construction of the following planned roadway improvements are assumed under Long-term conditions:

- SR-94/Campo Road, from Via Mercado to Jamacha Boulevard, would be improved to six-lane freeway standards;
- SR-54/Jamacha Road, from SR-94/Campo Road to Chase Avenue, would be improved to a six-lane Prime Arterial Road;
- Fury Lane, from Avocado Boulevard to Wieghorst Way, would be improved to a four-lane Major Road;
- Willow Glen Drive, from SR-54/Jamacha Road to Camino del las Piedras, would be improved to a four-lane Major Road;
- Jamacha Boulevard, from Sweetwater Springs Road to San Miguel Street, would be improved to a four-lane Major Road; and

- SR-94, from its current terminus to Jamacha Boulevard, would be improved to a six-lane freeway.

The circulation network in the campus vicinity under Long-term conditions is depicted in Figures 4.1-4a, *Long-term Circulation Network*, and 4.1-4b, *Long-term Circulation Network*.

Roadway Segment Operations

An analysis was completed for roadway segments under Long-term conditions without and with the proposed project. Long-term service levels on study area roadway segments were determined by comparing the adopted ADT thresholds for level of service (pursuant to the County of San Diego Public Road Standards [1999]), the daily capacity of the study area roadway segments and the calculated roadway segment forecasts. Long-term daily roadway segment conditions without and with the proposed project are illustrated in Figure 4.1-5, *Long-term Daily Roadway Segment Conditions*. As shown in Table 4.1-6, *Long-term Daily Roadway Segment Conditions*, all roadway segments would operate at acceptable LOS D or better on a project and cumulative level under Long-term without Project conditions except the following:

- SR-94/Campo Road, from Jamacha Boulevard to SR-94/Campo Road (LOS F)
- SR-54/Jamacha Road, from Cuyamaca College Drive West to Fury Lane (LOS E)
- Jamacha Boulevard, from Sweetwater Springs Road to San Miguel Street (LOS F)
- Avocado Boulevard, from Horizon Hills Drive to Fuerte Drive (LOS E)

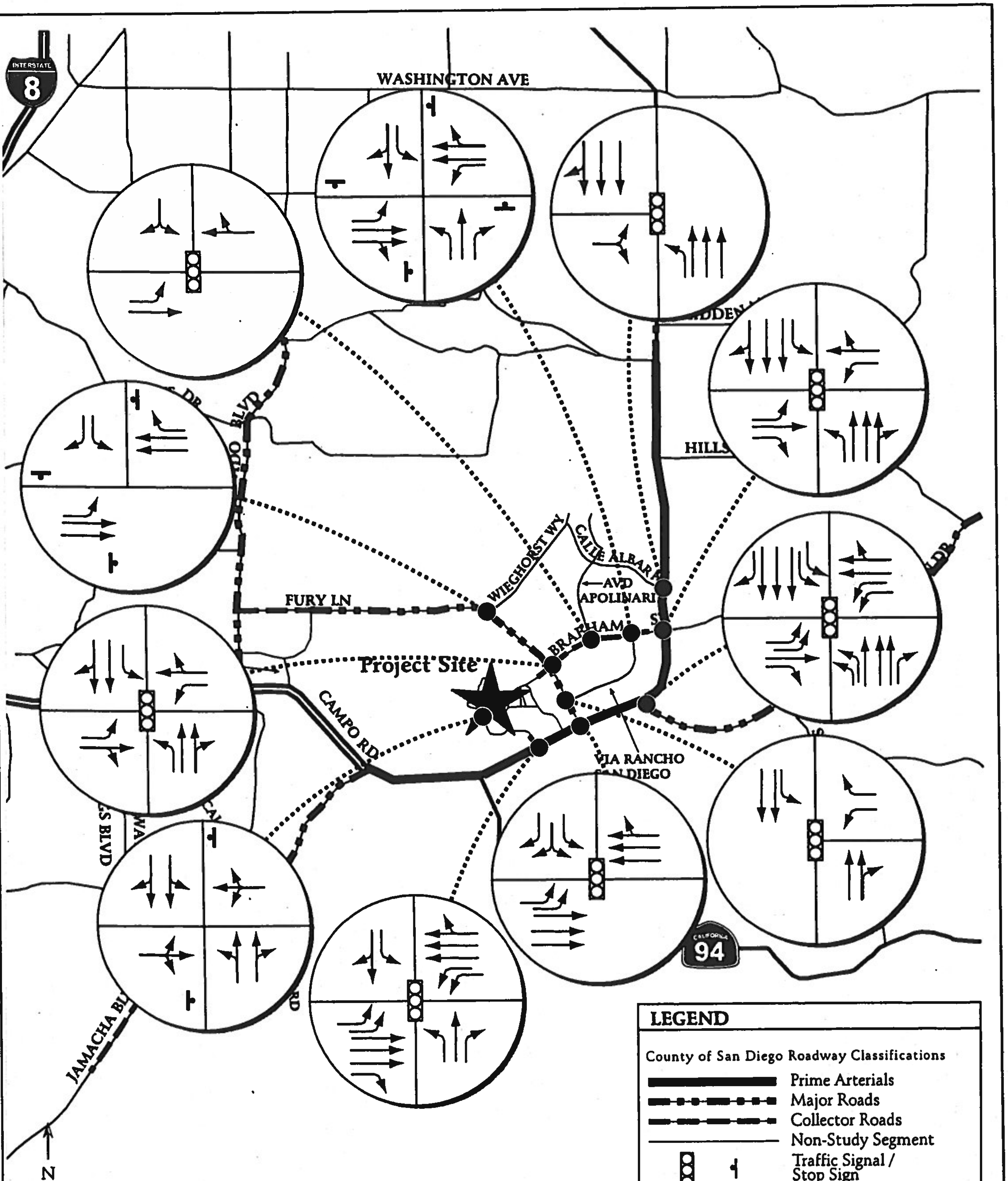
With the addition of project-generated traffic, the same roadway segments would operate at unacceptable LOS; however, the volume-to-capacity ratio would only exceed the allowable 0.02-increase at two of these roadway segments. Impacts to the following roadway segments would be considered significant on a project and cumulative level under Long-term with Project conditions and would require mitigation:

- SR-94/Campo Road between Jamacha Boulevard and SR-94/Campo Road
- SR-54/Jamacha Road between Cuyamaca College Drive West and Fury Lane

TABLE 4.1-6
LONG-TERM DAILY ROADWAY SEGMENT CONDITIONS

ROADWAY SEGMENT	LANES/ CLASSIFICATION	CAPACITY AT LOS E	Long-term Conditions without Project			Long-term Conditions with Project				
			ADT	V/C	LOS	ADT	V/C	LOS	Δ	S
SR-94/Campo Road										
Via Mercado to Jamacha Blvd.	6/Freeway	See Freeway Analysis								
Jamacha Blvd. to SR-94/Campo Rd.	6/Prime Arterial	57,000	68,870	1.21	F	72,566	1.27	F	0.06	Y
SR-54/Jamacha Road										
SR-94/Campo Rd. to Cuyamaca College Dr. West	6/Prime Arterial	57,000	45,700	0.80	D	49,732	0.87	D	0.07	N
Cuyamaca College Dr. West to Fury Lane	6/ Prime Arterial	57,000	50,960	0.89	E	52,556	0.92	E	0.03	Y
Fury Lane to Willow Glen Dr.	6/ Prime Arterial	57,000	44,330	0.78	C	45,422	0.80	D	0.02	N
Willow Glen Dr. to Brabham St.	6/ Prime Arterial	57,000	32,420	0.57	B	32,672	0.57	B	0.00	N
Brabham St. to Calle Albara	6/ Prime Arterial	57,000	35,230	0.62	B	37,078	0.65	C	0.03	N
Calle Albara to Hillsdale Rd.	6/ Prime Arterial	57,000	37,520	0.66	C	39,368	0.69	C	0.03	N
Hillsdale Rd. to Chase Ave.	6/ Prime Arterial	57,000	33,750	0.59	B	35,430	0.62	B	0.03	N
Chase Ave. to Hidden Mesa Rd.	5/Major	37,000	32,090	0.87	D	33,182	0.90	D	0.03	N
Jamacha Boulevard										
SR-54/Campo Rd. to Calavo Dr./Doubletree Rd.	5/Major	37,000	25,750	0.70	C	26,758	0.72	C	0.03	N
Calavo Dr./Doubletree Rd. to Sweetwater Springs Rd.	5/Major	37,000	21,870	0.59	B	22,626	0.61	B	0.02	N
Sweetwater Springs Rd. to San Miguel St.	5/Major	37,000	38,060	1.03	F	38,732	1.05	F	0.02	N
Avocado Boulevard										
Horizon Hills Dr. to Fuerte Dr.	5/Major	37,000	33,810	0.91	E	34,314	0.93	E	0.01	N
Fuerte Dr. to Fury Lane	5/Major	37,000	32,200	0.87	D	32,872	0.89	D	0.02	N
Fury Lane										
Avocado Blvd. to Wieghorst Way	4/Major	37,000	15,820	0.43	B	16,996	0.46	B	0.03	N
Wieghorst Way to Brabham St.	4/Major	37,000	11,470	0.31	A	12,814	0.35	A	0.04	N
Brabham St. to SR-54/Jamacha Rd.	4/Major	37,000	10,750	0.29	A	11,926	0.32	A	0.03	N
Brabham Street										
Avenida Apolinari to Via Rancho San Diego Pkwy.	3/Town Collector	19,000	7,510	0.40	C	9,442	0.50	C	0.10	N
Willow Glen Drive										
SR-54/Jamacha Rd. to Steele Canyon Rd.	4/Major	37,000	25,650	0.69	C	26,658	0.72	C	0.03	N
Steele Canyon Rd. to Hillsdale Rd.	4/Major	37,000	14,360	0.39	A	15,032	0.41	B	0.02	N
Hillsdale Rd. to Camino de las Poedras	4/Major	37,000	11,050	0.30	A	11,638	0.31	A	0.02	N

Δ = change in delay between Long-term + Project Conditions and Long-term Conditions.
Source: KOA 2003a.



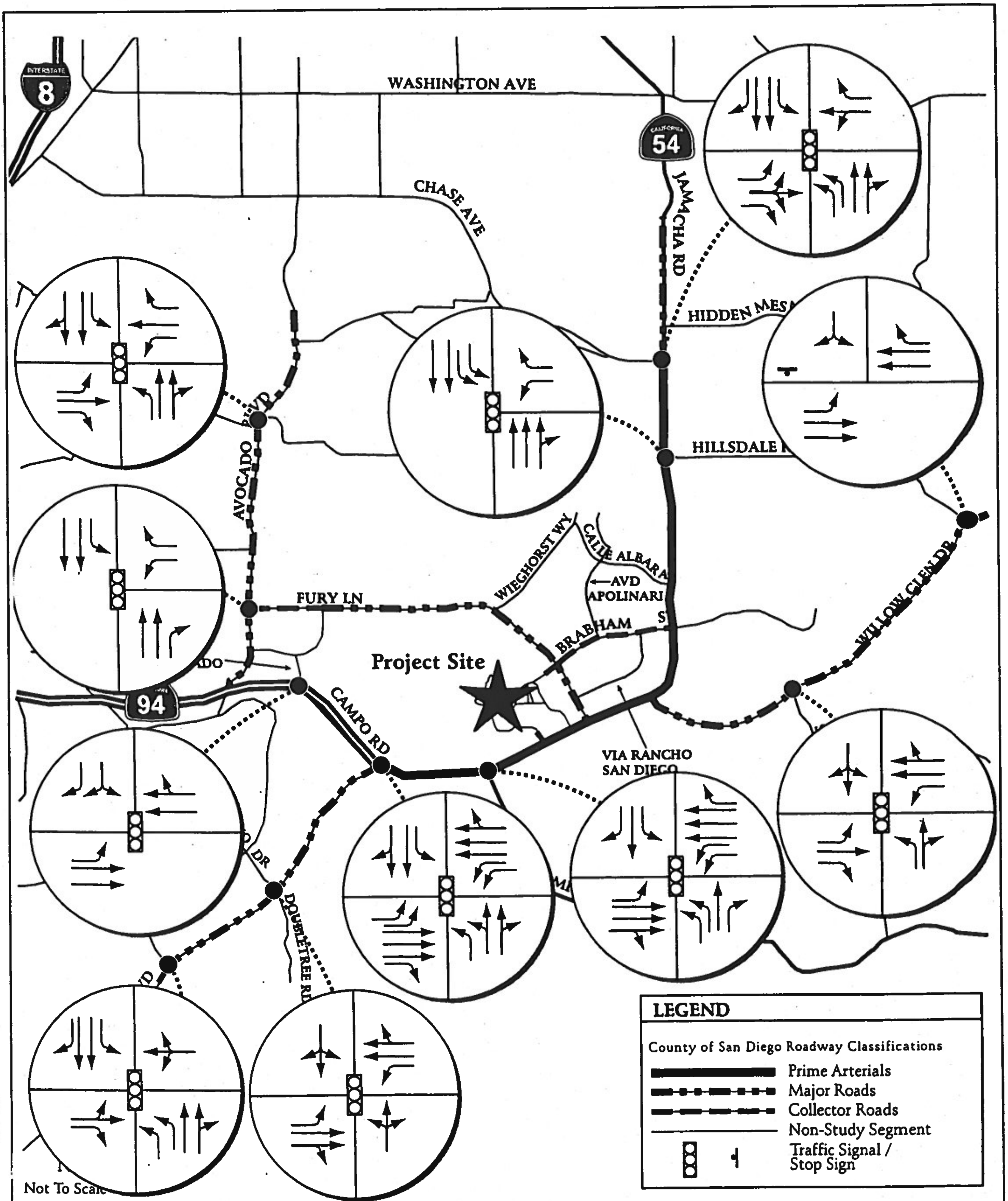
Source: Katz, Okitsu and Associates, 2003

Long-term Circulation Network

CUYAMACA COLLEGE MASTER PLAN EIR

Figure 4.1-4a

HELIX



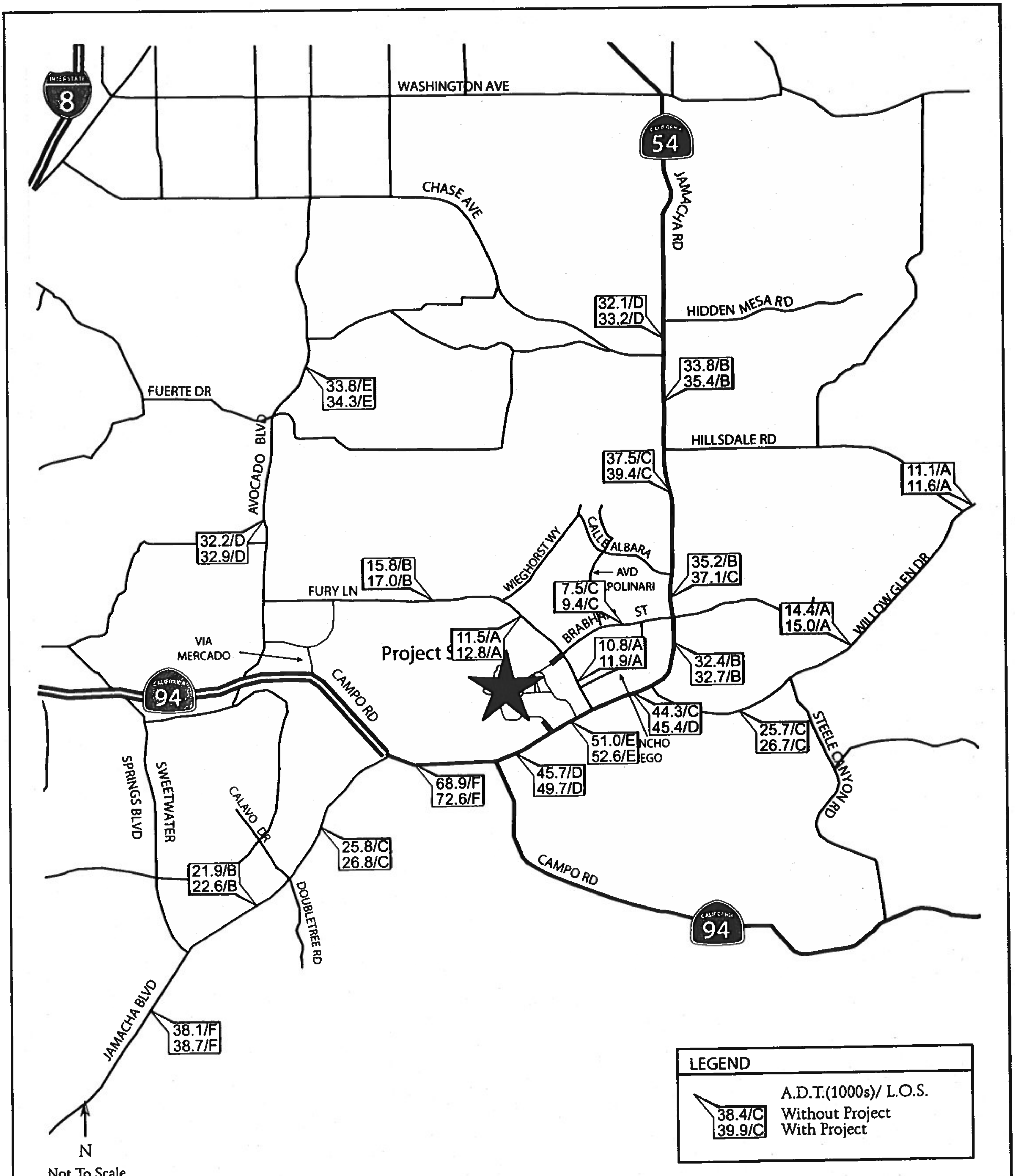
Source: Katz, Okitsu and Associates, 2003

Long-term Circulation Network

CUYAMACA COLLEGE MASTER PLAN EIR

Figure 4.1-4b

HELIX



Source: Katz, Okitsu and Associates, 2003

Long-term Daily Roadway Segment Conditions

CUYAMACA COLLEGE MASTER PLAN EIR

Figure 4.1-5

HELIX

Intersection Operations

Peak hour volumes for study intersections under Long-term conditions were analyzed using the Highway Capacity Manual "Operational Method" for signalized intersections. Long-term peak hour intersection conditions without the proposed project are illustrated in Figures 4.1-6a, *Long-term Without Project Peak Hour Intersection Conditions*, and 4.1-6b, *Long-term Without Project Peak Hour Intersection Conditions*. As shown in Table 4.1-7, *Long-term Peak Hour Intersection Conditions*, the following five intersections would operate at unacceptable LOS E or F during peak hours under Long-term without Project conditions:

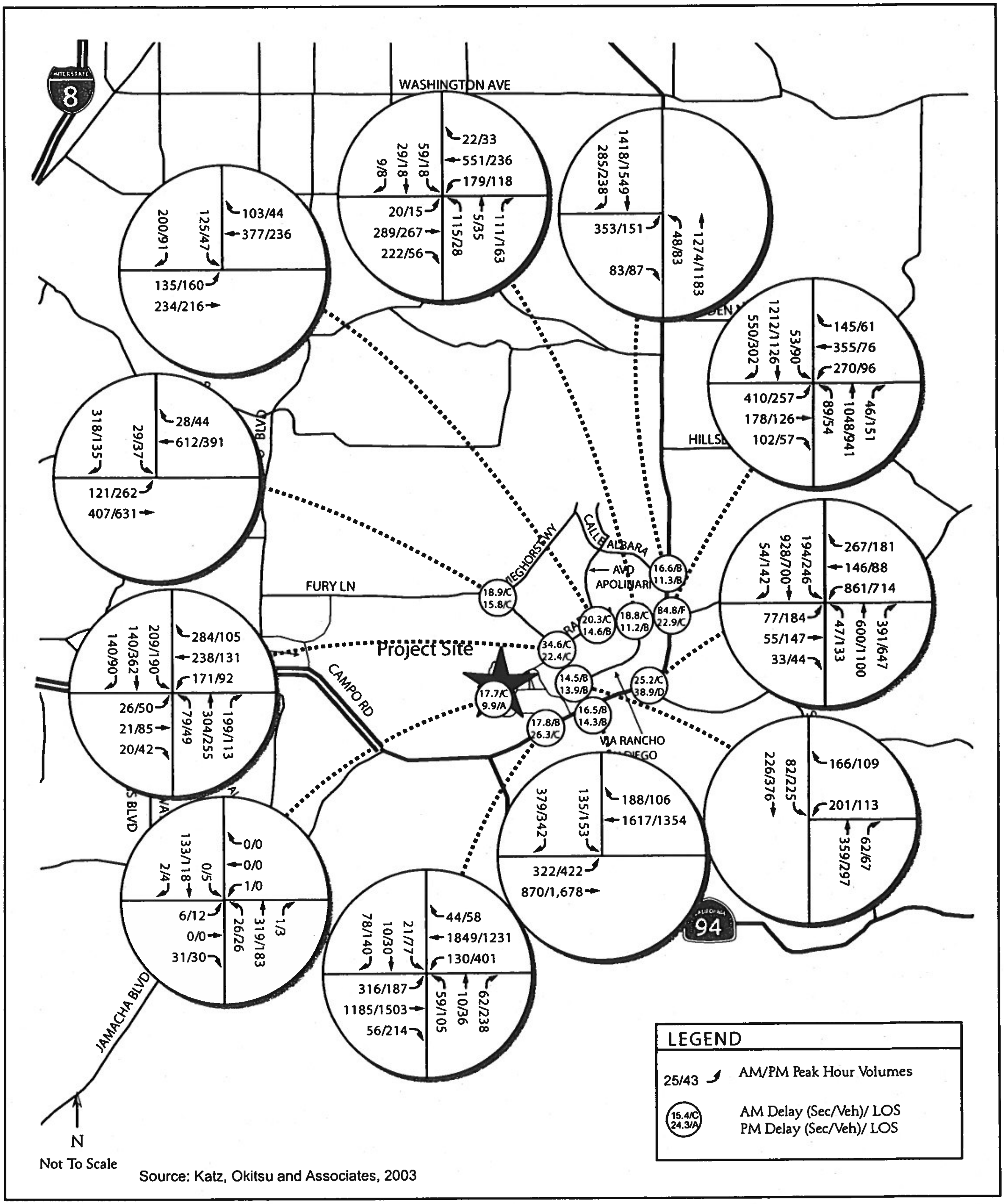
- Avocado Boulevard at Fuerte Drive (PM)
- SR-94/Campo Road at Jamacha Boulevard (AM and PM)
- SR-54/Jamacha Road at Brabham Street (AM)
- SR-54/Jamacha Road at Chase Avenue (AM and PM)
- Jamacha Boulevard at Sweetwater Springs Boulevard (PM)

Long-term peak hour intersection conditions with the proposed project are shown in Figures 4.1-7a, *Long-term Plus Project Peak Hour Intersection Conditions*, and 4.1-7b, *Long-term Plus Project Peak Hour Intersection Conditions*. With the addition of project traffic, the following seven intersections would operate LOS E or F and would experience an increase in delay greater than two seconds, as shown in Table 4.1-7:

- Fury Lane at Rancho San Diego Parkway/Brabham Street (AM)
- Avocado Boulevard at Fuerte Drive (PM)
- Avocado Boulevard at Fury Lane (PM)
- SR-94/Campo Road at Jamacha Boulevard (AM and PM)
- SR-54/Jamacha Road at Brabham Street (AM)
- SR-54/Jamacha Road at Chase Avenue (AM and PM)

TABLE 4.1-7
LONG-TERM PEAK HOUR INTERSECTION CONDITIONS

INTERSECTION	Long-term Conditions without Project				Long-term Conditions with Project							
	AM PEAK HOUR		PM PEAK HOUR		AM PEAK HOUR		Δ	S	PM PEAK HOUR		Δ	S
	Delay	LOS	Delay	LOS	Delay	LOS			Delay	LOS		
SR-54/Jamacha Rd at Cuyamaca College Dr. W	17.8	B	26.3	C	29.8	C	12.0	N	33.0	C	6.7	N
Fury Lane at Rancho San Diego Pkwy. /Brabham St.	34.6	C	22.4	C	65.2	E	30.6	Y	33.2	C	10.8	N
Cuyamaca College Dr. W on campus	17.7	C	9.9	A	42.6	E	24.9	N[1]	11.4	B	1.5	N
Avocado Blvd. at Fuerte Dr.	39.1	D	62.9	E	41.8	D	2.7	N	66.6	E	3.7	Y
Avocado Blvd. at Fury Lane	43.2	D	52.4	D	53.2	D	10.0	N	61.5	E	9.1	Y
SR-94/Campo Road at Via Mercado	13.5	B	24.4	C	13.6	B	0.1	N	26.2	C	1.8	N
SR-94/Campo Road at Jamacha Blvd.	86.1	F	239.2	F	122.3	F	36.2	Y	269.0	F	29.8	Y
SR-94/Campo Road at SR-54 Jamacha Rd.	35.2	D	25.6	C	38.5	D	3.3	N	27.4	C	1.8	N
SR-54/Jamacha Road at Fury Lane	16.5	B	14.3	B	20.9	C	4.4	N	15.9	B	1.6	N
SR-54/Jamacha Road at Willow Glen Dr.	25.2	C	38.9	D	27.5	C	2.3	N	44.2	D	5.3	N
SR-54/Jamacha Road at Brabham St.	84.8	F	22.9	C	102.2	F	17.4	Y	27.8	C	4.9	N
SR-54/Jamacha Road at Calle Albara	16.6	B	11.3	B	17.6	B	1.0	N	11.4	B	0.1	N
SR-54/Jamacha Road at Hillsdale Rd.	21.4	C	12.2	B	22.8	C	1.4	N	12.7	B	0.5	N
SR-54/Jamacha Road at Chase Ave.	109.1	F	163.8	F	123.1	F	14.0	Y	176.8	F	13.0	Y
Wieghorst Way at Fury Lane[2]	18.9	C	15.8	C	21.1	C	2.2	N	17.2	C	1.4	N
Fury Lane at Via Rancho San Diego	14.5	B	13.9	B	13.8	B	-0.7	N	13.5	B	-0.4	N



Long-term Without Project Peak Hour Intersection Conditions

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Figure 4.1-6a

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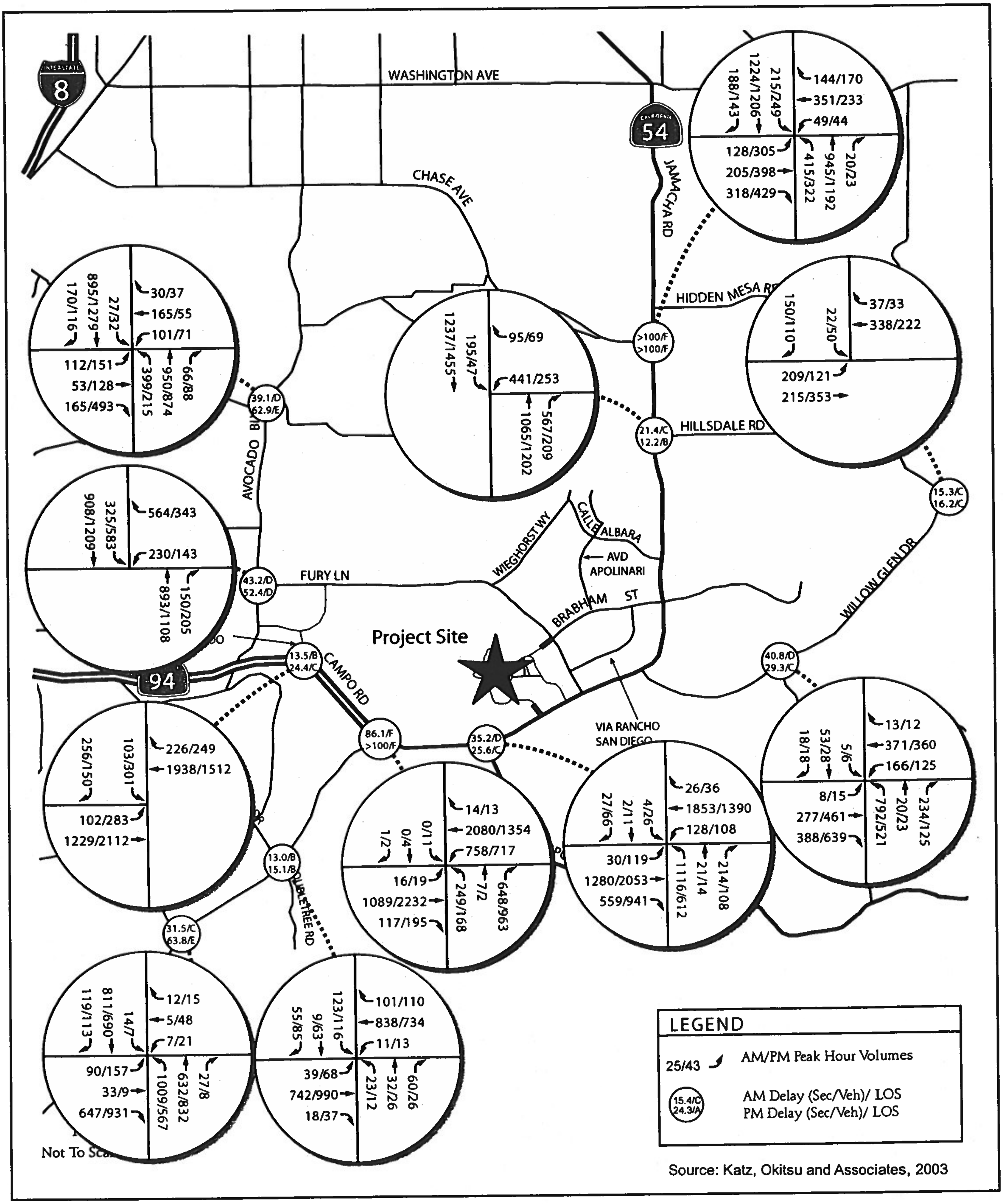

Long-term Without Project Peak Hour Intersection Conditions

CUYAMACA COLLEGE MASTER PLAN EIR

Figure 4.1-6b

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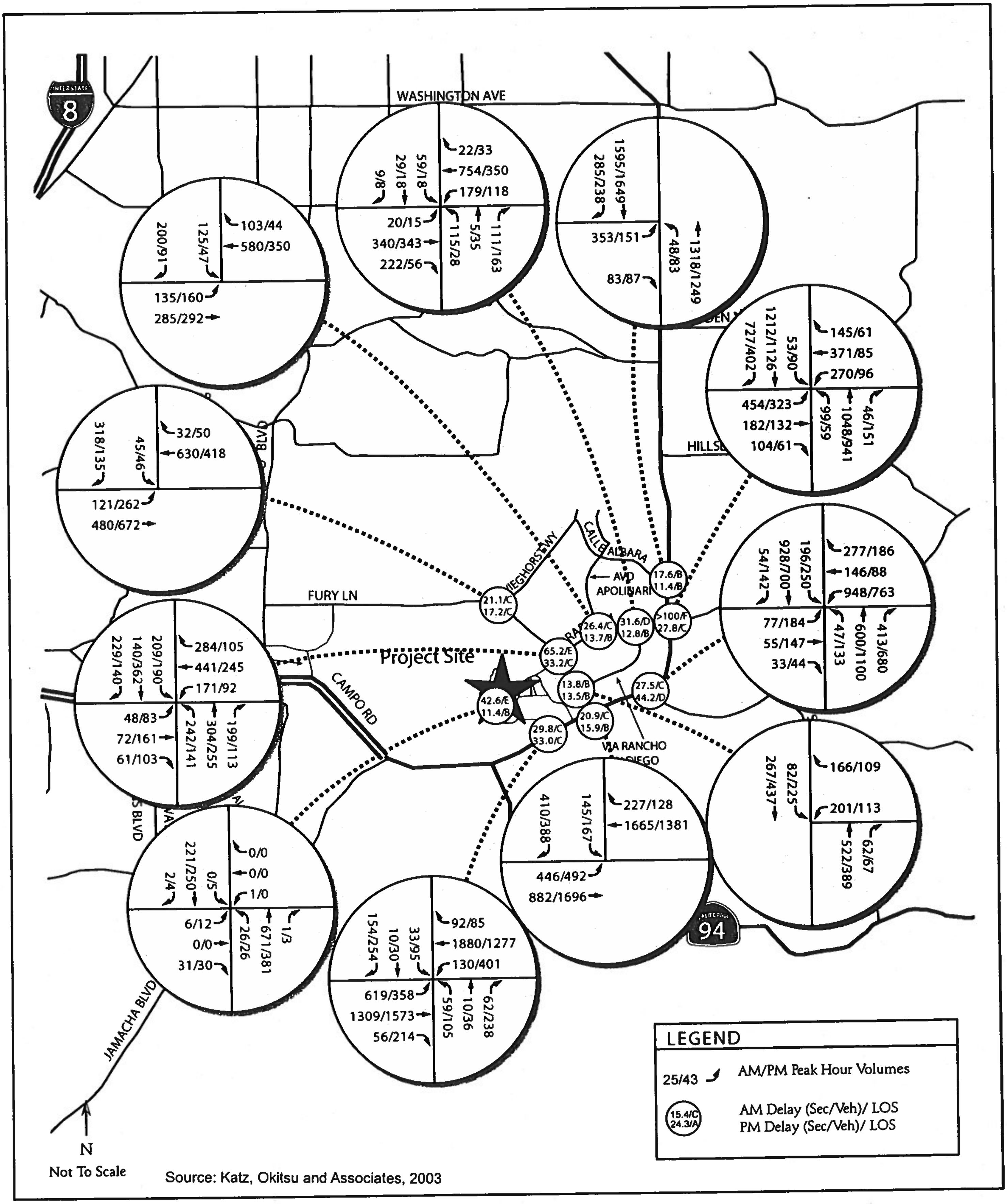

Long-term Plus Project Peak Hour Intersection Conditions

CUYAMACA COLLEGE MASTER PLAN EIR

Figure 4.1-7a

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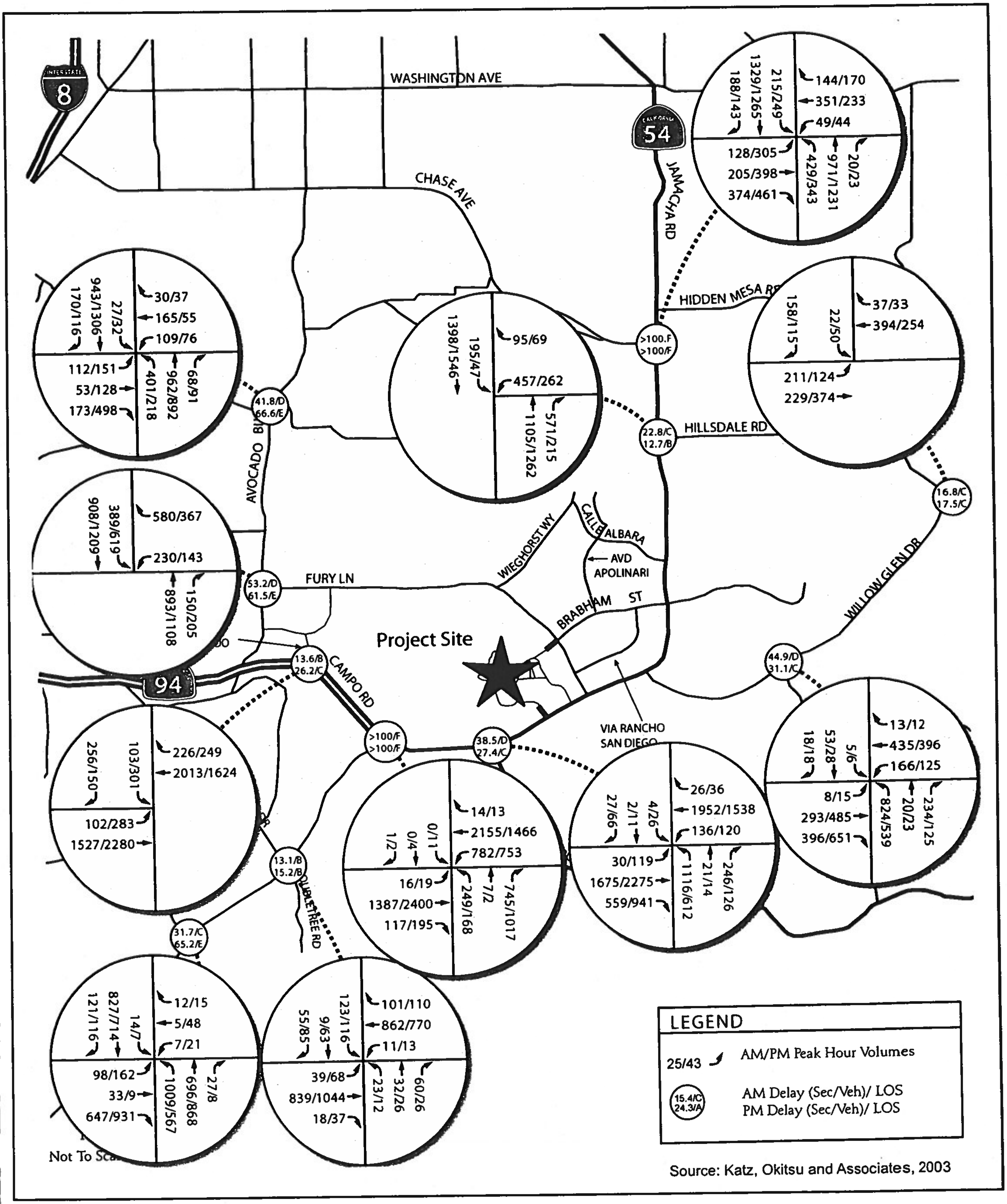

Long-term Plus Project Peak Hour Intersection Conditions

CUYAMACA COLLEGE MASTER PLAN EIR

Figure 4.1-7b

HELIX

TABLE 4.1-7 (cont.)

INTERSECTION	Long-term Conditions without Project				Long-term Conditions with Project									
	AM PEAK HOUR		PM PEAK HOUR		AM PEAK HOUR		Δ	S	PM PEAK HOUR		Δ	S
	Delay	LOS	Delay	LOS	Delay	LOS			Delay	LOS		
Avenida Apolinari at Brabham St.	20.3	C	14.6	B	26.4	C	6.1	N	13.7	B	-0.9	N
Via Rancho San Diego at Brabham St.[2]	18.8	C	11.2	B	31.6	D	12.8	N	12.8	B	1.6	N
Hillsdale Rd. at Willow Glen Dr.[1]	15.3	C	16.2	C	16.8	C	1.5	N	17.5	C	1.3	N
Willow Glen Dr. at Steele Canyon Dr.	40.8	D	29.3	C	44.9	D	4.1	N	31.1	C	1.8	N
Jamacha Blvd. at Calavo Dr./Doubletree Rd.	13.0	B	15.1	B	13.1	B	0.1	N	15.2	B	0.1	N
Jamacha Blvd. at Sweetwater Springs Blvd.	31.5	C	63.8	E	31.7	C	0.2	N	65.2	E	1.4	N

[1]Internal campus intersection determined not significant.
[2]Minor-street stop-controlled intersection.
Δ = change in delay between Long-term + Project Conditions and Long-term Conditions.
Source: KOA 2003a.

Freeway Segment Operations

As described above, Long-term conditions assume buildout of the County of San Diego General Plan Circulation Element, which includes improvement of SR-94 to a six-lane freeway from its current terminus to Jamacha Boulevard. Therefore, peak hour/peak direction freeway operations of this planned freeway segment were analyzed under Long-term conditions. Forecast daily and peak hour volumes on SR-94 in the project vicinity without and with project traffic are summarized in Table 4.1-8, *Long-term Freeway Segment Conditions*. These segments of SR-94 would operate at LOS B under Long-term conditions both without and with the project. Therefore, impacts to freeway segments as a result of project implementation would be less than significant.

Traffic Hazards

Implementation of the Master Plan would not substantially increase traffic hazards due to design features or incompatible uses. Construction of proposed buildings and parking facilities, pursuant to the Master Plan, would not require construction of new roadways on or off campus or substantial changes to existing roadway configurations. The existing roundabout along Rancho San Diego Parkway would be removed; however, this would increase traffic safety conditions on campus by eliminating a confusing intersection. Development of future construction projects would incorporate standard engineering practices (i.e., the use of standard road and driveway widths, provision of adequate sight lines and avoidance of sharp turning radii) to avoid design elements that could potentially result in traffic hazards. No significant impacts are assessed.

Construction activities could potentially result in temporary closure of on-campus traffic lanes, roadway segments or pedestrian walkways to accommodate delivery of construction materials or to provide adequate site access for construction equipment. The reduction of roadway capacity and occasional interruption of traffic flow on campus roadways could pose hazards to vehicular traffic resulting from localized traffic congestion, decreased turning radii, or reduced line of sight visibility.

TABLE 4.1-8 LONG-TERM FREEWAY SEGMENT CONDITIONS													
FREEWAY SEGMENT	**CLASSIFICATION**	**PEAK HOUR/ PEAK DIRECTION CAPACITY**	**Long-term Conditions without Project**				**Long-term Conditions with Project**						
			ADT	**Peak Hour/ Peak Direction Volume**	**V/C**	**LOS**	**ADT**	**Peak Hour/ Peak Direction Volume**	**V/C**	**LOS**	**Δ**	**S**
SR-94 Via Mercado to Jamacha Blvd.	6-Lane Freeway	6,900 (AM/WB)	53,280	2,395	0.35	B	55,968	2,470	0.36	B	0.01	N
Via Mercado to Jamacha Blvd.	6-Lane Freeway	6,900 (PM/EB)	53,280	2,480	0.36	B	55,968	2,648	0.38	B	0.02	N

Δ = change in delay between Long-term + Project Conditions and Long-term Conditions.
Source: KOA 2003a.

Similarly, if construction activities require temporary closure of pedestrian walkways or sidewalks, traffic hazards to pedestrian may occur along pedestrian routes adjacent to construction sites. During construction activities, the District would implement a traffic management plan that would include measures to reduce temporary traffic hazards, such as appropriate signage, traffic control (i.e., flagpersons) and provision of alternate vehicular and/or pedestrian routes. Due to the temporary nature of any potential lane, roadway or walkway closures and the incorporation of a traffic management plan, impacts related to traffic hazards during construction would be less than significant.

<u>Emergency Access</u>

Implementation of the Master Plan would not restrict access to the campus. Emergency access would be provided via the campus' main vehicular circulation route that connects the entrance at Rancho San Diego Parkway in the eastern portion of campus to Cuyamaca College West in the southern portion of campus. Internal service roads and parking driveways extending from the main circulation route would provide access for emergency vehicles to the buildings and physical education facilities in the western and northern portions of campus. In addition, adequate emergency access would be maintained during construction activities. Access to the campus entrances and service roads would not be substantially hindered during construction of any future construction project. Construction staging areas would be located on campus and would not obstruct emergency vehicle access. As discussed above, the District would implement a traffic control plan during construction activities, which would address emergency vehicle access. Therefore, impacts related to emergency access would be less than significant.

<u>Parking Capacity</u>

Implementation of the Master Plan would result in an increase in student enrollment (approximately 7,000 students), as well as employment of additional faculty and staff to accommodate anticipated student growth. The resulting increase in campus population would cause an increase in demand for parking. This demand would be met by construction of additional surface parking lots in the eastern portion of campus, as described in Section 3.0 of this document. Surface parking is proposed east and south of existing Lot 2 and would provide an additional 2,000 parking spaces. Construction of these parking lots would increase the campus parking capacity to approximately 3,300 spaces, which would accommodate the anticipated 15,000 students and improve the ratio of students to parking spaces from 5.9 students/space to 4.5 students/space. Adequate faculty and staff, as well as disabled parking also would be provided via expanded lots and disabled spaces. Therefore, impacts related to long-term parking capacity would be less than significant.

Construction activities could potentially result in temporary removal of on-campus parking. During construction of proposed future construction projects, staging areas and/or construction access routes could temporarily reduce the number of available parking spaces. In addition, construction employees would contribute to the campus parking demand in that they would utilize parking spaces allocated for students, which could potentially result in a deficit in student parking. As described above, the District would implement a traffic control plan during construction activities, which would address construction employee parking. Measures would be included in the traffic control plan that would ensure that disruptions in parking are minimized and student parking supply would not be significantly affected by construction activities. Therefore, traffic impacts related to temporary loss of parking during construction activities would be less than significant.

<u>Alternative Modes of Transportation</u>

Implementation of the Master Plan would not conflict with adopted programs supporting alternative modes of transportation. Cuyamaca College is served by the San Diego Metropolitan Transit System (MTS), which provides bus service to the campus. Currently the campus is included in MTS Routes 856 and 858, which enter the campus at Cuyamaca College Drive West and loops around the southwestern portion of campus. Implementation of the Master Plan would include a new bus stop and a reconfigured bus route with its ingress at Rancho San Diego Parkway and egress at Cuyamaca College Drive West. The proposed bus route would coincide with the campus' main vehicular transportation route and would include a bus stop adjacent to the proposed Communication Arts Building. In addition to bus service, the campus supports other modes of transportation, including bicycle and motorcycle. Bicycle racks and motorcycle parking are provided on campus and would continue to be available in the long-term. Because Cuyamaca College supports alternative modes of transportation, implementation of the Master Plan would not result in traffic impacts related to alternative transportation programs.

4.1.3 Mitigation Measures

Implementation of the Master Plan would result in significant traffic impacts to transportation network operations, including roadway segments and intersections, under the Existing Plus Project and Long-term conditions.

Existing Plus Project

Roadway Segments

Improvements to SR-54/Jamacha Road, Willow Glen Drive and Jamacha Boulevard are planned by the County of San Diego (County) and consist of road widening to County Circulation Element classifications. Construction of these planned improvements by the County would reduce significant project impacts in the Existing Plus Project condition to below a level of significance. A description is provided below of the applicable planned improvements that would also mitigate project and cumulative impacts to the affected roadway segments to below a level of significance:

The following recommended improvements are planned by the County as part of the SR 54/94 project, as described in the Phases 2 and 3 Preliminary Project Report (County of San Diego 2002):

MM 4.1-1: The widening of SR-54/Jamacha Road between Cuyamaca College Drive West to Fury Lane from a four-lane major to a six-lane prime arterial standard.

MM 4.1-2: The widening of SR-54/Jamacha Road between Fury Lane and Willow Glen Drive from a four-lane major to a six-lane prime arterial standard.

The following roadway improvements are planned as part of the County Circulation Element and would mitigate both project and cumulative impacts to these roadway segments:

MM 4.1-3: The widening of SR-54/Jamacha Road between Calle Albara to Hillsdale Road from a four-lane major to a six-lane prime arterial standard.

MM 4.1-4: The improvement of Willow Glen Drive between Steele Canyon Road and Hillsdale Road from a two-lane collector to a four-lane major standard.

MM 4.1-5: The improvement of Jamacha Boulevard between Sweetwater Springs Road to San Miguel Street from a two-lane collector to a four-lane major standard.

Because SR-94, from Jamacha Boulevard to SR-94/Campo Road, is built to its County Circulation Element roadway classification and no additional improvements are planned by the County because of right-of-way limitations, the Master Plan would result in a significant unmitigable impact on both a project and cumulative level to this roadway segment.

<u>Intersections</u>

Mitigation measures are recommended to address project impacts to intersection operations. Several of the recommended mitigation measures will be incorporated into the County improvements planned as part of the Circulation Element. Others are outside the limits of the County's planned improvements. Incorporation of these measures would reduce project impacts on intersections to below a level of significance. Cumulatively significant impacts would, however, still occur at two intersections despite these improvements as discussed in Section 6.0, *Cumulative Impacts*.

MM 4.1-6: The District shall change the signal phasing and timing on the east-west approaches from split to protected phasing at the intersection of Fury Lane and Rancho San Diego Parkway/Brabham Street.

MM 4.1-7: The County of San Diego will implement the following improvements to the intersection of SR-54/Jamacha Road and Brabham Street as part of the SR-54/-94 improvement project:

- Restripe the westbound approach to include one left-turn lane, one through lane and one right-turn lane

- Revise the signal timing and phasing to include an eastbound right-turn overlap phase

MM 4.1-8: The District shall revise the signal phasing and timing to include southbound to westbound and westbound to northbound right-turn overlap phases at the intersection of SR-54/Jamacha Road at Chase Avenue.

MM 4.1-9: The County of San Diego will construct a westbound through lane at the SR-94/Campo Road and Jamacha Boulevard intersection as part of the SR-54/-94 improvement project. In addition, prior to enrolling 8,820 students, the District shall participate with the County to make the following additional improvements to the intersection in conjunction with the County improvements:

- Restripe the northbound approach to include one share through lane/left-turn and two dedicated right-turn lanes
- Revise the signal phasing for the northbound and southbound approaches to split phasing.
- Revise the signal phasing and timing to include a northbound and southbound right-turn overlap phase.

