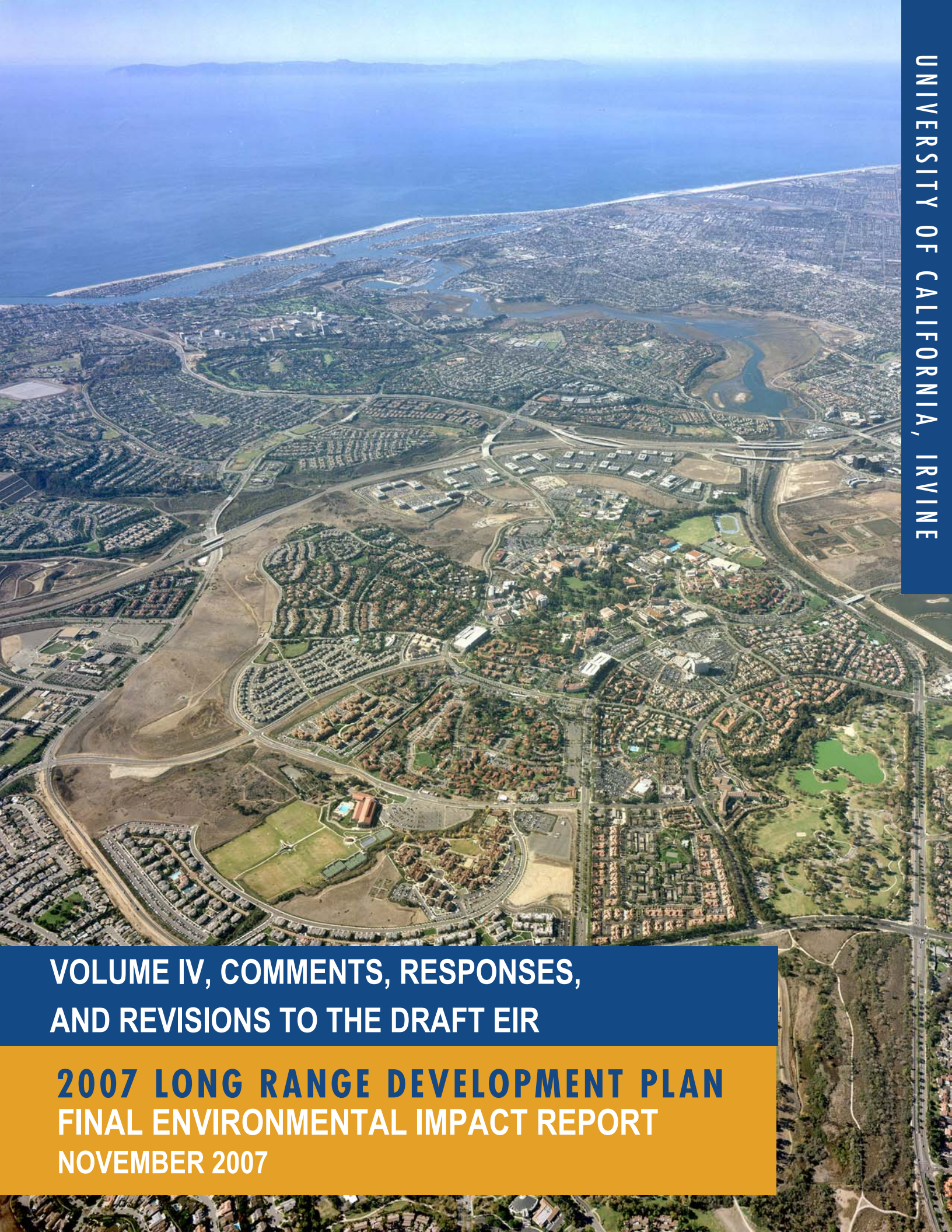

UNIVERSITY OF CALIFORNIA, IRVINE

VOLUME IV, COMMENTS, RESPONSES, AND REVISIONS TO THE DRAFT EIR

2007 LONG RANGE DEVELOPMENT PLAN

FINAL ENVIRONMENTAL IMPACT REPORT

NOVEMBER 2007

FINAL
ENVIRONMENTAL IMPACT REPORT

for the

UNIVERSITY OF CALIFORNIA, IRVINE
2007 LONG RANGE DEVELOPMENT PLAN

SCH No. 2006071024

VOLUME IV – COMMENTS, RESPONSES, AND REVISIONS TO THE DRAFT EIR

Prepared for

UCIrvine
UNIVERSITY OF CALIFORNIA, IRVINE

750 University Tower
Irvine, California 92697

Prepared by

PBS&J

9275 Sky Park Court, Suite 200
San Diego, California 92123

November 2007

TABLE OF CONTENTS

ATTACHMENTS

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INTRODUCTION

The University of California, Irvine (UCI) prepared an Initial Study for the proposed UCI 2007 Long Range Development Plan (LRDP), in compliance with California Environmental Quality Act (CEQA) Guidelines Section 15063, and a Notice of Preparation (NOP) for an Environmental Impact Report (EIR) for the 2007 LRDP, in compliance with CEQA Guidelines Section 15082. The NOP and Initial Study also address a project-level analysis for the University Hills Area 9/2 Housing Project. On July 6, 2006, the NOP and Initial Study were mailed to a distribution list consisting of the State Clearinghouse, responsible, trustee, and other relevant local, state, and federal agencies, and interested individuals. The NOP was also published in the Orange County Register and The Irvine World News newspapers, and the NOP and Initial Study were made available on the UCI 2007 LRDP EIR website on the UCI Campus & Environmental Planning webpage. A 30-day public review period for the NOP commenced on July 6, 2006. A scoping meeting was held on July 24, 2006 to solicit input from interested agencies, individuals, and organizations.

All written NOP comments received on the 2007 LRDP and University Hills Area 9/2 Housing Project prior to the publication of the Draft EIR, as well as the recorded comments received during the public scoping meeting, were considered in the preparation of the Draft EIR. On August 27, 2007, the Draft EIR and Notice of Completion (NOC) were received by the State Clearinghouse (Attachment 1), and the Draft EIR was made available for a 45-day public review period (Attachment 2). Copies of the Draft EIR on compact disk (CD) were mailed to a distribution list of responsible, trustee, and other relevant local, state, and federal agencies and interested individuals, including those that provided comments during the scoping period (Attachment 3). Hardcopies of the Draft EIR were available for review at the UCI Campus & Environmental Planning office and at local UCI and community libraries. The Draft EIR was also available for review or downloading during the public review period on the UCI 2007 LRDP EIR website on the UCI Campus & Environmental Planning webpage.

The Notice of Availability (NOA) of the Draft EIR was advertised in the Orange County Register newspaper (Attachment 2), and through the mail to the distribution list in Attachment 3. The NOA also included notice of public hearings held at 6:00 p.m. on September 20, 2007 at the University Club on the UCI campus and at 6:00 p.m. on October 1, 2007 at the Lakeview Senior Center (20 Lake Road, Irvine, CA), during which comments could be presented verbally (Attachment 4). During the 45-day public review period, interested parties were invited to submit comments on the Draft EIR to UCI. Comments could be submitted by mail, through the UCI website, or during the public hearings.

The 45-day public review period ended at 5:00 p.m. on October 11, 2007, during which 13 written comment letters or emails were received by UCI. No oral or written comments were received during the public hearings on September 20 and October 1, 2007. Following the close of the public review period, responses were prepared to all formally submitted comments that raised environmental issues regarding the 2007 LRDP and University Hills Area 9/2 Housing Project. Responses to some comments necessitated revisions to the EIR. None of these changes constitute significant new information requiring recirculation of the Draft EIR pursuant to CEQA Guidelines Section 15088.5. This Volume IV of the Final EIR provides the comments that were submitted during the public review period and responses to those comments; the revisions that have been made to the Draft EIR as a result of the responses to comments; a revised summary of impacts and mitigation measures incorporating EIR revisions resulting from responses to comments; and the Mitigation Monitoring and Reporting Program (MMRP), in compliance with CEQA Guidelines Section 15097 (a), incorporating EIR revisions resulting from responses to comments.

PUBLIC COMMENTS AND RESPONSES

All written comments received on the Draft EIR have been coded to facilitate identification and tracking. Each of the comment letters and emails received during the public review period was assigned an identification number (Table 1). These documents were reviewed and divided into individual comments, with each comment containing a single theme, issue, or concern. Individual comments and the responses to them were assigned corresponding numbers. Each numbered comment document is the submittal of a single individual, agency, or organization. The comment number consists of two parts. The first part is the number of the document and the second is the number of the comment. Thus, Comment S2-1 refers to the first comment (comment #1) of Comment Letter S2. Comments have been reproduced following Table 1, with corresponding responses on subsequent page(s).

Table 1. List of Comments

No.	Commentor	Date
	State Agencies	
S1	Terry Roberts, Director, State Clearinghouse and Planning Unit, California Governor's Office of Planning and Research	October 11, 2007
S2	Dave Singleton, Program Analyst, Native American Heritage Commission	September 7, 2007
S3	Ryan Chamberlain, Branch Chief, Local Development/Intergovernmental Review, Caltrans District 12	September 26, 2007
	Local Agencies	
L1	Sheryll del Rosario, Associate Planner, Intergovernmental Review, SCAG	September 11, 2007
L2	Kari A. Rigoni, Executive Officer, Orange County ALUC	October 5, 2007
L3	Ronald L. Tippets, Chief, Current and Environmental Planning, Orange County Resources & Development Management Department	October 9, 2007
L4	Michele Hernandez, Management Analyst/Strategic Services, Orange County Fire Authority	October 9, 2007
L5	Bill Jacobs, Principal Planner, City of Irvine	October 10, 2007
L6	Natalie Likens, Engineering Technician, Irvine Ranch Water District	October 11, 2007
L7	Homer L. Bludau, City Manager, City of Newport Beach	October 17, 2007
	Organizations and Individuals	
O1	Jan K. Brueckner, Professor of Economics, UCI	September 16, 2007
O2	Peter A. Bowler, NRS Academic Coordinator, and William L. Bretz, Reserve Manager, Ecology & Evolutionary Biology Department, UCI	October 11, 2007
O3	David Brownstone, Professor and Chair of Economics, UCI	October 14, 2007
O4	The Irvine Company	October 17, 2007

RESPONSES

STATE OF CALIFORNIA

GOVERNOR'S OFFICE *of* PLANNING AND RESEARCH

STATE CLEARINGHOUSE AND PLANNING UNIT

ARNOLD SCHWARZENEGGER
GOVERNOR

CYNTHIA BRYANT
DIRECTOR

October 11, 2007

Richard Demerjian
Regents of the University of California
750 University Tower
Irvine, CA 92697-2325

Subject: University of California, Irvine, 2007 Long Range Development Plan
SCH#: 2006071024

Dear Richard Demerjian:

S1-01

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 October 10, 2007, 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

COMMENTS

Document Details Report
State Clearinghouse Data Base

SCH# 2006071024
Project Title University of California, Irvine, 2007 Long Range Development Plan
Lead Agency University of California, Regents of the

Type EIR Draft EIR

Description This is the Draft Environmental Impact Report (DEIR) for the UC Irvine 2007 Long Range Development Plan (2007 LRDP). The 2007 LRDP identifies general types of campus development and land uses to support projected expansion of existing academics programs and to enable new academic program initiatives at UCI through the plan horizon year of 2025-26. The 2007 LRDP accommodates student enrollment growth, increases in academics and support space, and additional on-campus housing for students, faculty, and staff. The DEIR also analyzes the project-level effects of the Area 9/2 Faculty and Staff Housing project that would be constructed at UCI under the 2007 LRDP.

Lead Agency Contact

Name Richard Demerjian
Agency Regents of the University of California
Phone (949) 824-6316 **Fax**
email
Address 750 University Tower
City Irvine **State** CA **Zip** 92697-2325

Project Location

County Orange
City Irvine
Region
Cross Streets Jamboree Road, Campus Drive, Culver Drive, University Drive, California Avenue
Parcel No.
Township **Range** **Section** **Base**

Proximity to:

Highways SR-73
Airports John Wayne
Railways
Waterways San Diego Creek
Schools 4 ISUD Schools
Land Use Institutional

Project Issues Air Quality; Archaeologic-Historic; Drainage/Absorption; Flood Plain/Flooding; Forest Land/Fire Hazard; Geologic/Seismic; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Wildlife; Wetland/Riparian; Water Supply; Water Quality; Growth Inducing; Landuse; Cumulative Effects; Aesthetic/Visual; Biological Resources; Coastal Zone; Vegetation

Reviewing Agencies Resources Agency; Department of Conservation; Department of Fish and Game, Region 5; Department of Parks and Recreation; Department of Water Resources; Office of Emergency Services; Caltrans, Division of Aeronautics; California Highway Patrol; Caltrans, District 12; Department of Housing and Community Development; Air Resources Board, Transportation Projects; Regional Water Quality Control Board, Region 8; Department of Toxic Substances Control; Native American Heritage Commission

Date Received 08/27/2007 **Start of Review** 08/27/2007 **End of Review** 10/10/2007

RESPONSES

Governor's Office of Planning and Research, State Clearinghouse and Planning Unit

S1-1 Comment noted.

COMMENTS

STATE OF CALIFORNIA — Arnold Schwarzenegger, *Governor*

NATIVE AMERICAN HERITAGE COMMISSION
915 CAPITOL MALL, ROOM 364
SACRAMENTO, CA 95814
(916) 653-6251
Fax (916) 657-5390
Web Site www.nahc.ca.gov
e-mail: ds_nahc@pacbell.net

RECEIVED
SEP 11 2007
UCI Campus & Environmental Planning

September 7, 2007

Mr. Richard Demerjian
University of California
750 University Tower
Irvine, CA 92697-2325

Re: SCH#2007071024; CEQA Notice of Completion; draft Environmental Impact Report (DEIR) for University of California, Irvine 2007 Long Range Development Plan; Orange County, California

Dear Mr. Demerjian:

S2-1 The Native American Heritage Commission is the state's Trustee Agency for Native American Cultural Resources. The California Environmental Quality Act (CEQA) requires that any project that causes a substantial adverse change in the significance of an historical resource, that includes archaeological resources, is a 'significant effect' requiring the preparation of an Environmental Impact Report (EIR) per CEQA guidelines § 15064.5(b)(c). In order to comply with this provision, the lead agency is required to assess whether the project will have an adverse impact on these resources within the 'area of potential effect (APE)', and if so, to mitigate that effect. To adequately assess the project-related impacts on historical resources, the Commission recommends the following action:

S2-2 √ Contact the appropriate California Historic Resources Information Center (CHRIS). Contact information for the Information Center nearest you is available from the State Office of Historic Preservation (916/653-7278)/ http://www.ohp.parks.ca.gov/1068/files/IC%20Roster.pdf The record search will determine:

- If a part or the entire APE has been previously surveyed for cultural resources.
- If any known cultural resources have already been recorded in or adjacent to the APE.
- If the probability is low, moderate, or high that cultural resources are located in the APE.
- If a survey is required to determine whether previously unrecorded cultural resources are present.

S2-3 √ If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.

- The final report containing site forms, site significance, and mitigation measurers should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum, and not be made available for pubic disclosure.
- The final written report should be submitted within 3 months after work has been completed to the appropriate regional archaeological Information Center.

S2-4 √ Contact the Native American Heritage Commission (NAHC) for:

- A Sacred Lands File (SLF) search of the project area and information on tribal contacts in the project vicinity that may have additional cultural resource information. Please provide this office with the following citation format to assist with the Sacred Lands File search request: USGS 7.5-minute quadrangle citation with name, township, range and section; .

S2-5
- The NAHC advises the use of Native American Monitors to ensure proper identification and care given cultural resources that may be discovered. The NAHC recommends that contact be made with Native American Contacts on the attached list to get their input on potential project impact (APE). In some cases, the existence of a Native American cultural resources may be known only to a local tribe(s).

S2-6 √ Lack of surface evidence of archeological resources does not preclude their subsurface existence.

- Lead agencies should include in their mitigation plan provisions for the identification and evaluation of accidentally discovered archeological resources, per California Environmental Quality Act (CEQA) §15064.5 (f). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American, with knowledge in cultural resources, should monitor all ground-disturbing activities.
- Lead agencies should include in their mitigation plan provisions for the disposition of recovered artifacts, in consultation with culturally affiliated Native Americans.

S2-7 √ Lead agencies should include provisions for discovery of Native American human remains or unmarked cemeteries in their mitigation plans.

- CEQA Guidelines, Section 15064.5(d) requires the lead agency to work with the Native Americans identified by this Commission if the initial Study identifies the presence or likely presence of Native American human remains within the APE. CEQA Guidelines provide for agreements with Native American, identified by the NAHC, to assure the appropriate and dignified treatment of Native American human remains and any associated grave liens.

RESPONSES

Native American Heritage Commission

S2-1 In accordance with CEQA Guidelines § 15064.5, Section 4.4 in Volume I of the Final EIR contains background discussions of the archaeological and historic resources documented from the campus and the applicable federal and state regulations and UC policies that govern the treatment of cultural resources, and an assessment of cultural resources impacts and mitigation measures associated with implementation of the 2007 LRDP.

S2-2 Section 4.4 in Volume I of the Final EIR for the 2007 LRDP summarizes the campus-wide cultural resources study conducted for the 1989 LRDP EIR as well as subsequent cultural resources assessments that have been performed on a project-specific basis consistent with this study as part of project construction on campus. These prior studies were based on the information provided by the appropriate California Historic Resources Information Center.

S2-3 As stated in Response to Comment S2-2, Section 4.4 in Volume I of the Final EIR for the 2007 LRDP summarizes the campus-wide cultural resources study conducted for the 1989 LRDP EIR as well as subsequent cultural resources assessments that have been performed on a project-specific basis consistent with this study as part of project construction on campus. Therefore, with the exception of the University Hills Area 9/2 Housing Project addressed in Volume III of the Final EIR, a records search, cultural resources field survey, and report of findings and recommendations were not necessary for the 2007 LRDP EIR because no other on-campus developments are proposed for project-specific evaluation in the document. As evaluated in Section 4.4, Volume III of the Final EIR, no archaeological or historical resources or human remains have been recorded in or adjacent to the Area of Potential Effect (APE) for the University Hills Area 9/2 Housing Project. Therefore, a records search, cultural resources field survey, and report of findings and recommendations were not necessary for this project.

For future projects that implement the 2007 LRDP and are located on sites containing recorded archaeological resources, the procedures listed in this comment (i.e., records search, cultural resources field survey, and report of findings and recommendations) will be followed, as specified in Mitigation Measures Cul-1A through Cul-1C (refer to Responses to Comments S2-6 and S2-8 for revisions to Mitigation Measures Cul-1A and Cul-1C) located on page 4.4-14 of the Final EIR, Volume I.

S2-4 In the course of implementing Mitigation Measure Cul-1A (page 4.4-14 of the Final EIR, Volume I), it is anticipated that a Sacred Lands File (SLF) search will be conducted as part of the record searches to be performed in defining the APE for future construction projects under the 2007 LRDP. The citation format information requested in this comment will be provided to the Native American Heritage Commission (NAHC) to initiate the SLF search on a project-by-project basis.

S2-5 In the course of implementing Mitigation Measures Cul-1A and Cul-1C (page 4.4-14 of the Final EIR, Volume I), it is anticipated that the Native American contacts listed in the attachment to this letter will be notified to obtain their input in: (1) defining the APE for archaeological field investigations associated with future construction projects under the 2007 LRDP; (2) significance evaluations for any resources observed within the project-specific APE; and (3) proper identification and care of cultural resources that may be discovered during archaeological monitoring of grading within the project-specific APE.

S2-6 As indicated below, LRDP Mitigation Measure Cul-1C (page 4.4-14 of the Final EIR, Volume I) has been revised to better comply with the recommendations in this comment and CEQA Guidelines § 15064.5(f).

Cul-1C Prior to land clearing, grading, or similar land development activities for future projects that implement the 2007 LRDP in areas of identified archaeological sensitivity, UCI shall retain a qualified archaeologist (and, if necessary, a culturally-affiliated Native American) to monitor these activities. In the event of an unexpected archeological discovery during grading, the on-site construction supervisor shall be notified and shall redirect work away from the location of the archaeological find. A qualified archaeologist shall oversee the evaluation and recovery of

COMMENTS

S2-7 cont. √ Health and Safety Code §7050.5, Public Resources Code §5097.98 and Sec. §15064.5 (d) of the CEQA Guidelines mandate procedures to be followed in the event of an accidental discovery of any human remains in a location other than a dedicated cemetery.

S2-8 √ Lead agencies should consider avoidance, as defined in § 15370 of the CEQA Guidelines, when significant cultural resources are discovered during the course of project planning.

Please feel free to contact me at (916) 653-6251 if you have any questions.

Sincerely,

Dave Singleton
Program Analyst

Attachment: List of Native American Contacts

archaeological resources, in accordance with the procedures below, after which the on-site construction supervisor shall be notified and shall direct work to continue in the location of the archaeological find. A record of monitoring activity shall be submitted to UCI each month and at the end of monitoring. If the archaeological discovery is determined to be significant, the archaeologist shall prepare and implement a data recovery plan. The plan shall include, but not be limited to, the following measures:

i. Perform appropriate technical analyses;
ii. File any resulting reports with the South Coastal Information Center; and
iii. Provide the recovered materials to an appropriate repository for curation, in consultation with a culturally-affiliated Native American.

S2-7 As discussed on page 4.4-18 of the Final EIR (Volume I), there has been no past evidence of Native American human remains found on the UCI campus. Nevertheless, if Native American human remains are discovered during grading or excavation for future projects that implement the 2007 LRDP, UCI will comply with the existing laws cited in this comment (also listed on page 4.4-18 of the Final EIR, Volume I), including coordination with the Native American contacts listed in the attachment to this letter. Such coordination will also be conducted if the Initial Study for future campus projects identifies the presence or likelihood of Native American human remains within the project-specific APE.

S2-8 As indicated below, LRDP Mitigation Measure Cul-1A (page 4.4-14 of the Final EIR, Volume I) has been revised to better comply with the recommendations in this comment and CEQA Guidelines § 15370.

Cul-1A During preparation of the Initial Study for future projects that implement the 2007 LRDP and are located on sites containing recorded archaeological resources, UCI shall retain a qualified archaeologist to define and survey the area of potential effects (APE) on the project site. The APE shall be based on the extent of ground disturbance and site modification anticipated for the project including an appropriate buffer where specific project boundaries have yet to be established.

During the course of project planning, any recorded archaeological sites within the project APE shall be avoided to the extent feasible. If such sites cannot be avoided through project modifications or redesign, then the archaeologist shall evaluate all archaeological resources observed within the project APE for significance in accordance with CEQA Guidelines Section 15064.5(c). This evaluation shall also determine the extent of the archaeological resource, if not already established. If an archaeological resource within the project APE is determined to be significant, then mitigation measure Cul-1B shall be implemented.

COMMENTS

Native American Contacts
Orange County
September 7, 2007

Juaneno Band of Mission Indians Acjachemen Nation
David Belardes, Chairperson
31742 Via Belardes
San Juan Capistrano , CA 92675
(949) 493-0959
(949) 493-1601 Fax
Juaneno

Juaneno Band of Mission Indians
Adolph "Bud" Sepulveda, Chairperson
P.O. Box 25828
Santa Ana , CA 92799
bssepul@yahoo.net
714-838-3270
714-914-1812 - CELL
bsepul@yahoo.net
Juaneno

Juaneno Band of Mission Indians Acjachemen Nation
Anthony Rivera, Chairman
31411-A La Matanza Street
San Juan Capistrano , CA 92675-2674
arivera@juaneno.com
949-488-3484
949-488-3294 Fax
Juaneno

Sonia Johnston, Tribal Vice Chairperson
Juaneño Band of Mission Indians
P.O. Box 25628
Santa Ana , CA 92799
(714) 323-8312
sonia.johnston@sbcglobal.net
Juaneno

Juaneno Band of Mission Indians Acjachemen Nation
Joyce Perry , Tribal Manager & Cultural Resources
31742 Via Belardes
San Juan Capistrano , CA 92675
(949) 493-0959
(949) 293-8522 Cell
(949) 493-1601 Fax
Juaneno

Juaneno Band of Mission Indians
Alfred Cruz, Culural Resources Coordinator
P.O. Box 25628
Santa Ana , CA 92799
alfredgcruz@sbcglobal.net
714-998-0721
slfredgcruz@sbcglobal.net
Juaneno

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native American with regard to cultural resources for the proposed SCH#2006071024; CEQA Notice of Completion; draft Environmental Impact Report (DEIR) for University of California, Irvine 2007 Long Range Development Plan; Orange County, California.

RESPONSES

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COMMENTS

STATE OF CALIFORNIA—BUSINESS, TRANSPORTATION AND HOUSING AGENCY ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF TRANSPORTATION
District 12
3337 Michelson Drive, Suite 380
Irvine, CA 92612-8894

Flex your power!
Be energy efficient!

September 26, 2007

Mr. Richard Demerjian
University of California, Irvine
750 University Tower
Irvine, CA 92697-2325

File: IGR/CEQA
SCH#: 2006071024
Log #: 1753A
SR#: 73 & I-405

Subject: Draft Environmental Impact Report (DEIR) for the UCI Long Range Development Update Project

Dear Mr. Demerjian:

S3-1

Thank you for the opportunity to review and comment on the **DEIR for the UCI Long Range Development Update Project**. This program-level EIR will analyze the potential environmental effects of enrollment up to 37,000 students and corresponding facilities expansion at UCI through 2025-26. In addition, the update will include a "project-level" analysis of University Hills Phase 9/2, a faculty and staff affordable housing project with 120 homes on a 12-acre parcel. This project is located within the existing UCI campus in the City of Irvine, California.

Caltrans District 12 is a commenting agency on this project, and has no comment.

Please continue to keep us informed of any other future developments, which could potentially impact the transportation facilities. If you have any questions or need to contact us, do not hesitate to call Lan Zhou at (949) 756-7827.

Sincerely,

RYAN CHAMBERLAIN
Branch Chief, Local Development/Intergovernmental Review
District 12

c: Terry Roberts, Office of Planning and Research
Terri Pencovic, Caltrans HQ IGR/Community Planning
Gale McIntyre, Deputy District Director for Planning and Local Assistance
Raouf Moussa, Traffic Operations

RESPONSES

California Department of Transportation

S3-1 Comment noted.

COMMENTS

SOUTHERN CALIFORNIA
ASSOCIATION of GOVERNMENTS

Main Office
818 West Seventh Street
12th Floor
Los Angeles, California
90017-3435

t (213) 236-1800
f (213) 236-1825

www.scag.ca.gov

L1-01

RECEIVE
SEP 12 2007
UCI Campus & Environmental Pla

September 11, 2007

Mr. Richard Demerjian, Director
UC Irvine Campus and Environmental Planning
750 University Tower
Irvine, CA 92697-2325

RE: SCAG Clearinghouse No. I 20070546 UC Irvine 2007 Long Range Development Plan

Dear Mr. Demerjian:

Thank you for submitting the **UC Irvine 2007 Long Range Development Plan** for review and comment. As areawide clearinghouse for regionally significant projects, SCAG reviews the consistency of local plans, projects and programs with regional plans. This activity is based on SCAG's responsibilities as a regional planning organization pursuant to state and federal laws and regulations. Guidance provided by these reviews is intended to assist local agencies and project sponsors to take actions that contribute to the attainment of regional goals and policies.

We have reviewed the **UC Irvine 2007 Long Range Development Plan**, and have determined that the proposed Project is not regionally significant per SCAG Intergovernmental Review (IGR) Criteria and California Environmental Quality Act (CEQA) Guidelines (Section 15206). Therefore, the proposed Project does not warrant comments at this time. Should there be a change in the scope of the proposed Project, we would appreciate the opportunity to review and comment at that time.

A description of the proposed Project was published in SCAG's **August 16-31, 2007** Intergovernmental Review Clearinghouse Report for public review and comment.

The project title and SCAG Clearinghouse number should be used in all correspondence with SCAG concerning this Project. Correspondence should be sent to the attention of the Clearinghouse Coordinator. If you have any questions, please contact me at (213) 236-1856. Thank you.

Sincerely,

SHERYLL DEL ROSARIO
Associate Planner
Intergovernmental Review

RESPONSES

Southern California Association of Governments

L1-1 Comment noted.

COMMENTS

AIRPORT LAND USE COMMISSION
FOR ORANGE COUNTY
3160 Airway Avenue • Costa Mesa, California 92626 • 949.252.5170 fax: 949.252.6012

October 5, 2007

Richard Demerjian, Director
UC Irvine Campus and Environmental Planning
750 University Tower
Irvine, CA 92697-2325

Subject: Notice of Availability of a Draft Environmental Impact Report (DEIR) for the University of California, Irvine (UCI) 2007 Long Range Development Plan

Dear Mr. Demerjian:

We have reviewed the DEIR for the UCI Long Range Development Plan (2007 LRDP) in the context of the Airport Land Use Commission's *Airport Environs Land Use Plan for John Wayne Airport (JWA AELUP)*.

L2-1 As stated in the DEIR the project area is located within the AELUP Height Restriction Zone for JWA. The project description should include the proposed maximum building heights above mean sea level (AMSL) using National Geodetic Vertical Datum of 1929 (NGVD29) or North American Vertical Datum 1988 (NAVD88) for the various portions of the University. It is also suggested that a reference to the building heights be included in the Hazards and Hazardous Materials section, and the Transportation/Traffic section.

L2-2 Portions of the proposed project are within the Federal Aviation Regulation (FAR) Part 77 Imaginary Surfaces aeronautical obstruction area in the vicinity of JWA. The environmental document should address these height restrictions and imaginary surfaces.

L2-3 In addition, the DEIR should identify if the project allows for heliports/helistops as defined in the *AELUP for Heliports*. Should the development of non-emergency heliports/helistops occur within the proposed project area, proposals to develop new heliports/helistops must be submitted to the ALUC for review and action pursuant to Public Utilities Code Section 21661.5. Proposed heliport/helistop projects must comply fully with the state permit procedure provided by law and with all conditions of approval imposed or recommended by FAA, by the ALUC for Orange County and by Caltrans/Division of Aeronautics.

L2-4 Please be aware that development proposals which include the construction or alteration of a structure more than 200 feet above ground level, require filing with the Federal

RESPONSES

Airport Land Use Commission

L2-1 As noted on Figure 4.6-1 (page 4.6-9) of the Final EIR (Volume I), the John Wayne Airport Environs Land Use Plan (JWA AELUP) Height Restriction Zone applies to all buildings within Orange County that exceed 200 feet above ground level. The 2007 LRDP does not propose maximum building heights for future campus development. The 2007 LRDP EIR was prepared as a program level document and does not evaluate impacts associated with individual projects. UCI anticipates that most new buildings will be between4 and 5 stories, or less than 100 feet in height. Specific campus building height elevations have not been developed for the LRDP; therefore, it is not possible to provide this level of detail in the Final EIR.

For all on-campus development proposals that involve construction or alteration of a structure more than 200 feet above ground level, UCI will comply with the JWA AELUP referral requirements promulgated under Federal Aviation Regulation (FAR) Parts 77.13 and 77.25, including filing a Notice of Proposed Construction or Alteration. UCI will also comply with all conditions of approval imposed or recommended by the Federal Aviation Administration (FAA) and the Orange County Airport Land Use Commission, and any other applicable federal and state procedures. These statements have been added to Section 4.6.1.4 (Aircraft Accident Hazards) on page 4.6-8 of the Final EIR (Volume I), along with additional edits to clarify information regarding Accident Potential Zones. For consistency, the corresponding text in Section 4.6.3.5 (Issue 5 – Hazards from Nearby Airports) on page 4.6-33 of the Final EIR (Volume I) has been revised accordingly.

L2-2 Refer to Response to Comment L2-1. In addition, please note that potential on-campus hazards and noise impacts associated with the JWA are addressed in Sections 4.6.3.5 and 4.9.3.3, respectively, of the Final EIR (Volume I).

L2-3 The 2007 LRDP does not propose the development of heliports/helistops on campus.

L2-4 Refer to Response to Comment L2-1.

COMMENTS

L2-4 cont.

Aviation Administration (FAA). Projects meeting this threshold must comply with procedures provided by Federal and State law, with the referral requirements of ALUC, and with all conditions of approval imposed or recommended by the FAA and ALUC including filing a Notice of Proposed Construction or Alteration (FAA Form 7460-1).

Thank you for the opportunity to comment on this DEIR. Please contact Lea Umnas at (949) 252-5123 or via email at lumnas@ocair.com if you need any additional details or information regarding the Orange County ALUC.

Sincerely,

Kari A. Rigoni
Executive Officer

RESPONSES

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COMMENTS

COUNTY OF ORANGE

RESOURCES & DEVELOPMENT MANAGEMENT DEPARTMENT

Bryan Speegle, Director
300 N. Flower Street
Santa Ana, CA

P.O. Box 4048
Santa Ana, CA 92702-4048

Telephone: (714) 834-2300
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NCL 07-031

October 9, 2007

Richard Demerjian, Director
University of California, Irvine
UC Irvine Campus and Environmental Planning
750 University Tower
Irvine, CA 92697-2325

SUBJECT: DEIR – University of California, Irvine 2007 Long Range Development Plan

Dear Mr. Demerjian:

The above mentioned item is a Draft Environmental Impact Report (DEIR) for the University of California, Irvine (UCI) 2007 Long Range Development Plan (2007 LRDP).

The County of Orange has reviewed the DEIR and offers the following attached comments regarding Water Quality and John Wayne Airport (JWA) concerns:

L3-1

WATER QUALITY

1. Although the University of California, Irvine (UCI) is not a co-permittee under the NPDES permit, UCI is listed as an entity with the potential to discharge pollutants to the Orange County stormwater system. As such, active participation in the County of Orange's NPDES permit compliance efforts is expected.

L3-2

2. The following comments were provided in response to the Notice of Preparation for the LRDP and were not sufficiently addressed in the DEIR.

L3-3

   a. The water quality impacts of the project should be evaluated in accordance with the provisions outlined in Exhibit 7-I of the 2003 Countywide Drainage Area Management Plan (DAMP). At a minimum, the following information should be provided:

L3-4

      1) A description of project characteristics with respect to water quality issues, such as change in percent impervious surface area and BMPs to be incorporated into the project design.

RESPONSES

County of Orange Resources & Development Management Department

L3-1 This comment requests LRDP compliance with the County of Orange permit under the National Pollution Discharge Elimination System (NPDES) and its implementing documents including the County Drainage Area Management Plan (DAMP). Compliance with NPDES and other federal and state regulatory requirements on the UCI campus falls under the jurisdiction of The Regents of the University of California, therefore UCI is not required to comply with the County NPDES permit or DAMP.

As described in Chapter 4.7 (Hydrology and Water Quality), Volume I of the Final EIR, UCI is implementing a Storm Water Management Plan (SWMP) in compliance with NPDES Phase II requirements as an "MS4" (small municipality). The SWMP is applicable to all campus projects including future projects that implement the 2007 LRDP; identifies a system of Best Management Practices (BMPs) for campus operations and construction; and is centrally managed through UCI's Environmental Health and Safety Department which coordinates the efforts of multiple campuswide entities.

> The UCI SWMP is available for review at:
> http://www.ehs.uci.edu/programs/enviro/UCI_SWMP.pdf
>
> UCI's overall water quality program is available for review at:
> http://www.ehs.uci.edu/programs/enviro/stormwater.html

In addition to the UCI SWMP, the hydrology and water quality analyses in Chapter 4.7, Volume I of the 2007 LRDP EIR relied on the UCI Storm Drain Master Plan (SDMP), Tettemer and Associates, May 2003, which is incorporated by reference in the Final EIR. Both the UCI SWMP and the UCI SDMP are available for review at the UCI Office of Campus and Environmental Planning. Certain responses below refer to the descriptions, analysis and findings in these documents.

L3-2 UCI received, reviewed, and considered comments provided by the Orange County Resources & Development Management Department (RDMD) in their response letter to the 2007 LRDP EIR Notice of Preparation (NOP). The August 14, 2006 RDMD NOP response letter only addressed issues related to bikeways and riding and hiking trails, and did not address hydrology and water quality issues as asserted by RDMD. Although the RDMD NOP response letter did not address hydrology and water quality issues, Chapter 4.7, Volume I of the Final EIR evaluates these issues at an appropriate (programmatic) level of detail for a general land use plan such as the 2007 LRDP.

L3-3 The DAMP is an implementing document for County of Orange NPDES compliance. As described in Response to Comment L3-1, UCI does not fall within the jurisdiction of the County of Orange NPDES compliance program, but implements its own compliance program under NPDES Phase II requirements. In this regard, the water quality impacts of the 2007 LRDP were evaluated in accordance with the requirements of CEQA and the information resulting from the 2003 UCI SDMP. Chapter 4.7, Volume I of the Final EIR evaluates the potential for LRDP implementation to result in significant impacts to hydrology and water quality, and concludes these impacts would be reduced to a Level of Less than Significant with implementation of Mitigation Measures Hyd-1A, Hyd-2A, and Hyd-2B (refer to Response to Comment L7-5 for revisions to these mitigation measures).

L3-4 Refer to Response to Comment L3-3. The UCI SDMP includes a description of water quality characteristics associated with on-campus development, including changes in percentage of impervious area and recommended BMPs. The UCI SWMP (NPDES Phase II compliance) and LRDP EIR Mitigation Measures Hyd-2A and Hyd-2B (pages 4.7-23 and 4.7-24 of the Final EIR) require BMPs and design features to be incorporated into UCI projects (refer to Response to Comment L7-5 for revisions to these mitigation measures).

With respect to the University Hills Area 9/2 Housing Project evaluated in Volume III of the Final EIR, Sections 4.7.3 and 4.7.4 have been revised to reflect the results of a drainage study that was recently completed for the project.

L3-5 2) A review of DAMP Exhibit 7.1 Table 7-I.1, Priority Projects Categories. Projects in the Long Range Development Plan (LRDP) may be considered Priority Projects and will require the development of a Water Quality Management Plan.

L3-6 3) A description of the sensitivity of the receiving waters. The current discussion of the sensitivity of receiving waters is insufficient and does not include any mention of the Total Maximum Daily Loads (TMDLs) that have been developed for San Diego Creek and Newport Bay.

L3-7 4) A characterization of the potential water quality impacts from the proposed project and identification of the anticipated pollutants to be generated by the project. Table 4.7-1 should be reconciled with the information provided in Table 7.1-3 Anticipated and Potential Pollutants Generated by Land Use Type in the DAMP.

L3-8 5) An identification of hydrologic conditions of concern, such as runoff volume and velocity; reduced infiltration, and increased flow, frequency, duration, and peak of storm runoff.

L3-9 6) If a proposed project has the potential to create a major new stormwater discharge (major land development project that has the potential to convert large amounts of pervious land surface to impervious surface area.) to a water body with an established TMDL, the EIR should consider quantitative analysis of the anticipated pollutant loads in the stormwater discharges to the receiving waters.

L3-10 7) A reasonable analysis of the cumulative impacts of the proposed project together with past, present and reasonably anticipated future projects (related projects) that could produce cumulative impacts with the proposed project.

L3-11 b. Implementation of post-construction Best Management Practices (BMPs) consistent with the Water Quality Management Plan (WQMP) program in Section 7 and Exhibit 7-II of the 2003 Countywide DAMP. This includes describing commitments to installation and maintenance of site design, source control and treatment control BMPs consistent with the DAMP New Development and Significant Redevelopment Program. Under the new Municipal Stormwater NPDES permit and the 2003 DAMP, projects in the LRDP may be considered priority projects and may require appropriately sized treatment control BMPs to be included in the WQMP which should be targeted to address the pollutants of concern and to achieve the highest level of treatment either singly or in combination (see DAMP Table 7.2-6).

RESPONSES

L3-5 Refer to Response to Comment L3-1.

L3-6 The Santa Ana Regional Water Quality Control Board (RWQCB) is in the process of developing Total Maximum Daily Loads (TMDLs) for the San Diego Creek and Newport Bay receiving waters. Therefore, this information is not yet available to update Section 4.7.1.3, Volume I of the Final EIR.

L3-7 Refer to Responses to Comments L3-1, L3-3 and L3-4. Table 4.7-1 from the UCI SDMP provides a more specific listing of possible facilities potentially located on campus, than does Table 7.1-3 of the DAMP.

L3-8 Identification of hydraulic conditions including runoff volume and velocity, reduced infiltration, and increased flow, frequency and duration of peak storm runoff is included in the 2003 UCI SDMP. As stated in Response to Comment L3-1, the hydrology analysis in Chapter 4.7, Volume I of the Final EIR relied on the UCI SDMP, which provides the basis for LRDP master planning of individual projects with respect to the above-listed hydrologic conditions of concern. As such, the hydrology analysis is at a level of detail consistent with a general land use plan such as the 2007 LRDP. Future projects implemented in accordance with the LRDP will provide a more detailed level of analysis when proposed project characteristics are known, including identification of the above-listed hydrologic conditions of concern and measures that will be implemented to reduce hydraulic impacts as described in LRDP EIR Mitigation Measure Hyd-1A (refer to Response to Comment L7-5 for revisions to this mitigation measure).

With respect to the University Hills Area 9/2 Housing Project evaluated in Volume III of the Final EIR, Sections 4.7.3 and 4.7.4 have been revised to reflect the results of a drainage study that was recently completed for the project.

