

academic and research development, which would substantially reduce future options for program expansion and flexibility.

### 5.3 RESPONSES TO INDIVIDUAL COMMENTS

This section presents all written comments received on the Draft EIR and response to individual comments. Comments received at the two Draft EIR public hearings are contained in the two Public Hearing transcripts. Responses to the public hearing comments are presented on the pages that follow the two transcripts. It is recommended that reviewers use the index to comments on pages 5-1 through 5-6 to locate comments from specific agencies or persons and the responses to those comments.



REC'D JAN 18 2006  
 United States Department of the Interior



FISH AND WILDLIFE SERVICE  
 Ventura Fish and Wildlife Office  
 2493 Portola Road, Suite B  
 Ventura, California 93003

IN REPLY REFER TO:  
 PAS 2456.3761.4566

January 11, 2006

John Barnes, Director of Campus Planning  
 University of California, Santa Cruz  
 Physical Planning and Construction  
 1156 High Street, Barn G  
 Santa Cruz, California 95064

Subject: Draft Environmental Impact Report for the Draft 2005 Long Range Development Plan, University of California Santa Cruz, Santa Cruz County, California

Dear Mr. Barnes:

This letter is in response to your correspondence, dated October 18, 2005, and received in our office on October 20, 2005, requesting our comments on the Draft Environmental Impact Report (2005 DEIR) for the University of California, Santa Cruz Draft 2005 Long Range Development Plan (2005 LRDP). The 2005 LRDP is intended to provide a comprehensive framework for the physical development of the University of California, Santa Cruz (UCSC) Campus for the next 15 years. The 2005 LRDP is intended to update and supersede the 1988 LRDP, and plans for development to accommodate a projected enrollment of 21,000 full-time students. The UCSC campus encompasses approximately 2,000 acres at the northwestern edge of the city of Santa Cruz. Portions of the UCSC campus, and lands immediately adjacent to its boundaries, support habitat and populations of the federally endangered Ohlone tiger beetle (*Cicindela ohlone*) and the threatened California red-legged frog (*Rana aurora draytonii*).

The U.S. Fish and Wildlife Service's (Service) responsibilities include administering the Endangered Species Act of 1973, as amended (Act), including sections 7, 9, and 10. Section 9 of the Act prohibits the taking of any endangered or threatened species. Section 3(18) of the Act defines take to mean to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. Service regulations (50 CFR 17.3) define harm to include significant habitat modification or degradation which actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering. Harassment is defined by the Service as an intentional or negligent action that creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering. The Act provides for civil and criminal penalties for the unlawful taking of listed species.

Many sections of the current draft of the 2005 LRDP are written using vague and general terms (e.g., as much as possible, except as required, may include). Therefore, it is difficult to determine the adequacy of the evaluation of effects and proposed mitigation measures contained

John Barnes

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in the 2005 DEIR. We are concerned that these generalizations may have led to underestimating the direct, indirect, and cumulative effects of the various development projects that may be conducted pursuant to the 2005 LRDP. For example, the scale of development and increased traffic described in the 2005 LRDP are likely to have substantial indirect and cumulative effects on watershed function in these areas. Therefore, water availability and quality are likely to be degraded in areas currently known to support habitat and populations of the California red-legged frog (e.g., Moore Creek, Cave Gulch/Wilder Creek, etc.).

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In addition, although the 2005 LRDP does not specify plans to develop in occupied Ohlone tiger beetle habitat, development of the north loop road (i.e., Chinquapin Road to Heller Drive) and adjacent facilities, in combination with the projected increase in student enrollment, will certainly increase bicycle and foot traffic in occupied habitat areas. Increased bicycle and foot traffic in these sensitive areas is likely to adversely impact the species.

2

Chapter 5 of the 2005 LRDP states that individual development projects proposed on "Campus Resource Land" will be subjected to additional environmental review. We are concerned that this approach could compromise an accurate evaluation of the cumulative effects resulting from development in these areas. In addition, the northern-most portion of the UCSC campus, which is known to support a population of the Ohlone tiger beetle (i.e., upper Marshall Field), is assigned the land-use designation of "Site Research and Support" in the 2005 LRDP. The 2005 DEIR (page 3-20) indicates that there are no current development proposals for this area; therefore, we recommend that UCSC include this area in the adjacent "Campus Resource Land" designation.

3

Furthermore, despite the presence of the Ohlone tiger beetle in several locations throughout the project area (as shown in figure 4.4-3 of the 2005 DEIR), we are not aware of an effort to develop a comprehensive management plan for the species on the UCSC campus. We strongly recommend that you develop a management plan for the populations of Ohlone tiger beetle on the UCSC campus to ensure that any activities carried out or authorized by UCSC are not in violation of section 9 of the Act.

4

Exemptions to the prohibitions against take in the Act may be obtained through coordination with the Service in two ways. If a project is to be funded, authorized, or carried out by a Federal agency and may affect a listed species, the Federal agency must consult with the Service, pursuant to section 7(a)(2) of the Act. If the proposed project does not involve a Federal agency, but may result in the take of a listed animal species, the project proponent should apply to the Service for an incidental take permit, pursuant to section 10(a)(1)(B) of the Act. To qualify for the permit, you would need to submit an application to the Service together with a habitat conservation plan (HCP) that describes, among other things, how the impacts of the proposed taking of federally listed species would be minimized and mitigated and how the plan would be funded. A complete description of the requirements for a HCP can be found at 50 CFR 17.32.

5

We recognize that several of the projects conducted pursuant to the 2005 LRDP will individually and collectively have the potential to adversely affect listed species. We further recognize that

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John Barnes

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UCSC has reviewed projects conducted pursuant to the 1988 LRDP to determine if particular projects had the potential to affect listed species or sensitive habitats, to ensure compliance with the Act and minimize and avoid project-related impacts that may occur. We believe that this approach is cumbersome, inefficient, and can result in substantial time delays for individual projects proponents. Providing timely and adequate attention to individual projects is difficult because all parties involved are contending with a large and unpredictable workload. Additionally, a piecemeal approach does not allow for the full evaluation of projects and activities occurring throughout the various habitat types at the UCSC campus. We anticipate that the number of development projects conducted under the 2005 LRDP will continue to increase into the future, thereby causing an escalating strain on the limited resources of UCSC, the Service, and other involved agencies, resulting in further degradation of sensitive habitat. Therefore, we recommend that UCSC develop a campus-wide HCP to facilitate the implementation of, and ensure compliance with the Act for, the 2005 LRDP.

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Development and implementation of a campus-wide HCP would provide an established, streamlined, and uniform approach to evaluating and permitting projects based upon an understanding of the campus' conservation needs and planning. In addition, a campus-wide HCP would provide a more efficient and effective means of addressing ecosystem and landscape-level conservation issues and appropriate community development. Therefore, the development, completion, and implementation of a campus-wide HCP would also facilitate conservation planning efforts that are more efficient and effective, and would help UCSC realize its conservation goals as described in the 2005 LRDP. We recognize that UCSC has limited resources that can be allocated to such an effort, but we believe that the development of a campus-wide HCP would ultimately reduce the workload of our respective staffs, and maintain the landscape and biodiversity that make UCSC such an appealing institution.

Thank you for the opportunity to participate in the planning process for the UCSC 2005 LRDP. We are available to further discuss the 2005 LRDP, its expected effects, and the applicability of a campus-wide HCP to help UCSC avoid the risk of violating the take prohibitions in section 9 of the Act. If you have any questions regarding these comments, please contact Roger Root of my staff at (805) 644-1766, extension 336.

Sincerely,



David M. Pereksta  
Assistant Field Supervisor  
Santa Cruz/San Benito/Monterey

**Response to Comment Letter FA-1**

**Response to Comment FA-1-1.** The 2005 LRDP is a land use plan, which provides planning principles and a framework for development on the campus over the next 15 years. It is not a specific development project. The EIR makes conservative assumptions about the scale of development, traffic, water demand, the acres of habitat removed, etc., in order to provide a reasonable worst-case scenario for analysis. These assumptions are described in the Draft EIR (Section 3, Section 4, and in the Analytical Method discussions in Sections 4.1 through 4.15). In particular, the impacts of the 2005 LRDP on water quality and water supply are analyzed in Sections 4.8 and 4.15 of the Draft EIR, respectively. Each development project proposed under the 2005 LRDP will be subject to project-level environmental analysis before it is approved. The project-level analysis will include an evaluation of whether the proposed project is consistent with the 2005 LRDP and whether the potential impacts of the proposed project are within the scope of the impacts analyzed in the 2005 LRDP EIR. If they are not, additional analysis of these impacts will be conducted.