As noted above under roadway segment mitigation measures, capacity improvements are planned by the County for Jamacha Boulevard and Willow Glen Drive as part of the Circulation Element. Provided those improvements are implemented in a timely manner by the County and they include intersection capacity increases, the following additional mitigation would not be required:

MM 4.1-10: The County of San Diego will construct two left-turn lanes, three through lanes and a dedicated right-turn lane along SR-54/Jamacha Road at the SR-54/Jamacha Road and Willow Glen Drive intersection as part of the SR-54/-94 improvement project. In addition, prior to enrolling 9,060 students, the District shall provide for the following additional improvements at the intersection:

- Install two left-turn lanes, one through lane and a dedicated right-turn lane at the existing driveway.

– Install two left-turn lanes, one through lane and a share through/right-turn lane at the Willow Glen Drive.

MM 4.1-11: The County of San Diego shall provide for the reconfiguration of the southbound approach to include a dedicated left-turn lane, two through lanes and a dedicated right-turn lane at the intersection of Jamacha Boulevard at Sweetwater Springs in conjunction with future widening of Jamacha Boulevard consistent with its classification in the Circulation Element.

Table 4.1-9, *Existing Plus Project Peak Hours Intersection Conditions with Mitigation*, summarizes peak hour intersection operations significantly impacted by the project and the corresponding operations after implementation of the above listed mitigation measures. As shown in Table 4.1-9, significant impacts to intersections would be reduced to below a level of significance with the construction of planned improvements and the incorporation of proposed mitigation measures.

Long-term Conditions

<u>Roadway Segments</u>

There is no feasible mitigation to reduce project and cumulatively significant impacts to SR-94/Campo Road (from Jamacha Boulevard to SR-94) and SR-54/Jamacha Road (from Cuyamaca College Drive West to Fury Lane) to below a level of significance due to the right-of-way constraints. Therefore, project impacts to these roadway segments would be considered significant and unmitigable under Long-term conditions.

At some point in the future, SR-94 is planned to be improved from a six-lane prime arterial to a six-lane freeway from its current terminus to Jamacha Boulevard consistent with its classification in the County Circulation Element. At that time, the freeway would operate at LOS B with and without the proposed Master Plan and no mitigation would be needed.

TABLE 4.1-9
EXISTING PLUS PROJECT PEAK HOUR INTERSECTION CONDITIONS WITH MITIGATION

INTERSECTION	Existing + Project Conditions								Existing + Project Conditions with Mitigation							
	AM PEAK HOUR		Δ	S	PM PEAK HOUR		Δ	S	AM PEAK HOUR		ΔΔ	S	PM PEAK HOUR		ΔΔ	S
	Delay	LOS			Delay	LOS			Delay	LOS			Delay	LOS		
Fury Lane at Rancho San Diego Parkway/Brabham St.	57.7	E	28.6	Y	30.5	C	8.2	N	46.7	D	-11.0	N				
SR-94/Campo Road at Jamacha Blvd.	101.5	F	29.1	Y	202.1	F	31.0	Y	19.6	B	-81.9	N	37.7	D	-164.4	N
SR-54/Jamacha Road at Brabham St.	68.9	E	15.8	Y	23.3	C	3.0	N	48.9	D	-20.0	N				
SR-54/Jamacha Road at Chase Ave.	80.1	F	11.6	Y	115.7	F	11.6	Y	68.2	E	-11.9	N	100.9	F	-3.2	N
SR-54/Jamacha Road at Willow Glen Drive	29.8	C	2.4	N	63.9	E	6.5	Y	23.3	C	-6.5	N	31.0	C	-32.9	N
Jamacha Blvd. At Sweetwater Springs Blvd.	44.5	D	0.8	N	73.2	E	2.7	Y					41.9	D	-31.3	N

Δ = change in delay from Existing Conditions.
ΔΔ = change in delay from Existing + Project Conditions
Source: KOA 2003a.

<u>Intersections</u>

Implementation of the mitigation measures listed above under Existing Plus Project conditions plus the measures listed below would reduce significant impacts to intersections below a level of significance.

MM 4.1-12: The District shall revise the signal timing and phasing on the eastbound approach to include a right-turn overlap phase at the intersection of Avocado Boulevard at Fuerte Drive.

MM 4.1-13: The District shall revise the signal phasing and timing on the westbound approach to include a right-turn overlap phase at the intersection of Avocado Boulevard at Fury Lane.

Table 4.1-10, *Long-term Peak Hour Intersection Conditions with Mitigation*, summarizes peak hour intersection operations significantly impacted by the project and the corresponding operations after implementation of the above listed mitigation measures. As shown in Table 4.1-10, significant impacts from the project would be reduced to below a level of significance with the construction of planned improvements and the implementation of proposed mitigation measures. Cumulatively significant and unmitigable impacts would still occur at three intersections, despite the planned and proposed improvements, as discussed in Section 6.0, *Cumulative Impacts*.

TABLE 4.1-10
LONG-TERM PEAK HOUR INTERSECTION CONDITIONS WITH MITIGATION

INTERSECTION	Long-term + Project Conditions								Long-term + Project Conditions with Mitigation							
	AM PEAK HOUR		Δ	S	PM PEAK HOUR		Δ	S	AM PEAK HOUR		ΔΔ	S	PM PEAK HOUR		ΔΔ	S
	Delay	LOS			Delay	LOS			Delay	LOS			Delay	LOS		
Fury Lane at Rancho San Diego Parkway/ Brabham St.	65.2	E	30.6	Y	33.2	C	10.8	N	46.4	D	-18.8	N	22.9	C	-10.3	N
Avocado Blvd. at Fuerte Dr.	41.8	D	2.7	N	66.6	E	3.7	Y	35.1	D	-6.7	N	37.1	D	-29.5	N
Avocado Blvd. at Fury Ln.	53.2	D	10.0	N	61.5	E	9.1	Y	19.1	B	-34.1	N	26.6	C	-34.9	N
SR-94/Campo Road at Jamacha Blvd.	122.3	F	36.2	Y	269.0	F	29.8	Y	24.0	C	-98.3	N	65.2	E	-203.8	N
SR-54/Jamacha Road at Brabham St.	102.2	F	17.4	Y	27.8	C	4.9	N	58.9	E	-43.3	N	20.1	C	-7.7	N
SR-54/Jamacha Road at Chase Ave.	123.1	F	14.0	Y	176.8	F	13.0	Y	108.8	F	-14.3	N	160.0	F	-16.8	N

Δ = change in delay from Long-term Conditions without the project.
ΔΔ = change in delay from Long Term + Project Conditions
Source: KOA 2003a

4.2 AIR QUALITY

An Air Quality Technical Report was prepared for the proposed Master Plan by Scientific Resources Associated (SRA) in 2003. The results of this investigation are summarized below, with the complete report included as Appendix C of this EIR.

4.2.1 Existing Conditions

Climate and Meteorology

The campus is located within the San Diego Air Basin (SDAB) which includes all of western San Diego County. The climate of the SDAB is dominated by a semi-permanent high pressure cell located over the Pacific Ocean. This cell influences the direction of prevailing winds (westerly to northwesterly) and maintains clear skies for much of the year. A graphic representation of prevailing winds (or wind rose) at the Marine Corps Air Station (MCAS) Miramar is shown in Figure 4.2-1, *Wind Rose – MCAS Miramar Monitoring Station*. The meteorological monitoring station at MCAS Miramar (located approximately 14 miles northwest of the campus) is the closest station from which processed meteorological data are available.

The described high pressure cell also creates two types of temperature inversions that may act to degrade local air quality: subsidence and radiation inversions. Subsidence inversions occur during the warmer months, as descending air associated with the Pacific high pressure cell comes into contact with cool marine air. The boundary between the two layers of air creates a temperature inversion that traps pollutants. Radiation inversions develop on winter nights when air near the ground cools by heat radiation and air aloft remains warm. The shallow inversion layer formed between these two air masses can also trap pollutants. As the pollutants become more concentrated in the atmosphere during the described inversion events, photochemical reactions (i.e., reactions with sunlight) occur that produce ozone, commonly known as smog.

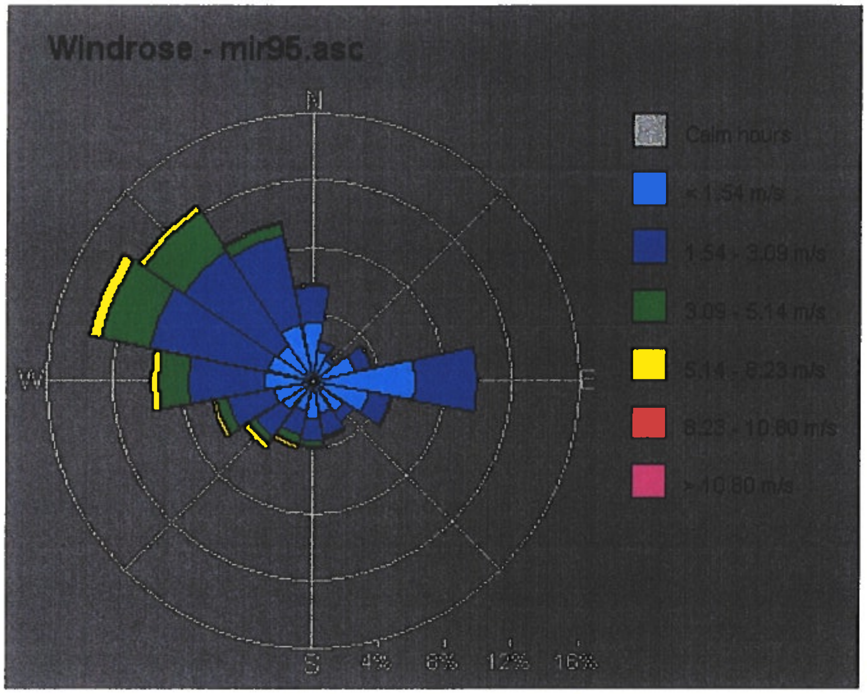

Figure 4.2-1 Wind Rose - MCAS Miramar Monitoring Station   m/s = meters per second

Regulatory Framework

Air quality is defined by ambient air concentrations of specific pollutants determined by the U.S. Environmental Protection Agency (EPA) to be of concern with respect to the health and welfare of the general public. The EPA is responsible for enforcing the Federal Clean Air Act (CAA) of 1970 and its 1977 and 1990 Amendments. The CAA required the EPA to establish National Ambient Air Quality Standards (NAAQS), which are concentrations of pollutants in the ambient air below which no adverse effects on the public health and welfare are anticipated. In response, the EPA established both primary and secondary standards for several pollutants (called "criteria" pollutants). The primary standards are designed to protect human health with an adequate margin of safety, while secondary standards are designed to protect property and the public welfare from air pollutants in the atmosphere. The EPA established NAAQS for the protection of human health and the public welfare for six criteria pollutants: carbon monoxide (CO), sulfur dioxide (SO_2), nitrogen dioxide (NO_2), ozone (O_3), particulates with an aerodynamic diameter less than 10 microns (PM_{10}), and lead (Pb).

In September 1997, the EPA promulgated 8-hour O_3 and 24-hour and annual $PM_{2.5}$ (particulates with an aerodynamic diameter less than 2.5 microns) national standards. Based on a lawsuit filed in May 1999, however, the U.S. District Court rescinded both these standards and EPA authority to enforce them. Subsequent to an appeal of this decision by the EPA, the U.S. Supreme Court in February 2001 upheld the described new standards. As a result of this decision, a planning process to monitor and evaluate emission control measures for these pollutants has been initiated, and the EPA is moving forward to develop policies to implement these standards.

The CAA allows states to adopt ambient air quality standards and other regulations, provided they are at least as stringent as federal standards. The California Air Resources Board (ARB) has established the more stringent California Ambient Air Quality Standards (CAAQS) for the noted six criteria pollutants through the California Clean Air Act of 1988, and also has established CAAQS for additional pollutants, including sulfates, hydrogen sulfide, vinyl chloride and visibility-reducing particles. Areas that do not meet the NAAQS or CAAQS for a particular pollutant are considered to be "nonattainment areas" for that pollutant. In December 2002, the San Diego Air Pollution Control District (APCD) submitted a maintenance plan for the 1-hour O_3 standard under the NAAQS, and requested redesignation of the SDAB from a serious O_3 nonattainment area to an attainment area. As of July 28, 2003, the SDAB has been reclassified as an attainment area for the 1-hour O_3 standard under NAAQS, and is also an attainment area for all other criteria pollutants under the NAAQS. The SDAB is currently classified as a nonattainment area for O_3 and PM_{10} under the CAAQS, and is an attainment area for other criteria pollutants under the CAAQS. A summary of the ambient air quality standards adopted under both the federal and California Clean Air Acts is provided in Table 4.2-1.

The ARB is the state regulatory agency with enforcement authority to achieve and maintain both the NAAQS and CAAQS. The ARB is responsible for developing, adopting, and enforcing the state motor vehicle emissions program, as well as adopting the CAAQS. The ARB also reviews operations and programs of the local air districts, and requires each air district with jurisdiction over a nonattainment area to develop a strategy for achieving the NAAQS and CAAQS. The APCD is the local agency responsible for administering and enforcing air quality regulations in San Diego County. The APCD has the primary responsibility for developing and implementing rules and regulations designed to attain the NAAQS and CAAQS, as well as permitting new or modified sources, developing air quality management plans (as described below), and adopting and enforcing air pollution regulations.

The San Diego County Regional Air Quality Strategy (RAQS) was initially adopted in 1991, and is updated on a triennial basis. The RAQS was updated in 1995, 1998, and most recently in 2001. The RAQS outlines APCD plans and control measures designed to attain the state air quality standards for O_3. The APCD has also developed the SDAB input to the State Implementation Plan (SIP), which is required under the CAA for areas that are out of attainment of air quality standards. The SIP includes the APCD plans and control measures for attaining the O_3 NAAQS, and is also updated on a triennial basis. The attainment schedule in the SIP called for the SDAB to attain the NAAQS for O_3 by 1999.

In December 2002, the APCD submitted its Ozone Redesignation Request and Maintenance Plan for San Diego County. As previously noted, the SDAB was redesignated as an attainment area for the 1-hour O_3 standard on July 28, 2003, and is now considered an O_3 maintenance area. The Ozone Redesignation Request and Maintenance Plan for San Diego County includes on- and off-road motor vehicle emission controls proposed by the ARB and stationary source emission controls adopted by the APCD to demonstrate that the O_3 standard will be maintained. The maintenance plan also contains contingency measures that the APCD will implement if the region falls out of attainment for the national O_3 standard.

Plans and programs developed for O_3 attainment are based on an intensive air quality modeling exercise involving traffic and development projections provided by the San Diego Association of Governments (SANDAG). These projections are modeled along with stationary source emissions in an iterative fashion, applying control measures that are proposed or under development for the RAQS and SIP. Projects that are consistent with applicable General Plan and Community Plan information (as well as any specific RAQS and SIP requirements that apply to projects of that nature), are considered consistent with the RAQS and SIP by virtue of their inclusion in the modeling program used to demonstrate attainment with air quality standards. With regard to construction emissions, there are no specific strategies within the RAQS or SIP that regulate emissions of ozone precursors. The APCD rules and regulations contain emission thresholds by which construction emissions are evaluated. Project construction emissions that are below these thresholds would not adversely affect the region's ability to attain and maintain ambient air quality standards within the SDAB, and would be consistent with both the RAQS and SIP.

Table 4.2-1
AMBIENT AIR QUALITY STANDARDS

POLLUTANT	AVERAGE TIME	CALIFORNIA STANDARDS		NATIONAL STANDARDS		
		Concentration	Method	Primary	Secondary	Method
Ozone	1 hour	0.09 ppm (180 μg/m³)	Ultraviolet Photometry	0.12 ppm (235 μg/m³)	0.12 ppm (235 μg/m³)	Ethylene Chemiluminescence
	8 hour	--		0.08 ppm (157 μg/m³)	0.08 ppm (157 μg/m³)	
Carbon Monoxide	8 hours	9.0 ppm (10 mg/m³)	Non-Dispersive Infrared Spectroscopy (NDIR)	9 ppm (10 mg/m³)	None	Non-Dispersive Infrared Spectroscopy (NDIR)
	1 hour	20 ppm (23 mg/m³)		35 ppm (40 mg/m³)		
Nitrogen Dioxide (NO_2)	Annual Average	--	Gas Phase Chemiluminescence	0.053 ppm (100 μg/m³)	0.053 ppm (100 μg/m³)	Gas Phase Chemiluminescence
	1 hour	0.25 ppm (470 μg/m³)		--	--	
Sulfur Dioxide (SO_2)	Annual Average	--	Ultraviolet Fluorescence	0.03 ppm (80 μg/m³)	--	Pararosaniline
	24 hours	0.04 ppm (105 μg/m³)		0.14 ppm (365 μg/m³)	--	
	3 hours	--		--	0.5 ppm (1300 μg/m³)	
	1 hour	0.25 ppm (655 μg/m³)		--	--	
Respirable Particulate Matter (PM_{10})	Annual Geometric Mean	50 μg/m³	Size Selective Inlet Sampler	--	--	Inertial Separation and Gravimetric Analysis
	24 hours	20 μg/m³		150 μg/m³	150 μg/m³	
	Annual Arithmetic Mean	--		50 μg/m³	50 μg/m³	
Fine Particulate Matter ($PM_{2.5}$)	Annual Arithmetic Mean	12 μg/m³	Gravimetric or Beta Attenuation	15 μg/m³	--	Inertial Separation and Gravimetric Analysis
	24 hours	--		65 μg/m³	--	
Sulfates	24 hours	25 μg/m³	Ion Chromatography	--	--	--
Lead	30-day Average	1.5 μg/m³	Atomic Absorption	--	--	Atomic Absorption
	Calendar Quarter	--		1.5 μg/m³	1.5 μg/m³	
Hydrogen Sulfide Vinyl Chloride	24 hours	0.010 ppm (26 μg/m³)	Gas Chromatography	--	--	--

ppm= parts per million
μg/m³ = micrograms per cubic meter
mg/m³= milligrams per cubic meter
Source: ARB 2003a

Background Air Quality

The APCD operates a network of ambient air monitoring stations throughout San Diego County. The purpose of these monitoring stations is to measure ambient pollutant concentrations and determine whether ambient air quality meets the CAAQS and the NAAQS. The ambient monitoring stations nearest to the project site are the El Cajon station (which measures O_3, NO_2, PM_{10} and $PM_{2.5}$) and the San Diego 12th Avenue station (which measures all criteria pollutants). The El Cajon station is located approximately 2.5 miles north of the campus, while the San Diego 12th Avenue station is approximately 13 miles to the southwest. Because both of these monitoring stations are located in areas with substantial traffic congestion, it is likely that associated pollutant concentrations are higher than what would be observed or measured in the campus area. Accordingly, data form the two noted stations provide a conservative estimate of background ambient air quality, with a summary of measured pollutant concentrations over the past three years provided in Table 4.2-2.

TABLE 4.2-2
AMBIENT BACKGROUND AIR QUALITY CONCENTRATIONS
(ug/m³)

Pollutant	Averaging Time	2000	2001	2002	Most Stringent AAQS[1]	Monitoring Station
Ozone	8 hour	155	167	157	157	El Cajon
	1 hour	208	239	194	180	El Cajon
PM_{10}	Annual Geometric Mean	30	35	33	30	El Cajon
	Annual Arithmetic Mean	31	37	34	50	El Cajon
	24 hour	69	84	61	50	El Cajon
$PM_{2.5}$	Annual Arithmetic Mean	15.7	17.7	15.4	15	El Cajon
	24 hour	65.5	46.7	39.3	65	El Cajon
NO_2	Annual	41	41	38	100	El Cajon
	1 hour	143	146	160	470	El Cajon
CO	8 hour	4.59 ppm	4.85 ppm	3.54 ppm	9.0 ppm	San Diego
	1 hour	7.2 ppm	7.0 ppm	5.0 ppm	20 ppm	San Diego
SO_2	Annual	10.5	7.8	7.8	80	San Diego
	24 hour	26	31	18	105	San Diego
	3 hour	79	94	39	1300[2]	San Diego
	1 hour	99	136	73	655	San Diego

[1]See Table 1 for federal and state AAQS
[2]Secondary NAAQS
Source: ARB 2003b; www.arb.ca.gov/aqd/aqd.htm (all pollutants except 1-hour CO and 1-hour and 3-hour SO_2), www.epa.gov/air/data/monvals.html (1-hour CO, 1-hour and 3-hour SO_2, 12th Avenue Station)

As documented in the monitoring data provided in Table 4.2-2, air quality has shown recent improvement in the SDAB, with the 1-hour federal O_3 standard exceeded only once at the El Cajon monitoring station during the noted three-year period (i.e., in 2001). The federal 8-hour O_3 standard, which was formally adopted in 2001 after legal arguments with the EPA, was also exceeded at the El Cajon monitoring station once in 2001 and was not exceeded in 2000 or 2002. The federal 24-hour $PM_{2.5}$ standard was exceeded once at the El Cajon monitoring station (in 2000). The data from the two referenced monitoring stations indicate that air quality is in attainment for all other federal standards. The El Cajon monitoring station measured exceedances of the state PM_{10} standard during the period from 2000 to 2002.

Concentrations of CO at the San Diego 12th Avenue monitoring station tend to be among the highest in the SDAB, due to the location of the monitor in a congested area of downtown San Diego. This station regularly documents higher concentrations of CO than have historically been measured elsewhere in San Diego County, and these background data are likely not representative of background ambient CO concentrations at the campus (i.e., due to the its location in a less developed area).

4.2.2 Impacts

Implementation of the proposed Master Plan would result in potential air quality impacts from both construction and operational activities. Construction related impacts include emissions associated with the construction, demolition, and renovation of buildings (and related facilities) on campus, as well as the construction of new paved parking lots. Operational impacts include emissions associated with the long-term use of campus facilities at full buildout, including traffic related emissions.

Thresholds of Significance

Pursuant to significance threshold discussions provided in the State CEQA Guidelines, project-related impacts associated with air quality would be considered potentially significant if they would:

- Conflict or obstruct the implementation of the San Diego RAQS or applicable portions of the SIP;

- Result in emissions that would violate any air quality standard or contribute substantially to an existing or projected air quality violation;

- Exceed quantitative thresholds for O_3 precursors, oxides of nitrogen (NO_X) and Volatile Organic Compounds (VOCs); or

- Expose sensitive receptors (including, but not limited to, schools, hospitals, resident care facilities, or day-care centers) to substantial pollutant concentrations.

To determine whether a project would result in a violation of an air quality standard or contribute substantially to an existing or projected violation, it is necessary to look at the quantitative emission thresholds established by the San Diego APCD. As part of its air quality permitting process, the APCD has established thresholds in Rule 20.2 for the preparation of Air Quality Impact Assessments (AQIAs).

For CEQA purposes, these screening criteria can be used as numeric standards to determine if project related emissions would result in a significant impact to air quality. Because the APCD does not have AQIA thresholds for emissions of VOCs, the use of the threshold for reactive organic compounds (ROC) from the South Coast Air Quality Management District (SCAQMD) CEQA Air Quality Handbook (SCAQMD1993) is appropriate. The screening thresholds used for both construction and operational emissions are provided in Table 4.2-3.

In the event that emissions exceed these thresholds, modeling would be required to demonstrate that the project's total air quality impacts result in ground-level concentrations that are below the State and Federal AAQS, including appropriate background levels.

In addition to impacts from criteria pollutants, project impacts may include emissions of pollutants identified by the state and federal government as toxic air contaminants (TACs) or hazardous air pollutants (HAPs). In San Diego County, APCD Regulation XII establishes acceptable risk levels and emission control requirements for new and modified facilities that may emit additional TACs. Under Rule 1210, emissions of TACs that result in a cancer risk of 1 in 1 million or less and a health hazard index of one or less are considered a less than significant impact. If a project has the potential to result in emissions of any TAC or HAP which result in a cancer risk of greater than 1 in 1 million, the project would be deemed to have a potentially significant impact.

With regard to evaluating whether a project would have a significant impact on sensitive receptors, air quality regulators typically define sensitive receptors as schools (preschool through 12th grade), hospitals, resident care facilities, or day-care centers, as well as other facilities that may house individuals with health conditions that would be adversely impacted by changes in air quality. Any project which has the potential to directly impact a sensitive receptor located within 1 mile and that results in a health risk greater than 1 in 1 million would be deemed to have a potentially significant impact.

Table 4.2-3
SCREENING-LEVEL CRITERIA FOR AIR QUALITY IMPACTS

Pollutant	Total Emissions		
Construction Emissions			
	Lb. per Day		**Tons per Year**
Respirable Particulate Matter (PM_{10})	100		15
Oxides of Nitrogen (NOx)	250		40
Oxides of Sulfur (SOx)	250		40
Carbon Monoxide (CO)	550		100
Volatile Organic Compounds (VOCs)[1]	75		50
Operational Emissions			
	Lb. Per Hour	**Lb. per Day**	**Tons per Year**
Respirable Particulate Matter (PM_{10})	---	100	15
Oxides of Nitrogen (NOx)	25	250	40
Oxides of Sulfur (SOx)	25	250	40
Carbon Monoxide (CO)	100	550	100
Lead and Lead Compounds	---	3.2	0.6
Volatile Organic Compounds (VOCs)[1]	---	75	13.7[2]

[1]Threshold for VOCs based on the threshold of significance for reactive organic gases for the Southeast Desert Air Basin (SEDAB) from Chapter 6 of the SCAQMD CEQA Air Quality Handbook (SCAQMD 1993), as recommended by the County of San Diego.
[2]13.7 Tons Per Year threshold based on 75 lbs/day multiplied by 365 days/year and divided by 2000 lbs/ton.

Impact Analysis

Construction Impacts

Emissions of pollutants such as fugitive dust generated during construction are generally highest near the construction site. Emissions from the construction phase of Master Plan implementation were estimated through the use of emission factors from the SCAQMD CEQA Air Quality Handbook (SCAQMD 1993) and the EPA emission factors for construction equipment. It was assumed that heavy construction equipment would be operating on campus for eight hours per day and six days per week during Master Plan construction.

Two scenarios were evaluated to determine the greatest (or "worst case") potential air quality impacts associated with Master Plan construction. The first scenario involves the simultaneous construction of several buildings and parking lots, while the second scenario involves construction of the Phase IV parking lot. The Phase IV lot is the largest paved parking area proposed under the Master Plan, and would involve the greatest amount of site disturbance and grading requirements to construct.

Construction Scenario 1

The greatest level of proposed Master Plan building activity would involve the simultaneous construction of the Student Center, Science and Technology Mall, Communication Arts building and the Phase I/II parking lot (refer to Figure 3-1). To estimate construction emissions associated with these activities, it was assumed that both building construction and grading/parking lot surfacing would occur at the same time.

Fugitive dust emissions were estimated using the PM_{10} construction emissions factor of 26.4 pounds per acre per day (lbs/acre/day) recommended in the SCAQMD CEQA Handbook (SCAQMD 1993, Table A9-9). Assuming that a maximum of 5 acres would be graded in any single day, the daily PM_{10} emissions would be as much as 132 lbs/day. To estimate fugitive dust emissions over one year, it was assumed that major grading and site disturbance within the 5-acre area would require one month, and that other simultaneous construction of buildings within the campus (if occurring) would not require site disturbance generating substantial fugitive dust emissions.

Construction heavy equipment requirements were estimated based on similar projects, with the assumed maximum heavy construction equipment requirements for Master Plan Scenario 1 provided in Table 4.2-4, *Construction Equipment – Scenario 1*. The numbers of equipment presented in this table represent a worst-case estimate of equipment needs at any one time. For conservative purposes in calculating the maximum tons of emissions per quarter, it was assumed that the maximum daily emissions could occur for 62 days per quarter during the construction period.

Table 4.2-4
CONSTRUCTION EQUIPMENT - SCENARIO 1

Construction Phase	Equipment	Number
Construction of Student Center, Science and Technology Mall, Communication Arts Building, and Phase I parking lot expansion	Generator sets	8
	Forklifts – 50 hp	4
	Forklifts – 175 hp	4
	Crane	1
	Dozer	1
	Grader	1
	Asphalt paver	1
	Material delivery trucks/asphalt trucks	8

Source: SRA 2003

It was also assumed that 70 construction workers would be required for the construction of Scenario 1 facilities, and that average commute distances for construction personnel would be approximately 20 miles each way. Table 4.2-5, *Construction Emissions – Unmitigated*, provides a summary of the emission estimates for Master Plan Scenario 1 construction, assuming no measures are implemented to reduce emissions. Because (as noted above) Scenario 1 represents a worst-case situation for building construction, other buildings proposed to be constructed under the proposed Master Plan would result in lower emissions. Detailed emission calculations for this scenario are provided in Attachment A of EIR Appendix C.

Table 4.2-5
CONSTRUCTION EMISSIONS - UNMITIGATED
Scenario 1

Emission Source	ROC	NO_x	CO	SO_x	PM_{10}
Building Construction					
lbs/day					
Fugitive Dust	-	-	-	-	132
Heavy Equipment Exhaust	17.66	134.93	138.35	8.67	9.94
Construction Truck Trips	0.08	1.75	0.22	0.02	0.03
Worker Travel – Vehicle Emissions	1.99	3.95	40.02	0.03	0.20
TOTAL	19.73	140.63	178.59	8.72	142.17
Significance Criteria	75	250	550	250	100
Significant?	*No*	*No*	*No*	*No*	*Yes*
tons/year					
Fugitive Dust					1.7
Heavy Equipment Exhaust	2.21	16.87	17.29	1.08	1.24
Construction Truck Trips	0.01	0.22	0.03	0.00	0.00
Worker Travel – Vehicle Emissions	0.25	0.49	5.00	0.00	0.02
TOTAL	2.47	17.58	22.32	1.08	2.96
Significance Criteria	50	40	100	40	15
Significant?	*No*	*No*	*No*	*No*	*No*

Source: SRA 2003

As shown in Table 4.2-5, Scenario 1 construction would result in fugitive dust emissions which exceed the County of San Diego significance criterion of 100 lbs/day, with all other emissions within the identified significance criteria. Because fugitive dust emissions would exceed the associated significance criterion, dust control measures would be required to reduce emissions and associated potential impacts. Standard measures to reduce the amount of fugitive dust generated from construction projects under the Master Plan and their respective control efficiencies include the following:

- Multiple applications of water during grading between dozer/scraper passes - 34 to 68%
- Paving, chip sealing or chemical stabilization of internal roadways after grading - 92.5%
- Use of sweepers or water trucks to remove "track-out" at points of public street access - 25 to 60%
- Termination of grading if winds exceed 25 mph - not quantified

- Stabilizing dirt storage piles by chemical binders, tarps, fencing or other erosion control - 30 to 65%

- Hydroseeding of graded residential lots - 30 to 65%

While all of the above measures are identified as mitigation in Section 4.2.3, only the application of water during grading was used to model the control efficiency for particulate emissions, with an efficiency level (or reduction rate) of 34 percent assumed. This approach was used to provide the most conservative estimate of potential emission reduction and associated impact levels. The resulting emission estimates for construction with dust control measures incorporated are shown in Table 4.2-6. As seen from these data, the estimated PM_{10} emissions during project construction under Scenario 1 would be below the San Diego County significance criterion with mitigation incorporated.

Table 4.2-6
ESTIMATED CONSTRUCTION EMISSIONS - MITIGATED
Scenario 1

Emission Source	ROC	NO_x	CO	SO_x	PM_{10}
Building/Parking Lot Construction					
lbs/day					
Fugitive Dust	-	-	-	-	87.12
Heavy Equipment Exhaust	17.66	134.93	138.35	8.67	9.94
Construction Truck Trips	0.08	1.75	0.22	0.02	0.03
Worker Travel – Vehicle Emissions	1.99	3.95	40.02	0.03	0.20
TOTAL	19.73	140.63	178.59	8.72	97.29
Significance Criteria	75	250	550	250	100
Significant?	***No***	***No***	***No***	***No***	***No***
tons/year					
Fugitive Dust					1.12
Heavy Equipment Exhaust	2.21	16.87	17.29	1.08	1.24
Construction Truck Trips	0.01	0.22	0.03	0.00	0.00
Worker Travel – Vehicle Emissions	0.25	0.49	5.00	0.00	0.02
TOTAL	2.47	17.58	22.32	1.08	2.38
Significance Criteria	50	40	100	40	15
Significant?	***No***	***No***	***No***	***No***	***No***

Source: SRA 2003

Construction Scenario 2

Scenario 2 involves the construction of the large Phase IV parking lot located south of Rancho San Diego Parkway (and south of the Scenario 1 parking lot) and east of Cuyamaca College Drive East (see Figure 3-1). Fugitive dust emissions were estimated using the PM_{10} construction emissions factor of 26.4 lbs/acre/day recommended in the SCAQMD CEQA Handbook (SCAQMD 1993, Table A9-9). Assuming that a maximum of 5 acres would be graded in any single day, the daily PM_{10} emissions would be as much as 132 lbs/day.

Construction heavy equipment requirements were estimated based on similar projects, with the assumed maximum heavy construction equipment requirements for Master Plan Scenario 2 shown in Table 4.2-7. The numbers of equipment presented in this table represent a worst-case estimate of equipment needs at any one time. For conservative purposes in calculating the maximum tons of emissions per quarter, it was assumed that the maximum daily emissions could occur for 62 days per quarter during the construction period.

Table 4.2-7
CONSTRUCTION EQUIPMENT
Scenario 2

Construction Phase	Equipment	Number
Phase IV Parking Expansion	Graders	2
	Dozer	1
	Water truck	1
	Asphalt paver	1
	Asphalt trucks	5

Source: SRA 2003

It was also assumed that 35 construction workers would be required for construction of the Phase IV expansion, and that average commute distances for construction personnel would be approximately 20 miles each way. Table 4.2-8 provides a summary of the emission estimates for Master Plan Scenario 2 construction, assuming no measures are implemented to reduce emissions. Because (as noted above) Scenario 2 represents a worst-case situation for parking lot construction, other parking lots proposed to be constructed under the proposed Master Plan would result in lower emissions. Detailed emission calculations for this scenario are provided in Attachment A of EIR Appendix C.

As shown in Table 4.2-8, Scenario 2 construction would result in fugitive dust emissions which exceed the County of San Diego significance criterion of 100 lbs/day, with all other emissions within the identified significance criteria. Because fugitive dust emissions would exceed the associated significance criterion, dust control measures would be required to reduce emissions and associated potential impacts. Standard measures to reduce the amount of fugitive dust generated from Master Plan Scenario 2 construction projects are the same as those listed above for Scenario 1. While all of these measures are identified as mitigation in Section 4.2.3, only the application of water during grading was used to model the control efficiency (or emissions reduction) for particulate emissions, with an efficiency level of 34 percent assumed. This approach was used to provide the most conservative estimate of potential emission reduction and resulting impact levels. The resulting emission estimates for Scenario 2 construction are shown in Table 4.2-9. As seen from these data, the estimated PM_{10} emissions during project construction under Scenario 2 would be below the San Diego County significance criterion after mitigation is incorporated.

Table 4.2-8
ESTIMATED CONSTRUCTION EMISSIONS - UNMITIGATED
Scenario 2

Emission Source	ROC	NO_x	CO	SO_x	PM_{10}
Phase IV Parking Lot Construction					
lbs/day					
Fugitive Dust	-	-	-	-	132
Heavy Equipment Exhaust	7.06	95.28	32.32	11.43	7.17
Worker Travel – Vehicle Emissions	0.05	1.09	0.14	0.01	0.02
Construction Truck Trips	0.99	1.98	20.01	0.01	0.10
TOTAL	**8.10**	**98.35**	**52.47**	**11.45**	**139.29**
Significance Criteria	75	250	550	250	100
Significant?	***No***	***No***	***No***	***No***	***Yes***
tons/year					
Fugitive Dust					1.7
Heavy Equipment Exhaust	0.88	11.91	4.04	1.43	0.90
Construction Truck Trips	0.01	0.14	0.02	0.00	0.00
Worker Travel – Vehicle Emissions	0.12	0.25	2.50	0.00	0.01
TOTAL	**1.01**	**12.30**	**6.56**	**1.43**	**2.61**
Significance Criteria	50	40	100	40	15
Significant?	***No***	***No***	***No***	***No***	***No***

Source: SRA 2003

Table 4.2-9
ESTIMATED CONSTRUCTION EMISSIONS - MITIGATED
Scenario 2

Emission Source	ROC	NO_x	CO	SO_x	PM_{10}
Phase IV Parking Lot Construction					
lbs/day					
Fugitive Dust	-	-	-	-	87.12
Heavy Equipment Exhaust	7.06	95.28	32.32	11.43	7.17
Worker Travel – Vehicle Emissions	0.05	1.09	0.14	0.01	0.02
Construction Truck Trips	0.99	1.98	20.01	0.01	0.10
TOTAL	8.10	98.35	52.47	11.45	94.41
Significance Criteria	75	250	550	250	100
Significant?	*No*	*No*	*No*	*No*	*No*
tons/year					
Fugitive Dust					1.12
Heavy Equipment Exhaust	0.88	11.91	4.04	1.43	0.90
Construction Truck Trips	0.01	0.14	0.02	0.00	0.00
Worker Travel – Vehicle Emissions	0.12	0.25	2.50	0.00	0.01
TOTAL	1.01	12.30	6.56	1.43	2.03
Significance Criteria	50	40	100	40	15
Significant?	*No*	*No*	*No*	*No*	*No*

Source: SRA 2003

Project construction would be required to employ the dust control measures assumed above (as well as the additional measures identified in Section 4.2.3) and would, therefore, be in compliance with strategies in the RAQS and SIP for attaining and maintaining the air quality standards. Master Plan construction would, therefore, not conflict with or obstruct the implementation of the RAQS or applicable portions of the SIP. Furthermore, due to the fact that Master Plan construction would be short-term in nature, the Master Plan would not result in construction related emissions that would: (1) violate any air quality standard; (2) contribute substantially to an existing or projected air quality violation; or (3) exceed quantitative thresholds for O_3 precursors, oxides of nitrogen (NO_X) and VOCs.

Diesel exhaust particulate matter is known to the state of California to contain carcinogenic compounds. The risks associated with exposure to substances with carcinogenic effects are typically evaluated based on a lifetime of chronic exposure, which is defined in the California Air Pollution Control Officers' Association (CAPCOA) Air Toxics "Hot Spots" Program Risk Assessment Guidelines (CAPCOA 1993) as 24 hours per day, 7 days per week, 365 days per year, for 70 years. Diesel exhaust particulate matter would be emitted during construction from heavy equipment used in the construction process. Because diesel exhaust particulate matter is considered to be carcinogenic, long-term exposure to diesel exhaust emissions could result in adverse health impacts. Proposed Master Plan construction, however, would be temporary in nature and would not result in long-term emissions of diesel exhaust particulate matter. As a result, potential receptors would not be exposed to long-term diesel exhaust from Master Plan construction, and associated potential impacts would be less than significant.

Operational Impacts

Potential operational air quality impacts associated with the proposed Master Plan are associated predominantly with traffic emissions. Potential long-term impacts associated with emissions from campus energy use were also evaluated based on land use and building square footage.

To address whether the proposed Master Plan would result in emissions that violate any air quality standard or contribute substantially to an existing or proposed air quality violation, the emissions associated with Master Plan generated traffic were compared with the County of San Diego significance criteria. According to the Cuyamaca Community College Master Plan Traffic Impact Analysis (Katz, Okitsu & Associates 2003a), the Master Plan would generate 8,400 average daily trips (ADT) by 2015.

To estimate emissions associated with this traffic, the EMFAC2002 model (ARB 2002) was used. The EMFAC2002 model is the latest version of the California Department of Transportation (Caltrans) emission factor model for on-road traffic. Because the Master Plan proposes expansion of a community college, associated traffic was assumed to be comprised of light duty autos and light duty trucks (i.e., small trucks, SUVs, and vans). Based on recommendations in the Caltrans ITS Transportation Project-Level Carbon Monoxide Protocol (Caltrans 1998), it was assumed that the vehicle mix, when distributed between light duty autos and light duty trucks, would be 78 percent light duty autos and 22 percent light duty trucks (refer to Appendix C for detailed methodology). For estimating emission factors associated with light duty autos and light duty trucks, it was assumed that these vehicles would be a mix of non-catalytic, catalytic, and diesel vehicles as indicated in the EMFAC2002 outputs. It was further assumed that diesel particulate emissions would be minor, because Master Plan generated traffic would consist primarily of light-duty (i.e., non-diesel) autos and trucks. Based on this assumption, no significant long-term impacts related to diesel exhaust exposure would be expected from Master Plan implementation, and no additional analysis of such potential impacts is provided.

To address emissions for the long term (i.e., full buildout) scenario, emission factors representing the vehicle mix for 2020 were used to estimate emissions. Off-campus vehicle speeds were assumed to be 27 miles per hour (mph), based on an average speed limit of 30 mph and the recommended average cruise speed in the Caltrans ITS Carbon Monoxide Protocol (Caltrans 1998). Detailed EMFAC2002 model outputs are provided in Appendix C of this EIR.

Emissions associated with energy use on campus were estimated based on Table 9-8 of the SCAQMD CEQA Air Quality Handbook (SCAQMD 1993), which provides screening values for estimating emissions associated with energy consumption based on developed square footage. Emissions for the proposed Master Plan were estimated based on a total new building space of 125,000 square feet at full buildout. Table 4.2-10, *Master Plan Operational Emissions*, presents the results of the emission calculations for vehicular and energy related operations, along with a comparison to the County of San Diego significance criteria.

Table 4.2-10
MASTER PLAN OPERATIONAL EMISSIONS

	CO	NOx	ROC	SOx	PM_{10}
	Lbs/day				
Vehicular Emissions	215.07	10.12	36.77	0.10	0.83
Energy Use	0.80	4.57	0.04	-	0.16
Total	**215.87**	**14.69**	**36.81**	**0.10**	**0.99**
Significance Criteria	550	250	55	250	100
Significant?	***No***	***No***	***No***	***No***	***No***
	Tons/year				
Vehicular Emissions	39.25	1.85	6.71	0.02	0.15
Energy Use	0.15	0.83	0.01	-	0.03
Total	**39.40**	**2.68**	**6.72**	**0.02**	**0.18**
Significance Criteria	100	40	10	100	15
Significant?	***No***	***No***	***No***	***No***	***No***

Source: SRA 2003

As seen from the data in Table 4.2-10, operational emissions from long-term Master Plan implementation would be below the identified significance criteria, and would therefore not cause or contribute to a violation of any air quality standard.

Projects involving traffic impacts may result in the formation of locally high concentrations of CO, known as CO "hot spots." To verify that the proposed Master Plan would not cause or contribute to a violation of the CO standard, a screening evaluation of the potential for CO hot spots was conducted. The Master Plan traffic analysis evaluated whether or not there would be a decrease in the level of service (LOS) at the roadways and/or intersections affected by Master Plan generated traffic, with the potential for CO hot spots based on the results of this analysis. In accordance with County of San Diego requirements for air quality analyses, the Caltrans CO protocol (Caltrans 1998) was used to determine whether CO hot spot would be likely to form due to Master Plan traffic. In accordance with the noted protocol, CO hot spots are typically evaluated when: (1) the LOS of an intersection or roadway decreases to E or worse; (2) signalization and/or channelization is added to an intersection; and (3) sensitive receptors such as residences, commercial developments, schools, or hospitals are located in the vicinity of the affected intersection or roadway segment.

The evaluation of CO hot spots was conducted for the long-term scenario described in the Master Plan Traffic Impact Analysis (Katz, Okitsu & Associates 2003a) to address traffic impacts with and without the Master Plan at full buildout. Based on this analysis, no roadway segments that are currently operating above LOS E would be degraded to LOS E or worse due to Master Plan related traffic alone. The Master Plan traffic analysis identified two intersections on public roads for the long-term scenario that would be degraded to LOS E or worse due to Master Plan traffic: Avocado Boulevard/Fury Lane, and Fury Lane/Brabham Street (at the east campus entrance). Because the Cuyamaca College Drive on-campus intersection is within the campus borders and is not a public roadway, this intersection was not evaluated for CO hot spots. The Master Plan traffic analysis also evaluated the effect of mitigating design measures (in this case, modified signalization at the two degraded intersections) to alleviate traffic congestion. Table 4.2-11 presents a summary of the LOS for intersections considered in the Master Plan traffic analysis with and without Master Plan implementation, and with Master Plan implementation after mitigating design measures (mainly modified signalization).

Table 4.2-11
LONG-TERM INTERSECTION LEVEL OF SERVICE SUMMARY

Intersection	Long Term without Project		Long Term with Project		Long Term with Project mitigating design measures[1]	
	am peak hour	pm peak hour	am peak hour	pm peak hour	am peak hour	pm peak hour
SR-54/Jamacha Rd. at Cuyamaca College Dr.	B	C	C	C	C	C
Fury Ln. at Brabham St.	C	C	E	C	D	C
Avocado Blvd. at Fuerte Dr.	D	E	D	E	D	D
Avocado Blvd. at Fury Ln.	D	D	D	E	B	C
SR-94/Campo Rd. at Via Mercado	B	C	B	C	B	C
SR-94/Campo Rd. at Jamacha Blvd.	F	F	F	F	C	E
Jamacha Blvd. at Doubletree Rd./Calavo Dr.	B	B	B	B	B	B
Jamacha Blvd. at Sweetwater Springs Blvd.	C	E	C	E	C	E
SR-94/Campo Rd. at SR-54/Jamacha Rd.	D	C	D	C	D	C
SR-54/Jamacha Rd. at Fury Ln.	B	B	C	B	C	B
SR-54/Jamacha Rd. at Willow Glen Dr.	C	D	C	D	C	D
SR-54/Jamacha Rd. at Brabham St.	F	C	F	C	E	C
SR-54/Jamacha Rd. at Calle Albara	B	B	B	B	B	B
SR-54/Jamacha Rd. at Hillsdale Rd.	C	B	C	B	C	B
SR-54/Jamacha Rd. at Chase Ave.	F	F	F	F	F	F
Weighorst Way at Fury Ln.	C	C	C	C	C	C
Fury Ln. at Via Rancho San Diego	B	B	B	B	B	B
Avenida Apolinari at Brabham St.	C	B	C	B	C	B
Via Rancho San Diego at Brabham St.	C	B	D	B	D	B
Willow Glen Dr. at Steele Canyon Rd.	D	C	D	C	D	C
Hillsdale Rd. at Willow Glen Dr.	C	C	C	C	C	C

[1] Mainly signalization modifications
Source: Katz, Okitsu & Associates (2003a)

Based on the results of the Master Plan traffic analysis and previously referenced Caltrans CO protocol guidelines, intersections with an LOS E or worse were evaluated to determine whether CO hot spots could results from traffic congestion in the area. As recommended in the protocol, CALINE4 modeling was conducted for the two intersections identified above where the LOS degrades to E or worse due to Master Plan traffic. Modeling was conducted to calculate maximum predicted 1-hour CO concentrations, with predicted 1-hour concentrations then scaled to evaluate maximum predicted 8-hour CO concentrations using the recommended scaling factor of 0.7.

Inputs to the CALINE4 model were obtained from the Master Plan traffic analysis, which represents full buildout of the campus (Katz, Okitsu & Associates 2003a). As recommended in the Caltrans protocol, receptors were located at locations that were approximately 3 meters from the roadway at a height of 1.8 meters. Average approach and departure speeds were estimated using Tables B.13 and B.14 of the protocol, and emission factors for those speeds were estimated from the EMFAC2002 emissions model (ARB 2002). The calculated CO concentrations were also evaluated for the intersections with the mitigating design measures recommended in the Master Plan traffic analysis (mainly signalization modifications).

In accordance with the referenced Caltrans CO protocol, it was also necessary to estimate future background CO concentrations in the campus vicinity to determine the potential impact plus background, and to evaluate the potential for CO hot spots due to Master Plan implementation. As a conservative estimate of background CO concentrations, the existing maximum 1-hour background concentration of CO that was measured at the El Cajon monitoring station for the past three-year period (2000 to 2002) of 7.2 parts per million (ppm) was used to represent future maximum background 1-hour CO concentrations, and the existing maximum 8-hour background concentration of 4.85 ppm was used to represent future maximum background 8-hour CO concentrations. CO concentrations in the future may actually be lower as inspection and maintenance programs and more stringent emission controls are placed on vehicles.

A summary of the predicted CO concentrations (impact plus background) for both intersections evaluated under all three traffic scenarios is provided in Table 4.2-12 (see Appendix C for detailed CALINE4 model outputs). As shown in this table, the predicted CO concentrations are below the 1-hour and 8-hour NAAQS and CAAQS for CO for all identified traffic scenarios. Therefore, no exceedances of the CO standard are predicted, and the proposed Master Plan would not cause or contribute to a violation of any CO air quality standard.