L3-9 As stated in Response to Comment L3-6, the Santa Ana RWQCB has not established TMDLs for the San Diego Creek and Newport Bay receiving waters. In addition, future projects that implement the 2007 LRDP have not been defined; therefore, it is not possible to provide quantitative analysis of the anticipated pollutant loads in storm water discharges on a campus-wide basis, as part of Volume I of the Final EIR. Rather, Chapter 4.7 of Volume I includes an analysis of the potential pollutants that could affect water quality within the watershed at a level of detail consistent with a general land use plan such as the 2007 LRDP. Future projects implemented in accordance with the LRDP will provide a more detailed level of analysis when proposed project characteristics are known, including identification of potential pollutants and measures that will be implemented to reduce water quality impacts as described in LRDP EIR Mitigation Measures Hyd-2A and Hyd-2B (refer to Response to Comment L7-5 for revisions to these mitigation measures).

With respect to the University Hills Area 9/2 Housing Project evaluated in Volume III of the Final EIR, Sections 4.7.3 and 4.7.4 have been revised to reflect the results of a drainage study that was recently completed for the project.

L3-10 Section 4.7.4 in Volume I of the Final EIR provides analysis of LRDP contribution to cumulative impacts to drainage, hydrology, and water quality within the watershed at an appropriate level of detail for a general land use plan such as the 2007 LRDP. Section 4.7.4 in Volume III of the Final EIR provides analysis of the contribution of the University Hills Area 9/2 Housing Project to cumulative impacts to drainage, hydrology, and water quality within the more focused watershed in the South Campus, in combination with surrounding campus developments.

L3-11 Refer to Responses to Comments L3-1, L3-3 and L3-4.

COMMENTS

Richard Demerjian
NCL 07-031
Page 3

c. Mitigation for the construction phase of the project should include compliance with the State General Construction Permit and the inclusion of the following as general or specific notes on project plan sheets:

1) Sediment from areas disturbed by construction shall be retained on site using structural controls to the maximum extent practicable.

2) Stockpiles of soil shall be properly contained to eliminate or reduce sediment transport from the site to the streets, drainage of facilities or adjacent properties via runoff, vehicle tracking, or wind.

3) Appropriate BMPs for construction-related materials, wastes, spills or residues shall be implemented to minimize transport from the site to streets, drainage facilities, or adjoining properties by wind or runoff.

L3-12

4) Runoff from equipment and vehicle washing shall be contained at construction sites unless treated to reduce or remove sediment and other pollutants.

5) All construction contractor and subcontractor personnel are to be made aware of the required best management practices and good housekeeping measures for the project site and any associated construction staging areas.

6) At the end of each day of construction activity all construction debris and waste materials shall be collected and properly disposed in trash or recycle bins.

7) Construction sites shall be maintained in such a condition that a storm does not carry wastes or pollutants off the site. Dischargers other than stormwater (non-stormwater discharges) are authorized under California's General Permit for Storm Water Discharges Associated with Construction Activity only where they do not cause or contribute to a violation of any water quality standard and are controlled through implementation of appropriate BMPs for elimination or reduction of pollutants. Non-stormwater discharges must be eliminated or reduced to the extent feasible.

Potential pollutants include but are not limited to: solid or liquid chemical spills; wastes from paints, stains, sealants, solvents, detergents, glues, lime, pesticides, herbicides, fertilizers, wood preservatives, and asbestos fibers, paint flakes or stucco fragments; fuels, oils, lubricants and hydraulic, radiator or battery fluids; concrete and related cutting or curing residues; floatable wastes, wastes from any engine/equipment steam cleaning or chemical degreasing; wastes from street cleaning; and superchlorinated potable water line flushing and testing.

RESPONSES

L3-12 LRDP Mitigation Measures Hyd-2A and Hyd-2B (refer to Response to Comment L7-5 for revisions to these mitigation measures) provide project level BMPs equivalent to the measures identified for the State General Construction Permit and will be included as conditions for all construction projects under the LRDP to mitigate stormwater and water quality impacts.

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L3-12 cont.

During construction, disposal of such materials should occur in a specified and controlled temporary area on-site physically separated from potential stormwater runoff, with ultimate disposal in accordance with local, state and federal requirements.

L3-13

8) Discharging contaminated groundwater produced by dewatering groundwater that has infiltrated into construction site is prohibited. Discharging of contaminated soils via surface erosion is also prohibited. Discharging of non-contaminated groundwater produced by dewatering activities requires a National Pollutant Discharge Elimination System (NPDES) permit from the Santa Ana Regional Water Quality Control Board.

L3-14

John Wayne Airport (JWA)

3. Upon reviewing Figure 3-3 Campus Planning Sections it appears that portions of the UCI campus (North Campus and portions of the Academic Core and West Campus) are located beneath the horizontal surface for JWA. The DEIR does not discuss the proposed maximum building heights for these areas however, please be aware that buildings 206 feet and higher will penetrate the Federal Aviation Administration (FAA) Federal Aviation Regulation (FAR) Part 77 imaginary surfaces. JWA believes that any buildings which penetrate the FAA FAR Part 77 imaginary surfaces should be considered a potentially significant impact and development above the imaginary surface is discouraged.

If you have any questions, please contact Sally Hohnbaum at (714) 834-5907.

Sincerely,

Ronald L. Tippets, Chief
Current and Environmental Planning

RESPONSES

L3-13 UCI operations and construction projects will comply with NPDES requirements including the treatment and disposal of contaminated and non-contaminated groundwater and contaminated soils from dewatering activities, and obtaining required permits from the Santa Ana RWQCB for discharging dewatered groundwater. In response to this comment, the following discussion has been added to Section 4.7.2.2 (State Regulatory Framework) in Volume I of the Final EIR, under the heading "Construction Storm Water Permits" on page 4.7-14:

The Construction General Permit also prohibits the discharge of materials other than storm water and authorized non-storm water discharges. It is recognized that certain non-storm water discharges may be necessary for the completion of construction projects. Such discharges include, but are not limited to irrigation of vegetative erosion control measures, pipe flushing and testing, street cleaning, and dewatering. Such discharges are allowed by the Construction General Permit provided they are not relied upon to clean up failed or inadequate construction or post-construction BMPs designed to keep materials onsite. These authorized non-storm water discharges shall (1) be infeasible to eliminate; (2) comply with BMPs as described in the SWPPP; and (3) not cause or contribute to a violation of water quality standards. In addition, the Santa Ana RWQCB issued Order No. R8-2003-0061, and the Amending Orders No. R8-2005-0041 and R8-2006-0004, which regulate discharges to surface waters that pose an insignificant (de minimus) threat to water quality, including construction dewatering wastes. Such de minimus discharges complying with the provisions and requirements of the General Permit are not expected to violate applicable water quality standards. Order No. R8-2005-0041 allows short-term groundwater-related discharges within the San Diego Creek/Newport Bay watershed, which were previously excluded in Order No. R8-2003-0061. This Order will be amended once again by Tentative Order 2007-0041 which is expected to be adopted on November 30, 2007, and will address revised discharge requirements for the San Diego Creek/Newport Bay watershed.

L3-14 Refer to Response to Comment L2-1 and L2-2.

COMMENTS

Orange County Fire Authority
PO Box 57115, Irvine, CA 92619-77115 • 1 Fire Authority Rd., Irvine CA 92602

Chip Prather, Fire Chief (714) 573-6000 www.ocfa.org

RECEIVED
OCT 10 2007
UCI Campus & Environmental Planning

October 9, 2007

Richard Demerjian, Director
UCI Office of Campus & Environmental Planning
750 University Tower
Irvine, CA 92697-2325

SUBJECT: **2007 UCI LRDP EIR**

Dear Mr. Demerjian:

Thank you for the opportunity to review the subject document. The Orange County Fire Authority has reviewed the document and does not agree with the findings of "less than significant" due to the impacts that the cumulative projects on the campus will have on fire service and the fact that projects are scheduled to be built on the north campus property, which is not served within adopted response times.

L4-1

Page 4.11-6 Topic: Issue 1-Fire Protection. Within the summary box, the impact states that the LRDP will not exceed fire station #4's capacity. The North Campus is not within fire station 4's response area. All documentation relating to Fire Station 4 throughout the document does not relate to the North Campus. The Orange County Fire Authority has an adopted response standard that can not be met in the North Campus with out the addition of a new fire station.

Page 4.11-11 Topic: Cumulative Issues: UCI LRDP is one of 4 major cumulative impacts we anticipate in the response area. The LRDP will add to a significant impact on the area. The section 4.11.4.1 last sentence on Page 4.11-11 states "Therefore, as a result of the increase in regional demand for fire protection services, a new OCFA Fire Station may be constructed which could result in adverse physical impacts to the environment." OCFA cannot build a new fire station to offset the LRDP cumulative impacts unless OCFA can obtain land to build upon. The OCFA is requesting land on UCI Property to build a new fire station to deal with the increased demand on service in the area.

L4-2

The Orange County Fire Authority does not agree with the 4.11.4 summary statements. The Orange County Fire Authority believes that the University of California, Irvine, 2007 Long Range Development Plan will produce significant impacts to the environment in the area of Public Service unless appropriate mitigation is incorporated into the LRDP EIR.

RESPONSES

Orange County Fire Authority

L4-1 The analysis in Section 4.11.4 of the Final EIR (Volume I) concluded that the LRDP, in combination with other development in the vicinity, would result in a cumulatively considerable contribution to the need for additional fire protection facilities in the vicinity. As stated on pages 4.11-11 and 4.11-12 in Volume I of the Final EIR, "as a result of the increase in regional demand for fire protection services, a new Orange County Fire Authority (OCFA) Fire Station may be constructed which could result in adverse physical environmental impacts. OCFA would conduct an environmental analysis and require appropriate mitigation measures to reduce impacts to the physical environment. As a result, the adverse physical impacts resulting from construction and operation of a new fire station to serve cumulative regional demand would be less than significant."

In response to this comment, Section 4.11.1.2 (Environmental Setting, Fire Protection) in Volume I of the Final EIR (page 4.11-2) has been revised to address an 80% travel response time to the UCI main campus from Fire Station #4, rather than an average response time, and to acknowledge that the North Campus is within OCFA's geographic service area for Fire Station #28 and fire protection services in the vicinity of the North Campus exceed OCFA's 5-minute response threshold from this station. As a result, Section 4.11.3.1 (Issue 1 – Fire Protection) in Volume I of the Final EIR (pages 4.11-6 and 4.11-7) has been revised to indicate that development on the North Campus in combination with existing and proposed future off-campus development in the IBC area would contribute to increased demand on response capacity at Fire Station #28 contributing to the need for additional OCFA facilities. This is a cumulative impact. The physical adverse impacts resulting from construction of new OCFA facilities would be mitigated by OCFA under subsequent CEQA analysis.

L4-2 Refer to Response to Comment L4-1. UCI recognizes that OCFA planning for the campus vicinity has identified the need for a new fire station to serve cumulative development within the area. UCI will continue to work cooperatively with OCFA and other regional partners to identify a suitable site for a new fire station. The issues of funding for the construction and operation of a new fire station and acquisition of land for a new fire station to serve the UCI vicinity are socio-economic issues to be addressed by OCFA and other public and private parties in the service area, and are not considered physical environment effects under CEQA. OCFA has initiated discussion with UCI and other landowners regarding acquisition of a land parcel for the new fire station. In response to this request and in recognition of the need for additional fire protection facilities to serve the area, UCI has entered into discussions with OCFA regarding the acquisition of a land parcel on the UCI campus for a future fire station. Any subsequent actions regarding land acquisition, planning and construction of this new fire station would be subject to subsequent CEQA analysis.

COMMENTS

In addition to the above noted request for land on UCI property for a new fire station, the following mitigations are requested for all projects on the campus to assist in emergency response:

L4-3

- All traffic signals on emergency access ways should include, or be upgraded with, the installation of optical preemption devices.

- All electrically operated gates within the Campus shall install emergency opening devices as approved by the Orange County Fire Authority.

We would like to point out that all standard conditions with regard to development would be applied to this project at the time of plan submittal. . We request that any subsequent documentation or information be forwarded to the above address, attention "Strategic Services".

Sincerely,

Michele Hernandez

Michele Hernandez
Management Analyst/Strategic Services
michelehernandez@ocfa.org 714-573-6199

RESPONSES

L4-3 In response to this comment, the impact analysis in Section 4.6.3.6 of the Final EIR (Volume I) has been updated and the following LRDP mitigation measures have been added:

Haz-6B All traffic signals installed on emergency access ways shall include the installation of optical preemption devices for emergency services.

Haz-6C All electronically-operated gates installed within the UCI Campus shall include emergency opening devices, as approved by the Orange County Fire Authority.

The comment also refers to the application of standard development conditions at the time of plan submittal. Please note that the campus Fire Marshal, and not OCFA, reviews and approves all UCI development plans to ensure adequate fire prevention in accordance with California building and fire codes. Fire access plans (e.g., emergency access routes, hydrant locations, and fire department connections) for each new campus project, however, are provided to OCFA for its review and approval.

As requested, all subsequent documentation or information regarding the LRDP EIR will be provided to OCFA at P.O. Box 57115, Attention: Strategic Services, Irvine, CA 92619-7115.

COMMENTS

October 10, 2007

Mr. Richard Demerjian, Director
UC Irvine Campus and Environmental Planning
750 University Tower
Irvine, California 92697-2325

Subject: Review of University of California, Irvine 2007 Long Range Development Plan and Draft Environmental Impact Report

Dear Mr. Demerjian:

The City of Irvine staff has reviewed the above referenced project and is providing the comments as outlined below. We would request that these comments be addressed in the next version of the LRDP or the Final EIR, as applicable.

2007 Long Range Development Plan (LRDP)

1. The City of Irvine current General Plan and Zoning caps for Planning Area 50 (UCI) are inconsistent with both the existing 1989 and proposed 2007 LRDP, as follows: L5-1

	Units/Beds	Square Footage
Irvine General Plan/Zoning Code	9,500	9,810,293
1989 LRDP	12,240	10,199,000
2007 LRDP	19,772	13,259,400

City and UCI staff will need to coordinate the process by which to incorporate the correct numbers into the City's General Plan. For your information, the City of Irvine requested and received UCI input into the 2007 City of Irvine Development Projections. The 1989 LRDP and proposed 2007 LRDP development intensities are both noted in the document. However, as the City's General Plan and Zoning Code for UCI have not been updated, only the current caps for Planning Area 50 have been projected.

2. *Page 35:* The Irvine Business Complex also consists of residential, mixed-use, and industrial development. Revise this paragraph to include these uses in addition to the stated office and commercial development. L5-2

RESPONSES

City of Irvine letter

L5-1 Comments L5 -2 through L5 -13 do not address the adequacy of the LRDP EIR, but rather LRDP consistency with the City of Irvine's land use and transportation planning. As identified in the responses to these comments below, UCI will incorporate the City's recommendations, as appropriate, into the text of the Final LRDP, which will be published following consideration of the LRDP and LRDP EIR by the UC Board of Regents (Regents). Copies of the Final EIR will be distributed to the City of Irvine and available on-line at www.uci.cep.edu.

To resolve the stated inconsistencies between the City of Irvine's General Plan/Zoning Code development intensity caps for Planning Area 50 (UCI) and the proposed development intensities in the 2007 LRDP, UCI will provide a written summary of such issues and discuss with City staff at the next scheduled UCI/City of Irvine Planning Coordination meeting. As a part of this process, UCI will establish a template and process for providing planning data to the City of Irvine on an annual basis in consultation with the City.

L5-2 In response to this comment, the text in the final LRDP and in Section 3.1.2 of the Final EIR, Volume I (page 3-11, second paragraph, fifth sentence) has been revised to accurately reflect the characteristics of the IBC, as follows:

The Irvine Business Complex, consisting of office and commercial development and mixed-use and residential uses, is located north of UCI's North Campus.

COMMENTS

L5-3 3. *Page 50:* In the "Circulation and Transportation Section", the LRDP states that UCI is pursuing a substantial portfolio of Transportation Demand Management (TDM) measures. Outline any additional measures or increased measures in comparison to the measures currently in place.

L5-4 4. *Page 50:* Identify which of the TDM measures are planned to be implemented in the Income-Producing Inclusion Area.

L5-5 5. *Page 70 (Campus Shuttles):* Identify any plans to modify or increase the existing campus shuttle service, including campus shuttle service to the proposed parking structures or other proposed new development.

L5-6 6. *Page 70 (Parkwest Shuttle):* The City is planning an IBC Shuttle system which will serve the corner of Michelson and Harvard. Identify whether UCI has any planned modifications to the Park West shuttle to facilitate transfers between the two services.

L5-7 7. *Page 70 (Public Transit):* Discuss any coordination between UCI and OCTA regarding future transit services near the UCI campus. The City is aware of several large projects which may provide opportunities for increased transit ridership to campus. These projects include:

- Increased All-Day Metrolink Service by 2009, including hours of operation from 5:30 AM to 12 PM with service at least every 30 minutes.
- Bus-Rapid Transit Service to the IBC by 2010
- Intracounty Bus Service from Riverside/Corona to UCI by 2012

L5-8 8. *Page 70 (Public Transit):* Consider including off-street bus facilities for both the campus shuttle and OCTA services as part of the LRDP.

L5-9 9. *Page 70 (Trains):* Identify how the ZEV-NET system fit into future development. Identify any other car-sharing services that might also work for on-campus trips. There is an opportunity for the City and UCI to work together, as they have in the past with the ZEV-NET program, to provide spaces at the Irvine Station and work with other key activity centers to identify locations where car-sharing demand may exist.

L5-10 10. *Page 70 (Bicycles and Scooters):* As several UC campuses have bike-sharing programs as part of their TDM programs, consider a bike station or a bike-sharing program as part of the LRDP.

L5-11 11. City staff would recommend that the North Campus development be designed as a City/UCI Campus gateway at the corner of Jamboree and Campus, consistent with the principles of the City's Draft IBC Vision Plan.

RESPONSES

L5-3 UCI implements a comprehensive series of Transportation Demand Management (TDM) measures through an operational program aimed at reducing peak hour commuter trips and discouraging the use of single-occupancy vehicles on the regional and campus roadway systems. TDM measures employed at UCI in 2006-07 are identified in Table 5-3 of the LRDP and Section 4.13.1.3 of the Final EIR (Volume I), and additional descriptions are available at *http://www.parking.uci.edu/AT/*. UCI will continue to implement current measures as appropriate, monitor trip generation and reduction, and develop new initiatives throughout implementation of the LRDP. New initiatives include:

- Car sharing program. As of October 2007, UCI is partnering with the private company Flexcar to provide all campus affiliates with access to a car sharing program. This service provides convenient access to a fleet of modern, low-emission vehicles for short term use. By offering access to a car for short term trips, the program will reduce the perceived need by some campus commuters and residents to bring their car to campus for occasional trips, thereby reducing the volume of vehicles brought to campus. Fifteen Flexcar vehicles are located around the campus at various locations.

- Expanded shuttle routes. In October 2007, UCI shuttles began providing service to Newport Beach. The route transports passengers to and from UCI to various high-demand locations in Newport Beach, including many apartment communities, the UCI Sail Base, Hoag Hospital, and the Newport Peninsula.

  UCI also is working with the City of Irvine to coordinate UCI shuttle routes with future City shuttles in the IBC and elsewhere in order to connect large employment centers, transportation hubs, and recreational centers with the UCI campus.

- Expanded bicycle infrastructure. UCI is planning to significantly expand campus services provided to bicyclists. Plans include a bicycle sharing program, a bicycle recycling program, and the development of new bike parking centers around the academic core. UCI is currently negotiating with a vendor to provide bike shop services beginning in November 2007. The proposed bike shop would offer maintenance and repair services to the campus, with customers receiving the use of a courtesy bicycle while their own bike was in the shop. Additional information on UCI bicycle programs and policies is available at *http://www.bike.uci.edu/bike/*.

L5-4 The extent to which TDM measures are implemented in the Income-Producing Inclusion Areas depends on several factors including the type of development, the geographic location, and the business relationship between UCI and involved third-parties. While private businesses and other non-UCI entities within the Inclusion Areas are not subject to UCI parking and transit policies, they fall within the jurisdiction of the City of Irvine, South Coast Air Quality Management District, and other regional agencies that implement applicable TDM programs. In addition, non-UCI entities in the Inclusion Areas have access to certain UCI alternative transportation programs and facilities. For example:

- Inclusion Area employees have access to UCI's Flexcar car sharing program. This service provides convenient access to a fleet of modern, low-emission vehicles for short term use. Membership fees to the program have been waived for Inclusion Area employees for the first three months. Annual membership fees are waived thereafter so long as a member uses the service at least twice per year.

- UCI carpool and vanpool services are offered to Inclusion Area employees. (University Research Park employees currently represent 5-8 percent of UCI vanpool users.)

- Campus bikeways connect the Inclusion Areas to regional trails.

UCI affiliates within the Inclusion Areas (e.g., University Research Park) have access to most of the TDM opportunities and incentives offered by UCI.

COMMENTS

L5-5 Existing UCI shuttle routes are available at *http://www.parking.uci.edu/AT/ modes/shuttles.cfm.* In order to provide acceptable levels of shuttle service, UCI will continue to expand and improve shuttle routes and stations concurrent with campus physical and population growth. This includes providing service to key parking areas and other campus destinations identified in the LRDP. Recent improvements include a new shuttle route serving destinations in Newport Beach and efforts to coordinate UCI shuttle routes with proposed City of Irvine shuttles.

L5-6 UCI is working with the City of Irvine to coordinate UCI shuttle routes with future City shuttles in the IBC and elsewhere in order to connect large employment centers, transportation hubs, and recreational centers with the UCI campus. As part of this effort, UCI will consider recommendations to modify the Parkwest shuttle route to facilitate transfers between this service and the future IBC shuttle.

L5-7 In conjunction with other alternative transportation efforts, UCI is working with the Orange County Transit Authority (OCTA) to identify new routes between the UCI campus and regional transportation hubs and highly populated areas. This includes potential express routes to the campus from transportation hubs such as the Tustin Metrolink Station and the Irvine Transportation Center.

L5-8 UCI is served by four OCTA bus stops: three located on Campus Drive and one on University Drive. (All existing OCTA bus routes serving UCI operate outside the campus boundaries.) Existing bus turnouts on Campus Drive at the Watson Bridge accommodate both campus shuttles and OCTA buses. The creation of turnouts and/or bus shelters at the other three locations would involve the use of public right-of-way which is outside the purview of the LRDP. However, should OCTA modify its bus routes in the future to include stops within the campus, UCI will work cooperatively with OCTA to provide off-street bus facilities where feasible. In addition, UCI has added the following planning objective for the circulation element in the 2007 LRDP:

6. Provide off-street facilities, such as turnouts and bus shelters, where feasible at campus bus and shuttle stops.

L5-9 The Zero Emission Vehicle-Network Enabled Transport (ZEV-NET) program is managed by the National Fuel Cell Research Center and the Institute of Transportation Studies, both located at UCI, in cooperation with Toyota Motor Sales, U.S.A., Inc. Other essential partners include The Irvine Company, the City of Irvine, OCTA, and various corporate partners. ZEV-NET combines mass transit with low-emissions shared-use vehicles to provide a cleaner alternative to single-car commuting. The net effect of ZEV-NET is to reduce traffic congestion, emissions, and the use of fossil fuels. ZEV-NET relieves traffic congestion in two ways: it enables more commuters to take the train to work by providing convenient transportation between the train station and work sites; and it allows multiple users to share a single car through the use of an intelligent web-based reservation system. ZEV-NET also eliminates the pollution associated with a one-person-per-car freeway commute. Moreover, the ride to and from the train station is made using zero and near-zero emissions vehicles. Additionally, solar panels and fuel cells generate zero-emission electricity on site to charge the electric vehicles.

Currently, the Irvine Transportation Center participates in ZEV-NET by providing reserved parking, with chargers, for ZEV-NET subscribers. In the future, ZEV-NET plans to expand the network to include other regional rail stations and employment centers.

In addition to ZEV-NET, UCI supports other alternatives to single-car commuting. For example, UCI has partnered with the private company Flexcar to provide all campus affiliates with access to a car sharing program. This service provides convenient access to a fleet of modern, low-emission vehicles for short term use. By offering access to a car for short term trips, the program will reduce the perceived need by some campus commuters and residents to bring their car to campus for occasional trips, thereby reducing the volume of vehicles brought to campus. At the present time, 15 Flexcar vehicles are located around the campus at various locations.

UCI will continue to work with the City to identify additional car-sharing opportunities.

RESPONSES

L5-10 As part of its TDM program, UCI is planning to significantly expand campus services provided to bicyclists. Plans include a bicycle sharing program, a bicycle recycling program, and the development of new bike parking centers around the academic core. UCI is currently negotiating with a vendor to provide bike shop services beginning in November 2007. The proposed bike shop would offer maintenance and repair services to the campus, with customers receiving the use of a courtesy bicycle while their own bike was in the shop. Additional information on UCI bicycle programs and policies is available at *http://www.bike.uci.edu/bike/*.

L5-11 UCI concurs with the recommendation from the City of Irvine that the North Campus serves as an important gateway between the campus and the City. In this regard, the following planning principle has been added for the North Campus in the 2007 LRDP:

6. Incorporate planning and design features for the North Campus consistent with it being an important gateway between the City of Irvine and the UCI campus.

COMMENTS

L5-12 12. The LRDP shows an off-street bike trail at the "back of house" of the North campus, adjacent to the marsh area. City staff would request a connection of this trail to Fairchild so that IBC commuters can use this trail to get from businesses on Fairchild to Jamboree Road without having to ride along Jamboree Road.

L5-13 13. *Page 41, Existing Planning Agreements:* Include the Development Agreement between UCI and the City entered into on December 04, 1992 (Ordinance No. 92-15), regarding the development of the UCI's North Campus Inclusion Area.

2007 LRDP Draft Environmental Impact Report

L5-14 14. On page 1-2 of the LRDP DEIR, an overview of the project is provided. However, nothing in the traffic study repeats this information. Provide the breakdown of students/faculty/employees that generates this trip generation in the Traffic Study. Explain in the Traffic Study whether the 2007 LRDP is evaluating the traffic impacts of the net increase in students or the entire new student population. If it is the net increase in students and faculty, identify whether it is evaluating the increase from 27,500 from a previous approval, (the 1970 or 1989 LRDP) to 37,000 in the 2007 LRDP.

L5-15 15. The figures 4.13-2, on-campus intersections and 4.13-3, off-campus intersections, have ADT volumes. The number of lanes have been generally stated in the text. The City requests an additional graphic or table that provides the number of lanes on these roadway segments, and the theoretical daily capacity, so we could verify the V/C calculations.

L5-16 16. Provide a queuing analysis at the signals for all impacted intersections, preferably based on the program Synchro. The results of the queuing at the signal, particularly whether the through lane blocks entry into the left and right turn lanes will be used then to determine the appropriate left and right turn lane lengths. Provide a summary table of the left and right turn lane lengths with columns for the length required based on the analysis, the length provided, as well as the existing lengths.

L5-17 17. *Table 4.13-17*: At MacArthur/Jamboree, this intersection is partially within the City of Irvine and a LOS E is acceptable at IBC intersections. If the ICU did not assume ATMS, then the credit of 0.05 should be applied to reduce the ICU in the "with projects" scenarios.

L5-18 18. *Table 4.13-17, Mitigations*: There will need to be coordination between the City of Irvine and UCI to evaluate the proposed mitigations, as some of them may prove to be infeasible. In particular, the City has been constrained by right-of-way issues at the corner of University/Campus, where this study states a second northbound right turn lane is needed. Provide a response that states whether the constraints will be removed to accommodate this widening.

RESPONSES

L5-12 In response to this comment, Figures 5-5 and 5-6 in the 2007 LRDP and Figures 3-9 and 3-10 of the Final EIR (Volume I) have been revised to identify a bicycle/pedestrian connection between Fairchild Road and the future trail on the North Campus.

L5-13 The final LRDP has been revised to include the North Campus Development Agreement as an Existing Planning Agreement.

L5-14 Table 2-5 in the traffic study (Volume II of the Final EIR, Appendix E, page 2-9) summarizes the trip generation assumptions used in the traffic analysis for the 2007 LRDP, including projected numbers of students, faculty, and staff. A "ground-to-plan" approach was employed for the traffic analysis, whereby the existing (2005-06) traffic conditions are compared to traffic generated by the 2007 LRDP (37,000 students). This approach captures the entire new campus population.

L5-15 Refer to the 2007 LRDP traffic study in Volume II of the Final EIR (Appendix E) for detailed information. Figures 3-2, 3-3, 3-4, 3-9 and 3-10 along with Table 1-1 in Appendix E contain the information requested in this comment.

L5-16 The purpose of the 2007 LRDP traffic study is to support a Program EIR for the 2007 LRDP. Future studies for the design and implementation of improvements would include analysis of storage lengths of the turn movements.

L5-17 Both cities' performance criteria have been applied to this intersection, and the intersection is impacted based on Newport Beach's criteria thus mitigation has been identified. The analysis has taken a conservation approach and has not assumed the Irvine ATMS credit at any intersection.

L5-18 The Final EIR for the 2007 LRDP acknowledges that detailed planning, environmental analysis, and engineering studies for some of the improvements listed in Table 4.13-17 (Volume I, page 4.13-54), including evaluation of secondary effects related to right-of-way acquisition and other impacts, have not been completed and so the implementing agency has not committed to all identified improvements. Furthermore, the LRDP EIR states that if any improvement described in Table 4.13-17 is found to be ineffective or infeasible, and alternative measures are determined to be required to achieve an acceptable Level of Service (LOS), UCI will work in collaboration with the public agency to implement alternative improvements.

With regards to the proposed second northbound right-turn lane at the intersection of University Drive and Campus Drive, the additional right-of-way required to implement this improvement would involve UCI property. UCI will cooperate with the City of Irvine in the transfer of right-of-way needed for University Drive improvements and other local roadway improvements that serve the LRDP.

L5-19 The Final EIR for the 2007 LRDP does not identify the University Drive link between Jamboree Road and Culver Drive as being significantly impacted by LRDP traffic volumes. Accordingly, the proposed widening of this roadway segment to its ultimate General Plan condition is not included in the UCI Transportation Program (UCITP) as mitigation for a significant project or cumulative impact. UCITP Tiers 1 and 2 identify measures to mitigate the significant direct and cumulative off-campus traffic impacts associated with the 2007 LRDP (Volume I, Table 4.13-17, page 4.13-54). Nevertheless, although not required as mitigation for a significant impact under CEQA, UCI will participate in the phased improvements of University Drive intersections and widening between Campus Drive and MacArthur Boulevard by funding its proportional share as a community assistance measure in the UCITP.

COMMENTS

L5-19 19. University Drive is designated to be a six lane major arterial per the City's General Plan Circulation Element, MPAH, between Jamboree and Culver. State what timeframe this widening would be warranted based on the volumes presented in this study.

L5-20 20. *Page 4.13-49, Second Paragraph under On-Campus Analysis*: This project does not create any impacts to internal UCI roadways or intersections, however, project features such as additional lanes, signal modifications, etc. are planned. If the project features of the 2007 LRDP Circulation Element were not already assumed to be implemented, identify whether the 2007 LRDP would create impacts at these locations, and outline any impacts.

L5-21 21. *Page 4.13-41 Year 2025 and Post-2025 Off-Campus Intersection Analysis:* The text states that the project has significant impacts at two City of Irvine intersections and contributes to cumulative impacts at six other intersections in 2025 and 5 other intersections in Post-2025. Per the City of Irvine Traffic Impact Analysis Guidelines, if the project increased the ICU by 0.02 to a deficient intersection or makes an intersection deficient, it is a significant impact. Some of the ICU's go up by 0.04 or more (0.04 at MacArthur/Jamboree; 0.13 at Carlson Campus; 0.07 at University of California; 0.09 at University at Campus). Even though the ICU is increased by background traffic between 2007 and 2025, it is still the responsibility of the project to mitigate the impacts and fully fund the improvements when the difference between project and no project ICU values is 0.02 or greater. The City of Irvine would consider the project to be responsible to mitigate back to the baseline conditions, all intersections forecast to be impacted in 2025 and all 7 intersections forecast to be impacted in Post-2025.

L5-22 22. It is not clear whether the intersection improvements that have been identified in Table 4.13-17 were going to be the full responsibility of UCI. If the wording "fair share" responsibility means that the project will improve the intersection back to the baseline, not necessarily back to acceptable LOS, then re-word it as such. Generally, the City assesses a fair share responsibility when the project only had an impact in the cumulative scenario (additional model run that incorporates all pending but unapproved projects within the City) and not in the non-cumulative scenario. Nothing in the text of the traffic analysis stated whether the model had been run for non-cumulative scenarios and cumulative scenarios.

L5-23 23. *Page 4.13-55, First sentence, first paragraph:* "Funding UCI's share of the improvements identified in Table 4.13-17…" All of the significant impacts within the City of Irvine should be completely funded by UCI.

L5-24 24. *Page 4.13-55 Tra1D:* The words "fair share" funding also occur. The impacts created by UCI should be completely funded by UCI.

As shown in Table 4.13-7, the traffic analysis assumed that University Drive would be widened to six lanes post-2025 which is the same implementation timeframe depicted in recent traffic information provided by the City of Irvine.

L5-20 The traffic analysis in the Final EIR for the 2007 LRDP reasonably assumes the implementation of General Plan improvements within the City of Irvine; similarly, the analysis reasonably assumes the implementation of on-campus circulation improvements identified in the LRDP. For example, the Final EIR identifies measures to maintain acceptable LOS on Peltason Drive during implementation of the LRDP. As described on page 3-19 (Volume I of the Final EIR), this would be accomplished, first, through the implementation of TDM measures and intersection improvements. If needed, Peltason Drive would be widened to four lanes if it is determined that these or other alternative measures are inadequate based on LOS standards. The 2007 LRDP traffic study in Volume II of the Final EIR (Appendix E) analyzed the widening of Peltason Drive as the ultimate condition. UCI is committed to maintaining acceptable LOS along Peltason Drive—including widening the roadway as needed—and consistent with Mitigation Measure Tra-1D (page 4.11-55, Volume I of the Final EIR) will monitor campus trip generation and distribution and the performance of this link in relationship to enrollment growth. This approach will be applied by UCI to other on-campus intersections and links to ensure acceptable LOS throughout the campus circulation system.

L5-21 Mitigation Measures Tra-1D, Tra-1E, Tra-1F and Tra-1G commit UCI to paying its fair share of the costs to improve UCITP intersections where implementation of the LRDP would contribute to a significant impact, as provided in Table 4.13-17 (page 4.13-54 in Volume I of the Final EIR). Where a significant traffic impact is caused by implementation of the LRDP, UCI would contribute its fair share to bring the intersection back to acceptable LOS. Where the LRDP substantially adds to an already-deficient condition, UCI would contribute its fair share to bring the intersection back to no-project conditions or better. As provided in Mitigation Measure Tra-1D, UCI's share of funding will be determined by the percentage of UCI traffic volumes compared to the total traffic volumes at the impacted intersections. As provided in Mitigation Measure Tra-1E, UCITP traffic fees will be collected from "for-profit" development projects on campus or other campus development as determined by UCI, and fees will be provided to the City of Irvine, City of Newport Beach, or other public agencies to fund UCI's share of UCITP improvements when the impact is triggered by UCI growth and improvements are implemented. As provided in Mitigation Measure Tra-1F, if the City of Irvine or City of Newport Beach implements UCITP improvements following UCI determination that LRDP traffic is causing a significant impact, and UCITP fees collected to date are insufficient to fund UCI's fair share, then UCI shall identify and obtain funding for the fair share of identified improvements from an alternate source. As Lead Agency under CEQA, UCI has determined that payment of UCI's proportional share of the cost of the traffic improvements identified in the DEIR will fully mitigate the impacts that would result from implementation of the LRDP. CEQA does not require that UCI provide funding to offset the contribution to an identified significant impact resulting from either background traffic or cumulative development. Inherent in the notion of "fair share" is that the cost of mitigation is borne in proportion to the project's contribution to the impact. In the case of a significant traffic impact, the impact is not the sole result of the trips related to a single project, but rather is caused by the overall level of traffic from all sources.

L5-22 Refer to Response to Comment L5-21.

L5-23 Refer to Response to Comment L5-21.

L5-24 Refer to Response to Comment L5-21.

L5-25 CEQA requires that an EIR identify feasible mitigation to reduce any significant impacts resulting from a project. It does not require that an EIR identify the costs of those mitigation measures. In the case of the traffic impacts evaluated in the Final EIR for the 2007 LRDP, the funding amount required for each UCITP improvement will depend on the actual cost of the specific improvements identified as mitigation, at the time the improvements are implemented. As discussed in Response to Comment L5-21, UCI will pay its fair share of those costs based on its percentage contribution to the traffic volumes at the impacted intersections.

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L5-25 25. Provide the dollar amount of the funding for these improvements, so that the City of Irvine can determine whether the entire improvement is contemplated to be funded by UCI.

L5-26 26. The proposed LRDP will require UCI to initiate a renegotiation of the Development Agreement between UCI and the City entered into on December 04, 1992 (Ordinance No. 92-15), regarding the development of the UCI's North Campus Inclusion Area. The proposed 2007 Long Range Development Plan proposes to increase the number of residential units in the North Campus Inclusion Area from 300 to 435 and the square footage of office, retail and research, and development uses from 650,000 square feet to 950,000 square feet. These changes are likely to increase the impacts addressed in the Development Agreement and require additional mitigation measures, including need for parkland per provision 3.2.9 of the Development Agreement.

L5-27 27. *Page 4-13.57:* Define the criteria used to determine the number of parking spaces needed for build-out of the LRDP.

L5-28 28. *Page 4-13.57:* Identify the locations of proposed off-campus construction staging and temporary parking areas.

L5-29 29. Within the descriptions of the proposed land uses for the North Campus Inclusion Area in both the LRDP and the DEIR, clearly provide:

- The proposed acreage and density of the residential portion of the North Campus Inclusion Area
- The proposed square footage of the office, retail and research, and development component of the North Campus Inclusion Area.
- The proposed square footage of all other uses in this area, if any.

L5-30 30. Specifically address the community park requirements for the 435 units proposed as a part of the North Campus Inclusion Area. Section 3.2.9 of the Development Agreement between UCI and the City requires approximately one acre of parks available for public use for the 300 units proposed in the 1989 LRDP. The increase in units will increase the need in public parks as well. For your information, the City presently requires two acres of community parkland for 1,000 residents, and the number of residents is calculated based on the proposed residential density (Irvine Subdivision Code Section 5-5-1004).

L5-31 31. Regarding the proposed support services located on the landfill/NCCP site, identify/discuss the following:

- Whether these uses involve any human occupation of the site
- Anticipated cleanup measures
- Any required Coastal Commission review of the proposed uses

RESPONSES

L5-26 Renegotiation of the 1992 Development Agreement will not be necessary because the development assumptions for the North Campus area subject to the 1992 Development Agreement have remained unchanged (i.e., 650,000 square feet of office and R&D uses, 300 residential units). The 2007 LRDP identifies a separate North Campus parcel as Mixed Use–Commercial (with a proposed development program of 300,000 square feet of office and R&D uses and 135 residential units) that is outside the jurisdiction of the 1992 Development Agreement, including the parkland provisions described in Section 3.2.9 of the Agreement.

The purpose of the 1992 North Campus Development Agreement was to provide a process whereby City of Irvine land use policies and rules, which are otherwise not applicable to typical University-related development, shall apply to "for profit" development on the UCI North Campus. The Development Agreement is applicable to future "for profit" projects that may be developed on the North Campus, including up to 300 multi-family dwelling units. Under the Agreement, such housing would reserve approximately one acre on the North Campus for public parkland purposes, in satisfaction of public park dedication standards as required by the City's Subdivision Ordinance. (Per agreement, UCI would not be required to transfer ownership of this property.) As described above, the 2007 LRDP identifies a separate area on the North Campus on which an additional 135 dwelling units may be developed. While these units would be outside the boundary of the property subject to the Development Agreement, it is UCI's intent to meet the City's parkland requirements for these units if the housing was developed as a "for profit" project.

L5-27 The table below illustrates the assumptions used by UCI to identify the number of commuter parking spaces needed for the 2007 LRDP:

COMMUTER PARKING DEMAND IN ACADEMIC CORE	
A. Student Commuter Spaces	
General Campus student population[1]	34,543
Student commuters (50%)	17,272
Student permit sales (61%)[2]	10,536
Parking spaces required (0.55 space/permit)	5,795
B. Faculty/Staff Commuter Spaces	
General Campus faculty/staff population	7,718
Faculty/staff commuters (100%)	7,718
Faculty/staff permit sales (65%)[2]	5,017
Parking spaces required (0.80 space/permit)	4,013
C. East Campus Commuter Spaces	
East Campus resident population	12,610
Commuter permit sales (15%)	1,892
Parking spaces required (0.55 space/permit)	1,040
D. Visitor Spaces[3]	490
Total Commuter Spaces in Academic Core	11,338
COMMUTER PARKING DEMAND IN HEALTH SCIENCES COMPLEX	
A. Student Commuter Spaces	
Health Sciences student population[4]	781
Student commuters (50%)	391
Student permit sales (61%)[2]	238
Parking spaces required (0.55 space/permit)	131
B. Faculty/Staff Commuter Spaces	
Health Sciences faculty/staff population	3,725
Faculty/staff commuters (100%)	3,725
Faculty/staff permit sales (65%)[2]	2,421
Parking spaces required (0.80 space/permit)	1,937
C. Patient/Visitor Spaces[3]	207
D. Other Spaces[5]	1,280
Total Commuter Spaces in Health Sciences Complex	3,555
TOTAL COMMUTER SPACES REQUIRED	14,893

[1]Includes all undergraduate students and non-self funded graduate students on the General Campus.
[2]Permit take rates are based on historical patterns of permit sales.
[3]For the Academic Core, visitor spaces are estimated at 5 percent of student and faculty/staff commuter spaces. For the Health Sciences complex, patient/visitor spaces are estimated at 10 percent of student and faculty/staff commuter spaces.
[4]Excludes medical residents and interns who are located off-campus.
[5]Parking for Health Sciences-related Inclusion Area uses. Assumes 320,000 GSF of building area with parking provided at 4 spaces per 1,000 GSF.