As noted in Section 4.8, *Hydrology and Water Quality* (Volume II) of the Draft EIR, the water quality of the surface runoff entering the Moore Creek and the Arboretum Pond would not change in relation to existing conditions as a result of proposed development under the 2005 LRDP. No adverse effects to California red-legged frogs and their habitats, either on campus or in downstream catchments, are expected as a result of changes in water quantity and quality. As development proposed under the 2005 LRDP will not result in alterations in hydrology of off-campus drainages, no direct and/or cumulative changes in flow and habitat availability are expected to occur.

**Response to Comment FA-1-2.** LRDP Impact BIO-7 acknowledges potential adverse impacts to Ohlone tiger beetles due to increased foot and bicycle traffic. LRDP Mitigations BIO-7A and BIO-7B adequately protect individuals from inadvertent “take” by students and other passersby during critical periods of the year. By disallowing foot and bicycle traffic near known populations of Ohlone tiger beetle populations the impact of increased student population will be mitigated to a less-than-significant level.

**Response to Comment FA-1-3.** No development is proposed on lands that are designated Campus Resource Land. Therefore, the EIR does not understate the cumulative effect of all new development on the campus. In the unlikely event that some project is proposed on land designated Campus Resource Land or Site Research and Support, additional environmental review, including an evaluation of cumulative effects, will be conducted.

**Response to Comments FA-1-4.** The University of California Santa Cruz has prepared a habitat conservation plan for the Ohlone tiger beetle and California red-legged frog in conjunction with the Ranch View Terrace project. The U.S. Fish and Wildlife Service certified that HCP in 2005. HCPs are prepared to mitigate the impacts of proposed activities that might incidentally result in harm or “take” of wildlife species that are listed as threatened or endangered, or to the habitat of these species. It is not anticipated that the proposed 2005 LRDP would result in take of threatened or endangered species or their habitat in other areas of the campus. If such impacts were to be identified, additional HCPs or appropriate consultation would be undertaken as required by USFWS regulations. At this time UC Santa Cruz has no plans to develop a Campus Wide Habitat Conservation Plan.

**Response to Comment FA-1-5.** Comment noted.

**Response to Comment FA-1-6.** Please see Response to Comment FA-1-4 above.

REC'D NOV 23 2005

STATE OF CALIFORNIA

ARNOLD SCHWARZENEGGER, Governor

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3298



November 18, 2005

Sally Morgan  
University of California, Santa Cruz  
1156 High Street  
Santa Cruz, CA 95064

Dear Ms. Morgan:

Re: SCH# 2005012113; UC Santa Cruz 2005 Long Range Dev. Plan

As the state agency responsible for rail safety within California, we recommend that any development projects planned adjacent to or near the rail corridor in the County be planned with the safety of the rail corridor in mind. New developments may increase traffic volumes not only on streets and at intersections, but also at at-grade highway-rail crossings. This includes considering pedestrian circulation patterns/destinations with respect to railroad right-of-way.

Safety factors to consider include, but are not limited to, the planning for grade separations for major thoroughfares, improvements to existing at-grade highway-rail crossings due to increase in traffic volumes and appropriate fencing to limit the access of trespassers onto the railroad right-of-way. Of specific concern is that appropriate rail safety improvements are included as part of any future development on U.C. Santa Cruz property near Shaffer Road.

The above-mentioned safety improvements should be considered when approval is sought for the new development. Working with Commission staff early in the conceptual design phase will help improve the safety to motorists and pedestrians in the County.

If you have any questions in this matter, please call me at (415) 703-2795.

Very truly yours,

Kevin Boles  
Utilities Engineer  
Rail Crossings Engineering Section  
Consumer Protection and Safety Division

cc: Pat Kerr, UP



### Response to Comment Letter SA-1

**Response to Comment SA-1-1.** Drivers, pedestrians, transit users, and bicyclists access the University on existing public streets and rights-of-way. Where these facilities cross railroads existing traffic controls and safety devices are provided. The Draft EIR does not identify any conditions that would require changes to the existing railroad safety devices. The occupancy and use of the existing buildings at 2300 Delaware Avenue by the University does not require any specific safety measures at the railroad crossing near 2300 Delaware Avenue.



REC'D DEC 09 2005

DEPARTMENT OF TRANSPORTATION

50 HIGUERA STREET  
SAN LUIS OBISPO, CA 93401-5415  
PHONE (805) 549-3101  
FAX (805) 549-3329  
TDD (805) 549-3259  
<http://www.dot.ca.gov/dist05/>



Flex your power!  
Be energy efficient!

December 5, 2005

SCr-1-20.09  
SCH# 2005012113

Ms. Sally Morgan  
University of California Santa Cruz  
Physical Planning & Construction  
1156 High Street  
Santa Cruz, CA 95064

Dear Ms. Morgan:

COMMENTS TO DRAFT ENVIRONMENTAL IMPACT REPORT (EIR) FOR THE UC SANTA CRUZ  
2005 LONG RANGE DEVELOPMENT PLAN, INFRASTRUCTURE IMPROVEMENT PROJECT

The California Department of Transportation (Department), District 5, Development Review, has reviewed the notice of completion on the above project and the following comments were generated.

1. The Department supports local development that is consistent with State planning priorities intended to promote equity, strengthen the economy, protect the environment, and promote public health and safety. We accomplish this by working with local jurisdictions to achieve a shared vision of how the transportation system should and can accommodate interregional and local travel and development.
2. We disagree with the comments on Page 4 of Volume 2. The comments, "Caltrans, which has jurisdiction over Mission Street (Highway 1), SR 9, and SR 17, has established statewide guidelines for level of service. The guidelines strive to maintain a level of service at the threshold between LOS C and D, but acknowledge that this may not always be feasible. Caltrans recognizes the existing demands of the Mission Street corridor and its location in the urbanized portion of the City, and has historically acceded to the City's use of LOS D for the corridor". This is incorrect. The State has never adopted the City's LOS D along this corridor. The LOS C/D Cusp applies to all of the State Highway facilities within the City of Santa Cruz and mitigation measures must be identified to eliminate the project's impact.

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Thank you for your consideration and action upon these issues. If you have any questions or concerns, or need further clarification on the items discussed above, please do not hesitate to call me at (805) 549-3099 or e-mail [jennifer.calate@dot.ca.gov](mailto:jennifer.calate@dot.ca.gov).

Sincerely,

JENNIFER CALATÉ  
Associate Transportation Planner  
District 5 Development Review Coordinator

Response to Comment Letter SA-2

**Response to Comment SA-2-1.** Comment noted.

**Response to Comment SA-2-2.** Comment noted. Please refer to Master Response TRAFFIC-1 (Traffic Standards of Significance).

REC'D DEC 09 2005

DEPARTMENT OF TRANSPORTATION

50 HIGUERA STREET  
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December 5, 2005

SCr-1-20.09  
SCH# 2005012113

Ms. Sally Morgan  
University of California Santa Cruz  
Physical Planning & Construction  
1156 High Street  
Santa Cruz, CA 95064

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Thank you for your consideration and action upon these issues. If you have any questions or concerns, or need further clarification on the items discussed above, please do not hesitate to call me at (805) 549-3099 or e-mail [jennifer.calate@dot.ca.gov](mailto:jennifer.calate@dot.ca.gov).

Sincerely,

JENNIFER CALATÉ  
Associate Transportation Planner  
District 5 Development Review Coordinator

Response to Comment Letter SA-2

**Response to Comment SA-2-1.** Comment noted.

**Response to Comment SA-2-2.** Comment noted. Please refer to Master Response TRAFFIC-1 (Traffic Standards of Significance).

REC'D JAN 03 2006

# California Regional Water Quality Control Board

## Central Coast Region



Alan C. Lloyd, Ph.D.  
Agency Secretary



Arnold Schwarzenegger  
Governor

Internet Address: <http://www.waterboards.ca.gov/centralcoast>  
895 Aerovista Place, Suite 101, San Luis Obispo, California 93401-7906  
Phone (805) 549-3147 • FAX (805) 543-0397

December 19, 2005

John Barnes  
Director of Campus Planning  
University of California, Santa Cruz  
Physical Planning and Construction  
1156 High Street  
Santa Cruz, CA 95064

**COMMENTS – UC SANTA CRUZ 2005 LONG RANGE DEVELOPMENT PLAN  
DRAFT EIR, INFRASTRUCTURE IMPROVEMENT PROJECT, 2300 DELAWARE  
AV., FAMILY STUDENT HOUSING REDEVELOPMENT, SCH# 2005012113**

Mr. Barnes:

Thank you for the opportunity to review and comment on the October, 2005 Draft Environmental Impact Report (EIR). We understand that the project is a land use plan that supports projected population growth and physical development of the UC Santa Cruz campus and offsite facilities over the next 15 years. It also evaluates the Infrastructure Improvement Project, 2300 Delaware Av. Project, and Family Student Housing Redevelopment Project, which will be tiered from the LRDP EIR.