TABLE 4.2-12
MAXIMUM PREDICTED CO CONCENTRATIONS
(PPM)

Intersection	Long Term Without Master Plan		Long Term with Master Plan		Long Term With Master Plan and Mitigating Design Measures (Mitigated)	
Maximum 1-Hour Concentration Plus Background, ppm caaqs = 20 ppm; naaqs = 35 ppm						
	AM	**PM**	**AM**	**PM**	**AM**	**PM**
Avocado Blvd. and Fury Ln.	8.1	8.1	8.1	8.1	8.1	8.1
Fury Ln. and Brabham St.	7.4	7.4	7.5	7.5	7.4	7.5
Maximum 8-Hour Concentration Plus Background, ppm caaqs = 9.0 ppm; naaqs = 9 ppm						
Avocado Blvd. and Fury Ln.	5.48		5.48		5.48	
Fury Ln. and Brabham St.	4.99		5.06		5.06	

Source: SRA 2003

Emissions of PM_{10} are also attributable mainly to traffic sources. The likelihood for adverse impacts associated with particulate emissions from Master Plan generated traffic was evaluated using the Caltrans Interim PM_{10} Qualitative PM_{10} Hot Spot Guidance (Caltrans 2002). In accordance with this guidance, areas that have not had any Federal PM_{10} violations, or have not measured PM_{10} concentrations that are within 80 percent of the NAAQS PM_{10} standard, are unlikely to cause an exceedance of this standard. Data from the El Cajon monitoring station indicate that no violations of Federal PM_{10} standards or any PM_{10} concentrations within 80 percent of the NAAQS PM_{10} standard have occurred. The campus is not located in an area with unusually high levels or unusual sources of PM_{10} that would cause PM_{10} emissions from Master Plan implementation to contribute to a violation of PM_{10} standards. It is therefore concluded, in accordance with the referenced Caltrans PM_{10} Hot Spot Guidance, that Master Plan related emissions would not cause or contribute to a violation of the NAAQS PM_{10} standard.

4.6.3 Mitigation Measures

The following mitigation measures would be required to reduce potential impacts related to the generation of PM_{10} from Master Plan construction activities below a level of significance. All other potential air quality impacts evaluated in association with Master Plan implementation would be less than significant, with no associated mitigation required.

MM 4.6-1: Multiple applications of water shall be applied during grading between dozer/scraper passes

MM 4.6-2: Paving, chip sealing or chemical stabilization of internal roadways shall be implemented after completion of grading

MM 4.6-3: Sweepers or water trucks shall be used to remove "track-out" at any point of public street access

MM 4.6-4: Grading activities shall be terminated if wind speeds exceed 25 mph

MM 4.6-5: Soil (or other material) storage piles shall be stabilized by chemical binders, tarps, fencing or other erosion control measures

MM 4.6-6: Graded residential lots shall be hydroseeded to provide interim stability prior to the installation of permanent buildings, pavement and landscaping

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4.3 AESTHETICS/VISUAL QUALITY

This section of the EIR evaluates the potential for changes in the visual character of Cuyamaca College due to implementation of the Master Plan. Pursuant to the Master Plan, a total of 125,000 assignable square feet (asf) of new building space and 2,000 additional parking spaces would be developed on campus by the horizon year (2015). This section analyzes the potential environmental effects associated with these additional facilities, including effects on views; the potential loss of existing visual resources, such as landscaping and mature trees; compatibility with visual characteristics of the campus and its environs; and the effect of light and glare on adjacent sensitive land uses.

4.3.1 Existing Conditions

Visual Setting

Regional Context

Cuyamaca College is located within Jamacha Valley, which is characterized by relatively level topography within the general floodplain of the Sweetwater River, as well as areas to the immediate north, including the environs of the campus. The valley floor occurs at an elevation of approximately 320 feet above mean sea level (AMSL) and is flanked by steep slopes and ascending ridgelines that reach heights of approximately 800 feet AMSL. Land to the south and southeast of the Jamacha Valley generally consists of undeveloped steep topography, including the prominent San Miguel Mountain, Mother Miguel Mountain and Jamul Mountains, which reach elevations of approximately 2,600 feet ASML, 1,500 feet AMSL and 2,100 feet ASML, respectively. Land to the northwest, west and east consists of the developed communities of Rancho San Diego, Casa de Oro, Mt. Helix, Spring Valley, as well as the City of El Cajon.

Land uses immediately surrounding the campus include single-family residential to the north and northeast; multi-family residential to the east and south; commercial retail to the south and southeast; Otay Water District facilities to the west; and undeveloped land to the west and northwest. Portions of the campus are visible from the adjacent neighborhoods to the south and southeast.

Campus Context

Cuyamaca College is located in the developed community of Rancho San Diego and is characterized by gently rolling topography that slopes from northwest to southeast with steeper hillsides located in the western and northern portions of campus. On-site elevations range from a low of approximately 350 feet AMSL at the southeastern corner of the campus to a high of approximately 590 feet AMSL at the steep slopes along the western campus boundary. Approximately three percent (5.6 acres) of the campus is comprised of slopes of 25 percent or greater gradient.

Cuyamaca College exhibits a radial development pattern with campus facilities constructed around the large Central Green, which serves as the focal point of the campus. Existing campus development is generally located within the central to western portions of campus with the majority of buildings sited in the western portion of campus in a semi-circular configuration, concentrically flanking the Central Green. The outdoor physical education facilities are located north of the Central Green and most of the parking is located east of the Central Green.

Prominent visual features on campus include the steep slopes, ridgelines and riparian corridor that comprise the Biological Preserve; the Central Green; the Heritage of Americas Museum; and the Water Conservation Garden. The steep slopes and ridgelines in the western and northern portions of campus define the low-lying valley and are generally visible from all vantage points on campus. The riparian corridor traverses the eastern portion of the campus and flows southerly from the steep slopes to the north. The Central Green encompasses seven acres of ornamental landscaping primarily consisting of large grassy areas, numerous trees and shrubs and is transected by several meandering pedestrian pathways. Most areas of campus can be seen from the Central Green. The Heritage of the Americas Museum is located atop a knoll referred to as Museum Hill in the southern portion of campus, which provides views on and off campus. The Water Conservation Garden is located immediately adjacent to and east of the museum and consists of a landscaped garden of drought tolerant plants.

Views

Off-site views from the campus generally encompass the varied topographic features characteristic of the general area. The southern viewshed provides panoramic views of the steep slopes and ridgelines associated with nearby San Miguel Mountain, as well as the more distant Jamul Mountains (Figure 4.3-1, *Views Looking South*). In addition, the floor of Jamacha Valley can be seen at higher elevations on campus. Views to the east encompass rooflines of residential development and glimpses of commercial retail uses. Distant views to the east capture the ridgelines of the Jamul Mountains (Figure 4.3-2, *View Looking East*). Views to the north include the slopes and ridgelines along the northern campus boundary and provide intermittent views of residential development between the hills (Figure 4.3-3, *View Looking North*). Westerly views generally encompass the hills along the western campus boundary, as well as the off-site water tanks (Figure 4.3-4, *View Looking West*).

Intervening topography and mature trees largely obstruct public views into the campus from off-site. Because the developed portion of campus is nestled amongst mature trees, surrounding slopes, knolls and minor ridgelines, motorists and pedestrians traveling along surrounding roadways are not provided with clear views of the interior of the campus. The residential neighborhoods to the north and northeast are at higher elevations than the campus, but views into the campus are screened by a combination of intervening topography and mature trees along the campus edges and interior. Views into the campus from the east along Fury Lane are partially obstructed by vegetation within the undeveloped eastern portion of the campus. Views into the campus from the south along SR-94/Campo Road and to some extent, Grossmont College Drive West are screened by intervening structures and vegetation.

Applicable Plans and Policies

There are no District policies regarding aesthetics or visual quality. Although County of San Diego policies do not apply to lands within campus boundaries, the campus' proximity to State Routes 94 and 54 warrants consideration of policies contained in the Scenic Highway Element of the County of San Diego Valle de Oro Community Plan, which designates portions of SR-94 and SR-54 as scenic highway corridors. The goal of Scenic Highways Element is to utilize scenic highway corridors as one method of protecting and enhancing the appearance of scenic, historical and recreational areas. The associated policies and recommendations include the following:

- Support the priority of the scenic highway corridors in Valle de Oro, as designated in the County General Plan.

- Support priorities for scenic highway corridors in Valle de Oro as follows: Route 94 first priority; Route 125 (from Route 94 north to Interstate 8) as an existing route; SR-54 from Route 94 to El Cajon, first priority; Willow Glen Drive and Avocado Boulevard, second priority.

- Complete and implement a scenic design study for SR-54 north from Route 94 to the El Cajon city limits.

4.3.2 Impacts

Thresholds of Significance

Thresholds of significance for impacts to aesthetics are based on Appendix G of State CEQA Guidelines, as amended. Project impacts to aesthetics/visual quality would be considered significant if one or more of the following were to result:

- Have a substantial adverse effect on a scenic vista.

- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.

- Substantially degrade the existing visual character or quality of the site and its surroundings.


Ridgelines to the south

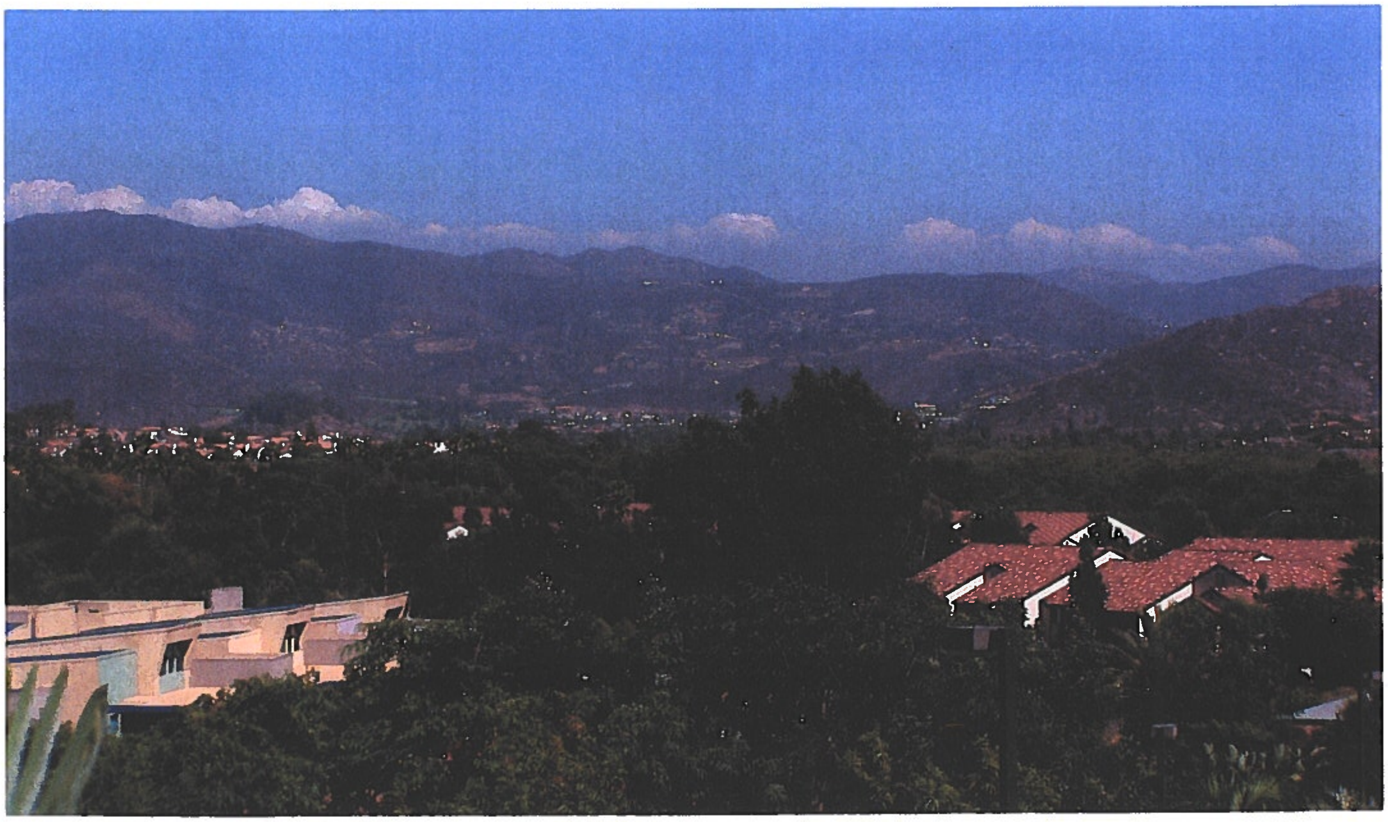

San Miguel Mountain

Views Looking South

CUYAMACA COLLEGE MASTER PLAN EIR

Figure 4.3-1

HELIX



View Looking East

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Figure 4.3-2

HELIX

View Looking North

CUYAMACA COLLEGE MASTER PLAN EIR

Figure 4.3-3

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View Looking West

CUYAMACA COLLEGE MASTER PLAN EIR

Figure 4.3-4

- Create a new source of substantial light or glare on campus or in the immediate vicinity that would adversely affect day or nighttime views in the area.

Impact Analysis

The following discussion evaluates potential aesthetics and visual quality impacts related to scenic vistas, scenic resources within a State-designated highway, visual character and light and glare resulting from implementation of the Master Plan.

Scenic Vistas

Scenic vistas are generally comprised of either panoramic views, which encompass an extensive field of view over a wide area, or focal views, which encompass a fixed view on a particular object or feature.

Panoramic Views

Panoramic views are typically associated with vantage points that provide a broad visual orientation, such as mountain ranges, valleys, large bodies of water or urban skylines. Although no panoramic scenic vistas are located on campus, unobstructed panoramic views of nearby San Miguel Mountain and the more distant Jamul Mountains are provided from virtually all vantage points on campus. In addition, portions of Jamacha Valley can be seen at higher elevations on campus. These panoramic views represent scenic vistas.

Implementation of the Master Plan would not adversely affect these scenic vistas. Development of the future construction projects, as identified in Section 3.0 of this EIR, would not substantially obstruct views of the ridgelines, mountains or valley due to the site topography of the campus and scale of the proposed buildings in relation to the breadth of these views. As discussed above in Section 4.3.1, Cuyamaca College is located within the low-lying Jamacha Valley, which is generally surrounded by steep slopes and ridgelines. Elevations on campus reach a maximum of approximately 590 feet AMSL, while the surrounding ridgelines extend to approximately 2,600 feet AMSL. The Communication Arts Building would be three stories and several of the proposed structures would consist of two stories, including the Student Center, Social and Behavioral Science Building, Business/Computer

Information Systems Building, Learning Resource Center Expansion and Classroom/Administration Building. Construction of these proposed three- and two-story buildings, however, would not introduce high profile visual elements into any viewshed that would obstruct the noted panoramic scenic vistas due to the substantial elevation differential between the campus and surrounding ridgelines. Views of Jamacha Valley also would not be affected, as no structures are proposed within the northern portion of campus where views are most prevalent. Similarly, the scale of the proposed buildings (one- to three-stories) considered in context against the backdrop of San Miguel Mountain and the Jamul Mountains would not impinge on these panoramic scenic vistas. Therefore, implementation of the Master Plan would not result in a substantial adverse effect on a scenic vista.

Focal Views

Focal views are typically defined as views of a particularly unique object or feature, such as historic buildings, public art or a unique geologic or natural feature (i.e., large rock outcrop or stand of mature trees). Focal views on campus include the drainage and riparian area along the eastern portion of the campus and a stand of mature California pepper and eucalyptus trees in the southern portion of the site. The riparian area runs adjacent to a portion of the eastern campus boundary within undeveloped land and consists of a perennial stream and associated riparian habitat. The stand of mature California pepper and eucalyptus trees are located within the Outdoor Horticulture area in the southern portion of campus. These trees are remnants of a previous orchard and farming enterprise that dates back to the early twentieth century (refer to Section 4.5, *Cultural Resources*, for additional details). Focal views of these natural features, which represent focal scenic vistas, are provided from various areas of campus.

Implementation of the Master Plan would not adversely affect these scenic vistas. No development would occur within or adjacent to the riparian area or the Outdoor Horticulture area that would obstruct views of the noted focal scenic vistas. The riparian area would be included as part of the biological preserve located adjacent to the western, northern and portions of the eastern campus boundaries. On-campus views of the riparian area would not be substantially obstructed, as proposed development adjacent to the drainage would consist of surface parking, which would not introduce high-profile visual elements into the eastern viewshed. Similarly, off-campus views of the riparian area would not be affected since no development would occur along the eastern campus boundary between the drainage and Fury Lane. Since no development is proposed near the mature trees, views of this scenic vista would not be obstructed. Therefore, implementation of the Master Plan would not result in a substantial adverse effect on a scenic vista.

Scenic Resources within a State-designated Highway

Implementation of the Master Plan would not occur in an area adjacent to a State-designated scenic highway. The closest State-designated scenic highway to the campus is a two-mile segment of State Route 125 (SR-125), from State Route 94 (SR-94) to Interstate 8 (I-8), which is located approximately six miles to the northwest of campus. Therefore, implementation of the Master Plan would not affect scenic resources within a State-designated scenic highway.

The Scenic Highways Element of the County of San Diego Valle de Oro Community Plan, however, identifies scenic corridors within the campus vicinity, including SR-94, SR-54 from SR-94 to El Cajon, Willow Glen Drive and Avocado Boulevard. These highways and roadways are not located immediately adjacent to the campus. Avocado Boulevard is located approximately 1.35 miles to the northwest and Willow Glen Drive is located approximately 0.5 mile to the east. SR-94 and SR-54 are located parallel to the southern campus boundary; however, the campus is buffered from these highways by existing commercial and residential development. Therefore, implementation of the Master Plan would not affect scenic resources within these scenic corridors.

Visual Character

Development under the Master Plan would provide an additional 125,000 asf of academic and administrative building space, as well as associated surface parking (up to an additional 2,000 spaces). Development of these additional facilities would alter the existing visual character of the campus.

Buildout of the campus, pursuant to the Master Plan, would intensify land use in some areas of the campus. The addition of 125,000 asf of building space to the existing 170,600 asf would result in a total of 295,600 asf of building space on campus. In addition, surface parking is proposed within the undeveloped eastern portion of campus. The construction of these proposed facilities would result in a perceived change in the visual character of the campus, as the campus becomes increasingly more developed over the planning horizon. This change, however, would not be considered substantial because proposed land uses at the site would be a continuation of the existing community college.

Implementation of the Master Plan would entail development of facilities in previously undeveloped areas on campus. Specifically, the Communication Arts Building (Phases 1 and 2) and surface parking is proposed in the eastern portion of the campus, which primarily consists of undeveloped land. Development of these facilities would result in a change in the visual character within this portion of campus from mostly undeveloped land to additional academic buildings and surface parking. As discussed above, this change would not be considered substantial since the construction of these facilities would be a continuation of existing community college uses. Moreover, the proposed development within the previously undeveloped areas on campus would be contiguous with existing campus development and would be perceived as a logical extension of existing facilities. Therefore, any change in the visual character due to development of previously undeveloped areas would be considered less than significant.

Implementation of the Master Plan could potentially result in visual quality impacts related to compatibility with existing campus development. Construction of new or expanded buildings would require incorporation of design elements to ensure they would complement the existing architectural character of the buildings. The height, bulk, architectural style, building materials and architectural treatments would be considered during the design of proposed structures to ensure that they would not result in stark architectural contrast with existing campus development. Proposed major construction projects (i.e., new buildings or major renovation/remodel of existing buildings) on District grounds must undergo a formal design approval process that consists of three steps. The Initial Project Proposal (IPP) develops the size, program and cost of the proposed facility and assures consistency with the Mater Plan. The Final Project Proposal (FPP) further refines the IPP program and cost and creates a design concept for the project. The FPP also confirms consistency with the Master Plan and approved IPP. The final step of design review consists of Preliminary Plan – 75 Percent Design Review. This process involves detailed design review of the building architecture to ensure that it is consistent with the Design Guidelines approved for Cuyamaca College. Approval from the District Governing Board is required at all three steps of the design review process for major construction projects. Repair and maintenance or improvements that do not involve changes to the building size, use or exterior, however, are not subject to individual Board approval. Given that all new, expanded or renovated buildings would be subject to District design approval, impacts related to compatibility with existing campus development would be less than significant.

Implementation of the Master Plan could remove or alter landscaping or open space areas on campus to accommodate new or expanded buildings, infrastructure (i.e., new access roads, utility trenches) or construction staging areas. Proposed campus development would encroach into the large Central Green and reduce the footprint of the Central Green from approximately 7.0 acres to 4.5 acres, resulting in a net loss of approximately 2.5 acres of turf and landscaped area. Reduction of this prominent visual feature would result in a change in the visual character for the campus. The Central Green, however, would continue to serve as the central focal point of the campus and would be enhanced with pedestrian walkways, additional landscaping and furnishings (i.e., benches, trash receptacles). In addition to the Central Green, five smaller landscaped open areas between and adjacent to proposed structures would be provided. Other isolated trees or ornamental landscaping may be displaced as a result of proposed campus development. Any loss of trees or landscaping from construction of the proposed future projects would be offset by the installation of new landscaping included as part of each individual future construction project. Therefore, visual quality impacts related to loss of landscaping or open space areas would be less than significant.

Implementation of the Master Plan would not substantially change the existing visual character of the campus vicinity. Cuyamaca College is located in a mixed-use area surrounded by residential, commercial, industrial and institutional uses. Intensification of the campus would not substantially alter the visual character of the general area because proposed development would be an extension of existing campus uses. Therefore, visual quality impacts related to compatibility with surrounding land uses would be less than significant.

Light and Glare

Proposed development under the Master Plan would increase the occurrence of night lighting in the area. Cuyamaca College is located in a developed mixed-use area which currently includes nighttime lighting on campus as well as in much of the surrounding area. The addition of new and expanded buildings and surface parking lots would create new sources of light from exterior building illumination, lighted recreational facilities and parking lots, as well as glare from reflective building surfaces or headlights of vehicular traffic entering and exiting the campus. These new sources of light or glare would incrementally increase the ambient lighting on campus and its immediate environs, which could potentially affect day or nighttime views in the area, particularly at adjacent residential uses. This represents a potentially significant visual quality impact.

4.3.3 Mitigation Measures

Implementation of the following mitigation measures would reduce potentially significant visual quality impacts related to light and glare to below a level of significance:

MM 4.3-1: The design of future construction projects shall incorporate the use of non-reflective exterior building materials to minimize glare.

MM 4.3-2: All proposed outdoor lighting shall be shielded and directed to minimize spillover onto adjacent residential areas.

4.4 BIOLOGICAL RESOURCES

This section of the EIR is summarized from site-specific surveys of biological resources and analysis conducted by HELIX Environmental Planning, Inc. (HELIX; 2003). The discussion provided below summarizes the results and conclusions included in the biological technical report included as EIR Appendix D.

4.4.1 Existing Conditions

Biological Surveys

HELIX conducted a biological survey and vegetative mapping of the campus on October 3, 2001 in support of the master planning effort. The data were updated during a second survey conducted on July 15, 2003. Other surveys conducted on the campus include U.S. Fish and Wildlife Service (USFWS) protocol surveys for the federally threatened coastal California gnatcatcher (*Polioptila californica californica*) conducted by Merkel & Associates, Inc. in June/July 2001 on a potential development area within the campus and by Sweetwater Environmental Biologists, Inc. (SEB) in May 1993 on the entire campus. Additionally, vegetation mapping was conducted by SEB throughout the campus in 1993.

Survey Limitations

Since all surveys were conducted during the daylight hours, the presence of nocturnal animals such as coyotes (*Canis latrans*), raccoons (*Procyon lotor*), bats and rodents could only be determined by indirect signs (tracks, scat or burrows). A complete list of species occurring on the campus would require night surveys and trapping; however, this is not warranted as none of these species is considered sensitive and would not require mitigation measures if impacted.

No focused species surveys were performed because the campus is designated as either preserved or "take authorized" per the Multiple Species Conservation Program (MSCP). The campus is outside of the survey area for the quino checkerspot butterfly (*Euphydryas editha quino*) pursuant to the 2002

USFWS survey protocol. No federally or state listed species not covered by the County's MSCP Subarea Plan are expected to occur on the campus within the areas to be impacted.

Site Conditions

Cuyamaca College is located within an approximately 165.0-acre site, less than half of which is currently developed with community college facilities. The campus is situated within the South County segment of the County of San Diego (County) MSCP Subarea Plan (County 1997). This regional conservation plan provided the County with the ability to issue take authorizations for federally and state listed and sensitive species to projects that conform to the County's MSCP Subarea Plan and its implementation regulations (Biological Mitigation Ordinance [BMO]; County 1998). In 1994, the District obtained a Habitat Loss Permit (HLP) for take of coastal sage scrub, which is the habitat of the coastal California gnatcatcher. The District subsequently undertook hard-line preserve negotiations with the County and resource agencies, which resulted in the campus being designated with areas to be preserved and areas authorized for take of species and habitat covered by the MSCP.

As a result of these negotiations, natural undeveloped land on the campus north of Rancho San Diego Parkway and along the northern and western portions of the campus was designated as biological preserve in the County MSCP Subarea Plan. The remainder of the campus was designated "take authorized," which allows development to occur provided two basic findings of conformance to the MSCP can be made.

The "take authorized" designation was given based on implementation of conditions in the 1994 HLP issued to Cuyamaca College by the County, which required that:

- 16.2 acres of coastal sage scrub be preserved on campus;
- 2.4 acres of disturbed coastal sage scrub be preserved and enhanced on campus;
- 21.9 acres of disturbed coastal sage scrub be preserved on campus;
- 7.0 acres of ruderal habitat be restored to coastal sage scrub on campus; and
- Conservation easement be recorded across preserved and restored habitat.

This meant that a total of 47.5 acres of coastal sage scrub needed to be preserved on the campus. Prior to the year 2000, the District accomplished the required restoration of 7 acres of coastal sage scrub to the north of Rancho San Diego Parkway and to the east of the riparian habitat running north-south in that area (John Howard, pers. comm. 2003). In 2000, the Master Plan (Spencer/Hoskins 2000a) designated biological preserve areas in an effort to preserve coastal sage scrub and riparian habitat on the campus.

Existing Vegetation Communities

Cuyamaca College supports fourteen vegetation communities (Table 4.4-1, *Existing Vegetation Communities* and Figure 4.4-1, *Vegetation and Sensitive Resources*). Of these communities, ten are considered sensitive, including southern arroyo willow riparian forest (1.06 acres), southern cottonwood willow riparian forest (1.13 acres), southern willow scrub (0.68 acre), riparian scrub (0.04 acre), freshwater marsh (0.03 acre), tamarisk scrub (0.30 acre), maritime succulent scrub (0.7 acre), Diegan coastal sage scrub (including disturbed; 41.4 acres), baccharis scrub (6.3 acres) and non-native grassland (9.2 acres). The remainder of the site consists of naturalized, unvegetated and/or disturbed areas, including eucalyptus woodland (1.9 acres), non-native vegetation (2.3 acres), disturbed habitat (18.1 acres) and developed land (81.6 acres). Descriptions of these vegetation communities are included in the biological technical report in Appendix D.

Table 4.4-1
EXISTING VEGETATION COMMUNITIES

Vegetation Community	Acre(s)[1]
Southern arroyo willow riparian forest	1.06
Southern cottonwood willow riparian forest	1.13
Southern willow scrub	0.68
Riparian scrub	0.04
Freshwater marsh	0.03
Tamarisk scrub	0.30
Maritime succulent scrub	0.7
Diegan coastal sage scrub (including disturbed)	41.4
Baccharis scrub	6.3
Non-native grassland	9.2
Eucalyptus woodland	1.9
Non-native vegetation	2.3

Table 4.4-1 (cont.) EXISTING VEGETATION COMMUNITIES	
Vegetation Community	Acre(s)[1]
Disturbed habitat	18.1
Developed	81.6
TOTAL	164.7

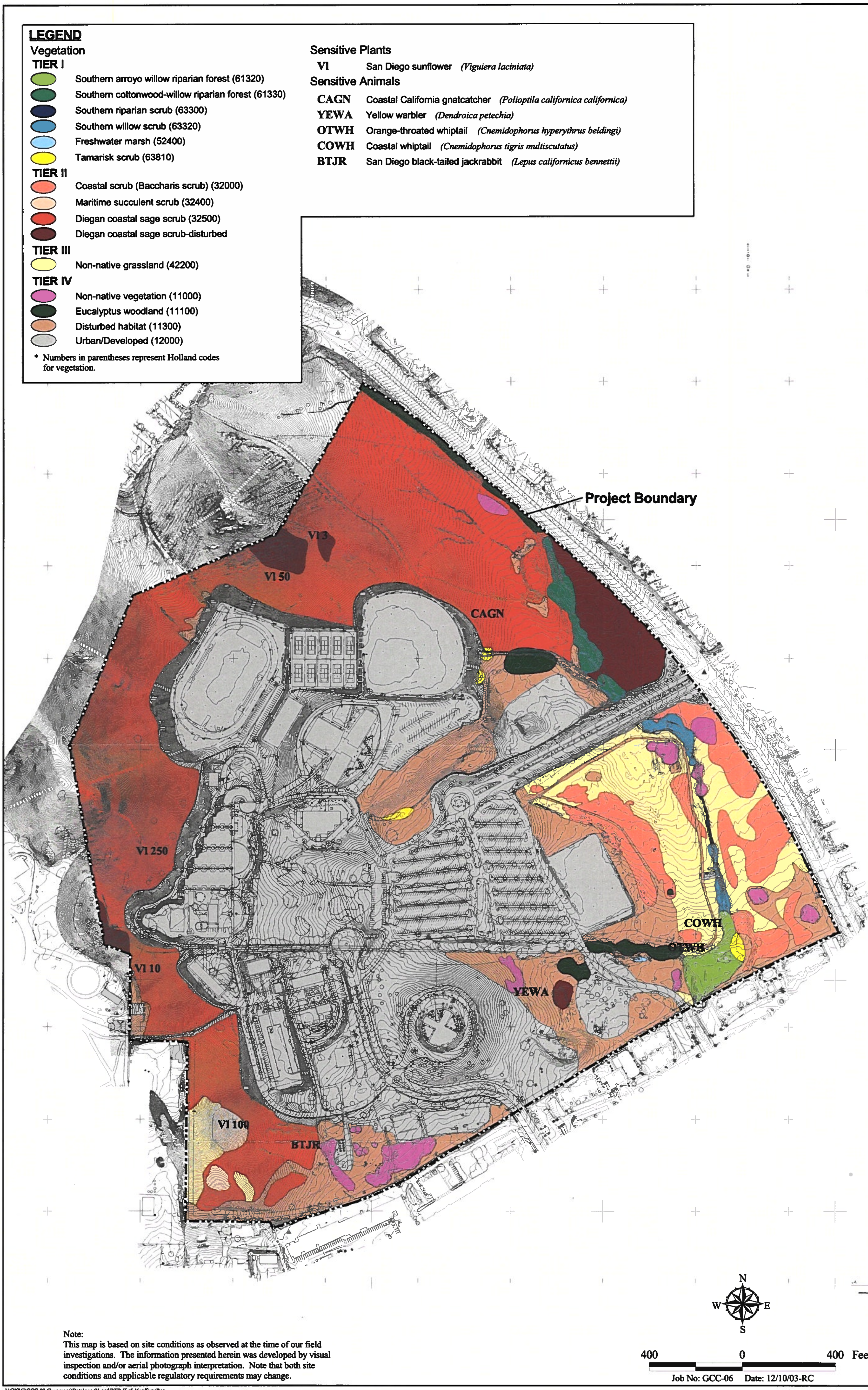
[1]Wetland habitat acreage is given to two decimal places and upland acreage to one decimal place.
Source: HELIX 2003

Sensitive Plant Species

One CNPS List 4, County Group D sensitive plant species, San Diego sunflower (*Viguiera laciniata*), was observed on the campus and is described below. This species is not federally or state listed as threatened or endangered. The on-site San Diego sunflower locations are shown on Figure 4.4-1, *Vegetation and Sensitive Resources*.

San Diego sunflower (*Viguiera laciniata*)
Status: --/--; CNPS List 4; R-E-D 1-2-1; County Group D (see Appendix D for a listing and explanation of status codes for both plants and animals)
Distribution: San Diego County and Baja
Habitat(s): Diegan coastal sage scrub
Status on campus: More than 100 individuals of San Diego sunflowers were observed on October 3, 2001 and over 400 individuals were observed on July 15, 2003. This species occurs in the Diegan coastal sage scrub in the northern and western portions of the campus and in the maritime succulent scrub.

Additionally, eight sensitive plant species have the potential to occur on the campus. These species are presented in Table 4.4-2, *Listed or Sensitive Plant Species With Potential to Occur*. Many of these species only may occur seasonally.



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Vegetation and Sensitive Resources

CUYAMACA COLLEGE MASTER PLAN EIR

Figure 4.4-1

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Table 4.4-2
LISTED OR SENSITIVE PLANT SPECIES WITH POTENTIAL TO OCCUR

Species	Status*	Potential To Occur
San Diego ambrosia (*Ambrosia pumila*)	FE/-- CNPS List 1B R-E-D 3-3-2 County Group A	Low to moderate. This low-growing perennial herb is primarily found in open habitats such as native grasslands within floodplains. Occurs in CNDDB for U.S. Geological Survey (USGS) El Cajon/Jamul mountains quadrangles. Would have been observed in 2003 if present.
San Diego thornmint (*Acanthomintha ilicifolia*)	FT/SE CNPS List 1B R-E-D 2-3-2 MSCP Narrow Endemic County Group A	Low. Occurs on clay lenses in open areas that do not appear to occur on campus. Occurs in CNDDB for USGS El Cajon/Jamul mountains quadrangles.
San Diego goldenstar (*Muilla clevelandii*)	FSC/-- CNPS List 1B R-E-D 2-2-2 MSCP Narrow Endemic County Group A	Low. Occurs on clay soils on dry mesas and hillsides in coastal sage scrub or chaparral. Clay soils do not appear to occur on campus.
San Diego barrel cactus (*Ferocactus viridescens*)	FSC/-- CNPS List 2 R-E-D 1-3-1 County Group B	Moderate. Occurs on dry slopes in coastal sage scrub. Would have been observed if present.
Graceful tarplant (*Holocarpha virgata* ssp. *Elongata*)	FSC/-- CNPS List 4 R-E-D 1-2-3 County Group D	Moderate. Occurs in coastal sage scrub, cismontane woodland, and valley and foothill grasslands. Would have been observed in late spring/summer only.
Decumbent goldenbush (*Isocoma menziesii* var. *decumbens*)	--/-- CNPS List 1B R-E-D 2-2-2 County Group A	Low. Could occur in coastal sage scrub but is more partial to clay soils (Reiser 2001) that do not appear to be present on campus.
Palmer's sage (*Artemisia palmeri*)	--/-- CNPS List 2 R-E-D 2-2-1 County Group B	Low to moderate. Could occur in coastal sage scrub and in drainages on campus. Would have been observed if present.
Ashy spike-moss (*Selaginella cinerascens*)	--/-- County Group D	Moderate to high. Occurs on mesas in coastal sage scrub and chaparral.

*A listing and explanation of status and sensitivity codes can be found in Appendix D of this EIR.
Source: HELIX 2003

Sensitive Animal Species

Six sensitive animal species were observed on the campus during surveys, orange-throated whiptail (*Cnemidophorus hyperythrus beldingi*), coastal whiptail (*Cnemidophorus tigris multiscutatus*), coastal California gnatcatcher (*Polioptila californica californica*), southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), yellow warbler (*Dendroica petechia*) and San Diego black-tailed jackrabbit (*Lepus californicus bennettii*). Of these species, the coastal California gnatcatcher is federally listed as threatened. Sensitive animal species locations are shown on Figure 4.4-1, *Vegetation and Sensitive Resources*, and described below.

Orange-throated whiptail (*Cnemidophorus hyperythrus beldingi*)
Status: --/CSC; County Sensitive
Distribution: Southern Orange and southern San Bernardino (Colton) counties south to the cape of Baja California, Mexico.
Habitat(s): Coastal sage scrub, chaparral, edges of riparian woodlands and washes. Also found in weedy, disturbed areas adjacent to these habitats. Important habitat requirements include open, sunny or shaded areas and abundant invertebrate prey base, particularly termites (*Reticulitermes* sp.).
Status on campus: One orange-throated whiptail was observed along a trail on the edge of non-native grassland in the southeast portion of the campus. It is likely that other orange-throated whiptails occur elsewhere on the campus.

Coastal whiptail (*Cnemidophorus tigris multiscutatus*)
Status: --/--; County Sensitive
Distribution: Ventura County south in cismontane California to south-central Baja California, Mexico.
Habitat(s): Open coastal sage scrub, chaparral and woodlands. Frequently found along the edges of dirt roads traversing its habitats. Important habitat components include open, sunny areas, shrub cover with accumulated leaf litter and an abundance of invertebrate prey, particularly termites.
Status on campus: One coastal whiptail was observed along a trail on the edge of non-native grassland in the southeast portion of the campus. It is likely that other coastal whiptails occur elsewhere on the campus.

Coastal California gnatcatcher (*Polioptila californica californica*)

Status: FT/CSC

Distribution: Southern Los Angeles, Orange, western Riverside and San Diego counties south into Baja California, Mexico.

Habitat(s): Coastal sage scrub

Status on campus: One gnatcatcher was observed in Diegan coastal sage scrub in the northeast portion of the campus during the general survey in 2001. It is likely that other gnatcatchers occur elsewhere on the campus in the Diegan coastal sage scrub. Focused surveys for the gnatcatcher performed on a portion of the campus in 2001 were negative.

Southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*)

Status: --/CSC; County Sensitive

Distribution: Ventura County southeast through Los Angeles, Orange, Riverside and San Diego counties to northwestern Baja California, Mexico.

Habitat(s): Coastal sage scrub, where it occurs on rocky hillsides and in canyons but also may be found in open sage scrub/grassy areas of successional growth (i.e., after a fire).

Status on campus: One southern California rufous-crowned sparrow was observed in Diegan coastal sage scrub in the western portion of the campus. It is likely that other rufous-crowned sparrows occur on the campus.

Yellow warbler (*Dendroica petechia*)

Status: --/CSC; County Sensitive

Distribution: Throughout North America; a spring and summer breeding resident in southern California.

Habitat(s): Riparian areas throughout California. Primarily restricted to riparian woodland and riparian scrub habitats in southern California.

Status on campus: One yellow warbler was observed in the southern portion of the campus near the Water Conservation Garden during the 2003 survey.

San Diego black-tailed jackrabbit (*Lepus californicus bennettii*)

Status: --/CSC; County Sensitive

Distribution: Southern Santa Barbara County, south on the coastal slope to the vicinity of San Quintin, Baja California, Mexico. Localities on the eastern edge of its range include Jacumba and San Felipe Valley in San Diego County.

Habitat(s): Occurs primarily in open habitats including coastal sage scrub, chaparral, grassland, croplands and open, disturbed areas if there is at least some scrub cover present.

Status on campus: San Diego black-tailed jackrabbit scat was observed in Diegan coastal sage scrub in the southwestern portion of the campus (potential development area). This jackrabbit likely occurs elsewhere on the campus in sage scrub, grassland, and disturbed habitats.

In addition to the species observed on the campus, 35 sensitive animal species have potential to occur on the campus and are discussed in Table 4.4-3, *Listed or Sensitive Animal Species With Potential to Occur*.

Table 4.4-3
LISTED OR SENSITIVE ANIMAL SPECIES WITH POTENTIAL TO OCCUR

Species	Status*	Potential To Occur
INVERTEBRATES		
Quino checkerspot butterfly (*Euphydyras editha quino*)	FE/--	Low in vegetation communities with relatively open areas that typically include patches of dwarf plantain (*Plantago erecta*), nectaring plants, and/or purple owl's clover (*Castilleja exserta*). These habitats include non-native grassland, disturbed habitat and open areas within shrub communities. In 2001, this species was observed on the San Diego National Wildlife Refuge (Otay-Sweetwater Unit) southeast of the junction of State Route 94 and Jamacha Boulevard (USFWS 2001). The campus is located outside the required survey area identified by the USFWS.
Hermes copper butterfly (*Lycaena hermes*)	--/-- County Sensitive	Low. Host plant spiny redberry occurs on campus but no populations of this species is known to occur in the vicinity.

Table 4.4-3 (cont.)
LISTED OR SENSITIVE ANIMAL SPECIES WITH POTENTIAL TO OCCUR

Species	Status*	Potential to Occur
VERTEBRATES		
Amphibians		
Arroyo southwestern toad (*Bufo microscaphus californicus*)	FE/CSC MSCP Rare Narrow Endemic	Low. Found in shallow pools and open sand and gravel flood terraces of medium- to large-sized intermittent or perennial streams that are flooded on a fairly regular basis (USFWS 1999). No suitable habitat occurs on campus.
California red-legged frog (*Rana aurora draytonii*)	FT/CSC MSCP Rare Narrow Endemic	Very low. Generally found in ponds in humid forests, woodland, grasslands and stream-sides, especially where cattails or other plants provide good cover. Frequents marshes, streams, lakes, reservoirs, ponds and other generally permanent water sources. Considered extirpated from San Diego County.
Reptiles		
San Diego horned lizard (*Phrynosoma coronatum blainvillei*)	FSC/CSC County Sensitive	High. Harvester ants (*Pogonomyrmex* sp.), a primary prey item, were observed on campus. Likely occurs in coastal sage in preserve area.
Coronado skink (*Eumeces skiltonianus interparietalis*)	FSC/CSC County Sensitive	Moderate in grasslands and coastal sage scrub where there is abundant leaf litter or low, herbaceous growth.
Red-diamond rattlesnake (*Crotalus exsul*)	FSC/CSC County Sensitive	High. Favors rocky outcrops in coastal sage scrub, chaparral, creosote bush scrub and areas dominated by cactus.
Coastal rosy boa (*Lichanura trivirgata roseofusca*)	FSC/-- County Sensitive	Low to moderate near rocky areas in coastal sage scrub on campus.
Western patch-nosed snake (*Salvadora hexalepis virgultea*)	--/CSC County Sensitive	Moderate in shrub habitats on campus.
San Diego banded gecko (*Coleonyx variegatus abbottii*)	--/-- County Sensitive	Low. Prefers coastal sage scrub with rock outcrops and boulders. Little of this habitat occurs on campus.
San Diego ringneck snake (*Diadophis punctatus similis*)	--/-- County Sensitive	Moderate in canyon bottoms or grassland and coastal sage scrub on campus.
Birds		
Least Bell's vireo (*Vireo bellii pusillus*)	FE/SE MSCP Rare Narrow Endemic	Low to moderate in southern arroyo willow riparian forest on campus. This species occurs in the Sweetwater River near the campus but habitat on site is limited and isolated by development.

Table 4.4-3 (cont.) LISTED OR SENSITIVE ANIMAL SPECIES WITH POTENTIAL TO OCCUR		
Species	**Status***	**Potential to Occur**
VERTEBRATES (cont.)		
Birds (cont.)		
Southwestern willow flycatcher (*Empidonax traillii extimus*)	FE/-- MSCP Rare Narrow Endemic	Low in southern arroyo willow riparian forest on campus. One territory was reported at the east end of the Sweetwater Reservoir, which is considered ephemeral, in 1986 (San Diego Natural History Museum 1995). Unlikely to occur on campus.
Bell's sage sparrow (*Amphispiza belli belli*)	FSC/CSC County Sensitive	Moderate to high in coastal sage scrub.
Ferruginous hawk (*Buteo regalis*)	Wintering; FSC/CSC County Sensitive	Low. Uncommon winter visitor to grasslands and agricultural fields.
Burrowing owl (*Speotyto cunicularia*)	--/CSC MSCP Rare Narrow Endemic	Low. Prefers grassland, open sage scrub and desert habitats. Limited suitable habitat on site.
Northern harrier (*Circus cyaneus*)	Nesting; --/CSC County Sensitive	Low to moderate. Prefers grasslands and other open habitats.
Cooper's hawk (*Accipiter cooperii*)	--/CSC County Sensitive	High. Tends to inhabit lowland riparian areas and oak woodlands in proximity to suitable foraging areas such as scrublands or fields. Observed on campus in 1993 (Deborah Pudoff, pers. obs.).
Sharp-shinned hawk (*Accipiter striatus*)	Nesting; --/CSC County Sensitive	Low to moderate. Occupies edges of deciduous or coniferous woodlands and thickets. May migrate during the winter to other areas that provide adequate cover.
Yellow-breasted chat (*Icteria virens*)	--/CSC County Sensitive	Moderate to high in southern arroyo willow riparian forest on campus.
California horned lark (*Eremophila alpestris actia*)	--/CSC County Sensitive	High. Utilizes sandy beaches, agricultural fields, grassland, and open areas. Observed on campus in 1993 (Deborah Pudoff, pers. obs.).
Loggerhead shrike (*Lanius ludovicianus*)	--/CSC County Sensitive	Moderate. Utilizes open habitats including grasslands, scrublands and ruderal areas with adequate perching locations.
White-tailed kite (*Elanus leucurus*)	--/-- County Sensitive	Moderate. Nesting typically occurs in riparian or oak woodlands adjacent to grasslands where small mammals are hunted. Would have been observed on site during surveys if present.
Red-shouldered hawk (*Buteo lineatus*)	--/-- County Sensitive	Moderate to high in southern arroyo willow riparian forest on campus.
Common barn owl (*Tyto alba*)	--/-- County Sensitive	High to forage on campus. May roost on campus as well.

Table 4.4-3 (cont.)
LISTED OR SENSITIVE ANIMAL SPECIES WITH POTENTIAL TO OCCUR

Species	Status*	Potential To Occur
VERTEBRATES (cont.)		
Birds (cont.)		
Turkey vulture (*Cathartes aura*)	--/-- County Sensitive	High to forage on campus. Nests are made on ledges, rock outcrops, and in tall trees far from development. Forages for carrion. Observed on campus in 1993 (Deborah Pudoff, pers. obs.).
Western bluebird (*Sialia mexicana*)	--/-- County Sensitive	Moderate as a winter visitor on campus.
Grasshopper sparrow (*Ammodramus savannarum*)	--/-- County Sensitive	Moderate in disturbed coastal sage scrub habitat that has a mix of grasses and coastal sage scrub species.
Mammals		
Dulzura pocket mouse (*Chaetodipus californicus femoralis*)	FSC/CSC County Sensitive	Low to moderate potential to occur along shrubland/grass edges on campus.
Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*)	FSC/CSC County Sensitive	Low in open areas of coastal sage scrub and weedy growth on campus.
Greater western mastiff bat (*Eumops perotis californicus*)	FSC/CSC County Sensitive	Low to moderate to forage on campus. Foraging is concentrated around bodies of water but also includes coastal sage scrub, chaparral and grassland habitats.
San Diego desert woodrat (*Neotoma lepida intermedia*)	FSC/CSC County Sensitive	High. Occurs in open chaparral and coastal sage scrub, often building large, stick nests in rock outcrops or around clumps of cactus or yucca. Woodrat scat was observed, but is likely to have been from the non-sensitive dusky-footed woodrat (*Neotoma fuscipes*).
Southern grasshopper mouse (*Onychomys torridus ramona*)	FSC/CSC County Sensitive	Low to moderate in shrublands on campus.
Pallid bat (*Antrozous pallidus*)	--/CSC County Sensitive	Low to roost on campus. Roosts in caves, mines, crevices and abandoned buildings. Could forage on campus; however, no roosting areas present.
Mountain lion (*Felis concolor*)	--/-- County Sensitive	Low to moderate. Prior to the 2001 surveys, a mountain lion was hit and killed by a vehicle on State Route 94 near Jamacha Boulevard.