COMMENTS

L5-32

32. On the exhibits showing bicycle trails, distinguish between the on-street and off-street trails (Figure 5-5, page 74 of the LRDP and Figure 3-9, page 3-35 of the Draft EIR).

33. The LRDP prioritizes providing housing for faculty as part of their growth strategy. Additionally, it suggests that the Housing Reserve on East Campus will likely be developed as additional faculty housing, which was originally an area identified in the 1989 LRDP as student housing. City staff believes that the demand for off-campus housing created by full-time students will be more difficult to accommodate than the demand generated by full-time faculty and staff, as market rate apartments are no longer affordable to lower income households.

    As indicated in the LRDP, off-campus opportunities, such as the City of Irvine's housing programs, will be needed to address the demand for off-campus housing. However, the availability of affordable units in the City is limited. Discuss in the EIR how the additional demand for off-campus housing for students will be addressed.

L5-33

34. The 2007 LRDP indicates that the number of students the University can accommodate will increase from 26,050 to 37,000 by 2025, with a goal of housing 50 percent of this population on site. The goal is for 18,500 students to live on campus with the same mount to live off campus. Based on this, under the 2007 LRDP, 3,652 additional students will live off campus compared to the existing LRDP.

    Using actual 2005/2006 numbers, 10,822 students are housed on campus, representing 47 percent of the actual on campus enrollment. This will lead to an increase of 4,888 additional students living off campus to meet the 18,500 threshold.

    Address in the EIR how the additional students will be housed off campus since no specific off-campus housing projects have been identified in the 2007 LRDP. There is a critical shortage of affordable rental housing opportunities in proximity to the campus, with limited new stock anticipated within a 3-4 mile radius of the campus.

L5-34

35. Graduate student enrollment is expected to increase to 25 percent of total campus enrollment. Housing in the Outer Campus area, which generally houses graduate students, fell short by 1396 beds during the 2005/2006 LRDP period. Of particular concern is where the University plans to house married graduate students of other graduate students that cannot live 3-4 to an apartment of cannot afford market rate rent. Address these issues in the EIR and discuss how these impacts will be mitigated.

L5-35

36. Page 4-10.9: The City of Irvine Housing Element update is expected to be completed by June 2008, rather than December 2007 as stated.

RESPONSES

As shown, there will be a projected parking demand of nearly 14,900 spaces. As indicated in Table 3-2 of the Final EIR (Volume I, page 3-20), the 2007 LRDP accommodates 16,500 parking spaces which will be sufficient to meet this demand.

L5-28 No off-campus construction staging or temporary parking areas are anticipated.

L5-29 The 2007 LRDP development assumptions for the Inclusion Areas on the North Campus are summarized as follows:

Land Use	Approximate Acres	Office/R&D Development (Gross Square Feet)	Residential Development (Dwelling Units)
Mixed Use–Commercial	37	650,000	300
Mixed Use–Commercial	9	300,000	135

Residential density for future North Campus housing has not yet been determined. Refer also to Response to Comment L5-26.

L5-30 The purpose of the 1992 North Campus Development Agreement was to provide a process whereby City of Irvine land use policies and rules, which are otherwise not applicable to typical University-related development, shall apply to "for profit" development on the UCI North Campus. The Development Agreement is applicable to future "for profit" projects that may be developed on the North Campus, including up to 300 multi-family dwelling units. Under the Agreement, such housing would reserve approximately one acre on the North Campus for public parkland purposes, in satisfaction of public park dedication standards as required by the City's Subdivision Ordinance. (Per agreement, UCI would not be required to transfer ownership of this property.) The 2007 LRDP identifies a separate area on the North Campus on which an additional 135 dwelling units may be developed. While these units would be outside the boundary of the property subject to the Development Agreement, it is UCI's intent to meet the City's parkland requirements for these units if the housing was developed as a "for profit" project.

L5-31 The proposed support service uses to be located on the UCI landfill site would involve daytime use of the site by UCI staff as it would serve facilities management and related uses. Development of these uses on the landfill would comply with all regulatory requirements applicable to development on or adjacent to a closed municipal landfill including soils investigation and treatment, engineering requirements of specialized soils, and regulatory compliance for landfill gas migration and other air quality regulation, groundwater quality protection, surface water quality, and protection of public health. The landfill site is within the California Coastal Zone; therefore, any development on the landfill would require approvals from the California Coastal Commission such as a Local Coastal Development Permit.

L5-32 Figure 5-5 in the LRDP and Figure 3-9 in Volume I of the Final EIR have been revised to distinguish on- and off-street bicycle trails.

L5-33 The comment addresses the East Campus Housing Reserve, which under the 2007 LRDP could be developed with either student or faculty and staff housing. The comment further asserts that off-campus housing demand for full-time students in the City of Irvine is more difficult to serve than off-campus housing demand for faculty and staff as a result of the limited supply of affordable housing in Irvine.

A key goal of the LRDP is to increase capacity for both faculty/staff and student housing. UCI recognizes the benefits that on-campus housing provides to the off-campus housing market, particularly in the affordable market range, and as a result has identified the largest on-campus housing program of any University in the State of California to address this need. The 2007 LRDP increases the on-campus capacity for both student housing and faculty/staff housing; increases the capacity of student housing by 6,815 beds; and increases faculty/staff housing capacity by as much as 600 units on the main campus. The reallocation of land use in the LRDP is offset by an increase in the density of future student housing to an average density of approximately 90 beds/acre or more, accommodating full implementation of the LRDP on-campus housing element.

COMMENTS

L5-36

37. The EIR does not provide a discussion of library services and the potential impacts to library services from increased population growth as a result of the LRDP. City staff would be interested in discussing a possible shared-use library facility at the north campus or nearby site as part of the implementation of proposed the IBC Vision Plan.

Thank you for the opportunity to review and comment on the proposed document. We would appreciate the opportunity to review any further information regarding this project as the planning process proceeds. If you have any questions, please contact me by telephone at (949) 724- 6521or by email at bjacobs@ci.irvine.ca.us.

Sincerely,

BILL JACOBS, AICP
Principal Planner

c: Brian Fisk, Manager of Planning and Redevelopment
Mark Asturias, Manager of Housing
Cindy Krebs, Manager of Transportation and Transit
Bill Jacobs, Principal Planner
John Ernst, Principal Planner
Marika Modugno, Senior Planner
Stephanie Keys, Senior Planner
Amy Mullay, Associate Planner
Timor Rafiq, Rafiq and Associates

RESPONSES

Chapter 4.10 of the Final EIR describes the projected off-campus demand for housing for faculty, staff, and students, and estimates the geographic distribution of the off-campus population. As stated on page 4.10-13 of the Final EIR, "This off-campus housing construction represents a small percentage of the housing units to be constructed in the region between 2005 and 2025, and the implementation of the housing projects would be subject to CEQA analysis and mitigation measures and other local regulations to reduce the physical impact of these projects on the environment."

UCI will continue to pursue initiatives and opportunities with the City of Irvine, Irvine Redevelopment Agency, Orange County Great Park Board of Directors, and private developers in the City to implement housing programs that address the need for affordable housing for UCI affiliates. Specific projects that result from these initiatives will be subject to subsequent environmental review in conformance with CEQA.

L5-34 During the 2005-06 academic year, there were approximately 3,570 graduate and professional students enrolled at UCI after deducting those who were situated in off-campus locations (e.g., medical residents and interns). Under the 1989 LRDP, UCI's goal is to house 40 percent, or about 1,430 of these students on campus. Currently, about 2,920 on-campus bed spaces are available to graduate and professional students meaning that UCI can accommodate nearly 82 percent of its existing on-campus graduate enrollment, far exceeding the 1989 LRDP goal.

The development of graduate and professional programs is a key academic priority at UCI. New academic programs and workforce requirements would require an increase in the proportion of graduate students. In order to meet the academic quality goals set by the campus, UCI would need to increase graduate student enrollment to 25 percent of total campus enrollment. As shown in Table 3-1 of the Final EIR (Volume I, page 3-18), the 2007 LRDP would accommodate an on-campus graduate enrollment of 7,574 students. The 2007 LRDP identifies a goal of housing 50 percent of this graduate enrollment on campus, or about 3,790 graduate and professional students. Approximately 4,200 or more bed spaces would be available to graduate student residents under the 2007 LRDP, allowing UCI to meet its housing goal.

As UCI plans additional student housing on the East Campus, consideration will be given to the specific needs of married graduate students and students with children. This would include the development of affordable housing that addresses the needs of families. In practice, student housing at UCI is designed to be provided at rents below market. This serves to provide affordable housing options for UCI students as well as reduce impacts related to over-saturation of the local housing market. While the affordability of housing in the surrounding community is a socio-economic issue, and not a physical effect on the environment that must be considered under CEQA, UCI's on-campus housing program has a positive effect on the community.

L5-35 The text in Section 4.10.2.2 of the Final EIR (Volume I, page 4.10-9, last paragraph, third sentence) has been revised as follows:

The City is in the process of updating its Housing Element and is due to be completed by June 2008.

L5-36 The provision of library services to accommodate LRDP population growth through facility expansion and on-line services is accommodated within the strategic plans and supporting LRDP development program for UCI. Physical impacts of on-campus library facility expansion are included within the analysis of academic space expansion identified for the Gateway Quad in the LRDP and Final EIR (Volume I, Section 3.3.3.1, page 3-27).

UCI supports discussions with the City in identifying opportunities for collaborative library programs. Any future projects that result from these discussions that would have potential to result in physical impacts to the environment will by analyzed in subsequent environmental documents in conformance with CEQA.

COMMENTS

IRVINE RANCH WATER DISTRICT *15600 Sand Canyon Ave., P.O. Box 57000, Irvine, CA 92619-7000 (949) 453-5300*

October 11, 2007

Richard Demerjian, Director
UC Irvine Campus and Environmental Planning
750 University Tower
Irvine, CA 92697-2325

Subject: Draft Environmental Impact Report (DEIR) 2007 Long Range Development Plan

Dear Mr. Demerjian:

L6-1 Irvine Ranch Water District (IRWD) has received and reviewed the subject DEIR and offers the following comments. IRWD will be the domestic water, recycled water and wastewater service provider for the entire UCI campus, including the North Campus.

L6-2 Section 4.14.3.1, Project Impacts and Mitigation for Wastewater Treatment, states that MWRP has the capacity to treat 18 MGD but only treats 14 MGD. As a correction, MWRP is in the process of being upsized to 18 MGD and and an additional upgrade to 28 MGD is scheduled to be complete in 2010. In addition, this section also states that wastewater collected in the IRWD is treated by other water districts, including Orange County Sanitation District (OCSD), Santa Margarita Water District, or the El Toro Water District. As a correction, IRWD no longer sends sewer flows to Santa Margarita Water District nor El Toro Water District; all sewer flows are treated by either IRWD and OCSD.

L6-3 As stated in Section 4.14.1.2, through an existing Water Service Agreement with UCI, IRWD will provide the UCI Campus water service of up to 3,620 acre-feet pert service year through up to nine separate connections. When and if the capacity or service connections is exceeded, an amendment to the Agreement will be required.

IRWD appreciates the opportunity to review and comment on the DEIR. Should you have any questions or require additional information, please contact Natalie Likens, Engineering Technician, at (949) 453-5633.

Yours truly,

Natalie Likens
Engineering Technician

cc: Mike Hoolihan
Greg Heirtz

RESPONSES

Irvine Ranch Water District

L6-1 UCI acknowledges that the Irvine Ranch Water District (IRWD) will be the provider of domestic water, recycled water and wastewater service for the all land areas identified in the LRDP. The text in Sections 4.14.1.1 and 4.14.3.1 of the Final EIR (Volume I) has been revised to reflect the corrected wastewater treatment capacity of the Michelson Water Reclamation Plant.

L6-2 The text in Section 4.14.3.1 in the Final EIR (Volume I) has been revised to accurately reflect the current practice of IRWD to convey sewer flows for treatment to only IRWD or Orange County Sanitation District wastewater treatment plants. These text changes do not change the conclusions of Section 4.14 regarding direct or cumulative impacts to wastewater treatment capacity from full implementation of the 2007 LRDP.

L6-3 The information provided in the Final EIR is consistent with the information provided by IRWD regarding existing agreements for water service, water service charges, and number of water service points of connection. If a future amendment to the UCI/IRWD service agreement is required, any physical impacts that could result from such action will be analyzed in subsequent environmental documentation in conformance with CEQA.

COMMENTS

CITY OF NEWPORT BEACH

October 17, 2007

Mr. Richard Demerjian
Director, Campus & Environmental Planning
University of California, Irvine
750 University Tower
Irvine, CA 92697-2325

Subject: Draft Environmental Impact Report on LRDP

Dear Mr. Demerjian:

L7-1 The City Council of the City of Newport Beach has established the Environmental Quality Affairs Committee (EQAC) to review and comment on environmental documents on projects that may have an impact on Newport Beach. EQAC has reviewed the subject DEIR, and the City submits the following comments in hopes that they will assist you in finalizing the EIR and optimizing the project for the benefit of UCI and its Newport Beach neighbors.

4.2 Air Quality

L7-2 Four Air Quality Issues were evaluated in the DEIR, resulting in three Air Quality Mitigation Measures (Air-2A, 2B and 2C, pp. 4.2-18, 19, 20).

The first two (Air-2A and 2B) deal with short-term construction activities when emissions of VOCs, NOx and PMs (10 and 2.5) would exceed allowable thresholds. Since, in the Construction Emissions discussion on pages 4.2-12 and 13, it is implied that judicious phasing can have a significant positive impact on objectionable emissions, construction phasing (temporal and/or spatial) should be considered as a mitigation measure to reduce the severity of these impacts.

L7-3 Because the DEIR recognizes (pg. 2-6) that implementation of the Air Quality mitigation measures Air –2A, 2B and 2C will still result in Air Quality impacts in the project area being significant, unavoidable, the EIR should propose as many aggressive mitigation measures as possible to minimize these impacts. For example,

RESPONSES

City of Newport Beach

L7-1 This comment summarizes the City of Newport Beach process for review and comment on environmental documents for projects that may impact the City of Newport Beach.

L7-2 The analysis of short-term air quality impacts associated with implementation of the 2007 LRDP is based on a maximum construction day, taking into account phased construction scenarios, to assess the potential effects at a program level as presented in Table 4.2-5 (page 4.2-13) of the Final EIR (Volume I). Specifically, the emission sources for up to two projects under simultaneous construction on-campus are identified for the early, middle, and later construction phases which are described on page 4.2-12 of the Final EIR (Volume I).

As specific projects are implemented on campus, opportunities exist to reduce construction-related air quality impacts through a variety of measures, including temporal phasing as recommended by the City of Newport Beach. Since these measures will be implemented at a project level with individual schedules, the analysis in the LRDP EIR cannot conclusively demonstrate that air quality thresholds will not be exceeded at any time during the 18-year implementation of the 2007 LRDP.

In response to this comment, LRDP Mitigation Measure Air-2A (page 4.2-18 of the Final EIR, Volume I) has been revised to require the analysis of temporal phasing, as indicated below. The conclusions in the Final EIR regarding the level of significance of short-term construction-related emissions will remain significant and unavoidable.

Air-2A During project level environmental review of future projects that implement the 2007 LRDP and that could result in a significant air quality impact from construction emissions, UCI shall retain a qualified air quality specialist to prepare an air quality assessment of the anticipated project-related construction emissions. The assessment shall quantify the project's estimated construction emissions with and without implementation of applicable Best Management Practices (BMPs) listed in mitigation measure Air-2B and compare them with established SCAQMD significance thresholds. In addition, the air quality assessment shall include analysis of temporal phasing as a means of reducing construction emissions.

If the estimated construction emissions are under SCAQMD's significance thresholds or if mitigation measure Air-2B would reduce emissions to below established thresholds, then the project's direct impact to air quality would be less than significant and no additional mitigation would be required. If the project's construction emissions would exceed established thresholds with implementation of applicable BMPs listed in mitigation measure Air-2B, and no additional mitigation to reduce the emissions below the threshold is feasible, then the project's direct impact to air quality would remain significant following mitigation.

L7-3 In response to the recommendations of the City of Newport Beach, LRDP Mitigation Measure Air-2C(i) (page 4.2-20 of the Final EIR, Volume I) has been revised to provide a more detailed description of TDM measures that will be implemented as a part of the LRDP, as indicated below:

Air-2C UCI shall ensure that operational air emissions, including area sources, stationary sources, and vehicular emissions, are reduced to the extent possible via the following mitigation measures:

i. UCI shall continue to implement and expand its alternative transportation program by continuing to assess new opportunities, programs, and technologies to reduce vehicular trips. This program shall consider the following elements:

- Significant incentives aimed to expand UCI vanpool, carpool, and other ridesharing programs;
- Significant incentives aimed to expand UCI public transit use off campus;
- Promotion of Express Bus service in the campus vicinity and Express Bus service routes from key UCI commuter locations off campus;

COMMENTS

L7-3 cont. additional operational phase mitigation should include, but not be limited to: significant incentives for carpooling/use of public transportation; promotion of Express Bus Lanes in the project area; more use of point-to-point shuttles with expanded hours of operation and routes; expanded use of Bicycle Boulevards (e.g., Berkeley). The listings under Air-2C are too general to provide any confidence that they are anything more than objectives. The long- range impacts are appreciable and specific measures are needed to assure that negative impacts are minimized.

4.7 Hydrology & Water Quality

L7-4 For the plans regarding hydrology and water quality, the DEIR states that UCI will follow all laws, policies and requirements from a UCI, city, state, county, RWQCB, SWRCB, and federal standpoint. Compliance with these policies should ensure that everything would be done correctly and in compliance with best management practices during construction and operation. Is there an overall management plan, including compliance verification, to assure that all of these commitments are met?

L7-5 Following are additional suggestions that should be considered for the project to benefit overall hydrology:

- Use more vacuum-type street cleaners more often around the new housing and overall campus (see p. 4-16 mitigation measures) to capture pollutants (particularly from cars) before they enter the drainage system.
- Use pervious pavement, not impervious surfaces (discussed on p. 4-62, last paragraph) on all outdoor areas where feasible.
- Use climate controlled irrigation systems.
- Use native California plants and vegetation to minimize water usage and minimize overflow.
- Use bio-swales to impede runoff and help filtration wherever possible

4.13 Transportation, Traffic and Parking

L7-6 The Year 2025 and Post-2025 Off-Campus Intersection Analysis identifies six intersections in Newport Beach that will be impacted by traffic from LRDP development. All of these intersections are included as "Tier 2" locations for the UCI Transportation Fee Program (UCITP), because the LRDP impact is cumulative, rather than direct. Please clarify whether the listing of Newport Beach intersections after Irvine intersections is an indication of further priority for UCITP funding. This does not seem appropriate, in light of the fact that the source of these funds is for-profit

- Expansion of campus shuttle and other campus transit systems, including point-to-point shuttles with expanded routes and operations to key destinations, and coordination of the on-campus transit systems with existing and future public transit systems off campus to accommodate routes, transit stops, stations, and other programs and projects as deemed appropriate, including community transit programs in the City of Irvine and City of Newport Beach;
- Expansion of UCI bike programs and bicycle infrastructure, including expanded bikeways, BikePorts, and Bike Service Stations; and
- Support of alternative transportation organizations.

UCI's TDM program is further described in Responses to Comments L5-3 through L5-10, Section 4.13.1.3 of the Final EIR (Volume I), LRDP EIR Mitigation Measures Tra-1A, Tra-1B, Tra-1C, and Tra-1l (pages 4.13-55 and 4.13-56 of the Final EIR, Volume I), and Table 5-3 of the 2007 LRDP. As UCI's TDM program is an ongoing program which continually assesses new opportunities and technologies, the 2007 LRDP provides general examples of current measures available and future opportunities to be pursued.

L7-4 Refer to Response to Comment L3-1. UCI is in the process of implementing a campus-wide program for compliance with NPDES Phase II requirements as an MS-4 (small municipality), including a SWMP. This program is centrally managed through UCI's Environmental Health and Safety Department which coordinates the efforts of multiple campus-wide entities.

The UCI SWMP is available for review at:
http://www.ehs.uci.edu/programs/enviro/UCI_SWMP.pdf

UCI's overall water quality program is available for review at:
http://www.ehs.uci.edu/programs/enviro/stormwater.html

The purposes of the SWMP are to identify pollutant sources potentially affecting the quality and quantity of storm water discharges; to provide BMPs for municipal and small construction activities on campus; and to provide measurable goals to reduce the discharge of the identified pollutants into the storm drain system and associated waterways. UCI is in its fifth year of a 5-year implementation program, and is updating the SWMP based on this data for purposes of self-compliance verification.

L7-5 The comment lists several treatment control BMPs that should be considered for on-campus development to reduce runoff volumes and/or water quality impacts from urban runoff pollution. As stated in Mitigation Measure Hyd-2B(iv) on page 4.7-24 of the Final EIR (Volume I), at least one treatment control is required for new uses identified by UCI as having the potential to generate substantial pollutants. As such, UCI will consider the feasibility of implementing applicable treatment control measures in the design of future projects on campus, including those identified in this comment, the options listed in Mitigation Measure Hyd-2B(iv), and any other feasible BMPs. Therefore, Mitigation Measure Hyd-2B(iv) has been revised in Volume I of the Final EIR (page 4.7-24), as indicated below, to include the treatment control options identified in this comment, along with those already listed. In addition, the use of street sweeping is listed in Mitigation Measure Hyd-2A(vii) on page 4.7-23 of the Final EIR (Volume I) as a construction-related BMP.

Hyd-2B Prior to project design approval for future projects that implement the 2007 LRDP and would result in land disturbance of 1 acre or more, the UCI shall ensure that the projects include the design features listed below, or their equivalent, in addition to those listed in mitigation measure Hyd-1A. Equivalent design features may be applied consistent with applicable MS4 permits (UCI's Storm Water Management Plan) at that time. All applicable design features shall be incorporated into project development plans and construction documents; shall be operational at the time of project occupancy; and shall be maintained by UCI.

i. At least one treatment control is required for new parking areas or structures, or for any other new uses identified by UCI as having the potential to generate substantial pollutants. Treatment controls include, but are not limited to, detention basins, infiltration basins, wet ponds or

COMMENTS

L7-6 cont. development in University Research Park, the traffic from which impacts Newport Beach locations at least as much as locations in Irvine.

L7-7 In addition, mitigation measure Tra -1F is unclear. If the City of Newport Beach implements improvements to the impacted intersections and UCITP funds are not sufficient to fund UCI's share, what funding requests will UCI initiate? What funding sources will be pursued? In what timeframe?

L7-8 It appears from the discussion of cumulative impacts in Section 4.13.4, and its reference to Section 4.13.3.1, that cumulative impacts are assumed to be the result of buildout of UCI's LRDP and the General Plans for the Cities of Irvine and Newport Beach. This is a reasonable assumption for Newport Beach, which just completed a comprehensive General Plan update in 2006, and for UCI because of the subject planning effort. The City of Irvine, however, is engaged in a planning process to allow development of 10,000 to 20,000 residential units in the Irvine Business Complex. Although Irvine currently intends to require individual General Plan amendments for each residential project, the Vision Plan and zoning overlay are the subjects of a draft EIR currently under preparation. This potential change in land use and development within and adjacent to the UCI traffic study area should be included in the analysis of cumulative impacts.

Thank you for the opportunity to comment on this DEIR, your courtesy in providing multiple copies of the document for EQAC members, and your flexibility in accepting our comments after the stated deadline.

Sincerely,

Homer L. Bludau
City Manager

cc: City Council
Environmental Quality Affairs Committee

wetlands, bio-swales, filtration devices/inserts at storm drain inlets, hydrodynamic separator systems, increased use of street sweepers, pervious pavement, native California plants and vegetation to minimize water usage, and climate controlled irrigation systems to minimize overflow. Treatment controls shall incorporate volumetric or flow-based design standards to mitigate (infiltrate, filter, or treat) storm water runoff, as appropriate.

L7-6 The listing of traffic improvements in the mitigation program for off-site traffic impacts identified in Table 4.13-17 (page 4.13-54) of the Final EIR (Volume I) is not intended to represent prioritization of phasing of the UCITP improvements. Newport Beach intersections are listed after Irvine intersections because this information is ordered alphabetically by city. The process described in Mitigation Measures Tra-1D, Tra-1E and Tra-1F (page 4.13-55 of the Final EIR, Volume I) will be used to determine the timing of each traffic improvement, regardless of city. This mitigation approach allows the improvement funds to be provided to either the City of Newport Beach or the City of Irvine based on traffic impacts and mitigation needs.

L7-7 In response to this comment, Mitigation Measures Tra-1E and Tra-1F have been revised in Volume I of the Final EIR (page 4.13-55), as follows:

Tra-1E UCI will collect UCITP traffic fees from "for-profit" development projects or other campus development as determined by the University. Fees will be provided to the City of Irvine, City of Newport Beach, or other public agencies to fund UCI's share of UCITP improvements when the improvements are implemented, as provided in mitigation measure Tra-1D.

Tra-1F If the City of Irvine or City of Newport Beach implements UCITP improvements following UCI determination that LRDP traffic is causing a significant impact, and UCITP fees collected to date are insufficient to fund UCI's fair share, UCI shall identify and obtain funding for the fair share of identified improvements from an alternative source.

L7-8 As described on page 4.0-4 of the Final EIR (Volume I), CEQA Guidelines Section 15130(b) allows the following approach for considering past, present, and future reasonably foreseeable projects in the cumulative impact analysis: "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." With regard to the City of Irvine, and specifically the IBC, the EIR analysis relied on the City's approved General Plan and related databases. These sources provided basic cumulative growth assumptions, but not enough information upon which to evaluate specific impacts based on proposed land use designation changes and the resulting potential future development. As a consequence, at this time, the information referenced in the comment would be too speculative to rely upon to identify traffic impacts. Thus, the cumulative analysis in the Final EIR is sufficient and adequately evaluates UCI's impact.

COMMENTS

X-UCInetID: jkbrueck
X-Mailer: QUALCOMM Windows Eudora Version 6.2.0.14
Date: Sun, 16 Sep 2007 14:24:33 -0700
To: lrdp.eir@uci.edu
From: Jan Brueckner <jkbrueck@uci.edu>
Subject: street planning suggestion for new UH phase
Cc: David Brownstone <dbrownst@uci.edu>, "cuhlaner-uci.edu" <cuhlaner@uci.edu>,
"calave-uci.edu" <calave@uci.edu>
X-UCIRVINE-MailScanner: No viruses found

Dear UH Planning Officials:

I am a university hills resident and recently viewed the environmental impact study for University Hills phase 9/2. I was curious to see whether a road connection to Bonita Canyon Drive is part of the plan, and saw that no such connection is envisioned.

I would like to make a suggestion that calls for slight change to the road layout. This change would be beneficial to residents of UH and would not compromise the University's overall desire to insulate the faculty housing area from the surrounding environment. My suggestion is allow EXIT from Gabrielino Dr. onto Bonita Canyon via a RIGHT-TURN-OUT lane. This lane would allow UH residents to drive down the extension of Gabrielino and merge with the westbound traffic on Bonita Canyon. However, ENTRANCE TO GABRIELINO FROM BONITA CANYON WOULD NOT BE POSSIBLE, due to the presence of a suitable barrier (a concrete barrier along a short Gabrielino/Bonita Canyon merge lane, for example). Because of the barrier, it would not even be possible to make a right turn from westbound Bonita Canyon onto Gabrielino, and access from the other direction would also be impossible. O1-1

This change would make outbound access to destinations such as Fashion Island, Corona del Mar, etc. much easier for many UH residents. The gain for residents of phase 9/2 would be especially great, given that under the current plan, these residents would have to drive up Gabrielino, down California, up Anteater, and down Bonita Canyon, driving a over a mile before passing by their own house!! Under my suggestion, phase 9/2 residents would have immediate access to Bonita Canyon, with no circuitous travel required to reach destinations that lie in this direction. Note, however, that UH residents RETURNING from these destinations would not have a shorter trip, given that entrance to Gabrielino would not be possible.

O1-2 This plan would also lessen the traffic burden on California Ave. by allowing some of the traffic on this street to use a new point of egress from UH. This change is desirable given that
O1-3 residents in some areas of UH (especially Phase 8) already are exposed to significant traffic noise, mainly from California and Anteater Drives. My suggestion helps to distribute the
O1-4 burden of traffic more evenly across the different parts of UH, leading to a more equitable outcome.

Another virtue of the plan is that these gains are achieved without creating any new inbound access to UH. In other words, even though UH residents can gain access to Bonita Canyon O1-5 via Gabrielino, NO CARS CAN GET INTO UH VIA THIS ROUTE.

I hope that you find this suggestion worthy of further exploration.

Sincerely,

Printed for Lynn Elizabeth Harris <leharris@uci.edu> 9/17/2007

Jan K. Brueckner
Professor of Economics
90 Murasaki St., UH

RESPONSES

Jan Brueckner

O1-1 A link from Gabrielino Drive extension to Bonita Canyon Drive was deleted from the LRDP in 1995. This roadway link deletion was the result of significant consultation and communication with the University Hills community and other members of the campus community. While a link to Bonita Canyon Drive would provide additional access to University Hills residents, significant community concerns with pass-through traffic and resulting impacts outweighed interest in this access point. While a right-out only at Gabrielino/ Bonita Canyon Drive would provide outbound access to University Hills residents and protect against northbound through-traffic from Bonita Canyon Drive, it would provide opportunities for southbound through-traffic accessing Bonita Canyon Drive from the north. As a result of these concerns, a link to Bonita Canyon Drive from Gabrielino Drive was not recommended as a part of the 2007 LRDP roadway network.

O1-2 As described in Response to Comment O1-1, this link was deleted from the LRDP roadway network due to concerns with through-traffic and the resulting impacts on the University Hills community and other areas of the UCI campus. Table 4.13-16 of the Final EIR (Volume I, page 4.13-53) indicates that California Avenue will operate at an acceptable LOS as proposed. While this roadway alternative was not included in the 2007 LRDP EIR traffic modeling, there is potential for increased traffic on California Avenue as a result of pass-through traffic.

O1-3 Table 4.9-4 of the Final EIR (Volume I, pages 4.9-15 through 4.9-19) did not identify noise impacts resulting from existing or projected LRDP traffic volumes on Anteater Drive and California Avenue based on community noise level standards.

O1-4 Although the configuration recommended in this comment would result in a redistribution of trips in the University Hills vicinity, as described in Response to Comment O1-1, concerns with pass-through traffic resulted in deletion of this roadway link from the LRDP.

O1-5 As described in Response to Comment O1-1, while the recommended configuration would prohibit cars from accessing University Hills from the south, it provides a through-route to cars accessing University Hills from the north. As a result this configuration is not recommended as a part of the 2007 LRDP circulation element.

COMMENTS

UNIVERSITY OF CALIFORNIA, IRVINE

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October 11, 2007

Mr. Richard Demerjian, Director
Campus and Environmental Planning
University of California, Irvine
750 University Tower
Irvine, CA 92697-2325

Re: University of California, Irvine - LRDP EIR Public Comment

Dear Director Demerjian:

O2-1 The University of California Natural Reserve System (NRS), which includes the San Joaquin Freshwater Marsh Reserve (Reserve), provides the following comments on the Draft Environmental Impact Report (DEIR) for the University of California, Irvine's (UCI) 2007 Long Range Development Plan (2007 LRDP) revision and update. The NRS is a critical teaching and research element of UC's Academic Affairs, and is a State Trustee Agency under CEQA. The 202 acre SJFM Reserve, purchased from The Irvine Company in 1970, is actively and continuously used by over a dozen UCI classes and supports significant faculty, graduate, and undergraduate research. The Reserve is a part of the School of Biological Science's Academic Strategic Plan, and many millions of dollars of state support have been dedicated to its restoration and enhancement. It is anticipated that a large, multi-million dollar restoration project will be completed in the fall of 2008 through a combination of state and mitigation funding. State investment for ecological upgrading of the Reserve has included both wetlands within the Reserve and upland habitat surrounding it in a 150-foot zone separating North Campus development from the Reserve. Like many other NRS Reserves, the San Joaquin Freshwater Marsh Reserve does not allow public access through the teaching and research areas of the Reserve itself, though the public may and does use the San Diego Creek levee that traverses a portion of the Reserve along the Creek.

Background:

O2-2 The 1989 UCI LRDP identified a number of impacts of proposed and potential North Campus development projects on the nearby Reserve. To "mitigate equitably" the impacts of the 1989 LRDP on the Marsh, the Irvine campus and the NRS executed a Memorandum of Understanding dated August 28, 1989 (MOU). The MOU addresses a

RESPONSES

Peter Bowler

O2-1 This comment provides background information on the University of California Natural Reserve System (UCNRS) and the purpose and uses of the San Joaquin Freshwater Marsh Reserve (SJFMR), including capital development projects within the SJFMR for the purpose of marsh enhancement. The environmental impacts of any capital development projects proposed by the UCNRS for the SJFMR will be analyzed through subsequent project-level CEQA analyses.

O2-2 This comment summarizes the terms of the 1988 Memorandum of Understanding (MOU) between UCI and the UCNRS which addressed UCI development under the 1989 LRDP. The 2007 LRDP represents an update of the 1989 LRDP and will replace the 1989 LRDP. While the 1988 MOU does not specifically apply to the 2007 LRDP, its principles remain valid and are supported by the 2007 LRDP. The 150-foot buffer zone identified in the 1988 MOU is located on UCI property outside of the SJFMR and its intended use is to serve as a development buffer to protect the teaching, research, and habitat management purposes of the marsh. UCI remains committed to the 150-foot buffer zone, and the 2007 LRDP retains this buffer area by identifying it as open space in the land use plan (Figure 5-2).

Figure 5-5 in the 2007 LRDP identifies a pedestrian and bicycle trail on the UCI North Campus in the vicinity of the buffer zone. The trail was identified through UCI's strategic planning process as a key circulation pathway for residents of North Campus residential areas to access the UCI main campus on bike or foot, and as a recreation amenity for the campus community. While the traffic analysis contained in Section 4.13 of the Final EIR (Volume I) does not assume North Campus trip reductions as a result of the alternative transportation purpose of this trail, the trail supports the 2007 LRDP TDM goals and other LRDP accessibility and linkage goals.

The circulation pathways illustrated on Figure 5-5 of the 2007 LRDP are schematic representations of general access routes. When such facilities are proposed for implementation, detailed site planning and grading studies will be developed along these general access routes. UCI will consult with the UCNRS Director on projects proposed in the vicinity of SJFMR to ensure that project planning and design includes features to avoid impacts to the SJFMR. If any portion of the draft trail system overlaps the SJFMR buffer area, UCI will consult with UCNRS and other UCI representatives to establish concurrence on the route and draft design.

UCI recognizes and will adhere to the 1988 MOU requirement that UCI and UCNRS representatives will consult at the time of site-specific CEQA analysis for North Campus development projects that may impact the SJFMR.

number of issues and establishes a 150-foot setback — the "Marsh Buffer Area" — between the Reserve property line and *any development projects.*

O2-2 cont.

The MOU (see attached MOU) provides that "development projects shall include, but not be limited to, any building, parking lot, roadway, bikeway, walkway, or project landscaping (other than planting of native upland plant species and any irrigation system associated therewith) related to the proposed California Avenue extension, University Drive North, Mixed Use development projects on North Campus, Research and Development projects on North Campus, and any use of the landfill site (even though no landfill uses are reasonably foreseeable or proposed at this time.)"

Additionally, in acknowledgment of the University's role as a Trustee Agency under CEQA for NRS Reserves, the Campus must consult the NRS during the site-specific CEQA analysis of all North Campus development projects.

Impacts to the Reserve

O2-3

The DEIR for the 2007 LRDP describes various proposed developments in or near the North Campus that will have impacts on the Reserve. In addition, the 2007 DEIR contains a proposal to allow "grading, fuel modification, walking trails, maintenance, and other associated activities . . . but no development such as buildings, parking, or other improvements." (Section 4.8-19.) These proposed new uses not only broaden the uses currently allowed under the MOU, they abrogate the purpose of the MOU. These proposed uses have a significant impact on the Reserve and its protected natural resources. These impacts include direct habitat loss to resident and reproducing California gnatcatchers, Pacific pond turtles, trap door spiders, the sensitive land snail *Helminthoglypta tudiculata*, and raptor foraging area. Pond turtles use the buffer zone as nesting sites, and when the original discussions about a protective zone around the wetland occurred, both Fish and Game and the NRS requested a much more extensive upland habitat zone around the Marsh than the MOU ultimately guaranteed.

O2-4

Mitigation Measure Lan-2A provides, "As early as possible in the planning process for future projects that implement the 2007 LRDP and are located along the interface between the North Campus and the San Joaquin Freshwater Marsh (SJFM) Reserve, UCI shall ensure that the projects include design features to avoid impacts to the SJFM Reserve from incompatible adjacent land uses, such as mixed use development. These design features shall include, but are not limited to, the use of buffers, building setbacks, *pedestrian and bicycle trails,* and open space." (Emphasis added.) The NRS believes that pedestrian and bicycle trails are not appropriate design features, nor that fuel modification is acceptable, in the buffer zone. As the NRS has stated previously and has discussed with Campus and Environmental Planning staff, any North Campus development, be it mixed use as stated in the LRDP, or residential, should be designed so that parking lots and other barriers abut the MOU zone – thus obviating fuel modification need in the state-funded restorations within the upland zone. Any proposed development adjacent the MOU designated buffer zone must provide its own fire protections by design

RESPONSES

O2-3 As stated in Response to Comment O2-2, UCI remains committed to the 150-foot buffer zone identified in the 1988 MOU for the 1989 LRDP. The 2007 LRDP retains this buffer area which is identified as open space in the land use plan (Figure 5-2).

Thank you for providing additional detail about the existing condition of the buffer zone, including plant and animal species in the vicinity. Any future development proposals on the North Campus, including trails, will undergo project-level environmental analysis at the time specific projects are proposed and project characteristics are available. If future development proposals and environmental analyses identify impacts to biological resources or other environmental issue areas, measures to avoid or mitigate such impacts would be identified at that time. Furthermore, as specified in the revised LRDP Mitigation Measure Lan-2A (refer to Response to Comment O2-4), UCI will consult with the UCNRS Director on projects proposed in the vicinity of the SJFMR to ensure that project planning and design includes features to avoid impacts to the SJFMR from incompatible adjacent land uses such as mixed use development.

O2-4 In response to this comment, LRDP Mitigation Measure Lan-2A (page 4.8-21, Volume I of the Final EIR) has been revised, as follows:

Lan-2A As early as possible in the planning process for future projects that implement the 2007 LRDP and are located along the interface between the North Campus and the San Joaquin Freshwater Marsh (SJFM) Reserve, UCI shall enter into consultation with the Director of the University of California Natural Reserve System (UCNRS) to ensure that project planning and design includes features to avoid impacts to the SJFM Reserve from incompatible adjacent land uses, such as mixed use development. These planning and design features shall include, but are not limited to, the following:

- Site planning that establishes building setbacks, circulation, open space and other uses along the development interface to limit impacts on teaching and research activities, and that reduces the need for fuel modification in the buffer zone.

- Site planning that retains the integrity of the SJFM Reserve buffer zone including features that limit the need for construction activities and fuel modification within the buffer zone.

or physical structure. The buffer zone has seen over $450,000 of state-funded ecological restoration of coastal sage scrub. This restoration effort has been highly successful and has been occupied by resident and nesting California gnatcatchers for many years. As mentioned above, this area is also the nesting habitat for the Pacific pond turtle, and nests have been observed within the protected area. Buffer zone habitat also sustains a rare coastal population of trap door spiders and the native land snail *Helminthoglypta tudiculata*. The Marsh Reserve has a large and reproducing population of pond turtles (32 tagged animals were tagged during the USGS survey in 2006), as well as two groups of transplanted turtles through mitigation agreements with local developers. The only nesting area available to this sensitive species is the buffer zone. The coastal sage scrub restorations are also actively used for research by doctoral students and faculty, and are used for teaching by a number of classes.

O2-5

For over a decade, the NRS has recommended human movement and access alternatives other than placing a pedestrian/bike path along the North Campus perimeter adjacent the Marsh Reserve. Even outside the 150 foot MOU zone, such a trail would encourage trespass into the Reserve, would place users closer to Marsh-associated risks such as vector borne diseases, would increase litter issues, and would have influences upon wildlife. The NRS requests that the EIR provide Alternatives with No Public Pathway at all, and another with a Public Pathway outside the 150 foot MOU-defined zone. The Alternative with the public path within the 150 foot MOU zone should be deleted from the EIR because it directly violates the legal agreement the Campus and NRS reached 18 years ago with the signing of the MOU.

For the foregoing reasons, the existing protections to the Reserve provided by the Marsh Buffer Area, which preclude, among other things, pedestrian and bicycle trails, as well as fuel modification of restored coastal sage scrub within the Marsh Buffer Area, must continue to be maintained in the manner it has been for the past 18 years. An alternate location of a fenced footpath should be considered as an Alternative outside the perimeter of the MOU zone, passing along the Fairchild side of the FDA property, and returning to the landfill. Such a peripheral path could serve as another form of firebreak when combined with parking lots and other non-flammable boundaries to development. The NRS still prefers no peripheral trail, however, and impacts of a peripheral trail Alternative with a no trail Alternative should be examined in the FEIR.

O2-6

The DEIR does not acknowledge health issues associated with the Marsh Reserve such as West Nile Virus, St. Louis Encephalitis, Lymes Disease or Hanta Virus that are vector borne and must be recognized should UCI choose to introduce mixed use (as the LRDP proposes) or residences on the North Campus. Africanized bees also continuously colonize the buffer zone and Reserve, and further complicate the concept of placing a footpath along the boundary.