As you may be aware, the Central Coast Regional Water Quality Control Board (Water Board) is a responsible agency charged with the protection of the Waters of the State of California in the Central Coast Region. Waters of the State include surface waters, ground waters, and wetlands. The Regional Board is responsible for administering regulations established by the Federal Clean Water Act and the California Water Code (Porter-Cologne Water Quality Control Act). The regulations cover discharges to surface water, groundwater, and discharges to land that may affect ground water quality, and may apply to this project.

We find the information provided in the Draft EIR to be inconsistent with the NPDES General Permit for construction activity and inadequate at addressing source control of stormwater runoff, which would ultimately affect water quality. **To facilitate the regulatory review process, we offer the following suggestions for your review.**

**NPDES Construction General Permit**

Section 4.8.2.4 (LRDP Impact HYD-2) states that construction on sites smaller than one acre are not subject to the requirement for construction-phase SWPPPs. This statement is inconsistent

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with the General Permit. Construction activity that results in soil disturbance of less than one acre is subject to the NPDES General Permit regulations, including the SWPPP, if the construction activity is part of a larger common plan of development (UCSC LRDP) that encompasses one or more acres of soil disturbance (Fact sheet for Water Quality Order 99-08-DWQ, NPDES Construction General Permit). For further reference please see:

<http://www.swrcb.ca.gov/stormwtr/docs/finalconstpermit.pdf>

### Stormwater Source Control

Water Board staff is concerned that existing and foreseeable future erosion and sedimentation issues are not being addressed at the source of the problem as development continues through the proposed expansion of the UCSC campus. UCSC has experienced extensive erosion and excessive sedimentation to its natural drainage system that is largely due to increased runoff from impervious surfaces. Future development will add more impervious surface to the UCSC campus, thus exacerbating the erosion and sediment problems. Water Board staff has concerns with regards to erosion, sedimentation, urban pollutants, and the lack of source stormwater controls. The following are some specific examples that validate these concerns:

1. The Stormwater and Drainage Master Plan states, "On-going channel incision is so severe in many campus drainages that it is a significant consideration with regard to the use of natural drainage channels for stormwater conveyance, and limits future development options" (Kennedy/Jenks Consultants 2004).
2. Many of the campus sinkholes used for stormwater discharge conveyance are at capacity from increased sedimentation, resulting in downstream flooding, increased sediment, and urban pollutant loads to creeks and other water bodies.
3. The eastern portion of campus that drains to the San Lorenzo River Watershed is currently receiving concentrated stormwater runoff, contributing to deep incision, channel bank failure, and erosion to the San Lorenzo Watershed. This raises a particular concern since the San Lorenzo River is currently listed under the Clean Water Act 303(d) list for sediment impairment.
4. The Stormwater and Drainage Master Plan states, "Any future development to the North Campus area is prohibited due to heavy erosion from increase in surface runoff as a result of increased impervious area" (Kennedy/Jenks Consultants 2004). This area is described as having highly erosive soil that relies on natural infiltration to accommodate stormwater flow. However, the Draft EIR proposes an increase from 7 acres to 54 acres of impervious surface, resulting in a 31 percent increase in runoff.
5. Section 4.8.2.4 of the Draft EIR (LRDP Impact HYD-3) is determined significant yet unavoidable. This is not an acceptable determination under current conditions. These conditions only exist under conventional stormwater management design and therefore, can be resolved by implementing design standards that control stormwater at the source.

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As the University expands, the amount of impervious area that is projected to be added to the campus almost doubles. Along with this comes higher flow rates, greater volume, and increased urban pollutant levels. We feel that a preventative approach must be taken to address these issues so that extensive erosion and sedimentation do not persist.

Proposed stormwater drainage system improvements focus on channel alteration, detention, and diversion of stormwater flows. These improvements may help with existing erosion and sedimentation issues. However, they will not prevent the problem from reoccurring in the future. UCSC Campus Standards Handbook repeatedly states, "Storm drainage design shall provide for detention of stormwater runoff so that the post-development runoff rate does not exceed the pre-development runoff rate." The University is currently not meeting these pre-development runoff standards, resulting in extensive erosion to the campus natural drainage system. Subsequently, stormwater runoff detention addresses peak flow rates but does not address overall volume of stormwater flows. Increased volume still contributes to downstream erosion even when runoff is released at smaller amounts over longer periods of time. In addition, we are concerned that stormwater drainage system improvements may not be implemented before new buildings and other impervious surfaces are constructed, as stated in the Draft EIR section 4.8.2.4 page 33.

We highly suggest that the University takes a preventative approach to erosion control, sedimentation, and urban pollutants by controlling stormwater at the source. To accomplish this we suggest implementing Low Impact Development (LID) Design Standards to all new development and to existing development where feasible. LID captures stormwater at the source, allows stormwater to infiltrate, and prevents further water quality impacts (erosion, sedimentation, and urban pollutant loads) from occurring downstream.

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### **Low Impact Development (LID)**

LID is an alternative site design strategy that uses natural and engineered infiltration and storage techniques to control stormwater runoff where it is generated. LID combines conservation practices with distributed stormwater source controls and pollution prevention to maintain or restore watershed functions. The objective is to disperse LID devices uniformly across a site to minimize runoff (Anne Guillette, Whole Building Design Guide).

LID reintroduces the hydrologic and environmental functions that are altered with conventional stormwater management. LID helps to maintain the water balance on a site and reduces the detrimental effects that traditional end-of-pipe systems have on waterways and the groundwater supply. LID devices provide temporary retention areas; increase infiltration; allow for nutrient (pollutant) removal; and control the release of stormwater into adjacent waterways (Anne Guillette, Whole Building Design Guide). For further reference please see:

<http://www.epa.gov/owow/nps/lid/>

### **Ten Common LID Practices Include:**

1. Site Design Layout to Reduce and Disconnect Impervious Surfaces
2. Rain Gardens and Bioretention

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3. Rooftop Gardens
4. Tree Boxes to Capture and Infiltrate Street Runoff
5. Vegetated Swales, Buffers, and Strips; Native Vegetation Preservation
6. Roof Leader Flows Directed to Rain Gardens
7. Rain Barrels and Cisterns
8. Permeable Pavers
9. Soil Amendements
10. Pollution Prevention and Good Housekeeping

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**Water Quality Certification**

The Water Board must certify that any permit issued by the Army Corps of Engineers per Section 404 of the Clean Water Act complies with state water quality standards, or deny certification. Section 401 Water Quality Certification is necessary for all Section 404 permits, including reporting and non-reporting Nationwide permits. Proponents of any project requiring a Section 404 permit from the Army Corps of Engineers should apply for Section 401 Water Quality Certification. Applications are available on-line at:

<http://www.waterboards.ca.gov/centralcoast/401WQCert/Index.htm>.

3

For Water Quality Certification, the Water Board requires that alternatives be considered for projects resulting in impacts on streams and wetlands. We also require mitigation of wetland impacts at a ratio of 3:1, mitigation of riparian impacts at a ratio of 1:1, and mitigation of streambed impacts at a ratio of 2:1 (through enhancement of riparian habitat).

Additionally, any project that involves disturbance of a streambank or riparian area must also obtain a Streambed Alteration Agreement from California Department of Fish and Game. *Evidence of CEQA compliance must be available before CWA Section 401 Water Quality Certification can be obtained.*

If you have questions regarding this matter, please contact Brandon Sanderson at (805) 549-3868, [bsanderson@waterboards.ca.gov](mailto:bsanderson@waterboards.ca.gov), or Donette Dunaway at (805) 549-3698, [ddunaway@waterboards.ca.gov](mailto:ddunaway@waterboards.ca.gov).

Sincerely,



Roger W. Briggs  
Executive Officer

for

cc: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044



Mr. John Barnes

Page 5

December 19, 2005

File: SCH 2005012113 - UCSC LRDP EIR Comment Letter 2005\_12

S:\CEQA\CEQA Tracking\Santa Cruz County

Task: Storm Water EIR Review



**Response to Comment Letter SA-3**

**Response to Comment SA-3-1.** As part of a separate process, the Campus is discussing with the Regional Water Quality Control Board the applicability of the SWPPP requirement to construction sites on the campus that are less than 1 acre. The EIR's proposed LRDP Mitigation HYD-2A, requiring construction site controls and best management practices for sites less than 1 acre, would ensure that adequate controls are provided for these sites. In the event that SWPPPs are required for these sites, this mitigation would not be required because the SWPPPs would prevent significant impacts.

**Response to Comment SA-3-2.** The Draft EIR acknowledges that increased runoff from the addition of impervious surfaces within certain watersheds on the campus could add to existing erosion problems that are present in those watersheds (Draft EIR page 4.8-33). The EIR includes a suite of mitigation measures (revised LRDP Mitigations HYD-3A through -3E), which would reduce the impact to a less-than-significant level if it were feasible to implement them for all future development projects under all conditions. Please refer to Master Response HYDRO-1, which explains why the Draft EIR concludes that LRDP Impact HYD-3 would be significant and unavoidable.