*A listing and explanation of status and sensitivity codes can be found in Appendix D of this EIR.
Source: HELIX 2003

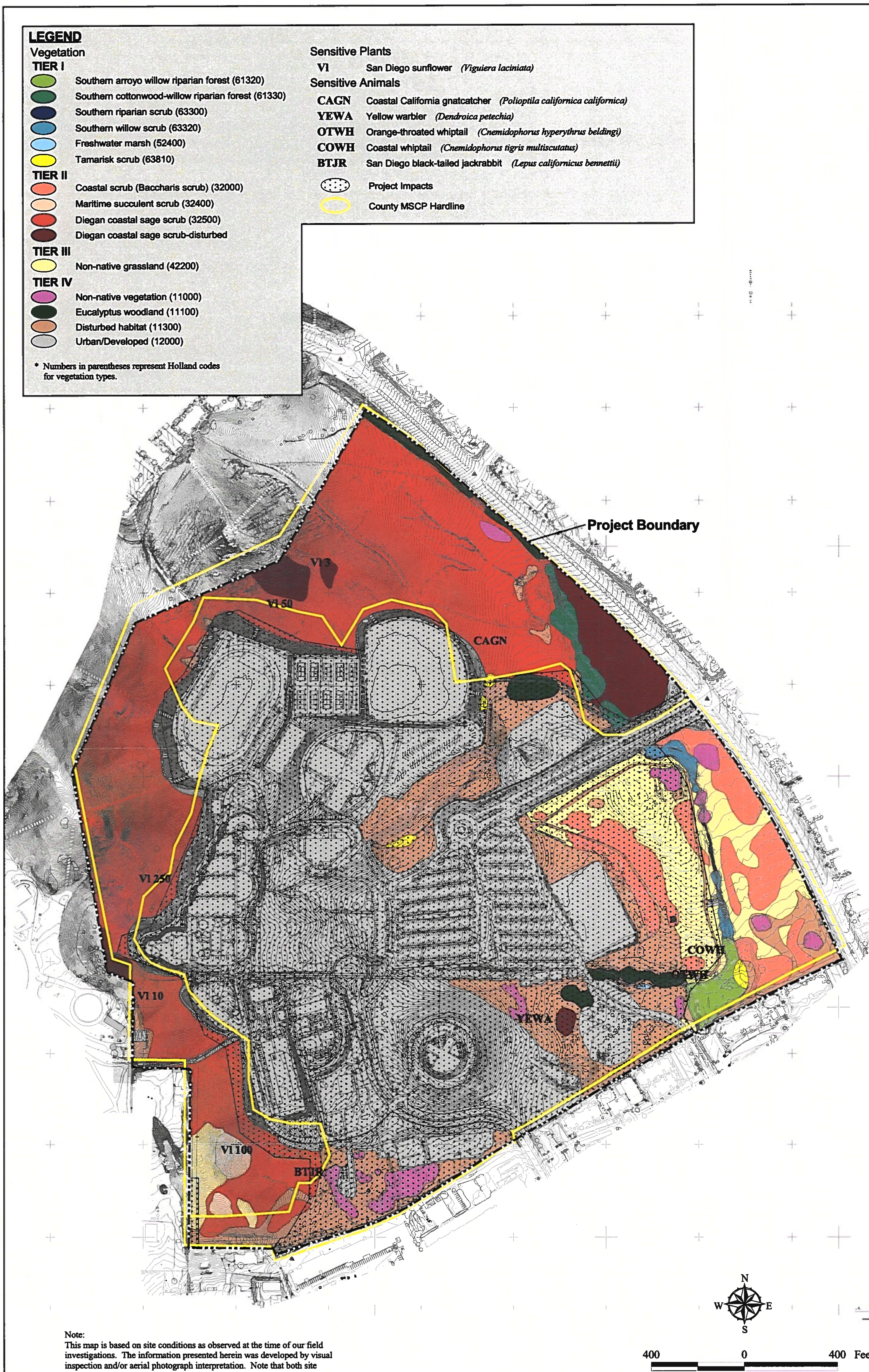
Jurisdictional Areas

Formal wetland delineation was not performed for the campus; however, U.S. Army Corps of Engineers (ACOE) and California Department of Fish and Game (CDFG) jurisdictional areas do occur along the drainage in the eastern portion of the campus. The drainage supports likely ephemeral and intermittent Waters of the U.S./CDFG streambeds with associated vegetation (i.e., southern arroyo willow riparian forest, southern cottonwood willow riparian forest, southern willow scrub and riparian scrub). The rip-rap-lined storm drain ditches east of the baseball field and north of Cuyamaca College Drive East are not considered jurisdictional, because they are not in historical drainage locations, but were created to drain the baseball field and central parking lot, respectively. Thus, the small areas of tamarisk scrub and freshwater marsh habitat that have established in these channels would not be considered jurisdictional. In addition, the tamarisk scrub in the center of the campus is not jurisdictional, because it also is in a rip-rap-lined storm drain feature that enters a concrete-lined v-ditch that goes into an underground storm drain along Rancho San Diego Parkway.

Biological Preserve

Pursuant to the 1994 HLP, the biological preserve should contain 47.5 acres of preserved, enhanced and restored coastal sage scrub. The designated biological preserve extends north from Rancho San Diego Parkway around the northern edge of the campus and along the west side almost to the southern campus boundary. It includes virtually all the Diegan coastal sage scrub on the campus, which is known to support several sensitive species. The existing biological preserve on the campus is generally consistent with the geographic area covered by the County MSCP hardlines contained in the regional database. However, a visual comparison of the HLP map (SEB 1994), the County MSCP digital file and the proposed Master Plan preserve shows evidence that the original mapping effort and digital input were not as accurately registered as the mapping conducted for this study. Figure 4.4-2, *Vegetation and Sensitive Resources/Impacts*, provides an overlay of the County MSCP and proposed preserve boundaries.

Since the County issued the HLP in 1994, the District has respected the limits of grading established by the permit and no development encroachment has occurred. The northern and western portions of



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Vegetation and Sensitive Resources/Impacts

CUYAMACA COLLEGE MASTER PLAN EIR

Figure 4.4-2

HELIX

the preserve are currently in good condition, presumably due to the limited access from public streets, but the eastern portions of the biological preserve are in moderate to poor condition due to human activities such as off-road bike use and illegal trash dumping.

Regional and Regulatory Context

Regional Conservation Planning

Cuyamaca College is located within the South County Segment of the County's MSCP Subarea. This adopted Natural Communities Conservation Program (NCCP) Plan provided the County with the ability issue take authorizations for federal- and state-listed and sensitive species to projects to MSCP requirements. Natural, undeveloped land on the campus north of Rancho San Diego Parkway and along the northern and western portions of the campus is designated as "biological preserve." The remainder of the campus is designated as "take authorized." This designation allows development to occur provided two basic findings of conformance with the County's MSCP Plan can be made:

1. The project has been identified in the County of San Diego Subarea Plan Figure 1-2 as a "take authorized area."
2. The project has been designed to conform to the requirements of the South County Segment of the County of San Diego Subarea Plan.

Finding 1 can be made due to the campus having "take authorized" and biological preserve designations in Figure 1-2 of the County MSCP Subarea Plan (County 1997). Finding 2 can be made by the fact that the Master Plan development footprint largely conforms to the boundaries in the Subarea Plan, however, conformance with the requirements of the 1994 HLP, upon which these designations rely, is not achieved as discussed in below under impacts.

Habitat Quality Evaluation

Based on the County's Habitat Evaluation Model, all the native habitat found around the western, northern and northeastern portions of the campus is considered very high value (SANDAG 1993).

The southern and most of the southeastern portions are identified as agriculture. The central area of the campus is mapped as developed.

Wildlife Corridors

Wildlife corridors can be local or regional in scale and may function in different ways, depending on species and time of year. They represent areas where wildlife movement is concentrated due to natural or manmade constraints. Local corridors provide access to resources such as food, water and shelter. Regional corridors provide these functions and also link two or more large areas of open space. They provide avenues for wildlife dispersal, migration and contact between otherwise distinct populations.

The biological preserve on the campus is connected with open space to the west on the Skyline Wesleyan Church property and to the northwest on Otay Water District land and open space owned by others, however, these areas are surrounded by development meaning that the site mainly provides local corridor function for wildlife residents on the site or in the immediately surrounding undeveloped land. Some birds may use the campus passing through the area but this is not likely a major biological function of the campus.

U.S. Army Corps of Engineers

Impacts to jurisdictional wetlands and non-vegetated Waters of the U.S. are regulated by the ACOE under Section 404 of the Clean Water Act (33 U.S.C. 1344). The drainage and most of the associated habitats on the eastern side of the campus would fall under ACOE jurisdiction. Impacts to ACOE jurisdictional resources require an ACOE permit. The type of permit required depends upon the type of activity and amount of jurisdictional areas to be impacted. If the project were to impact less than 0.5 acre of jurisdictional area, then it would likely qualify for a nationwide permit (NWP) 39 for residential, commercial and institutional developments. If a project were to impact more than 0.5 acre of jurisdictional areas, an individual permit would be required. An individual permit requires the preparation of a biological assessment of the site, formal Section 7 consultation with the USFWS for any endangered species impacts, a detailed Section 404(b) alternatives analysis, an environmental assessment and preparation of a mitigation/monitoring plan.

California Department of Fish And Game

The CDFG is responsible for issuing permits for impacts to State of California listed plant and animal species under the California Endangered Species Act (CESA), however, no state listed plant or animal species were observed on the campus.

The CDFG is also responsible for issuing permits for impacts to State of California (CDFG) jurisdictional wetlands and wetland habitats. CDFG jurisdictional areas include all ACOE jurisdictional areas on the campus, as well as additional areas of riparian vegetation that do not meet the federal jurisdictional wetland criteria. Any impacts to CDFG jurisdictional areas will require a Streambed/Lake Alteration Agreement permit and are regulated under CFG Code Section 1603.

Regional Water Quality Control Board (RWQCB)

If ACOE Section 404 permits are required, the RWQCB will need to certify the project before it can be implemented as required by the Clean Water Act and in association with the wetland permits.

4.4.2 Impacts

Thresholds of Significance

Thresholds of significance for impacts to biological resources are based on Appendix G of State CEQA Guidelines. Impacts related to biological resources would be considered significant if implementation of the Master Plan would result in one or more of the following:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFG or USFWS

- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFG or USFWS

- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means

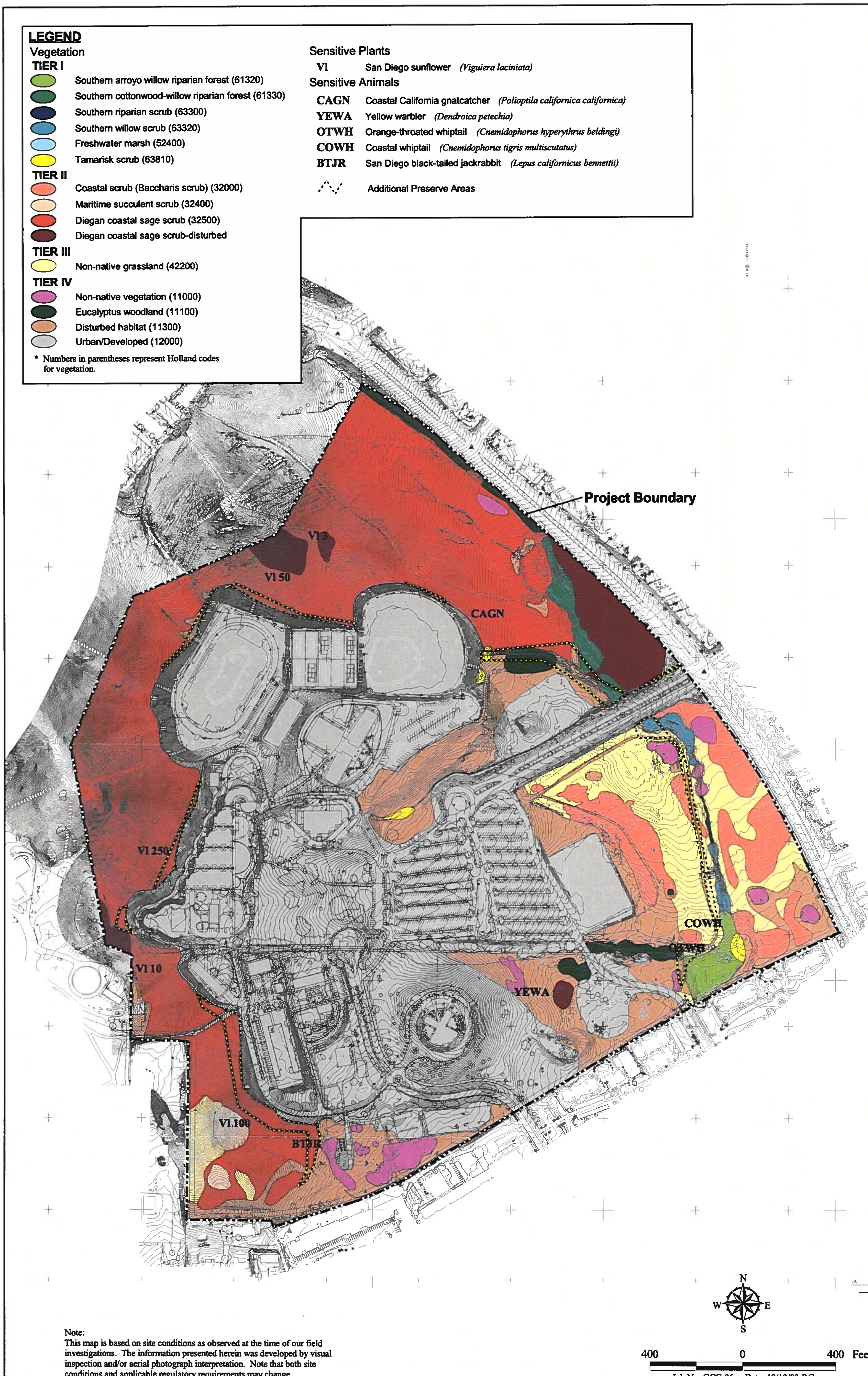
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites

- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance

- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan

Impact Analysis

This biological resources impact analysis conservatively assumes that any campus land outside the proposed Biological Preserve could be impacted by future development under the Master Plan (Figure 4.4-2, *Vegetation and Sensitive Resources/Impacts*). This assumption is partly based on the facts that: (1) the central and eastern portions of the campus are considered "take authorized" areas by the County MSCP and (2) locations for the individual Master Plan projects are conceptual and do not reflect final engineering design. Therefore, once detailed design information for each project is produced during the latter stages of campus development, measures could be integrated into the design to avoid and/or minimize effects on sensitive habitat(s) on campus.



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Biological Preserve Additions

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Figure 4.4-3

Direct Impacts

Vegetation Communities

Potential construction of new facilities to the full extent of the proposed Master Plan would impact eight sensitive vegetation communities on the campus, including 0.03 acre of southern arroyo willow riparian forest, 0.17 acre of southern cottonwood willow riparian forest, 0.09 acre of southern willow scrub, 0.03 acre of freshwater marsh, 0.18 acre of tamarisk scrub, 2.3 acres of Diegan coastal sage scrub (including disturbed), 2.5 acres of baccharis scrub and 5.3 acres of non-native grassland (Table 4.4-4, *Impacts to Vegetation Communities*; Figure 4.4-2, *Vegetation and Sensitive Resources/Impacts*). Impacts to these communities would be significant.

Implementation of the Master Plan also would impact 1.2 acres of eucalyptus woodland, 1.6 acres of non-native vegetation, 15.0 acres of disturbed habitat and 81.6 acres of land already considered developed (Table 4.4-4, *Impacts to Vegetation Communities*; Figure 4.4-2, *Vegetation and Sensitive Resources/Impacts*). Impacts to these vegetation communities are considered less than significant because they are not considered sensitive.

Table 4.4-4
IMPACTS TO VEGETATION COMMUNITIES

VEGETATION COMMUNITY	Existing (acre[s])*	Impacts (acre[s])*
Southern arroyo willow riparian forest	1.06	0.04
Southern cottonwood willow riparian forest	1.13	0.18
Southern willow scrub	0.68	0.09
Riparian scrub	0.04	0.00
Freshwater marsh	0.03	0.03
Tamarisk scrub	0.31	0.17
Maritime succulent scrub	0.7	0.0
Diegan coastal sage scrub (including disturbed)	41.4	2.3
Baccharis scrub	6.3	2.5
Non-native grassland	9.2	5.3
Eucalyptus woodland	1.9	1.2
Non-native vegetation	2.3	1.6
Disturbed habitat	18.1	15.0
Developed	81.6	80.1
TOTAL	164.7	108.5

*Wetland habitat acreage is given to two decimal places and upland acreage to one decimal place.

ACOE and CDFG Jurisdictional Wetlands

Impacts to ACOE jurisdictional resources could occur should any of the future projects impact any portion of the jurisdictional drainage immediately north and south of Rancho San Diego Parkway. Impacts to CDFG jurisdictional habitat could occur at both this location as well as at the southern end of this drainage.

Sensitive Plants

Construction of projects proposed in the Master Plan might impact a few individuals of San Diego sunflower, a CNPS List 4 and County Group D sensitive plant species (Figure 4.4-2, *Vegetation and Sensitive Resources/Impacts*). Most of the individuals would not be impacted, as they are located in the biological preserve. Impacts to the San Diego sunflower would be less than significant.

Sensitive Animals

Implementation of projects proposed in the Master Plan would impact habitats that support six sensitive animal species observed on the campus, including coastal California gnatcatcher, orange-throated whiptail, coastal whiptail, southern California rufous-crowned sparrow, yellow warbler and San Diego black-tailed jackrabbit. Due to the low sensitivity of these species, with the exception of the gnatcatcher, impacts to the species from construction of the projects under the Master Plan would be adverse but not significant. The coastal California gnatcatcher, orange-throated whiptail and southern California rufous-crowned sparrow are covered species under the MSCP; however, impacts have been assessed as less than significant because the campus is considered "take authorized" under the MSCP and compensation for the adverse impacts to these and the other observed sensitive species has been provided by the campus' biological preserve. Similarly, impacts to sensitive animal species that have potential to occur on the campus would be less than significant, if present.

Construction of the proposed projects under the Master Plan would potentially directly impact raptor foraging and nesting habitat through noise or construction activity and could be significant if not mitigated. Impacts to foraging habitats could be adverse but would not be significant as compensation for the adverse impacts occurs within the campus' biological preserve.

MSCP Preserve

The Master Plan would not directly impact habitat within the County MSCP Preserve. The biological preserve delineated on the Master Plan includes the area proposed for preservation by the HLP plus an additional area to the south of Rancho San Diego Parkway and to the west of Fury Lane that is currently contained in the "take authorized" portion of the campus. The preserve boundary, as depicted in Figure 3-2, *Cuyamaca College Master Plan Map*, would not preserve the maximum amount of sensitive habitat on campus. Based on the numbers in Table 4.4-5, *Proposed Biological Preserve Area*, the existing biological preserve does not preserve the required 47.5 acres of coastal sage scrub, as stated in the HLP. While the proposed preserve would protect the majority of the coastal sage scrub on the campus and would be larger than the existing preserve, only approximately 43.6 acres of coastal sage scrub and sage scrub subtypes (i.e. baccharis scrub and maritime succulent scrub) would be preserved, resulting in a 3.9-acre deficiency from the preservation requirements in the HLP.

Table 4.4-5
PROPOSED BIOLOGICAL PRESERVE AREA

Habitat	Existing (acre[s])	Proposed Biological Preserve (acre[s])
Coastal sage scrubs		
Diegan coastal sage scrub	37.1	35.1
Diegan coastal sage scrub – disturbed	4.3	4.0
Baccharis scrub	6.3	3.8
Maritime succulent scrub	0.7	0.7
Coastal sage scrub subtotal	**48.4**	**43.6**
Wetland habitats		
Southern arroyo willow riparian forest	1.06	1.02
Southern cottonwood willow riparian forest	1.13	0.95

Table 4.4-5 (cont.)		
Habitat	**Existing (acre[s])**	**Proposed Biological Preserve (acre[s])**
Southern willow scrub	0.68	0.59
Riparian scrub	0.04	0.04
Freshwater marsh	0.03	0.00
Tamarisk scrub	0.31	0.14
Other upland habitats		
Non-native grassland	9.2	3.9
Eucalyptus woodland	1.9	0.7
Non-native vegetation	2.3	0.8
Disturbed habitat	18.1	3.1
Developed	81.6	1.4
TOTAL	**164.7**	**56.2**

This habitat deficiency is likely caused by the occurrence of several factors: (1) revised and more accurate mapping of habitats leading to discrepancies with the original mapping; (2) subsequent changes in the vegetation types in the on-site preserve; and (3) the clearing of utility easements that were previously mapped as habitat and included in the preserve. As a result, although the proposed Master Plan preserve respects the geographic area intended for preservation in the MSCP, the amount of habitat conserved in the proposed preserve is not consistent with the HLP and its associated "take authorization." Because the take authorization was granted to the District based on the assumption that the conditions of the 1994 HLP would be fulfilled, the proposed Master Plan is not consistent with the County MSCP. In order to reduce this impact and to bring the campus into full compliance with the 1994 HLP, an additional 3.9 acres of coastal sage scrub must to be placed under protection or created.

In addition, the deterioration of habitat quality in the eastern portions of the preserve, the degradation of the restoration area and the lack of protection given to the preserve has undermined the value of the preserved habitat to wildlife and the MSCP Preserve. Restoration of disturbed areas and appropriate protection of habitat are needed to maintain the conservation values of the biological preserve.

Indirect Impacts

Potential indirect impacts from project construction could include decreased water quality (i.e., through sedimentation, contaminants or fuel release), fugitive dust, colonization of non-native plant species in previously undisturbed areas, edge effects, animal behavioral changes, roadkill, night lighting, errant construction impacts and noise impacts. The Master Plan would be subject to the restrictions and requirements that address erosion and runoff including the federal Clean Water Act. Best management practices (BMPs) should also be used throughout construction to further reduce impacts.

Water Quality

Water quality can be adversely affected by potential surface runoff and sedimentation. The use of petroleum products (i.e., fuels, oils and lubricants) could potentially contaminate surface water and affect biological resources. Decreased water quality may adversely affect vegetation, aquatic animals and terrestrial wildlife that depend on such resources. Degraded surface water quality would be a significant impact; however, the District must comply with control requirements of the National Pollutant Discharge Elimination System (NDPES) enforced by the RWQCB during the construction and operation of the proposed facilities, as discussed in Section 4.6, *Hydrology/Water Quality*. Compliance with the water quality regulations would reduce potential water quality impacts to biological resources to less than significant.

Fugitive Dust

Fugitive dust can disperse onto sensitive vegetation. A continual cover of dust may reduce the overall vigor of individual plants by reducing their photosynthetic capabilities and increasing their susceptibility to pests or disease. In turn, this could affect animals dependent on affected plants. Clearing and grading could result in the deposition of significant amounts of dust on plants within the biological preserve area. Such an impact could be significant; however, implementation of dust control mitigation measures required by the Air Pollution Control District, as discussed in Section 4.2, *Air Quality*, would reduce air quality impacts to less than significant.

Non-native Plant Species

Non-native plants can colonize disturbed areas and could potentially spread into adjacent native habitats. Many of these non-native plants are highly invasive and can displace native vegetation, reducing native species diversity. An abundance of non-native species could potentially increase flammability and fire frequency, change ground and surface water levels and adversely affect native wildlife that is dependent on native plant species. Colonization by non-native plant species in non-impact areas and the resulting degradation of habitat used by native species would be considered a significant impact; however, invasion by non-native weeds into the existing wetlands would be less than significant because these areas already contain a prevalence of weeds and the surrounding area would be restored with native species, improving the overall quality of the existing habitat.

Human Activity/Edge Effects

Urbanization and increases in human activity can result in degradation of sensitive vegetation by fragmenting the land and forming edges between developed areas and habitat. These edges make it easier for non-native plant species to invade native habitats, and for native and non-native predators to access prey that may have otherwise been protected within large, contiguous blocks of habitat. In addition, secondary extinctions through disruption of predator-prey, parasite-host and plant-pollinator relations also can occur (Soule 1986). Edge effects can be particularly significant. Illegal dumping of trash also is expected to increase in these areas as the campus and area population grows. Impacts due to nuisance animal species to surrounding wildlife would be less than significant because fencing would be placed along the eastern boundary of the preserve. Impacts due to edge effects would be less than significant because the proposed development footprint is largely within the developed campus area or does not protrude into preserve areas.

Roadkill

Because the project would increase vehicle usage on Fury Lane, Jamacha Road and internal roadways on the campus, the number of roadkill incidents is anticipated to increase. Roadkill impacts would be considered significant if it resulted in adverse effects to federally or state listed species; however, roadkill of sensitive or listed species would not significantly increase because ingress and egress from the campus is mostly through urban areas. Therefore, effects from roadkill are expected to be less than significant.

Night Lighting

Night lighting exposes wildlife species to an unnatural light regime and may alter their behavior patterns, which could result in a loss of species diversity. Night lighting on native habitats also can provide nocturnal predators with an unnatural advantage over their prey. This could cause an increased loss in native wildlife. Unless appropriate measures are taken to prevent release of light into the open space, night lighting could have a significant impact on the biological preserve.

Noise

Noise can cause animals to flee, which could be especially significant to birds that may abandon active nests. Additionally, birds may also be susceptible to other disturbances, other than noise, from construction sites. As a result, any construction activity within 500 feet of an active raptor nest (300 feet for a Cooper's hawk nest), or 500 feet of an active coastal California gnatcatcher nest, would be considered significant. Although no active raptor nests were observed on site during previous surveys, it is possible that an existing nest may occur in habitat adjacent to the developing portion of campus.

4.4.3 Mitigation Measures

Due to the District participating in the County's MSCP Plan and the central portion of the site being "take authorized", impacts to upland habitats and MSCP covered species are considered mitigated by the conservation measures required of the project and creation of the biological preserve (i.e. MSCP Preserve). As a result, all direct impacts to sensitive upland habitats (Diegan coastal sage scrub, baccharis scrub and non-native grassland) and non-jurisdictional wetland habitats (tamarisk scrub and freshwater marsh in storm drain features) on the campus are considered fully mitigated by fulfillment of the District's MSCP obligations.

MM 4.4-1: The final designs for projects that would affect wetland habitats, such as the eastern parking lots, should be modified to avoid impacts to the jurisdictional areas. If impacts to wetland habitats cannot be avoided during the design phase of new facilities, the District shall replace wetland habitats at a ratio of 3:1, consisting of 1:1 wetland creation and 2:1 wetland enhancement, restoration or creation, based on the extent and quality of habitat impacted. Thus, up to 0.29 acre of wetland creation would be required (0.03 acre of southern arroyo willow riparian forest, 0.17 acre of southern cottonwood willow riparian forest and 0.09 acre of southern willow scrub) and up to 0.58 acre of enhancement, restoration or creation (0.06 acre of southern arroyo willow riparian forest, 0.34 acre of southern cottonwood willow riparian forest and 0.18 acre of southern willow scrub), for a total wetland mitigation requirement of 0.87 acre for the entire Master Plan. The location of the mitigation area(s) and other details of the restoration effort shall be contained in a wetland restoration plan that would be prepared by a qualified biologist and approved by the resource agencies.

MM 4.4-2: If clearing or grading is planned to occur during the breeding season for raptors (February 1 through July 31), a pre-construction survey shall be conducted to determine the presence or absence of these species within 500 feet of proposed construction. If there were no sensitive birds nesting within this area, construction activities shall be allowed to proceed. However, if any sensitive birds are observed nesting within this area, one of two actions shall be taken: (1) development shall be postponed until all nesting has ceased or until after July 31, or has been moved far enough away to not impact the birds; or (2) a temporary noise barrier or berm shall be constructed within the edge of the development footprint (not within the proposed preserve) to ensure that noise and activity levels do not impact the nesting birds.

MM 4.4-3: If clearing or grading is planned to occur during the breeding season for coastal California gnatcatchers (February 15 through August 15) and/or raptors (February 1 through July 31), a pre-construction survey should be conducted to determine the presence or absence of these species within 500 feet of the proposed construction. Preliminary clearing or grading shall be monitored by a qualified biologist who shall have the power to stop the activity or move it further away from any active nest of a gnatcatcher or raptor if deemed necessary to avoid nest abandonment.

MM 4.4-4: The proposed Master Plan biological preserve shall be increased in areas adjacent to the biological preserve where sensitive habitat occurs and development is not proposed. The preserve area in the west, north and northeastern sides of the Master Plan footprint shall be expanded as shown in Figure 4.4-3, *Biological Preserve Additions*. Table 4.4-6, *Habitats and Proposed Preserve Areas*, contains a summary of the habitats preserved by the expanded biological preserve. A total of 45.8 acres of coastal sage habitat shall be conserved on campus within the biological preserve. The 1.7-acre deficit of coastal sage scrub preservation shall be compensated through the restoration of 1.7 acres of coastal sage scrub habitat within disturbed or non-coastal sage scrub areas of the MSCP preserve on the campus. A restoration plan shall be prepared and implemented by a qualified biologist and shall specify the site preparation requirements, location of the restoration area(s), proposed plant palette and monitoring requirements.

Table 4.4-6
HABITATS AND PROPOSED PRESERVE AREAS

Habitat	Existing (acres)	Proposed Biological Preserve (acres)	Expanded Biological Preserve (acres)
Coastal sage scrubs			
Diegan coastal sage scrub	37.1	35.1	37.1
Diegan coastal sage scrub – disturbed	4.3	4.0	4.0
Baccharis scrub	6.3	3.8	3.9
Maritime succulent scrub	0.7	0.7	0.7
Coastal sage scrub subtotal	**48.4**	**43.6**	**45.8**
Wetland habitats			
Southern arroyo willow riparian forest	1.06	1.02	1.06
Southern cottonwood willow riparian forest	1.13	0.95	1.13
Southern willow scrub	0.68	0.59	0.68
Riparian scrub	0.04	0.04	0.04
Freshwater marsh	0.03	0	0
Tamarisk scrub	0.31	0.14	0.18

Table 4.4-6 (cont.)
HABITATS AND PROPOSED PRESERVE AREAS

Habitat	Existing (acres)	Proposed Biological Preserve (acres)	Expanded Biological Preserve (acres)
Other upland habitats			
Non-native grassland	9.2	3.9	4.2
Eucalyptus woodland	1.9	0.7	1.0
Non-native vegetation	2.3	0.8	0.8
Disturbed habitat	18.1	3.1	3.7
Developed	81.6	1.4	0.5
TOTAL	164.7	56.2	59.1

MM 4.4-5: Restoration of disturbed areas and appropriate protection of habitat shall be implemented to maintain the conservation values of the proposed biological preserve. Measures shall include removal of invasive exotics, including the patch of giant reed in the preserve near Fury Lane, removal of any off-road moguls, restoration of disturbed and non-native habitats within the biological preserve to coastal sage scrub, restoration of disturbed coastal sage scrub areas including the area restored during the mid-1990s and provision of signage and some form of fencing to prevent access to the preserve by the public from Fury Lane. Actions to accomplish this shall be detailed in a restoration plan to be prepared by a qualified biologist.

MM 4.4-6: For any development adjacent to the proposed preserve, temporary construction fencing shall be erected to demarcate the boundary of disturbance. A biological monitor shall be present daily for all habitat clearing and shall monitor grading and construction to ensure compliance with all avoidance, permitting and mitigation measures during construction.

MM 4.4-7: All open space areas shall be posted with signage containing information regarding habitat sensitivity and citing that dumping or disturbance of habitat is prohibited. In addition, a split-rail or other form of fencing shall be built to indicate to the public that the habitats adjacent to Fury Lane are protected.

MM 4.4-8: All construction equipment storage areas and new buildings or athletic facilities shall be lit with low illumination fixtures that are shielded and directed downwards and away from adjacent native habitat areas.

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4.5 CULTURAL RESOURCES

A cultural resource survey for the Master Plan was conducted by Kyle Consulting in July 2003, in compliance with the California Environmental Quality Act (CEQA). This survey included a literature review, record search and field survey of the undeveloped portions of the campus. Past aerial photographs also were used to identify historic resources on site. The report is contained in EIR Appendix E to this document and is summarized herein.

4.5.1 Existing Conditions

Background/Prehistoric Context

San Diego County was occupied prehistorically by at least two major cultural groups. The first inhabitants of the region, identified as the San Dieguito Complex, abandoned drying inland lakes of the California desert and entered San Diego County as early as 9,000 years ago. These people hunted, fished, milled plant foods, and collected and processed shellfish. The San Dieguito Complex continued to occupy the region from at least 8,300 to roughly 1,300 years ago as the La Jolla Complex, Pauma Complex and Encinitas Tradition. Archaeological sites reflecting this occupation include coastal shell habitation sites, inland hunting and milling camps, and quarry sites.

Occupation of San Diego County from 1,300 years ago (Late Period) is well documented by numerous habitation sites of the Northern Diegueño/Ipai and Luiseño. Artifacts and cultural patterns reflecting this occupation include small projectile points, pottery, obsidian and cremations. The college campus is located within the Southern Diegueño/Ipai territory.

Record Search Results

The literature review and record search from the South Coastal Information Center and San Diego Museum of Man identified that 33 cultural resource studies were completed within a one-mile radius of the campus; however, no studies had been completed within the campus itself. Thirty-five cultural resource sites were identified within the one-mile radius and include prehistoric habitation sites, camp sites, bedrock milling features, special use sites, isolates and historic resources that reflect intensive use of the resources available in the Sweetwater River Valley and adjacent hills.

Survey Results

Archaeologists intensively surveyed most of the undeveloped portions of the campus for cultural resources on July 9 and 10, 2003. The steep slopes to the west of campus development were spot-checked, but not intensively surveyed due to safety issues and the low potential for cultural resources. Archaeologists carefully inspected undeveloped areas with good ground visibility. Landscaped areas within the developed portion of the campus with ground visibility also were checked. No prehistoric resources were identified during the field survey. The survey did, however, identify potential remnants of early ranching in the Jamacha Valley within southern portion of the campus in the horticultural area of campus.

A portion of the campus within the horticultural area was previously used for farming activities. The 1928 aerial photograph of the campus vicinity depicts a farmstead and orchards in this area. Remnants of this farm include California pepper trees (*Schinus molle*), eucalyptus trees (*Eucalyptus cinerea*) and portions of an orchard near the Child Development Center.

Research indicates that the campus is located in what was the Jamacha Rancho, a past land grant by Spanish missionaries to Dona Apolinaria Lorenzana in the 1830's. After 1846, Apolinaria left the rancho, and it was later claimed by American settlers, who began to farm in Jamacha Valley between 1870 and 1890. In the late 1870's, ownership of the rancho began to divide and by 1880, eleven people claimed portions of the original land grant. In March 1881, these individuals filed suit in the Superior Court, requesting that the land be subdivided and given to them. The court ruled that the ranch be surveyed and subdivided into nine parcels and subsequently granted to the respective claimants. The parcel in which the campus is located has been owned by several individuals who planted different crops and orchards. William H. Ware purchased the parcel in 1880 and planted orchards, corn, wheat and grapes. The parcel was sold to Henry C. Watts, Sam B. Wakefield and Charles B. Richards in April 1887. Research by Van Wormer (1986) identifies that G. Davis owned the parcel circa 1895-1900 and by Wakefield and Sefton circa 1905. Sefton, as the Sefton Investment Company circa 1910-1915, developed the Monte Vista Ranch on the parcel and adjacent parcels and planted citrus fruits, olives, grapes and corn. This ranch was the first tract of corporate-owned property in the Jamacha Valley.

Regulatory Framework

Cultural resources are regulated by federal, State and local laws and guidelines. Specific criteria have been developed for determining the significance of prehistoric and historic sites and objects. Federal and State significance criteria generally focus on the uniqueness and integrity of a resource and its potential to contribute important information to academic research. Resources that do not meet the federal significance criteria may meet State significance criteria. The federal and State laws and guidelines for protecting historic resources are summarized below.

<u>National Historic Preservation Act of 1966</u>

The National Historic Preservation Act of 1966 established the National Register of Historic Places (NRHP) to identify cultural resources that have been nominated by State Offices for historical significance at the national, State and local levels. Resources generally must be at least 50 years old to be listed. Criteria for listing on the NRHP (36 Code of Federal Regulation Part 63) include districts, sites, buildings, structures and objects that are significant in American history, architecture, archaeology, engineering and culture; have the integrity of location, design, setting, materials, workmanship, feeling and association; and achieve at least one the following:

1. Associate with events that have made a significant contribution to broad patterns of American history.
2. Associate with the lives of significant persons in American history.
3. Represent the distinctive characteristics of a type, period or method of construction; characterize the work of a master; contain high artistic values; and demonstrate a significant and distinguishable entity, which may contain components that lack individual distinction.
4. Provide, or may likely provide, important prehistoric or historic information.

California Register of Historic Resources

The California Register of Historic Resources (CRHR; Public Resources Code 5020 *et seq.*) is maintained by the State Historic Preservation Office. Properties listed or formally designated eligible for listing on the NRHP, State Landmarks and State Points of Interest are consequentially included on the CRHR. Properties designated under local ordinances or identified through local historical resource surveys also are listed in the CRHR.

California Senate Bill 297

The California Senate Bill 297 (1982) has been incorporated into Section 15064.5(d) and (e) of the State CEQA Guidelines. This bill addresses the protection of Native American burials in archaeological sites from disturbance, vandalism and inadvertent destruction. This bill includes procedures to be implemented if Native American skeletal remains are discovered during project construction. The Native American Heritage Commission was established by this bill to resolve disagreements regarding the origin of Native American remains.

4.5.2 Impacts

Thresholds of Significance

Thresholds of significance for impacts to cultural resources are based on Appendix G of State CEQA Guidelines. Project impacts to cultural resources would be considered significant if one or more of the following were to result:

- Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5 of State CEQA Guidelines.
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5 of State CEQA Guidelines.
- Disturb any human remains, including those interred outside of formal cemeteries.

Impact Analysis

Implementation of the Master Plan could potentially impact historical resources. The project would involve construction of new campus facilities and renovation of existing structures, all of which were constructed in 1978 or later. Thus, none of these existing structures is considered historic due to their age. Moreover, the literature review, record search and field survey did not identify any historic resources within the study area. Review of the 1928 aerial photograph located a farmstead and orchards in the horticulture area of the campus. No structures were identified during the field survey; however, structural remains or refuse filled pits, privy vaults, wells or other features that may contain significant artifact deposits may be present in the undeveloped portions of the campus that were previously used for farming, in particular the southern and eastern portions of campus. The Master Plan does not proposed the construction of any structures in this portion of campus; however, two large parking lots (identified as projects 12 and 16 on the Master Plan map) are proposed in the vicinity of the historic farmstead. Because of the potential to encounter historic resources associated with past farming on campus property, potentially significant impacts may occur as a result of parking lot construction for the Master Plan.

The Master Plan would not disturb any human remains, including those interred outside of formal cemeteries. Much of the campus has been disturbed by previous grading activities associated with campus development. In addition, the literature review, record search and survey did not identify any cemeteries or human remains within the study area. Since no known burial sites are located within the campus and the proposed development areas have been previously graded and disturbed, the potential to uncover human remains during construction would be extremely low to nonexistent. Impacts related to disturbance of human remains would not occur as a result of the proposed project.

4.5.3 Mitigation Measures

Implementation of the following mitigation measure would reduce potentially significant impacts to historic resources below a level of significance:

MM 4.5-1: Prior to commencement of grading/excavation in the future sites of parking lots 12 and 16, the District or construction contractor shall retain the services of a qualified archaeologist to implement an archaeological monitoring and recovery program. The retained archaeologist shall attend the pre-construction meeting and shall be present half-time during grading/excavation at the beginning of project grading and/or excavation and shall be increased or decreased depending on initial results (per direction of the archaeologist). In the event of a discovery, the archaeologist shall have the authority to temporarily halt or redirect construction activities in the area of discovery to allow for preliminary evaluation of potentially significant archaeological resources. The archaeologist, in consultation with the District, shall determine the significance of the discovery, if applicable. For significant resources, a recovery program shall be prepared and carried out to mitigate impacts before ground disturbing activities in the area of discovery are resumed. A report summarizing the results, analysis and conclusions of the monitoring program shall be submitted to the District within three months following termination of monitoring activities.

4.6 HYDROLOGY/WATER QUALITY

4.6.1 Existing Conditions

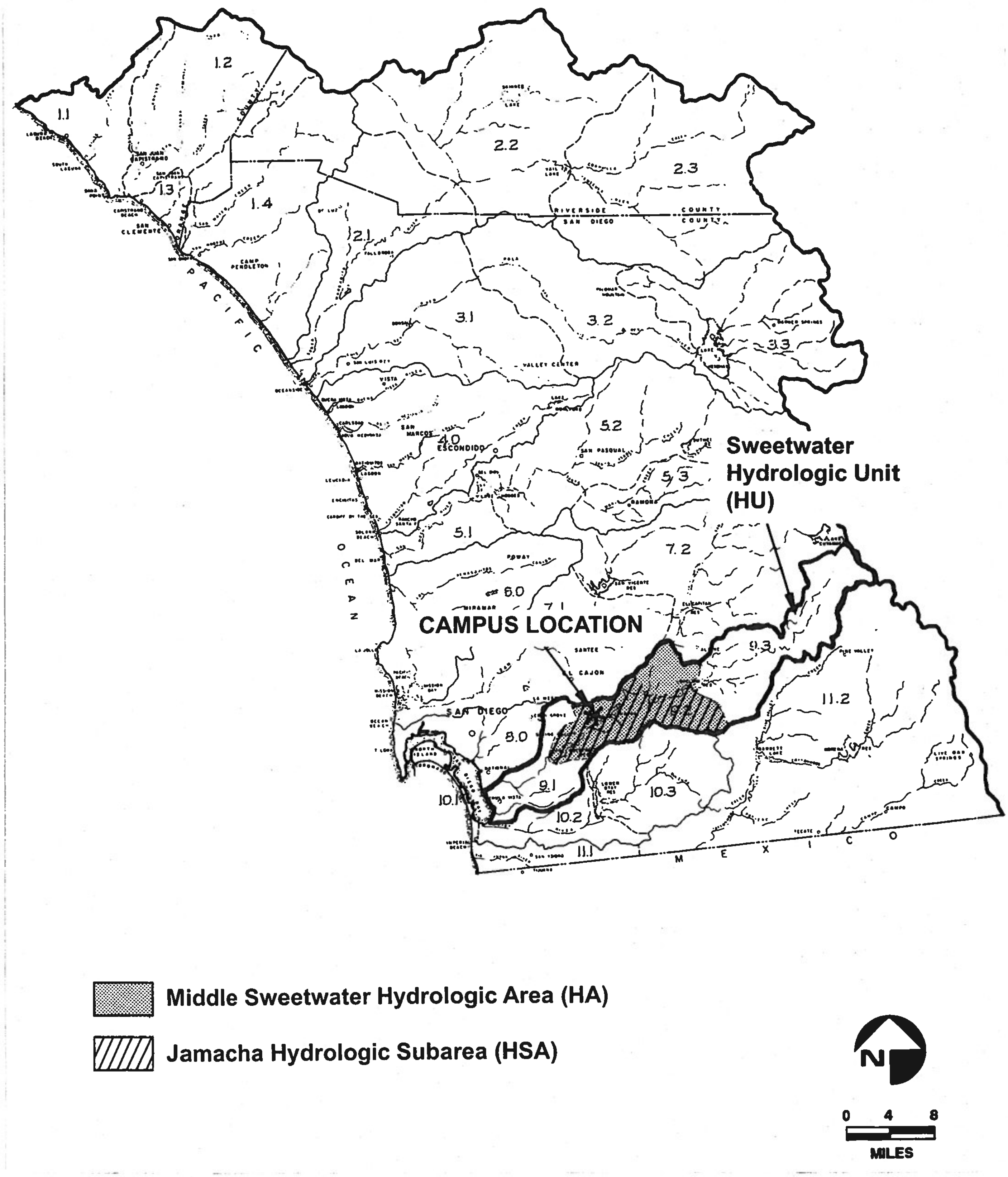
Surface Water

Watershed and Drainage Characteristics

The campus is located within the Sweetwater Hydrologic Unit (HU), 1 of 11 such drainage areas designated in the San Diego Regional Water Quality Control Board (RWQCB) *Water Quality Control Plan for the San Diego Basin* (Basin Plan; 1994, as amended). The Sweetwater HU is a northeasterly trending area of approximately 230 square miles, and generally extends along the Sweetwater River from the Laguna Mountains on the east to San Diego Bay on the west (Figure 4.6-1, *Campus Location Within Local Hydrologic Designations*). Surface drainage in the Sweetwater HU occurs predominantly through the Sweetwater River and a number of related tributaries, including Lawson, Mexican Canyon and Steele Canyon creeks in the campus vicinity. Two major water bodies are located along the Sweetwater River corridor in the general area of the campus; Loveland Reservoir approximately 10 miles upstream and Sweetwater Reservoir approximately 3.5 miles downstream. Both of these reservoirs are used to store imported water for municipal water supplies, and are owned and operated by the Sweetwater Authority. The Sweetwater HU is divided into a number of smaller hydrologic designations based on local drainage characteristics, with the campus located within the Middle Sweetwater Hydrologic Area (HA) and the Jamacha Hydrologic Subarea (HSA) (Figure 4.6-1). The Jamacha HSA includes approximately 64 square miles and extends generally along the Sweetwater River between Sweetwater and Loveland reservoirs (California Department of Water Resources [DWR] 1991). Annual precipitation in the Sweetwater HU ranges from approximately 11 inches at the coast to 35 inches at some inland locations, with the campus vicinity receiving approximately 12 inches per year (County of San Diego 2003; RWQCB 1994, as amended).

Much of the area proposed for development under the Master Plan has been previously graded or disturbed. Existing campus features in this area include numerous classroom structures, as well as parking lots, athletic fields/courts, access roads/pathways and landscaped areas. Existing drainage within the campus is generally to the south and east, with these flows including overland runoff in undeveloped areas and gravity flow through an existing storm drain system. The storm drain system includes a number of pipelines (and related structures) varying in diameter from 6 to 48 inches. Portions of the existing flow are conveyed into a landscaped horticultural garden near the southern campus boundary for irrigation. Much of the remaining flow from the Master Plan area is conveyed to the east through a 48-inch reinforced concrete pipeline (RCP), with this structure discharging into an unlined trapezoidal channel just east of Cuyamaca College Drive East (and south of the existing soccer practice field). The outlet point of the 48-inch storm drain includes a concrete headwall and a riprap energy dissipation structure. Riprap is dispersed along much of the channel length, with at least portions of this material apparently displaced from the noted energy dissipator during previous storm events. The channel continues east for approximately 300 feet before discharging into a densely vegetated riparian corridor. This corridor extends generally north-south through the Biological Preserve in the eastern portion of the campus, and continues south to the southern campus boundary. Flows within the riparian corridor (as well as all other runoff from the campus) continues generally south through existing offsite storm drain facilities to the Sweetwater River corridor, which ultimately drains to San Diego Bay (approximately 11 miles to the west). Due to the topographic profile of the campus and surrounding areas (including steep slopes along much of the western and northern boundaries, refer to Section 4.7), runon into the campus from offsite areas is limited primarily to flows which enter the northeastern corner of the campus. These flows drain generally southeast through the noted riparian corridor located near the eastern campus boundary.

The Sweetwater River watershed area includes approximately 148,000 acres (San Diego Unified Port District 2003), with existing land uses encompassing substantial undeveloped areas (approximately 45 percent of the total watershed), urban development (27 percent) and park and recreation uses (24 percent). Existing land uses in the campus vicinity include commercial and residential development, the Sweetwater River corridor, and State Routes 94 (Campo Road) and 54 (Jamacha Road) to the south; residential, commercial, school and roadway (Fury Lane) development to the east; open space and residential use to the north; and open space and industrial facilities (Otay Water District facilities) to the west (refer to Figure 2-3). Downstream drainage facilities in the campus vicinity include storm drain systems associated with commercial and residential development to the south, as well as crossing structures along the Sweetwater River corridor for major roadways including State Routes 94 and 125 (SR-94 and SR-125). In addition, the Sweetwater Authority has constructed an Urban Runoff Diversion System (URDS) to divert surface runoff around the Sweetwater Reservoir and release it



Campus Location Within Local Hydrologic Designations

CUYAMACA COLLEGE MASTER PLAN EIR

Figure 4.6-1

HELIX

downstream. The URDS is intended to reduce adverse water quality effects to the Sweetwater Reservoir by minimizing the influx of runoff from developed portions of the associated watershed.

Flooding Hazards

The project site and vicinity have been mapped for flooding hazards by the Federal Emergency Management Agency (FEMA). The entire project site and adjacent areas are mapped as Zone X, defined as areas determined to be outside the 500-year (and thus the 100-year) floodplain (FEMA 1997a and 1997b). The closest mapped 100-year floodplains are located approximately 400 feet south of the campus along the Sweetwater River (FEMA 1997b).

Groundwater

Much of the campus (including most or all development areas proposed under the Master Plan) is within the areal extent of the Middle Sweetwater Groundwater Basin. This basin extends along the Sweetwater River corridor from approximately 3 miles below Loveland Reservoir to 2 miles above the Sweetwater Reservoir, and includes an area of approximately 3.1 square miles (SDCWA 1997). Groundwater within the Middle Sweetwater Basin occurs primarily as unconfined alluvial aquifers, with an estimated storage capacity of approximately 25,000 to 30,000 acre-feet and maximum/average aquifer depths of approximately 80/60 feet (SDCWA 1997, DWR 1991). Numerous active wells are present in the general campus vicinity, including private wells providing irrigation water for several golf courses and industrial processing water for sand and gravel operations (SDCWA 1997). Current estimated production from the basin is approximately 2,000 acre-feet/year (af/yr), with an average well production capacity of 500 gallons per minute (gpm) and a sustainable yield of approximately 3,000 af/yr (SDCWA 1997). Additional limited production within the Middle Sweetwater Groundwater basin may be feasible, with the Otay Water District (OWD) considering a potential joint program with the Sweetwater Authority to extract up to an additional 1,000 af/yr of groundwater to blend into OWD potable supplies (SDCWA 1997).

Based on the results of geotechnical investigation conducted within the Master Plan area (i.e., borings and trenches), the permanent groundwater table was not encountered at depths of up to 25 feet below the surface. Perched groundwater (in the form of seepage) was observed at depths of 8 to 9 feet below grade in two trenches, however, and could potentially occur in other areas, particularly during the rainy season (GEOCON 2002, Kleinfelder 2000, refer to Section 4.7). Perched groundwater consists of one or more small unconfined aquifers supported by shallow impermeable (or semi-permeable) strata, and is typically variable in volume and extent with seasonal precipitation and/or irrigation levels.

Water Quality

<u>Surface Water</u>

Surface water within the campus consists primarily of runoff from irrigation and storm events. No known water quality data are available for on-site runoff, although storm flows are typically subject to wide variations in water quality with factors such as runoff volumes/velocities, adjacent land uses and storm event timing (e.g., the initial runoff or "first flush" generally exhibits higher contaminant levels). A summary of anticipated and potential contaminants and related sources for the campus is provided in Table 4.6-1, *Summary of Anticipated/Potential Contaminants and Sources for the Cuyamaca College Campus*, with typical contaminant loadings from urban development shown in Table 4.6-2, *Typical Contaminant Loadings in Runoff for Various Urban Land Uses*.