O2-7

The NRS requests UCI consultation regarding any non- restoration changes on the landfill adjacent the Reserve. The landfill is a significant open-space link between Newport Back Bay, the San Diego Creek estuary, and the Marsh Reserve. It has the potential to sustain coastal sage scrub and other native habitats, and any development on

O2-8

RESPONSES

O2-5 As described in Response to Comment O2-3 and the revised LRDP Mitigation Measure Lan-2A (refer to Response to Comment O2-4), UCI representatives will consult with the UCNRS Director regarding any project development proposals for the North Campus and will support the principles in the 1988 MOU regarding the development buffer and other measures to protect the teaching and research activities within SJFMR.

O2-6 Refer to Response to Comment L5-12. The location and alignment of the pedestrian trail at the general land use level of the LRDP does not merit analysis as an alternative configuration of the LRDP. Section 6.0 of the LRDP provides a range of six project alternatives that provide campus-wide development program and land use options for UCI consideration.

O2-7 The Final EIR analyzes potential physical impacts on the environment that would result from implementation of the 2007 LRDP. Vector-borne diseases and Africanized bee foraging represent important public health and vector control issues, and are important public health and vector control topics for UC and UCNRS during the consultation process, but these issues do not represent physical impacts on the environment that would result from the LRDP and do not require analysis in the Final EIR.

O2-8 Refer to Response to Comment L5-31. As described in Response to Comment O2-3 and the revised LRDP Mitigation Measure Lan-2A (refer to Response to Comment O2-4), UCI representatives will consult with the UCNRS Director regarding any project development proposals for the North Campus and will support the principles in the 1988 MOU regarding the development buffer and other measures to protect the teaching and research activities within SJFMR.

O2-8 cont. the landfill could have impacts upon the Reserve. Similarly, as projects – be they mixed use or residential – emerge for serious consideration on North Campus, the NRS asks that it be consulted to assist in the design of specific mitigation measures that will decrease the adverse impacts of development nearby.

O2-9 The Irvine campus, as the Reserve's managing campus appointed by The Regents, and the Systemwide NRS, have enjoyed a long-standing cooperative relationship over matters relating to the Reserve. This valuable collaborative effort and "partnership" with the Irvine campus is essential to ensuring the long-term health and viability of the Reserve, which is held in the public trust on behalf of the people of California.

Thank you for providing an opportunity to comment on the proposed LRDP for the Irvine campus. We look forward to working with you and consulting with you regarding mitigation and design as the Final EIR is crafted and as specific projects are subsequently proposed. Please include the attached MOU and these comments in the FEIR.

Sincerely,

Peter A. Bowler, NRS Academic Coordinator William L. Bretz, Reserve Manager

cc. Timothy Bradley, UCI NRS Campus Director and Academic Senate Chair
Karen Bane, California Coastal Conservancy
Greg Gauthier, California Coastal Conservancy
Erin Wilson, California Department of Fish and Game
Chen Yin Noah, Natural Reserve System Associate Director
Violet Nakayama, UCOP (NRS)

Attachment: MOU between the UCI Campus and the UC Natural Reserve System dated August 28, 1989

RESPONSES

O2-9 Refer to Response to Comment O2-5.

COMMENTS

Date: Sun, 14 Oct 2007 21:09:10 -0700
From: "David Brownstone" <dbrownst@uci.edu>
Sender: brownstonedavid@gmail.com
To: lrdp.eir@uci.edu
Subject: Fwd: street planning suggestion for new UH phase

Dear UH Planning Officials:

O3-1 I am writing to strongly support Jan Brueckner's suggestions for improving traffic circulation in University Hills. I would also like

O3-2 to recommend that you consider negotiating with the City of Irvine and the Tollway Authority to remove the current 75 cent toll on the Bonita Canyon exits and entrances to the 73 tollway. Currently many Turtle Rock and Turtle Ridge residents drive through campus on Anteater, East

O3-3 Peltason, and Bison to avoid this toll. This traffic contributes to congestion on this route as well as increased noise and pollution for the many faculty and graduate students who live facing Anteater.

Sincerely,

David Brownstone
Professor and Chair of Economics
12 Murasaki St., University Hills

RESPONSES

David Bownstone

O3-1 As described in more detail in Response to Comment O1-1, the recommended Gabrielino Drive link to Bonita Canyon Drive was deleted from the UCI LRDP in 1995 and was not included in the 2007 LRDP due to concerns from the University Hills community with pass-through traffic. With a Gabrielino Drive link to Bonita Canyon Drive, vehicle trips from north of University Hills could access Bonita Canyon Drive via Gabrielino Drive or via Anteater Drive to California Avenue, resulting in pass-through trips in the University Hills vicinity.

O3-2 Toll requirements for the SR-73 Tollway are not within the jurisdiction of UCI or the scope of the 2007 LRDP. The Transportation Corridor Agency administers the toll roads and is restricted from removing tolls from existing segments of any toll road as a condition of the public bonds used to finance them.

O3-3 The Final EIR did not analyze a no-toll condition in the traffic analysis in Section 4.13 of Volume I; therefore, the Final EIR provides no conclusions regarding traffic and noise impacts on campus in a no-toll condition.

COMMENTS

THE IRVINE COMPANY

October 29, 2007

Richard Demerjian, Director
UC Irvine Campus and Environmental Planning
750 University Tower
Irvine, CA 92697-2325

Dear Richard,

The Irvine Company appreciates the opportunity to comment of Draft Environmental Impact Report (DEIR) for the University of California, Irvine (UCI) 2007 Long Range Development Plan (2007 LRDP) and the brief extension granted to submit these comments by October 29, 2007.

O4-1 The attached annotated comments list specific concerns the Company has with the DEIR and the accompanying traffic study and are provided for your review and response. As a long term master community planner and collaborative business partner with UCI, we support the University's continued growth as one of the leading educational institutions in the nation. From UCI's inception on land provided by The Irvine Company we have valued the beneficial contributions to the local community, enriching the many opportunities for academic, cultural and scientific advancement that come with a major University of the quality and stature of UCI.

As much as the local community is enriched by the success of UCI as a thriving educational campus, we are also mindful of the need to exercise proper management techniques that assure that the impacts of such growth are properly mitigated and controlled. Our comments are provided with that thought in mind and our conclusion that the DEIR, as presently drafted, fails to adequately address this serious concern.

In summary, our review leaves us with these conclusions:

O4-2
- The project description is unclear and lacks sufficient detail to discern the respective roles of the "for profit" and public university related development.

O4-3 O4-4 O4-5
- The traffic study is flawed, lacking appropriate analysis in the breadth of the study area boundary, using approaches that are not consistent with jurisdictional procedures and failing to address the impacts on the network circulation system particularly given the inadequate mitigation program that is proposed.

O4-6
- The mitigation program relies upon a fair share funding program from "for profit" development that is insufficient to address the impacts of the entire project and contains no discernable commitment to assure that requisite circulation improvements are installed in advance of or concurrent with project development.

O4-7
- The DEIR fails to adequately address the lack of sufficient parking needed to serve the development anticipated by the project.

RESPONSES

The Irvine Company

O4-1 Comment noted.

O4-2 Section 3.1 of the Final EIR (Volume I) clearly describes the relationship between "for-profit" or income-producing development and UCI or University-oriented development. The first paragraph on page 3-2 describes the modification of deed restrictions in 1988 to allow, under certain conditions, UCI to develop uses that are solely revenue-producing and not University-oriented. Furthermore, the LRDP land use element (page 3-22) acknowledges the role that for-profit development plays on the UCI campus by designating a specific land use category for this type of use:

> ***Income-Producing Inclusion Area*** *land use zones are intended to accommodate third-party real estate transactions involving the Inclusion Areas in order to generate revenue and/or other consideration to support UCI's mission. Uses are compatible with University-based programs and may entail collaboration with UCI faculty and students. Permitted uses include office space, research and development uses, commercial and retail space, conference facilities, research facilities, clinical uses, multi-purpose facilities such as arenas, and other commercial or non-profit facilities.*

In addition, as described on pages 3-21 and 3-22, the Mixed-Use land use category may include commercial or other non-University related facilities.

O4-3 As described on page 4.13-27 of the Final EIR (Volume I), the study area was determined by reviewing current census data for UCI commuters to determine their points of origin, and by including all intersections analyzed for the 1995 LRDP Amendment and all intersection and roadway link locations that local jurisdictions requested be analyzed during the scoping process for the 2007 LRDP EIR. As a result, UCI believes the study area as shown is appropriate to accurately address potential traffic impacts associated with implementation of the 2007 LRDP. As Lead Agency under CEQA, UCI has discretion in determining the boundaries of the traffic study area used for the LRDP EIR and is not obligated to adopt City of Irvine traffic study guidelines. Commuter distribution data presented in Table 4.13-5 (page 4.13-21, Volume I of the Final EIR) suggest that the majority of UCI employees commute from locations within the traffic study area. In addition, the boundaries of the study area are further justified by the fact that over 55 percent of UCI's student enrollment either live on campus or within the adjacent University Center.

O4-4 UCI, as an entity of the State of California, does not fall within the jurisdiction of municipal policies. However, as described on page 4-13-27 of the Final EIR (Volume I), the traffic analysis for the 2007 LRDP was conducted consistent with the methodologies employed by the City of Irvine and the City of Newport Beach.

O4-5 As shown in Table 1-1 of the traffic study (in Volume II of the Final EIR, Appendix E), the impact analysis used the same performance standards and mitigation requirements adopted by the City of Irvine and the City of Newport Beach. On the basis of these criteria, the Final EIR identifies locations that would be significantly impacted by implementation of the 2007 LRDP and proposes measures to fully mitigate impacts to a less than significant level.

O4-6 Refer to Response to Comment L7-7. Given the total amount of "for-profit" building space that is accommodated in the 2007 LRDP, UCI believes that sufficient fee revenue would be generated from such development to fund UCI's fair share of the improvements identified to mitigate traffic impacts associated with the LRDP.

O4-7 Section 4.13.3.2 of the Final EIR (Volume I) concludes that the 2007 LRDP would accommodate all campus parking needs on site and would not rely on off-campus locations to help meet campus parking demand. However, in response to this comment, UCI will begin to work with The Irvine Company (TIC) to implement a meaningful parking management program to limit unauthorized use of TIC parking facilities by UCI affiliates. TIC properties to be addressed in the program will include University Town Center, University Research Park, and Irvine Apartment Communities.

COMMENTS

O4-8 We believe that these deficiencies in the DEIR and Traffic Study should be corrected by conducting additional analysis that uses methodology consistent with jurisdictional
O4-9 practices, an expanded study area and identifies a responsive mitigation program with
O4-10 adequate controls. Otherwise, we believe that consideration of the 2007 LRDP should be
O4-11 postponed.

We stand ready to work with the University to address these concerns.

Sincerely,

Michael J. Le Blanc
Senior Vice President

Attachment

RESPONSES

O4-8 Refer to Response to Comment O4-4.

O4-9 Refer to Response to Comment O4-3.

O4-10 Refer to Response to Comments O4-5 and O4-6.

O4-11 UCI believes that traffic issues are adequately addressed in the Final EIR and will ask The Regents of the University of California to approve the 2007 LRDP and certify the Final EIR at its November 2007 meeting.

COMMENTS

EIR Comments:

O4-12 1. Page 3-2 (Second paragraph) notes that additional parcels will be provided in the future for local infrastructure improvements including the planned widenings of Bonita Canyon Drive, Campus Drive and Jamboree Road. No mention is made that additional right of way would also be needed for the planned widening of University Drive to 6 lanes between SR-73 and Campus Drive. This additional right of way needed should be recognized in the EIR.

O4-13 2. Page3-21 provides a brief description of the land use categories that would be permitted in the 2007 LRDP. One such category is "mixed use" that allows a combination of residential, commercial, office, institutional or other uses. It is not clear as to what has been assumed in the "mixed use" areas for the traffic study in the EIR. Further, a mitigation measure should be included in the EIR

O4-14 that places an ADT, AM peak and PM peak hour trip cap for these areas consistent with the land use assumptions included in the traffic analysis to assure that no additional traffic impacts will be created beyond those associated with the particular mix of land uses in these areas that have been assumed in the traffic study.

O4-15 3. Page 3-29 (Last sentence of last paragraph) states that the "widening of existing campus roadways identified in the 2007 LRDP (e.g. Peltason Drive) would only occur following a determination of necessity based on level of service standards and, only after the implementation of TDM measures and LRDP intersection improvements as well as an evaluation of alternatives." It appears that the subject widenings have been assumed in the EIR traffic study which has a direct bearing on the distribution of traffic generated by the LRDP uses. Not widening Peltason Drive would result in a distribution of trips different than assumed in the traffic study resulting in increased traffic onto other roadways (i.e. California Avenue, Mesa Drive and University Drive). Intersections such as California/Bison, California/Academy, California/University and University/Campus could be negatively impacted by this redistribution of traffic. Not widening Peltason Drive could also impact the results of the fair share mitigation measure for off-site impacts. This potential re-distribution impact has not been addressed in the EIR traffic study.

O4-16 4. Figure 3-7 identifies the existing and proposed circulation for the 2007 LRDP. Two new access points to Campus Drive are shown on this Figure. One is located at the existing Campus/Cornell tee intersection and the other is located midway between the Campus/California and Campus/Culver intersections. No intersection traffic forecast data has been included in the EIR traffic study for either of these intersections to permit an evaluation of any impacts or concerns. In

O4-17 addition, it is noted that Figure 2-2 in the traffic study does not include the Cornell access point as part of the proposed LRDP Circulation System. This discrepancy should be clarified. It is also noted that the Campus/Cornell tee

O4-18 intersection was previously a four way intersection that was modified to its current tee intersection to reduce traffic at this location due to a history of safety issues associated with student pedestrian crossings. How are these previous safety issues to be addressed with this proposal? Figure 7-1 in the traffic study

RESPONSES

O4-12 In response to this comment, the last sentence of the second paragraph in Section 3.1, Project Location and Setting, on page 3-2 of the Final EIR (Volume I) has been revised, as indicated below, to reference University Drive. It should be noted that widening of University Drive was not identified as mitigation for any significant environmental effect of the 2007 LRDP, and UCI will cooperate in the transfer of right-of-way as part of the City of Irvine's implementation of its widening project.

> It is anticipated that additional small parcels will be provided in the future for local infrastructure improvements, including planned widenings of Bonita Canyon Drive, Campus Drive, University Drive and Jamboree Road, as well as other improvements benefiting UCI and the community.

O4-13 The 2007 LRDP identifies three mixed-used areas on the UCI main campus (excluding the North Campus). As described in Appendix A of the 2007 LRDP traffic study (Appendix E in Volume II of the Final EIR), the UCI Main Campus Traffic Model assumes the following levels of development for each zone:

Traffic Zone	Student Housing (Beds)	Support Space (Gross Square Feet)
63/87	434	27,000
86	None	40,000 (in addition to 159,000 GSF for the Anteater Recreation Center)
59/84	375	23,000

In addition, the 2007 LRDP traffic study assumes the following levels of development for the two mixed-use areas on the North Campus: 950,000 gross square feet of research and development/commercial office space and 435 multi-family housing units.

O4-14 UCI believes that imposing trip caps on the mixed-use areas as part of the 2007 LRDP program-level Final EIR is unnecessary since future development within these areas will be subject to subsequent CEQA analysis. It is worth noting that the 2007 LRDP traffic study identifies a total trip generation of 146,554 average daily trips (ADT) (12,883 p.m. peak hour ADT) associated with the 2007 LRDP. This is consistent with the 148,100 ADT (13,325 p.m. peak hour ADT) "buildout" estimate for UCI included in a 1988 Memorandum of Understanding between UCI and the City of Irvine.

O4-15 The re-distribution of traffic described in this comment would not occur so long as an acceptable LOS is maintained along Peltason Drive. The Final EIR identifies measures to maintain acceptable LOS on Peltason Drive during implementation of the 2007 LRDP. As described on page 3-19 in Section 3.3.2.4 of the Final EIR (Volume I), this would be accomplished, first, through the implementation of TDM measures and intersection improvements. If needed, Peltason Drive would be widened to four lanes if it is determined that these or other alternative measures are inadequate based on LOS standards. The 2007 LRDP traffic study analyzed the widening of Peltason Drive as the ultimate condition. UCI is committed to maintaining acceptable LOS along Peltason Drive—including widening the roadway as needed—and in accordance with Mitigation Measure Tra-1D (page 4.13-55 of the Final EIR, Volume I) will monitor campus trip generation and distribution and the performance of this link in relationship to enrollment growth.

O4-16 UCI has deleted the access point on Campus Drive across from Cornell from the 2007 LRDP. Intersection Capacity Utilization (ICU) data has not been provided for the proposed intersection on Campus Drive between California Avenue and Culver Drive because access would be right-in, right-out only. As such, Figure 3-7 of the Final EIR (Volume I) has been revised to indicate only one new access point along Campus Drive, and item 5 in the first sentence of the fourth paragraph on page 3-29 of the Final EIR (Volume I, Section 3.3.3.2, Circulation Element, Vehicular Network) has been revised, as indicated below, to reference two new entry points overall into the UCI campus, instead of three:

> Proposed improvements include: (1) augmenting (i.e., constructing additional turn lanes) and signalizing certain existing campus intersections; (2) widening Peltason Drive to four travel lanes where required to achieve an acceptable level of service; (3) widening California Avenue between Academy Way and

shows that the new intersection between California and Culver is only projected to carry 2,000 ADT. However, no peak hour forecasts at the intersection have been provided in the traffic study. Is the new intersection between California and Culver proposed as a full access or as a right turn only? O4-19

5. Figure 3-9 identifies the existing and proposed bicycle circulation network for the 2007 LRDP. There appears to be a few locations where there are duplicate trails proposed along adjacent roadways. Specifically, the plan proposes a future bike trail along Campus Drive between California and Culver, along Bonita Canyon Road between SR73 and Shady Canyon and along University Drive between SR73 and Culver. Are these trails needed in light of the local/regional trails that are shown along these same segments? O4-20

6. Figure 3-9 shows the existing elevated trail crossing at Campus Drive between West Peltason and East Peltason. Should there not be a bicycle connection from UCI to connect to this crossing? O4-21

7. Figure 3-9 shows a future bike trail crossing of the San Diego Creek at the California/University intersection. Previously, California Avenue was planned to extend across the San Diego Creek as a primary arterial. Since this arterial connection has now been deleted, is this trail crossing a cost effective connection or should it be deleted? O4-22

8. Figure 14.13-1 identifies the Study Area for the traffic study. This traffic Study Area boundary should be extended consistent with City of Irvine traffic study guidelines, which require that the study area cover all intersections which are impacted by at least 1%. Inspection of the peak hour ICU data for intersections (i.e. Harvard/Michelson ICU increases by 7% with the Project and University/Culver ICU increases by 8% with the Project) suggests that the Study Area should be extended to the north and east per this City of Irvine guideline. O4-23

9. Table 4-13-7 indicates that certain improvements have been assumed to be constructed by the Year 2025 without the Project. One assumption is the addition of a southbound lane to complete the four lane cross-section for Bonita Canyon Drive between SR73 and Shady Canyon. This improvement can only proceed assuming that the needed right of way for this widening is conveyed by UCI to the City of Irvine. Until a right of way agreement is completed for this conveyance, this widening should not be assumed. Thus, the traffic study should be revised to delete this assumed widening for the No Project assumptions or the LRDP amendment should commit that this right of way will be conveyed to the City. O4-24

10. Table 4-13-7 also indicates that certain improvements have been assumed to be included at the Culver Drive/Bonita Canyon intersection by the Year 2025 without the Project. Not all of the assumed future improvements at this intersection are currently under construction. Are the assumed second eastbound right turn, second westbound left turn and second northbound left turn lanes to be constructed by UCI with this Project? O4-25

11. The City of Newport Beach has recently amended its General Plan which included mitigation measures at a few of the intersections analyzed in the traffic study. These mitigation measures should be included in the Post 2025 intersection assumptions. O4-26

RESPONSES

Bison Avenue to four travel lanes, as planned in the 1989 LRDP; (4) completing the Arroyo Drive loop road to California Avenue; and (5) creating two new vehicular entry points, one each along Campus Drive and Bonita Canyon Drive, to facilitate the movement of residential and other traffic in these areas.

O4-17 This inconsistency has been resolved with the deletion of the Cornell access point from the 2007 LRDP (refer to Response to Comment O4-16). The Cornell access point was not included in the on-campus roadway system analyzed in the Final EIR, and so its deletion has no effect on the traffic analysis.

O4-18 Refer to Response to Comment O4-16.

O4-19 Refer to Response to Comment O4-16.

O4-20 Consistent with planning principles outlined in the 2007 LRDP and Final EIR, UCI encourages the development of off-street bikeways, especially in areas where vehicular traffic volumes may contribute to less-than-optimum safety conditions along on-street bikeways. The planned off-street bicycle trails adjacent to Campus Drive and Bonita Canyon Drive would achieve this purpose. The dual trails on University Drive shown in Figure 3-9 of the Final EIR (Volume I), which has been revised in Response to Comments L5-12 and L5-32, are consistent with information on the City of Irvine bikeways map that indicates an on-street bikeway along University Drive in addition to the off-street bikeway adjacent to the San Diego Creek.

O4-21 The comment addresses the Raymond L. Watson Bridge that connects UCI campus to the University Center commercial development. A bicycle trail to Watson Bridge is not shown on the plan because pursuant to a practice adopted for pedestrian safety, bicycles are presently prohibited on the bridge. Furthermore, bicyclists are prohibited within the retail portion of University Center on the opposite side of the bridge.

O4-22 A non-vehicular connection between the UCI main campus and future development on the North Campus, including potential housing for UCI affiliates, is consistent with planning principles outlined in the 2007 LRDP and Final EIR. Such a connection would serve to reduce vehicular traffic on public streets to and from the main campus, as well as promote non-automobile modes of travel.

O4-23 Refer to Response to Comment O4-3.

O4-24 The right-of-way agreement between UCI and the City of Irvine for the widening of Bonita Canyon Drive is currently being negotiated and its execution is reasonably foreseeable. In addition, preliminary engineering for this improvement has been completed. Therefore, UCI determined it is appropriate to include the widening of Bonita Canyon Drive in the list of assumed off-campus roadway improvements.

O4-25 Lane geometrics at Culver Drive and Bonita Canyon Drive were taken from the City's Irvine Transportation Analysis Model (ITAM) database. ITAM is the principal tool for transportation planning in the City of Irvine. Because the 2025 version of ITAM includes these lane improvements, it is appropriate to include them in the list of assumed 2025 improvements. Please note that UCI constructed the eastbound lane improvements at this intersection in conjunction with its recent completion of Anteater Drive.

O4-26 As mitigation for anticipated impacts, the amended City of Newport Beach General Plan identified specific intersection improvements at several locations within the 2007 LRDP EIR traffic study area. These improvements are uncommitted and the City acknowledges in the General Plan that alternate improvements that provide acceptable LOS may eventually be adopted. Given this uncertainty, the traffic impact analysis for the Final EIR did not assume that these specific General Plan improvements would be in place post-2025. Using this conservative approach, the Final EIR identified significant cumulative effects at six intersections in Newport Beach. UCITP improvements proposed in the Final EIR to mitigate the 2007 LRDP impacts at these locations are consistent with the improvements recommended in the General Plan.

COMMENTS

O4-27 12. Figures 4.13-7, 4.13-8, 4.13-9 and 4.13-10 provide projected Year 2025 and Post 2025 Volume to Capacity ratios without and with the Project. Traffic forecasts should be included for Newport Coast Drive between Bonita Canyon Road and SR73 and for Turtle Ridge between Bonita Canyon Road and Newport Coast Drive in these figures to allow an assessment of potential impacts.

O4-28 13. The intersection analysis should include forecasts for the Newport Coast Drive/Turtle Ridge intersection.

O4-29 14. Page 4.13-50 (3rd paragraph of Mitigation Measure section) states that "the UCITP will be administered by UCI through the collection and management of transportation fees from on-campus "for profit" development or other campus development as determined by UCI". However, the language of Mitigation Measure Tra-1E limits this UCITP to only "for profit" development. The language of this mitigation measure should be revised to be consistent with discussion on Page 4-13-50.

O4-30 15. Page 4-13-50 (second paragraph of Mitigation Measure section) notes that the UCITP recognizes that there is a "tiered" approach to mitigating significant impacts. Tier 1 locations are those in which the projected intersection deficiency is caused by the Project. Tier 2 locations are those in which the Project contributes to a deficiency that is projected to occur with No Project. However, the language of Mitigation Measure Tra-1D suggests that UCI's fair share funding will be limited to the percentage of UCI traffic volumes compared to the total traffic volumes at the impacted intersection. Such a fair share funding formula is valid for the Tier 2 locations. However, Mitigation Measure Tra-1D should be revised to clarify that the 2007 LRDP is 100% responsible for the Tier 1 locations since the projected deficiency at the intersection is caused by the Project.

O4-31 16. Page 4-13-50 (last sentence of third paragraph of Mitigation Measure section) states that "the existing Mitigation Measure 123 traffic fee program…… will be updated and replaced by the UCITP (with similar objectives), as enforced by Mitigation Measure Tra-1D and Tra-1E" The existing Mitigation Measure 123 required the fair share participation at a number of off-site improvements. Many of these improvements have yet to be completed (i.e. widening of University Drive between MacArthur and Campus Drive). The traffic study (Table 2-2) identifies that the existing UCI land uses generate 77,064 ADT. The current LRDP would generate 129,300 ADT. Mitigation Measure 123 is still a relevant mitigation measure for the projected growth between the existing condition and the current LRDP. Therefore, Mitigation Measure Tra-1D and Tra-1E should be clarified that the UCITP will include not only a fair share contribution to the improvements listed in Table 4.13-7 but also will include an updated fair share contribution to those improvements included in the Mitigation Measure 123 which have not yet been constructed. This updated Mitigation Measure 123 fair share contribution should include both the growth between existing conditions and the current LRDP as well as the additional growth proposed with the 2007 LRDP.

O4-32 17. Tra-1E, as noted in comment #13 above, limits the fair share contribution to "for profit" development only. This limitation falls short of the University's obligation to fully mitigate its off-site impacts within adjoining jurisdictions. As

RESPONSES

O4-27 Refer to Response to Comment O4-3. These links are outside of the study area.

O4-28 Refer to Response to Comment O4-3. This intersection is outside of the study area.

O4-29 Refer to Response to Comment L7-7. It should be noted that the source of funding to implement mitigation is not a CEQA issue, so long as it can be demonstrated that the mitigation will be fully funded and implemented.

O4-30 Refer to Response to Comment L5-21.

O4-31 The 2007 LRDP would replace the 1989 LRDP and the mitigation program established in association with the 1989 LRDP EIR, as amended, based on current information regarding traffic conditions in the 2005 baseline year. Pursuant to the requirements of CEQA, the Final EIR identifies significant traffic impacts and mitigation measures associated with implementation of the 2007 LRDP, and identifies mitigation measures that are capable of reducing the traffic impacts of LRDP implementation to below a level of significance. The traffic analysis conducted for the 1989 LRDP evaluated projected increases in traffic over a 20-year period. As part of the 2007 LRDP, UCI has evaluated current actual traffic conditions and developed reasonable projections for the next 20-year period in order to identify any current or future projected impacts. The program established in the 1989 LRDP provided for contributions to fund traffic improvements both to mitigate significant impacts anticipated to result from implementation of the 1989 LRDP, as well as improve other intersections to improve the overall functionality of the roadway network adjacent to the campus. Outside the scope of UCI's CEQA responsibilities, UCI may coordinate with the City of Irvine to advance other public improvements, such as the widening of University Drive.

O4-32 Refer to Response to Comment O4-29. UCI is committed to fully mitigating 2007 LRDP traffic impacts. As reaffirmed by the California Supreme Court in the *City of Marina* case, as the Lead Agency, UCI has discretion in determining the method by which it will mitigate LRDP impacts. UCI estimates that sufficient fee revenue could be generated by for-profit development identified in the LRDP to fund its fair share of UCITP improvements.

O4-33 Refer to Response to Comment O4-29.

O4-34 Refer to Response to Comment L7-7.

O4-35 UCI has committed to measures that will fully mitigate all of the significant traffic impacts associated with implementation of the 2007 LRDP, including fair share funding for those measures. The source of the funds and how UCI structures its fees is not a CEQA issue, so long as it can demonstrate that it can fund the adopted mitigation measures. The Supplemental Agreement regarding the Inclusion Areas entered into between UCI and The Irvine Company in 1988 contains a provision that developers of for-profit facilities at UCI shall pay development fees and charges not less than if they were developing facilities on land not owned by UCI. A 1992 Development Agreement between UCI and the City of Irvine for the development of Inclusion Areas on the North Campus prohibits North Campus transportation improvement fees from exceeding fees imposed on similar development in the City of Irvine. The intent of these provisions is to "level the playing field" for income-producing development at UCI. The suggestions contained in the comment would contradict this safeguard and potentially disadvantage future for-profit development at UCI.

LRDP Mitigation Measure Tra-1G outlines one funding element of UCI's traffic mitigation package as comprehensively presented in LRDP Mitigation Measures Tra-1A to Tra-1J. When all relevant mitigation measures are applied, the potentially significant traffic impacts of LRDP implementation are fully mitigated.

O4-32 cont. such, all new development in the 2007 LRDP should be required to pay its fair share towards mitigating the impacts at the locations listed in Table4.13-7 and the unbuilt improvements that remain from Mitigation Measure 123. Tra-1E should be modified accordingly.

O4-33 18. To assure that the fair share fees will be available to the City of Irvine or City of Newport Beach or other public agencies when needed for construction of the improvements, Tra-1E should be modified to read: "UCI will collect UCITP traffic fees from all new development on campus and place funds in an escrow account to be used only for the improvements required in the UCITP including updated Mitigation Measure 123 improvements. Fees will be provided to the City of Irvine, City of Newport Beach or other public agencies based on a cooperative funding agreement between parties that outlines the timing of how the funds will be provided to the agencies (i.e. progress payments during design and/or construction)."

O4-34 19. Page 4.13-55 (first paragraph) states "If UCITP fees collected are insufficient to fund UCI's fair share of improvements to an impacted facility, then implementation of Mitigation Measure Tra-1F would reduce LRDP traffic impacts to a level of Less than Significant". Tra-1F only requires UCI to "initiate funding requests for the fair share of identified improvements" How does initiating funding requests reduce impacts to Less than Significant? To whom are the funding requests to be made?

O4-35 20. Tra-1G limits the UCITP fees for UCI's North Campus to be commensurate with the traffic fees established in the City of Irvine's IBC Transportation Fee Program. CEQA requires traffic impacts to be mitigated. UCITP is intended to require LRDP development to pay its fair share of the cost of the mitigation improvements that have been identified. Placing a limit on the amount of fair share fees could result in the Project not mitigating its impacts as required by CEQA.

O4-36 21. Tra-1D provides a mechanism for the 2007 LRDP development to forego payment of fair share fees by implementing measures to reduce significant traffic impacts at UCITP intersections. The mitigation measure should be modified to require that the elimination or reduction of fair share fees must be by mutual agreement with the impacted jurisdictions.

O4-37 22. Page 4.13-50 (last paragraph) identifies projected $2 million per year Measure M funds to be generated by the LRDP. How was this amount estimated? Is this the estimated ½ sales tax generated on-campus per year?

O4-38 23. Section 4.13.1.2 Existing Parking Conditions. Contrary to the statement that there is sufficient parking available for the 2005-06 demand, our properties have experienced impacts from UCI students utilizing parking set aside for retail customers. Given this experience, we are concerned about the University's ability to provide adequate parking for the future demands associated with the 2007 LRDP and similar impacts on our employee parking for the University Research Park. As such, we believe Section 4.13.3.2 should be revised to insure that adequate parking and parking management programs are implemented by UCI to accommodate its parking demand.

RESPONSES

O4-36 Refer to Responses to Comment O4-32 and O4-35. Mitigation is comprised of several different commitments, including reducing vehicle trips that contribute to the impact through the implementation of TDM measures and paying for UCI's fair share of traffic improvements when warranted. If UCI is able to reduce the vehicle trips associated with implementation of its 2007 LRDP, this will reduce or avoid projected traffic impacts consistent with the requirements of CEQA.

O4-37 The estimated $2 million in annual Measure M funding is based on the half-cent sales tax revenue generated by UCI expenditures in 2006.

TRAFFIC STUDY COMMENTS

O4-39 1. Traffic volume forecasts (ADT and peak hour) are not provided at four significant intersections that connect to the adjacent arterial highway network. These include University/Mesa, Bonita Canyon/Turtle Ridge, the Culver Drive access southerly of Campus and the Campus access westerly of Culver Drive. Traffic forecasts at these locations would facilitate a better understanding of potential Project impacts to the surrounding arterial highway system.

O4-40 2. Table 5-4 identifies an impact to Bonita Canyon easterly of Macarthur Boulevard. However, no mitigation for this impact has been included in the proposed UCITP mitigation program.

O4-41 3. The on-site Circulation Analysis in Chapter 7 fails to address potential impacts to the California/Theory and California/Innovation intersections. Traffic forecasts for these two locations should be provided and mitigation measures provided as applicable (i.e. signalization).

O4-42 4. Appendix A (Figure A-1 and associated tables) provides a detailed breakdown of the land use assumptions for the 2007 LRDP. The same level of detail should be included for existing and current LRDP land use assumptions to provide a better understanding of where the proposed future growth will occur.

O4-43 5. The ICU for the California/Campus intersection (#216) has been calculated assuming a left turn signal phase exists for the north/south left turn movements. This left turn signal phase does not exist. It is our understanding that the left turn phasing is proposed to be a joint City/UCI project using federal funds. This proposed project should be included in Table 3-2. The Project should include a mitigation measure to implement this needed left turn signal phase at this location if the City/UCI project does not proceed as planned.

O4-44 6. The ICU for the Bonita Canyon/Newport Coast intersection (#239) has assumed only one SBT lane for the Year 2025. This should be modified to assume a second SBT lane as it is included in the Bonita Canyon Drive improvement between SR-73 and Shady Canyon that is listed in Table 3-2.

O4-45 7. The proposed LRDP increases the eastbound AM peak hour left turn movement from an existing 456 vehicles to 870 vehicles at the California Avenue/Bison Avenue intersection. While the ICU at this intersection shows an acceptable Level of Service, this increase needs to be mitigated by providing a second left turn lane to address left turn pocket storage needs.

RESPONSES

O4-38 Refer to Response to Comment O4-7.

O4-39 The access point on Campus Drive just west of Culver Drive will be restricted to right-turns in and right-turns out, and since it is not planned to be a full access it is not expected to significantly impact the adjacent streets. Data for the intersections of Bonita Canyon Drive/Turtle Ridge Drive and Culver Drive/Palo Verde Road are not available from ITAM. The corresponding peak-hour and ADT data for the University Drive/Mesa Road intersection have been compiled and reviewed and show no significant impact due to the 2007 LRDP.

O4-40 The inclusion of Bonita Canyon Drive in Tables 4-4 and 5-4 in the LRDP traffic study (Appendix E in Volume II of the Final EIR) was a typographical error and these tables have been revised to reflect this fact. The traffic analysis concluded that the 2007 LRDP would not significantly impact this link.

O4-41 Traffic forecast data for California Avenue/Theory and California Avenue/Innovation intersections are not available because these locations are considered project access points rather than arterial-to-arterial intersections. More detailed analysis of these locations, including signal warrants, would be provided as part of project-level reviews. As shown in Figure 3-7 in the Final EIR (Volume I), which has been revised in Response to Comments L5-12 and L5-32, the 2007 LRDP Circulation Element accommodates a future traffic signal at California Avenue/Theory intersection. UCI will fund a future traffic signal at California Avenue/Theory intersection if needed to serve the UCI Health Sciences complex and University Research Park.

O4-42 While not at the same level of detail as in Appendix A of the 2007 LRDP traffic study (Appendix E in Volume II of the Final EIR), information on traffic generation by land use for the existing condition and the 1989 LRDP is provided in Tables 2-3 and 2-4 in Appendix E of Volume II, respectively.

O4-43 The traffic analysis used an ICU methodology consistent with City of Irvine guidelines, as more completely described in Appendix B of the traffic study (Appendix E in Volume II of the Final EIR). All intersections are assumed to be signalized with each turn movement phased in the signal cycle, whether or not the physical facilities actually exist. Thus, it would not be appropriate to identify a mitigation measure should the left-turn signal phase not be installed at the California Avenue/Campus Drive intersection.

O4-44 The lane geometrics at the Bonita Canyon Drive/Newport Coast Drive intersection were taken from the City's ITAM database which does not assume that a second southbound through lane is carried through the intersection. (The improvement listed in Table 3-2 [Appendix E in Volume II of the Final EIR] applies only to the mid-block roadway segment.) ITAM is the principal tool for transportation planning in the City of Irvine and was used to determine 2007 LRDP traffic impacts on roadways within the City. The Final EIR identified a significant cumulative impact at this intersection in 2025 and post-2025.

O4-45 The purpose of the traffic study is to support a program-level EIR for the 2007 LRDP. As stated in the comment, the traffic analysis conducted for the Final EIR did not identify a significant impact at this intersection. Future studies for the design and implementation of improvements made at this intersection to improve functionality would include analysis of storage lengths of the turn movements.

COMMENTS

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REVISIONS TO THE DRAFT EIR

In response to comments received, some text published in Volumes I, II and III of the Draft EIR has been revised. Changes to the wording of impact or mitigation statements and material added or deleted to the impact analyses and discussions are presented below with changes shown in underline and strikeout, so that the original and revised text may be compared. Changes presented here are by volume, and by sections within each volume, in their order within the EIR. Those sections where no content changes were made are not included. In addition, minor editorial changes have been made to improve readability, correct typographical errors, etc. These revisions are not presented in this section but are reflected in the other volumes of the Final EIR.

Volume I – Table of Contents

The Table of Contents has been updated to include Volume IV.

Volume I – 1.0 Introduction

Sections 1.6, EIR Review Process, and 1.7, Organization of the EIR, have been updated to reflect the completion of public review of the Draft EIR and to reference Volumes III and IV of the Final EIR.

Volume I – 2.0 Executive Summary

Several mitigation measures in Tables 2-1 and 2-2 have been updated in response to comments in Chapter 4.0, as listed below.

Volume I – 3.0 Project Description

Section 3.5, Scope of the EIR Analysis, has been updated to reflect the Final EIR.

In response to Comment L5-2, the text in Section 3.1.2, Surrounding Land Uses, on page 3-11, second paragraph, fifth sentence, has been revised as follows:

> The Irvine Business Complex, consisting of office and commercial development and <u>mixed-use and</u> residential uses, is located north of UCI's North Campus.

In response to Comments L5-12 and L5-32, Figures 3-6, 3-7, 3-9 and 3-10 have been revised to identify a bicycle/pedestrian connection between Fairchild Road and the future trail on the North Campus.

In response to Comment O4-12, the text in Section 3.1, Project Location and Setting, on page 3-2, second paragraph, last sentence, has been revised as follows:

> It is anticipated that additional small parcels will be provided in the future for local infrastructure improvements, including planned widenings of Bonita Canyon Drive, Campus Drive, <u>University Drive</u> and Jamboree Road, as well as other improvements benefiting UCI and the community.

In response to Comment O4-16, Figure 3-7 has been revised to indicate only one new access point into the UCI campus along Campus Drive, and the text in Section 3.3.3.2, Circulation Element, Vehicular Network, on page 3-29, fourth paragraph, item 5 in the first sentence, has been revised as follows:

Proposed improvements include: (1) augmenting (i.e., constructing additional turn lanes) and signalizing certain existing campus intersections; (2) widening Peltason Drive to four travel lanes where required to achieve an acceptable level of service; (3) widening California Avenue between Academy Way and Bison Avenue to four travel lanes, as planned in the 1989 LRDP; (4) completing the Arroyo Drive loop road to California Avenue; and (5) creating ~~three~~two new vehicular entry points, one each along Campus Drive and Bonita Canyon Drive, to facilitate the movement of residential and other traffic in these areas.

Volume I – 4.2 Air Quality

In response to Comment L7-2, the text in Mitigation Measure Air-2A has been revised as follows:

Air-2A During project level environmental review of future projects that implement the 2007 LRDP and that could result in a significant air quality impact from construction emissions, UCI shall retain a qualified air quality specialist to prepare an air quality assessment of the anticipated project-related construction emissions. The assessment shall quantify the project's estimated construction emissions with and without implementation of applicable Best Management Practices (BMPs) listed in mitigation measure Air-2B and compare them with established SCAQMD significance thresholds. In addition, the air quality assessment shall include analysis of temporal phasing as a means of reducing construction emissions.

If the estimated construction emissions are under SCAQMD's significance thresholds or if mitigation measure Air-2B would reduce emissions to below established thresholds, then the project's direct impact to air quality would be less than significant and no additional mitigation would be required. If the project's construction emissions would exceed established thresholds with implementation of applicable BMPs listed in mitigation measure Air-2B, and no additional mitigation to reduce the emissions below the threshold is feasible, then the project's direct impact to air quality would remain significant following mitigation.