The proposed infrastructure projects described in the Storm Water and Drainage Master Plan and in Volume III of the Draft EIR are designed to repair the problems caused by previous development and to restore the ability of the campus streams to convey existing flows. The Campus acknowledges that these would not prevent the problem from recurring in the future if significant amounts of additional runoff were to be added to these drainages or if additional runoff were to be added to these drainages before they are stabilized by the infrastructure improvements. For that reason, LRDP Mitigations HYD-3A through 3E propose measures to avoid increasing both the peak flows and the volume of runoff from new development that is discharged into the channels with the erosion problems.

All of the projects that were built after 1989 have been built in compliance with the Campus Standards Handbook requirement that the post-development flow rate not exceed pre-development flow rate. All projects built since 1989 have included detention facilities designed to control peak flows released from project sites. Note that controlling peak flows was a standard practice that was commonly used in development throughout California at the time that those development projects were constructed on the campus. As discussed in the Storm Water and Drainage Master Plan, these measures were found not to be completely successful in reducing or eliminating erosion in campus streams. In addition, these measures were not required until 1989, and runoff from much of the pre-1989 development on campus has not been detained.

For these reasons, in compliance with revised LRDP Mitigations HYD-3C and -3D, storm water drainage systems for future developments will be designed to control not only the peak flow rate from a new development but also the duration and volume of runoff. Revised LRDP Mitigation HYD-3D provides a list of "low-impact development" (LID) measures that will be considered to achieve this objective. This should reduce the likelihood of new problems occurring in streams receiving runoff from new development. Please refer to Final EIR, Volume IV, Chapter 3, Revised Table 2-1, for the full text of the revised mitigation measures.

Furthermore, as a Phase II MS4 non-traditional storm water operator, the Campus will implement the Storm Water Management Program, which will prevent water quality impacts including reduction of urban pollutant loads. The Campus has submitted a draft Storm Water Management Plan to the RWQCB.

**Response to Comment SA-3-3.** When specific development projects under the 2005 LRDP are proposed that involve impacts to waters of the US or drainages under state jurisdiction, the Campus will comply with all applicable laws and regulations. If certain drainages are determined not to be waters of the US waters under the recent decision of the US Supreme Court, the Campus will continue to develop and implement SWPPPs for construction projects that potentially could impact drainages on campus.

The University acknowledges that the State Water Resources Control Board (Water Board) must certify that any permit issued by the U.S. Army Corps of Engineers under Section 404 of the Clean Water Act meets state water quality requirements. It is also understood that future development projects on the campus may require Section 401 Water Quality certification. If a Water Quality Certification is required for development under the 2005 LRDP, the Water Board's mitigation ratios will apply.

Page 4.4-4 of the EIR has been modified to add text concerning Section 401 certification. Please refer to Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*.

REC'D JAN 10 2006



Alan C. Lloyd, Ph.D.  
Agency Secretary

**California Regional Water Quality Control Board  
Central Coast Region**



Arnold Schwarzenegger  
Governor

Internet Address: <http://www.waterboards.ca.gov/centralcoast>  
895 Aerovista Place, Suite 101, San Luis Obispo, California 93401-7906  
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January 6, 2006

John Barnes  
Director of Campus Planning  
University of California, Santa Cruz  
Physical Planning and Construction  
1156 High Street  
Santa Cruz, CA 95064

**SUPPLEMENTARY COMMENTS – UC SANTA CRUZ 2005 LONG RANGE  
DEVELOPMENT PLAN DRAFT EIR, INFRASTRUCTURE IMPROVEMENT  
PROJECT, 2300 DELAWARE AV., FAMILY STUDENT HOUSING  
REDEVELOPMENT, SCH# 2005012113**

Mr. Barnes:

Upon further review, the Central Coast Regional Water Quality Control Board (Water Board) offers these additional comments to the comment letter dated December 19, 2005, for your review.

**Wetland Delineation**

It has been brought to the Water Boards attention that portions of the north campus, which are proposed for development under the 2005 LRDP DEIR, contain jurisdictional wetlands. Section 4.4.1.7 of the LRDP DEIR contains a brief discussion of wetland habitat at UCSC. However, Section 4.8 (Hydrology and Water Quality) of the DEIR makes no mention of wetland habitat or mitigation for potential loss of wetlands. As noted in the previous letter, the Water Board, under the CWA Section 401, must certify any permit issued by the Army Corps of Engineers per Section 404 of the CWA. Where the Army Corps determines they have no jurisdiction, the Water Board may issue Waste Discharge Requirements or conditional waivers of WDRs to address discharges to wetlands per the Porter Cologne Water Quality Act. A formal, campus-wide wetland delineation should be performed and incorporated into the 2005 LRDP EIR prior to specific development project proposals and before further evaluation of the 2005 LRDP DEIR. For additional information regarding section 401 Water Quality Certification, please contact Dominic Roques at (805) 542-4780, [droques@waterboards.ca.gov](mailto:droques@waterboards.ca.gov).

1

**Mitigation Funding**

Water Board staff is concerned with UCSC's history of failure to comply with mitigation requirements due to "lack of funding." UCSC's 2004 Mitigation Monitoring Program Report repeatedly states that mitigation measures were not implemented due to "lack of funding" and "budget constraints." Such terms are unacceptable. Water Board staff

2

Mr. John Barnes

Page 2

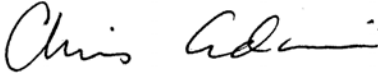
January 6, 2006

would like to reiterate that **mitigation funding is not to be budget dependent**. Funding for development mitigation design must be a priority and should receive adequate funding before project design begins. Water Board staff previously noted this concern in our comment letter to the Notice of Preparation for the 2005 LRDP dated February 25, 2005. However, the 2005 LRDP DEIR provides no assurance that mitigation funding will be a priority. Water Board staff does not want to see this problem repeated for the 2005 LRDP's prescribed mitigation. Water Board staff requires the 2005 LRDP EIR to address how UCSC will ensure that mitigation will be a priority and receive adequate funding.

2

**If you have questions regarding this matter, please contact Brandon Sanderson at (805) 549-3868, [bsanderson@waterboards.ca.gov](mailto:bsanderson@waterboards.ca.gov), or Donette Dunaway at (805) 549-3698, [ddunaway@waterboards.ca.gov](mailto:ddunaway@waterboards.ca.gov).**

Sincerely,



*fr*  
Roger W. Briggs  
Executive Officer

cc: State Clearinghouse, P.O. Box 3044, Sacramento, CA 95812-3044

File: SCH 2005012113 - UCSC LRDP DEIR Supplementary Comment Letter 2006\_1  
S:\CEQA\CEQA Tracking\Santa Cruz County  
Task: Storm Water EIR Review



## Response to Comment Letter SA-4

**Response to Comment SA-4-1.** Please refer to Response to Comment SA-3-3, and Master Response BIO- 2 (Wetlands). Impacts to jurisdictional wetlands are addressed in Draft EIR Section 4.4, *Biological Resources*.

**Response to Comment SA-4-2.** The comment indicates that the most recent monitoring report for the Campus repeatedly states that mitigation measures were not implemented due to “lack of funding” and “budget constraints.” As documented in the Campus’s mitigation monitoring reports, prepared at least every two years since 1990, the University has implemented the great majority of the 1988 LRDP EIR mitigations under its jurisdiction. The most recent monitoring report, dated September 2004, is posted on the UC Santa Cruz website (<http://planning.ucsc.edu/lrdp/Monitoring/>).

The 1988 LRDP EIR included three different categories of mitigation measures. Measures in the first category, “General LRDP Mitigation Measures,” are the responsibility of various Campus offices and are implemented on a campus-wide basis. These measures are implemented on an ongoing basis and are not linked to specific development projects. Several project-level EIRs tiered from the 1988 LRDP EIR updated the traffic analysis for the 1988 LRDP EIR and provided additional “General LRDP Mitigation Measures” as mitigation for impacts that had not been identified in the 1988 LRDP EIR. The implementation status of each of the General LRDP Mitigation Measures, including those provided in the tiered project-level EIRs, is summarized below.

The second category of mitigation measures, “Project-Specific LRDP Mitigation Measures” are implemented and monitored as specific projects are planned, designed and constructed and are not included in this summary, due to the sheer number and volume of measures implemented over time for Campus projects. However, the Campus’s Project Managers for construction projects, the personnel responsible for implementing these measures under the 1988 LRDP EIR Mitigation Monitoring Program, have indicated in their annual monitoring reports that these measures have been appropriately implemented. Since 1990, these reports have been included in the Campus's mitigation monitoring reports. The most recent monitoring report, dated September 2004, is posted on the UC Santa Cruz website identified above.