As previously noted, the principal surface waters located downstream from the campus include the Sweetwater River, Sweetwater Reservoir and San Diego Bay. Surface flows in the Sweetwater River consist predominantly of storm water and urban runoff (e.g., irrigation), with no known water quality data available for the immediate campus vicinity. Historical water quality data for the Sweetwater River include results from monitoring during the 1993-94 storm season at the Proctor sampling station, located in the City of Chula Vista near the intersection of Proctor Valley and Rolling Ridge roads (approximately six miles south-southwest of the campus). This site is within a tributary drainage to the Sweetwater River and exhibited generally good water quality, as characterized by total dissolved solids (TDS) levels of between 37 and 790 milligrams per liter (mg/l, or parts per million [ppm]) in three samples collected during March and April of 1994 (MEC Analytical Systems 2001). Current (2002) water quality data for downstream portions of the Sweetwater River are limited to three samples collected at the Sweetwater River Mass Loading Station (MLS) near the Plaza Bonita Bridge in the City of Chula Vista (approximately eight miles downstream of the campus). These three samples reflect generally moderate to poor water quality, as characterized by TDS levels of 2,000 mg/l in February, 1,050 mg/l in March and 2,870 mg/l in April (San Diego Unified Port District 2003).

Table 4.6-1
SUMMARY OF ANTICIPATED/POTENTIAL CONTAMINANTS AND SOURCES FOR THE CUYAMACA COLLEGE CAMPUS

ANTICIPATED/POTENTIAL CONTAMINANTS	CONTAMINANT SOURCES
Heavy Metals	Vehicles, construction equipment, atmospheric deposition, industrial areas, soil erosion and corroding metal surfaces
Trash and Debris	Trash collection/disposal areas, construction activities, roadways, parking lots, and community sites such as outdoor eating areas
Oil & Grease	Roads, driveways, parking lots and construction activities
Sediment	Streets, landscaping, roads, driveways, construction activities, atmospheric deposition and erosion
Nutrients (nitrogen/phosphorus)	Fertilizers, atmospheric deposition, vehicles, erosion, and detergents
Organic Compounds	Landscaping, solvents and cleaning compounds
Oxygen Demanding Substances[1]	Landscaping, sewer lines and portable (construction) septic facilities
Bacteria and Viruses	Landscaping, roads, sewer lines and portable septic facilities
Pesticides and Herbicides	Landscaping, roadsides and soil wash-off

[1] Includes sources such as decaying organic material

Source: U.S. Environmental Protection Agency (EPA 1999)

Table 4.6-2
TYPICAL CONTAMINANT LOADINGS IN RUNOFF FOR VARIOUS URBAN LAND USES (lbs/acre-year)

LAND USE	TSS	TP	TKN	NH_3 - N	NO_2 + NO_3 - N	BOD	COD	Pb	Zn	Cu
Commercial	1000	1.5	6.7	1.9	3.1	62	420	2.7	2.1	0.4
Parking Lot	400	0.7	5.1	2	2.9	47	270	0.8	0.8	0.04
HDR	420	1	4.2	0.8	2	27	170	0.8	0.7	0.03
MDR	190	0.5	2.5	0.5	1.4	13	72	0.2	0.2	0.14
LDR	10	0.04	0.03	0.02	0.1	N/A	N/A	0.01	0.04	0.01
Freeway	880	0.9	7.9	1.5	4.2	N/A	N/A	4.5	2.1	0.37
Industrial	860	1.3	3.8	0.2	1.3	N/A	N/A	2.4	7.3	0.5
Park	3	0.03	1.5	N/A	0.3	N/A	2	0	N/A	N/A
Construction	6000	80	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

HDR = High Density Residential; MDR = Medium Density Residential; LDR = Low Density Residential; N/A = Not available; insufficient data to characterize; TSS = Total suspended solids; TP = Total Phosphorus; TKN = Total Kjeldahl Nitrogen; NH_3 - N = Ammonia Nitrogen; NO_2 + NO_3 - N = Nitrate + Nitrite Nitrogen; BOD = Biochemical Oxygen Demand; COD = Chemical Oxygen Demand; Pb = Lead; Zn = Zinc; Cu = Copper
Source: EPA (1999)

The Sweetwater Reservoir receives storm runoff from adjacent watershed areas, with development limited in these areas to protect water quality. In addition, the previously described URDS helps to protect water quality in the reservoir by diverting runoff derived from urban sources within the Sweetwater River watershed. Observed water quality in the Sweetwater Reservoir (before treatment) is generally good, as characterized by average TDS levels of 647 mg/l in 2002 (Sweetwater Authority 2003). In addition, a water quality monitoring study of the Sweetwater Reservoir was conducted by the U.S. Geological Survey (USGS) beginning in 1998 to assess effects from urban development within the reservoir watershed, including construction of SR-125. While this study documented "...a sharp increase of persistent organic chemical concentrations over the past 65 years..." in water and sediment samples from the reservoir, it concluded that "the concentrations of the detected organic chemicals in Sweetwater and Loveland Reservoirs are well below the guidance limits set by State and Federal agencies to protect human health" (USGS 2001).

Additional water quality data available for local waters include qualitative assessments conducted regularly by the State Water Resources Control Board (SWRCB) and San Diego RWQCB, as well as biological assessments conducted by the RWQCB (2002, 2001, 1999a). The biological assessment reports reflect recent (since 1997) attempts by the RWQCB to incorporate bioassessment data into ambient water quality monitoring. The referenced reports include the results of bioassessment sampling efforts conducted between 1998 and 2002 at numerous locations in the San Diego region, including two sites along the Sweetwater River downstream of the campus. Specifically, these sites are located near the SR-94 river crossing (approximately 3,000 feet south of the campus) and in the City of Chula Vista (approximately seven miles downstream of the campus). These two sites both included individual samples collected in May, September and November 1998, and in May and November 1999, with the site near SR-94 also including a sample collected in November 2000 (RWQCB 2002). All noted samples were evaluated for (among other criteria) the taxonomic richness (i.e., number of taxonomic groups) and diversity (i.e., species diversity within taxonomic groups) of benthic macroinvertebrate (BMI) communities. Based on these evaluations, all sampled sites were numerically ranked for the condition of BMI communities. With the exception of the one sample collected at the SR-94 site in November 1998, all noted samples were at or below the mean rankings for all tested sites (RWQCB 2002, 2001, 1999a). Because BMI communities are sensitive to water quality (including criteria such as dissolved oxygen, sedimentation, nutrients and chemical/organic pollutants), the relatively low rankings for the described Sweetwater River sites likely reflect (at least in part) generally moderate to poor local water quality. Three additional bioassessment monitoring sites located along upstream portions of the Sweetwater River (near Cuyamaca State Park and Descanso) exhibited results generally above the mean rankings for all tested sites (RWQCB 2002). These results likely reflect generally good water quality conditions in the upper portions of the watershed, with these data consistent with the relatively undeveloped nature of local watersheds in these areas.

The SWRCB and RWQCB produce regular qualitative assessments of statewide and regional water quality conditions. These studies are conducted pursuant to federal and state regulatory requirements (e.g., the federal Clean Water Act [CWA] and state Porter-Cologne Water Quality Control Act), and provide qualitative water quality ratings (relative to Basin Plan beneficial uses as described below under Regulatory Framework) for the 1991 through 1996 assessments, and CWA Section 303(d) listing and priority status for assignment of total maximum daily load (TMDL) requirements in the 1998 through 2002 assessments. The Section 303(d) and TMDL assessments involve prioritizing waters on the basis of water quality (i.e., impaired) status and the necessity for assigning quantitative contaminant load restrictions (i.e., TMDL), with these data submitted to the EPA for review and approval. The results of all the described assessments are summarized below in Table 4.6-3, *Summary of Applicable RWQCB/SWRCB Water Quality Assessment Data*, for applicable surface and groundwater resources.

Based on the above described quantitative data, bioassessment analyses and SWRCB/RWQCB water quality assessments, overall existing water quality in the Sweetwater River is characterized as generally good in upstream portions of the watershed, and moderate to poor in lower portions of the watershed (including the campus vicinity and downstream areas). Water quality in the Sweetwater Reservoir is considered generally good, while overall water quality in the southern portion of San Diego Bay is characterized as generally poor.

<u>Groundwater</u>

Known current groundwater quality data for the campus vicinity are limited to a general TDS range of 300 to 1,400 mg/l identified for the Middle Sweetwater Basin (SDCWA 1997), with these numbers reflecting generally good to moderate water quality conditions. Current (2002) data for downstream areas include two wells in National City located approximately eight miles downstream of the campus (and within the hydraulically distinct Lower Sweetwater Basin). These sites exhibit generally good water quality, as characterized by average TDS levels of between 572 and 675 mg/l (Sweetwater Authority 2003). Historical groundwater data from the Jamacha HSA (refer to Figure 4.6-1) identify mean TDS levels of between 718 and 939 mg/l during the period of 1954 to 1990, with these figures derived from several wells located in upstream portions of the HSA (DWR 1991). Three of these wells located within approximately 1.5 miles of the campus exhibited TDS levels ranging from 591 mg/l in 1958, to 1,416 mg/l in 1990. These data indicate that groundwater quality in the Jamacha HSA generally declined during the period of the 1950s through the 1980s (although some notable exceptions occurred), with observed TDS levels also generally lower in upstream portions of the HSA and in deeper wells (DWR 1991). As shown in Table 4.6-3, *Table Name*, water quality in Middle Sweetwater Basin is listed as "good" in the referenced 1991 and 1994 assessments, is identified as fully supporting beneficial uses in the 1996 study and is not assessed in the 1998 through 2002 investigations. Based on the described information, the quality of permanent groundwater in the Middle Sweetwater Basin (including areas within the campus) is considered generally good to moderate.

Regulatory Framework

The proposed project is subject to a number of hydrology/water quality regulatory requirements associated with federal, state and local guidelines as summarized below. Additional discussion of these requirements is provided in Section 4.6-2 (Impacts) as appropriate.

<u>National Pollutant Discharge Elimination System Requirements</u>

The campus is subject to applicable elements of the federal Clean Water Act, including the National Pollutant Discharge Elimination System (NPDES). Specific NPDES requirements may include authorization under the following permits: (1) General Construction Activity Storm Water Permit (NPDES No. CAS000002); (2) General Groundwater Extraction Waste Discharges Permit (i.e., NPDES No. CAG919001, Discharge To San Diego Bay); and (3) General Phase II Storm Water Discharges to Small Municipal Separate Storm Sewer Systems (MS4s, NPDES No. CAS000004). Additional discussion of these permit requirements is provided below and in Section 4.6.2, Impacts.

Table 4.6-3
SUMMARY OF APPLICABLE RWQCB/SWRCB WATER QUALITY ASSESSMENT DATA

Water Body	1991 Assessment	1994 Assessment	1996 Assessment	1998 Assessment	2000 Assessment	2002 Assessment[1]
Sweetwater River	All 11 miles of lower river listed as exhibiting good water quality	All 11 miles or lower river listed as exhibiting good water quality	Not assessed	Not assessed	Not assessed	Not assessed
Sweetwater Reservoir	All 950 acres listed as exhibiting good water quality	All 950 acres listed as exhibiting good water quality	All 960 acres listed as fully supporting beneficial uses	Not assessed	Not assessed	Not assessed
San Diego Bay	11,000 acres assigned good water quality and 1,000 acres listed as impaired[2]	3,936 acres assigned good water quality, 60 acres intermediate quality, and 4 acres listed as impaired[3]	4,000 acres listed as threatened for beneficial use support[3]	0.01 square mile listed as impaired due to high coliform counts, with a low priority for TMDL[3]	0.01 square mile listed as impaired due to high coliform counts, with a low priority for TMDL[3]	0.41 square mile listed as impaired due to bacterial indicators, with a low priority for TMDL[4]
Middle Sweetwater Groundwater Basin	All 85 square miles listed as exhibiting good water quality	All 85 square miles listed as exhibiting good water quality	All 85 square miles listed as fully supporting beneficial uses	Not assessed	Not assessed	Not assessed

[1] 2002 listings adopted by the SWRCB on February 4, 2003 and submitted to EPA for consideration.
[2] Includes all portions of San Diego Bay
[3] Includes the portion of south San Diego Bay within the Telegraph HSA
[4] Includes the portion of south San Diego Bay near the Chula Vista Marina
Source: SWRCB (2003, 2000, 1999, 1997, 1994), RWQCB (1991)

General Construction Activity Permit

Authorization under the General Construction Activity Permit (Construction Permit) is required prior to project development for applicable sites exceeding one acre, with such authorization issued by the SWRCB (pursuant to Order No. 99-08-DWQ) under an agreement with the EPA. Specific conformance requirements include implementing a Storm Water Pollution Prevention Plan (SWPPP) and monitoring program, as well as a Storm Water Sampling and Analysis Strategy for applicable projects (i.e., those discharging directly into impaired waters or involving non-visible contaminants that may exceed water quality objectives). These plans identify detailed measures to prevent and control the off-site discharge of contaminants in storm water runoff. Specific pollution control measures typically require the use of best available technology (BAT) and/or best conventional pollutant control technology (BCT) levels of treatment to limit contaminant discharge, with these requirements implemented through best management practices (BMPs). While site-specific measures vary somewhat with conditions such as proposed grading parameters, slope and soil characteristics, detailed guidance for construction-related BMPs is provided in sources including the *EPA Nationwide BMP Menu* (EPA 2003), *Stormwater Best Management Practices Handbooks* (California Stormwater Quality Association 2003), *Erosion and Sediment Control Field Manual* (RWQCB 1999b), *Best Management Practices for Erosion and Sediment Control and Stormwater Retention/Detention* (San Diego County Association of Resource Conservation Districts (1998) and the California Department of Transportation (Caltrans) *Storm Water Quality Handbooks* (Caltrans 2000). The application of storm water permit and SWPPP requirements to the proposed Master Plan is described below in applicable portions of Section 4.6.2, Impacts.

Groundwater Extraction Waste Discharge Permit

Authorization under the noted General Groundwater Extraction Waste Discharges Permit (Groundwater Permit) is required by the RWQCB (pursuant to Order No. 2000-90 for the campus) prior to disposal of extracted groundwater. This requirement is applicable to all discharge activities which would exceed specific effluent limitations identified in the permit. These requirements are intended to ensure compliance with Basin Plan water quality and beneficial use objectives (as described below), and typically require BMPs involving a number of physical and/or chemical parameters such as erosion/sedimentation controls and testing/treatment of extracted groundwater prior to disposal.

Phase II Small MS4 Permit

This permit was adopted by the SWRCB under Order No. 2003-0005-DWQ, and identifies waste discharge requirements for MS4s not previously covered under the Municipal Phase I NPDES regulations (i.e., small MS4s). The intent of these requirements is to protect environmentally sensitive areas and provide conformance with pertinent water quality standards, including the federal CWA and the RWQCB Basin Plan. Specific requirements include: (1) develop and implement an approved Storm Water Management Plan (SWMP) that describes BMPs, measurable goals, and timetables for implementing the six identified Minimum Control Measures (Public Education, Public Participation, Illicit Discharge Detection and Elimination, Construction Site Storm Water Runoff Control, Post Construction Storm Water Management, and Pollution Prevention/Good Houskeeping for Municipal Operations); (2) reduce the discharge of pollutants to the maximum extent practicable (MEP); and (3) Provide annual reporting on the progress of SWMP implementation.

The Phase II permit includes MS4s that operate throughout a community as "traditional" systems, as well as similar or related MS4s that encompass a separate campus of facility and are referred to as "non-traditional" MS4s. Attachment 3 of the Phase II Permit identifies non-traditional MS4s that are anticipated to be (but are not currently) designated as subject to the Phase II requirements, with this list specifically identifying Cuyamaca College. As a result, the District is voluntarily participating in a proactive effort with local school districts to conform with Phase II MS4 requirements prior to official designation. This effort will include a two-phase approach wherein a general SWMP will prepared to identify overall conformance goals and strategies, followed by individual site-specific SWMPs to address individual conditions and requirements. Both levels of SWMP documents will address the identified conformance requirements, including the development of BMPs related to the six Minimum Control Measures and MEP/reporting strategies. The general SWMP is currently scheduled to be completed in the Spring of 2004, with campus-specific analyses to follow (Herrera 2003).

Basin Plan Requirements

The Basin Plan establishes a number of beneficial uses and water quality objectives for surface and groundwater resources. Beneficial uses are generally defined in the Basin Plan as "the uses of water necessary for the survival or well being of man, plus plants and wildlife." Identified beneficial uses for the Sweetwater River in the Jamacha HSA include municipal and domestic supply (MUN); agricultural supply (AGR); industrial service supply (IND); industrial process supply (PROC); contact and non-contact water recreation (REC-1 and REC-2); warm and cold freshwater habitats (WARM and COLD); and wildlife habitat (WILD). Identified beneficial uses for the Sweetwater Reservoir include MUN, AGR, IND, PROC, REC-1, REC-2, WARM and WILD. Identified beneficial uses for San Diego Bay (including the tidal prism of the Sweetwater River) include IND, navigation (NAV), REC-1, REC-2, commercial and sport fishing (COMM), biological habitats of special significance (BIOL), estuarine habitat (EST), WILD, rare, threatened or endangered species habitat (RARE), marine habitat (MAR), migration of aquatic organisms (MIGR), and shellfish harvesting (SHELL). Identified beneficial uses for groundwater resources within the Middle Sweetwater HA (and downstream areas) include MUN, AGR and IND.

Water quality objectives identified in the Basin Plan are based on established beneficial uses, and are defined as "the limits or levels of water quality constituents or characteristics which are established for the reasonable protection of beneficial uses." Water quality objectives are thus derived from beneficial uses, which are based on the ability of given water sources (in terms of water quality) to safely accommodate specific uses. Accordingly, an individual water source may exhibit poor water quality in terms of the overall types and levels of constituents present, yet still meet the water quality objectives identified in the Basin Plan. Water quality objectives identified for surface and groundwater in the Middle Sweetwater HA are summarized in Table 4.6-4.

Table 4.6-4
SURFACE AND GROUNDWATER QUALITY OBJECTIVES FOR THE MIDDLE SWEETWATER HYDROLOGIC AREA OF THE PEÑASQUITOS HYDROLOGIC UNIT*

SURFACE WATER												
Constituent (mg/l or as noted)												
TDS	Cl	SO_4	% Na	N&P	Fe	Mn	MBAS	B	Odor	Turb NTU	Color Units	F
500	250	250	60	**	0.3	0.05	0.5	0.75	None	20	20	1.0
GROUNDWATER												
Constituent (mg/l or as noted)												
TDS	Cl	SO_4	% Na	NO_3	Fe	Mn	MBAS	B	Odor	Turb NTU	Color Units	F
1,000	400	500	60	10	0.3	0.05	0.5	0.75	None	5	15	1.0

*Concentrations not to be exceeded more than 10% of the time during any one-year period.
**Shall be maintained at levels below those which stimulate algae and emergent plant growth.
Abbreviation Key: TDS = total dissolved solids; Cl = Chlorides; SO_4 = Sulfate; Na = Sodium; NO = Nitrate; Fe = Iron; Mn = Manganese; MBAS = Methylene Blue-Activated Substances (anionic surfactant or commercial detergent); B = Boron; Turb = Turbidity (measured in Nephelometric Turbidity Units [NTU]); F = Fluoride; N&P = Nitrogen and Phosphorus.
Source: RWQCB (1994, as amended)

4.6.2 Impacts

Thresholds of Significance

Pursuant to significance threshold discussions provided in CEQA and the State CEQA Guidelines, project-related impacts associated with hydrology/water quality would be considered potentially significant if they would:

- Substantially alter existing drainage patterns;
- Substantially increase existing runoff volumes or velocities;
- Create or contribute to runoff volumes that would exceed the capacity of existing or planned storm drain facilities;
- Place housing within a mapped FEMA 100-year flood hazard area, or place structures within a 100-year flood hazard area such that flood waters would be impeded or redirected;
- Substantially deplete groundwater supplies or interfere with groundwater recharge;
- Violate any standards related to surface or groundwater quality, violate any waste discharge requirements, or otherwise substantially degrade water quality (including through project-generated erosion/sedimentation); or

Impact Analysis

Drainage Alteration

As described above under Existing Conditions, surface drainage within the campus flows generally east and south before eventually entering the Sweetwater River. Implementation of the proposed Master Plan would involve grading, excavation and construction activities to accommodate the phased development of identified Master Plan facilities (refer to Section 3.0, Project Description). Such activities would be confined largely within areas that are predominantly level and/or that have been previously disturbed or developed, however, and would not involve substantial modifications to existing topographic profiles, physical changes to the nature or direction of drainage courses, or changes in the location and/or direction of storm drain systems and associated runoff. Based on these conditions, the location and direction of existing surface flows within and from the campus would not be substantially modified, and no significant alteration of existing drainage patterns are anticipated from implementation of the proposed Master Plan.

Runoff Volumes/Velocities

The proposed Master Plan includes the construction of additional impervious areas such as new pavement and buildings. While the majority of these proposed facilities are located in areas that have been previously developed, the Master Plan also includes new impervious surfaces that encompass landscaped or undeveloped sites (e.g., the Student Center and Phase IV parking expansion). The construction of new impervious surfaces would increase runoff volumes and velocities within the campus by reducing infiltration capacity. These additional flows increase the potential for related effects, such as erosion and contaminant loading, associated with urban development, as discussed below in this section.

As previously described under Regulatory Framework, the District is in the process of developing multi-agency and campus-specific SWMPs to provide conformance with NPDES Phase II MS4 Permit requirements. One element of this conformance will be minimizing the generation of new offsite runoff to the MEP. While specific methods for achieving this goal will be determined by the District, SWRCB and RWQCB as part of the Phase II Permit process, a number of standard design measures and BMPs are available to minimize runoff generation and associated impacts related to Master Plan implementation. Specifically, these measures would likely include the continuation/expansion of existing District practices such as directing runoff into landscaped areas to increase infiltration and using native and/or drought-tolerant landscaping varieties to reduce irrigation requirements. Additional standard measures for runoff reduction are identified in sources such as EPA (2003), California Stormwater Quality Association (2003), RWQCB (1999b), San Diego County Association of Resource Conservation Districts (1998) and Caltrans (2000). Applicable BMPs that may be implemented as part of the Master Plan development to reduce runoff volumes and velocities would be evaluated in detail in a campus drainage study (to be completed as part of the described SWMP), and may include (but are not limited to) the following types of measures: (1) preserving existing undeveloped or vegetated areas wherever feasible; (2) using permeable pavement in applicable areas such as pedestrian walkways, parking areas and lower volume roadways; (3) directing runoff from developed areas into permeable sites such as landscaping (e.g., the horticultural garden), vegetated swales, or parking lot vegetation strips/islands; (4) installing rooftop catchment devices (e.g., rain barrels) at individual buildings to collect and properly disperse storm flows (e.g., into adjacent landscaped areas); (5) using detention or retention basins to regulate offsite flows; (6) using state-of-the-art irrigation hardware (e.g., precipitation sensors and automatic sprinkler shut-off valves) and seasonal schedules to reduce irrigation; (7) reducing non-storm flows from sources such as vehicle/equipment washing or leaking pipes through education, maintenance and enforcement; and (8) installing and/or maintaining energy dissipation devices (e.g., riprap aprons with an underlying filter fabric or equivalent material layer) at all storm drain outlets.

Implementation of and conformance with the described NPDES Phase II Permit requirements through measures including (but not limited to) the types of existing practices and industry standard BMPs identified above would reduce potential Master Plan impacts related to increased runoff volumes and velocities below a level of significance.

Storm Drain Capacity/Flooding

Pursuant to the above discussion of runoff volumes/velocities, implementation of the proposed Master Plan would generate increased storm flows both within and downstream of the campus. This increase would be minimized through conformance with NPDES Phase II Permit requirements, including the identified types of BMPs to reduce runoff generation, velocity and offsite discharge. As noted, such measures would be evaluated in a campus-specific drainage study to be conducted as part of the SWMP. This study will also identify additions or expansions of the existing campus storm drain system necessary to accommodate any increase in runoff, as well as local regulatory requirements to ensure that the capacities of off-site storm drain facilities are not exceeded. Specifically, this will focus on the described measures to minimize the increase in campus-generated flows and off-site discharge. Based on the assumed conformance with identified recommendations in the campus-specific drainage study, requirements under the NPDES Phase II Permit and local guidelines related to downstream storm drain facilities, no significant impacts related to storm drain capacity or associated flooding hazards are anticipated from implementation of the proposed Master Plan.

As described in Section 4.6.1, the campus is not within or adjacent to any mapped 100-year floodplains, with the closest such designations located approximately 400 feet to the south along the Sweetwater River. Based on these conditions, proposed Master Plan facilities would not be subject to significant impacts from 100-year flood hazards. As described in Section 4.7 of this EIR (Geology/Soils), no significant impacts related to flood hazards from other sources (e.g., catastrophic dam failure) are anticipated in association with the proposed Master Plan.

Groundwater Resources

Implementation of the proposed Master Plan would not involve the use of local groundwater for purposes such as municipal consumption or irrigation, with no associated impacts expected. As described above under Existing Conditions, the average depth to groundwater in the Middle Sweetwater Basin is approximately 60 feet, with no permanent aquifers encountered during geotechnical trenches and borings extending to maximum depths of 25 feet. Based on these conditions, permanent groundwater is not expected to be encountered during Master Plan implementation, with no associated impacts anticipated.

Perched groundwater was encountered during the noted geotechnical investigations, and may occur in other portions of the proposed Master Plan development area. If such aquifers are encountered during Master Plan grading/excavation, temporary dewatering activities may be required. Such activities would be subject to pertinent requirements under the associated NPDES General Groundwater

Extraction Waste Discharges Permit, with additional discussion provided under Existing Conditions and in the following assessment of water quality (erosion/sedimentation). Because of the typically limited extent of perched groundwater aquifers, however, no significant impacts related to groundwater depletion or recharge are anticipated from Master Plan implementation.

Water Quality

Potential project-related water quality impacts are associated with both short-term construction activities and long-term campus use as described below. Because Master Plan activities would not use or result in potential direct effects to permanent groundwater aquifers (e.g., by underground storage of hazardous materials), potential impacts to groundwater quality would be limited to the percolation of surface runoff and associated contaminants generated within the site. Based on these conditions, no additional specific discussion of groundwater quality impacts is provided, with the following assessment of potential water quality impacts applicable to both surface and groundwater resources.

<u>Short-term Construction</u>

Potential water quality impacts related to Master Plan construction include erosion/sedimentation, the on-site use and storage of construction-related hazardous materials (e.g., fuels, etc.), the generation of debris from demolition activities, and the disposal of extracted groundwater (if required).

Erosion/Sedimentation

The Master Plan development area encompasses a number of topsoil or other surficial materials with moderate to high erosion potentials, as described in Section 4.7, Geology/Soils, of this EIR. Proposed grading, excavation and construction activities would increase the potential for erosion and the transport of eroded material both within and downstream of the campus (i.e., sedimentation). The influx of sediment into downstream receiving waters could result in direct effects such as turbidity, and would also provide a transport mechanism for other contaminants such as hydrocarbons that tend to adhere (adsorb) onto sediment particles. All downstream waters and associated wildlife habitats could potentially be impacted, including the Sweetwater River, Sweetwater Reservoir and San Diego Bay (which is listed as an impaired water body, refer to Table 4.6-3).

Based on the above discussion, implementation of the proposed Master Plan could potentially result in significant water quality impacts from construction related erosion and sedimentation. As previously described under Regulatory Framework, however, Master Plan activities would be required to comply with applicable provisions of the NPDES Construction Permit. Specifically, this would include the implementation of a campus-wide SWPPP in conjunction with construction exceeding one acre, with specific elements of this plan including (but not limited to) erosion and sedimentation controls. While specific BMPs to address campus-related erosion and sedimentation issues would be determined based on site-specific parameters, they will include standard recommendations and guidelines contained in sources such as the *EPA Nationwide BMP Menu* (EPA 2003), *Stormwater Best Management Practices Handbooks* (California Stormwater Quality Association 2003), *Erosion and Sediment Control Field Manual* (RWQCB 1999b), *Best Management Practices for Erosion and Sediment Control and Stormwater Retention/Detention* (San Diego County Association of Resource Conservation Districts (1998) and the California Department of Transportation (Caltrans) *Storm Water Quality Handbooks* (Caltrans 2000).

Typical erosion and sediment control measures implemented as part of the campus-wide SWPPP would likely include (but not be limited to): (1) seasonal grading restrictions during the rainy season (October 1 to April 30); (2) use of phased grading schedules to limit the area subject to erosion at any given time; (3) use of erosion control measures in applicable areas (including all disturbed areas and manufactured slopes with grades of 3:1 or steeper), such as geotextiles, mats, fiber rolls, irrigated hydroseeding or other landscaping (established prior to October 1), and soil stabilizers (e.g., bonded fiber matrix or stabilized fiber matrix); (4) use of sediment controls to protect the site perimeter and prevent off-site sediment transport, including measures such as filtration devices (e.g., temporary inlet filters), silt fences, fiber rolls, gravel bag barriers, temporary sediment basins, check dams, street sweeping, energy dissipators and stabilization of sediment stockpiles and construction equipment access/exit points; (5) preparation and (as applicable) implementation of a weather-triggered action plan to provide enhanced erosion and sediment control measures during the rainy season; (6) implementation of appropriate monitoring, maintenance and sampling/analysis programs (per regulatory requirements) to ensure proper BMP function and efficiency; and (7) implementation of additional BMPs as necessary (and required by appropriate regulatory agencies) to ensure adequate erosion and sedimentation control. Implementation of appropriate BMPs as part of an NPDES

SWPPP would reduce potential project-related erosion and sedimentation impacts below a level of significance.

Erosion within the campus and related sedimentation are not considered to be significant long-term concerns, as virtually all developed areas would encompass pavement or landscaping. The campus would also be subject to long-term erosion/sedimentation controls under NPDES Phase II MS4 Permit requirements. Specifically, this would entail preparing and implementing an approved SWMP, with associated BMPs related to long-term erosion and sedimentation potentially including measures such as the installation of storm water filters and vegetated swales in appropriate areas, as well as installation/maintenance of landscaping and trash control efforts. Additional discussion is provided below in this section, with the described permit conformance and BMPs adequate to reduce potential long-term erosion and sedimentation impacts below a level of significance.

Construction-related Hazardous Materials

Proposed construction would involve the on-site use and/or storage of hazardous materials such as fuels, lubricants, solvents, concrete, paint, and portable septic system wastes. The accidental discharge of such materials could potentially result in significant impacts to water quality if such materials reach downstream receiving waters, particularly materials such as petroleum compounds which are potentially toxic to aquatic species in low concentrations.

As described above for erosion and sedimentation, implementation of an NPDES SWPPP would be required under applicable regulatory guidelines. The campus SWPPP would include measures to avoid or mitigate potential impacts related to the use and potential discharge of hazardous materials during Master Plan construction. While specific BMPs to address construction-related hazardous materials would be determined based on site-specific parameters, they would likely include the following types of standard industry measures derived from the previously referenced sources: (1) restriction of paving operations during wet weather and use of sediment control devices downstream of paving activities; (2) proper containment and disposal of paving wastes and slurry (e.g., use of properly designed and contained concrete washout areas); (3) minimizing the amount of hazardous materials stored onsite and restricting storage locations to areas at least 50 feet from storm drains and water courses; (4) use of covered and/or enclosed storage facilities for all hazardous materials; (5)

maintenance of accurate written inventories and labels for all stored hazardous materials; (6) use of berms, ditches and/or impervious liners (or other applicable methods) in material storage and vehicle/equipment maintenance areas to provide a containment volume of 1.5 times the volume of stored materials and prevent discharge in the event of a spill; (7) placement of warning signs in areas of hazardous material use or storage and along drainages and storm drains (or other appropriate locations) to avoid inadvertent hazardous material disposal; (8) provision of safety training for applicable employees in the proper use and handling of hazardous materials, as well as appropriate action to take in the event of a spill; (9) on-site storage of absorbent and clean-up materials where they are readily accessible; (10) proper location and maintenance of trash and wastewater facilities; (11) posting of regulatory agency telephone numbers and a summary guide of clean-up procedures in a conspicuous location at or near the job site trailer; (12) regular (at least weekly) monitoring and maintenance of hazardous material use/storage facilities and operations to ensure proper working order; and (13) implementation of a Storm Water Sampling and Analysis Strategy (SWSAS) program pursuant to NPDES guidelines. Implementation of appropriate BMPs as part of an NPDES SWPPP would avoid or reduce potential Master Plan water quality impacts from construction-related hazardous materials below a level of significance.

Demolition-related Debris Generation

The proposed Master Plan includes a number of remodeling/redevelopment activities that would entail partial or complete demolition of existing buildings and parking lots. These activities would generate variable amounts of construction debris, potentially including concrete, asphalt, glass, metal, drywall, fabric and wood materials. While the presence of hazardous substances such as lead-based paint or asbestos is considered unlikely due to the relatively recent age of the facilities to be removed, proposed demolition could potentially generate contaminants such as particulates (e.g., dust from structure razing or pavement demolition). The introduction of demolition-related particulates (or other contaminants) into the local storm drain system could potentially result in significant downstream water quality impacts, for similar reasons as described above for other potential contaminant sources.

As previously noted, an NPDES SWPPP would be required for conformance with the General Construction Activity Permit, with this document to include measures to address the potential generation of contaminants from demolition activities. While specific BMPs to address demolition-related contaminants would be determined based on site-specific parameters, they would likely include the following types of standard industry measures derived from the previously referenced sources: (1) restricting construction debris storage areas to appropriate locations at least 50 feet from storm drain inlets and water courses; (2) using appropriate storage facilities for construction debris, including adequately sized watertight dumpsters, covers to preclude rain from contacting waste materials, impervious liners, and surface containment features such as berms, dikes or ditches to prevent runon and runoff; (3) employing a licensed waste disposal operator to regularly (at least once a week) remove and dispose of construction debris in an authorized off-site location; (4) recycling construction debris for on- or off-site use whenever feasible; (5) use of dust-control measures such as watering to reduce particulate generation for pertinent locations/activities (e.g., concrete removal); and (6) use of erosion prevention and sediment control devices similar to those described above in this section downstream of all demolition activities. Implementation of appropriate BMPs as part of an NPDES SWPPP would avoid or reduce potential Master Plan water quality impacts from construction-related demolition to below a level of significance.

Disposal of Extracted Groundwater

As described above under Existing Conditions, seasonally perched groundwater aquifers are present within the campus, and may be encountered during Master Plan excavation and construction. While the probability for such activity is considered low due to the typically limited extent of perched aquifers, disposal of groundwater extracted during construction activities into the local storm drain system could potentially generate significant impacts to surface water quality through erosion/sedimentation (i.e., if discharged onto a graded or unstabilized area) or the possible occurrence of contaminants in local groundwater. Under such conditions, the disposal of extracted groundwater could impact downstream surface water quality and associated biological habitats through increased turbidity and the introduction of other contaminants.

As described under Regulatory Framework, the District (or project contractors hired by the District) would be required to conform with the applicable NPDES Groundwater Permit prior to disposal of extracted groundwater. While specific BMPs to address potential water quality concerns from disposal of extracted groundwater would be determined based on site-specific parameters, they would likely include the following types of standard industry measures derived from the previously referenced sources: (1) use of erosion prevention and sediment control devices similar to those described above in this section for applicable conditions (e.g., if extracted groundwater discharged onto graded or unstabilized areas); (2) testing, filtering (e.g., with gravel and filter fabric media) and/or treatment (e.g., by conveyance to a municipal wastewater treatment plant) of extracted groundwater prior to discharge if required for NPDES permit conformance; and (3) removal of groundwater by a licensed operator for treatment and disposal if required for NPDES permit conformance. Implementation of BMPs required for conformance with an NPDES Groundwater Permit would avoid or reduce potential Master Plan water quality impacts from disposal of extracted groundwater to below a level of significance.

Long-term Conditions

Potential long-term water quality impacts associated with implementation of the proposed Master Plan include the generation and off-site discharge of urban contaminants. As shown in Tables 4.6-1 and 4.6-2, urban development typically results in the generation of contaminants such as organic materials; nutrients; metals; petroleum compounds; sediment; pathogens; and chemical pesticides, herbicides and fertilizers. Specific sources for the generation of such contaminants from Master Plan development may include (but not be limited to) parking lots, roadways and vehicle maintenance sites (e.g., heavy metals, trash and debris, sediment, nutrients, pathogens and oil & grease); food service facilities (e.g., trash and debris, nutrients, organic compounds and oxygen demanding substances); landscaping (e.g., sediment, nutrients, organic compounds, oxygen demanding substances, pathogens and pesticides/herbicides); and sewer/portable septic facilities (e.g., oxygen demanding substances and pathogens). Urban contaminants accumulate primarily in streets, parking lots and drainage facilities, and are picked up in runoff during storm events. Contaminant loading is notably higher during initial runoff generation (i.e., the "first flush"), and in arid climates (such as southern California) contaminant loading is higher during the first storm event of the rainy season due to accumulation of contaminants during the dry season. As previously noted, runoff within and from the campus would increase as a result of Master Plan implementation (i.e., due to construction of additional impervious surfaces), with a corresponding increase in runoff contaminant loading potential. The transport of urban contaminants from the Master Plan area to downstream receiving waters could result in significant water quality impacts related to increased turbidity, oxygen depletion and toxicity to associated species.

As described under Regulatory Framework, Master Plan implementation would require conformance with applicable provisions of the NPDES Phase II Small MS4 Permit. Such conformance would entail implementing an approved SWMP that describes BMPs, measurable goals, and timetables for implementing the six identified Minimum Control Measures (as outlined below), as well as measures to reduce the discharge of pollutants to the MEP and provide annual reporting on the progress of SWMP implementation. The District is currently in the process of preparing multi-agency and campus-specific SWMPs to conform with NPDES Small MS4 Permit requirements. While specific measures to address the noted requirements for Master Plan implementation would be determined by the District, SWRCB and RWQCB as part of the permit process, they would likely include (but not be limited to) the following types of standard industry measures derived from the previously referenced BMP sources, the NPDES Small MS4 Permit text and consultation with District staff. These measures are organized as follows to address specific criteria and requirements (including the six Minimum Control Measures) identified in the NPDES Small MS4 Permit.

Public Education/Public Participation

The District would implement appropriate efforts to provide public education for water quality issues related to long-term uses and activities proposed under the Master Plan. Such efforts would conform with all applicable state requirements (e.g., for noticing), and may include measures such as: (1) installing signs, displays, bulletin boards or similar facilities (e.g., storm drain stencils) in public areas within the campus to provide information on water quality issues, concerns and requirements; (2) conducting public seminars and/or training sessions on water quality topics at campus facilities; (3) organizing programs to utilize student (or other) volunteers for community clean-up and/or education programs (e.g., household hazardous material collections); and (4) distributing water quality educational materials (e.g., do/don't lists) to faculty, students, staff and/or members of the public.

Illicit Discharge Detection and Elimination

The District would initiate a campus-wide program to detect and eliminate illicit discharges. This program may include efforts such as (1) developing/modifying guidelines to prohibit (including enforcement provisions) illicit discharges that may potentially occur on campus (e.g., disposal of detergents or solvents used in maintenance activities); (2) developing/updating a map of campus storm drain facilities, and scheduling regular inspections of activities/facilities where illicit discharges may occur (e.g., food preparation and vehicle/equipment maintenance sites), as well as storm drain (or other sites) where such discharges may be present; (3) using storm drain stencils or other public education/participation methods (as described above) to discourage illicit discharges; and (4) developing a plan to detect, track and clean up illicit discharges.

Construction Site Storm Water Runoff Control

As noted above under short-term impacts, the District would conform with all applicable NPDES Construction Permit requirements, including the implementation of an SWPPP and related BMPs. The types of BMPs likely to be used to provide regulatory conformance during construction activities are listed above under Short-term Construction Impacts. The District (or designated representative) would also conduct regular inspections of applicable construction activities to ensure conformance with NPDES and SWPPP requirements.

Post-construction Storm Water Management

The District would implement long-term post-construction BMPs to address runoff and water quality concerns, including appropriate site design, source control and treatment control measures to reduce the discharge of contaminants to the MEP. Specific BMPs would be determined by the District, SWRCB and RWQCB as part of the NPDES permit process, and may include the types of measures outlined below. In addition, all site design, source control and treatment control BMPs included in the multi-agency and campus-specific SWMPs (as previously described) would be subject to regular monitoring. As part of the ongoing SWMP process, the District would submit an annual report to the RWQCB detailing the progress of SWMP implementation, including assessments of BMP effectiveness and proposed remedial measures (if applicable).

Site Design BMPs - Site design BMPs are intended to achieve storm water control by mimicking the natural hydrologic regime. They may include the following types of runoff control measures (many of which are also identified above in this section under Runoff Volumes/Velocities): (1) preserving existing undeveloped/vegetated areas; (2) minimizing impervious surface area (e.g., through additional landscaping); (3) installing rooftop catchment devices to collect associated storm flows; (4) using detention or retention basins to regulate offsite flows; (5) using sprinkler precipitation sensors/shut-off valves and seasonal schedules to reduce irrigation; (6) installing permeable pavement in appropriate areas (e.g., pedestrian pathways and parking areas); (7) using native and/or drought-tolerant landscaping varieties; (8) directing runoff from developed sites into vegetated areas (e.g., swales adjacent to paved parking areas); (9) installing energy dissipators at all storm drain outlets; and (10) reducing non-storm flows from sources such as vehicle/equipment washing or leaking pipes through education, maintenance and enforcement. These measures would help reduce long-term urban contaminant generation by retaining permeable areas, increasing infiltration, decreasing runoff, minimizing irrigation requirements, using vegetated areas to provide runoff filtering (e.g., for chemical, organic, hydrocarbon and pathogen contaminants), and reducing runoff velocity (and associated erosion/sedimentation potential) prior to off-site discharge.

<u>Source Control BMPs</u> - Source control BMPs are intended to avoid or minimize the introduction of contaminants into the storm drain and natural drainage systems. The use of source control BMPs for the proposed Master Plan may include the items listed above under Public Education/Participation and Illicit Discharge Detection and Elimination, as well as the following types of measures: (1) implementing programs for regular street sweeping (twice per month) and waste/green waste collection and disposal/recycling (weekly); (2) conducting regular maintenance and/or repair of landscaped areas (weekly), drainage facilities (at least three times per year, including once at the beginning of the rainy season), and other pertinent sites (e.g., areas experiencing erosion or ponding); (3) using integrated pest management (IPM) principles such as biological controls, habitat manipulation and use of pest-resistant plant varieties to minimize chemical applications; (4) proper application techniques for chemical pesticides, herbicides and fertilizers when used (e.g., conformance with manufacturer's specifications); (5) providing covered and enclosed sites (i.e., to avoid runon/runoff) for trash storage, material loading, hazardous material use/storage and vehicle/equipment repair, maintenance and washing areas; (6) providing closed drainage systems (e.g., sumps with no direct connections to storm drains) for vehicle/equipment repair or maintenance areas, as well as hazardous material use/storage areas; (6) providing a self-contained drainage system with pretreatment (e.g., a clarifier) and connection to a sanitary sewer for vehicle/equipment washing areas; (7) providing a self-contained drainage system with a grease trap and connection to a sanitary sewer for restaurant equipment wash areas; and (8) using permeable pavement and/or directing runoff into vegetation (e.g., grass-lined swales) for paved parking areas. These measures would help reduce long-

term urban contaminant generation by avoiding and/or reducing the discharge of identified urban contaminants and ensuring proper function of storm drain facilities.

<u>Treatment Control BMPs</u> - Treatment control BMPs are intended to mitigate (infiltrate, filter or treat) runoff from developed areas, and are required to incorporate (at a minimum) either volume- or flow-based treatment control design standards (as described in the Phase II Small MS4 Permit). As with other BMPs, specific design and location criteria would vary with local conditions and would be determined during the permit process. Treatment control BMPs applicable to the long-term use and operation of proposed Master Plan facilities/activities may include the following types of measures: (1) using inlet and/or in-line filtering/treatment devices such as fossil filters®, other media (e.g., sand) filters, continuous separation chamber (CDS®) units, nutrient separating baffle boxes equipped with hydrocarbon filters, Vortechs® systems, or detention/retention basins, to treat all runoff derived from developed Master Plan areas; (2) using devices such as oil/water separators and/or vegetation-lined swales (or other bio-filtration designs) to treat runoff from appropriate areas including paved parking lots; (3) conducting regular inspections and maintenance of treatment control BMPs (at least three times per year, including once at the beginning of the rainy season) to ensure proper working order and effective storm water treatment; and (4) implementation of additional BMPs as necessary (and required by appropriate regulatory agencies) to provide effective storm water treatment. These measures would help reduce long-term urban contaminants by treating campus storm water flows to remove significant portions of the identified pollutants prior to offsite discharge, as well as ensuring proper function of storm drain and BMP facilities.

Pollution Prevention/Good Housekeeping

The District would implement programs to monitor potential contaminant-generating activities and associated drainage facilities/BMPs within the campus. This would include a number of the inspection/monitoring and maintenance efforts described above under Illicit Discharge Detection and Elimination, Construction Site Storm Water Runoff Control and Post-construction Storm Water Management, as well as educational programs for faculty, staff, students and the public described under Public Education/Public Participation. In addition, the District would work closely with the RWQCB to ensure that the campus SWMP and BMPs are minimizing pollutant sources and discharge, and to initiate remedial measures to ensure conformance with the MEP standard as necessary.

4.6.3 Mitigation Measures

Based on the above discussions, implementation of the proposed Master Plan will conform with all applicable regulatory requirements, including NPDES permits and the RWQCB San Diego Basin Plan. Such conformance will entail the preparation and implementation of detailed plans to address potential water quality issues during short-term Master Plan construction (an SWPPP) and long-term use/operation (an SWMP) activities. Because the preparation and effective implementation of these plans (along with related monitoring, maintenance and reporting efforts) are required under existing laws and regulations, all potential hydrology/water quality impacts associated with the proposed Master Plan would be thereby avoided or reduced below a level of significance and mitigation is not required.

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4.7 GEOLOGY/SOILS

The following analysis of geology/soils includes applicable data from site-specific geotechnical investigations conducted for proposed campus facilities (Kleinfelder, Inc. [Kleinfelder] 2000; GEOCON, Inc. [GEOCON] 2002). Additional information was derived from published literature, including sources such as the California Geological Survey (CGS, formerly the California Division of Mines and Geology [CDMG]) and the Natural Resources Conservation Service (NRCS, formerly the U.S. Soil Conservation Service [SCS]).

4.7.1 Existing Conditions

Geologic/Topographic Setting

The Cuyamaca College campus is located in the western portion of the Peninsular Ranges Geomorphic Province, a region characterized by northwest trending structural blocks and intervening fault zones. Much of the Peninsular Ranges Province is underlain by bedrock ranging in age from Jurassic (approximately 213 to 144 million years old) to Cretaceous (approximately 144 to 65 million years old). Jurassic bedrock includes metavolcanic and metasedimentary units (e.g., the Santiago Peak Volcanics), while Cretaceous rocks encompass a number of granitic intrusive bodies associated with the southern California Batholith. The westernmost portion of the Peninsular Ranges in San Diego County includes of a thick sequence of marine and non-marine sedimentary rocks overlying the noted bedrock units, with sedimentary strata occurring generally west of the campus. The above described geologic units are locally overlain with surficial materials such as alluvium and topsoil, with more recent uplift and erosion in the San Diego region producing the characteristic canyon and mesa topography present today. Geologic and surficial exposures within the site include recent fill and topsoil, Quaternary (between approximately 11,000 and 2 million years old) alluvium and colluvium, Cretaceous granitic rocks and Jurassic metavolcanic and metasedimentary units. Additional description of these materials is provided below under Stratigraphy.

The campus is located in an area that is transitional between the coastal plain to the west and mountainous terrain to the east. Much of the central portion of the campus has been developed or disturbed in association with existing college facilities. Undisturbed areas occur within steeper slopes and/or native habitat along the western, northern and eastern campus boundaries. The existing on-site topographic profile is characterized by steeply sloping terrain along the western and northern campus boundaries, grading down to more level areas in the central, eastern and southern portions of the campus. The campus is incised by several small drainages trending south or southeast. On-site elevations range from a low of approximately 330 feet above mean sea level (AMSL) in the southeastern corner of the campus, to a high of approximately 580 feet AMSL along the northwestern campus boundary.

Stratigraphy

Three surficial deposits and two geologic formations were determined to be present onsite during the referenced site geotechnical investigations and review of published geologic literature. The surficial deposits include recent fill and topsoil, as well as Quaternary alluvium and colluvium. The on-site geologic formations consist of Cretaceous granitic rocks and Jurassic metavolcanic and metasedimentary units. All of these deposits are described below in order of increasing age.