In response to Comment L7-3, the text in Mitigation Measure Air-2C has been revised as follows:

Air-2C UCI shall ensure that operational air emissions, including area sources, stationary sources, and vehicular emissions, are reduced to the extent possible via the following mitigation measures:

i UCI shall continue to implement and expand its alternative transportation program by ~~including vanpools, carpools, shuttle systems, public transit incentives, support of alternative transportation organizations, coordination with regional transportation programs and projects, and other programs and projects as deemed appropriate.~~continuing to assess new opportunities, programs, and technologies to reduce vehicular trips. This program shall consider the following elements:

- Significant incentives aimed to expand UCI vanpool, carpool, and other ridesharing programs;
- Significant incentives aimed to expand UCI public transit use off campus;
- Promotion of Express Bus service in the campus vicinity and Express Bus service routes from key UCI commuter locations off campus;
- Expansion of campus shuttle and other campus transit systems, including point-to-point shuttles with expanded routes and operations to key destinations, and coordination of the on-campus transit systems with existing and future public transit systems off campus to accommodate routes, transit stops, stations, and other programs and projects as deemed appropriate, including community transit programs in the City of Irvine and City of Newport Beach;
- Expansion of UCI bike programs and bicycle infrastructure, including expanded bikeways, BikePorts, and Bike Service Stations; and
- Support of alternative transportation organizations.

Volumes I and III – 4.4 Cultural Resources

In response to Comment S2-6, the text in Mitigation Measure Cul-1C has been revised as follows:

Cul-1C Prior to land clearing, grading, or similar land development activities for future projects that implement the 2007 LRDP in areas of identified archaeological sensitivity, UCI shall retain a qualified archaeologist (and, if necessary, a culturally-affiliated Native American) to monitor these activities. In the event of an unexpected archeological discovery during grading, the on-site construction supervisor shall be notified and ~~UCI~~ shall redirect work away from the location of the archaeological find. A qualified archaeologist shall oversee the evaluation and recovery of archaeological resources, in accordance with ~~mitigation measures Cul-1A and Cul-1B~~ the procedures below, after which the on-site construction supervisor shall be notified and shall direct work to continue in the location of the archaeological find. A record of monitoring activity shall be submitted to UCI each month and at the end of monitoring. If the archaeological discovery is determined to be significant, the archaeologist shall prepare and implement a data recovery plan. The plan shall include, but not be limited to, the following measures:

i. Perform appropriate technical analyses;
ii. File any resulting reports with the South Coastal Information Center; and
iii. Provide the recovered materials to an appropriate repository for curation, in consultation with a culturally-affiliated Native American.

In response to Comment S2-8, the text in Mitigation Measure Cul-1A has been revised as follows:

Cul-1A During preparation of the Initial Study for future projects that implement the 2007 LRDP and are located on sites containing recorded archaeological resources, UCI shall retain a qualified archaeologist to define and survey the area of potential effects (APE) on the project site. The APE shall be based on the extent of ground disturbance and site modification anticipated for the project including an appropriate buffer where specific project boundaries have yet to be established.

During the course of project planning, any recorded archaeological sites within the project APE shall be avoided to the extent feasible. If such sites cannot be avoided through project modifications or redesign, then the archeologist shall evaluate all archaeological resources observed within the project APE for significance in accordance with CEQA Guidelines Section 15064.5(c). This evaluation shall also determine the extent of the archaeological resource, if not already established. If an archaeological resource within the project APE is determined to be significant, then mitigation measure Cul-1B shall be implemented.

Volume I – 4.6 Hazards and Hazardous Materials

In response to Comment L2-1, the text in Section 4.6.1.4, Aircraft Accident Hazards, on page 4.6-8, has been revised as follows:

UCI is located approximately 1.5 miles southeast of John Wayne Airport (JWA) and falls within the airport's planning area (Figure 4.6-1). The Airport Land Use Commission (Commission) for Orange County defined the planning area for JWA as all areas within the 60 db CNEL Noise Contour~~, within the Runway Protection Zones, and~~. In addition, UCI is subject to the Height Restriction Zone described in the JWA Airport Environs Land Use Plan (AELUP) as all structure elevations more than 200 feet above ground level; these are the areas that lie above or penetrate the 100:1 Imaginary Surface as defined in Federal Aviation Regulation (FAR) Part 77.13. ~~Figure 4.6-1 shows the planning area boundary for JWA. Runway Protection Zones, also known as Accident Potential Zones (APZ), around the JWA were based on the Airport's accident history and operational characteristics. These zones are located at either end of JWA's runway.~~ For all on-campus development proposals that involve construction or alteration of a structure more than 200 feet above ground level, UCI will comply with the JWA AELUP referral requirements promulgated under FAR Parts 77.13 and 77.25, including filing a Notice of Proposed Construction or Alteration. UCI will also comply with all conditions of approval imposed or recommended by the Federal Aviation Administration (FAA), the Commission, and any other applicable federal and state procedures.

Accident Potential Zones have not been adopted for JWA because none could be justified with the available data (Airport Land Use Commission, 2002). ~~While the UCI campus is located within JWA's planning area, the campus is not located within an APZ for JWA.~~ According to the California Airport Land Use Planning Handbook (2002), the majority of general aviation aircraft landing accidents takes place on or immediately adjacent to the runway. According to the JWA AELUP, seven off-airport accidents occurred within the planning area between the years of 1969-1978. These accidents were a combination of airport vicinity accidents, en route accidents, and accidents at the airport. This was the most up-to-date information of past accidents available at the time of the AELUP in 2002. Additional data on airport accidents is available from the National Transportation Safety Board and from the FAA. According to these agencies, approximately 120 incidents occurred at or in the vicinity of JWA between May 1981 and May 2006. Four of the incidents are classified as "substantial;" the remainder are classified as "minor." No reports were found indicating aircraft accidents occurring within the vicinity of the UCI campus.

In response to Comment L2-1, the text in Section 4.6.3.5, Issue 5 – Hazards from Nearby Airports, on page 4.6-33, has been revised as follows:

As discussed in Section 4.6.1.5, the UCI campus is located 1.5 miles east of the ~~airport~~ JWA and is within the airport planning area for JWA, but is not located within a designated Accident Potential Zone ~~(APZ). An APZ is defined as the area that would be more likely to be affected if an aircraft related accident were to occur. These areas are located on or immediately adjacent to the runway. The preferred arrival and departures track for JWA generally run parallel to the runways and are in the opposite direction of the UCI campus. Because most aircraft accidents take place on or immediately adjacent to the runway~~because none have been adopted for JWA based on available airport accident data. Furthermore, no aircraft accidents have occurred in the vicinity of the UCI Campus within the past ~~26~~30 years. As such, it is unlikely that aircraft operating at JWA would pose a safety hazard to people residing or working at the UCI Campus. Therefore, implementation of the 2007 LRDP would not result in a significant aircraft safety hazard associated with JWA.

In response to Comment L4-3, the text in Section 4.6.3.6, Emergency Response and Evacuation Plans, on pages 4.6-34 and 4.6-35, has been revised as follows:

Hazards and Hazardous Materials Issue 6 Summary

Would implementation of the 2007 LRDP impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Impact: ~~Because UCI is continually updating and training personnel on the Emergency Management Plan, implementation of the 2007 is not expected to interfere with the implementation of the Emergency Management Plan; however,~~Temporary road closures due to construction associated with implementation of the 2007 LRDP, along with operational obstructions (e.g., non-synchronized traffic signals, locked gates), may interfere with evacuation routes (Haz-6).

Mitigation: Notify emergency response providers of road closures (Haz-6A); install optical preemption devices on traffic signals along emergency access routes (Haz-6B); and install emergency opening devices on electronically-operated gates on campus (Haz-6C).

Significance Before Mitigation: Significant.

Significance After Mitigation: Less than significant.

Impact Analysis

UCI trains and equips campus emergency response personnel to respond to hazardous materials emergencies; prepares and updates safety planning documents; implements safety training upon occupying new buildings; develops the Illness and Injury Prevention Plan, Chemical Hygiene Plan, and Evacuation Site Plan for all new buildings as necessary; and assigns a Building Coordinator for each building. In addition, the OCFA is trained and equipped to implement emergency hazardous materials intervention and control techniques on campus.

Implementation of the 2007 LRDP could interfere with emergency response and evacuation on the campus through construction-related road closures and through operational obstructions (e.g., non-synchronized traffic signals, locked gates, etc.). Under ~~current campus~~UCI procedures, multiple emergency access or evacuation routes are ~~provided to ensure~~available on campus as alternative routes for emergency response services ~~are not impaired or interfere~~ in the event of a temporary roadway closure and/or changes in campus traffic patterns. However, operational obstructions could be present along some of these routes that would interfere with emergency response. For example, traffic signals along emergency access routes may not be synchronized to provide adequate “green” signal time to allow emergency

response vehicles uninterrupted flow of travel. In addition, electronically-operated gates on campus would impede emergency vehicle access. ~~If determined necessary, UCI would also initiate notification of local emergency services, including the UCI Police Department, OCFA, and appropriate ambulance services to the campus. However, these procedures are not mandated by law and,~~ Therefore, the potential impact to emergency response and evacuation plans on campus from temporary construction-related lane closures and operational obstructions would be considered significant.

Impact

Haz-6 ~~Because UCI is continually updating and training personnel on the Emergency Management Plan, implementation of the 2007 is not expected to interfere with the implementation of the Emergency Management Plan; however,~~ Temporary road closures due to construction associated with implementation of the 2007 LRDP, along with operational obstructions (e.g., non-synchronized traffic signals, locked gates), may significantly interfere with evacuation routes.

Mitigation Measures

Implementation of mitigation measures Haz-6A, Haz-6B, and Haz-6C would reduce the significant impacts associated with construction-related road closures and operational obstructions to a level of Less than Significant.

Haz-6A Prior to initiating on-site construction for future projects that implement the 2007 LRDP and that would involve a lane or roadway closure, the construction contractor and/or UCI Design and Construction Services shall notify the UCI Fire Marshal. If determined necessary by the UCI Fire Marshal, local emergency services shall be notified of the lane or roadway closure by the Fire Marshal.

Haz-6B All traffic signals installed on emergency access ways shall include the installation of optical preemption devices for emergency services.

Haz-6C All electronically-operated gates within the UCI Campus shall include emergency opening devices, as approved by the Orange County Fire Authority.

Volume I – 4.7 Hydrology and Water Quality

In response to Comment L3-13, the following discussion has been added to Section 4.7.2.2 (State Regulatory Framework) in Volume I of the Final EIR, under the heading "Construction Storm Water Permits" on page 4.7-14:

The Construction General Permit also prohibits the discharge of materials other than storm water and authorized non-storm water discharges. It is recognized that certain non-storm water discharges may be necessary for the completion of construction projects. Such discharges include, but are not limited to irrigation of vegetative erosion control measures, pipe flushing and testing, street cleaning, and dewatering. Such discharges are allowed by the Construction General Permit provided they are not relied upon to clean up failed or inadequate construction or post-construction BMPs designed to keep materials onsite. These authorized non-storm water discharges shall (1) be infeasible to eliminate; (2) comply with BMPs as described in the SWPPP; and (3) not cause or contribute to a violation of water quality standards. In addition, the Santa Ana RWQCB issued Order No. R8-2003-0061, and the Amending Orders No. R8-2005-0041 and R8-2006-0004, which regulate discharges to surface waters that pose an insignificant (de minimus) threat to water quality, including construction dewatering wastes. Such de minimus discharges complying with the provisions and requirements of the General Permit are not expected to violate applicable water quality standards. Order No. R8-2005-0041 allows short-term groundwater-related discharges within the San Diego Creek/Newport Bay watershed, which were previously excluded in Order No. R8-2003-0061. This Order will be amended once again by Tentative Order 2007-0041 which is expected to be adopted on November 30, 2007, and will address revised discharge requirements for the San Diego Creek/Newport Bay watershed.

In response to Comment L7-5, the text in Mitigation Measure Hyd-2B on page 4.7-24 in Volume I of the Final EIR has been revised as follows:

Hyd-2B Prior to project design approval for future projects that implement the 2007 LRDP and would result in land disturbance of 1 acre or more, the UCI shall ensure that the projects include the design features listed below, or their equivalent, in addition to those listed in mitigation measure Hyd-1A. Equivalent design features may be applied consistent with applicable MS4 permits (UCI's Storm Water

Management Plan) at that time. All applicable design features shall be incorporated into project development plans and construction documents; shall be operational at the time of project occupancy; and shall be maintained by UCI.

iv. At least one treatment control is required for new parking areas or structures, or for any other new uses identified by UCI as having the potential to generate substantial pollutants. Treatment controls include, but are not limited to, detention basins, infiltration basins, wet ponds or wetlands, ~~drainage inserts~~bio-swales, filtration devices/inserts at storm drain inlets, ~~and~~ hydrodynamic separator systems, increased use of street sweepers, pervious pavement, native California plants and vegetation to minimize water usage, and climate controlled irrigation systems to minimize overflow. Treatment controls shall incorporate volumetric or flow-based design standards to mitigate (infiltrate, filter, or treat) storm water runoff, as appropriate.

Volume I – 4.8 Land Use and Planning

In response to Comment O2-4, the text in Mitigation Measure Lan-2A on page 4.8-21 in Volume I of the Final EIR has been revised as follows:

Lan-2A As early as possible in the planning process for future projects that implement the 2007 LRDP and are located along the interface between the North Campus and the San Joaquin Freshwater Marsh (SJFM) Reserve, UCI shall enter into consultation with the Director of the University of California Natural Reserve System (UCNRS) to ensure that ~~the~~project~~s~~ planning and ~~include~~design includes features to avoid impacts to the SJFM Reserve from incompatible adjacent land uses, such as mixed use development. These planning and design features shall include, but are not limited to, the ~~use of buffers,~~following:

- Site planning that establishes building setbacks, circulation, ~~pedestrian and bicycle trails, and~~ open space and other uses along the development interface to limit impacts on teaching and research activities, and that reduces the need for fuel modification in the buffer zone.
- Site planning that retains the integrity of the SJFM Reserve buffer zone including features that limit the need for construction activities and fuel modification within the buffer zone.

Volume I – 4.10 Population and Housing

In response to Comment L5-35, the text in Section 4.10.2.2, Regulatory Framework, Local, on page 4.10-9, last paragraph, third sentence, has been revised as follows:

The City is in the process of updating its Housing Element and is due to be completed by ~~December 31, 2007~~ June 2008.

Volume I – 4.11 Public Services

In response to Comment L4-1, the text in Section 4.11.1.2, Environmental Setting, Fire Protection, on page 4.11-2, and in Section 4.11.31, Project Impacts and Mitigation, Issue 1 – Fire Protection, has been revised as follows:

4.11.1.2 FIRE PROTECTION

Orange County Fire Authority

The Orange County Fire Authority (OCFA) is one of the largest regional fire organizations in California and is responsible for responding to emergencies that occur on the UCI campus. OCFA provides fire prevention/suppression and emergency services to 23 jurisdictions (cities) including unincorporated areas and operates 60 fire stations, including seven fire stations within the City of Irvine. OCFA is responsible for protecting 511 square miles, including 178,000 acres of wildland, and more than 1.3 million residents. The policy of OCFA for fire protection and emergency services in Irvine, including the UCI campus, is a 5-minute travel response time for 80% of fire and basic life safety

incidents in urban areas. For advance life support incidents, units shall be located and staff shall be available within an 8-minute travel response time, 80% percent of the time.

Fire Station #4, located just north of the campus and University Town Center on the corner of California and Harvard Avenues, is the primary responder that serves the UCI main campus. Fire Station #4 was built in 1966 and there are no plans for expansion. According to an analysis conducted by OCFA in November 2006 (OCFA 2006), this station has adequate ~~resources~~capacity to accommodate existing demand on the main campus. ~~As a result of projected regional growth, in particular the projected increase in higher density residential areas north of UCI in the Irvine Business Complex (IBC), OCFA is conducting feasibility studies to locate a site for a new fire station in the vicinity of IBC/UCI North Campus.~~ The capacity of service for Station #4, as determined by OCFA, is approximately 3,500 calls per year. During 2005, UCI generated 664 calls. The total 2005 call volume for Station #4 was approximately 2,100 calls, of which UCI's 664 calls accounted for 32 percent of Station #4 calls. The adjacent areas (e.g., University Town Center) generated an additional 372 calls. Therefore, approximately 50 percent of the calls within Fire Station #4's service area are located on or adjacent to the UCI campus. The 80% travel response time in 2005 for Station #4 is 5 minutes 27 seconds at the UCI main campus (OCFA 2007).

The UCI North Campus is within the service area of Fire Station #28, located west of the Main Street and Jamboree Road intersection. The 80% travel response time in 2005 for Station #28 exceeds 5 minutes in the vicinity of the UCI North Campus (OCFA 2007). As a result of projected regional growth, in particular the projected increase in higher density residential areas north of UCI in the Irvine Business Complex (IBC), OCFA is conducting feasibility studies to locate a site for a new fire station in the vicinity of IBC/UCI North Campus.

4.11.3 PROJECT IMPACTS AND MITIGATION

4.11.3.1 ISSUE 1 – FIRE PROTECTION

Public Services Issue 1 Summary

Would implementation of the 2007 LRDP have a substantial adverse physical impact on maintaining acceptable service ratios, response times, or other performance objectives for fire protection that would require the provision of new or altered facilities?

Impact: ~~Because the projected increase in the number of service calls due to an increase in campus population as a result of~~ Implementation of the 2007 LRDP would ~~be within the~~not impact the service capacity of Fire Station #4~~'s call capacity, the construction of additional fire station would not be necessary~~, but would increase demand at Fire Station #28, along with other regional growth in the vicinity, to a level that would require new facilities or substantial alterations to existing facilities; however, this is considered a cumulative impact and is addressed in Section 4.11.4.	**Mitigation:** No mitigation is required.
Significance Before Mitigation: Less than significant.	**Significance After Mitigation:** Not applicable.

Impact Analysis

On-Campus Demand for Fire Services

~~The fire station serving the UCI campus, Fire Station #4, was built in 1966 and there are no plans for expansion. However, additional stations are planned for the City of Irvine. The capacity of service for Station #4 as determined by OCFA is approximately 3,500 calls for service per year. During 2005, UCI generated 664 calls. The adjacent areas (e.g. University Town Center) generated an additional 372 calls. The total 2005 call volume for Station #4 was approximately 2,100 calls of which UCI's 668 calls accounted for 30 percent of Station #4 calls. The average response time in 2005 was 4 minutes 52 seconds. The 2005-06 on-campus population of students, faculty, and staff is 30,591 and the on-campus student, faculty, and staff population accommodated in the~~ The 2007 LRDP ~~is 46,767,~~would result in an increase of approximately ~~53~~39 percent in the on-campus population of students, faculty, and staff by 2025, compared to the 2005-06 on-campus population. Assuming that the increase in call generation for fire protection services would be equivalent to the increase in campus population, the number of calls for ~~fire~~such services can be expected to increase by approximately ~~53~~39 percent. Therefore, the projected call volume from UCI would increase by ~~approximately 350~~an estimated 259 calls, for a total of ~~approximately 1,015~~923 estimated annual UCI calls for fire protection services.

Added to the existing call volume, the total projected call volume would be ~~approximately 2,450~~an estimated 3,023 calls, which would be within the determined Station #4 capacity of 3,500 calls for fire protection services. Therefore, Fire Station #4 would be able to accommodate the increased demand for fire protection services at the UCI main campus, and implementation of the 2007 LRDP is not anticipated to increase demand at Fire Station #4 to a level that would require new facilities or substantial alterations to existing facilities that would result in adverse impacts on the physical environment.

As stated in Section 4.11.1.2, the 80% travel response time for Fire Station #28 already exceeds OCFA's 5-minute response threshold at the UCI North Campus. Therefore, any development on the North Campus would increase demand at this fire station, along with other regional growth in the vicinity, to a level that would require new facilities or substantial alterations to existing facilities. However, this is considered a cumulative impact, and is addressed in Section 4.11.4.

Volume I – 4.13 Transportation, Traffic, and Parking

Figures 4.13-7 and 4.13-8 and Table 4.13-9 in the Final EIR (Volume I) have been revised based on typographical errors that were noted and corrected in Figures 4-3 and 4-4 and Table 4-1, respectively, in the LRDP traffic study (Appendix E in Volume II of the Final EIR).

In response to Comments O4-14 and L7-7, Mitigation Measure Tra-1E has been revised as follows:

Tra-1E UCI will collect UCITP traffic fees from "for-profit" development projects on campus or other campus development as determined by the University. Fees will be provided to the City of Irvine, City of Newport Beach, or other public agencies to fund UCI's share of UCITP improvements when the improvements are implemented, as provided in mitigation measure Tra-1D.

In response to Comment L7-7, Mitigation Measure Tra-1F has been revised as follows:

Tra-1F If the City of Irvine or City of Newport Beach implements UCITP improvements following UCI determination that LRDP traffic is causing a significant impact, and UCITP fees collected to date are insufficient to fund UCI's fair share, UCI shall ~~initiate~~identify and obtain funding ~~requests~~for the fair share of identified improvements from an alternative source.

Volume I – 4.14 Utilities, Service Systems, and Energy

In response to Comment L6-1, the text in Section 4.14.1.1, Environmental Setting, Wastewater, on page 4.14-1, third paragraph, third sentence, has been revised as follows:

This facility is in the process of being upsized to treat up to 18 million gallons per day (mgd) of wastewater, and ~~has an average flow of approximately 14 mgd~~an additional upgrade to 28 mgd is scheduled to be complete in 2010.

In response to Comment L6-1, the text in Section 4.14.3.1, Issue 1 – Wastewater Treatment, on page 4.14-12, has been revised as follows:

Impact Analysis

Implementation of the 2007 LRDP would increase the amount of on-campus building space and ~~the on-campus~~ residential population, which would result in the generation and discharge of additional wastewater~~, which would~~ flows requiring treatment at the ~~reclamation plants~~MWRP operated by the IRWD and at the WRP2 operated by OCSD.

~~Wastewater generated within the IRWD's service area is treated at either the Michelson Water Reclamation Plant (MWRP) or the Los Alisos Water Reclamation Plant (LAWRP), both of which are within IRWD service area. The MWRP has the capacity to treat 18 MGD, however the average flow into the plant is 14 MGD. Therefore, this facility has an unused capacity of 4 mgd. The LAWRP has the capacity for 7.5 MGD and is being used to its capacity. With both of these plants, IRWD has a total wastewater treatment capacity of 25.5 MGD. In addition, 35 percent of wastewater collected in the IRWD is treated by other water districts, including the Orange County Sanitation District, Santa Margarita Water District, or the El Toro Water District.~~

As discussed in Section 4.14.1.1, UCI wastewater flows were approximately 1.5 mgd in 2006. Estimated wastewater flows from the UCI campus could ultimately reach 4.3 mgd at full implementation of the 2007 LRDP. Therefore, ~~the project~~buildout of the UCI campus under the 2007 LRDP could result in a wastewater flow increase of approximately 2.8 mgd.

In accordance with the agreements between the UC and IRWD, UCI provides funding for its proportional share of capital costs of sewer treatment plant capacity to serve the campus through the purchase of 0.1-mgd increments of sewage treatment capacity at an indexed cost that represents UCI's proportionate share of the treatment facilities.

~~Because the LAWRP is already being used to capacity, future wastewater generated would be treated by the MWRP. As of June 2006, there is excess capacity at the MWRP of 4 MGD, which could accommodate future UCI increase in sewage. However, in the future, demand for sewage treatment capacity within IRWD would also increase and IRWD plans to divert less wastewater to other water districts, as well. Overall demand within the IRWD service area is expected to double by 2025 and, therefore, a plan for expansion of the MWRP is being undertaken to accommodate this increase in sewage. The expansion would increase the plant's capacity to 33 MGD and would be completed in 2025.~~The IRWD expects to collect and treat 26.11 mgd of wastewater by 2025, ~~which includes the sewage that would be generated by the 1989 UCI LRDP (approximately 4 MGD). The additional increase associated with the 2007 LRDP could also be accommodated by the MRWP expansion. If for some reason the expansion of the MWRP would have insufficient capacity, IRWD would divert the untreated sewage to the Orange County Sanitation District for processing~~including the projected 4.3 mgd from full implementation of the 2007 LRDP at the UCI campus (pers. comm., Richard Diamond, IRWD, March 29, 2007). With the 28-mgd upgrade expected to be completed in 2010, the MWRP ~~Therefore, the IRWD~~would have sufficient capacity to accommodate the 2007 LRDP anticipated sewage generation. ~~Any expansion of IRWD facilities would undergo an independent CEQA analysis to determine potential impacts to the environment and mitigation measures to reduce those impacts would be required as part of the CEQA process.~~Therefore, the impact to wastewater treatment capacity from implementation of the 2007 LRDP would be less than significant.

~~Development under the 2007 LRDP~~Full implementation of the 2007 LRDP would not exceed wastewater treatment capacity at the MWRP, as described above; however, it has the potential to affect compliance with the waste discharge requirements ~~that are placed on discharges from~~of the MWRP~~, either by increasing wastewater discharge to a point that is above the capacity of the plant or~~ by discharging types or quantities of constituents that cannot be adequately treated by the plant. ~~As already described, because the IRWD has planned future expansions, it is not anticipated that the implementation of the LRDP would result in treatment capacity issues at the MWRP. It is anticipated that the IRWD would continue to regulate UCI discharges through Industrial User Discharge Permits in order to ensure that RWQCB and EPA regulations are met. In the future,~~ UCI would continue to comply with Industrial User Discharge Permit regulations regarding sewage generation quantities and constituents; therefore, implementation of the 2007 LRDP would not result in a significant impact with regard to wastewater treatment requirements.

Volume II – Traffic Analysis Report (Appendix E)

The following pages have been revised based on typographical errors that were noted and corrected:

Figure 2-3, Proposed LRDP Trip Distribution – Off-Campus, page 2-11
Figure 4-3, 2025 ADT Volume/Capacity Ratios – No-Project, page 4-4
Figure 4-4, 2025 ADT Volume/Capacity Ratios – With Proposed LRDP, page 4-5
Table 4-1, Year 2025 With-Project Arterial Roadway Peak Hour Analysis Summary, page 4-6
Table 4-4, Significant 2025 Impacts to be Mitigated, page 4-13
Table 5-4, Significant Post-2025 Impacts to be Mitigated, page 5-13

Volume III – Project Level Analysis for University Hills Area 9/2 Housing Project

In response to Comment L3-4, the text in Section 4.7 has been revised to reflect the results of a drainage study that was recently completed for the University Hills Area 9/2 Housing Project, as indicated below.

4.7.3 PROJECT IMPACTS AND MITIGATION

4.7.3.1 ISSUE 1 – SITE DRAINAGE AND HYDROLOGY

Hydrology and Water Quality Issue 1 Summary

Would the proposed project alter the existing drainage or hydrology of a site or area in a manner which would result in flooding, exceed the capacity of storm water drainage systems, or result in substantial erosion or siltation?

Impact: Implementation of the Area 9/2 Housing Project would have the potential to substantially alter drainages and hydrology which could increase runoff volumes, ~~resulting in~~but compliance with NPDES requirements would reduce impacts from flooding, ~~exceedence of the existing storm water drainage system,~~and erosion. In addition, estimated runoff volumes would not exceed the capacity of the existing storm water drainage system.	**Mitigation:** ~~Project specific drainage studies including implementation of site design and flow control if necessary (LRDP MM Hyd-1A)~~No mitigation is required.
Significance Before Mitigation: Less than Significant.	**Significance After Mitigation:** ~~Less than significant~~Not applicable.

Standards of Significance

Refer to Volume I, Section 4.7 for a discussion of standards of significance relevant to this issue.

Impact Analysis

Construction and post-construction drainage and hydrology impacts that could occur during and after development of the UCI campus are discussed in Volume I, Section 4.7. Land disturbing construction activities associated with implementation of the 12-acre Area 9/2 Housing Project area, such as grading and excavation, construction of new building foundations, roads, driveways, and trenches for utilities could result in the localized alteration of drainage patterns. These alterations may result in the capacity of the storm drain facilities temporarily exceeding capacity, if substantial drainage is rerouted. Temporary ponding and/or flooding could also result from such activities, from temporary alterations of the drainage system (reducing its capacity of carrying runoff), or from the temporary creation of a sump condition due to grading. Alterations may temporarily result in erosion and siltation if flows were substantially increased or routed to facilities or channels without capacity to carry the flow. However, as explained in Volume I, Section 4.7, any construction affecting more than one acre, such as the Area 9/2 Housing Project, is required to comply with the National Pollutant Discharge Elimination System (NPDES) permit program~~. An NPDES construction permit would require the Area 9/2 Housing Project to~~ and implement best management practices (BMPs) to reduce flooding, erosion and sedimentation impacts. Therefore, short-term impacts resulting from alterations of drainage and hydrology during construction would be less than significant.

Development of the Area 9/2 Housing Project would also result in permanent alterations to the project site affecting drainage and hydrology. The project would replace the existing pervious open space with impervious surfaces (streets, hardscape, and roofed areas). Storm runoff would be clarified on site with a "CDS"-style system. The clarified water would then be directed into an existing storm drain facility in Bonita Canyon Drive, owned by the City of Irvine. No Campus storm drain system will be used for the Project. Preliminary hydrologic analyses show that the additional water from the Area 9/2 Housing Project will have no negative impact on the Bonita Canyon Drive storm drain facility since the facility currently has sufficient capacity to handle peak storm flows from the Project. Coordination with the City of Irvine will insure that all City requirements for discharge into the Bonita Canyon Drive system will be achieved. The coordination process is envisioned to closely follow that used for the previous neighborhood in University Hills Areas 9/3 and 9/4~~collected on-site, be directed towards the western boundary of the site, and drain into proposed storm drain(s) associated with Area 9/3, located north and northwest of Area 9/2. However, increased runoff volumes from the project have the potential to overload the campus storm drain system which could result in~~

~~substantial increased runoff volumes. Increased runoff has the potential to overload the campus storm drain system and increase flows and velocity which could result in flooding at inlets and increased erosion and siltation impacts at downstream water bodies. Therefore, because development of the Area 9/2 Housing Project would result in a substantial increase in impervious surfaces, the proposed project could result in significant impacts~~.

Mitigation Measures

No mitigation measures are required.~~Implementation of LRDP mitigation measure Hyd-1A would reduce the potentially significant impacts associated with drainage to a less than significant level.~~

~~***LRDP MM Hyd-1A*** As early as possible in the planning process of future projects that implement the 2007 LRDP and would result in land disturbance of 1-acre or greater, and for all development projects occurring on the North Campus in the watershed of the San Joaquin Freshwater Marsh, a qualified engineer shall complete a drainage study. Design features and other recommendations from the drainage study shall be incorporated into project development plans and construction documents. Design features shall be consistent with UCI's Storm Water Management Program, shall be operational at the time of project occupancy, and shall be maintained by UCI. At a minimum, all drainage studies required by this mitigation measure shall include, but not be limited to, the following design features:~~

~~i. Site design that controls runoff discharge volumes and durations shall be utilized, where applicable and feasible, to maintain or reduce the peak runoff for the 10-year, 6-hour storm event in the post-development condition compared to the pre-development condition, or as defined by current water quality regulatory requirements.~~

~~ii. Measures that control runoff discharge volumes and durations shall be utilized, where applicable and feasible, on manufactured slopes and newly graded drainage channels, such as energy dissipaters, revegetation (e.g., hydroseeding and/or plantings), and slope/channel stabilizers.~~

4.7.3.2 ISSUE 2 – WATER QUALITY

Hydrology and Water Quality Issue 2 Summary

Would the proposed project violate any water quality standards, waste discharge requirements, or otherwise substantially degrade water quality?

Impact: Implementation of the proposed project would generate urban runoff pollutants ~~during construction~~ that could violate waste discharge requirements.

Mitigation: Implementation of site design and treatment control design measures to reduce pollutants of concern in runoff (LRDP MM Hyd-2B).

Significance Before Mitigation: Significant.

Significance After Mitigation: Less than significant.

Standards of Significance

Refer to Volume I, Section 4.7 for a discussion of standards of significance relevant to this issue.

Impact Analysis

Various pollutants potentially generated by the Area 9/2 Housing Project could adversely affect water quality: sediment, organic matter, green waste, pesticides, fertilizers, cleaning products, oil and grease, and coliform bacteria. A more detailed summary of impacts ~~that could result from them~~from these potential pollutants is provided in Volume I, Section 4.7. As previously discussed, runoff from the Area 9/2 Housing Project site and surrounding area drains south toward Bonita Canyon Drive and ultimately into San Diego Creek.

~~Waste discharge requirements are authorized by the State Water Resources Control Board (SWRCB) or the Regional Water Quality Control Board (RWQCB). Other permits that are applicable to the Area 9/2 Housing Project include the General Construction Storm Water Permit, the General Industrial Storm Water Permit, and the General Small MS4s Storm Water Permit. These permits would control pollutants in runoff from the project sites. No violation is anticipated as the campus would continue to comply with these, as applicable, permits with implementation of the Area 9/2 Housing Project.~~

Construction activities associated with the Area 9/2 Housing Project could result in substantial additional sources of polluted runoff which could have short-term impacts on surface water quality through activities such as demolition, clearing and grading, stockpiling of soils and materials, concrete pouring, painting, and asphalt surfacing. Pollutants associated with these construction activities that could result in water quality impacts include ~~soils,~~ debris, other materials generated during demolition and clearing, fuels and other fluids associated with the equipment used for construction, paints, other hazardous materials, concrete slurries, and asphalt materials. As discussed in Volume I, these pollutants would impact water quality if they are washed off site by storm water or non-storm water, or are blown or tracked off site to areas susceptible to wash off by storm water or non-storm water.

The discharge of pollutants from the Area 9/2 Housing Project construction site would be reduced through ~~the continued~~ implementation of a ~~Water Quality Management Plan (WQMP)~~Storm Water Pollution Prevention Plan (SWPPP). The Area 9/2 Housing Project covers approximately 12 acres, and as previously discussed, any construction affecting more than one acre is required to comply with the NPDES permit program~~. An NPDES construction permit would require the Area 9/2 Housing Project to~~ and implement BMPs to reduce erosion and sedimentation impacts, as well as pollutant discharges. Therefore, short-term impacts resulting from runoff pollutants during construction would be less than significant.

Following construction, the development of the project site with structures, concrete, asphalt and landscaping would reduce the potential for erosion and sediment discharges. ~~Also, equipment and materials associated with construction would be removed, which would reduce the potential for pollutants to be discharged from the site.~~

Post-construction activities of the Area 9/2 Housing Project would generate pollutants in runoff that could impact water quality. The proposed project consists of residential homes, driveways, streets, landscaped areas, and infrastructure improvements. Potential urban runoff pollutants from ~~the landscaped~~these areas ~~of the site~~ include: sediments, nutrients, organic compounds, oxygen demanding substances, and pesticides from the landscaped areas; oil, grease, hydrocarbons, litter, and heavy metals from the driveways and streets; and trash, debris, oil and grease from the residences. ~~The developed site would have the potential to produce sediments, nutrients, organic compounds, trash and debris, oxygen demanding substances, oil and grease, and pesticides.~~ However, non-stormwater discharges, ~~non-stormwater connections to the storm drainage system,~~ accidental spills, and other operational impacts ~~are~~would be reduced through continued implementation of the UCI Storm Water Management Plan (SWMP)~~ and the Area 9 WQMP. In addition, mitigation measure Hyd-1A, which is described above, would reduce potential impacts from operational sources through project design features.~~

The analysis for the 2007 LRDP in Volume I concluded that projects with the potential to generate substantial pollutants could result in significant long-term water quality impacts. Like other campus development, the Area 9/2 Housing Project would have the potential to generate substantial pollutants and therefore could result in significant long-term water quality impacts.

Mitigation Measures

Implementation of LRDP Mitigation Measure Hyd-2B (reiterated below) from Volume I, Section 4.7, would reduce long-term water quality impacts from urban runoff pollutants generated from the Area 9/2 Housing Project to a level of Less than Significant.

LRDP MM Hyd-2B Prior to ~~project~~ design approval for ~~future projects that implement the 2007 LRDP and would result in land disturbance of 1 acre or more,~~ the Area 9/2 Housing Project, UCI shall ensure that the project includes the design features listed below, or their equivalent~~ in addition to those listed in mitigation measure Hyd-1A~~. Equivalent design features may be applied consistent with applicable MS4 permits (UCI's SWMP) at that time. All applicable design features shall be incorporated into project development plans and construction documents; shall be operational at the time of project occupancy; and shall be maintained by UCI.

i. All new storm drain inlets and catch basins within the project site shall be marked with prohibitive language and/or graphical icons to discourage illegal dumping per UCI standards.
ii. Outdoor areas for storage of materials that may contribute pollutants to the storm water conveyance system shall be covered and protected by secondary containment.
iii. Permanent trash container areas shall be enclosed to prevent off-site transport of trash, or drainage from open trash container areas shall be directed to the sanitary sewer system.
iv. At least one treatment control is required for new parking areas or structures, or for any other new uses identified by UCI as having the potential to generate substantial pollutants. Treatment controls include, but are not limited to, detention basins, infiltration basins, wet ponds or wetlands, ~~drainage~~

~~inserts~~bio-swales, filtration devices/inserts at storm drain inlets, ~~and~~ hydrodynamic separator systems, increased use of street sweepers, pervious pavement, native California plants and vegetation to minimize water usage, and climate controlled irrigation systems to minimize overflow. Treatment controls shall incorporate volumetric or flow-based design standards to mitigate (infiltrate, filter, or treat) storm water runoff, as appropriate.

4.7.4.1 DRAINAGE AND HYDROLOGY

The geographic context for the cumulative impact analysis concerning drainage and hydrology is the San Diego Creek Watershed, within which the proposed project is located. Urban development within the San Diego Creek Watershed would increase impervious areas and consequently increase storm water runoff. These increases could result in flooding, over capacity of drainage systems ~~capacity issues~~, and erosion problems throughout the watershed. However, ~~most future~~ development ~~projects~~ in the City of Irvine would be subject to NPDES Phase I and II regulations, which ~~now~~ require that changes to hydrologic regime and associated mitigation ~~for conditions of concern~~measures be addressed. ~~In addition, most projects are reviewed by other jurisdictions for hydrologic impacts. Nevertheless, implementation of the mandated measures to control hydrology cannot be guaranteed by the University of California on these projects because they fall within other jurisdictions.~~

No severe flooding issues were identified to which ~~campus~~ drainage from the Area 9/2 Housing Project would contribute cumulatively within the San Diego Creek ~~area~~Watershed. Similarly, ~~the campus~~ drainage from the Area 9/2 Housing Project would also not contribute to erosion problems within the downstream watershed ~~but~~ because ~~erosion does occur within the foothills of the watershed, associated flooding is a potentially significant impact that could occur without appropriate drainage controls. Therefore, a significant cumulative impact could occur in the San Diego Creek Watershed due to an increase in impervious surfaces due to development.~~

~~However, with implementation of LRDP mitigation measure Hyd-1A, it is anticipated that the hydrologic contribution resulting from the Area 9/2 Housing Project would not contribute to drainage impacts within the watershed;~~the projected runoff volumes would not exceed the storm drain capacity in Bonita Canyon Road. Therefore, implementation of the proposed project would not result in a cumulatively considerable contribution to significant cumulative drainage or hydrology impacts.

4.7.4.2 WATER QUALITY

The geographic context for the cumulative impact analysis concerning water quality is the San Diego Creek Watershed, within which the proposed project is located. Urban development within the San Diego Creek Watershed would increase impervious areas and activities that generate pollutants, and consequently could result in additional impacts to receiving waters in the watershed. ~~Most future~~ Development ~~projects~~ within Orange County is subject to NPDES Phase I and II regulations, which require that source control and non-point source BMPs be employed to control potential effects on water quality ~~and that storm water quality control devices be incorporated into storm water collection systems to collect sediment and other pollutants~~. Nevertheless, ~~implementation of the mandated measures to control pollutants cannot be guaranteed by the University of California on these projects because they fall within other jurisdictions. Therefore,~~ increased development that would generate pollutants in the San Diego Watershed would result in a significant cumulative impact. However, with implementation of the LRDP Mitigation Measure~~s Hyd-2a and~~ Hyd-2B, it is anticipated that the Area 9/2 Housing Project ~~pollutant contribution~~ would not result in a cumulatively considerable contribution to water quality impairment in the watershed.