The third category of mitigation measures under the 1988 LRDP EIR is the “University Assistance Measures.” These measures require the University to contribute a share of the cost of off-campus mitigations that are outside the jurisdiction and control of the University. Current UC EIRs, such as the Draft and Final EIRs for the 2005 LRDP, commit to pay a "fair share" of the cost of such mitigations, to achieve the same end. Please see Master Response MIT-1 regarding the University’s fair share contributions. For mitigation measures related to necessary public utility improvements, the University would be assessed a fair share fee by the relevant public utility, under Government Code 54999, as described in Master Response MIT-1. The implementation status of the “University Assistance Measures” is summarized below.

The comment also indicates concern that the 2005 LRDP EIR mitigation measures will not be implemented due to lack of funding, as the 2005 LRDP Draft EIR provides no assurance that mitigation funding will be a priority. A discussion of the feasibility of the 2005 LRDP EIR mitigation measures is also provided below.

**1988 LRDP General LRDP Mitigations**

The University adopted 30 general LRDP mitigation measures from the 1988 LRDP EIR. Since then eight additional mitigations in this category that were proposed in project-level EIRs have been added. Of these 38 mitigation measures, 33 have been fully implemented and five have been partially implemented. The five that have been partially implemented are the following:

- Two mitigation measures related to storm water drainage. These two mitigations will be completely implemented once the Infrastructure Improvements Project Phases 1 and 2 are complete. Funding for these projects is included in the Campus's state-funded capital improvement program. Phase 1 is currently included in the State budget through construction, and Phase 2 through preliminary design.
- One mitigation measure related to seismic anchorage of non-structural elements inside pre-1988 buildings. This still awaits funding.
- One mitigation measure related to irrigation of playing fields. The goal of reducing water use by 12.5 percent has been met or exceeded in 75 percent of the years. The average reduction was 25 percent.
- One mitigation measure related to housing. Since 1988, the University has added approximately 2,600 student beds and has housed 48 percent of undergraduates and 26 percent of graduate students. The 1988 LRDP adopts the 1985 City/University Housing Task Force recommended "goal of striving to house on campus 70 percent of undergraduate students, 50 percent of graduate students not in certificate programs, 25 percent of faculty members and 50 percent of new staff members recruited from outside Santa Cruz County, subject to financial feasibility." Also see Master Response ALT-5 (Increased On-Campus Housing Alternative).

**1988 LRDP Off-Campus Mitigations ("University Assistance Measures")**

The 1988 LRDP EIR adopted 15 University Assistance Measures (UAMs). Since then four additional UAMs proposed in project-level EIRs have been added. Of the 19 UAMs, eight are complete, two are in negotiation or dispute and eight will not be triggered until the City and/or County has initiated a project. The status of each of the UAMs is summarized below.

**UAM 1.** Water System Improvements (awaits City action). The City completed a Program EIR for the Integrated Water Plan in November 2005. The University will pay its fair share of the cost of constructing a desalination plant in compliance with its obligations under Government Code Section 54999 (see Master Response MIT-1, Government Code Section 54999 Obligations, and University Fair Share Contributions).

**UAM 2-4.** Pump Upgrades (complete). UC Santa Cruz has reimbursed the City \$736,000, its agreed upon share of the costs, for the pump upgrades. UC Santa Cruz will reimburse the City for additional upgrades according to the terms of the existing Memorandum of Understanding regarding these upgrades.

**UAM 5.** Sewer Line Upgrade (awaits City action). UC Santa Cruz would contribute its share when the sewer line upgrades have been programmed and approved by the City, consistent with its obligations under Government Code Section 54999 (see Master Response MIT-1, Government Code Section 54999 Obligations, and University Fair Share Contributions).

**UAM 6.** Wastewater Plant Upgrade (awaits City action). The wastewater plant currently has adequate capacity. UC Santa Cruz would contribute its share when the plant upgrades have been programmed and approved by the City, consistent with its obligations under Government Code Section 54999 (see Master Response MIT-1, Government Code Section 54999 Obligations and University Fair Share Contributions).

**UAM 7.** Mission Street Widening (in dispute). The total local share of the project cost was \$648,000, which UC Santa Cruz and the City were to split 50/50. The State made a payment of \$215,000 in the form of disaster assistance thereby reducing the local share to \$433,000. UC Santa Cruz paid \$216,500 and contends that it has completed its obligation to fund 50 percent of the project. The City contends that the UC Santa Cruz share was \$324,000, and that UC therefore still owes \$107,500.

**UAM 8.** Mission Street Intersections (complete). UC Santa Cruz has reimbursed City for agreed upon share of costs, which was included with payment for UAM 7.

**UAM 9-10.** Eastern Access (awaits City/County action). UC Santa Cruz would contribute its share if and when an eastern access has been programmed and approved by the City and/or County. In 1998, the City did not respond affirmatively to UC Santa Cruz's request to extend the easement option.

**UAM 11.** Coolidge-Hagar Signal (complete). UC Santa Cruz applied for and received a grant of \$245,000, which was paid to the County to reimburse their full costs for this intersection improvement. The Campus will fully maintain the signal.

**UAM 12.** Heller-Empire Signal (currently warranted). UC Santa Cruz would contribute its share when this improvement has been programmed and approved by the County. As UC Santa Cruz is likely the sole contributor, TAPS applied for a Hazard Elimination Grant for 2006-07 but did not receive the grant. The 2005 LRDP EIR includes a fair share mitigation measure for this improvement (see LRDP Mitigation TRA-2A and Table 4.14.18 in the Draft EIR).

**UAM 13.** Western-Empire / Laurel-King Signals (not currently warranted). UC Santa Cruz would contribute its share when these improvements have been programmed and approved by the City.

**UAM 14.** Bay Street Resurfacing (in negotiation). As of June 2004 the cost of this improvement was estimated at \$1.2 million. The City requested UC Santa Cruz to fund 50 percent. The University has recently received a report from the City's consultant and is analyzing its potential contribution.

**UAM 15.** 1985-86 Base Year for UAM Calculations (complete). This UAM is not related to physical impacts and mitigations. It establishes 1985-86 as the base year for purposes of calculating UC Santa Cruz share of contributions to off-campus mitigations.

**UAM 16.** Storey-King/Mission-King/Mission-Chestnut Improvements (suite of intersections where improvements are currently warranted, scope unknown). UC Santa Cruz would contribute its share when these improvements have been programmed and approved by the City. The 2005 LRDP EIR includes a fair share mitigation measure for improvements at these intersections (see LRDP Mitigation TRA-2A and Table 4.14-18 in the Draft EIR).

**UAM 17.** Western-Empire Left Turn Pocket (complete). UC Santa Cruz reimbursed the City for its fair share of this improvement, which was \$2,250.



**UAM 18.** CamFac-Coolidge Signal (complete). UC Santa Cruz applied for and received a grant of \$220,000, which was paid to the City to reimburse their full costs for this improvement. The Campus will fully maintain the signal.

**UAM 19.** Escalona-Bay Signal (currently warranted). UC Santa Cruz would contribute its share when this improvement has been programmed and approved by the City.

**2005 LRDP EIR Mitigations**

CEQA does not require that funding sources be identified in an EIR. The University has identified mitigation measures for the environmental effects of the 2005 LRDP that it believes to be feasible. “Feasible,” as defined by CEQA, means “capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social and technological factors.” (Public Resources Code Section 21061.1; CEQA Guidelines Section 15364.) As required by CEQA, the University will monitor and report on the implementation of the adopted mitigation measures pursuant to the Mitigation Monitoring Program (MMP). The MMP can be found in Volume IV, Chapter 4 of the Final EIR.

**CALIFORNIA COASTAL COMMISSION**

REC'D JAN 17 2006



CENTRAL COAST DISTRICT OFFICE  
725 FRONT STREET, SUITE 300  
SANTA CRUZ, CA 95060  
PHONE: (831) 427-4863  
FAX: (831) 427-4877

January 10, 2006

Sally Morgan  
University of California, Santa Cruz  
Physical Planning and Construction  
1156 High Street, Barn G  
Santa Cruz, CA 95064

Subject: *UC Santa Cruz Long-Range Development Plan 2005-2020 and Draft EIR*

Dear Ms. Morgan:

Coastal Commission staff has reviewed the proposed *UC Santa Cruz Long-Range Development Plan 2005-2020* and the accompanying draft of the *Environmental Impact Report*. We offer the following substantive comments and then conclude with some procedural concerns.

One overall comment is that it is unclear how the mitigation measures outlined in the *Environmental Impact Report* are committed to. We would suggest at a minimum that an additional Planning Principle be added to the LRDP that references, and commits the University to follow, the EIR's mitigation measures.