<u>Artificial Fill</u>

Fill deposits were observed at the proposed Science and Technology Mall site (Kleinfelder 2000), and are likely present in other portions of the campus in association with existing development such as structures and roads. Existing fill deposits within the campus are generally assumed to be undocumented (i.e., no documentation of conformance with industry/engineering standards), based on observations in the Science and Technology Mall Geotechnical Investigation (Kleinfelder 2000) and the lack of known documentation for other areas. It is possible that such documentation may exist for one or more of the existing fills within the campus, and that such records could be utilized for site-specific development. Observed fill at the Science and Technology Mall site consists predominantly of fine- to medium-grained, silty to clayey sand extending to maximum depths of approximately 6.5 feet below grade. Fill deposits present in other campus areas are expected to be of similar composition and extent.

Topsoil

Topsoil encountered during the referenced geotechnical investigation for the Science and Technology Mall site was described as silty to clayey sand, with observed thicknesses of between 2 and 8 feet (Kleinfelder 2000). No topsoil was observed during geotechnical investigation of the Phase II Parking Lot site. Topsoil mapping has been conducted within the entire campus by the SCS (1973), with four distinct soil series (each incorporating several individual soil types) mapped on site. Specifically, mapped soil series in the campus include the Friant, Las Posas, Placentia and Visalia series, with summary description of on-site soil characteristics provided in Table 4.7-1, *Description of Mapped On-site Soil Properties*. Based on the previously disturbed/developed nature of much of the proposed Master Plan development area, it is considered likely that associated native soils have been largely removed or altered (e.g., by mixing with fill). Native topsoils in undisturbed areas (e.g., open space along the western, northern and eastern boundaries) are expected to be generally intact as described in Table 4.7-1.

Quaternary Alluvium/Colluvium

Colluvial deposits were encountered during subsurface exploration (trenching) conducted for the Phase II Parking Lot (GEOCON 2002). These materials were described as fine- to medium-grained, silty to clayey sand, with observed deposits extending to depths of between 2 and 4 feet below grade. Undifferentiated alluvium and colluvium have also been mapped in much of the eastern and central portions of the campus, including most or all areas proposed for development under the proposed Master Plan (CDMG 1992a and 1992b). These deposits are described as unconsolidated silt, clay, sand and gravel, and likely include colluvial materials derived from steeper areas to the west and north, as well as alluvial deposits associated with the Sweetwater River to the south.

Cretaceous Granitic Rocks

Decomposed (i.e., weathered) granitic rock was encountered during subsurface explorations (trenching and boring) conducted for both previous studies (Kleinfelder 2000, GEOCON 2002). These materials are described as fine- to coarse-grained, clayey to silty gravelly sands, with the degree of weathering generally decreasing with depth. Weathered granitic rock was observed extending to maximum depths of between 9 and 25 feet below the surface at the Science and Technology Mall site, and between 4 and 11.5 feet at the Phase II Parking Lot site (Kleinfelder 2000, GEOCON 2002). Below these depths, underlying materials consisted essentially of unweathered granitic rock and excavations could not proceed. Undifferentiated granitic rock is mapped in steeper areas along much of the western and northern campus boundaries (CDMG 1992a and 1992b). Granitic rocks, along with the Jurassic units described below, are widely exposed in the project vicinity and likely underlie the entire campus at depth.

Table 4.7-1
DESCRIPTION OF MAPPED ON-SITE SOIL PROPERTIES

Soil	Physical Characteristics/Location	Expansion Potential	Reactivity	Erosion Potential
Friant Rocky Fine Sandy Loam, 30 to 70 percent slopes	Well-drained, shallow fine sandy loam with surface area including 2 to 10 percent rock outcrops. Occurs on steep slopes along portions of the western and northern campus boundaries.	Low	Slightly acidic (pH 6.1 to 6.5)	High
Las Posas Fine Sandy Loam, 9 to 15 percent slopes, eroded	Well-drained, moderately deep fine sandy loam occurring along much of the western boundary and in the south-central portion of the campus.	High, due to clay subsoil	Neutral (pH 6.6 to 7.3)	Moderate
Las Posas Fine Sandy Loam, 15 to 30 percent slopes, eroded	Well-drained, moderately deep fine sandy loam occurring on steep slopes along the northern campus boundary.	High, due to clay subsoil	Neutral (pH 6.6 to 7.3)	Moderate to high
Placentia Sandy Loam, Thick Surface, 2 to 9 percent slopes	Moderately well-drained and deep sandy loam with a thick surface layer. Occurs in much of the central, north-eastern and southwestern campus areas.	High, due to clayey subsoil	Slightly to moderately acidic (pH 5.6 to 6.5)	Low to moderate
Visalia Sandy Loam, 0 to 2 percent slopes	Moderately well-drained and deep sandy loam occurring in the southeastern portion of the campus.	Low	Slightly acidic (pH 6.1 to 6.5)	Low

Source: SCS 1973.

Jurassic Metavolcanic and Metasedimentary Rocks

Undifferentiated Jurassic metavolcanic and metasedimentary rocks have been mapped along minor portions of the western and northwestern campus boundaries by the CDMG (1992a and 1992b). These units include the Santiago Peak Volcanics, which consist of mildly metamorphosed volcanic, volcaniclastic (i.e., sedimentary deposits derived wholly or in part from volcanic sources), and sedimentary strata. Jurassic rocks are more widely exposed in areas to the west and south of the site, and likely underlie portions of the campus at depth.

Groundwater

Groundwater was not encountered during geotechnical investigation of the Science and Technology Mall site, with subsurface exploration efforts (borings) extending to maximum depths of 25 feet below the existing ground surface (Kleinfelder 2000). Seepage was encountered at depths of 8 to 9 feet below grade in two of the trenches excavated during geotechnical investigation of the Phase II Parking Lot (GEOCON 2002). The observed seepage was located at the contact between colluvial deposits and the underlying granitic rock, with the referenced geotechnical report noting that such conditions are not uncommon, particularly after periods of heavy rainfall. While no other known data are available regarding groundwater depths within the campus, the Middle Sweetwater Groundwater Basin encompasses much of the central and eastern portions of the campus. This basin exhibits average and maximum depths below the surface of approximately 60 and 80 feet, respectively (San Diego County Water Authority [SDCWA] 1997), with additional information provided in Section 4.6 of this EIR (Hydrology/Water Quality).

Structure and Seismicity

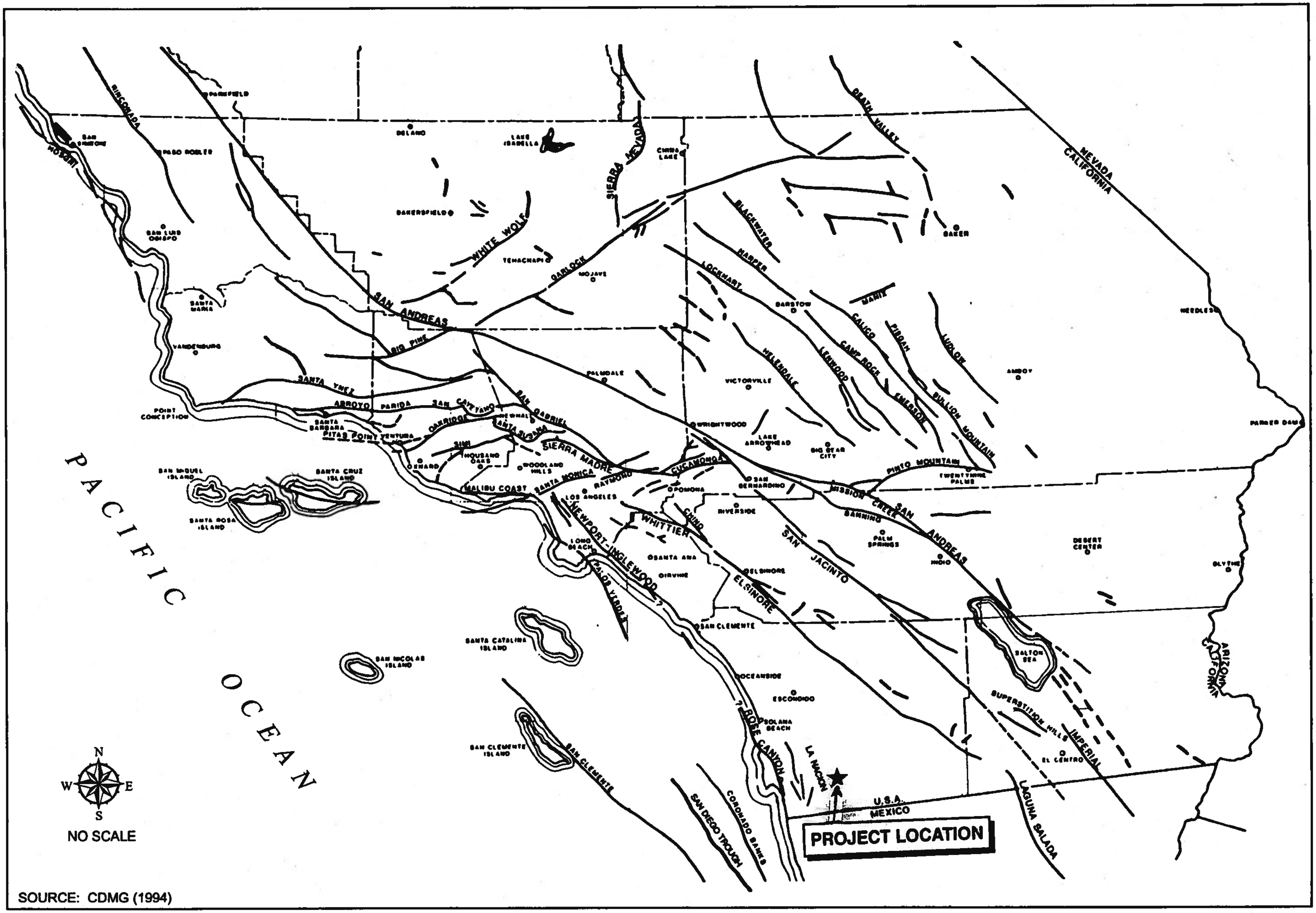
The campus is within a broad, seismically active region characterized by a series of northwest-trending faults associated with the San Andreas Fault System (Figure 4.7-1, *Regional Fault Map*). The campus is within a California Building Code (CBC) Seismic Zone 4, and is in an area traditionally characterized as having "low to moderate" seismic activity (Kleinfelder 2000). No active or potentially active faults are mapped or known to occur within or adjacent to the campus, with the closest active faults located within onshore portions of the Rose Canyon Fault Zone approximately 12 miles to the west. Active faults are defined as those exhibiting historic seismicity or displacement of Holocene (approximately 11,000 years or less in age) materials, while potentially active faults have no historic seismicity and displace Pleistocene (between approximately 11,000 and 2 million years old) but not Holocene strata.

No CGS Fault-Rupture Hazard Zones are present within the campus and vicinity (CDMG 1999), with the closest such hazard zones located along the above described onshore sections of the Rose

Canyon Fault Zone. The noted Fault-Rupture Hazard designations are intended to "[r]egulate development near active faults so as to mitigate the hazard of surface fault rupture" (CDMG 1999).

A number of additional major faults occur within approximately 40 miles of the campus, as described in Table 4.7-2, *Major Fault Zones and Seismic Parameters in the Campus Region* (see also Figure 4.7-1). Based on an analysis of local seismicity, the Science and Technology Mall Geotechnical Investigation estimated the maximum peak ground acceleration (or ground shaking) levels likely to affect the Science and Technology Mall site as 0.27g and 0.22g, where g equals the acceleration due to gravity (Kleinfelder 2000). These two acceleration values are associated with Upper Bound Earthquake (UBE) and Design Basis Earthquake (DBE) events (respectively) along the Rose Canyon Fault Zone. As defined in Section 1629A.2.6 of the CBC, the UBE is defined as "[t]he ground motion that has a 10 percent probability of being exceeded in 100 years (return period of about 950 years) or maximum level of motion which may ever be expected at the building site within the known geological framework." Similarly, the DBE is defined as "[t]he ground motion that has a 10 percent probability of being exceeded in 50 years (return period of about 475 years)." Because the Science and Technology Mall site is located at the western end of the proposed Master Plan development area (and therefore closest to the Rose Canyon Fault Zone), the identified ground acceleration levels are also considered the maximum values likely to affect the campus from a UBE or DBE along the Rose Canyon Fault Zone.

In addition to the major faults described above, several smaller fault traces have been mapped east of the campus. The closest of these structures is located approximately 3.5 miles to the east-northeast, and extends northwest-southeast between the El Cajon Valley and the community of Campo. This structure has been informally designated as the Lyons Valley Fault Zone, although the referenced Science and Technology Mall Geotechnical Investigation concludes that "[t]here has been insufficient work done on this feature to even positively identify it as a fault, let alone assign to it an estimate of total slip." This structure has been mapped as a fault by the CDMG, although it is designated as pre-Quaternary in age, with no known evidence of seismicity or displacement over approximately the last two million years (CDMG 1994).



SOURCE: CDMG (1994)

Regional Fault Map

CUYAMACA COLLEGE MASTER PLAN EIR

HELIX

Figure 4.7-1

Table 4.7-2
MAJOR FAULT ZONES AND SEISMIC PARAMETERS IN THE CAMPUS REGION

Fault Zone	Distance/Direction From Campus(Miles)	Maximum Earthquake Magnitude
Rose Canyon	12/W	6.9
Coronado Bank	25/W	7.4
Elsinore-Julian	32/NE	7.1
San Diego Trough	35/W	6.9
Earthquake Valley	36/NE	6.5
Elsinore-Coyote Mountain	37/E	6.8
Newport-Inglewood (offshore)	40/NW	6.9
La Nacion[1]	7/W	6.75

[1] The La Nacion Fault Zone is considered potentially active, with no definitive evidence for late-Quaternary displacement.
Source: Kleinfelder 2000; CDMG 1992c.

Regulatory Framework

The campus is subject to a number of regulatory guidelines related to potential geologic hazards. These guidelines typically involve measures to evaluate risk and mitigate potential hazards through design, engineering and/or construction techniques. Specific standards that may be applicable to the design and construction of projects proposed by the Master Plan include applicable elements of the California Code of Regulations (CCR) Title 24 (i.e., the CBC), as well as existing industry standards such as the International Conference of Building Officials (IBCO 2000) Uniform Building Code (UBC) and the "Greenbook" Standard Specifications for Public Works Construction (Greenbook Committee of Public Works Standards 2003). In addition to these standards, construction on campus would be subject to applicable criteria (i.e., erosion/sedimentation and groundwater extraction/disposal) associated with permit requirements under the National Pollutant Discharge Elimination System (NPDES). Requirements under the NPDES are discussed in Section 4.6 of this EIR (Hydrology/Water Quality) due to their relationship to water quality issues.

As previously noted in this section, the CBC encompasses a number of requirements related to geologic issues, including seismic safety (Chapter 23); foundation and retaining wall design (Chapter 29); site demolition and excavation (Chapter 33); and grading, drainage and erosion control (Chapter 70). The CBC is based on the UBC (as described below), with specific amendments/modifications to reflect site-specific conditions in California.

The UBC and Greenbook standards are produced through joint efforts by industry groups such as the American Public Works Association (APWA) and IBCO to provide standard specifications for engineering and construction activities, including measures to accommodate seismic loading. The referenced guidelines, while not comprising formal regulatory requirements per se, are widely accepted by regulatory authorities and are routinely included in related standards such as the CBC and municipal building/grading codes. The UBC and Greenbook guidelines are regularly updated to reflect current industry standards and practices, including criteria such as the American Society for Testing of Materials (ASTM).

4.7.2 Impacts

The previously referenced geotechnical investigations concluded that observed soil and geologic conditions on campus would not preclude the proposed developments, provided that identified recommendations are implemented. These recommendations are associated with a number of potential seismic and non-seismic geologic hazards, and include measures such as: (1) review of project grading and/or foundation plans by a qualified geotechnical engineer prior to development; (2) observation and testing of applicable grading and excavation activities by a qualified geotechnical engineer; (3) implementation of grading and design specifications identified in the associated geotechnical investigations and/or subsequent reviews and field observations; and (4) conformance with existing industry standards and guidelines, including applicable CBC, UBC, Greenbook and ASTM specifications.

Based on the above conclusions, the location of the two subject sites within the Master Plan area, and the general proximity and anticipated geologic similarity of these sites to the remaining Master Plan development areas, the referenced geotechnical investigations are considered generally applicable to the campus as a whole. That is, while site-specific geotechnical investigation would be required for all new construction conducted under the proposed Master Plan, the types of geologic/soil conditions and related hazards expected within campus would likely not deviate substantially from those described in the two noted geotechnical investigations.

With these assumptions, a discussion of significance thresholds used in evaluating potential geology/soils impacts is provided below, followed by an analysis of potential seismic and non-seismic geology/soils impacts associated with implementing the proposed Master Plan. As noted above, potential erosion and sedimentation impacts are discussed in Section 4.6 of this EIR, due to the relationship with water quality concerns and associated NPDES regulatory requirements.

Thresholds of Significance

Pursuant to significance threshold discussions provided in CEQA and the State CEQA Guidelines, project-related impacts associated with geologic hazards (not including erosion/sedimentation which is addressed in Section 4.6 of this EIR) would be considered potentially significant if they would:

- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death, involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure (including liquefaction) or landslides;

- Be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project; or

- Be located in areas of expansive or corrosive soils.

Impact Analysis

Seismic Hazards

Ground Rupture

Ground rupture and related phenomena, such as lurching (i.e., the rolling motion of surface materials associated with passing seismic waves), can impact surface and subsurface structures through effects such as the physical displacement of supporting strata and/or the structures themselves. No significant impacts related to seismic ground rupture (and related effects) are anticipated from implementation of the Master Plan, however, based on the fact that no known active or potentially active faults likely to generate or be subject to such phenomena are located within or adjacent to the campus. While the potential for ground rupture to occur on site cannot be totally discounted (ground rupture effects could, for example, be associated with major regional seismicity or unknown faults within the site), such potential is considered extremely low.

Ground Acceleration

Based on information provided above under Existing Conditions, the maximum peak ground acceleration levels anticipated for UBE and DBE events on campus are approximately 0.27g and 0.22g, respectively. These acceleration levels could result in moderate to severe ground shaking hazards and significant associated impacts to proposed facilities such as building foundations and utilities (depending on factors including event duration, motion frequency and underlying soil/geologic conditions). Pursuant to the discussion of conclusions and recommendations in the previous geotechnical investigations, however, all proposed Master Plan facilities would incorporate appropriate measures to accommodate projected seismic loading. Specifically, this would include any additional or revised recommendations identified in site-specific geotechnical studies or field observations to be conducted for all new construction under the Master Plan, as well as conformance with CBC, UBC and/or Greenbook specifications. In addition, all Master Plan projects would be subject to structural plan check review and approval by the Division of the State Architect (DSA). As previously noted, these guidelines and reviews are intended to provide standard industry specifications and oversight for engineering and construction activities, including measures to accommodate seismic loading parameters.

Specific measures that may be used to accommodate seismic loading pursuant to the above requirements include proper site preparation (e.g., clearing and grubbing); removal/replacement or treatment (e.g., recompaction) of unsuitable materials (e.g., compressible soils); use of approved fill with appropriate composition, depth, moisture content and compaction parameters (pursuant to ASTM requirements); use of appropriate design, and location criteria for pavement, foundations and footings; provision of adequate site drainage to avoid saturation of surficial materials (e.g., positive grading and use of subdrains); and use of properly prepared and reinforced concrete and masonry. Implementation of and conformance with the described geotechnical investigations/recommendations, industry standards, and technical reviews/testing would reduce potential seismic ground acceleration impacts associated with the proposed Master Plan below a level of significance.

<u>Liquefaction and Seismic Settlement</u>

Liquefaction is the phenomenon whereby soils lose shear strength and exhibit fluid-like flow behavior. Loose, granular (i.e., cohesionless) soils with relative densities of less than approximately 70 percent are most susceptible to these effects, with liquefaction generally restricted to saturated or near-saturated soils at depths of less than 50 feet. Liquefaction most typically results from seismic ground acceleration, with related settlement and loss of support potentially resulting in significant impacts to surface and subsurface facilities.

The geotechnical investigation conducted for the Science and Technology Mall site concluded that liquefaction and seismic settlement do not constitute a potential geologic hazard, due to the cohesive nature of local soils and the strength characteristics of the underlying decomposed granitic rock, as well as the lack of observed groundwater to depths of 25 feet (Kleinfelder 2000). No seismic analysis was conducted for the Phase II Parking Lot site. As noted under Existing Conditions, the anticipated nature and type of surficial and underlying materials within the Master Plan development area are essentially the same as those described for the Science and Technology Mall site. While shallow permanent groundwater is not expected within the campus (refer to Existing Conditions and Section 4.6), perched groundwater was observed during previous geotechnical investigation (GEOCON 2002) and similar conditions could occur elsewhere within the campus (especially during the rainy season). Accordingly, even though local soil and geologic conditions are generally not susceptible to liquefaction and related settlement, such effects (and related significant impacts) could potentially occur in association with Master Plan development. As discussed for ground acceleration, however, the proposed project would incorporate applicable seismic design measures pursuant to site-specific geotechnical studies and observations, as well as conformance with CBC, UBC, DSA and/or Greenbook specifications.

Specific design measures that may be used to address potential liquefaction and settlement hazards pursuant to the above requirements include: (1) excavation (or overexcavation) and treatment, and/or removal and replacement (i.e., with engineered fill) of unsuitable materials such as saturated alluvium; (2) installation of subdrains in appropriate areas to avoid or reduce near-surface saturation; (3) use of proper fill composition, depth, moisture content and compaction (per ASTM requirements); and (4) installation of permanent, drought-tolerant landscaping to minimize irrigation requirements.

Implementation of and conformance with the described geotechnical investigations/recommendations, industry standards, and technical reviews/testing would reduce potential project impacts related to seismically-induced liquefaction and settlement below a level of significance.

<u>Landslides</u>

The occurrence of landslides and other types of slope failures (e.g., mudslides) are influenced by a number of factors, including slope grade, geologic and soil characteristics, moisture levels and vegetation cover. Landsliding can be triggered by one or more specific (or combinations of) events, including seismic activity, gravity, fires and precipitation. No existing landslide or slope instability hazards were identified during the previous geotechnical investigation with the Science and Technology Mall study concluding that "[t]he probability of a slope failure is very low in the shallow fill...residual soil and...underlying formational granite at the existing and proposed slope inclinations." The southeastern portion of the campus is designated by the CDMG (1995) as "marginally susceptible" to landslide hazards (or Area 2), with this designation defined as "[g]entle to moderate slopes, where slope angles are generally less than 15 degrees...landslides and other slope failures are rare within this area, although slope hazards are possible on some steeper slopes...". The remaining areas of the campus are designated as "Urbanized Areas" and are not assessed for landslide hazards.

Based on the above observations, the previously noted similarities in geologic and soil characteristics throughout the campus, and the generally level nature of the site and immediately adjacent areas, no significant impacts related to seismically-induced landslides are anticipated from implementation of the proposed Master Plan. As noted for other impact discussions, however, all new construction proposed under the Master Plan would be subject to site-specific geotechnical investigation prior to development. If significant landslide hazards are identified during such analyses (e.g., previously undetected landslide deposits in proposed development areas), the proposed development(s) would be required to conform with associated geotechnical recommendations, as well as applicable CBC, UBC, DSA and/or Greenbook standards. Specific measures that could be used to address potential landslide hazards pursuant to the above requirements include: (1) excavation (or overexcavation) and treatment, and/or removal and replacement (i.e., with engineered fill) of unstable materials; and (2) use of structural stabilizing techniques such as buttressing. Implementation of and conformance with the described geotechnical investigations/recommendations, industry standards, and technical reviews/testing would reduce potential project impacts related to seismically-induced landsliding below a level of significance. Additional discussion of potential non-seismic slope instability hazards is provided below in this section under Manufactured Slope Instability, and in Section 4.6 (Hydrology and Water Quality) under Erosion and Sedimentation.

Tsunamis, Seiches and Earthquake-induced Flooding

Tsunamis (commonly referred to as tidal waves) are seismic sea waves produced by events such as submarine earthquakes or volcanic eruptions, and can generate impacts related to inundation in coastal zones. Because the campus is located approximately 14 miles inland and between approximately 330 and 580 feet AMSL, no significant impacts related to tsunamis are anticipated. Seiches are defined as wave-like oscillatory movements in enclosed or semi-enclosed bodies of water such as lakes or reservoirs, and are associated with seismic activity. This phenomenon can result in flooding damage and related effects (e.g., erosion) in surrounding areas from spilling or sloshing water, as well as increasing pressure on containment structures. Because the site is not located adjacent to or within close proximity of any large upgradient water bodies (Loveland Reservoir is the closest large water body at approximately 10 miles upstream), no significant impacts related to seiche effects are anticipated from project implementation. While it is conceivable that a seismically-induced failure of the Loveland Reservoir Dam could potentially result in inundation of portions of the Master Plan site (via the nearby Sweetwater River channel), dam structures are subject to extensive regulatory controls through the state Division of Safety of Dams. Accordingly, the probability of such a catastrophic failure is considered extremely low, and no associated significant impacts are anticipated from implementation of the proposed Master Plan.

Non-Seismic Hazards

Manufactured Slope Instability/Retaining Walls

The proposed Master Plan projects could potentially include manufactured (cut and fill) slopes and/or rigid concrete or masonry retaining walls. These types of structures can be subject to instability effects from causes including gravity movement, excessive moisture or hydrostatic pressure (retaining walls), improper design/construction and lack of vegetation cover. Resulting conditions such as soil slump or creep, rockfalls, soil saturation and wall failure can generate significant impacts to the structures themselves as well as downslope facilities. As noted for other impact discussions, all new construction proposed by the Master Plan would be subject to site-specific geotechnical investigation prior to development. If significant hazards related to proposed manufactured slopes or retaining walls are identified during such analyses, the proposed facilities would be required to conform with associated geotechnical recommendations, as well as applicable CBC, UBC, DSA and/or Greenbook standards.

Specific measures that could be used to address potential slope/wall instability hazards pursuant to the above listed requirements include: (1) limiting manufactured slopes to maximum grades of 2:1 (horizontal to vertical); (2) use of approved and properly compacted fill for the outer 15 feet of fill slopes; (3) use of benching for original ground slopes with grades exceeding 6:1; (4) installation of permanent, drought-tolerant landscaping and irrigation management (e.g., seasonal schedules) to minimize runoff; (5) use of properly designed, installed and maintained terrace drains; (6) implementation of permanent slope maintenance efforts (e.g., recompacting loosened soil, replacing vegetation and cleaning drains); (7) use of appropriate setbacks for facilities on slopes with ratios exceeding 3:1; (8) observation of all cut slope excavation and appropriate fill slope placement by a qualified engineering geologist; (8) use of approved backfill materials and incorporation of proper soil pressure considerations in individual wall design; (9) use of proper drainage systems (e.g., filter fabric and properly sloped perforated pipe) and waterproofing to avoid excessive hydrostatic pressure; (10) conformance with site-specific geotechnical recommendations on foundation/footing design and location; and (11) implementation of additional measures identified during site-specific geotechnical investigation and/or field observations. Implementation of appropriate design measures and conformance with the noted technical recommendations/industry standards would reduce potential impacts related to manufactured slope/retaining wall instability below a level of significance.

Expansive Soils

Expansive (or shrink-swell) behavior is attributable to the water-holding capacity of clay minerals and can adversely affect the integrity of facilities such as foundations or pavement. A number of mapped native soils within the campus exhibit moderate to high expansion potential due to clay content (refer to Table 4.7-1). As previously described, however, much of the area proposed for development under the Master Plan has been previously developed or disturbed, with native soils expected to have been largely replaced or altered during previous activity. Site-specific geotechnical investigations conducted for the Science and Technology Mall and Phase II Parking Lot sites support this assumption, with all surficial and underlying materials observed or encountered during these efforts identified as exhibiting low very low or low expansion potential (Kleinfelder 2000, GEOCON 2002). Based on these observations, the potential for occurrence of expansive materials in the proposed Master Plan development area is considered generally low.

Despite the above conclusion, some potential exists for the occurrence of expansive materials, especially in areas with little or no previous disturbance (e.g., portions of the Phase II and Phase IV Parking Lot sites south of Rancho San Diego Parkway). The presence of expansive on-site materials could potentially result in significant impacts to proposed facilities such as pavement, utilities or footings/foundations. As noted for other impact discussions, all new construction proposed under the Master Plan would be subject to site-specific geotechnical investigation prior to development. If significant hazards related to expansive soils are identified during such analyses, the proposed facilities would be required to conform with associated geotechnical recommendations, as well as applicable CBC, UBC, DSA and/or Greenbook standards. Specific measures that could be used to address such potential hazards pursuant to the above requirements include a number of remedial options such as: (1) removal and replacement of unsuitable materials with fill exhibiting a UBC Expansion Index of less than 50; (2) restricting the placement of expansive materials to provide appropriate minimum depths/distances from finish grade/manufactured slope faces; and (3) use of UBC (or other appropriate) compaction and moisture content criteria to treat expansive soils (e.g., mixing with low-expansion fill). Implementation of these types of measures and conformance with the noted technical recommendations/industry standards would reduce potential impacts related to expansive soils below a level of significance.

Corrosive Soils

The site-specific geotechnical investigation conducted for the Science and Technology Mall site included laboratory analysis of soils samples to measure corrosion potential associated with resistivity (i.e., electrical resistance), pH, soluble chlorides and soluble sulfates. Based on this analysis, it was concluded that the tested soils exhibited corrosion values for resistivity and pH that are "[n]ormally considered slightly corrosive to buried metals and concrete…", and that " Soluble chloride and sulfate contents were observed to be very low." The report also concludes that "A competent corrosion engineer should be retained to further evaluate the corrosion potential..." (Kleinfelder 2000). No corrosion potential was identified in the site-specific geotechnical analysis conducted for the Phase II Parking Lot site (GEOCON 2002). As noted in Table 4.7-1, a number of mapped topsoils on campus exhibit acidic pH levels that could be corrosive to proposed facilities. Native topsoils are assumed to have been largely replaced or altered during previous development activities, although some potential exists for the occurrence of residual soils in areas with little or no previous disturbance (e.g., portions of the Phase II and Phase IV Parking Lot sites south of Rancho San Diego Parkway).

Long-term exposure to corrosive soils could potentially result in deterioration and eventual failure of underground concrete and metal structures, including foundations or utility lines. All new construction proposed under the Master Plan would be subject to site-specific geotechnical investigation prior to development. If significant hazards related to corrosive soils are identified during such analyses, the proposed facilities would be required to conform with associated geotechnical recommendations, as well as applicable CBC, UBC, DSA and/or Greenbook standards. Specific measures that could be used to address such potential hazards pursuant to the above requirements include: (1) excavation (or overexcavation) and treatment, and/or removal and replacement (i.e., with engineered fill) of corrosive materials; (2) use of non-corrosive and/or corrosion-resistant building materials in appropriate locations; and (3) installation of cathodic protection. Based on the conclusions provided in the referenced geotechnical investigation and the relative uncertainty regarding the presence and extent of corrosive materials within the site, however, associated potential impacts are considered significant and mitigation is identified below in this section.

Drainage/Shallow Groundwater

As noted in Existing Conditions, permanent shallow groundwater was not observed during geotechnical investigation of the Science and Technology Mall or Phase II Parking Lot sites, and is not expected to occur onsite. Perched groundwater was observed during the investigation of the Phase II Parking Lot site, however (GEOCON 2002), and similar conditions could occur elsewhere on campus (especially during the rainy season). Both previous site-specific geotechnical investigations note that proper control of surface drainage in developed areas is imperative to avoid effects such as ponding, saturation of surface and near-surface deposits, erosion and subsurface seepage. A number of recommendations are provided to address potential issues related to shallow groundwater and surface drainage, including: (1) implementation of positive grading to prevent ponding and/or damage to on- or off-site facilities, and to ensure that drainage flows away from foundations and slopes; (2) use of landscaping techniques to minimize irrigation and runoff (e.g., native or drought-tolerant vegetation and seasonal irrigation schedules); (3) use of subdrains in appropriate areas to prevent saturation of surficial materials; (4) observation of subdrain installation by a qualified geotechnical engineer; and (5) mixing of wet soils with drier material prior to use as fill. Implementation of these (or other site-specific geotechnical investigation) recommendations and conformance with applicable guidelines (e.g., the CBC, UBC, DSA and/or Greenbook standards) would reduce potential impacts related to drainage/shallow groundwater below a level of significance.

Oversize Material

The previously referenced geotechnical investigations note that oversize rock fragments could result from project-related excavation of relatively unweathered granitic bedrock. The use of oversize materials in engineered fills can produce effects such as differential compaction and settlement (i.e., varying degrees of settlement over short distances), with related issues including potentially significant impacts to overlying pavement, foundations or building pads. The geotechnical studies identify a number of special handling and placement criteria for oversize materials, including the following recommendations: (1) materials between 12 inches and 4 feet in maximum dimension that are placed in soil fill shall be confined to areas a minimum of 15 horizontal feet from slope faces, 5 feet below finish grade or 3 feet below the deepest utility, whichever is deeper; (2) the placement of materials greater than 4 feet in maximum dimension in soil-rock fill shall be evaluated and approved by a qualified geotechnical engineer on an individual basis; (3) placement of individual oversize materials shall be conducted so as to leave sufficient space for the passage of compaction equipment; and (4) oversize materials that cannot be placed in conformance with the above requirements shall be disposed of in an approved off-site location. Implementation of these (or other site-specific geotechnical investigation) recommendations and conformance with applicable guidelines (e.g., the CBC, UBC, DSA and/or Greenbook standards) would reduce potential impacts related to oversize material below a level of significance.

Compressible Material/Differential Settlement

A number of surficial materials observed in site-specific geotechnical studies or anticipated to occur on campus are potentially susceptible to compression under load, including undocumented fill, topsoil, colluvium and alluvium. Several remedial measures are identified in the noted geotechnical investigations to address these potential hazards, including: (1) conformance with the above-described restrictions on placing oversize materials in fill deposits; (2) removal, including potential lateral and/or vertical overexcavation, of unsuitable materials (e.g., deposits with more than three percent organic content) prior to placing additional approved fill or structural loads; (3) scarification, moisture conditioning (if necessary) and compaction of applicable formational deposits exposed during removal of unsuitable materials prior to placement of fill; (4) conformance with site-specific geotechnical recommendations on foundation/footing design and location; and (5) implementation of settlement monitoring programs for applicable sites (e.g., rock fills). Implementation of these (or other site-specific geotechnical investigation) recommendations and conformance with applicable guidelines (e.g., the CBC, UBC, DSA and/or Greenbook standards) would reduce potential impacts related to compressible material/differential settlement below a level of significance.

4.7.3 Mitigation Measures

The following mitigation, in concert with implementing all applicable recommendations from site-specific geotechnical investigations/observations and conforming with identified industry/regulatory standards, would reduce all identified impacts related to geologic hazards below a level of significance.

MM 4.7-1: If deemed necessary by the project engineering geologist(s), site-specific geotechnical investigations conducted prior to all new construction proposed under the Master Plan shall include an investigation of potential corrosion hazards by a qualified corrosion engineer. The results of these analyses shall be incorporated into the final project design, as appropriate, to mitigate potential corrosion impacts, and may include (but not be limited to) measures such as: excavation (or overexcavation) and treatment, and/or removal and replacement (i.e., with engineered fill) of corrosive materials; use of non-corrosive and/or corrosion-resistant building materials in appropriate locations; and installation of cathodic protection devices.

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4.8 PALEONTOLOGY

Paleontology is the science dealing with pre-historic plant and non-human animal life. Paleontological resources (or fossils) typically encompass the remains or traces of hard and resistant materials such as bones, teeth or shells, although plant materials and occasionally less resistant remains (e.g., tissue or feathers) can also be preserved. The formation of fossils typically involves the rapid burial of plant or animal remains and the formation of casts, molds or impressions in the associated sediment (which subsequently becomes sedimentary bedrock). Because of this, the potential for fossil remains in a given geologic formation can be predicted based on known fossil occurrences from similar (or correlated) geologic formations in other locations. Based on site-specific geotechnical investigations conducted on campus (Kleinfelder 2000) and (GEOCON 2002) sites, as well as published geologic literature (CDMG 1992a and 1992b), geologic formations observed or expected to occur within the campus are described below in order of increasing age. This discussion is followed by assessments of paleontological resource sensitivity and potential project impacts, with additional description of site geology provided in Section 4.7 of this EIR (Geology/Soils).

4.8.1 Existing Conditions

Quaternary Alluvium/Colluvium

Quaternary (between approximately 11,000 and 2 million years old) alluvial and colluvial deposits have been observed or mapped in much of the eastern and central portions of the campus, including most or all areas proposed for development under the proposed Master Plan. Observed colluvial materials consist of fine- to medium-grained, silty to clayey sand, while mapped alluvial/colluvial deposits are described as unconsolidated silt, clay, sand and gravel. Fossil occurrences in alluvial/colluvial materials from western San Diego County (including the project site) are rare, although isolated occurrences of more resistant materials (e.g., teeth) are known from areas including El Cajon Valley (Demere and Walsh 1994).

Cretaceous Granitic Rocks

Cretaceous (approximately 144 to 65 million years old) granitic rock has been observed or mapped in much of the proposed Master Plan development area and is expected to underlie the entire campus. These materials are typically highly weathered near the surface, with weathered (or decomposed) deposits consisting of fine- to coarse-grained, clayey to silty gravelly sands. Fossil occurrences are unknown and unexpected in granitic rocks due to their igneous (i.e., molten) origin.

Jurassic Metavolcanic and Metasedimentary Rocks

Jurassic (approximately 213 to 144 million years old) metavolcanic and metasedimentary rocks have been mapped along minor portions of the western and northwestern campus boundaries and likely underlie portions of the campus at depth. These units include the Santiago Peak Volcanics, which consist of mildly metamorphosed volcanic, volcaniclastic (i.e., sedimentary deposits derived wholly or in part from volcanic sources), and sedimentary strata. While fossil occurrences in the volcanic members of the Santiago Peak Volcanics are unknown and unexpected (for similar reasons as noted above for granitic rocks), some of the metasedimentary units have produced important microfossils (e.g., radiolarians) and macroinvertebrates (e.g., belemites and clams).

Paleontological Resource Sensitivity

Each of the above formations has been evaluated for paleontological resource potential and assigned a sensitivity rating, based on the following criteria derived from sources including Demere and Walsh (1994) and the City of San Diego (2001).

- <u>High Sensitivity</u> - Geologic formations with high sensitivity generally produce (or have strong potential to produce) vertebrate fossil remains and/or other fossil materials of substantial scientific value.

- <u>Moderate Sensitivity</u> - Moderate sensitivity is generally assigned to formations exhibiting either: (1) known occurrences of poorly preserved, common (i.e., abundant) or stratigraphically unimportant fossil remains; or (2) formations with a strong but unproven potential to produce important fossils (e.g., vertebrates).

- Low Sensitivity - Formations with low sensitivity typically include materials that are geologically recent and/or formed in high energy environments (e.g., alluvial deposits), and contain relatively small numbers of invertebrate fossil remains that are not of substantial scientific value.

- Unknown Sensitivity - Unknown sensitivity is assigned to formations which are not currently known to produce paleontological resources, but which have some potential for producing such remains based on their sedimentary origin.

- No Sensitivity - Formations with no sensitivity include materials with no potential to produce fossil remains due to their molten origin, such as granitic or volcanic rocks.

4.8.2 Impacts

Thresholds of Significance

The following significance thresholds are derived from related discussions provided in CEQA and the State CEQA Guidelines, as well as the City of San Diego Significance Determination Guidelines (City of San Diego 2001). Project-related impacts to paleontological resources would be considered potentially significant if they would:

- Involve grading that includes more than 1,000 cubic yards (cy) of material and extends to depths of 10 feet or more within high sensitivity geologic formations.

- Involve grading that includes more than 2,000 cubic yards (cy) of material and extends to depths of 10 feet or more within moderate sensitivity geologic formations.

Impact Analysis

Based on the discussions of site geology provided in this section, Section 4.7 (Geology/Soils) and the two site-specific geotechnical investigations (Kleinfelder 2000, GEOCON 2002), the geologic formations considered most likely to be encountered during grading for the proposed Master Plan projects include Quaternary alluvium/colluvium and Cretaceous granitic rocks. Neither of these deposits exhibit moderate or high potential for the occurrence of sensitive paleontological resources (Table 4.8-1, *Paleontological Resource Potential Cuyamaca College*), with no associated significant impacts anticipated from implementation of the proposed Master Plan. The probability of encountering Jurassic metasedimentary and/or metavolcanic units during construction activities related to the proposed Master Plan is considered low. This conclusion is based on the fact that surface exposures of these units are limited to areas north and/or west (i.e., outside) of the developable portion of the campus, as well as their general stratigraphic position beneath the described Cretaceous granitic rocks. Because of the noted sensitivity of metasedimentary units and the fact that stratigraphic conditions in the northern campus area are not well documented, however, excavation into the sensitive formations could result in impacts to the resources potentially present with those formations. Master Plan implementation would result in potentially significant impacts to paleontological resources and mitigation is identified below.

Table 4.8-1
PALEONTOLOGICAL RESOURCE POTENTIAL CUYAMACA COLLEGE

GEOLOGIC FORMATION	SENSITIVITY RATING
Quaternary Alluvium/Colluvium	Low Sensitivity
Cretaceous Granitic Rocks	No Sensitivity
Jurassic Metavolcanic and Metasedimentary Rocks	Low or High Sensitivity[1]

[1] Volcanic units exhibit no sensitivity and metasedimentary units (including applicable members of the Santiago Peak Volcanics) exhibit high sensitivity.
Source: Demere and Walsh 1994; City of San Diego 2001.

4.8.3 Mitigation Measures

The following measures will be required if the site-specific geotechnical investigations to be conducted for new construction under the Master Plan determine that proposed excavation and grading activities may encounter Jurassic metasedimentary or metavolcanic rocks.

MM 4.8-1: A qualified paleontologist will be retained to implement a paleontological monitoring and recovery program as a condition of the project construction contract. A qualified paleontologist is defined as an individual with an M.S. or Ph.D. in paleontology or geology who is a recognized expert in the identification and recovery of fossil materials.

MM 4.8-2: The qualified paleontologist will attend the project pre-construction meeting to discuss proposed grading plans with the project contractor(s). If the qualified paleontologist determines that proposed grading/excavation activities will likely extend to depths of 10 feet or more and include more than 1,000 cy of material within undisturbed portions of high sensitivity Jurassic metavolcanic or metasedimentary rocks, then monitoring will be conducted as outlined below.

MM 4.8-3: The project paleontologist or a paleontological monitor will be onsite during original cutting of the above noted geologic units. A paleontological monitor is defined as an individual who has experience in collection and salvage of fossil materials, and who is working under the direction of a qualified paleontologist. Monitoring of the noted geologic units will be at least half-time at the beginning of excavation, and will be either increased or decreased depending on initial results (per direction by the project paleontologist).

MM 4.8-4: In the event that well-preserved fossils are discovered, the project paleontologist will have the authority to temporarily halt or redirect construction activities in the discovery area to allow recovery in a timely manner (typically on the order of 1 hour to 2 days). All collected fossil remains will be cleaned, sorted, catalogued and deposited in an appropriated scientific institution such as the San Diego Museum of Natural History.

MM 4.8-5: A report (with a map showing fossil site locations) summarizing the results, analyses and conclusions of the above described monitoring/recovery program will be submitted to the District within three months of terminating monitoring activities.

4.9 UTILITIES/SERVICE SYSTEMS

The water and sewer analyses in this section of the EIR is based on the impact studies prepared by Nolte Associates, Inc. for Cuyamaca College (Nolte; 2003a and 2003b, respectively). The discussion provided below summarizes the results and conclusions of those impact studies.

4.9.1 Existing Conditions

Water

The Otay Water District (OWD) provides water services to 129 square miles of southeastern San Diego County, including the campus. All of the potable water delivered by OWD is purchased from the San Diego County Water Authority (SDCWA), which in turn, purchases it from the region's water importer, the Metropolitan Water District of Southern California (Metropolitan). In times of emergency, water is also provided to the area by an interconnection point with a pipeline maintained by the Helix Water District at the intersection of Jamacha Road and Rancho Winchester Lane, north of the campus.

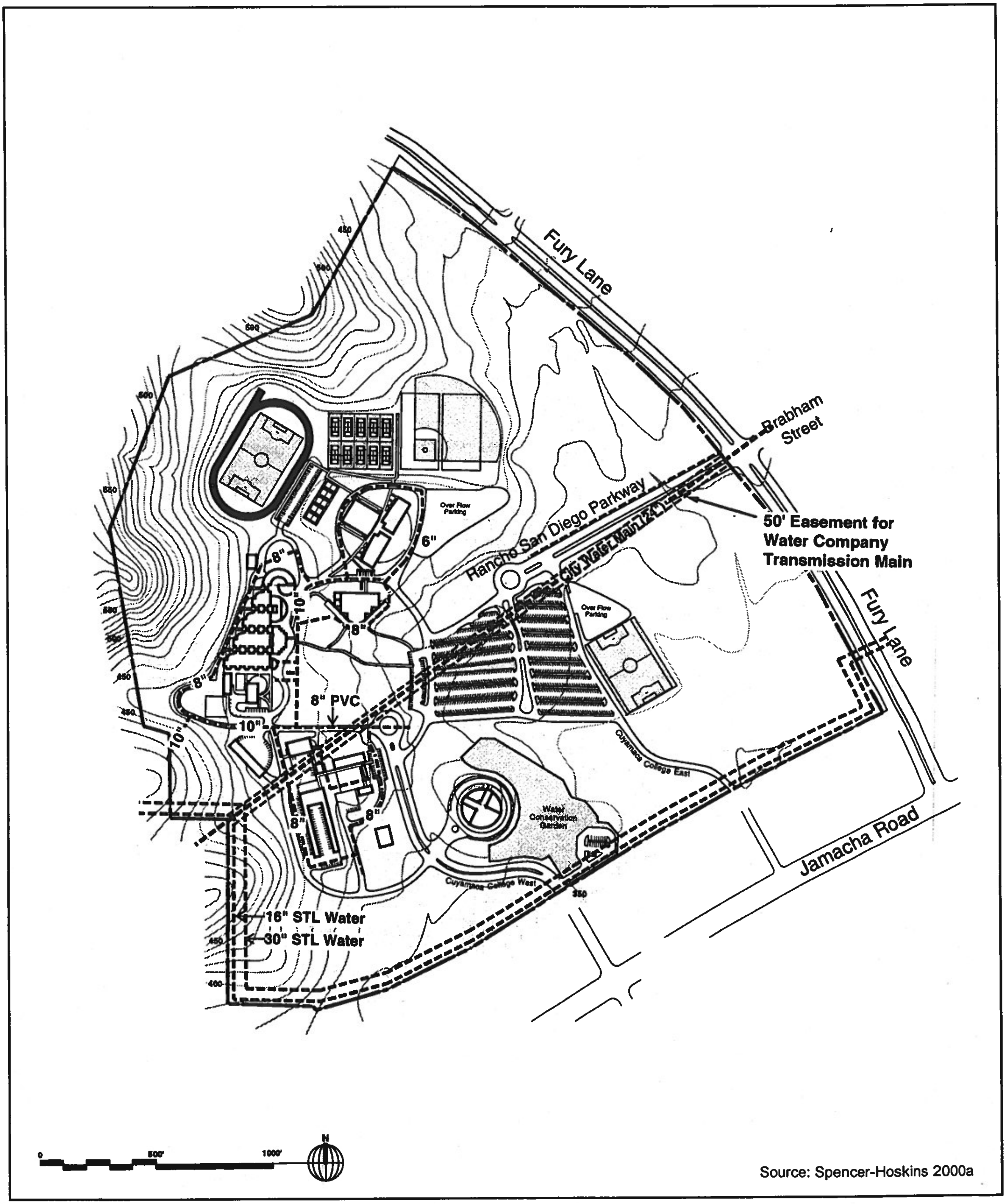
The SDCWA prepared the *2000 Urban Water Management Plan* (2000 Plan) to serve as an update of the *1995 Urban Water Management Plan* and *1997 Water Resources Plan*. The 2000 Plan meets the requirement under the California Urban Water Management Planning Act to provide a comparison between projected water use and water supply sources for the next 20 years. The 2000 Plan projects water sources and demands for average/normal water years through 2020 and single and multiple dry water years. The SDCWA anticipates in the 2000 Plan that water demands would be met through 2020 and water supplies will be sufficient during future single and multiple dry water years (SDCWA 2000).

The SDCWA, Metropolitan and local jurisdictions are actively pursuing alternatives to supplement existing water systems and supplies in response to potential future water shortages. Alternatives being pursued to address potential problems associated with earthquakes, drought and continued population growth include resolution of problems associated with the California Aqueduct, transfer of water provided from federal projects and agricultural operations, construction of local emergency water storage reservoirs, water conservation and reclamation programs, and desalination plants. The SDCWA operates a number of effective long-term water conservation programs, which resulted in a total water savings in excess of 25,000 acre-feet during fiscal year 1998-99. As a result of such programs, Metropolitan recently announced that it expects to meet southern California's imported water demands for the next 20 years (Metropolitan 2003). In an effort to minimize campus water use, the Grounds Department on the campus currently works closely with the Ornamental Horticultural Department and the OWD's Water Conservation Garden staff to implement water conservation measures for landscaping, such as use of drought-tolerant species and irrigation schedules.