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REVISED SUMMARY OF IMPACTS AND MITIGATION MEASURES

Table 2-1. Project Impacts and Mitigation Measures for the UCI 2007 Long Range Development Plan*

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
4.1 Aesthetics				
Scenic Vistas and Visual Character and Quality	Implementation of residential and mixed use projects along the southern edge of the campus under the 2007 LRDP would substantially degrade the existing visual character and quality of the South Campus as viewed from Bonita Canyon Drive (Aes-1).	S	***Aes-1A*** Prior to project design approval for future projects that implement the 2007 LRDP and are located in the South Campus, in the vicinity of Bonita Canyon Drive, UCI shall ensure that the projects include design features to minimize visual impacts from off-campus areas. These design features shall include, but are not limited to, the following: i. A 50-foot wide (minimum) landscaped buffer located along the edge of the campus along the project frontage; ii. Building mass and/or proportions and exterior treatments and/or colors that are compatible with the surrounding development and visual character; and iii. Project landscape design that reduces visual impacts and integrates the project into the visual landscape.	LS
Lighting and Glare	Additional lighting from new development in the North and South Campuses as a result of implementation of the 2007 LRDP could significantly impact sensitive biological resources in the SJFM and residential areas along Bonita Canyon Drive. New development throughout the campus could produce additional buildings which would significantly increase glare impacts to both on- and off-campus viewers and create locations with an increase in light impacts resulting from additional vehicles (Aes-2).	S	***Aes-2A*** Prior to project design approval for future projects that implement the 2007 LRDP, UCI shall ensure that the projects include design features to minimize glare impacts. These design features shall include use of non-reflective exterior surfaces and low-reflectance glass (e.g., double or triple glazing glass, high technology glass, low-E glass, or equivalent materials with low reflectivity) on all project surfaces that could produce glare. ***Aes-2B*** Prior to approval of construction documents for future projects that implement the 2007 LRDP, UCI shall approve an exterior lighting plan for each project. In accordance with *UCI's Campus Standards and Design Criteria* for outdoor lighting, the plan shall include, but not be limited to, the following design features: i. Full-cutoff lighting fixtures to direct lighting to the specific location intended for illumination (e.g., roads, walkways, or recreation fields) and to minimize stray light spillover into adjacent residential areas, sensitive biological habitat, and other light-sensitive receptors;	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			ii. Appropriate intensity of lighting to provide campus safety and security while minimizing light pollution and energy consumption; and iii. Shielding of direct lighting within parking areas, parking structures, or roadways away from adjacent residential areas, sensitive biological habitat, and other light-sensitive receptors through site configuration, grading, lighting design, or barriers such as earthen berms, walls, or landscaping.	
4.2 Air Quality				
Consistency with Applicable Air Quality Plan	Implementation of the 2007 LRDP would not conflict with, or obstruct implementation of, the 2007 AQMP or the SIP.	None	No mitigation is required.	N/A
Consistency with Air Quality Standards	Worst-case construction scenario and operational emissions from future projects associated with implementation of the 2007 LRDP would exceed significance thresholds for CO, VOCs, NO_x, PM_{10} and $PM_{2.5}$. Individual construction projects may or may not result in significant impacts, depending on the project size and features (Air-2).	S	***Air-2A*** During project level environmental review of future projects that implement the 2007 LRDP and that could result in a significant air quality impact from construction emissions, UCI shall retain a qualified air quality specialist to prepare an air quality assessment of the anticipated project-related construction emissions. The assessment shall quantify the project's estimated construction emissions with and without implementation of applicable Best Management Practices (BMPs) listed in mitigation measure Air-2B and compare them with established SCAQMD significance thresholds. In addition, the air quality assessment shall include analysis of temporal phasing as a means of reducing construction emissions. If the estimated construction emissions are under SCAQMD's significance thresholds or if mitigation measure Air-2B would reduce emissions to below established thresholds, then the project's direct impact to air quality would be less than significant and no additional mitigation would be required. If the project's construction emissions would exceed established thresholds with implementation of applicable BMPs listed in mitigation measure Air-2B, and no additional mitigation to reduce the emissions below the threshold is feasible, then the project's direct impact to air quality would remain significant following mitigation. ***Air-2B*** Prior to initiating on-site construction for future projects that implement the 2007 LRDP, UCI shall ensure that the project construction contract includes a construction emissions mitigation plan, including measures compliant with SCAQMD Rule 403 (Fugitive Dust) to be implemented and supervised by the on-site construction supervisor, which shall include, but not be limited to, the following BMPs:	SU

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			i. During grading and site preparation activities, exposed soil areas shall be stabilized via frequent watering, non-toxic chemical stabilization, or equivalent measures at a rate to be determined by the on-site construction supervisor. ii. During windy days when fugitive dust can be observed leaving the construction site, additional applications of water shall be required at a rate to be determined by the on-site construction supervisor. iii. Disturbed areas designated for landscaping shall be prepared as soon as possible after completion of construction activities. iv. Areas of the construction site that will remain inactive for three months or longer following clearing, grubbing and/or grading shall receive appropriate BMP treatments (e.g., revegetation, mulching, covering with tarps, etc.) to prevent fugitive dust generation. v. All exposed soil or material stockpiles that will not be used within 3 days shall be enclosed, covered, or watered twice daily, or shall be stabilized with approved non-toxic chemical soil binders at a rate to be determined by the on-site construction supervisor. vi. Unpaved access roads shall be stabilized via frequent watering, non-toxic chemical stabilization, temporary paving, or equivalent measures at a rate to be determined by the on-site construction supervisor. vii. Trucks transporting materials to and from the site shall allow for at least two feet of freeboard (i.e., minimum vertical distance between the top of the load and the top of the trailer). Alternatively, trucks transporting materials shall be covered. viii. Speed limit signs at 15 mph or less shall be installed on all unpaved roads within construction sites. ix. Where visible soil material is tracked onto adjacent public paved roads, the paved roads shall be swept and debris shall be returned to the construction site or transported off site for disposal. x. Wheel washers, dirt knock-off grates/mats, or equivalent measures shall be installed within the construction site where vehicles exit unpaved roads onto paved roads.	

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			xi. Diesel powered construction equipment shall be maintained in accordance with manufacturer's requirements, and shall be retrofitted with diesel particulate filters where available and practicable. xii. Heavy duty diesel trucks and gasoline powered equipment shall be turned off if idling is anticipated to last for more than 5 minutes. xiii. Where feasible, the construction contractor shall use alternatively fueled construction equipment, such as electric or natural gas-powered equipment or biofuel. xiv. Heavy construction equipment shall use low NO_x diesel fuel to the extent that it is readily available at the time of construction. xv. To the extent feasible, construction activities shall rely on the campus's existing electricity infrastructure rather than electrical generators powered by internal combustion engines. xvi. The construction contractor shall develop a construction traffic management plan that includes the following: • Scheduling heavy-duty truck deliveries to avoid peak traffic periods • Consolidating truck deliveries xvii. Where possible, the construction contractor shall provide a lunch shuttle or on-site lunch service for construction workers. xviii. The construction contractor shall, to the extent possible, use pre-coated architectural materials that do not require painting. Water-based or low VOC coatings shall be used that are compliant with SCAQMD Rule 1113. Spray equipment with high transfer efficiency, such as the high volume-low pressure spray method, or manual coatings application shall be used to reduce VOC emissions to the extent possible. Project constructions plans and specifications will include a requirement to define and implement a work program that would limit the emissions of reactive organic gases (ROG's) during the application of architectural coatings to the extent necessary to keep total daily ROG's for each project to below 75 pounds per day, or the current SCAQMD threshold, throughout that period of construction activity to the extent feasible. The specific program may include any combination of restrictions on the types of paints and coatings, application methods, and the amount of surface area coated as determined by the contractor. xix.	

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			xx. The construction contractor shall maintain signage along the construction perimeter with the name and telephone number of the individual in charge of implementing the construction emissions mitigation plan, and with the telephone number of the SCAQMD's complaint line. The contractor's representative shall maintain a log of any public complaints and corrective actions taken to resolve complaints. ***Air-2C*** UCI shall ensure that operational air emissions, including area sources, stationary sources, and vehicular emissions, are reduced to the extent possible via the following mitigation measures: i. UCI shall continue to implement and expand its alternative transportation program by continuing to assess new opportunities, programs, and technologies to reduce vehicular trips. This program shall consider the following elements: • Significant incentives aimed to expand UCI vanpool, carpool, and other ridesharing programs; • Significant incentives aimed to expand UCI public transit use off campus; • Promotion of Express Bus service in the campus vicinity and Express Bus service routes from key UCI commuter locations off campus; • Expansion of campus shuttle and other campus transit systems, including point-to-point shuttles with expanded routes and operations to key destinations, and coordination of the on-campus transit systems with existing and future public transit systems off campus to accommodate routes, transit stops, stations, and other programs and projects as deemed appropriate, including community transit programs in the City of Irvine and City of Newport Beach; • Expansion of UCI bike programs and bicycle infrastructure, including expanded bikeways, BikePorts, and Bike Service Stations; and • Support of alternative transportation organizations. ii. All stationary sources shall comply with the applicable SCAQMD Rules and Regulations, including New Source Review, Best Available Control Technology, and source-specific requirements. Stationary sources shall employ state-of-the-art controls, where applicable, to reduce air emissions to the extent possible.	

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			iii. Emissions from area sources (e.g., cooling and heating systems, landscaping, consumer products, etc.) shall be reduced to the extent possible through implementation of UCI's energy efficiency programs. Energy-saving measures include using central plant cooling and heating systems for buildings in the Academic Core; orienting buildings to the north for natural cooling and heating; implementing the UCI standard to exceed Title 24 energy efficiency by 20% or more; and increasing insulation in building walls and attics beyond Title 24 requirements.	
Sensitive Receptors	Implementation of the 2007 LRDP would not expose sensitive receptors to carcinogenic, non-carcinogenic, and localized CO pollutant concentrations in excess of regulatory standards.	LS	No mitigation is required.	N/A
Objectionable Odors	Implementation of the 2007 LRDP is not likely to produce objectionable odors affecting a substantial number of people.	None	No mitigation is required.	N/A
4.3 Biological Resources				
Candidate, Sensitive, or Special Status Plant Species	Implementation of the 2007 LRDP could result in indirect impacts to existing or potentially occurring candidate, sensitive, or special status plant species within the campus Planning Areas or in adjacent areas within the UCI NCCP Reserve Area and the SJFM (Bio-1).	S	***Bio-1A*** Prior to initiating on-site construction for future projects that implement the 2007 LRDP and involve land clearing, grading, or similar land development activities adjacent to designated habitat areas including the UCI NCCP Reserve Area, and San Joaquin Freshwater Marsh Reserve (SJFM), UCI shall retain a qualified biologist to conduct a sensitive plant survey of the respective areas within 150 feet of the approved limits of disturbance. If sensitive plant species are detected from the survey, then UCI shall approve contractor specifications that include measures to reduce indirect construction and post-construction impacts to the identified species, to the maximum extent feasible. These measures shall include, but are not limited to, the following: i. A pre-construction meeting shall be held to ensure that construction crews are informed of the sensitive plants in the vicinity of the construction site. Prior to commencement of clearing or grading activities, a biologist (or other qualified person) shall supervise the installation of temporary construction fencing along the approved limits of disturbance to discourage errant intrusions into the identified sensitive plants by construction vehicles or personnel. All construction access and circulation shall be limited to designated construction zones. This fencing shall be removed upon completion of construction activities. ii. Storm water treatment and erosion control measures or facilities shall be maintained in a manner that avoids the discharge of polluted runoff and erosion impacts to the identified sensitive	

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			plants. In areas that have been set aside as mitigation for project impacts or are known to support species listed as threatened or endangered, the work shall be overseen by a qualified biologist.	LS
			iii. Refer to mitigation measure Air-2B for dust control measures during construction.	
			iv. Staging areas for equipment and materials shall be located at least 50 feet from the identified sensitive plants. During and after construction, the proper use and disposal of oil, gasoline, diesel fuel, antifreeze, and other toxic substances shall be enforced.	
			v. Equipment to extinguish small brush fires (such as from trucks or other vehicles) shall be present on-site during all construction phases, along with personnel trained in the use of such equipment. Smoking shall be prohibited in construction areas adjacent to flammable vegetation.	
			vi. A biological monitor shall be present on-site on at least a weekly basis during rough grading to ensure that the fenced construction limits are not exceeded.	
			vii. Irrigation for project landscaping shall be minimized and controlled in areas adjacent to the identified sensitive plants through measures such as designing irrigation systems to match landscaping water needs, satellite-controlled timers, water management systems, and automatic flow reducers/shut-off valves that are triggered by a drop in water pressure from broken sprinkler heads or pipes. To the extent practicable, drainage from development areas shall be directed away the identified sensitive plants. If this is not feasible, then energy dissipation measures shall be installed at the drainage outlets in the vicinity of the identified sensitive plants to prevent erosive flow velocities.	
			viii. Invasive species shall not be used in landscaped areas in the immediate vicinity of the identified sensitive plants.	
			ix. Integrated Pest Management principles shall be implemented in landscaped and revegetation areas adjacent to the identified sensitive plants for chemical pesticides, herbicides and fertilizers, through alternative weed/pest control measures (e.g., hand removal) and proper application techniques (e.g., conformance to manufacturer specifications and legal requirements).	

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
Candidate, Sensitive, or Special Status Animal Species	Implementation of the 2007 LRDP could result in direct impacts to the western burrowing owl, a California Species of Special Concern (Bio-2A); and indirect impacts to existing or potentially occurring candidate, sensitive, or special status wildlife species within the campus Planning Areas or in adjacent areas within the UCI NCCP Reserve Area and the SJFM (Bio-2B).	S	***Bio-2A*** Prior to initiating on-site construction for future projects in the east campus and west campus that implement the 2007 LRDP and that involve land clearing, grading, or similar land development activities adjacent to suitable habitat for the western burrowing owl (i.e., large open areas of non-native grassland, ruderal (weedy) areas, and scrub habitat), UCI shall retain a qualified biologist to conduct a burrowing owl survey of the respective habitat areas within 300 feet of the approved limits of disturbance. If occupied burrows are detected from the survey, then they shall not be disturbed during the nesting season (February 1 through August 31) until the biologist verifies through noninvasive methods that either: (1) the birds have not begun egg-laying and incubation; or (2) juveniles from the occupied burrows are foraging independently and are capable of independent survival. If owls must be moved away from the disturbance area, passive relocation is preferable to trapping. A time period of at least one week is recommended to allow the owls to move and acclimate to alternate burrows. When destruction of occupied burrows is unavoidable, relocation burrows shall be created (by installing artificial burrows) at a ratio of 1:1 in suitable foraging habitat. The biologist shall document all findings and results in a report submitted to UCI. ***Bio-2B*** Prior to initiating on-site construction for future projects that implement the 2007 LRDP and that involve land clearing, grading, or similar land development activities adjacent to habitat areas identified as suitable for sensitive wildlife species, UCI shall retain a qualified biologist to conduct a sensitive wildlife survey of the respective areas within 150 feet of the approved limits of disturbance. If sensitive wildlife species are detected from the survey, then UCI shall approve contractor specifications that include measures to reduce indirect construction and post-construction impacts to the identified species, to the maximum extent feasible. These measures shall include, but are not limited to, the following: i. A pre-construction meeting shall be held to ensure that construction crews are informed of the sensitive wildlife and habitats in the vicinity of the construction site. Prior to commencement of clearing or grading activities, a biologist (or other qualified person) shall supervise the installation of temporary construction fencing along the approved limits of disturbance to discourage errant intrusions into the identified sensitive wildlife habitats by construction vehicles or personnel. All construction access and circulation shall be limited to designated construction zones. This fencing shall be removed upon completion of construction activities.	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			ii. If suitable habitat for raptors or protected bird species is present and raptors or protected bird species are observed in the vicinity, the pre-construction surveys for active nests shall be performed within 30 calendar days prior to commencement of clearing or grading activities during the breeding season for raptors and protected bird species (generally February 1 through August 31) at locations where suitable nesting habitat exists within 500 feet of the approved limits of disturbance. Construction activities within 500 feet of active raptor nests (300 feet for protected bird species) shall be monitored by the biologist and modified as directed by the biologist until the biologist determines that the nest is no longer active. Construction activity may encroach into the 500-foot buffer area only at the discretion of the biologist. iii. Refer to mitigation measure Noi-2A for noise abatement measures during construction. iv. Storm water treatment and erosion control measures or facilities shall be maintained in a manner that avoids the discharge of polluted runoff and erosion impacts to the identified sensitive plants. v. Refer to mitigation measure Air-2B for dust control measures during construction. vi. Night lighting shall be avoided during construction. Any necessary lighting shall be shielded to minimize temporary lighting of the surrounding habitat. vii. A biological monitor shall be present on-site on at least a weekly basis during rough grading to ensure that the fenced construction limits are not exceeded. viii. Permanent lighting adjacent to natural habitat areas shall be selectively placed, shielded, and directed to minimize output to sensitive wildlife.	
Riparian Habitat and Other Sensitive Natural Communities	Implementation of the 2007 LRDP would result in direct impacts to mule fat scrub and herbaceous wetland (Bio-3A); and indirect impacts to a variety of sensitive vegetation communities within dedicated open space areas in the campus Planning Areas or in adjacent areas within the UCI NCCP Reserve Area and the SJFM (Bio-3B).	S	***Bio-3A*** For future projects that implement the 2007 LRDP and are located on sites containing mule fat scrub or herbaceous wetland habitats, UCI shall retain a qualified biologist to conduct a survey of these habitats. If project-level surveys determine that mule fat scrub riparian habitat and/or herbaceous wetland habitat may be impacted by the project, then mitigation measures Bio-3B and 3C shall be implemented. ***Bio-3B*** For future projects that implement the 2007 LRDP and could impact mule fat scrub riparian habitat and/or herbaceous wetland habitats as determined by mitigation measure Bio-3A,	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			design features shall be considered to avoid and/or minimize direct impacts to these sensitive vegetation communities, to the extent feasible. If it is not feasible to avoid these impacts, then mitigation measure Bio-3C shall be implemented. ***Bio-3C*** For future projects that implement the 2007 LRDP and would impact mule fat scrub riparian habitat and/or herbaceous wetland habitat, if these areas contain jurisdictional wetlands, all necessary regulatory permits shall be obtained and impacts shall be mitigated through implementation of Mitigation Measure Bio 4A. If no jurisdictional wetlands are present, impacts to mule fat scrub riparian habitat and/or herbaceous wetland habitat of greater than 0.1 acre shall be mitigated at ratios of 1:1 through habitat creation, restoration, or enhancement. Mitigation shall occur within dedicated campus open space areas where feasible, or at off-campus locations if on-site mitigation is not feasible. A qualified biologist shall assist in preparation, implementation, and monitoring of a habitat restoration plan, identifying the site preparation and installation requirements, establishment, monitoring, and long term management of the mitigation areas. Impacts to less than 0.1 acre of these habitat types, where no jurisdictional wetlands are present, would not require mitigation. ***Bio-3D*** As early as possible in the planning process for future projects that implement the 2007 LRDP and are adjacent to designated campus open space areas containing riparian or wetland vegetation, UCI shall ensure that the projects include a 50-foot setback from the flow line, to the extent practicable.	
Wetlands	Implementation of the 2007 LRDP would result in direct and indirect impacts to federal protected wetlands and other areas that could be subject to USACE, CDFG, or RWQCB jurisdiction (Bio-4).	S	***Bio-4A*** For future projects that implement the 2007 LRDP and are located on sites containing (or within 50 feet of) wetlands or other jurisdictional areas, or on sites containing (or within 25 feet of) a natural drainage course, UCI shall retain a qualified biologist to prepare a jurisdictional delineation. The jurisdictional delineation shall identify the presence of any areas that are subject to USACE, CDFG, or RWQCB jurisdiction, and the potential for the project to adversely affect these jurisdictional areas. If there is potential for the project to adversely affect jurisdictional areas all necessary regulatory permits shall be obtained and impacts shall be avoided or mitigated through implementation of mitigation measures established through consultation with regulatory agencies and as specified in the final regulatory permits and conditions.	LS
Wildlife Movement Corridors	Implementation of the 2007 LRDP would not interfere with wildlife movement corridors or impede movement by native species.	None	No mitigation is required.	N/A

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
4.4 Cultural Resources				
Archaeological Resources	Project grading or excavation from implementation of the 2007 LRDP could damage or destroy recorded resources that are determined to be significant upon testing (see Table 4.4-1) or unrecorded resources that are determined to be significant (Cul-1).	S	***Cul-1A*** During preparation of the Initial Study for future projects that implement the 2007 LRDP and are located on sites containing recorded archaeological resources, UCI shall retain a qualified archaeologist to define and survey the area of potential effects (APE) on the project site. The APE shall be based on the extent of ground disturbance and site modification anticipated for the project including an appropriate buffer where specific project boundaries have yet to be established. During the course of project planning, any recorded archaeological sites within the project APE shall be avoided to the extent feasible. If such sites cannot be avoided through project modifications or redesign, then the archeologist shall evaluate all archaeological resources observed within the project APE for significance in accordance with CEQA Guidelines Section 15064.5(c). This evaluation shall also determine the extent of the archaeological resource, if not already established. If an archaeological resource within the project APE is determined to be significant, then mitigation measure Cul-1B shall be implemented. ***Cul-1B*** Prior to land clearing, grading, or similar land development activities for future projects that implement the 2007 LRDP and would impact a significant archaeological resource as determined by mitigation measure Cul-1A, a qualified archaeologist shall prepare and implement a data recovery plan. The plan shall include, but not be limited to, the following measures: i. Perform appropriate technical analyses; ii. File any resulting reports with the South Coastal Information Center; and iii. Provide the recovered materials to an appropriate repository for curation. ***Cul-1C*** Prior to land clearing, grading, or similar land development activities for future projects that implement the 2007 LRDP in areas of identified archaeological sensitivity, UCI shall retain a qualified archaeologist (and, if necessary, a culturally-affiliated Native American) to monitor these activities. In the event of an unexpected archeological discovery during grading, the on-site construction supervisor shall be notified and shall redirect work away from the location of the archaeological find. A qualified archaeologist shall oversee the evaluation and recovery of	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			archaeological resources, in accordance with the procedures below, after which the on-site construction supervisor shall be notified and shall direct work to continue in the location of the archaeological find. A record of monitoring activity shall be submitted to UCI each month and at the end of monitoring. If the archaeological discovery is determined to be significant, the archaeologist shall prepare and implement a data recovery plan. The plan shall include, but not be limited to, the following measures: i. Perform appropriate technical analyses; ii. File any resulting reports with the South Coastal Information Center; and iii. Provide the recovered materials to an appropriate repository for curation, in consultation with a culturally-affiliated Native American.	
Historical Resources	Anticipated and potential development and redevelopment projects under the 2007 LRDP could demolish, relocate, or significantly change historic structures, which could result in changes to the historic significance of the structure (Cul-2).	S	***Cul-2A*** During preparation of the Initial Study for future projects that implement the 2007 LRDP, and are located on sites containing facilities that are 50 years of age or older, and are potential historic resources, a qualified professional shall define and survey the Area of Potential Effect (APE) on the project site. The APE shall be based on the extent of ground disturbance and site modification anticipated for the project. If historic resources are present within the project APE, then mitigation measure Cul-2B shall be implemented. ***Cul-2B*** Before altering or otherwise affecting historic resources within the project APE as determined by mitigation measure Cul-2A, they shall be evaluated for significance by the architectural historian in accordance with CEQA Guidelines Section 15064.5. The evaluation process shall include the development of appropriate historical background research as context for the assessment of the significance of the historic resources in the history of the UC system, UCI, and the region. The historic resources shall be recorded on a California Department of Parks and Recreation DPR 523 form or equivalent documentation. If the historic resources are determined to be significant, then mitigation measure Cul-2C shall be implemented. ***Cul-2C*** For historic resources determined to be significant as determined by mitigation measure Cul-2B, UCI shall consider measures that would enable the project to avoid direct or indirect impacts to the significant historic resources. For significant historic resources in which avoidance or reuse on-site is not feasible, mitigation measure Cul-2D shall be implemented.	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			Cul-2D For significant historic resources in which avoidance or reuse on-site is not feasible as determined by mitigation measure Cul-2C, one of the following options shall be implemented: i. Remodeling, renovation, or other alterations to significant historic resources within the project APE shall be conducted in compliance with the "Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings." ii. Prior to relocation or demolition of significant historic resources within the project APE, a qualified professional shall document the resources, including any buildings, associated landscaping and setting. Documentation shall include still and video photographs (to be provided on a CD-ROM) and a written record in accordance with the standards of the Historic American Building Survey or Historic American Engineering Record, including accurate scaled mapping, architectural descriptions, and scaled architectural plans, if available. The record shall be accompanied by a report containing site-specific history and appropriate contextual information. This information shall be gathered through site-specific and comparative archival research and oral history collection as appropriate. A copy of the record shall be deposited with the UCI archives. iii. As appropriate, include features in the design of the new project that reuse or represent features or the historic building or provide interpretative information on the historic resource.	
Human Remains	Although unlikely, construction activities under the 2007 LRDP could disturb human remains.	LS	No mitigation is required.	N/A
Paleontological Resources	Construction and earthwork activities under the 2007 LRDP could significantly affect paleontological resources (Cul-4).	S	***Cul-4A*** Prior to grading or excavation for future projects that implement the 2007 LRDP and would excavate sedimentary rock material other than topsoil, UCI shall retain a qualified paleontologist to monitor these activities. In the event fossils are discovered during grading, the on-site construction supervisor shall be notified and shall redirect work away from the location of the discovery. The recommendations of the paleontologist shall be implemented with respect to the evaluation and recovery of fossils, in accordance with mitigation measures Cul-4B and Cul-4C, after which the on-site construction supervisor shall be notified and shall direct work to continue in the location of the fossil discovery. A record of monitoring activity shall be submitted to UCI each month and at the end of monitoring.	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			Cul-4B If the fossils are determined to be significant, then mitigation measure Cul-4C shall be implemented. ***Cul-4C*** For significant fossils as determined by mitigation measure Cul-4B, the paleontologist shall prepare and implement a data recovery plan. The plan shall include, but not be limited to, the following measures: i. The paleontologist shall ensure that all significant fossils collected are cleaned, identified, catalogued, and permanently curated with an appropriate institution with a research interest in the materials (which may include UCI); ii. The paleontologist shall ensure that specialty studies are completed, as appropriate, for any significant fossil collected; and iii. The paleontologist shall ensure that curation of fossils are completed in consultation with UCI. A letter of acceptance from the curation institution shall be submitted to UCI.	
4.5 Geology and Soils				
Exposure to Seismic-Related Hazards	While the UCI campus contains the potential for seismic related hazards such as fault ruptures, ground shaking, ground failure and liquefaction, and seismically induced landslides, compliance with the CBC and the UC Seismic Safety Policy and enforcement of the Restricted Use Zone (RUZ) reduces the exposure of people and structures to adverse effects involving seismic related hazards.	LS	No mitigation is required.	N/A
Soil Erosion or Topsoil Loss	Construction activities associated with the 2007 LRDP could result in increased erosion due to vegetation removal and earth-disturbing activities; however, compliance with dust abatement measures and NPDES requires would minimize erosion and topsoil loss.	LS	No mitigation is required.	N/A
Soil Instability	Unstable slopes and soils exist in undeveloped areas of the South Campus; however, recommendations provided in a geotechnical investigation would be implemented to remove such soils and slopes and reduce hazards to people or structures associated with unstable slopes and soils.	LS	No mitigation is required.	N/A
Expansive Soils	While expansive soils are prevalent on campus, compliance with the CBC would reduce the potential for substantial risk to life or property due to construction of structures on expansive soils.	LS	No mitigation is required.	N/A
4.6 Hazards and Hazardous Materials				
Transport, Use, and Disposal of Hazardous Materials	The 2007 LRDP would result in increased transport, use, and disposal of hazardous materials that could pose a hazard to the public and environment but these activities are comprehensively managed by UCI pursuant to state and federal law.	LS	No mitigation is required.	N/A

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
Accidental Releases	Implementation of the 2007 LRDP could result in increased transport, use, and disposal of hazardous materials, which could increase the chance for accidents to occur; however, safeguards mandated by federal and State laws and regulations would minimize the risk of accidents. Further, procedures are in place to handle any future accidents that may occur.	LS	No mitigation is required.	N/A
Hazards to Nearby Schools	A small increase in the use and disposal of hazardous materials and waste would be located within one-quarter mile of an existing school; however, compliance with hazardous materials regulations would minimize risk to nearby educational facilities.	LS	No mitigation is required. Compliance with applicable laws and regulations would occur.	N/A
Listed Hazardous Materials Sites	Development is proposed in the area of a potentially hazardous site; however, because this site will be fully rehabilitated by the end of 2007 and prior to any construction, this site is of low environmental concern and is not expected to create a significant hazard to the public or environment.	LS	No mitigation is required.	N/A
Hazards from Nearby Airports	Because of the location of the campus from John Wayne Airport (the nearest airport) and the lack of accidents in the vicinity of the campus, safety hazards to people residing or working on the UCI campus due to aircraft from John Wayne Airport are not likely to occur.	LS	No mitigation is required.	N/A
Emergency Response And Evacuation Plans	Temporary road closures due to construction associated with implementation of the 2007 LRDP, along with operational obstructions (e.g., non-synchronized traffic signals, locked gates), may significantly interfere with evacuation routes (Haz-6).	S	***Haz-6A*** Prior to initiating on-site construction for future projects that implement the 2007 LRDP and that would involve a lane or roadway closure, the construction contractor and/or UCI Design and Construction Services shall notify the UCI Fire Marshal. If determined necessary by the UCI Fire Marshal, local emergency services shall be notified of the lane or roadway closure by the Fire Marshal. ***Haz-6B*** All traffic signals installed on emergency access ways shall include the installation of optical preemption devices for emergency services. ***Haz-6C*** All electronically-operated gates installed within the UCI Campus shall include emergency opening devices, as approved by the Orange County Fire Authority.	LS
Wildland Fires	Exposure of people or structures to wildland fires would be limited because fuel modification plans would be prepared for areas adjacent to areas prone to wildfire, which would be approved by the OCFA.	LS	No mitigation is required.	N/A

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
4.7 Hydrology and Water Quality				
Drainage and Hydrology	Implementation of 2007 LRDP projects that would disturb 1 acre or more of land, and all future development occurring in the SJMF watershed, would have the potential to substantially alter drainage patterns and hydrology which could significantly increase runoff volumes resulting in flooding, excedance of the existing storm water drainage system capacity, and erosion and siltation at downstream water bodies (Hyd-1).	S	***Hyd-1A*** As early as possible in the planning process of future projects that implement the 2007 LRDP and would result in land disturbance of 1 acre or greater, and for all development projects occurring on the North Campus in the watershed of the San Joaquin Freshwater Marsh, a qualified engineer shall complete a drainage study. Design features and other recommendations from the drainage study shall be incorporated into project development plans and construction documents. Design features shall be consistent with UCI's Storm Water Management Program, shall be operational at the time of project occupancy, and shall be maintained by UCI. At a minimum, all drainage studies required by this mitigation measure shall include, but not be limited to, the following design features: i. Site design that controls runoff discharge volumes and durations shall be utilized, where applicable and feasible, to maintain or reduce the peak runoff for the 10-year, 6-hour storm event in the post-development condition compared to the pre-development condition, or as defined by current water quality regulatory requirements. ii. Measures that control runoff discharge volumes and durations shall be utilized, where applicable and feasible, on manufactured slopes and newly-graded drainage channels, such as energy dissipaters, revegetation (e.g., hydroseeding and/or plantings), and slope/channel stabilizers.	LS
Water Quality	Implementation of the 2007 LRDP would have the potential to generate storm water runoff pollutants during construction and post-construction activities that could significantly impact downstream water quality, if not properly controlled (Hyd-2).	S	***Hyd-2A*** Prior to initiating on-site construction for future projects that implement the 2007 LRDP, UCI shall approve an erosion control plan for project construction. The plan shall include, but not be limited to, the following applicable measures to protect downstream areas from sediment and other pollutants during site grading and construction: i. Proper storage, use, and disposal of construction materials. ii. Removal of sediment from surface runoff before it leaves the site through the use of silt fences, gravel bags, fiber rolls or other similar measures around the site perimeter. iii. Protection of storm drain inlets on-site or downstream of the construction site through the use of gravel bags, fiber rolls, filtration inserts, or other similar measures.	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			iv. Stabilization of cleared or graded slopes through the use of plastic sheeting, geotextile fabric, jute matting, tackifiers, hydro-mulching, revegetation (e.g., hydroseeding and/or plantings), or other similar measures. v. Protection or stabilization of stockpiled soils through the use of tarping, plastic sheeting, tackifiers, or other similar measures. vi. Prevention of sediment tracked or otherwise transported onto adjacent roadways through use of gravel strips or wash facilities at exit areas (or equivalent measures). vii. Removal of sediment tracked or otherwise transported onto adjacent roadways through periodic street sweeping. viii. Maintenance of the above-listed sediment control, storm drain inlet protection, slope/stockpile stabilization measures. ***Hyd-2B*** Prior to project design approval for future projects that implement the 2007 LRDP and would result in land disturbance of 1 acre or more, the UCI shall ensure that the projects include the design features listed below, or their equivalent, in addition to those listed in mitigation measure Hyd-1A. Equivalent design features may be applied consistent with applicable MS4 permits (UCI's Storm Water Management Plan) at that time. All applicable design features shall be incorporated into project development plans and construction documents; shall be operational at the time of project occupancy; and shall be maintained by UCI. i. *All new storm drain inlets and catch basins within the project site shall be marked with prohibitive language and/or graphical icons to discourage illegal dumping per UCI standards.* ii. *Outdoor areas for storage of materials that may contribute pollutants to the storm water conveyance system shall be covered and protected by secondary containment.* iii. Permanent trash container areas shall be enclosed to prevent off-site transport of trash, or drainage from open trash container areas shall be directed to the sanitary sewer system. iv. At least one treatment control is required for new parking areas or structures, or for any other new uses identified by UCI as having the potential to generate substantial pollutants. Treatment controls include, but are not limited to, detention basins, infiltration basins, wet ponds or wetlands, bio-swales, filtration devices/inserts at storm drain inlets, hydrodynamic	

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			separator systems, increased use of street sweepers, pervious pavement, native California plants and vegetation to minimize water usage, and climate controlled irrigation systems to minimize overflow. Treatment controls shall incorporate volumetric or flow-based design standards to mitigate (infiltrate, filter, or treat) storm water runoff, as appropriate.	
Seiches, Tsunamis, and Mudflows	Implementation of the 2007 LRDP would not likely expose people to structures to seiches, tsunamis, or mudflows due to the topography of the campus and the location of the campus from landlocked bodies of water, the Pacific Ocean, and the surrounding foothills.	LS	No mitigation is required.	N/A
4.8 Land Use and Planning				
Applicable Land Use Plans, Policies, and Regulations	Implementation of the 2007 LRDP would not result in inconsistencies with City of Irvine and City of Newport Beach General Plans, the California Coastal Act, or the NCCP Implementation Agreement.	LS	No mitigation is required.	N/A
Incompatibilities with Adjacent Land Uses	The development of the North Campus with mixed-use land uses and the open space area of the SJFM Reserve may result in incompatibilities between residential, commercial, office, or retail uses and the habitat reserve area of the Marsh (Lan-2).	S	***Lan-2A*** As early as possible in the planning process for future projects that implement the 2007 LRDP and are located along the interface between the North Campus and the San Joaquin Freshwater Marsh (SJFM) Reserve, UCI shall enter into consultation with the Director of the University of California Natural Reserve System (UCNRS) to ensure that project planning and design includes features to avoid impacts to the SJFM Reserve from incompatible adjacent land uses, such as mixed use development. These planning and design features shall include, but are not limited to, the following: • Site planning that establishes building setbacks, circulation, open space and other uses along the development interface to limit impacts on teaching and research activities, and that reduces the need for fuel modification in the buffer zone. • Site planning that retains the integrity of the SJFM Reserve buffer zone including features that limit the need for construction activities and fuel modification within the buffer zone.	LS
4.9 Noise				
Permanent Increases in Ambient Noise	Implementation of the 2007 LRDP would expose persons within future Student Housing, located south of E. Peltason Drive and east of Bison Avenue, to significant direct traffic noise levels, and would expose persons within future Housing Reserve, located north of Bonita Canyon Road and west of Anteater Drive, to significant cumulative traffic noise levels (Noi-1A), and would expose persons to significant direct noise impacts from operation of new stationary noise sources, including a satellite utilities plant in the Health Sciences Complex, major HVAC systems, and parking structures (Noi-1B).	S	***Noi-1A*** Prior to project design approval for future projects that implement the 2007 LRDP and include noise-sensitive land uses (i.e., campus housing, classrooms, libraries, and clinical facilities), UCI shall ensure that the project design will adhere to the following state noise standards: 60 dBA CNEL (single-family campus housing); 65 dBA CNEL (multi-family campus housing, dormitories, lodging); and 70 dBA CNEL (classrooms, libraries, clinical facilities). Applicable project design features may include, but are not limited to, the following:	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			i. Specific window treatments, such as dual glazing, and mechanical ventilation when the 45 dBA CNEL limit within habitable rooms and the 50 dBA CNEL limit within classrooms can only be achieved with a closed window condition. ii. Setbacks; orientation of usable outdoor living spaces, such as balconies, patios, and common areas, away from roadways; and/or landscaped earthen berms, noise walls, or other solid barriers. ***Noi-1B*** As early as possible in the planning process of future projects that implement the 2007 LRDP and would include new or modified stationary noise sources such as utility plant facilities (constant noise source), major HVAC systems (constant noise source), and parking structures (constant and/or intermittent noise source), UCI shall ensure they are designed in a manner that would minimize the exposure of noise-sensitive land uses (i.e., campus housing, classrooms, libraries, and clinical facilities) to noise levels that exceed the following state noise standards: 60 dBA CNEL (single-family campus housing); 65 dBA CNEL (multi-family campus housing, dormitories, lodging); and 70 dBA CNEL (classrooms, libraries, clinical facilities). If the affected noise-sensitive land uses are already exposed to noise levels in excess of these standards, then the new or modified stationary noise sources shall not increase the ambient noise level by more than 3 dBA. These criteria shall be achieved by: i. Implementing the following noise reduction measures into the design of the satellite utilities plant, as applicable: • Use low-speed fans, baffles, mufflers, or other mechanical system design features to reduce emitted noise; • Increase the distance from the noise source to sensitive receptors with setbacks; • Place equipment inside buildings or within solid enclosures; • Construct earthen berms, noise walls, or other solid barriers for noise attenuation; • Eliminate glass, louvers, openings, or vents in the exterior walls of the plant, particularly those facing noise-sensitive land uses. If openings are necessary, install acoustical louvers or baffles on project components at all exterior openings;	

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			• Install silencers on the intake and exhaust system; • Place cooling towers as close to plant buildings as possible to utilize the buildings as noise barriers; and • Install integrated noise barriers on the sides of cooling towers. ii. Implementing the following noise reduction measures into the design of new major HVAC systems, as applicable: • Install acoustical shielding (parapet wall or near-field noise barrier) around all new equipment; and • Place equipment below grade in basement space. iii. Implementing the following noise reduction measures into the design of new parking structures: • Incorporate architectural design features that attenuate noise including solid panels at locations facing noise-sensitive land uses; and • Construct earthen berms, noise walls, or other solid barriers between noise-sensitive land uses and parking structures.	
Temporary Increases in Ambient Noise	Construction activities associated with implementation of the 2007 LRDP would result in substantial temporary increases in ambient noise levels affecting noise-sensitive land uses on campus (Noi-2A).	S	***Noi-2A*** Prior to initiating on-site construction for future projects that implement the 2007 LRDP, UCI shall approve contractor specifications that include measures to reduce construction/ demolition noise to the maximum extent feasible. These measures shall include, but are not limited to, the following: i. Noise-generating construction activities occurring Monday through Friday shall be limited to the hours of 7:00 am to 7:00 pm, except during summer, winter, or spring break at which construction may occur at the times approved by UCI. ii. Noise-generating construction activities occurring on weekends in the vicinity of (can be heard from) off-campus land uses shall be limited to the hours of 9:00 am to 6:00 pm on Saturdays, with no construction occurring on Sundays or holidays. iii. Noise-generating construction activities occurring on weekends in the vicinity of (can be heard from) on-campus residential housing shall be limited to the hours of 9:00 am to 6:00 pm on Saturdays, with no construction on Sundays or holidays.	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			iv. However, as determined by UCI, if on-campus residential housing is unoccupied (during summer, winter, or spring break, for example), or would otherwise be unaffected by construction noise, construction may occur at any time. v. Construction equipment shall be properly outfitted and maintained with manufacturer recommended noise-reduction devices to minimize construction-generated noise. vi. Stationary construction noise sources such as generators, pumps or compressors shall be located at least 100 feet from noise-sensitive land uses (i.e., campus housing, classrooms, libraries, and clinical facilities), as feasible. vii. Laydown and construction vehicle staging areas shall be located at least 100 feet from noise-sensitive land uses (i.e., campus housing, classrooms, libraries, and clinical facilities), as feasible. viii. All neighboring land uses that would be subject to construction noise shall be informed at least two weeks prior to the start of each construction project, except in an emergency situation. vii. Loud construction activity such as jackhammering, concrete sawing, asphalt removal, pile driving, and large-scale grading operations occurring within 600 feet of a residence or an academic building shall not be scheduled during any finals week of classes. A finals schedule shall be provided to the construction contractor.	
Exposure to Aircraft Noise	Implementation of the 2007 LRDP would not expose new noise-sensitive land uses on campus to excessive noise levels resulting from aircraft.	None	No mitigation is required.	N/A
Excessive Groundborne Vibration or Noise	Construction activities associated with implementation of the 2007 LRDP could result in the exposure of persons and vibration-sensitive instruments, operations and buildings on campus to, or generation of, excessive ground-borne vibration or ground-borne noise levels (Noi-4).	S	***Noi-4A*** Prior to initiating on-site construction for future projects that implement the 2007 LRDP and are located within 100 feet of vibration-sensitive uses (i.e., buildings containing vibration-sensitive instruments or operations, or buildings that are considered vibration sensitive due to their age, construction type and/or fragile condition), UCI shall approve a construction vibration mitigation program as part of the contractor specifications that includes measures to reduce vibration resulting from construction activities to the maximum extent practicable. The program shall include measures to establish baseline vibration conditions, vibration monitoring, work methods or equipment necessary to reduce vibration, and a pre-construction notification process for impacted building occupants (six-month and one-month interval prior to construction).	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			If pile driving is proposed, building occupants within 600 feet of the pile-driving site shall be notified of construction at six-month and one-month intervals prior to the start of construction.	
4.10 Population and Housing				
Direct Inducement of Substantial Population Growth	Because the growth in UCI's population would account for a small proportion of the planned growth of the region and a small proportion of the construction of new housing, implementation of the 2007 LRDP would not directly induce substantial population growth which would adversely affect the physical environment.	LS	No mitigation is required.	N/A
Indirect Inducement of Substantial Population Growth	Implementation of the 2007 LRDP is not expected to indirectly induce population growth by expanding infrastructure, removing an obstacle to growth, or encouraging the growth of industry.	LS	No mitigation is required.	N/A
Displacement of Housing	Implementation of the 2007 LRDP would result in in-fill development within the UCI-owned property, an increase in student and faculty and staff housing, and no displacement of housing.	LS	No mitigation is required.	N/A
Displacement of People	Implementation of the 2007 LRDP would increase the campus population and would not displace people which would require the construction of additional housing elsewhere.	LS	No mitigation is required.	N/A
4.11 Public Services				
Fire Protection	Implementation of the 2007 LRDP would not impact the service capacity of Fire Station #4, but would increase demand at Fire Station #28, along with other regional growth in the vicinity, to a level that would require new facilities or substantial alterations to existing facilities; however, this is considered a cumulative impact.	LS	No mitigation is required.	N/A
Police Protection	As campus population increases as a result of implementation of the 2007 LRDP, UCI would increase the number of officers within the UCI Police Department, which may require the construction of additional police service facilities, which would undergo environmental review.	LS	No mitigation is required.	N/A
Public Schools	The increase of school-age children living on-campus as a result of implementation of the 2007 LRDP would not require the construction of additional schools because the increase attributable to the 2007 LRDP would be a small proportion to the number of children enrolled in the Irvine Unified School District.	LS	No mitigation is required.	N/A
4.12 Recreation				
Deterioration of Parks and Recreational Facilities	While implementation of the 2007 LRDP would increase the campus population and the use of on-campus recreational facilities, good management and active maintenance would minimize deterioration of facilities. Significant increase in use of off-campus facilities is not expected.	LS	No mitigation is required.	N/A