Coastal Act Consistency Concerns

Portions of the campus covered by the LRDP are in the coastal zone, and campus development outside of the coastal zone may impact coastal resources or access.

Issues Raised with Coastal Zone Sites:

**West of Empire Grade:** All of the property in the coastal zone north of Highway One covered by the LRDP is designated in some protective category. In general we support such designations because these lands are located in a rural area beyond the urban boundary and support environmentally sensitive habitats as well as other important coastal resources. We do note that these designations allow some potential uses and developments; for example, roads are allowed in the CNR: Campus Natural Reserve lands. Any of these potential uses would have to be found consistent with Coastal Act resource protection and access and recreation policies. The LRDP should acknowledge these standards and include supplemental provisions to address these requirements. For example, proposed LRDP text indicates that development of Protected Land not impinge on its overall character. We suggest amplifying on this promise to state that such development will also not adversely impact coastal resources and will comply with all relevant coastal development standards and permit requirements.

Northern Maritime Chaparral is an example of an environmentally sensitive habitat located on coastal zone campus lands. We note that the Draft EIR recommends, as a mitigation measure for loss of habitat, the preservation of other Maritime Chaparral land. Under the Coastal Act development within such environmentally sensitive habitat areas must be limited to uses that are

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Sally Morgan, UCSC  
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dependent upon the resource, prevent significant degradation of the habitat, and be compatible with the continuance of the habitat. In instances where Maritime Chaparral land may be disturbed by resource-dependent uses, such impacts should be minimized to the greatest degree feasible and accompanied by mitigation measures that protect and enhance the long-term preservation and biological productivity of the affected habitat. Such mitigation may include, but not be limited to, removing invasives in the vicinity and restoring and then preserving previously disturbed Maritime chaparral land that still has the root stock in its soil, at a compensatory ratio of 3 to 1.

3

**Marine Science Campus and 2300 Delaware Avenue:** The other coastal zone property covered in the LRDP, 2300 Delaware Avenue (formerly Texas Instruments), is designated “Academic Core.” This is an appropriate designation given the site’s former industrial use that the Coastal Commission approved. Consideration should be given to marine-related uses that cannot be accommodated on the Marine Science Campus.

4

Reuse of the buildings could have potential impacts on adjacent natural areas, as discussed in Volume 3 of the Draft EIR. However, specific effects on Monarch butterflies, which was a major issue at the time of original building approval, is not addressed and would need to be. Also, traffic impacts need to be further addressed in the same manner as for the Marine Science Campus, as discussed in the following paragraph.

5

The remainder of the campus in the coastal zone is the Marine Science Campus, for which its own Coastal LRDP (CLRDP) has been submitted. We have commented separately and extensively on that document. Some of our comments address external impacts that buildout of the Marine Science Campus may have. Of most relevance to the subject main campus LRDP are potential transportation impacts, which pose two significant concerns. One is that parking (and to some extent traffic) associated with Marine Science Campus expansion may impact coastal access in the form of pre-empting spaces that visitors to Natural Bridges State Beach and other nearby coastal access locations would use. The other concern is that parking demand will exceed planned supply on the Marine Sciences Campus causing more land than designated to be suggested for parking; land that is committed to being preserved. This issue and necessary mitigation are also germane to any development and use of the 2300 Delaware Avenue site. In fact a specific suggested mitigation measure in Volume III of the EIR for 2300 Delaware Avenue is to establish permit parking on adjacent streets for use by its employees and visitors. This could potentially impact parking for coastal access and, hence, may not be supportable under the Coastal Act.

6

The LRDP should be more explicit that the solution is to get people to the campus by alternative transportation means, including shuttles from the main campus to 2300 Delaware Avenue (and the Marine Sciences Campus) and improved METRO bus service. We suggest adding in a discussion of intercampus shuttles to the section about intracampus shuttles on page 82 of the LRDP. We note a brief mention of “instituting regular shuttle service between Marine Science Campus, 2300 Delaware Avenue and the main campus” in Volume I of Draft EIR as only a potential measure to take. Similarly, the specific traffic analysis for 2300 Delaware Avenue in Volume III of the Draft EIR lacks explicit TDM (transportation demand management) mitigation commitments, instead just describing possibilities. We are especially concerned about the lack of commitment implicit in the

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Sally Morgan, UCSC  
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word “potential” given recent news articles indicating cutbacks in shuttle service due to insufficient revenues.

Relatedly, we suggest expanding and clarifying the brief mention (also on page 82 of the LRDP) that SCMTD would continue to provide bus service. A pledge to maintain the financial commitment of UCSC students to support to the bus system should be included. We note that in Volume III of the Draft EIR there is mention of possible ways to improve SCMTD service to 2300 Delaware Avenue and we suggest that such a commitment be included in the LRDP itself.

7

**Coastal Zone Impacts from Campus Growth Outside the Zone:**

Except for the noted areas, the campus is located outside of the coastal zone. However, the proposed expansion of the campus will impact the coastal zone in various ways that should be addressed. First, continued campus growth will further impact coastal resources and access routes that serve those on campus. For example, more traffic will use Highway One and Empire Grade; more runoff carrying non-point source pollution will be generated; and more water will be used, impacting the habitats of the sources, especially North Coast streams, and steelhead runs in San Lorenzo River. Second, additional development in the coastal zone may occur as a result of the proposed UCSC growth, such as the construction of a desalination plant or widening Empire Grade. Finally, proposed development adjacent to the coastal zone may impact coastal resources west of Empire Grade.

8

**Utilities:** With regard to water and other public utilities, Coastal Act Section 30254 provides:

*New or expanded public works facilities shall be designed and limited to accommodate needs generated by development or uses permitted consistent with the provisions of this division; provided, however, that it is the intent of the Legislature that State Highway Route 1 in rural areas of the coastal zone remain a scenic two-lane road. Special districts shall not be formed or expanded except where assessment for, and provision of, the service would not induce new development inconsistent with this division. Where existing or planned public works facilities can accommodate only a limited amount of new development, services to coastal dependent land use, essential public services and basic industries vital to the economic health of the region, state, or nation, public recreation, commercial recreation, and visitor-serving land uses shall not be precluded by other development.*

In order to be consistent with this policy we would suggest that the LRDP, at a minimum, pledge to phase growth consistent with available water supplies; with “availability” meaning that any necessary coastal development permits (or public works project approvals) have been obtained. We note that the Draft EIR suggests a phased approach to water conservation: as more water is used, then more conservation methods would be employed. However, if all conservation measures were taken immediately, then the University could continue to reduce its consumption and thus possibly delay the need to increase supplies. The City-favored increased-supply project –desalination – requires selection of a plant site somewhere near the shoreline and poses some significant coastal resource concerns that will have to be addressed.

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**Sensitive Habitat:** With regard to Northern Maritime Chaparral, part of a stand that spans Empire Grade is shown as potentially being impacted by Campus Support development. If the portion of this habitat east of Empire Grade (outside of the Coastal Zone) is so developed, there could be impacts on the remaining portion west of Empire Grade (inside of the Coastal Zone). The Draft EIR generally acknowledges that habitat fragmentation could result; but is not specific enough with regard to this particular area. We would urge further specific review before any development occurs in this area so that, at a minimum, the integrity of the coastal habitat is preserved, as discussed above.

10

Further campus growth, particularly to the north, will result in more traffic on Empire Grade (which is located within the coastal zone), potentially triggering roadway improvements. In fact, since Empire Grade leads to an entrance to Wilder Ranch State Park, especially popular with bicyclists, roadway improvements may be necessary in order that the additional campus traffic does not adversely impact recreational use of Empire Grade. On the other hand, some Empire Grade improvements could impact sensitive habitat to the east within the coastal zone, both directly (if it has to be removed) or indirectly (e.g., from road runoff or drainage). Therefore, it is important to ensure that any improvements to Empire Grade associated with campus growth can and will be accomplished in a manner that protects coastal resources (and access) before, or in tandem with, any such permitted campus expansion.

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One of the LRDP's proposed planning principles is to favor noninvasive landscaping (p. 48). Since invasives can spread beyond campus and thus have adverse impacts on coastal sensitive habitats, we recommend simply prohibiting the planting of invasives, as well as to have a program to remove any found on campus.

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**Water Quality:** The Draft EIR recognizes that erosion already occurs on campus and can increase as more development occurs. Almost all campus runoff that does not drain to the subsurface flows into the coastal zone and has the potential to degrade downstream water quality and habitats. This may also be a potential impact from the runoff that drains into sinkholes on campus, as the Draft EIR notes that some of this water daylights into springs, which in turn supply coastal drainages. The EIR should explain whether the sinkholes cleanse this runoff or whether the springs exhibit any pollutants.