Two public water mains (16- and 30-inch-diameter steel pipelines) extend along the southern boundary of the campus from Fury Lane. From these mains, a 10-inch-diameter pipeline enters the campus from the west and runs along the north side of the Warehouse/Maintenance Building and continues north to the Learning Resources Center (LRC) and Physical Education (P.E.) Complex. Smaller pipelines (six to eight inches in diameter) extend from the 10-inch-diameter pipeline and provide water to the buildings on the campus. A 50-foot-wide SDCWA easement and water main traverse the campus in a southwest to northeast direction. The easement originates off-site and extends northeasterly from the intersection of Jamacha Boulevard and SR-94/Campo Road, runs across the campus between buildings N and O, the southeastern portion of the Central Green, the northern portions of parking lots 1 and 2 and the eastern terminus of Rancho San Diego Parkway, and into Brabham Street. A 24-inch-diameter water main extends from an off-site OWD reservoir and runs within the portion of the SDCWA easement that traverses the campus. Figure 4.9-1, *Existing Potable Water Lines*, shows the location of the existing water lines and easements on the campus. Through these connections, the campus currently consumes approximately 89,700 gallons per day (gpd) of potable water (Klaahsen, pers. comm. 2003).

Sewer

OWD provides sewer services to approximately 5,000 homes and businesses within the Jamacha drainage basin, including Cuyamaca College. Wastewater collected by OWD flows through a 27-inch-diameter PVC sewer truck line within Jamacha Road and is diverted to the Ralph W. Chapman Water Recycling Facility, operated by OWD, or the Rancho San Diego Pump Station, operated by San Diego County (Nolte 2003b). The average daily flow within this sewer truck line is



Existing Potable Water Lines

CUYAMACA COLLEGE MASTER PLAN EIR

Figure 4.9-1

HELIX

approximately 2.3 mgd (Nolte 2003b). The Ralph W. Chapman Water Recycling Facility currently recycles (reclaims) approximately 1.3 million gallons per day (mgd) of water (Nolte 2003b). Treated water is transported to eastern Chula Vista via a dedicated pipeline system and used to irrigate a golf course, elementary and high school playing fields, public parks, roadway landscapes and various other approved uses (OWD 2002). The average flow to the Rancho San Diego Pump Station is approximately 1.0 mgd (Nolte 2003b).

Sewer service is provided to the campus via an eight-inch-diameter polyvinyl chloride (PVC) gravity pipeline that extends down Cuyamaca College Drive East to Jamacha Road. The capacity of this pipeline is approximately 0.44 cubic feet per second (cfs) and it currently flows at approximately 0.20 cfs. This line traverses westerly across the campus, south of the Central Green and parking lots 1 and 2. Four- to eight-inch-diameter laterals extend from this pipeline and service the buildings on the campus. Figure 4.9-2, *Existing Sewer Lines*, shows the location of the existing sewer lines on the campus. The 27-inch-diameter sewer truck line within Jamacha Road connects to the 8-inch-diameter pipeline from the campus. The capacity of this pipeline is approximately 6 mgd and its current flow is approximately 2.8 mgd (Klaahsen, pers. comm. 2003).

Solid Waste Disposal

Waste Management of San Diego currently provides solid waste disposal services to the campus and surrounding areas. Solid waste collected from the campus is transported to a Waste Management transfer station in El Cajon and then transported to landfills. It is likely that the majority of solid waste from the transfer station is disposed of in Sycamore Canyon Landfill and Otay Annex Landfill (the two closest landfills to the campus). The remainder of the waste is likely transported to other landfills within the County of San Diego (County) or to other counties. In 1999, approximately 15 percent of the County's waste was disposed of outside of the County (County of San Diego 2002). The Sycamore Canyon Landfill is located in Santee and is permitted to receive up to 3,300 tons of waste per day. The daily average inflow in 1999 was 2,830 tons (County of San Diego 2002). This landfill is currently in the process of obtaining additional acreage for facility expansion. The Otay Annex Landfill in Chula Vista has a daily permitted inflow of 5,000 tons. The daily average inflow in 1999 was 2,830 tons (County of San Diego 2002). An expansion of the Otay Annex Landfill was approved in 2000.

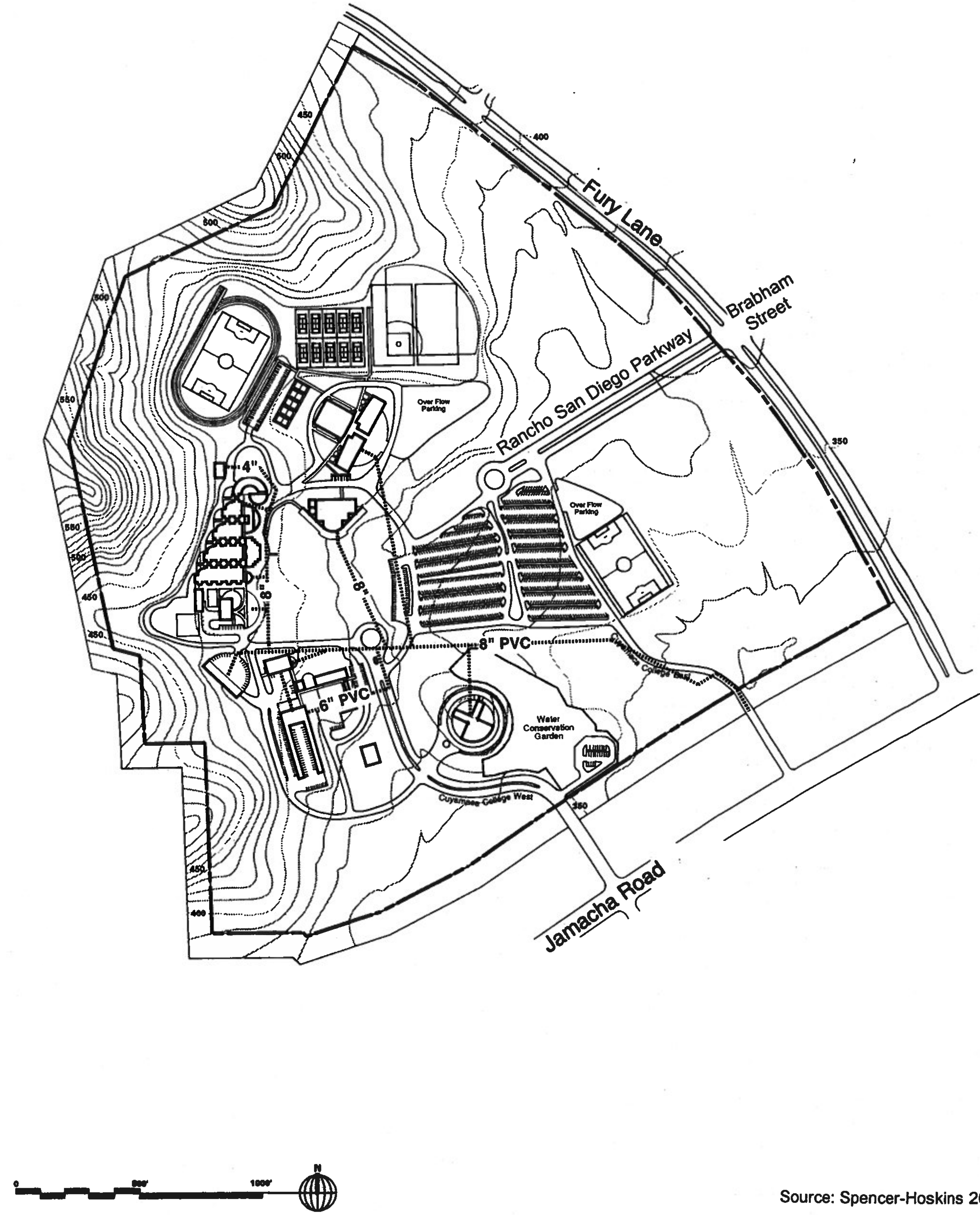
In 2002, the campus generated approximately 447.4 tons of solid waste. Due to implementation of a campus-wide recycling program, the campus was able to recycle approximately 291.4 tons (65.1 percent). The solid waste disposed of in landfills in 2002 was 156.0 tons. The campus currently recycles paper products (e.g., cardboard, newspaper, office paper), scrap metal and green waste (e.g., xeriscaping, grasscycling, composting/mulching). The campus also provides recycling information to the employees through brochures, newsletters and workshops.

4.9.2 Impacts

Thresholds of Significance

Thresholds of significance for impacts to utilities and service systems are based on Appendix G of State CEQA Guidelines. Impacts related to utilities and service systems would be considered significant if implementation of the Master Plan would result in one or more of the following:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board
- Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects
- Result in a determination of insufficient water supplies available to serve the project from existing entitlements and resources, or require new or expanded entitlements
- Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments



Source: Spencer-Hoskins 2000a

Existing Sewer Lines

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Figure 4.9-2

HELIX

- Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs

With regard to water service, OWD relies on three criteria to determine whether a project would hinder their ability to service the area near a project in terms of water pressure and quantity. Therefore, a significant impact on water service would be identified if the project would cause:

1. Peak-hour water pressure of less than 40 pounds per square inch (psi).
2. Maximum daily demands plus fire flow water pressure less than 20 psi.
3. Flow velocities in surrounding pipelines greater than eight feet per second under peak-hour demands with the project.

With regard to wastewater flows, OWD has determined that if a sewer line flows at 75 percent of its capacity, a significant impact to that line is identified.

Impact Analysis

<u>Water</u>

With the addition of phased development totaling a maximum of 125,000 assignable square feet (asf), a planned capacity of 15,000 students by the year 2015, and associated heating and cooling systems and fire suppression methods (e.g., sprinklers), the proposed Master Plan would result in an increased demand for potable water service. It is calculated that the average annual water demand would be approximately 149,400 gpd upon buildout of the campus (Nolte 2003a). This means that the average annual water demand would increase by approximately 59,300 gpd (excluding fire suppression). All buildings on the campus would be equipped with sprinklers, which would permit a 50 percent reduction in fire flow volume requirements. The design fire suppression water demand would be no less than 4,000 gallons per minute for a duration of four hours (Nolte 2003a).

It has been concluded based on calculations by Nolte that the two public water mains (16- and 30-inch-diameter steel pipelines) extending from Fury Lane and the 10-inch-diameter pipeline, which enters the campus from these mains, have sufficient capacity and pressure to provide adequate water system service to the campus upon buildout (Nolte 2003a). Buildout of the Master Plan would not impact OWD's potable water distribution network. Under normal campus conditions (no fire suppression) following buildout, the system pressure in the distribution system would not decrease below 40 pound per square inch (psi) and pipeline velocities would not exceed 8 feet per second (Nolte 2003a). The system pressure on the campus would remain above 20 psi under the campus' design fire suppression demands, providing adequate flow and system pressure during a fire (Nolte 2003a).

The proposed construction and remodel projects would not exceed development intensities and demand on the OWD water system. As discussed above, the water supplier to OWD (i.e., Metropolitan and SDCWA) have indicated there are sufficient water supplies to serve the future potable water needs of southeastern San Diego County through 2020. OWD believes that the reservoirs and distribution and transmission pipelines have adequate capacity to service the campus upon buildout. Thus, project impacts related to water demand and associated infrastructure are would be less than significant.

Currently, no projects are scheduled to construct recycled water facilities or distribution pipelines along Fury Lane; therefore, the campus would not immediately connect with such facilities. The campus currently implements water conservation measures for new construction as part of its project design process. Typical measures include the use of low-flow fixtures, drought tolerant landscaping and computer-controlled irrigation systems. In addition, a program to upgrade the existing irrigation system will be in place within the next two years using Proposition R funding. This new system will be connected to a weather system that will provide information to the irrigation system's computer as to rainfall, wind and evapo-transpiration. The computer will then adjust the campus' irrigation schedule accordingly, resulting in a decrease in water used on the campus for irrigation. All of the above efforts will serve to reduce the campus' use of potable water supplies.

Sewer

The proposed construction and remodel projects on the campus would generate an additional 105,000 gpd of wastewater based on projection factors provided by OWD (Nolte 2003b). This estimate is based on the wastewater generation rate of 15 gpd per student provided by OWD. These additional flows (equating to 0.16 cfs) would be conveyed to the existing eight-inch-diameter PVC gravity sewer pipeline that extends from Cuyamaca College Drive East and would result in a total flow in that line of 0.36 cfs (Klaahsen, pers. comm. 2003). Upon buildout of the Master Plan, the average daily flow through the 27-inch-diameter sewer truck line within Jamacha Road would be approximately 2.4 mgd, with a peak hour flow of 6.0 mgd (Nolte 2003b). This means at peak hour, this pipeline would flow at 63.6 percent full, which is below the threshold of 75 percent capacity (Nolte 2003b). Therefore, the Master Plan would not require upsizing of this truck sewer line. The Ralph W. Chapman Water Recycling Facility currently has sufficient capacity available to serve the proposed Master Plan. Thus, project impacts related to sewer services and associated infrastructure would be less than significant.

Solid Waste Disposal

The Master Plan would generate solid waste associated with new construction and operation of the proposed projects. Demolition and construction debris generated during construction would be recycled and/or transported using appropriate methods to landfills. The amount of debris generated during construction is difficult to quantify at this, although much of the construction would occur on undeveloped or minimally improved land.

The Master Plan proposes the development of 125,000 asf of new building space. Based on the City of San Diego Environmental Services Department waste generation rate of 0.0013 ton per year for educational facilities, the Master Plan would contribute an additional estimated 162.5 tons of solid waste per year or approximately 0.4 ton per day. This would increase the campus' waste generation by 36 percent to approximately 1.6 tons per day. These calculations are conservative in that the campus' recycling program would reduce the amount of solid waste generated on the campus. Assuming the continuation of the 65 percent reduction in waste disposal through the campus-wide recycling program, the Master Plan would contribute an additional 56.9 tons of solid waste per year or 0.2 ton per day. Total waste disposal from the campus would increase to approximately 0.6 ton per day upon buildout of the Master Plan. Waste generation is expected to increase at the same annual rate as population growth within the County. The growth of population on the campus is directly related to regional population growth, which is the basis for planning landfill capacity in the region. Because there is unused permitted capacity at both landfills in the area and the proposed Master Plan's contribution would be less than 1.0 ton per day, significant impacts would not occur. In addition, ongoing recycling efforts by the District would ensure their contribution would be minimized.

4.9.3 Mitigation Measures

No significant impacts to water, sewer or solid waste services are identified as a result of the Master Plan and, therefore, require no mitigation.

4.10 NOISE

The following section evaluates potential short-term noise impacts resulting from implementation of the Master Plan. This includes the potential for construction activities associated with the Master Plan to cause a substantial temporary increase in ambient noise levels within or around Cuyamaca College or to expose people to excessive noise levels. Noise impacts associated with traffic and operational sources were determined not to be significant and are discussed in Section 5.3.5 of this document.

4.10.1 Existing Conditions

Noise Descriptors

Noise can be defined as any unwanted sound. Sound levels are usually measured and expressed in units called decibels (dB). Since the human ear is not equally sensitive to all sound frequencies, noise levels are factored more toward human sensitivity using the "A" weighting scale, written as dB(A). Over the audible range of pitch (or frequency), the human ear is less sensitive to low and very high-pitched frequencies, and more sensitive to mid-range frequencies. Figure 4.10-1, *Typical Noise Levels*, illustrates typical noise levels for common events in the environment.

Although the A-weighted noise level indicates the level of noise at a given instance, community noise levels vary continuously. Community noise usually consists of the sum of many distant and indistinguishable sources that create a relatively steady background ambient noise. To account for the variability in sound levels, a mathematical average is used to describe the noise exposure. This time-averaged sound level is defined as the equivalent noise level L_{eq}. In general terms, L_{eq} is the average noise level during the specified time period. Because community receptors are more sensitive to unwanted noise intrusion during the evening hours and at night, state law requires that measured noise during the evening and night be artificially increased to obtain a 24-hour noise descriptor called the Community Noise Equivalent Level (CNEL). The CNEL is obtained by adding five dB to sound levels in the evening hours (7 p.m. to 10 p.m.) and adding ten dB to sound levels at night (10 p.m. to 7 a.m.). The five- and ten-dB increase is applied to account for heightened noise sensitivity during the evening and nighttime hours.

Changes in ambient noise levels are generally perceptible to the human ear at a difference of three dB(A). A five-dB(A) increase represents a more noticeable change, while a difference of 10 dB(A) would be perceived as a doubling of existing levels.

Noise levels from a particular source generally decrease as the distance to the receptor increases. Other factors, such as reflecting surfaces or shielding also affect noise levels at any given location. Generally, traffic noise is reduced by a factor of 3 to 4.5 dB(A) per doubling of distance from the source. Noise from stationary point sources is reduced by 6 to 7.5 dB(A) for every doubling of distance. Noise levels may also be reduced by intervening structures, with a single row of intervening structures attenuating noise levels by 5 dB(A) and a solid wall or berm reduces noise levels by 5to 10 dB(A). In addition, typical residential construction provides noise attenuation of approximately 20 dB(A) with exterior doors and windows closed and approximately 13 dB(A) with doors and windows open.

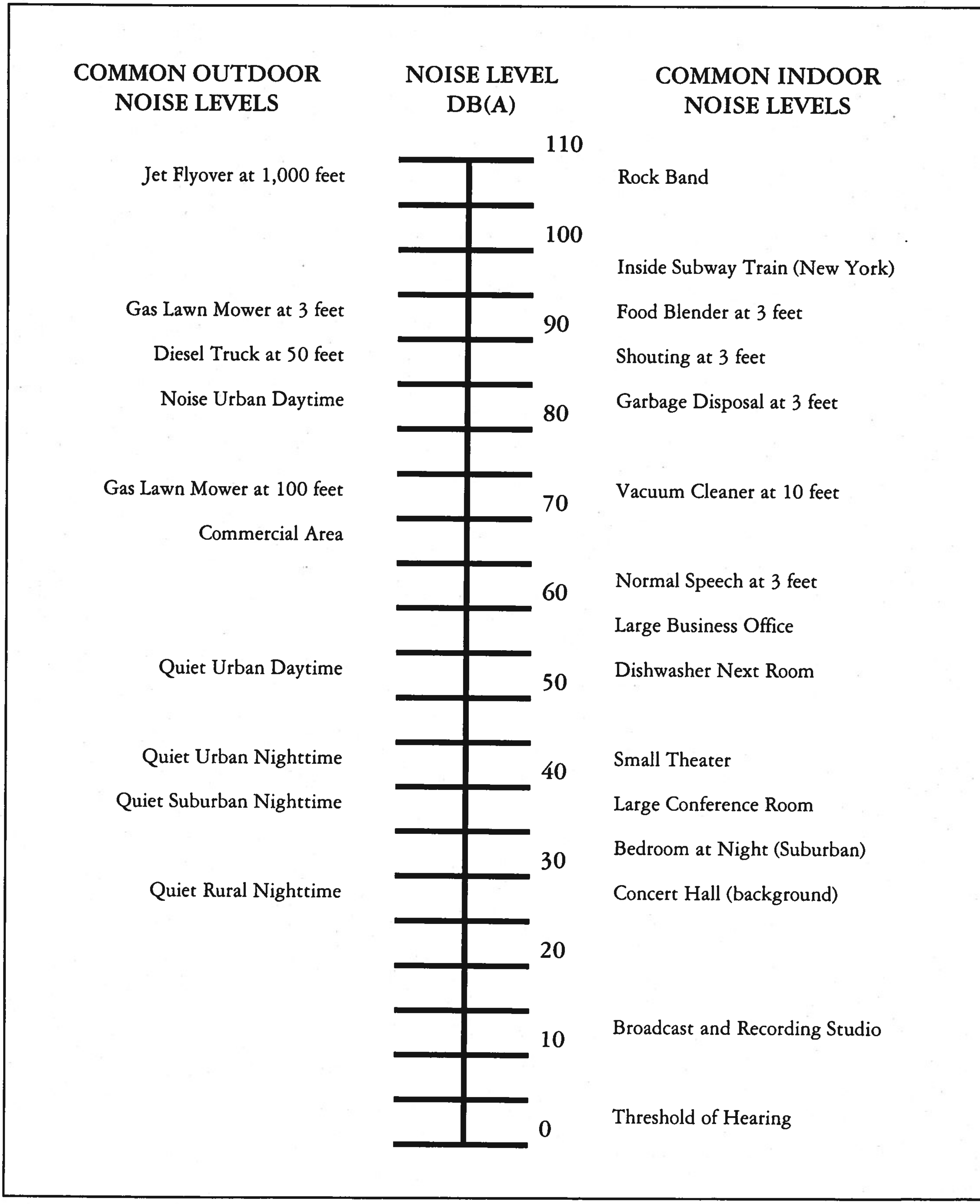
Noise Sensitive Land Uses

Noise sensitive receptors are land uses associated with indoor and/or outdoor activities that may be subject to stress and/or significant interference from noise. They typically include residential dwellings, dormitories, mobile homes, hotels, motels, hospitals, nursing homes, educational facilities (i.e., classrooms) and libraries. On-campus noise sensitive receptors include classrooms in the western portion of campus, the Learning Resource Center in the central portion of campus and the Child Development Center in the southeastern portion of campus. Off-campus noise sensitive receptors in the project vicinity include single- and multi-family residences to the north, east and south.

Regulatory Framework

<u>State</u>

Title 24 of the California Code of Regulations establishes interior noise insulation standards for multi-family dwelling units (that may be extended to single-family units by local legislative action) and hotel/motel rooms. Specifically, interior noise levels attributable to exterior sources must not exceed 45 dB(A) CNEL in any habitable room of new dwelling units or classrooms. Generally, a 65



Typical Noise Levels

CUYAMACA COLLEGE MASTER PLAN EIR

Figure 4.10-1

HELIX

dB(A) CNEL exterior noise exposure will achieve the interior standard provided windows are closed. If windows are open, exterior levels generally must not exceed 55 dB(A) CNEL to meet the standard.

Local

Although Cuyamaca College is generally not subject to local regulations, local standards are considered by the District in an effort to attain consistency with local plans and policies, to the extent feasible. Applicable local policies related to short-term noise include the County of San Diego Noise Ordinance. The County Noise Ordinance establishes a variety of performance standards and/or specific prohibitions on noisy activity. The ordinance limits the allowable noise level that a land use may impose upon another. The standard for the most noise sensitive uses is 50 dB(A) L_{eq} by day and 45 dB(A) L_{eq} at night at the property line. The ordinance also restricts the hours of construction to occur between 7:00 AM and 7:00 PM, Monday through Saturday (except for emergency work) and establishes a 75 dB(A) L_{eq} 8-hour average standard at off-site residences during on-site construction (Section 36.410).

4.10.2 Impacts

Thresholds of Significance

Thresholds of significance for short-term noise impacts are based on Appendix G of State CEQA Guidelines. Short-term noise impacts would be considered significant if implementation of the Master Plan would result in the following:

- A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project

Impact Analysis

The primary source of noise associated with implementation of the Master Plan would be construction activities for the proposed 125,000 assignable square feet of building space and associated parking lots and recreational facilities. Construction of these facilities would occur in phases over the approximately 15-year planning horizon of the Master Plan. Construction would involve several phases including demolition, grading, foundation construction and finish construction. Noise generated by construction equipment can vary in intensity and duration during various phases of construction. The potential noise levels associated with typical construction equipment and outdoor construction activities are identified in Tables 4.10-1, *Typical Construction Equipment Noise Levels* and 4-10-2, *Typical Outdoor Construction Noise Levels*. As shown in Tables 4.10-1 and 4.10-2, maximum construction noise levels at 50 feet would range from approximately 80 to 90 dB(A) L_{eq} , depending on the type of construction equipment and construction phase. As discussed earlier, construction noise is attenuated by a factor of approximately six dB(A) per doubling of distance. Thus, at a distance of 100 feet from the source, the maximum noise level would range from approximately 74 to 84 dB(A) L_{eq}. At a distance of 500 feet form the source, construction noise would range form approximately 60 to 70 dB(A) L_{eq} and approximately 53 to 64 dB(A) L_{eq} at a distance of 1,000 feet from the source. Intervening structures or topography would further attenuate noise emissions. Noise generated during construction activities would result in a temporary increase in noise on campus as well as at the existing residential uses to the south, east and north.

Table 4.10-1
TYPICAL CONSTRUCTION EQUIPMENT NOISE LEVELS

Equipment	Maximum Noise Level dB(A) L_{eq} 50 feet from source
Backhoe	80
Compactor	83
Concrete Mixer	85
Concrete Pump	82
Dozer	85
Grader	85
Loader	85
Pneumatic Tools	85
Scraper	89
Trucks	88

Source: Federal Transit Administration 1995.

Table 4.10-2
TYPICAL OUTDOOR CONSTRUCTION NOISE LEVELS

Construction Phase	Noise Level at 50 feet dB(A) L_{eq}	Noise Level at 50 feet dB(A) L_{eq} with Mufflers
Ground Clearing	84	82
Excavation, Grading	89	86
Foundations	78	77
Structural	85	83
External Finishing	89	86

Source: U.S. Environmental Protection Agency 1971.

Campus development under the Master Plan would occur in areas in close proximity to on-campus noise sensitive uses, including classrooms, the Learning Resource Center and the Child Development Center, as well as at other campus buildings. Construction noise levels could temporarily reach the maximum level of 89 dB(A) L_{eq}, as identified in Tables 4.10-1 and 4.10-2 above, during the daytime at nearby campus buildings. This would represent a temporary substantial increase in ambient noise levels on campus and is considered a potentially significant noise impact.

Off-campus residential uses are located to the north, east and south. Single-family residences are within approximately 600 feet of the northern campus boundary and are somewhat buffered by intervening topography. Single- and multi-family residences are located adjacent to the eastern campus boundary just east of Fury Lane, and multi-family units are located immediately adjacent to the southern campus boundary. Proposed construction activities would occur as close as approximately 1,200 feet from the residences to the north, approximately 500 feet from the residences to the east and immediately adjacent to the residences to the south. Noise generated during construction activities would be audible and possibly a nuisance at these residences. Consequently, existing ambient noise levels would temporarily elevate to some degree, most notably at the apartment complex to the south. Increases at the residences to the north and east would not be substantial due to their relative distance to the campus combined with the presence of intervening topography and/or structures. Such increases at the residences to the south, however, could be substantial in comparison to existing levels due to their adjacency to proposed campus development.

Therefore, construction noise impacts on off-campus residential uses are considered potentially significant.

4.10.3 Mitigation Measures

Implementation of the following mitigation measure would reduce potentially significant construction noise impacts to below a level of significance:

MM 4.10-1: The District shall require by contract specifications incorporation of the following construction noise attenuation measures during construction activities:

- Construction equipment shall be properly maintained and equipped with noise mufflers or other noise-reduction devices to minimize construction noise.
- Stationary construction equipment (i.e., generators, pumps) shall be located, to the extent possible, a minimum of 100 feet from noise-sensitive land uses.
- Laydown and construction staging areas shall be located, to the extent feasible, a minimum of 100 feet from noise sensitive land uses.
- Construction activities shall be limited to the hours between 7:00 AM and 7:00 PM, Monday through Saturday. No construction shall occur on Sundays and legal holidays, except in the case of emergency, to minimize disruption to area residents and on-campus noise sensitive uses.
- Within 72 hours of the commencement of construction activities, the District shall notify in writing academic, administrative and residential areas adjacent to construction activities of the construction activities, hours and duration, including a point of contact in which to report construction noise complaints.

4.11 POPULATION AND HOUSING

The following section summarizes existing and forecasted population and housing conditions for Cuyamaca College and surrounding areas, including the unincorporated communities of Rancho San Diego, Casa de Oro and Mt. Helix. This section also describes population growth directly related to implementation of the Master Plan and other growth that may be indirectly induced by the Master Plan.

4.11.1 Existing Conditions

Population

Regional

Cuyamaca College is located in the unincorporated community of Rancho San Diego within the County of San Diego and falls within the Valle de Oro Community Planning Area. The Valle de Oro Community Planning Area encompasses approximately 19 square miles and includes the communities of Rancho San Diego, Casa de Oro and Mt. Helix. The total population within the Valle de Oro Community Planning area was 40,035 in the year 2000, which includes people living in households, institutional group quarters (i.e., hospitals, correctional institutions, etc.) and noninstitutional group quarters (i.e., group homes, institutional staff residences, etc.) (SANDAG, 2000 Census Data). By the year 2010, the Valle de Oro Community Plan area's population is forecast to reach 42,793 and 47,981 by the year 2020. These forecasts are shown in Table 4.11-1, *Population Growth Forecast within the Valle de Oro Community Plan Area*, below.

Table 4.11-1
POPULATION GROWTH FORECAST WITHIN THE VALLE DE ORO COMMUNITY PLAN AREA 2000 - 2020

	2000	2010	Change 2000 - 2010		2020	Change 2000 - 2020	
			Growth	Percent		Growth	Percent
Household Population	39,845	42,773	2,928	7.3	47,756	7,911	19.9
Group Quarters Population	190	200	10	5.3	225	35	18.4
Total Population	40,035	47,973	7,938	19.8	47,981	7,946	19.8

Source: SANDAG

Cuyamaca College

The campus population consists of students, faculty/staff and other non-Cuyamaca College affiliates. Student enrollment at Cuyamaca College is measured in three different metrics, including Weekly Student Contact Hours (WSCH), headcount and full-time equivalent students (FTES). WSCH refers to the number of hours students spend in class on a weekly basis, headcount refers to the number of individual students registered at Cuyamaca College and FTES is the number of students carrying an average of 15 weekly contact hours for the full academic year. Student headcount as of the 2002-03 academic year was approximately 8,000 students. Existing faculty and staff population totals approximately 275 persons (D. Switzer, pers. comm. 2003).

Regional Housing

Housing within the Valle de Oro Community Planning area consists of a combination of single-family, multi-family and mobile homes. According to SANDAG, there was a total of 14,541 housing units within this area in the year 2000. Of those, 14,270 were occupied (98 percent). A comparison between the existing and projected housing units is summarized in Table 4.11-2, *Housing Growth Forecast within the Valle de Oro Community Plan Area*, below. No housing occurs on the Cuyamaca College campus.

Table 4.11-2
HOUSING GROWTH FORECAST WITHIN THE VALLE DE ORO COMMUNITY PLAN AREA 2000 - 2020

Housing Type	2000	2010	Change 2000 - 2010		2020	Change 2000 - 2020	
			Growth	Percent		Growth	Percent
Single Family	10,662	11,095	433	4.1	12,253	1,591	14.9
Multiple Family	3,763	3,839	76	2.0	4,197	434	11.5
Mobile Homes	206	208	2	1.0	212	6	2.9
TOTAL	14,541	15,142	601	4.1	16,662	2,121	14.6

Source: SANDAG

4.11.2 Impacts

Thresholds of Significance

Thresholds of significance for population and housing impacts are based on Appendix G of State CEQA Guidelines. Population and housing impacts would be considered significant if implementation of the Master Plan would result in one or more of the following:

- Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure).
- Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere.
- Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere.

Impact Analysis

Proposed development under the Master Plan would consist of academic, administrative and recreational facilities and would not include housing or businesses that could result in direct population growth. Implementation of the Master Plan would create approximately 75 new employment opportunities consisting of additional faculty and staff positions. It is anticipated that the majority of the new faculty and staff positions would be filled by persons already residing in the region and thus, would not create a new demand for additional housing. Some faculty and staff positions may be filled by individuals who currently reside outside of the region and they would be expected to seek housing in nearby communities; however, no significant pressure on local housing supply or demand is expected to result from implementation of the Master Plan.

As discussed above, the existing student campus population is approximately 8,000 students. Implementation of the Master Plan would construct new campus facilities and renovate existing structures to accommodate 15,000 students by the year 2015. Thus, implementation of the Master Plan would accommodate an anticipated enrollment increase of 7,000 students. Population growth within the District's boundary is expected to substantially increase by the year 2015. While the percentage increase from 1990 to 1996 was only 10 percent, a 30 percent increase is anticipated by the year 2015 (Spencer Hoskins 2000a). Surrounding areas are projected to experience a 50- to 100-percent population increase over the same time period (Spencer Hoskins 2000a). Therefore, development pursuant to the Master Plan would not directly induce population growth, but rather would accommodate anticipated regional growth.

Cuyamaca College is located in a developed mixed-use area currently served by existing utilities, infrastructure and public services that would accommodate proposed campus development. Further, no new public roadway segments, extensions or widening projects would be required to implement the Master Plan. Therefore, implementation of the Master Plan would not indirectly induce population growth.

Cuyamaca College is a community college and does not contain any campus housing and thus, implementation of the Master Plan would not displace any people or housing. Therefore, no population and housing impacts relative to impact thresholds two and three above would occur.

4.11.3 Mitigation Measures

Because population and housing impacts would be less than significant, no mitigation is required.

5.0 OTHER CEQA SECTIONS

5.1 GROWTH INDUCEMENT

In accordance with Section 15126(d) of the State CEQA Guidelines, an EIR must include an analysis of the growth-inducing impact of the proposed project. The growth inducement analysis must address two issues, as defined in Section 15126.2(d) of the State CEQA Guidelines, including: (1) the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly in the surrounding environment; and (2) the potential for the project to encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. The first issue addresses projects that would remove obstacles to population growth, such as provision of an essential public service or access to a previously inaccessible area while the second issue involves the potential for the project to induce further growth by the expansion or extension of existing services, utilities or infrastructure. The State CEQA Guidelines further state that "[i]t must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment" (Section 15126.2(d)).

Implementation of the Master Plan would construct new campus facilities and renovate existing structures to accommodate 15,000 students by the year 2015. As of 2002-2003, the campus enrolled approximately 8,000 students. Thus, implementation of the Master Plan would accommodate an anticipated enrollment increase of 7,000 students. Development pursuant to the Master Plan, however, would not directly cause an increase in population growth, but rather would accommodate anticipated regional growth. Population growth within the District's boundary is expected to substantially increase by the year 2015. While the percentage increase from 1990 to 1996 was only 10 percent, a 30 percent increase is anticipated by the year 2015 (Spencer Hoskins 2000a). Surrounding areas are projected to experience a 50- to 100-percent population increase over the same time period (Spencer-Hoskins). In addition, rapid enrollment growth at the District's other campus, Grossmont College, may also redirect students to Cuyamaca College. Thus, additional campus facilities which would allow more comprehensive course offering are necessary to respond to the growth anticipated within the surrounding communities and the region.

Development pursuant to the Master Plan represents a continuation of the existing community college uses and would not foster growth through the provision of new and essential public services or access opportunities, nor would it result in development of land in a primarily undeveloped area. Cuyamaca College is located in a developed mixed-use area currently served by existing utilities, infrastructure and public services that would accommodate proposed campus development. Further, no new public roadway segments, extensions or widening projects would be required to implement the Master Plan.

Implementation of the Master Plan would create temporary and permanent part- and full-time employment opportunities. Temporary construction jobs would be generated during the construction period for individual projects developed under the Master Plan. It is anticipated that the construction labor force would already reside in the area or commute from other areas within the region, rather than relocate to the area for a temporary job assignment. Thus, construction would not create a demand for additional housing to accommodate construction personnel.

Permanent faculty and staff positions would be generated to accommodate anticipated enrollment increases. It is anticipated that the majority of the new faculty and staff positions would be filled by persons already residing in the region and thus, would not create a new demand for additional housing. Some faculty and staff positions may be filled by individuals who currently reside outside of the region and they would be expected to seek housing in nearby communities. Implementation of the Master Plan, therefore, is expected to have a minimal effect on the regional population growth because it would mainly draw from the local population for jobs. No significant pressure on local housing supply or demand is expected to result from implementation of the Master Plan. Therefore, growth-inducing impacts are considered less than significant.

5.2 SIGNIFICANT IRREVERSIBLE EFFECTS

Section 15126(c) of the State CEQA Guidelines requires an evaluation of significant irreversible environmental changes that would be caused by the proposed project. Irreversible environmental changes can typically be categorized into one of the following: (1) primary impacts, such as the use of nonrenewable resources (i.e., biological habitat, agricultural land, mineral deposits, water bodies, energy resources and cultural resources); (2) secondary impacts, such as highway improvements that provide access to previously inaccessible areas; and (3) environmental accidents associated with a project. In addition, Section 15126.2(c) of the State CEQA Guidelines state that irretrievable commitments of resources should be evaluated to assure that proposed consumption is justified.

Implementation of the Master Plan could potentially result in significant irreversible impacts to biological and cultural resources. The campus is partially developed and contains a biological preserve. Construction of new buildings would primarily occur within the developed portion of the campus, however, the potential for impacts to biological resources on campus would exist. However, no impacts to the proposed biological preserve would occur (refer to Section 4.4 for additional discussion). Participation in the County MSCP would ensure that impacts to sensitive habitats and covered species would be mitigated through open space preservation in a configuration that is consistent with the Subarea Plan.

The proposed project could potentially impact cultural resources associated with previous farming operations on campus. As discussed in Section 4.5, *Cultural Resources*, a farmstead and orchards were once present on the campus. Although no structures were identified during a cultural resources field survey, deposits in the form of structural remains or refuse filled pits, privy vaults, wells or other features that may contain significant artifact deposits may be present in the undeveloped portions of the campus that were previously used for farming. Impacts to historic resources would represent a significant irreversible change to a non-renewable resource. Potentially significant impacts would be mitigated to below a level of significance through construction monitoring, as described in Section 4.5.

Campus development, pursuant to the Master Plan, would result in irretrievable commitment of non-renewable energy resources, including fossil fuels, natural gas and gasoline for automobiles and construction equipment. Incremental demands on lumber and forest products, sand and gravel, asphalt, petrochemicals, and other construction materials would occur. In addition, an incremental increase in energy demand would also occur during post-construction activities including lighting, heating and cooling of the new and renovated buildings, although reductions in energy usage would also be expected as the District performs remodeling and renovation of existing buildings (e.g., Buildings B, D, E, F, G and P).

The Master Plan would not require construction, expansion or improvement of any road or highway to provide access to currently inaccessible areas. Regional and local access is provided via existing freeways and roadways. Expansions of roads would be consistent with the underlying planning documents.

Additionally, the Master Plan would not result in any major environmental accidents or hazards. Although hazardous materials are used at Cuyamaca College, the District complies with all applicable state and federal standards governing the use, storage, transport and disposal of such material. In addition, the Risk Management Department has developed and maintains the Hazardous Materials Business Plan for the District, which establishes an emergency response plan, employee training program, emergency notification procedures and emergency equipment operations. Compliance with applicable state and federal standards and implementation of the Hazardous Materials Business Plan reduces the likelihood and severity of accidents that could result in irreversible environmental damage.

5.3 EFFECTS FOUND NOT TO BE SIGNIFICANT

Pursuant to Section 15128 of the State CEQA Guidelines, an EIR shall contain a statement briefly indicating the reasons that various potential significant effects of a project were determined not to be significant. Based on initial environmental review of the project, the District has determined that the Master Plan would not have the potential to cause significant adverse effects associated with the following issue areas: agricultural resources, hazards/hazardous materials, land use, mineral resources, noise (mobile and stationary sources), public services (fire, police, schools and parks) and recreation. Issues not considered significant, and the reasons for the finding of no significance for each of these issues, are provided below.

5.3.1 Agricultural Resources

Implementation of the Master Plan would not result in significant impacts to agricultural resources. The campus is partially developed with community college facilities and contains a biological preserve. Areas adjacent to the north, east and south of the campus are developed and areas to the west are partially developed. The campus and surrounding areas do not contain agricultural resources. On-site soils consist of Placentia sandy loam, thick surface, 2 to 9 percent (PfC); Las Posas fine sandy loam, 9 to 15 percent, eroded (LpD2); Las Posas fine sandy loam, 15 to 30 percent, eroded (LpE2); Friant rocky fine sandy loam, 30 to 70 percent (FxG); and Visalia sandy loam, 0 to 2 percent (VaA) (U.S. Department of Agriculture [USDA] 1973). Of these soils, Visalia is designated as prime farmland soil (California Department of Conservation [CDC] 1995), Las Posas (both types) as unique farmland soil (Oster 1994), and Placentia as farmland of statewide importance (CDC 1995). Although review of historical aerial photographs indicates that portions of the campus were used for agricultural operations, the site has been used for community college purposes for over 20 years and will continue to operate as such. Thus, the potential for future agricultural production on campus is extremely low.

Cuyamaca College offers classes and degrees in the field of ornamental horticultural. The campus contains an 8.8-acre outdoor horticultural area in the southern portion of the campus (where previous farming operations occurred). The campus grows a variety of plants in this area and sells them to the public. Implementation of the Master Plan would not impact existing horticultural operations on campus, as no development is proposed within this area.

5.3.2 Hazards/Hazardous Materials

No significant impacts from hazardous materials would occur as a result of the Master Plan. The Master Plan would involve the use of some limited hazardous materials during construction (i.e., fuels, etc.) and a limited increase in hazardous materials usage would occur upon expansion of the Science and Technology Mall project. The Risk Management Department at the District is responsible for managing hazardous materials for the campus. This department oversees transportation, use and disposal of all substances classified as hazardous by federal and state regulations. The Risk Management Department has developed and maintains the Hazardous Materials Business Plan for the District. This plan is updated annually and within 30 days of any significant inventory change and provides an emergency response plan, employee training program, emergency notification phone roster and emergency equipment on site. Several academic departments on the campus utilize hazardous materials, including Art/Graphic Design, Athletics, Automotive Technology, Humanities and Performing Arts, Ornamental Horticultural and Science/Engineering. Minor amounts of hazardous materials are also used in administrative departments on the campus. The Risk Management Department keeps an updated inventory of hazardous materials stored and used on the campus. All transport, use, storage and disposal of the listed hazardous materials would comply with applicable federal and state standards, as required by the Hazardous Materials Business Plan.

No known spills, accidental discharges or leaking underground storage tanks have occurred on campus or in the immediate area. The inactive Jamacha Sanitary Landfill operated as a solid waste disposal facility from 1960 to 1978 and is located approximately 0.5 mile to the south. High concentrations of leached constituents have not been observed in groundwater in conjunction with routine groundwater monitoring activities conducted by the County of San Diego (Sweetwater Authority 2003). Thus, the potential for groundwater and/or soil contamination at the campus is extremely low.

Implementation of the Master Plan would require the demolition and renovation of several buildings, which were built as early as 1978. Due to the age of some of these buildings, there is potential to encounter asbestos-containing building materials (ACBM) and/or lead-based paint during demolition and renovation activities. Prior to demolition or renovation, it would be determined if buildings contain ACBM and/or lead-based paint. If such materials are present, applicable federal and state regulations and appropriate remediation measures would be implemented during and after demolition/renovation. Therefore, no significant impacts with regard to hazardous materials would occur.

The developed areas on the campus are adjacent to steep hillsides covered with vegetation to the north and west. A 10-foot-wide paved access road is located immediately west of Buildings A through K and north of the P.E. Complex. This road separates the buildings from the hillsides that are susceptible to wildfires. Development under the Master Plan would not place structures closer to the hillsides than the existing buildings on site. Development pursuant to the Master Plan also would construct nonflammable surfaces (i.e., pavement) and irrigated landscaping consistent with District standards. Automatic fire sprinkler systems would be installed in all new buildings and water connections for fire fighting would be provided on the campus, as required by the State Architect. In addition, the District maintains an emergency evacuation plan for the campus. Therefore, provisions for wildfire control have been incorporated into the campus operations and Master Plan and would not result in significant hazards impacts.

5.3.3 Land Use

Implementation of the Master Plan would not conflict with any land use plans or policies. No local land use plans or policies have jurisdiction over campus lands owned by the state, with the exception of the County MSCP. Development of the Master Plan would not impact any of the coastal sage scrub that was preserved in the campus in conjunction with the take authorization received by the campus from the County in 1995. Thus, implementation of the Master Plan would not conflict with the open space designation in County MSCP Subarea Plan. A discussion of the project's consistency with the policies of the County MSCP is provided in Section 4.4, Biological Resources.

Implementation of the Master Plan would not divide an established community. Development pursuant to the Master Plan would provide new and renovated campus facilities within an existing community college. No public roadway improvements or off-site development is proposed, which could bisect or divide existing neighborhoods. Therefore, no land use impacts would occur.

5.3.4 Mineral Resources

Cuyamaca College is located in a predominantly developed mixed-use area and no mineral resources are located on campus. Geological formations and soil conditions underlying the campus are not suitable for the extraction of sand and gravel resources. The campus has not been used for mineral resource recovery and is not delineated as a mineral resource recovery site on any land use plan. In addition, the majority of the campus is located within the designated mineral resource zone (MRZ)-1 and the remainder of the campus has been mapped as MRZ-3 by the California Division of Mines and Geology (Kohler and Russell 1982). The MRZ-1 designation includes areas where adequate information indicates that no significant mineral deposits are present or such deposits are unlikely to be present. Areas designated MRZ-3 contain mineral deposits the significance of which cannot be evaluated from available information. Therefore, no impact to mineral resources would occur.

5.3.5 Noise

The proposed increase in student enrollment associated with the Cuyamaca College Master Plan would contribute to transportation noise along local roadways in the vicinity of the campus (as discussed in Section 4.1, Traffic and Parking). The Master Plan would increase long-term traffic volumes by anywhere from approximately 500 average daily trips (ADT) to 1,500 ADT, depending on the roadway segment (refer to Table 4.1-6 for a summary of long-term roadway segment conditions). As noted in the traffic section and in particular the aforementioned table, forecast traffic volumes for the year 2020 with and without the project are generally lower than the planned capacity of the roadway network. Therefore, noise levels along those roadway segments are projected to be lower than levels anticipated in the County General Plan and Valle De Oro Community Plan. The exceptions are the segments of SR-94/Campo Road between Jamacha Boulevard and SR-94/Campo Road and Jamacha Boulevard between Sweetwater Springs Road and San Miguel Street. In both cases, those roadway segments are projected to carry more traffic than the General and Community Plans anticipated with and without the project. The proposed Master Plan's contribution to traffic noise along those segments would not be considered a significant impact of the project because future transportation noise would be greater than anticipated in approved plans without the project. In addition, Master Plan traffic would increase future traffic by 2 to 5 percent along those segments, which would not translate into a substantial increase in transportation noise on a project level.

5.3.6 Public Services

Fire

Fire protection and emergency services within the campus area are provided by the San Miguel Consolidated Fire Protection District. The San Miguel Consolidated Fire Protection District serves an approximately 53-square mile area in east San Diego County, including the unincorporated communities of Spring Valley, Rancho San Diego, Casa de Oro, La Presa, Mt. Helix and the City of Lemon Grove. The San Miguel Consolidated Fire Protection District staffs 138 personnel and currently operates seven stations, with the closest station, Station Number 22, located less than 0.5 mile to the east at 2249 Jamacha Road. Average response emergency response times are less than three minutes (County of San Diego 1996).

Development of the campus, pursuant to the Master Plan, would not include construction of housing or directly increase the population of the area and therefore, would not affect service ratios for the Fire District. Moreover, campus development would adhere to applicable sections of the state fire code, which requires incorporation of automatic sprinkler systems and fire lanes to provide adequate access by Fire Department personnel. Therefore, no impacts to the provision of fire protection services would occur.

Police

Police protection within Cuyamaca College is provided by the District Police Department, which provides 24-hour police services to persons and property within the campus grounds, as well as at adjacent off-site locations. District police officers are sworn Peace Officers pursuant to California Penal Code 830.32(a) and the California Education Code 72330 and have full law enforcement authority throughout the state. The District Police Department established Memorandums of Understanding (MOUs) with local law enforcement agencies in 1998, which allow the Department to have primary operational responsibility for law enforcement and investigative services on college district property, with the assurance that local law enforcement agencies can be called for assistance and mutual aid as appropriate. The County Sheriffs Department provides such assistance to Cuyamaca College. The District Police Department at Cuyamaca College is housed in the Student Services One-Stop Center.

Implementation of the Master Plan would construct new academic, recreation, and parking facilities and renovate existing buildings in order to accommodate 15,000 students by the year 2015, resulting in an increase of approximately 7,000 students. This increase in student population would create a demand for additional police services. The District, however, has anticipated this demand and would incrementally augment on-campus police services and personnel, as needed, during implementation of the Master Plan over the horizon year. Therefore, impacts to police services would be less than significant.

Schools

Implementation of the Master Plan would not substantially affect public school facilities within the vicinity of the campus. Any demand for Kindergarten through 12th grade public education facilities generated by implementation of the Master Plan would be associated with the anticipated population increase, including faculty, staff and students with children who relocate to the area. As discussed in

Section 5.1, it is anticipated that additional faculty and staff positions would likely be filled by qualified area residents. Similarly, the majority of students who attend community college are residents of the general area or region. Thus, those with school age children would likely already be enrolled at existing public schools near their residences and would not create a demand for new or altered school facilities in the campus vicinity. Therefore, no impacts to schools would occur.