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
Construction of New Recreational Facilities	Implementation of the 2007 LRDP would include construction and expansion of recreational facilities that may have an adverse physical effect on the environment (Rec-2).	S	Implementation of applicable mitigation measures in other sections of this EIR including Aes-1A, Aes-2A, Aes-3B, Air-2A, Air-2B, Bio-1A, Bio-2A, Bio-2B, Bio-3A, Bio-3B, Bio-3C, Bio-3D, Bio-4A, Cul-1A, Cul-1B, Cul-2A, Cul-4A, Haz-6A, Hyd-1A, Hyd-2A, Hyd-2B, Lan-2A, Noi-2A, and Noi-4A would reduce impacts related to construction of new recreational facilities to a level below significance.	LS
4.13 Transportation, Traffic, and Parking				
Increases in Traffic	Implementation of the 2007 LRDP would result in significant direct traffic impacts at two off-campus intersections in Year 2025 and at two off-campus intersections Post-2025 (Tra-1A); and significant cumulative impacts at 11 off-campus intersections in Year 2025, and at one off-campus arterial roadway and 10 off-campus intersections Post-2025 (Tra-1B).	S	***Tra-1A*** To reduce on- and off-campus vehicle trips and resulting impacts, UCI will continue to implement a range of Transportation Demand Management (TDM) strategies. Program elements will include measures to increase transit and shuttle use, encourage alternative transportation modes including bicycle transportation, implement parking polices that reduce demand, and implement other administrative mechanisms that reduce vehicle trips to and from the campus. UCI shall monitor the performance of TDM programs through annual surveys. ***Tra-1B*** UCI will continue to pursue the implementation of affordable on-campus housing to reduce peak-hour commuter trips to the campus. ***Tra-1C*** To enhance transit systems serving the campus and local community, UCI will work cooperatively with the City of Irvine, City of Newport Beach, OCTA and other local agencies to coordinate service and routes of the UCI Shuttle with existing and proposed shuttle and transit programs including the proposed Jamboree/IBC Shuttle, proposed Orange County Great Park Shuttle, Irvine Spectrum Shuttle, and other community transit programs. ***Tra-1D*** UCI will monitor campus trip generation and distribution and the performance of UCITP intersections in relationship to enrollment growth. Monitoring will be conducted in consultation with the City of Irvine and the City of Newport Beach, and will occur at each 3,000-student increase in enrollment (measured as General Campus three-term average headcount), above the 2007-08 General Campus enrollment level. If UCI monitoring determines that LRDP traffic results in significant traffic impacts at UCITP intersections, UCI will implement measures to reduce vehicle trips contributing to the impact or provide "fair share" funding for improvements at the impacted intersections as described in Mitigation Measures Tra-1E and Tra-1F. UCI's share of funding will be determined by the percentage of UCI traffic volumes compared to the total traffic volumes at the impacted intersections.	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			Tra-1E UCI will collect UCITP traffic fees from "for-profit" development projects on campus or other campus development as determined by the University. Fees will be provided to the City of Irvine, City of Newport Beach, or other public agencies to fund UCI's share of UCITP improvements when the improvements are implemented, as provided in mitigation measure Tra-1D. ***Tra-1F*** If the City of Irvine or City of Newport Beach proceeds with traffic improvements for UCITP intersections following UCI determination that LRDP traffic is causing a significant impact, and UCITP fees collected to date are insufficient to fund UCI's fair share, UCI shall identify and obtain funding for the fair share of identified improvements from an alternative source. ***Tra-1G*** UCITP fees established for future "for-profit" development on UCI's North Campus shall be commensurate with the traffic fees established in the City of Irvine's IBC Transportation Fee program. ***Tra-1H*** UCI will assess a San Joaquin Hills Transportation Corridor fee to future "for-profit" campus development projects in accordance with the development fee program established by the Joint Powers Agreement entered into by the City of Irvine, the County of Orange, and neighbor cities to help pay for the San Joaquin Hills Transportation Corridor. Future "for-profit" campus development shall be required to pay such fees prior to construction. UCI's obligation to pay its share of the costs of the San Joaquin Hills Transportation Corridor shall be satisfied upon the forwarding of these fees to the Transportation Corridor Agencies or other agency designated to collect such fees. ***Tra-1I*** UCI shall review individual projects proposed under the 2007 LRDP for consistency with UC Sustainable Transportation Policy and UCI Transportation Demand Management goals to ensure that bicycle and pedestrian improvements, transit stops, and other project features that promote alternative transportation are incorporated to the extent feasible. ***Tra-1J*** If a campus construction project or a specific campus event requires an on-campus lane or roadway closure, or could otherwise substantially interfere with campus traffic circulation, the contractor or other responsible party will provide a traffic control plan for review and approval by UCI. The traffic control plan shall ensure that adequate emergency access and egress is maintained and that traffic is allowed to move efficiently and safely in and around	

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			the campus. The traffic control plan may include measures such as signage, detours, traffic control staff, a temporary traffic signal, or other appropriate traffic controls. If the interference would occur on a public street, UCI shall apply for all applicable permits from the appropriate jurisdiction.	
Parking Capacity	With implementation of mitigation measures Tra-1A, Tra-1B, Tra-1C, and Tra-1I, the 2007 LRDP would not impact the on-campus parking supply.	LS	No additional mitigation is required.	N/A
Alternative Transportation Plans, Policies, and Programs	With implementation of mitigation measures Tra-1A, Tra-1B, Tra-1C, and Tra-1I, the 2007 LRDP is not likely to conflict with adopted policies, plans, or programs supporting alternative transportation.	LS	No additional mitigation is required.	N/A
4.14 Utilities, Service Systems, and Energy				
Wastewater Treatment	The planned expansion of the Michelson Water Reclamation Plant (MWRP), which would undergo additional environmental review and continue to abide by Industrial User Discharge Permit regulations, would have sufficient capacity to accommodate increases in wastewater generation as a result of implementation of the 2007 LRDP.	LS	No mitigation is required.	N/A
New Water or Wastewater Facilities	Because implementation of the 2007 LRDP would increase the demand for water and waste water, implementation of the 2007 LRDP would require the construction of additional water and wastewater facilities, which could impact the physical environment (Utl-2).	S	Implementation of applicable mitigation measures in other sections of this EIR would reduce significant impacts associated with the construction of new facilities, including utility improvements, to below a level of significance. These measures include Aes-1A, Aes-2A, Aes-3B, Air-2A, Air-2B, Bio-1A, Bio-2A, Bio-2B, Bio-3A, Bio-3B, Bio-3C, Bio-3D, Bio-4A, Cul-1A, Cul-1B, Cul-2A, Cul-4A, Haz-6A, Hyd-1A, Hyd-2A, Hyd-2B, Lan-2A, Noi-2A, and Noi-4A.	LS
Impacts from New Storm Water Facilities	Because implementation of the 2007 LRDP would increase the amount of impervious surface, implementation of the 2007 LRDP would require the construction of additional storm water facilities, which could impact the physical environment (Utl-3).	S	Implementation of applicable mitigation measures in other sections of this EIR would reduce significant impacts associated with the construction of new facilities, including utility improvements, to below a level of significance. These measures include Aes-1A, Aes-2A, Aes-3B, Air-2A, Air-2B, Bio-1A, Bio-2A, Bio-2B, Bio-3A, Bio-3B, Bio-3C, Bio-3D, Bio-4A, Cul-1A, Cul-1B, Cul-2A, Cul-4A, Haz-6A, Hyd-1A, Hyd-2A, Hyd-2B, Lan-2A, Noi-2A, and Noi-4A.	LS
Water Supply Availability	Projected water demands as a result of implementation of the 2007 LRDP are consistent with Irvine Ranch Water District's recently adopted Urban Water Management Plan and would not change the Plan's conclusions with respect to water supply reliability.	LS	No mitigation is required.	N/A
Landfill Capacity	Because UCI would continue to administer its recycling and waste diversion program and because an expansion of the Frank R. Bowman Landfill is likely, the landfill would have sufficient permitted capacity to accommodate the increase in solid waste generation as a result of implementation of the 2007 LRDP.	LS	No mitigation is required.	N/A

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
Applicable Solid Waste Regulations	Because UCI would continue to adhere to the University of California Policy on Sustainable Practices which requires waste diversion and recycling on all UC Campuses, implementation of the 2007 LRDP would comply with applicable laws and regulation related to solid waste.	LS	No mitigation is required.	N/A
Energy Consumption	Compliance with UC's Policy on Sustainable Practices would increase energy efficiency and reduce inefficient consumption of energy; however, the development of additional electricity and natural gas facilities, which would undergo additional environmental review, would result in impacts to the physical environment (Utl-7).	S	Implementation of applicable mitigation measures in other sections of this EIR would reduce significant impacts associated with the construction of new facilities to below a level of significance. These measures include Aes-1A, Aes-2A, Aes-3B, Air-2A, Air-2B, Bio-1A, Bio-2A, Bio-2B, Bio-3A, Bio-3B, Bio-3C, Bio-3D, Bio-4A, Cul-1A, Cul-1B, Cul-2A, Cul-4A, Haz-6A, Hyd-1A, Hyd-2A, Hyd-2B, Lan-2A, Noi-2A, and Noi-4A.	LS

SU = Significant, unavoidable; S = Significant; LS = Less than Significant;
* Cumulative impacts and mitigation measure are summarized in Table 2-2.

Table 2-1. Project Impacts and Mitigation Measures for the UCI University Hills Area 9/2 Housing Project *

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
4.1 Aesthetics				
Scenic Vistas and Visual Character and Quality	Implementation of the Area 9/2 Housing Project would substantially degrade the existing visual character and quality of the South Campus as viewed from Bonita Canyon Drive.	S	***LRDP MM*** ***Aes-1A*** Prior to project design approval for future projects that implement the 2007 LRDP and are located in the South Campus, in the vicinity of Bonita Canyon Drive, UCI shall ensure that the projects include design features to minimize visual impacts from off-campus areas. These design features shall include, but are not limited to, the following: i. Establish a 50-foot wide (minimum) landscaped buffer along the edge of the campus along the project frontage; ii. Building mass and/or proportions, and exterior treatments and/or colors, that are compatible with the surrounding development and visual character; and iii. Project landscape design that reduces visual impacts and integrates the project into the visual landscape.	LS
Lighting and Glare	Implementation of the Area 9/2 Housing Project would create new sources of light which could adversely affect nighttime views within the project area or the immediate vicinity.	S	***LRDP MM*** ***Aes-2B*** Prior to approval of construction documents for future projects that implement the 2007 LRDP, UCI shall approve an exterior lighting plan for each project. In accordance with *UCI's Campus Standards and Design Criteria* for outdoor lighting, the plan shall include, but not be limited to, the following design features: i. Full-cutoff lighting fixtures to direct lighting to the specific location intended for illumination (e.g., roads, walkways, or recreation fields) and to minimize stray light spillover into adjacent residential areas, sensitive biological habitat, and other light-sensitive receptors; ii. Appropriate intensity of lighting to provide campus safety and security while minimizing light pollution and energy consumption; and iii. Shielding of direct lighting within parking areas, parking structures, or roadways away from adjacent residential areas, sensitive biological habitat, and other light-sensitive receptors through site configuration, grading, lighting design, or barriers such as earthen berms, walls, or landscaping.	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
4.2 Air Quality				
Consistency with Applicable Air Quality Plan	The proposed project would not conflict with, or obstruct implementation of, an applicable air quality plan.	None	No mitigation is required.	N/A
Consistency with Air Quality Standards	Construction emissions from the proposed project would exceed significance thresholds for NO_x. Operational emissions are not expected to exceed significance thresholds.	SU	***LRDP MM Air-2B*** Prior to initiating on-site construction for future projects that implement the 2007 LRDP, UCI shall ensure that the project construction contract includes a construction emissions mitigation plan, including measures compliant with SCAQMD Rule 403 (Fugitive Dust) to be implemented and supervised by the on-site construction supervisor, which shall include, but not be limited to, the following BMPs: i. During grading and site preparation activities, exposed soil areas shall be stabilized via frequent watering, non-toxic chemical stabilization, or equivalent measures at a rate to be determined by the on-site construction supervisor. ii. During windy days when fugitive dust can be observed leaving the construction site, additional applications of water shall be required at a rate to be determined by the on-site construction supervisor. iii. Disturbed areas designated for landscaping shall be prepared as soon as possible after completion of construction activities. iv. Areas of the construction site that will remain inactive for three months or longer following clearing, grubbing and/or grading shall receive appropriate BMP treatments (e.g., revegetation, mulching, covering with tarps, etc.) to prevent fugitive dust generation. v. All exposed soil or material stockpiles that will not be used within 3 days shall be enclosed, covered, or watered twice daily, or shall be stabilized with approved non-toxic chemical soil binders at a rate to be determined by the on-site construction supervisor. vi. Unpaved access roads shall be stabilized via frequent watering, non-toxic chemical stabilization, temporary paving, or equivalent measures at a rate to be determined by the on-site construction supervisor. vii. Trucks transporting materials to and from the site shall allow for at least two feet of freeboard (i.e., minimum vertical distance between the top of the load and the top of the trailer). Alternatively, trucks transporting materials shall be covered.	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			viii. Speed limit signs at 15 mph or less shall be installed on all unpaved roads within construction sites. ix. Where visible soil material is tracked onto adjacent public paved roads, the paved roads shall be swept and debris shall be returned to the construction site or transported off site for disposal. x. Wheel washers, dirt knock-off grates/mats, or equivalent measures shall be installed within the construction site where vehicles exit unpaved roads onto paved roads. xi. Diesel powered construction equipment shall be maintained in accordance with manufacturer's requirements, and shall be retrofitted with diesel particulate filters where available and practicable. xii. Heavy duty diesel trucks and gasoline powered equipment shall be turned off if idling is anticipated to last for more than 5 minutes. xiii. Where feasible, the construction contractor shall use alternatively fueled construction equipment, such as electric or natural gas-powered equipment or biofuel. xiv. Heavy construction equipment shall use low NO_x diesel fuel to the extent that it is readily available at the time of construction. xv. To the extent feasible, construction activities shall rely on the campus's existing electricity infrastructure rather than electrical generators powered by internal combustion engines. xvi. The construction contractor shall develop a construction traffic management plan that includes the following: • Scheduling heavy-duty truck deliveries to avoid peak traffic periods • Consolidating truck deliveries xvii. Where possible, the construction contractor shall provide a lunch shuttle or on-site lunch service for construction workers. xviii. The construction contractor shall, to the extent possible, use pre-coated architectural materials that do not require painting. Water-based or low VOC coatings shall be used that are compliant with SCAQMD Rule 1113. Spray equipment with high transfer efficiency, such as the high volume-low pressure spray method, or manual coatings application shall be used to reduce VOC emissions to the extent possible.	

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			xix. Project constructions plans and specifications will include a requirement to define and implement a work program that would limit the emissions of reactive organic gases (ROG's) during the application of architectural coatings to the extent necessary to keep total daily ROG's for each project to below 75 pounds per day, or the current SCAQMD threshold, throughout that period of construction activity to the extent feasible. The specific program may include any combination of restrictions on the types of paints and coatings, application methods, and the amount of surface area coated as determined by the contractor. xx. The construction contractor shall maintain signage along the construction perimeter with the name and telephone number of the individual in charge of implementing the construction emissions mitigation plan, and with the telephone number of the SCAQMD's complaint line. The contractor's representative shall maintain a log of any public complaints and corrective actions taken to resolve complaints.	
Sensitive Receptors	Implementation of the Area 9/2 Housing Project may expose sensitive receptors to substantial pollutant concentrations.	LS	No mitigation is required.	N/A
Objectionable Odors	Implementation of the proposed project is not likely to produce objectionable odors affecting a substantial number of people.	LS	No mitigation is required.	N/A
4.3 Biological Resources				
Candidate, Sensitive, or Special Status Plant Species	The Area 9/2 Housing Project is unlikely to impact sensitive plant species as none have been observed on or adjacent to the project site, although there is potential for southern tarplant (List-1B) to occur in these areas.	LS	No mitigation is required.	N/A
Candidate, Sensitive, or Special Status Animal Species	The Area 9/2 Housing Project has the potential to impact sensitive animal species due to suitable western burrowing owl habitat on site. In addition, raptor nests could occur within 500 feet of project related construction activities and in such case would be indirectly impacted.	S	**LRDP MM** ***Bio-2A*** Prior to initiating on-site construction for future projects in the east campus and west campus that implement the 2007 LRDP and involve land clearing, grading, or similar land development activities adjacent to suitable habitat for the western burrowing owl (i.e., large open areas of non-native grassland, ruderal (weedy) areas, and scrub habitat), UCI shall retain a qualified biologist to conduct a burrowing owl survey of the respective habitat areas within 300 feet of the approved limits of disturbance. If occupied burrows are detected from the survey, then they shall not be disturbed during the nesting season (February 1 through August 31) until the biologist verifies through noninvasive methods that either: (1) the birds have not begun egg-laying and incubation; or (2) juveniles from the occupied burrows are foraging	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			independently and are capable of independent survival. If owls must be moved away from the disturbance area, passive relocation is preferable to trapping. A time period of at least one week is recommended to allow the owls to move and acclimate to alternate burrows. When destruction of occupied burrows is unavoidable, relocation burrows shall be created (by installing artificial burrows) at a ratio of 1:1 in suitable foraging habitat. The biologist shall document all findings and results in a report submitted to UCI. ***Bio-2B*** Prior to initiating on-site construction for future projects that implement the 2007 LRDP and that involve land clearing, grading, or similar land development activities adjacent to habitat areas identified as suitable for sensitive wildlife species, UCI shall retain a qualified biologist to conduct a sensitive wildlife survey of the respective areas within 150 feet of the approved limits of disturbance. If sensitive wildlife species are detected from the survey, then UCI shall approve contractor specifications that include measures to reduce indirect construction and post-construction impacts to the identified species, to the maximum extent feasible. These measures shall include, but are not limited to, the following: i. A pre-construction meeting shall be held to ensure that construction crews are informed of the sensitive wildlife and habitats in the vicinity of the construction site. Prior to commencement of clearing or grading activities, a biologist (or other qualified person) shall supervise the installation of temporary construction fencing along the approved limits of disturbance to discourage errant intrusions into the identified sensitive wildlife habitats by construction vehicles or personnel. All construction access and circulation shall be limited to designated construction zones. This fencing shall be removed upon completion of construction activities. ii. If suitable habitat for raptors or protected bird species is present and raptors or protected bird species are observed in the vicinity, the pre-construction surveys for active nests shall be performed within 30 calendar days prior to commencement of clearing or grading activities during the breeding season for raptors and protected bird species (generally February 1 through August 31) at locations where suitable nesting habitat exists within 500 feet of the approved limits of disturbance. Construction activities within 500 feet of active raptor nests (300 feet for protected bird species) shall be monitored by the biologist and modified as directed by the biologist until the	

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			iii. biologist determines that the nest is no longer active. Construction activity may encroach into the 500-foot buffer area only at the discretion of the biologist. iv. Refer to mitigation measure Noi-2A for noise abatement measures during construction. v. Storm water treatment and erosion control measures or facilities shall be maintained in a manner that avoids the discharge of polluted runoff and erosion impacts to the identified sensitive plants. vi. Refer to mitigation measure Air-2B for dust control measures during construction. vii. Night lighting shall be avoided during construction. Any necessary lighting shall be shielded to minimize temporary lighting of the surrounding habitat. viii. A biological monitor shall be present on-site on at least a weekly basis during rough grading to ensure that the fenced construction limits are not exceeded. vii. Permanent lighting adjacent to natural habitat areas shall be selectively placed, shielded and directed to minimize impacts to sensitive wildlife.	
Riparian Habitat and Other Sensitive Natural Communities	The Area 9/2 Housing Project would directly impact remnant areas of mule fat scrub located on the southern border of the project site, but would not indirectly impact any sensitive habitats.	S	***LRDP MM*** ***Bio-3A*** For future projects that implement the 2007 LRDP and are located on sites containing mule fat scrub or herbaceous wetland habitats, UCI shall retain a qualified biologist to conduct a survey of these habitats. If project-level surveys determine that mule fat scrub riparian habitat and/or herbaceous wetland habitat may be impacted by the project, then mitigation measures Bio-3B and 3C shall be implemented. ***Bio-3B*** For future projects that implement the 2007 LRDP and could impact mule fat scrub riparian habitat and/or herbaceous wetland habitats as determined by mitigation measure Bio-3A, design features shall be considered to avoid and/or minimize direct impacts to these sensitive vegetation communities, to the extent feasible. If it is not feasible to avoid these impacts, then mitigation measure Bio-3C shall be implemented. ***Bio-3C*** For future projects that implement the 2007 LRDP and would impact mule fat scrub riparian habitat and/or herbaceous wetland habitat, if these areas contain jurisdictional wetlands, all	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			necessary regulatory permits shall be obtained and impacts shall be mitigated through implementation of Mitigation Measure Bio 4A. If no jurisdictional wetlands are present, impacts to mulefat scrub riparian habitat and/or herbaceous wetland habitat of greater than 0.1 acre shall be mitigated at ratios of 1:1 through habitat creation, restoration, or enhancement. Mitigation shall occur within dedicated campus open space areas where feasible, or at off-campus locations if on-site mitigation is not feasible. A qualified biologist shall assist in preparation, implementation, and monitoring of a habitat restoration plan, identifying the site preparation and installation requirements, establishment, monitoring, and long term management of the mitigation areas. Impacts to less than 0.1 acre of these habitat types, where no jurisdictional wetlands are present, would not require mitigation. ***Bio-3D*** As early as possible in the planning process for future projects that implement the 2007 LRDP and are adjacent to designated campus open space areas containing riparian or wetland vegetation, UCI shall ensure that the projects include a 50-foot setback from the flow line, to the extent practicable. Implementation of mitigation measure Bio-1A would reduce the indirect impacts to sensitive vegetation communities to a level of Less than Significant.	
Wetlands	The Area 9/2 Housing Project would directly impact remnant areas of mule fat scrub located on the southern border of the project site, which is protected under the Clean Water Act.	S	***Bio-4A*** For future projects that implement the 2007 LRDP and are located on sites containing (or within 50 feet of) wetlands or other jurisdictional areas, or on sites containing (or within 25 feet of) a natural drainage course, UCI shall retain a qualified biologist to prepare a jurisdictional delineation. The jurisdictional delineation shall identify the presence of any areas that are subject to USACE, CDFG, or RWQCB jurisdiction, and the potential for the project to adversely affect these jurisdictional areas. If there is potential for the project to adversely affect jurisdictional areas all necessary regulatory permits shall be obtained and impacts shall be avoided or mitigated through implementation of mitigation measures established through consultation with regulatory agencies and as specified in the final regulatory permits and conditions.	LS
Wildlife Movement Corridors	Implementation of the Area 9/2 Housing Project would not interfere with wildlife movement corridors or impede movement of native species.	None	No mitigation is required.	N/A

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
4.4 Cultural Resources				
Archaeological Resources	While no resources are know to occur on-site, unrecorded subsurface archaeological resources have the potential to occur.	S	***LRDP MM*** ***Cul-1C*** In the event of an unexpected archeological discovery during grading, the on-site construction supervisor shall redirect work away from the location of the archaeological find. A qualified archaeologist shall oversee the evaluation and recovery of archaeological resources, in accordance with mitigation measures Cul-1A and Cul-1B, after which the on-site construction supervisor shall be notified and shall direct work to continue in the location of the archaeological find. A record of monitoring activity shall be submitted to CEP each month and at the end of monitoring.	LS
Historical Resources	There are no historical resources on the project site.	None	No mitigation is required.	N/A
Human Remains	Human remains are unlikely to occur under the project site; however, because human remains have been discovered in the vicinity of UCI, the project may uncover unknown remains.	LS	No mitigation is required.	N/A
Paleontological Resources	Implementation of the proposed project has the potential to impact unique paleontological resources during construction activities.	S	***LRDP MM*** ***Cul-4A*** Prior to grading or excavation for future projects that implement the 2007 LRDP and would excavate sedimentary rock material other than topsoil, UCI shall retain a qualified paleontologist to monitor these activities. In the event fossils are discovered during grading, the on-site construction supervisor shall be notified and shall redirect work away from the location of the discovery. The recommendations of the paleontologist shall be implemented with respect to the evaluation and recovery of fossils, in accordance with mitigation measures Cul-4B and Cul-4C, after which the on-site construction supervisor shall be notified and shall direct work to continue in the location of the fossil discovery. A record of monitoring activity shall be submitted to UCI each month and at the end of monitoring. ***Cul-4B*** If the fossils are determined to be significant, then mitigation measure Cul-4C shall be implemented. ***Cul-4C*** For significant fossils as determined by mitigation measure Cul-4B, the paleontologist shall prepare and implement a data recovery plan. The plan shall include, but not be limited to, the following measures: a. The paleontologist shall ensure that all significant fossils collected are cleaned, identified, catalogued, and permanently curated with an appropriate institution with a research interest in the materials (which may include UCI);	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			b. The paleontologist shall ensure that specialty studies are completed, as appropriate, for any significant fossil collected; and c. The paleontologist shall ensure that curation of fossils are completed in consultation with UCI. A letter of acceptance from the curation institution shall be submitted to UCI.	
4.5 Geology and Soils				
Exposure to Seismic-Related Hazards	The Area 9/2 Housing Project site is considered to be prone to seismic hazards and would comply with the California Building Code and UC Seismic Safety Policy to reduce seismic related hazards to people and structures.	LS	No mitigation is required.	N/A
Soil Erosion or Topsoil Loss	Because of CBC and NPDES permit requirements, the Area 9/2 Housing Project would not likely result in increased erosion associated with construction activities.	LS	No mitigation is required.	N/A
Soil Instability	Due to unsuitable soils for structures, the Area 9/2 Housing Project could result in impacts due to soils instability.	LS	No mitigation is required.	N/A
Expansive Soils	Expansive soils are located throughout the project area and would be removed during site preparation.	LS	No mitigation is required.	N/A
4.6 Hazards and Hazardous Materials				
Transport, Use, and Disposal of Hazardous Materials	The Area 9/2 Housing Project would result in minimal transport, use, or disposal of hazardous materials.	LS	No mitigation is required.	N/A
Accidental Releases	The Area 9/2 Housing Project could use minimal hazardous materials and the potential for an accidental release is low.	LS	No mitigation is required.	N/A
Hazards to Nearby Schools	Although the project site is within one-quarter mile of existing schools; no activities that involve hazardous materials would be associated with the Area 9/2 Housing Project.	LS	No mitigation is required.	N/A
Listed Hazardous Materials Sites	No closed or active hazardous material sites are located on or near the project site and there is a low potential for unrecorded contamination to occur on the project site.	LS	No mitigation is required.	N/A
Hazards from Nearby Airports	Activities from John Wayne Airport are not likely to pose safety hazards to development of the Area 9/2 Housing Project.	LS	No mitigation is required.	N/A

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
Emergency Response And Evacuation Plans	Temporary road closures or detours associated with construction of the proposed Area 9/2 Housing Project could require alternate emergency response or evacuation routes.	S	***LRDP MM*** ***Haz-6A*** Prior to initiating on-site construction for future projects that implement the 2007 LRDP and would involve a lane or roadway closure, the construction contractor and/or UCI Design and Construction Services shall notify the UCI Fire Marshal. If determined necessary by the UCI Fire Marshal, local emergency services shall be notified of the lane or roadway closure by the Fire Marshal.	LS
Wildland Fires	The Area 9/2 Housing Project would employ fire protection measures to reduce the impact of wildland fire.	LS	No mitigation is required.	N/A
4.7 Hydrology and Water Quality				
Drainage and Hydrology	Implementation of the Area 9/2 Housing Project would have the potential to substantially alter drainages and hydrology which could increase runoff volumes, but compliance with NPDES requirements would reduce impacts from flooding and erosion. In addition, estimated runoff volumes would not exceed the capacity of the existing storm water drainage system.	LS	No mitigation is required.	N/A
Water Quality	Implementation of the proposed project would generate urban runoff pollutants that could violate waste discharge requirements.	S	***LRDP MM*** ***Hyd-2B*** Prior to design approval for the Area 9/2 Housing Project, UCI shall ensure that the project includes the design features listed below, or their equivalent. Equivalent design features may be applied consistent with applicable MS4 permits (UCI's SWMP) at that time. All applicable design features shall be incorporated into project development plans and construction documents; shall be operational at the time of project occupancy; and shall be maintained by UCI. i. All new storm drain inlets and catch basins within the project site shall be marked with prohibitive language and/or graphical icons to discourage illegal dumping per UCI standards. ii. Outdoor areas for storage of materials that may contribute pollutants to the storm water conveyance system shall be covered and protected by secondary containment. iii. Permanent trash container areas shall be enclosed to prevent off-site transport of trash, or drainage from open trash container areas shall be directed to the sanitary sewer system. iv. At least one treatment control is required for new parking areas or structures, or for any other new uses identified by UCI as having the potential to generate substantial pollutants. Treatment controls include, but are not limited to, detention basins, infiltration basins, wet ponds or wetlands,	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			bio-swales, filtration devices/inserts at storm drain inlets, hydrodynamic separator systems, increased use of street sweepers, pervious pavement, native California plants and vegetation to minimize water usage, and climate controlled irrigation systems to minimize overflow. Treatment controls shall incorporate volumetric or flow-based design standards to mitigate (infiltrate, filter, or treat) storm water runoff, as appropriate.	
Seiches, Tsunamis, and Mudflows	Implementation of the proposed project would not expose people or structures to tsunami because of the project site's distance and elevation from the coastline.	None	No mitigation is required.	N/A
4.8 Land Use and Planning				
Applicable Land Use Plans, Policies, and Regulations	Implementation of the Area 9/2 Housing Project would not result in inconsistencies with applicable land use plans, policies, or regulations.	None	No mitigation is required.	N/A
Incompatibilities with Adjacent Land Uses	Implementation of the Area 9/2 Housing Project would not result in incompatibilities between campus development and adjacent community land uses.	None	No mitigation is required.	N/A
4.9 Noise				
Permanent Increases in Ambient Noise	Project-generated traffic would not subject residents of the proposed project nor residents of the surrounding area to substantial increase in ambient noise levels and noise from future traffic volumes on Bonita Canyon Drive would not significantly impact the proposed project.	LS	No mitigation is required.	N/A
Temporary Increases in Ambient Noise	Construction activities associated with development of the Area 9/2 Housing Project would result in temporary increases in ambient noise levels.	S	***LRDP MM Noi-2A*** Prior to initiating on-site construction for future projects that implement the 2007 LRDP, UCI shall approve contractor specifications that include measures to reduce construction/demolition noise to the maximum extent feasible. These measures shall include, but are not limited to, the following: i. Noise-generating construction activities occurring Monday through Friday shall be limited to the hours of 7:00 am to 7:00 pm, except during summer, winter, or spring break at which construction may occur at the times approved by UCI. ii. Noise-generating construction activities occurring on weekends in the vicinity of (can be heard from) off-campus land uses shall be limited to the hours of 9:00 am to 6:00 pm on Saturdays, with no construction occurring on Sundays or holidays.	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			iii. Noise-generating construction activities occurring on weekends in the vicinity of (can be heard from) on-campus residential housing shall be limited to the hours of 9:00 am to 6:00 pm on Saturdays, with no construction on Sundays or holidays. However, as determined by UCI, if on-campus residential housing is unoccupied (during summer, winter, or spring break, for example), or would otherwise be unaffected by construction noise, construction may occur at any time. iv. Construction equipment shall be properly outfitted and maintained with manufacturer recommended noise-reduction devices to minimize construction-generated noise. v. Stationary construction noise sources such as generators, pumps or compressors shall be located at least 100 feet from noise-sensitive land uses (i.e., campus housing, classrooms, libraries, and clinical facilities), as feasible. vi. Laydown and construction vehicle staging areas shall be located at least 100 feet from noise-sensitive land uses (i.e., campus housing, classrooms, libraries, and clinical facilities), as feasible. vii. All neighboring land uses that would be subject to construction noise shall be informed at least two weeks prior to the start of each construction project, except in an emergency situation. viii. Loud construction activity such as jackhammering, concrete sawing, asphalt removal, pile driving, and large-scale grading operations occurring within 600 feet of a residence or an academic building shall not be scheduled during any finals week of classes. A finals schedule shall be provided to the construction contractor.	
Exposure to Aircraft Noise	Implementation of the Area 9/2 Housing Project would not expose people residing or working in the project area to noise from aircraft.	LS	No mitigation is required.	N/A
Excessive Groundborne Vibration or Noise	Implementation of the Area 9/2 Housing Project could result in groundborne vibration from construction activities that might affect residences and sensitive equipment.	S	***LRDP MM*** ***Noi-4A*** Prior to initiating on-site construction for future projects that implement the 2007 LRDP and are located within 100 feet of vibration-sensitive uses (i.e., buildings containing vibration-sensitive instruments or operations, or buildings that are considered vibration sensitive due to their age, construction type and/or fragile condition), UCI shall approve a construction vibration mitigation program as part of the contractor specifications that includes	LS

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
			measures to reduce vibration resulting from construction activities to the maximum extent practicable. The program shall include measures to establish baseline vibration conditions, vibration monitoring, work methods or equipment necessary to reduce vibration, and a pre-construction notification process for impacted building occupants (six-month and one-month interval prior to construction). If pile driving is proposed, building occupants within 600 feet of the pile-driving site shall be notified of construction at six-month and one-month intervals prior to the start of construction.	
4.10 Population and Housing				
Inducement of Substantial Population Growth	The Area 9/2 Housing Project is part of UCI's response to statewide population growth, and is part of the 2007 LRDP's planned growth of the campus.	LS	No mitigation is required.	N/A
Indirect Inducement of Substantial Population Growth	The Area 9/2 Housing Project would result in immeasurable or no indirect inducement of population growth beyond the campus.	None	No mitigation is required.	N/A
Displacement of Housing	The Area 9/2 Housing Project would not displace existing housing.	None	No mitigation is required.	N/A
Displacement of People	The Area 9/2 Housing Project would not displace people living on or off campus.	None	No mitigation is required.	N/A
4.11 Public Services				
Fire Protection	Implementation of the Area 9/2 Housing Project is not likely to result in increased demand for fire service which could contribute to the need for new or physically altered fire protection facilities, the construction of which could cause an adverse physical environmental effect.	LS	No mitigation is required.	N/A
Police Protection	Implementation of the Area 9/2 Housing Project is not likely to result in increased demand for police service that would require new facilities that could result in a significant physical impact to the environment.	LS	No mitigation is required.	N/A
Public Schools	Implementation of the Area 9/2 Housing Project could contribute to demand for local public schools; however, it is unlikely that new or altered school facilities would be necessary.	LS	No mitigation is required.	N/A
4.12 Recreation				
Deterioration of Parks and Recreational Facilities	The Area 9/2 Housing Project would increase use of on- and off- campus recreational facilities. However, substantial deterioration of the facilities is not anticipated.	LS	No mitigation is required.	N/A
Construction of New Recreational Facilities	The Area 9/2 Housing Project would construct connections to existing trails and bicycle paths which would not have an adverse physical effect on the environment.	LS	No mitigation is required.	N/A

Issue	Impact	Significance Before Mitigation	Mitigation Measure(s)	Significance After Mitigation
4.13 Transportation, Traffic, and Parking				
Increases in Traffic	Implementation of the Area 9/2 Housing Project would generate traffic consistent with overall campus-wide growth as discussed in the 2007 LRDP EIR. Construction could affect local street traffic near the site.	LS	No mitigation required.	N/A
Parking Capacity	Implementation of the proposed project would not result in the elimination of parking and or impact parking capacity on or off-campus.	None	No additional mitigation is required.	N/A
Alternative Transportation Plans, Policies, and Programs	Implementation of the Area 9/2 Housing Project is not likely to conflict with adopted policies, plans, or programs supporting alternative transportation.	None	No additional mitigation is required.	N/A
4.14 Utilities, Service Systems, and Energy				
Wastewater Treatment	Because the Area 9/2 Housing Project is under the 2007 LRDP, the proposed project would not result in impacts to wastewater treatment.	LS	No mitigation is required.	N/A
New Water or Wastewater Facilities	The proposed Area 9/2 Housing Project would not result in the development of new water and wastewater facilities.	None	No mitigation is required.	N/A
Impacts from New Storm Water Facilities	Implementation of the proposed project could cause the capacity of storm water facilities to be exceeded and result in the need to construct or expand existing facilities.	S	Implementation of 2007 LRDP mitigation measure Hyd-1A, discussed above in Section 4.7.3.1would reduce the potentially significant impacts associated with storm water facility capacity to a less than significant level.	LS
Water Supply Availability	The IRWD's UWMP can accommodate campus growth.	LS	No mitigation is required.	N/A
Landfill Capacity	Solid waste disposal needs would be served by adequate existing and planned future landfill capacity in the County of Orange.	LS	No mitigation is required.	N/A
Applicable Solid Waste Regulations	Implementation of the proposed project would not result in UCI's failure to comply with relevant regulations regarding solid waste.	None	No mitigation is required.	N/A
Energy Consumption	Implementation of the proposed project would create additional demand for energy which would likely require development of new facilities, but would not result in the wasteful, inefficient, or unnecessary use of energy.	LS	No mitigation is required.	N/A

SU = Significant, unavoidable; S = Significant; LS = Less than Significant;
* Cumulative impacts and mitigation measure are summarized in Table 2-2.

UNIVERSITY OF CALIFORNIA, IRVINE 2007 LONG RANGE DEVELOPMENT PLAN MITIGATION MONITORING AND REPORTING PROGRAM

The California Environmental Quality Act (CEQA) requires that a Lead Agency establish a program to monitor and report on mitigation measures adopted as part of the environmental review process to avoid or reduce the severity and magnitude of potentially significant environmental impacts associated with project development. The CEQA guidelines (Section 15097 [a]) require that a mitigation monitoring and reporting program be adopted upon certification of an Environmental Impact Report (EIR) or Mitigated Negative Declaration (MND) to ensure mitigation measures identified in the EIR or MND are implemented.

The Mitigation Monitoring Program (MMRP) for the UCI 2007 Long Range Development Plan is presented as a table and includes, verbatim, the mitigation measures identified in the Final Environmental Impact Report. The campus may modify how it will implement a mitigation measure, as long as the mitigation achieves the same or greater attenuation of the impact. The MMRP also describes implementation and monitoring procedural guidance, responsibilities, and timing for each mitigation measure, including:

- Responsible Party: Assigns responsibility for implementation of mitigation measures.
- Mitigation Timing: Identifies the timing for implementation of each action.
- Monitoring and Reporting Procedure: Includes the parties responsible for documenting the mitigation implementation efforts.

The responsibilities of mitigation implementation, monitoring, and reporting extend to numerous UCI departments and offices. UCI Campus and Environmental Planning is responsible for the overall administration of the program and assisting relevant offices with their reporting responsibilities to assure they understand their charge and complete their procedures accurately and on schedule.