13

The Draft EIR discusses an extensive series of promised Storm Water Drainage Improvements. Although the descriptions are not very detailed, many of these appear to be pipelines and other "hard" solutions. We suggest that natural drainage courses be maintained and enhanced to the maximum extent feasible, "soft" techniques for preventing erosion and facilitating filtration (e.g., vegetated swales) be applied, porous pavement and "low impact design" techniques which retain water on the development site be installed, and runoff from impervious surfaces be detained and treated on-site. Rather than "prefer" runoff infiltration to occur near where the new runoff is generated (LRDP Mitigation HYD-3D), the EIR should make such a requirement mandatory unless exceptions can be justified from a water quality perspective. The LRDP's discussion of storm water on page 88 should correspondingly commit to funding and implementing such and other necessary improvements. It will be important to monitor how well these measures actually perform in

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reducing downstream erosion and pollution and adjust or add measures as necessary, especially as more campus development occurs.

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Apparently, UCSC's referenced Storm Water Management Program to comply with Phase II NPDS permit requirements will be the mechanism that provides further detail of the projects and mitigations outlined in the LRDP and its EIR. We would thus correspondingly recommend that the Management Program also address the points raised in this letter. We would welcome the opportunity to review the Storm Water Management Program.

15

Procedural Concerns

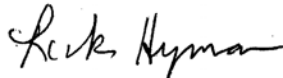
With regard to procedures, the 2300 Delaware Avenue site is within the city limits and had been governed by the City's local coastal program. Coastal permitting authority had been delegated to the City. However, once the site becomes part of the academic campus, regulatory authority over development returns to the Coastal Commission. Thus, any new development at the site-- including changes in the density or intensity of use of land or change in the intensity of use of water -- requires a coastal development approval from the Coastal Commission, as acknowledged on page 4-22 of Vol. III of the Draft EIR. Any other use of the current development requires conformance to the previous coastal permits that authorized that development. The University does have the option of submitting the subject LRDP to the Coastal Commission for approval and delegation of subsequent development regulation to the University (as it has chosen to do so for the Marine Sciences campus). However, if the University wishes to pursue this option, the LRDP will have to be substantially revised according to the requirements of the Coastal Act and California Code of Regulations. Such revisions would include more detailed development criteria and review procedures. We would be happy to discuss this option further with you, if you are so interested.

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This same message applies to campus lands west of Empire Grade that are all within the coastal zone. A more detailed discussion of incorporating these lands into an LRDP submittal to the Coastal Commission can be found in the 1989 final EIR on the previous LRDP.

Thank you for the opportunity to comment.

Sincerely,



Rick Hyman  
 District Chief Planner

Cc: OPR State Clearinghouse (re #2005012113)  
 AMBAG Clearinghouse

**Response to Comment Letter SA-5**

**Response to Comment SA-5-1.** If The Regents approves the 2005 LRDP, it will adopt CEQA Findings in connection with the approval. In accordance with Section 15126.4(a)(2) of the CEQA Guidelines, these findings will indicate that The Regents adopts and incorporates into the Project all mitigation measures within the responsibility and jurisdiction of the University as identified and described in the Final EIR. The Regents will also adopt a Mitigation Monitoring Program (MMP). Public Resources Code Section 21081.6 requires the lead agency approving a project to adopt an MMP for the changes to the project or conditions of project approval, which it has incorporated into project approval in order to ensure compliance during project implementation. The implementation of LRDP mitigations will be monitored and reported on annually.

**Response to Comment SA-5-2.** The Campus Natural Reserve (CNR) land use designation is intended to protect certain of the campus's natural features and processes for teaching and research (Draft LRDP, page 66, Draft EIR page 3.9-20). Limited construction, as allowed in this designation, is defined as construction required for the maintenance of the area as a teaching and research reserve and the limited construction of roads, paths, bridges, or below-grade utility access. All other construction is prohibited in Campus Natural Reserve lands. To the extent that any roads are built in CNR areas that are in the Coastal Zone, the University will ensure that these roads are consistent with the provisions of the Coastal Act. The University acknowledges that any development proposed in the Coastal Zone will be required to comply with the Coastal Act.

**Response to Comment SA-5-3.** The University recognizes that northern maritime chaparral located west of Empire Grade Road is a sensitive natural community within the Coastal Zone and thus qualifies as an environmentally sensitive habitat area (ESHA). This is the only such area on campus that qualifies as ESHA. Text has been added to page 4.4-10 to note this fact. See Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*.

The University does not anticipate any direct impacts to the northern maritime chaparral west of Empire Grade Road as a result of activities covered by the LRDP. Indirect effects to northern maritime chaparral in this area are expected to consist of increased edge effects, as discussed on page 4.4-41 of the EIR. The patch of northern maritime chaparral located west of Empire Grade Road already suffers from edge effects due to the road, which also serves as a buffer between development and the chaparral to the west of Empire Grade Road. Development east of the road would not change the wind and sun conditions in this patch of chaparral, especially because a strip of chaparral would be retained east of the road. Because the development east of Empire Grade Road is for a campus support facility, it is unlikely that the northern maritime chaparral west of Empire Grade Road would suffer from increased human disturbance due to this development. Increased human disturbance is more likely adjacent to housing, research and educational facilities where more students will be present. As discussed on page 4.4-41, increased development is unlikely to significantly decrease fire frequency in this area, as fire suppression is already in effect on the campus, including this area.

Increased development east of Empire Grade Road may result in increases in invasive species in the northern maritime chaparral west of the road by creating areas of disturbance that allow for invasives to propagate in the immediate vicinity of the chaparral. The University will minimize the indirect impacts by

striving to avoid fragmentation of existing chaparral areas, as stipulated in LRDP Mitigation BIO-1A on Draft EIR page 4.4-38. The University will minimize the increase in noxious weeds through the implementation of LRDP Mitigation BIO-6, as detailed on Draft EIR pages 4.4-47 and 4.4-48.

If any development were to be proposed adjacent to Empire Grade Road, project-specific analysis pursuant to CEQA would provide further analysis of potential impacts to Coastal Zone resources.

**Response to Comment SA-5-4.** The 2005 LRDP would not necessarily preclude locating some administrative or research uses associated with the Marine Science Campus at 2300 Delaware Avenue. However, doing so may not be consistent with the planning objectives for the Marine Science Campus, such as providing for direct access to fresh seawater and to other necessary support and interrelated functions. Please refer to Marine Science Campus Coastal LRDP, September 2004, for additional information about the objectives of this plan.

**Response to Comment SA-5-5.** The Draft EIR acknowledges the presence of migratory Monarch butterflies on the campus (see page 4.4-33). Potential impacts to active Monarch butterfly roost sites will be determined on a project-by-project basis depending on time of year that construction will occur and presence of known roost sites. As no new construction is proposed at 2300 Delaware Avenue except replacement of mechanical equipment in the existing enclosed mechanical yards, there is no alteration of the proposed use of the site that could result in impacts to Monarch butterfly habitat.

**Response to Comment SA-5-6.** In determining any potential parking mitigation measure for 2300 Delaware Avenue, the Campus will take into account the public parking needs of the adjacent Natural Bridges State Beach. The Campus will continue to work with the City of Santa Cruz regarding designation of permit parking on adjacent streets, and other measures to mitigate potential parking impacts at the 2300 Delaware Avenue site include providing additional incentives for staff to use alternatives to driving alone, disincentives to driving to the site (such as charging for parking), expanding the on-site parking supply, or a combination of these measures. Unlike the nearby Marine Science Campus site, which includes lands that contain wetlands, the entire site at 2300 Delaware Avenue is already developed with buildings, paving, lawns, and other landscaping. Any expansion of parking, thus, would be located on land that is already disturbed or developed. Therefore, development of additional parking on the 2300 Delaware Avenue property is unlikely to lead to environmental impacts resulting from ground disturbance. Further, any future expansion of parking would be subject to future environmental analysis under CEQA at the time it is proposed.

**Response to Comment SA-5-7.** The term “potential” as it relates to the Transportation Demand Management (TDM) measures listed in Table 4.14-19 of the Draft EIR is included in the wording of the mitigation measures to ensure flexibility in selecting the most effective measures to achieve the objective of a 55 percent or better share of transportation by modes other than the single occupant vehicle (SOV). The Campus is committed to identifying, implementing and/or supporting the measures listed in Table 4.14-19 that would effectively reduce campus travel demand. This includes the potential implementation of a regular shuttle between 2300 Delaware Avenue and the main campus, or more effective measures as they are identified.