Parks

Implementation of the Master Plan would not increase the demand for off-campus public parks. The Master Plan would accommodate campus growth of approximately 7,000 students by the year 2015. As discussed under Growth Inducement above, this increase in campus population and associated increase in faculty and staff would primarily consist of those who already reside in the general area or region. It is anticipated that the future campus population would utilize parks near their residences and thus no new or altered park facilities would be required. Therefore, no impact to parks in the vicinity of the campus would occur.

5.3.7 Recreation

Implementation of the Master Plan would not impact existing neighborhood and regional parks or other recreational facilities. Several public parks are located within the campus vicinity, including Damon Lane County Park (0.3 mile to the north), Deputy Lonnie G. Brewer County Park (one mile to the west), Via Del Parque Park (1.67 miles the southwest), Cottonwood County Park (0.5 mile to the east), Steele Canyon County Park (1.5 mile to the southeast), Windriver County Park (1.2 miles to the northeast) and Woodhaven County Park (1.6 miles to the northeast). These parks would continue to be available to students, faculty and staff at Cuyamaca College.

The campus currently contains recreational facilities, including tennis courts, sand volleyball courts, track, playing fields, a gymnasium and fitness center. Cuyamaca College offers physical education classes and has several athletic teams, including track and field, cross-country, basketball, soccer, golf, tennis and volleyball. Implementation of the Master Plan would require removal of the eastern playing field to accommodate parking needs. All other recreational facilities would be retained and would continue to be available to students, faculty and staff. In addition, the Master Plan would increase recreational facilities on the campus by construction of a swimming pool and expanding shower/locker facilities and indoor activity areas (i.e., aerobics, weight training areas). Therefore, no impacts to recreational resources would occur.

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6.0 CUMULATIVE IMPACTS

Section 15355 of the State CEQA Guidelines defines cumulative impacts as "two or more individual effects, when considered together, are considerable or which compound or increase other environmental impacts." These individual effects may entail changes resulting from a single project or a number of separate projects. The cumulative impact from several projects is the change in the environment that results from the incremental impact of the project when added to other closely related past, present and reasonable foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant impacts taking place over a period of time.

As required by Section 15130 of the State CEQA Guidelines, an EIR must address the cumulative impacts of a project when the project's incremental effect would be cumulatively considerable. Where a lead agency determines the project's incremental effect would not be cumulatively considerable, a brief description of the basis for such a conclusion must be included. The term "cumulatively considerable" means that the incremental effects of the individual project are considerable when viewed in connection with the effects of past projects, other current projects and probable future projects (State CEQA Guidelines Section 15065(c)).

This section addresses project-specific cumulative impacts resulting from implementation of the Cuyamaca College Master Plan.

6.1 PROJECTS EVALUATED FOR CUMULATIVE IMPACTS

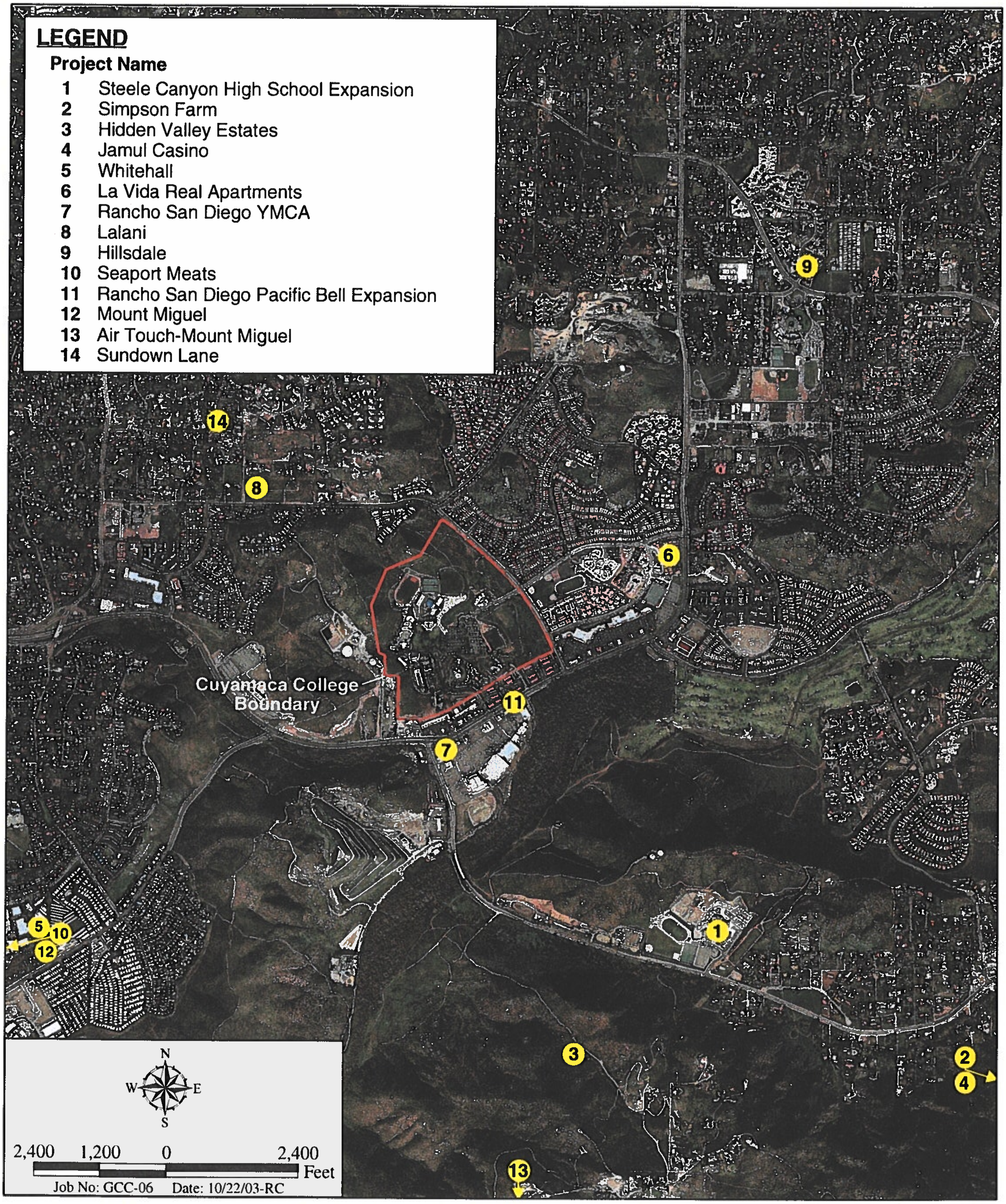
Section 15130(b) of the State CEQA Guidelines requires that an evaluation of cumulative impacts include either:

1. A list of past, present and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency; or

2. A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area-wide conditions contributing to the cumulative impact.

This section examines the cumulative impacts of the Cuyamaca College Master Plan on a regional or local basis depending upon the nature of the impact. For the purpose of this cumulative impact analysis, buildout of the Valle de Oro Community Planning area pursuant to the County of San Diego's General Plan and Valle de Oro Community Plan have been assumed. The analysis of cumulative impacts associated with regional issues was based on regional plans and policies, such as the Circulation Element of the Community and General plans, the Regional Transportation Plan, the Regional Air Quality Standards (RAQS) and anticipated growth of the entire San Diego region.

Specific projects evaluated in this cumulative impact analysis are briefly described below. These projects provide a comprehensive list of projects that have been considered in this cumulative effects analysis. Table 6-1, *List of Cumulative Projects in the Cuyamaca College Study Area*, summarizes these projects and Figure 6-1, *Cumulative Projects*, illustrates their location in relation to the proposed project.



Cumulative Projects

CUYAMACA COLLEGE MASTER PLAN EIR

Figure 6-1

Table 6-1
LIST OF CUMULATIVE PROJECTS IN THE CUYAMACA COLLEGE STUDY AREA

Project Name	Land Use Statistics/Description
Steele Canyon High School Expansion	Expansion of existing facilities and increase in student enrollment by 575 students
Simpson Farm	102 agricultural lots on 157 acres
Hidden Valley Estates	15 residential lots
Jamul Casino	73,469 s.f. casino, 300-room hotel, event center
Whitehall	231 residential dwelling units on 87 lots
La Vida Real Apartments	324 multi-family senior residential dwelling units on 11 acres
Rancho San Diego YMCA	Recreational facility on 7.6 acres
Lalani	21 residential dwelling units
Hillsdale	121 residential dwelling units
Seaport Meats	16.1-acre industrial development on 25 lots
Rancho San Diego Pacific Bell Expansion	Telecommunications switching station expansion on 1.5 acre site
Mount Miguel	16.1-acre industrial development on 25 lots
Air Touch – Mount Miguel	Wireless Communications facility
Sundown Lane	8 agricultural lots on 4.8 acres

In addition to the related development projects in the unincorporated County of San Diego, the District is also proposing a Facilities Master Plan for Grossmont College (Spencer/Hoskins Associates 2000b), which would expand its student facilities and increase enrollment to 20,000 students (from 18,200 students). Although the Grossmont College campus is located over five miles northwest of the Cuyamaca College campus, it serves the same student population as Cuyamaca College since both campuses are located in the same community college District. At Grossmont College, the District is proposing approximately 100,000 assignable square feet of new construction and 1,000 new parking spaces contained within 21 projects to accommodate the needs of the existing and future student population. The population increase is anticipated to occur within the same horizon period as the Cuyamaca College Master Plan, i.e., by 2015.

6.2 CUMULATIVE EFFECTS ANALYSIS

The environmental impacts of the Cuyamaca College Master Plan with respect to traffic/parking, air quality, biological resources, cultural resources (historic resources), hydrology/water quality, geology/soils, paleontology, noise and utilities/service systems (addressed in Section 4.0, *Environmental Analysis*) are considered potentially significant and, therefore, may contribute to cumulative impacts. Cumulatively significant impacts are assessed when: 1) the proposed project would contribute to an existing significant impact occurring in a community where additional increments would exacerbate the impact and/or 2) the community plan identifies cumulative impacts in the community-wide EIR and the project would contribute significantly to those impacts.

6.2.1 Traffic/Parking

Project impacts on traffic in the vicinity of campus are discussed in Section 4.1 of this report and in the traffic technical appendix (Katz, Okitsu & Associates 2003a). As noted in that section, implementation of the Master Plan would contribute to existing traffic congestion on off-campus roadways. Specifically, the project would contribute traffic to several roadway segments which carry more traffic than their existing capacity without the project and, therefore, currently operate at unacceptable levels of service (LOS) as noted in Table 4.1-4, including:

- SR-94/Campo Road (between Jamacha Boulevard and SR-94/Campo Road)
- SR-54/Jamacha Road (from Cuyamaca College Drive West to Willow Glen Drive)
- Jamacha Boulevard (between Sweetwater Springs Road and San Miguel Street)
- Willow Glen Drive (from Steele Canyon Road to Hillsdale Road).

There are also three intersections operating with unacceptable LOS in the campus study area (refer to Table 4.1-5):

- SR-94/Campo Road at Jamacha Boulevard
- SR-54/Jamacha Road at Willow Glen Drive
- SR-54/Jamacha Road at Chase Avenue

The project's contribution of traffic to these roadway segments and intersections would be a cumulatively significant impact since these locations are already impacted by existing traffic. Planned improvements to roadway segments combined with intersection improvements recommended as mitigation in Section 4.1.3 of this report would not bring the LOS to acceptable levels at all locations. Thus, cumulatively significant and unmitigable impacts are expected at the intersections of SR-94/Campo Road at Jamacha Boulevard and SR-54/Jamacha Road at Chase Avenue in the Existing Plus Project condition (refer to Table 4.1-9).

In the long-term, the following roadway segments and intersections are projected to operate at unacceptable levels without the project despite increased capacity with planned improvements (consistent with the County Circulation Element) in place (refer to Tables 4.1-6 and 4.1-7)

- SR-94/Campo Road (between Jamacha Boulevard and SR-94/Campo Road)
- SR-54/Jamacha Road (from Cuyamaca College Drive West to Fury Lane)
- Jamacha Boulevard (between Sweetwater Springs Road and San Miguel Street)
- Avocado Boulevard at Fuerte Drive
- SR-94/Campo Road at Jamacha Boulevard
- SR-54/Jamacha Road at Brabham Street
- SR-54/Jamacha Road at Chase Avenue

The campus' long-term contribution to these roadway segments and intersections would exacerbate predicted congestion and lead to cumulatively significant impacts. Due to right-of-way limitations on SR-94/Campo Road and SR-54/Jamacha Road, there are no feasible mitigation available to lessen these impacts. Intersection improvements planned by the County and proposed as mitigation would not lessen cumulative impacts in all locations as noted in Table 4.1-10. Therefore, significant and unmitigable cumulative traffic impacts would occur in the long-term upon implementation of the Cuyamaca College Master Plan, in conjunction with surrounding development in the area. Expansion of SR-94/Campo Road to a six-lane freeway, as planned by the County in the Circulation Element, would eliminate the cumulative impact to that segment; however, no timing has been identified for that improvement. No cumulative parking impacts are anticipated since each project in the area and the campus would be responsible for providing parking in satisfaction of the need produced by the project.

6.2.2 Air Quality

In analyzing cumulative air quality impacts of a proposed project, the analysis must specifically evaluate the project's contribution to the cumulative increase in pollutants for which the San Diego Air Basin is listed as "non-attainment" for the State AAQS. A project that has a significant impact on air quality with regard to emissions of PM_{10}, NO_x and/or VOCs, as determined by screening criteria, would have a significant cumulative effect. In the event that direct impacts from a project are less than significant, a project may still have a cumulatively considerable impact on air quality if the emissions from the project, in combination with the emissions from other proposed or reasonably foreseeable future projects are in excess of screening levels, and the project's contribution accounts for a significant proportion of the cumulative total emissions.

The traffic impact analysis for the Master Plan (Katz, Okitsu & Associates 2003a) takes into account the additional traffic on the roadways due to planned or reasonably foreseeable projects in the campus vicinity. Based on that analysis and the air quality assessment contained in Section 4.2, *Air Quality*, the proposed Master Project, in conjunction with other projects in the area, could cause a degradation in LOS to E or worse. However, with improvements in vehicle emissions and planned roadway improvements in place, emissions of carbon monoxide (CO) would be well below the ambient air quality standards for CO.

PM_{10} emissions associated with construction generally result in impacts that are close to the source. As shown in the construction emissions evaluation above in Section 4.2, *Air Quality*, the emissions of PM_{10} from Master Plan construction projects would be below the significance levels. Because of the localized nature of PM_{10} impacts, and because not all of the past, present, and reasonably foreseeable future projects would be graded at the same time as the construction projects on campus, the temporary PM_{10} impacts associated with construction would not be cumulatively significant. Furthermore, because of the project-related traffic would produce low emissions of PM_{10} (less than 1 percent of the daily and annual significance threshold), the Master Plan would not result in a cumulatively considerable net increase of PM_{10}.

With regard to cumulative impacts associated with ozone precursors, because operational emissions associated with the Master Plan would be below stated significance thresholds, implementation of the proposed Master Plan would not be expected to cause or contribute to a cumulative impact on ozone concentrations provided the project follows the strategies contained in the RAQS which require regulated sources of ozone precursors to obtain permits and operate in compliance with the APCD's Rules and Regulations. No specific sources of ozone precursors is proposed at this time, therefore, no cumulatively significant impacts on the region's ability to attain the CAAQS would occur.

6.2.3 Aesthetics/Visual Quality

Implementation of the Master Plan, in conjunction with other related projects, would not result in cumulatively significant impacts on the aesthetics and visual quality of the area because all projects would undergo some form of design review either by the Division of the State Architect (for campus projects) or the County of San Diego (for off-campus projects). The campus would not modify the most visible portions of campus from off-site areas, i.e., the steep hillsides. In addition, most of the projects in the vicinity of the campus are not in close proximity, would be concealed from view by topography and would be consistent with the underlying use for the land. No project effects on any scenic vista or viewsheds were identified in Section 4.3 of this report. Therefore, no cumulative aesthetic or visual quality impacts are expected.

6.2.4 Biological Resources

Implementation of the Master Plan, in conjunction with other projects in the area, would result in a reduction in undeveloped land containing native and non-native habitats. The loss of biologically sensitive habitats and species on the Cuyamaca College campus, at Grossmont College and in the vicinity of Cuyamaca College campus has been anticipated by the County of San Diego. The County adopted the Multiple Species Conservation Program (MSCP) Subarea Plan in 1997 to address, in a comprehensive manner, the cumulative loss and preservation of biological resources within its jurisdiction. The MSCP addresses the potential impacts of urban growth, natural habitat loss and species endangerment and creates a plan to mitigate for the potential loss of covered species and their habitats. The campus and its environs are contained within the South County Segment of the County's MSCP Subarea Plan. Prior to adoption of the MSCP Subarea Plan, the campus was issued a Habitat Loss Permit (HLP) in which habitat preservation was required in exchange for the authorization to "take" habitat and species within the undeveloped core of the campus. Accordingly, the District is authorized to expand the Cuyamaca College campus without any additional biological mitigation. A description of the specific preservation requirements of the HLP is provided in Section 4.4, *Biological Resources*, of this report. The proposed biological preserve would conserve the best quality habitat on the campus and offset the loss of minor amounts of lower quality habitats within the core of the campus. Each of the related projects listed above would also be required by the County to comply with the Subarea Plan provisions, which would entail the assessment and mitigation of impacts. Therefore, cumulatively significant impacts to biological resources are not anticipated due to project compliance with the MSCP Subarea Plan.

6.2.5 Cultural Resources

Construction of projects proposed by the Master Plan in areas historically farmed could result in the potential loss of historic resources. The possible destruction of unknown historic resources would constitute a potentially significant impact of the Master Plan and mitigation, in the form of construction monitoring, is required. Due to the agricultural history of the area surrounding campus, the other proposed projects could affect historic resources. However, each project would be required to assess those impacts as part of their environmental review and mitigate for them on a project-specific level. Because much is known about farming in the Jamacha Valley and mitigation would be imposed on a project-specific basis, cumulative impacts on cultural resources, in particular historic resources, would not be significant.

6.2.6 Hydrology/Water Quality

The proposed Master Plan would not result in any significant impacts to local drainage patterns, runoff volumes or velocities. Specifically, existing drainage patterns within and from the campus would not be substantially altered, and post-development runoff from the campus would continue to flow into the Sweetwater River. Runoff flowing south and east from the campus would be incrementally increased in volume over current flows, although no associated capacity or flooding impacts would result. A number of project design and mitigation measures have been identified to further reduce impacts related to runoff volumes and velocities, including the use of energy dissipators at all discharge points. As with erosion and sedimentation impacts, each of the cumulative projects listed in Table 6-1 would be required to implement, as necessary, specific site mitigation which would reduce the potential for significant cumulative drainage or hydrology impacts. Based on these conditions, no significant cumulative impacts related to local drainage patterns, runoff volumes or velocities are anticipated from project implementation.

A number of potentially significant water quality impacts related to the long-term generation of urban contaminants were identified for the proposed Master Plan. These impacts would be reduced below a level of significance through required conformance with existing regulatory guidelines (e.g., NPDES permitting). Under these conditions, the generation and discharge of urban contaminants from the campus would be minimized, and the District is expected to meet all applicable regulatory requirements (including RWQCB Basin Plan water quality objectives). Accordingly, significant cumulative impacts associated with water quality are not anticipated from project implementation. Because the noted design and mitigation measures would not result in 100 percent removal of urban contaminants; however, the proposed Master Plan would potentially contribute to a cumulative reduction of regional water quality. Likewise, it can be expected that other projects in the same drainage basin would also contribute cumulative reduction in regional water quality. However, the level of such regional water quality effects would depend on factors such as the severity of impacts from individual sources, and the existing quality of receiving waters. Effectively quantifying and addressing potential cumulative impacts would entail both avoidance/mitigation of contaminant discharge at individual sources (i.e., as identified for the Master Plan), as well as monitoring and analysis of water quality cause and effect relationships on a regional scale. Thus, cumulative water quality impacts are considered to be significant but mitigated by compliance with the RWQCB Basin Plan objectives and the NPDES requirements.

6.2.7 Geology/Soils

The campus does not have any unique geologic features and would not result in significant direct impacts to regional geologic resources; thus, the Master Plan would not contribute to cumulative impacts to geologic resources. Potential impacts from geologic hazards or short- and long-term erosion from the Master Plan or any of the projects listed in Table 6-1 would be mitigated by standard remedial grading measures, seismic safety building design and erosion control measures. In addition, each project, as with the proposed Master Plan, would be required to implement specific site mitigation as necessary, such as temporary or permanent erosion control devices, which would reduce the potential for significant cumulative erosion impacts. As a result, no cumulatively significant geology impacts would occur.

6.2.8 Paleontology

Paleontological resources can be present within geologic formations in the area, in particular, the Santiago Peak Volcanics. Although other projects in the area could disturb paleontological resources, their careful removal through construction monitoring imposed as site-specific mitigation, can contribute to the scientific knowledge base of the resources and would not result in their destruction. Therefore, cumulatively significant impacts are not expected.

6.2.9 Utilities/Service Systems

An analysis by Nolte Engineers (2003) was conducted of the Master Plan's demand on sewer and water infrastructure servicing the campus and surrounding area. The analysis and information was provided to Otay Water District (OWD) for review and concurrence. Based on that analysis, sufficient capacity exists and no project or cumulative impacts to utility infrastructure servicing the campus and surrounding area would occur upon implementation of the Master Plan. Additionally, the San Diego County Water Authority (SDCWA) anticipates that water demands would be met through 2020 and water supplies will be sufficient during future single and multiple dry water years (SDCWA 2000) and Metropolitan announced that it expects to meet southern California's imported water demands for the next 20 years (Metropolitan 2003). Therefore, cumulative impacts to water and sewer services would not be significant. With regard to landfill capacity, there is unused permitted capacity at both landfills in the area and the proposed Master Plan's contribution would be minor, therefore, cumulatively significant impacts would not occur.

6.2.10 Noise

It is feasible to expect that several projects proposed by the Master Plan could be constructed at the same time on campus. As discussed in Section 4.2, *Air Quality*, the peak construction scenario could include simultaneous construction noise being generated from Phase I and II Parking Lots, Student Center, Science and Technology Mall, and Communications Arts Building. The level of noise would vary, depending on the type of equipment in use and stage of construction. Off-campus construction projects could also be occurring during the same time period. However, due to their distance from the campus construction sites and intervening buildings and topography, it is unlikely that cumulative construction noise impacts would occur off campus. Cumulative construction noise effects on campus could be considered potentially significant due to proximity to classrooms (in particular Buildings A through H) and the Learning Resources Center (LRC). However, implementation of campus-wide noise mitigation by the District, as outlined in Section 4.10, *Noise*, on a project level would minimize the cumulative construction noise associated with campus development under the Master Plan. Cumulative noise impacts would be less than significant.

6.2.11 Population/Housing

The Preliminary 2030 Cities/County Forecast (SANDAG 2002b) forms the basis of region-wide analysis and is hereby incorporated by reference, per State CEQA Guidelines Section 15150. This forecast indicates that the population for the San Diego region will grow at a rate of 15 percent between 2000 and 2010 and at a rate of 11.2 percent between 2010 and 2020. As noted in Section 4.11, *Population and Housing*, the proposed Master Plan would not directly increase population or housing in the area since no students live on campus. The increase in student population anticipated by the District is a function of the population growth anticipated in the region as a whole and in particular within the communities that surround the Cuyamaca College campus. The same condition is true for the Grossmont College campus. Due to land limitations at Grossmont College, however, the District made a decision to direct the growth in the area to the Cuyamaca College campus by expanding and increasing its course offerings. The proposed Master Plan for Cuyamaca College proposes the facilities necessary to accommodate the projected growth and re-directed growth from Grossmont College. Many of the projects proposed in the Grossmont College Master Plan are aimed at upgrading existing overburdened facilities rather than expanding course offerings. In any case, implementation of Master Plans at both the Grossmont and Cuyamaca college campuses would not result in cumulatively significant population and housing impacts because they would not induce growth through the removal of barriers or extension of services nor would they displace any existing residences or people.

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7.0 ALTERNATIVES

In accordance with Section 15126.6(a) of the State CEQA Guidelines, an EIR shall describe "a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project" as well as provide an evaluation of "the comparative merits of the alternatives." "An EIR need not consider every conceivable alternative to the project. Rather, it must consider a reasonable range of potentially feasible alternatives that will foster informed decision-making and public participation."

This section provides potential alternatives to the proposed project and evaluates them as required by CEQA. Each major issue area included in the detailed impact analysis (see Section 4.0, *Environmental Analysis*, of this EIR) is included in the analysis of the alternatives. In accordance with CEQA Guidelines section 15126.6(d), "the EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project." CEQA also requires EIRs to identify the environmentally superior alternative from among the alternatives (including the proposed project).

The project would have project-specific significant environmental effects on the following issues: traffic/parking, air quality, biological resources, cultural resources (historic resources), geology/soils, paleontology, utilities/service systems and noise. With the exception of significant and unmitigable effects to traffic, all other project-specific significant environmental effects would be mitigated to below a level of significance. Cumulatively significant and unmitigable cumulative effects are anticipated with regard to traffic.

The basic project objectives that these alternatives should strive to achieve are as follows:

- Develop facilities (approximately 125,000 assignable square feet) and services that enable the campus to achieve its projected enrollment of 15,000 students contained in the Educational Master Plan.

- Foster an environment that promotes academic excellence, innovation, creativity and social responsibility through a diverse curriculum and services consistent with the Educational Master Plan.
- Provide the community with high-quality learning opportunities which maximize the personal, social and intellectual experiences of its students.
- Protect, preserve and enhance the natural environment of the campus.
- Site new buildings in locations that offer programmatic advantages due to proximity to related academic disciplines.
- Design new buildings compatible in scale and style with existing structures.
- Provide adequate accessibility for the disabled in new and renovated buildings.
- Provide additional parking to accommodate anticipated enrollment increases.

7.1 NO PROJECT ALTERNATIVE

7.1.1 Description

Pursuant to Section 15126.6(e)(3)(B), the No Project Alternative is the "circumstances under which the project does not proceed." The No Project Alternative assumes that the Master Plan would not be adopted, no expansion or remodel of the existing academic and student support uses would be implemented and no new parking lots would be built on campus. Existing campus facilities at Cuyamaca College would not be retrofitted for code compliance and technology systems. Student enrollment would essentially be capped at 8,000 students under the No Project Alternative. Under this condition, student growth anticipated in the region would have to be accommodated at Grossmont College and the other campuses in the adjacent community college districts (i.e., Southwestern College, Mesa College or Miramar College). Because Grossmont College's ability to grow may be capped at 20,000 students by their proposed Master Plan, many prospective students would have travel to classes outside the District to satisfy their educational needs. The 1991 Master Plan in place at Cuyamaca College would be the comprehensive plan for guiding any student support facilities to serve the existing population.

7.1.2 Environmental Analysis

Traffic/Parking

If enrollment is not increased and course offerings are not expanded, prospective students in the area would by-pass the campus and drive to other community college campuses in the region. This condition would reduce the significant project and cumulative impacts on roadway segments and intersections in the vicinity of campus, although a certain number of vehicles carrying students likely reside near Cuyamaca College and would still be on the regional roads traveling to the other campuses (particularly SR-54/Jamacha Road and SR-94/Campo Road). However, a significant reduction in projected trips to/from the campus in the future would substantially reduce traffic impacts along nearby segments and intersections. The campus would still contribute to certain cumulative impacts because future (long-term) traffic conditions without the project would be unacceptable in the future. In terms of parking, no additional demand on parking would occur since there would not be an increase in student enrollment. Any existing deficiencies would be accommodated through the continued use of overflow parking in dirt lots on site.

Air Quality

The No Project Alternative would avoid temporary emissions associated with campus construction projects. Significant impacts associated with PM_{10} emissions would not be produced by the No Project Alternative and mitigation would not be required to control fugitive dust. Emissions of ozone precursors would not increase since student enrollment and traffic volumes would not grow. Although not considered significant on a project or cumulative level, reduced traffic congestion in the area surrounding campus would also reduce emissions of CO at local intersections. The No Project Alternative would be consistent with the Regional Air Quality Strategy (RAQS) since no increase in mobile or stationary emissions would occur. The No Project Alternative would not impede the air basin from attaining the CAAQS.

Aesthetics/Visual Quality

Under the No Project Alternative, no new buildings or parking lots would be constructed on campus. No changes to views, no loss of landscaping and mature trees and no increase in light and glare would be produced by this alternative. The visual character of the campus would not change under the No Project Alternative.

Biological Resources

Under the No Project Alternative, the biological preserve proposed in the Master Plan would not be implemented on campus, however, the west/northern/eastern portions of the campus would still be contained in open space as part of the campus compliance with their HLP and the County MSCP Subarea Plan. Since no new development would occur on campus, direct impacts to wetland habitats, coastal sage scrub (including disturbed associations) and non-native grassland, would not occur. Indirect impacts to the habitat preserved in the open space would continue since there are no measures in place to protect the resources. Habitat within the biological preserve along the eastern edge of campus may continue to degrade due to human intrusion and activity from nearby neighborhoods under the No Project Alternative. In addition, the No Project Alternative would avoid indirect construction-related impacts from construction noise and human activity.

Cultural Resources

Without any new construction or ground disturbance proposed on campus, potentially significant impacts to undiscovered historic resources related to farming activities would not occur. No construction monitoring would be required for the No Project Alternative. Similar to the proposed Master Plan, the No Project Alternative would have no effects on archeological resources since none are present in the developable portions of campus.

Hydrology/Water Quality

Under the No Project Alternative, the amount of impervious surfaces on campus would not increase nor would runoff or run-on from campus. Runoff quantities or velocities would not change and the existing campus storm drain system would not be expanded or modified to accommodate runoff. The Cuyamaca College campus would eventually be required to comply with the storm water pollution prevention planning (SWPPP) efforts identified for MS4s. However, if no new construction were proposed on campus, then the construction-related NPDES requirements would not be needed. All existing sources of contaminates, such as parking lots and landscaping, would be controlled as part of the referenced SWPPP to be prepared and adopted by the District. No new sources would be developed.

Geology/Soils

No impacts from geologic hazards are expected as part of the Master Plan implementation; therefore, the same condition would exist under the No Project Alternative. In the absence of new construction, potentially significant impacts related to corrosion of new foundations and underground facilities would be avoided.

Paleontology

Potentially significant impacts to potential paleontological resources on campus would be avoided by this alternative since no grading or excavation would occur into the sensitive geologic formation (i.e., Santiago Peak Volcanics). The No Project Alternative would leave any and all resources on campus intact. Potential adverse effects from this alternative would be that the fossil resources would not be removed to enhance scientific knowledge.

Utilities/Service Systems

By not increasing campus population, the No Project Alternative would not increase demand on water, wastewater and landfill capacity. However, existing demands on the utility systems would continue into the future. Because there is sufficient capacity in the sewer, water and regional landfill system, the No Project Alternative would not impact those service system.

Noise

The No Project Alternative would avoid potentially significant impacts from temporary construction noise on off-campus residential areas and on-campus noise sensitive uses, such as classrooms and the library. Mitigation would not be required for the No Project Alternative to minimize the construction noise impacts to these uses since no new construction would occur.

Population/Housing

Although the population in the area surrounding the campus, and the District as a whole, is expected to grow, the No Project Alternative would not allow an increase in student enrollment at Cuyamaca College. No new construction labor, academic or staff jobs would be created by this alternative. The projected growth in regional population would still occur regardless if the campus were to be expanded. Similar to the proposed Master Plan, no impacts to population and housing would occur under the No Project Alternative since any campus construction would only accommodate, rather than trigger, population growth.

7.1.3 Conclusion

The No Project Alternative would avoid significant project impacts to traffic by eliminating future vehicular trips and would eliminate impacts of the proposed Master Plan on air quality, biological resources, cultural resources, geology/soils, paleontology, utilities/service systems and noise. However, the No Project Alternative would not allow the expansion of a community college campus whose campus population is projected to increase along with local population growth. Besides conflicting with the basic project objectives outlined above, the No Project Alternative would not assist the District in building more capacity into the existing facilities.

7.2 ALTERNATIVES CONSIDERED IN DETAIL

The following alternatives are directed at reducing significant project and/or cumulative impacts of the proposed project described in Section 3.0, *Project Description*, of this EIR.

7.2.1 Reduced Enrollment Alternative

Description

Under the Reduced Enrollment Alternative, an expansion of facilities and student enrollment would occur, although only to levels that would avoid the significant traffic impacts of the proposed Master Plan. If campus enrollment is capped at 10,000 students (or 2,000 more students than existing levels), then the additional vehicular trips associated with this alternative would be 2,400 or less, which is a level that would not be considered a large-scale project by the SANDAG Congestion Management Plan Update. Small-scale projects do not require detailed traffic analysis because it is assumed their impacts would be less than significant. For the purposes of this discussion, it is assumed that the Reduced Enrollment Alternative would allow the District to expand its facilities to accommodate 2,000 additional students. The size of buildings and parking lots that would be constructed under this alternative would be far less than under the proposed Master Plan. In addition, identified expansions of existing and proposed campus buildings, such as the Science and Technology Mall, Learning Resources Center (LRC), Student Center, Communication Arts and Physical Education (P.E.) facilities, would not likely be implemented. Some expansion of course offerings would occur, as would retrofit/renovation of existing facilities for code compliance and technology systems.

Environmental Analysis

Since the Reduced Enrollment Alternative is directed at reducing future campus population, the impacts discussed in Section 4.0, *Environmental Analysis*, associated with new construction and development on campus would still be expected under this alternative. Therefore, potentially significant impacts to biological resources, cultural resources, geology/soils, paleontology and noise would occur under the Reduced Enrollment Alternative. Mitigation is available to reduce these impacts to less than significant levels. This discussion focuses on issues affected by campus population, such as traffic/parking, air quality, utilities/service systems and population/housing.

Traffic/Parking

By reducing the future enrollment at Cuyamaca College to 10,000 students, this alternative would effectively reduce all direct project impacts on traffic to below a level of significance. Project impacts to roadway segments and intersections in the vicinity of the campus would be avoided; however, this alternative would contribute traffic to roadway segments and intersections which already or are predicted to operate at unacceptable levels (i.e., LOS E and F) in the future without the proposed Master Plan in place, including segments of SR-94/Campo Road and SR-54/Jamacha Road. Because there is insufficient right-of-way along these segments and County-planned improvements would not completely mitigate the unacceptable areas, cumulatively significant and unmitigable impacts would not be avoided by this alternative.

Parking need would also be reduced by this alternative since fewer spaces would be required to maintain sufficient supply. Similar to the proposed Master Plan, new parking would be constructed in concert with need as the student population grows on campus. No adverse impacts on parking supply are anticipated.

Air Quality

A reduction in enrollment would reduce construction and operational emissions of the proposed Master Plan. A certain level of construction would still be expected on campus as a result of this alternative. It is likely that several of the projects could overlap, similar to the proposed Master Plan. Therefore, significant impacts identified for the proposed Master Plan related to PM-10 would still likely occur for this alternative and standard dust control measures would be required as mitigation. As noted above, project impacts on traffic congestion would be avoided by this alternative, therefore, lower levels of CO would be created. No CO hotspots are predicted for the project area where campus traffic would degrade the intersection level of service (LOS). In addition, a reduction in both building square footage and enrollment would lessen the campus' production of ozone precursors. Therefore, the Reduced Enrollment Alternative would not have any potential for CO hotspots, would not produce substantial amounts of ozone precursors and would not prevent the air basin from achieving attainment of the CAAQS.

Utilities/Service Systems

The Reduced Enrollment Alternative would lessen the campus' future demand on water, wastewater and landfill capacity serving the area. Because impacts on water service, sewer service and landfill capacity from the proposed Master Plan would not be significant, the lower demand of the Reduced Enrollment Alternative would also result in less than significant impacts.

Population/Housing

The population in the area surrounding the campus, and the District as a whole, is expected to grow. The Reduced Enrollment Alternative would allow Cuyamaca College to increase its capacity; however, some of the growth would have to be diverted to Grossmont College or to community colleges outside of the District. Some new construction labor, academic or staff jobs would be created by this alternative. The projected growth in regional population would still occur regardless if the campus were to be expanded. Similar to the proposed Master Plan, no impacts to population and housing would occur under the Reduced Project Alternative since any campus construction would only accommodate, rather than trigger, population growth.

Conclusion

The Reduced Enrollment Alternative would avoid significant direct traffic impacts of the proposed Master Plan, although cumulatively significant impacts on traffic (both Existing and Long-term scenarios) would not be avoided. In addition, this alternative would lessen project effects on air quality and utilities/service systems caused by increasing campus population. However, this alternative would conflict with the basic project objectives of fostering academic programs that are consistent with the *Educational Master Plan* and achieving its predicted enrollment because not as much new construction or programs would be implemented as under the proposed Master Plan. In addition, if Cuyamaca College were not expanded as proposed, the District would lose students to other campuses, such as Grossmont, Southwestern, Mesa and Miramar community colleges where course offerings are more comprehensive. For these reasons, the Reduced Enrollment Alternative is rejected as infeasible.

7.2.2 Alternative Location

Description

The Alternative Location would entail the construction of expanded facilities at Grossmont College to accommodate the projected student population growth at Cuyamaca College (7,000 students). According to the Cuyamaca College Master Plan, Grossmont College has the potential for a student base of approximately 32,000 students by 2015 based the state-forecasted participation rates and projected population for the District (Spencer/Hoskins 2000a). In the Alternative Location condition, the District would expand campus facilities and parking supply at Grossmont College to accommodate the 7,000 additional students projected to attend Cuyamaca College. In the proposed Master Plan for Grossmont College student enrollment would be capped at 20,000 students (Spencer/Hoskins 2000b). To handle the increased student load of 27,000 students at Grossmont College under the Alternative Location condition, the proposed buildings and parking facilities described in that campus' proposed Master Plan would have to be upsized and upgraded. Cuyamaca College, on the other hand, would remain at its current enrollment level of approximately 8,000 students and current course offerings would not change. Both the Educational Master Plan and Facilities Master Plan for Grossmont College would have to be modified for this alternative to be implemented.

Environmental Analysis

Traffic/Parking

Increased student enrollment would have a direct effect on traffic and parking in and around the Grossmont College campus. The additional 7,000 students from Cuyamaca College would produce 8,400 daily trips in the vicinity of the other campus (in addition to the 2,400 trips anticipated as part of the proposed Master Plan at that campus). The District is addressing the impacts of increasing student population at Grossmont College to 20,000 in a separate CEQA document. Regional access to the campus is available from Grossmont College Drive from State Route (SR-) 125 and via Lake

Murray Boulevard/Highwood Drive. Currently, roadway conditions operate fairly well in the vicinity of Grossmont College, with the exception of Highwood Drive near the southern entrance to the campus, the intersection of Lake Murray Boulevard/Navajo Road and segments of Interstate 8, SR-125 and SR-94 (Katz Okitsu Associates 2003b).

The addition of future traffic from predicted growth at the Grossmont College campus plus regional growth and District growth that would be redirected from Cuyamaca College under this alternative would place additional strain on that campus' roadway network and local intersections. In the future, the conditions along Highwood Drive would continue to be unacceptable despite proposed improvements for this alternative resulting in a significant traffic impact. Impacts of the additional enrollment on the freeway segments would be cumulatively significant under this alternative. Intersections appear to have capacity in the future to possibly handle traffic caused by this alternative. Therefore, this alternative would likely result in significant traffic impacts, although less than anticipated near the Cuyamaca College campus because more roadway and intersection capacity exists in the Grossmont College area.

The existing parking supply at Grossmont College is currently insufficient and the proposed Master Plan for the campus identifies improvements, including parking lot reconfigurations and a new parking structure, which would increase that supply. To accommodate 7,000 additional students at Grossmont College, the future parking supply would have to increase by 2,000 more spaces (similar to the amount proposed at Cuyamaca College). Due to restrictions in land area at the Grossmont College campus, it is likely that a second parking structure would be needed for this alternative. It may, however, be difficult to find the room to construct the required parking structure since it would likely be atop an existing parking lot and the structure would have to be sized to include the 2,000 spaces needed for 7,000 students plus the parking lost on the ground level of the structure. This alternative could result in a significant impact on on-campus parking supply given the space limitations at the Grossmont College campus. This impact would continue to spill over onto off-campus roadways where students find alternative parking opportunities.

Air Quality

From an air quality perspective, in order to develop sufficient facilities at Grossmont College to handle the increased student enrollment from Cuyamaca College, construction projects would overlap and temporarily produce elevated levels of fugitive dust (PM-10), which could exceed the County's significance threshold of 100 pounds/day. Similar to the proposed Master Plan, standard measures to control dust would be required as mitigation for this significant impact. In terms of potential CO hotspots, the increased traffic associated with this alternative would not likely produce CO hotspots because there appears to be more capacity at the intersections in the vicinity of Grossmont College. The increase in vehicle trips would also increase emissions of ozone precursors in the long-term. As noted in Section 4.2, *Air Quality*, the emissions associated with 7,000 additional students would not exceed the County standards for NOx and other pollutants. Therefore, impacts to both local and regional air quality would not be significantly impacted by this alternative. Despite the increase in enrollment at Grossmont College under this alternative, the increase in emissions would not affect the region's ability to attain the CAAQS.

Aesthetics/Visual Quality

Development of the Alternative Location condition at Grossmont College would slightly change the visual character of the campus due to the likely intensification of college uses. However, no sensitive viewsheds or unique visual features would be modified. There would be a loss of landscaping and possibly mature trees and an increase in light and glare for this alternative as more of the campus is developed than envisioned in the proposed Master Plan for Grossmont College. The need to construct an additional parking structure at the perimeter of campus would also bring the edges of development farther out from the core of the campus. More multi-story structures would be required to house the teaching and support facilities needed for a campus of 27,000 students. Every project would be evaluated for its consistency with the architecture of other campus buildings as part of the design review process at the District. Therefore, this alternative would not substantially increase project effects on aesthetics and visual quality.

Biological Resources

Increasing student population at Grossmont College under this alternative would have minimal direct impact on biological resources, since all structures and parking required to accommodate 7,000 more students would be constructed within developed or developing areas of campus. If additional land area were to be required to construct the necessary facilities, significant impacts to native habitat, including coastal sage scrub, would occur under this alternative. Those impacts could be worse than anticipated at Cuyamaca College where campus development is proposed where less sensitive biological resources occur because the area surrounding Grossmont College features higher quality habitats.

Cultural Resources

Increasing student population at Grossmont College under this alternative would have minimal direct impact on known cultural resources, since all structures and parking required to accommodate 7,000 more students would be constructed within developed or developing areas of campus. If additional land area were to be required to construct the necessary facilities, impacts to cultural resources could occur in undisturbed areas. Impacts to historic resources anticipated under the proposed Master Plan would be avoided by this alternative since the Grossmont College site was underdeveloped prior to college construction; therefore, the possibility of encountering undisturbed historic resources during grading does not exist. Should additional remodeling be required to renovate buildings constructed in the early 60's during the latter part of the 2015 planning horizon for the campus (when buildings would approach 50 years in age), there is the possibility that impacts to historic resources could occur at Grossmont College under this alternative. If the additional remodeling occurs sooner in the planning horizon due to the need to accommodate students sooner, then impacts to potentially historic buildings would be avoided.

Hydrology/Water Quality

Under the Alternative Location condition, the amount of impervious surfaces at the Cuyamaca College campus would not increase and minimal increase would be anticipated at the Grossmont College campus. Runoff quantities or velocities would not substantially change and the existing campus storm drain system would not likely be expanded or modified to accommodate new runoff. The Grossmont College campus would be required to comply with the storm water pollution prevention planning (SWPP) efforts identified for MS4s and construction-related NPDES requirements would be enforced. All existing sources of contaminates, such as parking lots and landscaping, would be controlled as part of the referenced SWPP adopted by the District. Minimal new sources of contamination would be introduced by this alternative. No significant hydrology/water quality impacts are anticipated for this alternative.

Geology/Soils

There are no geologic hazards, such as faults, landslides or high groundwater table, unique to Grossmont College that would result in impacts to new construction (Spencer/Hoskins 2000b). The Grossmont College campus does contain fairly deep canyon fills (i.e., 80 to 100 feet deep), which would present a substantial constraint on potential building and parking garage development on the campus (Spencer Hoskins 2000b). In addition, the campus is known to have soils that have expansive qualities, although the extent to which they are present is not known due to the amount of grading and excavation of native material that went on during the original campus construction. Therefore, there is the possibility that expanding campus development at Grossmont College in geotechnically constrained areas could result in significant impacts to those facilities that would not occur at Cuyamaca College.

Paleontology

The Grossmont College campus is underlain by four geologic formations known to have a moderate to high sensitivity for paleontological resources. The formations include: Stadium Conglomerate, Friars Formation, Mission Valley Formation and Pomerado Conglomerate. Excavations into these formations from increased campus development under the Alternative Location condition, could disturb the fossil resources potentially present on campus. The geologic formations considered most likely to be encountered during grading for the proposed Master Plan include Quaternary alluvium/colluvium and Cretaceous granitic rocks, which have low sensitivity with regard to paleontological resources. The chances of encountering fossil bearing formations during construction are much greater at Grossmont College than at Cuyamaca College. Therefore, significant impacts would be expected for all new construction involving excavation/grading proposed under this alternative.

Utilities/Service Systems

Under the Alternative Location condition, water demand would be redirected from Otay Water District (OWD) to Padre Dam Municipal Water District. In the case of wastewater, the increased demand would be transferred from OWD to the City of El Cajon who provides wastewater service to the Grossmont College campus. The service areas for these providers are heavily urbanized and infrastructure services a large amount of existing development but capacity exists in the systems. Therefore, it is expected that adopting the Alternative Location would not adversely impact water and sewer service in the vicinity of that campus. Because solid waste generated from Grossmont College would likely be deposited at the same two landfills which service the Cuyamaca College area, Sycamore Landfill and Otay Landfill, this alternative would have the same less than significant impacts as the proposed Master Plan on landfill capacity in the region.

Noise

Construction-related noise would be produced at the Grossmont College Campus under this alternative. The amount of new construction would likely be more than anticipated in the Master Plan proposed for that campus. Since the bulk of the additional Master Plan improvements would likely occur in the western, eastern and northern portions of the campus and away from residents to the south, temporary construction noise impacts on off-campus residences would be less than anticipated for the proposed Master Plan. However, significant impacts to on-campus uses, such as classrooms and the library, would be similar to those anticipated at the Cuyamaca College campus.

Population/Housing

Similar to the proposed Master Plan, increasing enrollment at Grossmont College, even above levels anticipated in the proposed Master Plan for that campus, would not induce growth in population or a need for additional housing in the area. As noted above, the student population base for the Grossmont Campus, which is driven by regional population growth, is 32,000 students. By providing campus facilities for up to 27,000 students, the District would be accommodating growth anticipated in the service area. Construction labor, academic or staff jobs would also be created by this alternative. Impacts would be less than significant.

Conclusion

The Alternative Location would result in reduced impacts to local traffic congestion as compared to the proposed Master Plan. However, cumulative and unmitigable impacts to freeway segments near Grossmont College would occur under this alternative. Impacts on biological and cultural resources could be worse for this alternative should expansion of the existing developed portion of campus be required to develop all the facilities needed to accommodate 27,000 students. In addition, geologic and paleontolgical resource impacts could be worse than anticipated at Cuyamaca College under this alternative. The Alternative Location would not achieve the basic project objectives of satisfying the Educational and Facilities Master Plan of both Cuyamaca and Grossmont Colleges. The age of the buildings at Grossmont College combined with the increased pressure to grow student population may require substantial amounts of new construction to achieve this alternative. In order to maximize the use of the usable portions of the Grossmont College campus, new construction may not be compatible in scale with existing campus buildings, which also conflicts with a project objective. For these reasons, the Alternative Location is rejected as infeasible.

7.3 SUMMARY OF PROJECT ALTERNATIVES

Table 7-1, *Project Alternatives Summary of Impacts*, compares the significance of the potential impacts for the proposed project and for each of the alternatives considered in detail. The project alternatives discussed in this section reduce one or more significant environmental impacts anticipated as a result of the proposed project. Although the No Project Alternative would result in minimal environmental impacts, the State CEQA Guidelines require identification of an alternative other than the No Project Alternative as Environmentally Superior. Based on the following comparison, the Reduced Enrollment Alternative would be considered the Environmentally Superior Alternative for its ability to lessen project impacts on traffic to below a level of significance and achieve more of the basic project objectives than the other alternatives.

Table 7-1
PROJECT ALTERNATIVES
SUMMARY OF PROJECT IMPACTS

Issue	Proposed Project	No Project Alternative	Reduced Enrollment Alternative	Alternative Location
Traffic/Parking	SU	LS	LS	LS/SU
Air Quality	SM	N	SM	SM
Biological Resources	SM	N	SM	SM
Cultural Resources	SM	N	SM	SM
Geology/Soils	SM	N	SM	SM
Paleontology	SM	N	SM	SM
Utilities/Service Systems	LS	LS	LS	LS
Noise	SM	N	SM	SM

*Only the environmental effects found to be significant for the proposed project are included in this comparison matrix.
SU=Significant and Unmitigable; SM=Significant but mitigable; LS=Less than significant; N=No impact.

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10.0 CERTIFICATION/QUALIFICATION

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