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Number	Mitigation Measure	Responsible Party	Mitigation Timing	Monitoring and Reporting Procedure
4.1 Aesthetics				
Aes-1A	Prior to project design approval for future projects that implement the 2007 LRDP and are located in the South Campus, in the vicinity of Bonita Canyon Drive, UCI shall ensure that the projects include design features to minimize visual impacts from off-campus areas. These design features shall include, but are not limited to, the following: i. A 50-foot wide (minimum) landscaped buffer located along the edge of the campus along the project frontage; ii. Building mass and/or proportions, and exterior treatments and/or colors, that are compatible with the surrounding development and visual character; and iii. Project landscape design that reduces visual impacts and integrates the project into the visual landscape.	CEP	Prior to project design approval[(1)]	CEP to confirm Design Review Team review and approval[2)]
Aes-2A	Prior to project design approval for future projects that implement the 2007 LRDP, UCI shall ensure that the projects include design features to minimize glare impacts. These design features shall include use of non-reflective exterior surfaces and low-reflectance glass (e.g., double or triple glazing glass, high technology glass, low-E glass, or equivalent materials with low reflectivity) on all project surfaces that could produce glare.	CEP	Prior to project design approval[(1)]	
Aes-2B	Prior to approval of construction documents for future projects that implement the 2007 LRDP, UCI shall approve an exterior lighting plan for each project. In accordance with *UCI's Campus Standards and Design Criteria* for outdoor lighting, the plan shall include, but not be limited to, the following design features: i. Full-cutoff lighting fixtures to direct lighting to the specific location intended for illumination (e.g., roads, walkways, or recreation fields) and to minimize stray light spillover into adjacent residential areas, sensitive biological habitat, and other light-sensitive receptors; ii. Appropriate intensity of lighting to provide campus safety and security while minimizing light pollution and energy consumption; and iii. Shielding of direct lighting within parking areas, parking structures, or roadways away from adjacent residential areas, sensitive biological habitat, and other light-sensitive receptors through site configuration, grading, lighting design, or barriers such as earthen berms, walls, or landscaping.	CEP	During design development	CEP to confirm and document policy and guideline compliance
4.2 Air Quality				
Air-2A	During project level environmental review of future projects that implement the 2007 LRDP and that could result in a significant air quality impact from construction emissions, UCI shall retain a qualified air quality specialist to prepare an air quality assessment of the anticipated project-related construction emissions. The assessment shall quantify the project's estimated construction emissions with and without implementation of applicable Best Management Practices (BMPs) listed in mitigation measure Air-2B and compare them with established SCAQMD significance thresholds. In addition, the air quality assessment shall include analysis of temporal phasing as a means of reducing construction emissions.	CEP	During environmental review	CEP to review and approve air quality assessment

Number	Mitigation Measure	Responsible Party	Mitigation Timing	Monitoring and Reporting Procedure
	If the estimated construction emissions are under SCAQMD's significance thresholds or if mitigation measure Air-2B would reduce emissions to below established thresholds, then the project's direct impact to air quality would be less than significant and no additional mitigation would be required. If the project's construction emissions would exceed established thresholds with implementation of applicable BMPs listed in mitigation measure Air-2B, and no additional mitigation to reduce the emissions below the threshold is feasible, then the project's direct impact to air quality would remain significant following mitigation.			
Air-2B	Prior to initiating on-site construction for future projects that implement the 2007 LRDP, UCI shall ensure that the project construction contract includes a construction emissions mitigation plan, including measures compliant with SCAQMD Rule 403 (Fugitive Dust) to be implemented and supervised by the on-site construction supervisor, which shall include, but not be limited to, the following Best Management Practices (BMPs): i. During grading and site preparation activities, exposed soil areas shall be stabilized via frequent watering, non-toxic chemical stabilization, or equivalent measures at a rate to be determined by the on-site construction supervisor. ii. During windy days when fugitive dust can be observed leaving the construction site, additional applications of water shall be required at a rate to be determined by the on-site construction supervisor. iii. Disturbed areas designated for landscaping shall be prepared as soon as possible after completion of construction activities. iv. Areas of the construction site that will remain inactive for three months or longer following clearing, grubbing and/or grading shall receive appropriate BMP treatments (e.g., revegetation, mulching, covering with tarps, etc.) to prevent fugitive dust generation. v. All exposed soil or material stockpiles that will not be used within 3 days shall be enclosed, covered, or watered twice daily, or shall be stabilized with approved non-toxic chemical soil binders at a rate to be determined by the on-site construction supervisor. vi. Unpaved access roads shall be stabilized via frequent watering, non-toxic chemical stabilization, temporary paving, or equivalent measures at a rate to be determined by the on-site construction supervisor. vii. Trucks transporting materials to and from the site shall allow for at least two feet of freeboard (i.e., minimum vertical distance between the top of the load and the top of the trailer). Alternatively, trucks transporting materials shall be covered. viii. Speed limit signs at 15 mph or less shall be installed on all unpaved roads within construction sites. ix. Where visible soil material is tracked onto adjacent public paved roads, the paved roads shall be swept and debris shall be returned to the construction site or transported off site for disposal. x. Wheel washers, dirt knock-off grates/mats, or equivalent measures shall be installed within the construction site where vehicles exit unpaved roads onto paved roads. xi. Diesel powered construction equipment shall be maintained in accordance with manufacturer's requirements, and shall be retrofitted with diesel particulate filters where available and practicable. xii. Heavy duty diesel trucks and gasoline powered equipment shall be turned off if idling is anticipated to last for more than 5 minutes. xiii. Where feasible, the construction contractor shall use alternatively fueled construction equipment, such as electric or natural gas-powered equipment or biofuel.	D&CS	Prior to commencement of construction activities and during construction	D&CS to develop and implement plan CEP to confirm and monitor v

Number	Mitigation Measure	Responsible Party	Mitigation Timing	Monitoring and Reporting Procedure
	xiv. Heavy construction equipment shall use low NO_x diesel fuel to the extent that it is readily available at the time of construction. xv. To the extent feasible, construction activities shall rely on the campus's existing electricity infrastructure rather than electrical generators powered by internal combustion engines. xvi. The construction contractor shall develop a construction traffic management plan that includes the following: • Scheduling heavy-duty truck deliveries to avoid peak traffic periods • Consolidating truck deliveries xvii. Where possible, the construction contractor shall provide a lunch shuttle or on-site lunch service for construction workers. xviii. The construction contractor shall, to the extent possible, use pre-coated architectural materials that do not require painting. Water-based or low VOC coatings shall be used that are compliant with SCAQMD Rule 1113. Spray equipment with high transfer efficiency, such as the high volume-low pressure spray method, or manual coatings application shall be used to reduce VOC emissions to the extent possible. xix. Project constructions plans and specifications will include a requirement to define and implement a work program that would limit the emissions of reactive organic gases (ROG's) during the application of architectural coatings to the extent necessary to keep total daily ROG's for each project to below 75 pounds per day, or the current SCAQMD threshold, throughout that period of construction activity to the extent feasible. The specific program may include any combination of restrictions on the types of paints and coatings, application methods, and the amount of surface area coated as determined by the contractor. xx. The construction contractor shall maintain signage along the construction perimeter with the name and telephone number of the individual in charge of implementing the construction emissions mitigation plan, and with the telephone number of the SCAQMD's complaint line. The contractor's representative shall maintain a log of public complaints and corrective actions taken to resolve complaints.			
Air-2C	UCI shall ensure that operational air emissions, including area sources, stationary sources, and vehicular emissions, are reduced to the extent possible via the following mitigation measures: i. UCI shall continue to implement and expand its alternative transportation program by continuing to assess new opportunities, programs, and technologies to reduce vehicular trips. This program shall consider the following elements: • Significant incentives aimed to expand UCI vanpool, carpool, and other ridesharing programs; • Significant incentives aimed to expand UCI public transit use off campus; • Promotion of Express Bus service in the campus vicinity and Express Bus service routes from key UCI commuter locations off campus; • Expansion of campus shuttle and other campus transit systems, including point-to-point shuttles with expanded routes and operations to key destinations, and coordination of the on-campus transit systems with existing and future public transit systems off campus to accommodate routes, transit stops, stations, and other programs and projects as deemed appropriate, including community transit programs in the City of Irvine and City of Newport Beach;	PTS/CEP/FM	Ongoing	Individual departments are responsible for record-keeping and providing to CEP

Number	Mitigation Measure	Responsible Party	Mitigation Timing	Monitoring and Reporting Procedure
	• Expansion of UCI bike programs and bicycle infrastructure, including expanded bikeways, BikePorts, and Bike Service Stations; and • Support of alternative transportation organizations. ii. All stationary sources shall comply with the applicable SCAQMD Rules and Regulations, including New Source Review, Best Available Control Technology, and source-specific requirements. Stationary sources shall employ state-of-the-art controls, where applicable, to reduce air emissions to the extent possible. iii. Emissions from area sources (e.g., cooling and heating systems, landscaping, consumer products, etc.) shall be reduced to the extent possible through implementation of UCI's energy efficiency programs. Energy-saving measures include using central plant cooling and heating systems for buildings in the Academic Core; orienting buildings to the north for natural cooling and heating; implementing the UCI standard to exceed Title 24 energy efficiency by 20% or more; and increasing insulation in building walls and attics beyond Title 24 requirements.			
4.3 Biological Resources				
Bio-1A	Prior to initiating on-site construction for future projects that implement the 2007 LRDP and involve land clearing, grading, or similar land development activities adjacent to designated habitat areas including the UCI NCCP Reserve Area, and San Joaquin Freshwater Marsh Reserve (SJFMR), UCI shall retain a qualified biologist to conduct a sensitive plant survey of the respective areas within 150 feet of the approved limits of disturbance. If sensitive plant species are detected from the survey, then UCI shall approve contractor specifications that include measures to reduce indirect construction and post-construction impacts to the identified species, to the maximum extent feasible. These measures shall include, but are not limited to, the following: i. A pre-construction meeting shall be held to ensure that construction crews are informed of the sensitive plants in the vicinity of the construction site. Prior to commencement of clearing or grading activities, a biologist (or other qualified person) shall supervise the installation of temporary construction fencing along the approved limits of disturbance to discourage errant intrusions into the identified sensitive plants by construction vehicles or personnel. All construction access and circulation shall be limited to designated construction zones. This fencing shall be removed upon completion of construction activities. ii. Storm water treatment and erosion control measures or facilities shall be maintained in a manner that avoids the discharge of polluted runoff and erosion impacts to the identified sensitive plants. In areas that have been set aside as mitigation for project impacts or are known to support species listed as threatened or endangered, the work shall be overseen by a qualified biologist. iii. Refer to mitigation measure Air-2B for dust control measures during construction. iv. Staging areas for equipment and materials shall be located at least 50 feet from the identified sensitive plants. During and after construction, the proper use and disposal of oil, gasoline, diesel fuel, antifreeze, and other toxic substances shall be enforced. v. Equipment to extinguish small brush fires (such as from trucks or other vehicles) shall be present on-site during all construction phases, along with personnel trained in the use of such equipment. Smoking shall be prohibited in construction areas adjacent to flammable vegetation. vi. A biological monitor shall be present on-site on at least a weekly basis during rough grading to ensure that the fenced construction limits are not exceeded.	CEP	Prior to construction	CEP to coordinate surveys. and confirm that measures are incorporates into project design

Number	Mitigation Measure	Responsible Party	Mitigation Timing	Monitoring and Reporting Procedure
	vii. Irrigation for project landscaping shall be minimized and controlled in areas adjacent to the identified sensitive plants through measures such as designing irrigation systems to match landscaping water needs, satellite-controlled timers, water management systems, and automatic flow reducers/shut-off valves that are triggered by a drop in water pressure from broken sprinkler heads or pipes. To the extent practicable, drainage from development areas shall be directed away the identified sensitive plants. If this is not feasible, then energy dissipation measures shall be installed at the drainage outlets in the vicinity of the identified sensitive plants to prevent erosive flow velocities. viii. Invasive species shall not be used in landscaped areas in the immediate vicinity of the identified sensitive plants. ix. Integrated Pest Management principles shall be implemented in landscaped and revegetation areas adjacent to the identified sensitive plants for chemical pesticides, herbicides and fertilizers, through alternative weed/pest control measures (e.g., hand removal) and proper application techniques (e.g., conformance to manufacturer specifications and legal requirements).			
Bio-2A	Prior to initiating on-site construction for future projects in the east campus and west campus that implement the 2007 LRDP and involve land clearing, grading, or similar land development activities adjacent to suitable habitat for the western burrowing owl (i.e., large open areas of non-native grassland, ruderal (weedy) areas, and scrub habitat), UCI shall retain a qualified biologist to conduct a burrowing owl survey of the respective habitat areas within 300 feet of the approved limits of disturbance. If occupied burrows are detected from the survey, then they shall not be disturbed during the nesting season (February 1 through August 31) until the biologist verifies through noninvasive methods that either: (1) the birds have not begun egg-laying and incubation; or (2) juveniles from the occupied burrows are foraging independently and are capable of independent survival. If owls must be moved away from the disturbance area, passive relocation is preferable to trapping. A time period of at least one week is recommended to allow the owls to move and acclimate to alternate burrows. When destruction of occupied burrows is unavoidable, relocation burrows shall be created (by installing artificial burrows) at a ratio of 1:1 in suitable foraging habitat. The biologist shall document all findings and results in a report submitted to UCI.	CEP	Prior to construction	CEP to coordinate surveys. D&CS to incorporate into construction documents and CEP to confirm
Bio-2B	Prior to initiating on-site construction for future projects that implement the 2007 LRDP and that involve land clearing, grading, or similar land development activities adjacent to habitat areas identified as suitable for sensitive wildlife species, UCI shall retain a qualified biologist to conduct a sensitive wildlife survey of the respective areas within 150 feet of the approved limits of disturbance. If sensitive wildlife species are detected from the survey, then UCI shall approve contractor specifications that include measures to reduce indirect construction and post-construction impacts to the identified species, to the maximum extent feasible. These measures shall include, but are not limited to, the following: i. A pre-construction meeting shall be held to ensure that construction crews are informed of the sensitive wildlife and habitats in the vicinity of the construction site. Prior to commencement of clearing or grading activities, a biologist (or other qualified person) shall supervise the installation of temporary construction fencing along the approved limits of disturbance to discourage errant intrusions into the identified sensitive wildlife habitats by construction vehicles or personnel. All construction access and circulation shall be limited to designated construction zones. This fencing shall be removed upon completion of construction activities. ii. If suitable habitat for raptors or protected bird species is present and raptors or protected bird species are observed in the vicinity, the pre-construction surveys for active nests shall be performed within 30 calendar days prior to commencement of clearing or grading activities during the breeding season for	D&CS/CEP	Prior to construction	CEP to coordinate surveys. D&CS to incorporate into construction documents and CEP to confirm

Number	Mitigation Measure	Responsible Party	Mitigation Timing	Monitoring and Reporting Procedure
	raptors and protected bird species (generally February 1 through August 31) at locations where suitable nesting habitat exists within 500 feet of the approved limits of disturbance. Construction activities within 500 feet of active raptor nests (300 feet for protected bird species) shall be monitored by the biologist and modified as directed by the biologist until the biologist determines that the nest is no longer active. Construction activity may encroach into the 500-foot buffer area only at the discretion of the biologist. iii. Refer to mitigation measure Noi-2A for noise abatement measures during construction. iv. Storm water treatment and erosion control measures or facilities shall be maintained in a manner that avoids the discharge of polluted runoff and erosion impacts to the identified sensitive plants. v. Refer to mitigation measure Air-2B for dust control measures during construction. vi. Night lighting shall be avoided during construction.. Any necessary lighting shall be shielded to minimize temporary lighting of the surrounding habitat. vii. A biological monitor shall be present on-site on at least a weekly basis during rough grading to ensure that the fenced construction limits are not exceeded. viii. Permanent lighting adjacent to natural habitat areas shall be selectively placed, shielded, and directed to minimize impacts to sensitive wildlife.			
Bio-3A	For future projects that implement the 2007 LRDP and are located on sites containing mule fat scrub or herbaceous wetland habitats, UCI shall retain a qualified biologist to conduct a survey of these habitats. If project-level surveys determine that mule fat scrub riparian habitat and/or herbaceous wetland habitat may be impacted by the project, then mitigation measures Bio-3B and 3C shall be implemented.	CEP	During environmental review	CEP to confirm that determination was made and was specified in environmental analysis
Bio-3B	For future projects that implement the 2007 LRDP and could impact mule fat scrub riparian habitat and/or herbaceous wetland habitats as determined by mitigation measure Bio-3A, design features shall be considered to avoid and/or minimize direct impacts to these sensitive vegetation communities, to the extent feasible. If it is not feasible to avoid these impacts, then mitigation measure Bio-3C shall be implemented.	CEP	Prior to construction	CEP to determine feasibility of avoidance
Bio-3C	For future projects that implement the 2007 LRDP and would impact mule fat scrub riparian habitat and/or herbaceous wetland habitat, if these areas contain jurisdictional wetlands, all necessary regulatory permits shall be obtained and impacts shall be mitigated through implementation of Mitigation Measure Bio 4A. If no jurisdictional wetlands are present, impacts to mule fat scrub riparian habitat and/or herbaceous wetland habitat of greater than 0.1 acre shall be mitigated at ratios of 1:1 through habitat creation, restoration, or enhancement. Mitigation shall occur within dedicated campus open space areas where feasible, or at off-campus locations if on-site mitigation is not feasible. A qualified biologist shall be retained to assist in preparation, implementation, and monitoring of a habitat restoration plan, identifying the site preparation and installation requirements, establishment, monitoring, and long term management of the mitigation areas. Impacts to less than 0.1 acre of these habitat types, where no jurisdictional wetlands are present, would not require mitigation.	CEP	Prior to construction	CEP to review and approve habitat restoration plan; D&CS to incorporate in construction documents and CEP to confirm
Bio-3D	As early as possible in the planning process for future projects that implement the 2007 LRDP and are adjacent to designated campus open space areas containing riparian or wetland vegetation, UCI shall ensure that the projects include a 50-foot setback from the flow line, to the extent practicable.	D&CS/ CEP	Prior to design approval[(1)]	D&CS to incorporate in construction documents and CEP to confirm

Number	Mitigation Measure	Responsible Party	Mitigation Timing	Monitoring and Reporting Procedure
Bio-4A	For future projects that implement the 2007 LRDP and are located on sites containing (or within 50 feet of) wetlands or other jurisdictional areas, or on sites containing (or within 25 feet of) a natural drainage course, UCI shall retain a qualified biologist to prepare a jurisdictional delineation. The jurisdictional delineation shall identify the presence of any areas that are subject to USACE, CDFG, or RWQCB jurisdiction, and the potential for the project to adversely affect these jurisdictional areas. If there is potential for the project to adversely affect jurisdictional areas all necessary regulatory permits shall be obtained and impacts shall be avoided or mitigated through implementation of mitigation measures established through consultation with regulatory agencies and as specified in the final regulatory permits and conditions.	CEP	During environmental review Prior to initiating construction	CEP to confirm that determination was made and specified in environmental analysis
4.4 Cultural Resources				
Cul-1A	During preparation of the Initial Study for future projects that implement the 2007 LRDP and are located on sites containing recorded archaeological resources, UCI shall retain a qualified archaeologist to define and survey the area of potential effects (APE) on the project site. The APE shall be based on the extent of ground disturbance and site modification anticipated for the project including an appropriate buffer where specific project boundaries have yet to be established. During the course of project planning, any recorded archaeological sites within the project APE shall be avoided to the extent feasible. If such sites cannot be avoided through project modifications or redesign, then the archeologist shall evaluate all archaeological resources observed within the project APE for significance in accordance with CEQA Guidelines Section 15064.5(c). This evaluation shall also determine the extent of the archaeological resource, if not already established. If an archaeological resource within the project APE is determined to be significant, then mitigation measure Cul-1B shall be implemented.	CEP	Prior to project design approval[(1)]	CEP to confirm completion of assessment in environmental analysis
Cul-1B	Prior to land clearing, grading, or similar land development activities for future projects that implement the 2007 LRDP and would impact a significant archaeological resource as determined by mitigation measure Cul-1A, a qualified archaeologist shall prepare and implement a data recovery plan. The plan shall include, but not be limited to, the following measures: i. Perform appropriate technical analyses; ii. File any resulting reports with the South Coastal Information Center; and iii. Provide the recovered materials to an appropriate repository for curation.	CEP	Prior to and during construction	CEP to confirm implementation of plan
Cul-1C	Prior to land clearing, grading, or similar land development activities for future projects that implement the 2007 LRDP in areas of identified archaeological sensitivity, UCI shall retain a qualified archaeologist (and, if necessary, a culturally-affiliated Native American) to monitor these activities. In the event of an unexpected archeological discovery during grading, the on-site construction supervisor shall be notified and shall redirect work away from the location of the archaeological find. A qualified archaeologist shall oversee the evaluation and recovery of archaeological resources, in accordance with the procedures below, after which the on-site construction supervisor shall be notified and shall direct work to continue in the location of the archaeological find. A record of monitoring activity shall be submitted to UCI each month and at the end of monitoring. If the archaeological discovery is determined to be significant, the archaeologist shall prepare and implement a data recovery plan. The plan shall include, but not be limited to, the following measures: i. Perform appropriate technical analyses;	D&CS / CEP	During construction	On-site construction supervisor to notify CEP who will stop/direct work

Number	Mitigation Measure	Responsible Party	Mitigation Timing	Monitoring and Reporting Procedure
	ii. File any resulting reports with the South Coastal Information Center; and iii. Provide the recovered materials to an appropriate repository for curation, in consultation with a culturally-affiliated Native American.			
Cul-2A	During preparation of the Initial Study for future projects that implement the 2007 LRDP, and are located on sites containing facilities that are 50 years of age or older and are potential historic resources, a qualified professional shall define and survey the Area of Potential Effect (APE) on the project site. The APE shall be based on the extent of ground disturbance and site modification anticipated for the project. If historic resources are present within the project APE, then mitigation measure Cul-2B shall be implemented.	CEP	Prior to project design approval[(1)]	CEP to confirm completion of assessment in environmental analysis
Cul-2B	Before altering or otherwise affecting historic resources within the project APE as determined by mitigation measure Cul-2A, they shall be evaluated for significance by the architectural historian in accordance with CEQA Guidelines Section 15064.5. The evaluation process shall include the development of appropriate historical background research as context for the assessment of the significance of the historic resources in the history of the UC system, UCI, and the region. The historic resources shall be recorded on a California Department of Parks and Recreation DPR 523 form or equivalent documentation. If the historic resources are determined to be significant, then mitigation measure Cul-2C shall be implemented.	CEP	Prior to project design approval[(1)]	CEP to confirm completion of assessment in environmental analysis
Cul-2C	For historic resources determined to be significant as determined by mitigation measure Cul-2B, UCI shall consider measures that would enable the project to avoid direct or indirect impacts to the significant historic resources. For significant historic resources in which avoidance or reuse on-site is not feasible, mitigation measure Cul-2D shall be implemented.	CEP	Prior to project design approval[(1)]	CEP to confirm evaluation of feasibility for avoidance in environmental analysis
Cul-2D	For significant historic resources in which avoidance or reuse on-site is not feasible as determined by mitigation measure Cul-2C, one of the following options shall be implemented: i. Remodeling, renovation, or other alterations to significant historic resources within the project APE shall be conducted in compliance with the "Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings." ii. Prior to relocation or demolition of significant historic resources within the project APE, a qualified professional shall document the resources, including any buildings, associated landscaping and setting. Documentation shall include still and video photographs (to be provided on a CD-ROM) and a written record in accordance with the standards of the Historic American Building Survey or Historic American Engineering Record, including accurate scaled mapping, architectural descriptions, and scaled architectural plans, if available. The record shall be accompanied by a report containing site-specific history and appropriate contextual information. This information shall be gathered through site-specific and comparative archival research and oral history collection as appropriate. A copy of the record shall be deposited with the UCI archives. iii. As appropriate, include features in the design of the new project that reuse or represent features or the historic building or provide interpretative information on the historic resource.	CEP	Prior to design approval[(1)]	CEP to confirm implementation of plan

Number	Mitigation Measure	Responsible Party	Mitigation Timing	Monitoring and Reporting Procedure
Cul-4A	Prior to grading or excavation for future projects that implement the 2007 LRDP and would excavate sedimentary rock material other than topsoil, UCI shall retain a qualified paleontologist to monitor these activities. In the event fossils are discovered during grading, the on-site construction supervisor shall be notified and shall redirect work away from the location of the discovery. The recommendations of the paleontologist shall be implemented with respect to the evaluation and recovery of fossils, in accordance with mitigation measures Cul-4B and Cul-4C, after which the on-site construction supervisor shall be notified and shall direct work to continue in the location of the fossil discovery. A record of monitoring activity shall be submitted to UCI each month and at the end of monitoring.	D&CS / CEP	During construction and at time of find	Qualified consultant to notify CEP and D&CS who will stop/direct work
Cul-4B	If the fossils are determined to be significant, then mitigation measure Cul-4C shall be implemented.	CEP	At time of find	CEP to retain documentation that procedures were followed
Cul-4C	For significant fossils as determined by mitigation measure Cul-4B, the paleontologist shall prepare and implement a data recovery plan. The plan shall include, but not be limited to, the following measures: i. The paleontologist shall ensure that all significant fossils collected are cleaned, identified, catalogued, and permanently curated with an appropriate institution with a research interest in the materials (which may include UCI); ii. The paleontologist shall ensure that specialty studies are completed, as appropriate, for any significant fossil collected; and iii. The paleontologist shall ensure that curation of fossils are completed in consultation with UCI. A letter of acceptance from the curation institution shall be submitted to UCI.	CEP	When resource determined to be significant	CEP to retain documentation that procedures were followed
4.6 Hazards and Hazardous Materials				
Haz-6A	Prior to initiating on-site construction for future projects that implement the 2007 LRDP and would involve a lane or roadway closure, the construction contractor and/or UCI Design and Construction Services shall notify the UCI Fire Marshal. If determined necessary by the UCI Fire Marshal, local emergency services shall be notified of the lane or roadway closure by the Fire Marshal.	D&CS/PTS	Prior to construction	D&CS to record Fire Marshal notification and notify CEP
Haz-6B	All traffic signals installed on emergency access ways shall include the installation of optical preemption devices for emergency services.	D&CS	During construction	D&CS to report installation to CEP.
Haz-6C	All electronically-operated gates installed within the UCI Campus shall include emergency opening devices, as approved by the Orange County Fire Authority.	D&CS	During construction	D&CS to report installation to CEP.
4.7 Hydrology and Water Quality				
Hyd-1A	As early as possible in the planning process of future projects that implement the 2007 LRDP and would result in land disturbance of 1 acre or greater, and for all development projects occurring on the North Campus in the watershed of the San Joaquin Freshwater Marsh, a qualified engineer shall complete a drainage study. Design features and other recommendations from the drainage study shall be incorporated into project development plans and construction documents. Design features shall be consistent with UCI's Storm Water Management Program, shall be operational at the time of project occupancy, and shall be maintained by UCI. At a minimum, all drainage studies required by this mitigation measure shall include, but not be limited to, the following design features:	D&CS/ CEP	Prior to project design approval[(1)]	D&CS to incorporate into project design, and submit study to CEP for use completing environmental analysis

Number	Mitigation Measure	Responsible Party	Mitigation Timing	Monitoring and Reporting Procedure
	i. Site design that controls runoff discharge volumes and durations shall be utilized, where applicable and feasible, to maintain or reduce the peak runoff for the 10-year, 6-hour storm event in the post-development condition compared to the pre-development condition, or as defined by current water quality regulatory requirements. ii. Measures that control runoff discharge volumes and durations shall be utilized, where applicable and feasible, on manufactured slopes and newly-graded drainage channels, such as energy dissipaters, revegetation (e.g., hydroseeding and/or plantings), and slope/channel stabilizers.			
Hyd-2A	Prior to initiating on-site construction for future projects that implement the 2007 LRDP, UCI shall approve an erosion control plan for project construction. The plan shall include, but not be limited to, the following applicable measures to protect downstream areas from sediment and other pollutants during site grading and construction: i. Proper storage, use, and disposal of construction materials. ii. Removal of sediment from surface runoff before it leaves the site through the use of silt fences, gravel bags, fiber rolls or other similar measures around the site perimeter. iii. Protection of storm drain inlets on-site or downstream of the construction site through the use of gravel bags, fiber rolls, filtration inserts, or other similar measures. iv. Stabilization of cleared or graded slopes through the use of plastic sheeting, geotextile fabric, jute matting, tackifiers, hydro-mulching, revegetation (e.g., hydroseeding and/or plantings), or other similar measures. v. Protection or stabilization of stockpiled soils through the use of tarping, plastic sheeting, tackifiers, or other similar measures. vi. Prevention of sediment tracked or otherwise transported onto adjacent roadways through use of gravel strips or wash facilities at exit areas (or equivalent measures). vii. Removal of sediment tracked or otherwise transported onto adjacent roadways through periodic street sweeping. viii. Maintenance of the above-listed sediment control, storm drain inlet protection, slope/stockpile stabilization measures.	D&CS / CEP	Prior to construction	D&CS to confirm preparation plan, deliver to CEP, and incorporate in construction documents E&HS/CEP to confirm erosion control plan implementation by contractor
Hyd-2B	Prior to project design approval for future projects that implement the 2007 LRDP and would result in land disturbance of 1 acre or more, the UCI shall ensure that the projects include the design features listed below, or their equivalent, in addition to those listed in mitigation measure Hyd-1A. Equivalent design features may be applied consistent with applicable MS4 permits (UCI's Storm Water Management Plan) at that time. All applicable design features shall be incorporated into project development plans and construction documents; shall be operational at the time of project occupancy; and shall be maintained by UCI.	D&CS/EH&S/D&CS	Prior to project design approval[(1)]	D&CS to confirm incorporation in construction documents Notification to CEP and EH&S

Number	Mitigation Measure	Responsible Party	Mitigation Timing	Monitoring and Reporting Procedure
	i. All new storm drain inlets and catch basins within the project site shall be marked with prohibitive language and/or graphical icons to discourage illegal dumping per UCI standards. ii. Outdoor areas for storage of materials that may contribute pollutants to the storm water conveyance system shall be covered and protected by secondary containment. iii. Permanent trash container areas shall be enclosed to prevent off-site transport of trash, or drainage from open trash container areas shall be directed to the sanitary sewer system. iv. At least one treatment control is required for new parking areas or structures, or for any other new uses identified by UCI as having the potential to generate substantial pollutants. Treatment controls include, but are not limited to, detention basins, infiltration basins, wet ponds or wetlands, bio-swales, filtration devices/inserts at storm drain inlets, hydrodynamic separator systems, increased use of street sweepers, pervious pavement, native California plants and vegetation to minimize water usage, and climate controlled irrigation systems to minimize overflow. Treatment controls shall incorporate volumetric or flow-based design standards to mitigate (infiltrate, filter, or treat) storm water runoff, as appropriate.			E&HS/CEP to confirm implementation by contractor
4.8 Land Use and Planning				
Lan-2A	As early as possible in the planning process for future projects that implement the 2007 LRDP and are located along the interface between the North Campus and the San Joaquin Freshwater Marsh (SJFM) Reserve, UCI shall enter into consultation with the Director of the University of California Natural Reserve System (UCNRS) to ensure that project planning and design includes features to avoid impacts to the SJFM Reserve from incompatible adjacent land uses, such as mixed use development. These planning and design features shall include, but are not limited to, the following: i. Site planning that establishes building setbacks, circulation, open space and other uses along the development interface to limit impacts on teaching and research activities, and that reduces the need for fuel modification in the buffer zone. ii. Site planning that retains the integrity of the SJFM Reserve buffer zone including features that limit the need for construction activities and fuel modification within the buffer zone.	CEP	Prior to project design approval[(1)]	CEP to confirm design features in project plans
4.9 Noise				
Noi-1A	Prior to project design approval for future projects that implement the 2007 LRDP and include noise-sensitive land uses (i.e., campus housing, classrooms, libraries, and clinical facilities), UCI shall ensure that the project design will adhere to the following state noise standards: 60 dBA CNEL (single-family campus housing); 65 dBA CNEL (multi-family campus housing, dormitories, lodging); and 70 dBA CNEL (classrooms, libraries, clinical facilities). Applicable project design features may include, but are not limited to, the following: i. Specific window treatments, such as dual glazing, and mechanical ventilation when the 45 dBA CNEL limit within habitable rooms and the 50 dBA CNEL limit within classrooms can only be achieved with a closed window condition. ii. Setbacks; orientation of usable outdoor living spaces, such as balconies, patios, and common areas, away from roadways; and/or landscaped earthen berms, noise walls, or other solid barriers.	CEP D&CS	Prior to project design approval[(1)]	CEP to include determination in environmental analysis D&CS to incorporate in project plans and CEP to confirm

Number	Mitigation Measure	Responsible Party	Mitigation Timing	Monitoring and Reporting Procedure
Noi-1B	As early as possible in the planning process of future projects that implement the 2007 LRDP and would include new or modified stationary noise sources such as utility plant facilities (constant noise source), major HVAC systems (constant noise source), and parking structures (constant and/or intermittent noise source), UCI shall ensure they are designed in a manner that would minimize the exposure of noise-sensitive land uses (i.e., campus housing, classrooms, libraries, and clinical facilities) to noise levels that exceed the following state noise standards: 60 dBA CNEL (single-family campus housing); 65 dBA CNEL (multi-family campus housing, dormitories, lodging); and 70 dBA CNEL (classrooms, libraries, clinical facilities). If the affected noise-sensitive land uses are already exposed to noise levels in excess of these standards, then the new or modified stationary noise sources shall not increase the ambient noise level by more than 3 dBA. These criteria shall be achieved by: i. Implementing the following noise reduction measures into the design of the satellite utilities plant, as applicable: • Use low-speed fans, baffles, mufflers, or other mechanical system design features to reduce emitted noise; • Increase the distance from the noise source to sensitive receptors with setbacks; • Place equipment inside buildings or within solid enclosures; • Construct earthen berms, noise walls, or other solid barriers for noise attenuation; • Eliminate glass, louvers, openings, or vents in the exterior walls of the plant, particularly those facing noise-sensitive land uses. If openings are necessary, install acoustical louvers or baffles on project components at all exterior openings; • Install silencers on the intake and exhaust system; • Place cooling towers as close to plant buildings as possible to utilize the buildings as noise barriers; and • Install integrated noise barriers on the sides of cooling towers. ii. Implementing the following noise reduction measures into the design of new major HVAC systems, as applicable: • Install acoustical shielding (parapet wall or near-field noise barrier) around all new equipment; and • Place equipment below grade in basement space. iii. Implementing the following noise reduction measures into the design of new parking structures: • Incorporate architectural design features that attenuate noise including solid panels at locations facing noise-sensitive land uses; and • Construct earthen berms, noise walls, or other solid barriers between noise-sensitive land uses and parking structures.	CEP D&CS	Prior to design approval[2]	CEP to include determination in environmental analysis D&CS to incorporate in project plans and CEP to confirm

Number	Mitigation Measure	Responsible Party	Mitigation Timing	Monitoring and Reporting Procedure
Noi-2A	Prior to initiating on-site construction for future projects that implement the 2007 LRDP, UCI shall approve contractor specifications that include measures to reduce construction/demolition noise to the maximum extent feasible. These measures shall include, but are not limited to, the following:	D&CS	Prior to construction	D&CS to confirm incorporation in construction documents
	i. Noise-generating construction activities occurring Monday through Friday shall be limited to the hours of 7:00 am to 7:00 pm, except during summer, winter, or spring break at which construction may occur at the times approved by UCI.			CEP notification
	ii. Noise-generating construction activities occurring on weekends in the vicinity of (can be heard from) off-campus land uses shall be limited to the hours of 9:00 am to 6:00 pm on Saturdays, with no construction occurring on Sundays or holidays.			
	iii. Noise-generating construction activities occurring on weekends in the vicinity of (can be heard from) on-campus residential housing shall be limited to the hours of 9:00 am to 6:00 pm on Saturdays, with no construction on Sundays or holidays. However, as determined by UCI, if on-campus residential housing is unoccupied (during summer, winter, or spring break, for example), or would otherwise be unaffected by construction noise, construction may occur at any time.			
	iv. Construction equipment shall be properly outfitted and maintained with manufacturer recommended noise-reduction devices to minimize construction-generated noise.			
	v. Stationary construction noise sources such as generators, pumps or compressors shall be located at least 100 feet from noise-sensitive land uses (i.e., campus housing, classrooms, libraries, and clinical facilities), as feasible.			
	vi. Laydown and construction vehicle staging areas shall be located at least 100 feet from noise-sensitive land uses (i.e., campus housing, classrooms, libraries, and clinical facilities), as feasible.			
	vii. All neighboring land uses that would be subject to construction noise shall be informed at least two weeks prior to the start of each construction project, except in an emergency situation.			
	viii. Loud construction activity such as jackhammering, concrete sawing, asphalt removal, pile driving, and large-scale grading operations occurring within 600 feet of a residence or an academic building shall not be scheduled during any finals week of classes. A finals schedule shall be provided to the construction contractor.			
Noi-4A	Prior to initiating on-site construction for future projects that implement the 2007 LRDP and are located within 100 feet of vibration-sensitive uses (i.e., buildings containing vibration-sensitive instruments or operations, or buildings that are considered vibration sensitive due to their age, construction type and/or fragile condition), UCI shall approve a construction vibration mitigation program as part of the contractor specifications that includes measures to reduce vibration resulting from construction activities to the maximum extent practicable. The program shall include measures to establish baseline vibration conditions, vibration monitoring, work methods or equipment necessary to reduce vibration, and a pre-construction notification process for impacted building occupants (six-month and one-month interval prior to construction).	CEP/D&CS	Prior to construction	D&CS to confirm incorporation in construction documents and notify CEP
	If pile driving is proposed, building occupants within 600 feet of the pile-driving site shall be notified of construction at six-month and one-month intervals prior to the start of construction.	D&CS	Prior to and during construction	D&CS to provided documentation of notification to CEP

Number	Mitigation Measure	Responsible Party	Mitigation Timing	Monitoring and Reporting Procedure
Tra-1A	To reduce on- and off-campus vehicle trips and resulting impacts, UCI will continue to implement a range of Transportation Demand Management (TDM) strategies. Program elements will include measures to increase transit and shuttle use, encourage alternative transportation modes including bicycle transportation, implement parking polices that reduce demand, and implement other administrative mechanisms that reduce vehicle trips to and from the campus. UCI shall monitor the performance of TDM programs through annual surveys.	PTS/CEP	Ongoing	PTS to document monitoring; CEP to confirm and receive copy of monitoring for files
Tra-1B	UCI will continue to pursue the implementation of affordable on-campus housing to reduce peak-hour commuter trips to the campus.	CEP	Ongoing	CEP to document implementation of efforts
Tra-1C	To enhance transit systems serving the campus and local community, UCI will work cooperatively with the City of Irvine, City of Newport Beach, OCTA and other local agencies to coordinate service and routes of the UCI Shuttle with existing and proposed shuttle and transit programs including the proposed Jamboree/IBC Shuttle, proposed Orange County Great Park Shuttle, Irvine Spectrum Shuttle, and other community transit programs.	PTS/CEP	Ongoing	PTS to document implementation of efforts
Tra-1D	UCI will monitor campus trip generation and distribution and the performance of UCITP intersections in relationship to enrollment growth. Monitoring will be conducted in consultation with the City of Irvine and the City of Newport Beach, and will occur at each 3,000-student increase in enrollment (measured as General Campus three-term average headcount),above the 2007-08 General Campus enrollment level. If UCI monitoring determines that LRDP traffic results in significant traffic impacts at UCITP intersections, UCI will implement measures to reduce vehicle trips contributing to the impact or provide "fair share" funding for improvements at the impacted intersections as described in Mitigation Measures Tra-1E and Tra-1F. UCI's share of funding will be determined by the percentage of UCI traffic volumes compared to the total traffic volumes at the impacted intersections.	CEP	Ongoing	CEP to oversee monitoring studies ,confirm results and receive copy of findings for files
Tra-1E	UCI will collect UCITP traffic fees from "for-profit" development projects on campus or other campus development as determined by the University. Fees will be provided to the City of Irvine, City of Newport Beach, or other public agencies to fund UCI's share of UCITP improvements when the improvements are implemented, as provided in mitigation measure Tra-1D.	CEP	Ongoing	CEP to document development projects and coordinate with local jurisdictions
Tra-1F	If the City of Irvine or City of Newport Beach proceeds with traffic improvements for UCITP intersections following UCI determination that LRDP traffic is causing a significant impact, and UCITP fees collected to date are insufficient to fund UCI's fair share, UCI shall identify and obtain funding for the fair share of identified improvements from an alternative source.	CEP	Ongoing	CEP to document potential funding source and coordinate with local jurisdictions
Tra-1G	UCITP fees established for future "for-profit" development on UCI's North Campus shall be commensurate with the traffic fees established in the City of Irvine's IBC Transportation Fee program.	CEP	Ongoing	CEP to document development projects and coordinate with local jurisdictions

Number	Mitigation Measure	Responsible Party	Mitigation Timing	Monitoring and Reporting Procedure
Tra-1H	UCI will assess a San Joaquin Hills Transportation Corridor fee to future "for-profit" campus development projects in accordance with the development fee program established by the Joint Powers Agreement entered into by the City of Irvine, the County of Orange, and neighbor cities to help pay for the San Joaquin Hills Transportation Corridor. Future "for-profit" campus development shall be required to pay such fees prior to construction. UCI's obligation to pay its share of the costs of the San Joaquin Hills Transportation Corridor shall be satisfied upon the forwarding of these fees to the Transportation Corridor Agencies or other agency designated to collect such fees.	CEP	Ongoing	CEP to document development projects and coordinate with local jurisdictions
Tra-1I	UCI shall review individual projects proposed under the 2007 LRDP for consistency with UC Sustainable Transportation Policy and UCI Transportation Demand Management goals to ensure that bicycle and pedestrian improvements, transit stops, and other project features that promote alternative transportation are incorporated to the extent feasible.	CEP	During environmental review	CEP to confirm that review was conducted and was specified in environmental analysis
Tra-1J	If a campus construction project or a specific campus event requires an on-campus lane or roadway closure, or could otherwise substantially interfere with campus traffic circulation, the contractor or other responsible party will provide a traffic control plan for review and approval by UCI. The traffic control plan shall ensure that adequate emergency access and egress is maintained and that traffic is allowed to move efficiently and safely in and around the campus. The traffic control plan may include measures such as signage, detours, traffic control staff, a temporary traffic signal, or other appropriate traffic controls. If the interference would occur on a public street, UCI shall apply for all applicable permits from the appropriate jurisdiction.	D&CS/PTS	Prior to construction	D&CS to incorporate in construction documents and provide to CEP and PTS CEP to confirm review

CEP = Campus and Environmental Planning
D&CS = Design and Construction Services
EH&S = Environmental Health and Safety
FM = Facilities Management
PTS = Parking and Transportation Services

(1) "Design approval" is the approval of project design by the Regents (or their delegates, per Regents policy).
(2) "DRT approval" is the approval of the *schematic design* by the Design Review Team (DRT).

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