**Response to Comment SA-5-8.** Potentially significant off-campus impacts, including those that may occur in the Coastal Zone, are fully evaluated in the Draft EIR and the Recirculated Draft EIR. Traffic impacts, on Highway 1 and Empire Grade Road are evaluated in the Draft EIR Section 4.14, *Traffic*,



*Circulation, and Parking* (see LRDP Impacts TRA-2 and TRA-5). The potential for increased non-point source pollution in the Coastal Zone west of Empire Grade Road is evaluated in Section 4.8, *Hydrology and Water Quality* (see LRDP Impact HYD-3). Regarding widening of Empire Grade Road, please see Master Response TRAFFIC-2. Increased demand for water from the University and other regional growth is evaluated in Section 4.15, *Utilities* (see LRDP Impact UTIL-9). LRDP Impact UTIL-9 acknowledges the need for new water supply projects, including a desalination plant, which could result in significant environmental impacts. Please also see Master Response UTIL-1 (Section 5.2.15.3) for additional information about this impact conclusion. Regarding specific impact areas, see Responses SA-5-9 through -14.

**Response to Comment SA-5-9.** Please refer to Master Response UTIL-1 (Section 5.2.15.3) with respect to the impact of the proposed project on available water supplies. Please also see Section 5.2.15.4 of that master response regarding the environmental impacts of developing a desalination plant. With respect to the phased approach to water conservation, please refer to Master Response UTIL-2, which discusses revisions to the mitigations for LRDP Impact UTIL-9. For complete text of these revisions, see Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*, Revised Table 2-1.

**Response to Comment SA-5-10.** Please refer to Response to Comment SA-5-3.

**Response to Comment SA-5-11.** Section 4.14, *Traffic, Circulation, and Parking* indicates that improvements to Empire Grade Road would include the installation of traffic signals at the intersections of Western Drive and Heller Drive (see Table 4.14-18, Draft EIR page 4.14-46). These improvements would not be located on land in the Coastal Zone.

In terms of the timing of these improvements, the Under LRDP Mitigation TRA-2A, the Campus would conduct traffic counts at the affected intersections at intervals of no more than three years or 1,000 students growth in enrollment, as well as during the environmental clearance process for specific projects as required by CEQA, to determine if the additional traffic generated by campus growth or a given project would trigger the need for the specific intersection improvements listed in Table 4.14-18, which includes the Empire Grade Road traffic signals noted above. If so, the Campus would inform the City or the County of this conclusion and contribute its “fair share” of the cost of the needed improvements, as discussed in Master Response MIT-1. The City or the County, as relevant, would be the agency responsible for designing, scheduling, and constructing these improvements. Therefore, the timing of installation of these improvements is not within the control of the University. Please refer to Response to Comment LA-6-7 for additional information regarding the scheduling of off-campus mitigation measures.

Further up Empire Grade Road, between the west entrance of the campus and the entrance to Wilder Ranch State Park, no improvements are required to maintain acceptable levels of service. The 2005 LRDP would not likely impact the recreational use of Empire Grade Road by bicyclists, or the access point to Wilder Ranch State Park from Empire Grade Road, as additional traffic on Empire Grade Road north of the west entrance of campus where the road begins to narrow, would include an additional 60 AM peak hour and 80 PM peak hour vehicle trips (about one additional vehicle every minute). This amount of additional traffic is not expected to affect the safe use of the road by bicycles. Therefore, additional roadway improvements on Empire Grade Road beyond those identified in the 2005 LRDP EIR would not be necessary to ensure the continued safe use of the road by bicycles.

The impact of required traffic signal improvements on Empire Grade Road would not be expected to result in the removal of sensitive habitat in the Coastal Zone. There is residential development on the west side of Empire Grade Road at the intersection with Western Drive. Additionally, due to topography and the orientation of the intersection, it is very unlikely that intersection improvements at Heller Drive would occur on the west side of Empire Grade Road. Increased non-point source pollution in the Coastal Zone west of Empire Grade Road is evaluated in Section 4.8, *Hydrology and Water Quality* (see LRDP Impact HYD-3).

**Response to Comment SA-5-12.** The University uses lawn and turf grasses (invasive species), for very limited purposes in ornamental landscaping and will continue to do so where non-invasive species that will serve these purposes are not available. Some species planted by CASFS and the Arboretum also are invasive. Grounds Service staff control the spread of these species, as part of ongoing maintenance activities and control of invasive species, is part of the activities of the Site Stewardship Program.

**Response to Comment SA-5-13.** Please refer to Responses to Comments LA-6-51 and LA-9-26 (regarding the erosion in off-campus drainages as a result of runoff from the campus under existing and LRDP conditions).

With respect to the quality of campus runoff and its potential to affect off-campus drainages and springs that are downgradient of the campus, the Draft EIR acknowledges on page 4.8-10 that increased on-campus population and human activity could result in an increase in urban pollutants that could be discharged into runoff on the campus. However, because the Campus would develop and implement a Storm Water Management Program in compliance with NPDES MS4 Phase II regulations, and would also implement LRDP Mitigation HYD-3A, water quality impacts from increased campus development and population growth would be minimized. The “low-impact development” design features required by revised LRDP Mitigation HYD-3D would also reduce pollutant load through infiltration of runoff through soil. Please refer to Final EIR, Volume IV, Chapter 3, Revised Table 2-1, for changes to the text of the mitigation measure.

Draft EIR Appendix D1 presents water quality data collected since 1989 from three campus parking lots, Moore Creek, and a campus water supply well representative of the karst aquifer. Note that the appendix also presents data for some springs on campus but they are located upgradient of most of the existing campus development and therefore do not reflect water quality potentially affected by campus development. Water quality monitoring data for springs downgradient of the campus are not available as these off-campus springs are not monitored by the Campus. However, water quality data for the on-campus water supply well (WSW-1) were examined to see if the quality of water in the karst aquifer has been adversely affected by campus runoff. These data show that there appears to be no increasing trend in pollutant concentrations over time in the karst aquifer.

Some of the sediment in storm water runoff is filtered out during infiltration prior to reaching the groundwater aquifer. Once in the marble, the water flows both through porous media and in open voids (caves and caverns). Some additional filtering of sediment occurs as the water flows through the porous media. However except for some minor retention of sediment based on cave geometry, not much sediment retention or filtering occurs in the open void areas. However, because groundwater generally moves slowly compared to surface streams and the groundwater is generally quite deep, it is not likely to carry large quantities of sediment into any off-campus watercourses it feeds. In slow-moving water,

sediment is likely to settle out during transport. As part of its Storm Water Management Program, the Campus will characterize and evaluate the potential for pollutants in runoff from existing development to enter sinkholes and will develop and implement "best management practices" to ensure groundwater quality. This will help minimize any impacts in downstream watercourses that receive seepage from the karst groundwater.

**Response to Comment SA-5-14.** In developing the recommendations for the storm water drainage improvements that are included in the proposed Infrastructure Improvements Project, the Storm Water and Drainage Master Plan consultant team considered the use of "soft" solutions (i.e., vegetation or biotechnical measures) at every problem site.

For biotechnical measures to be effective, the environment must be suitable for the vegetation component (typically willows or cottonwoods) to be able to grow and thrive. The specific environmental factor or combination of factors that would prevent the growth of suitable vegetation at a site varies from place to place. The two most common factors are: (1) location too shady to support the growth of willows, cottonwoods, or other desired vegetation, and/or (2) a lack of adequate soil water during the summer to support plants. Only one of the channels has year-round flow; the others dry out quickly once the rainy season has ended.

Shade as a limiting factor in the introduction of riparian plants is widespread on campus. All but two of the channels on campus are situated beneath a heavy canopy of trees. The channels with a heavy canopy include the Middle Fork of Moore Creek, the East Fork of Moore Creek, all tributaries of the East Fork of Moore Creek, the West Fork of Jordan Gulch, the Middle Fork of Jordan Gulch, the East Fork of Jordan Gulch, and the main stem of Jordan Gulch. The streamside environment in these channels is too heavily shaded to support willows, cottonwoods, or other fast-growing tree species used in biotechnical erosion control measures.

Furthermore, the natural vegetation already present in the channels has not been adequate to prevent erosion. Even the stabilizing effects of the root networks of the coast redwood, the most common species in the channels on campus, have not withstood the erosive energy of the altered flow rates that the Storm Water and Drainage Master Plan is addressing. The "hard" engineered measures that are proposed will prevent the loss of additional streamside vegetation.

The Storm Water and Drainage Master Plan maximizes the use of "soft" techniques wherever they are appropriate. The most effective of the "soft" approaches is to keep runoff water out of channels by spreading flows onto natural vegetation or the forest floor where it can dissipate and/or infiltrate into the soil. A major effort was expended to identify solutions of this kind, and there are 21 improvement project sites that propose dissipation or infiltration of runoff before it enters the stream channel. Inside the eroding channels where no soft solutions are viable and "hard" structures are therefore needed to accomplish project objectives, the Storm Water and Drainage Master Plan has, in each case, proposed the least-intrusive approach that would still be effective. For example, small (less than 3 feet in height) wood or log checkdams are frequently recommended. Checkdams were selected because of their proven effectiveness, their minimal disturbance footprint, their suitability for installation by manual labor techniques (thus not requiring the construction of an equipment access road), and the fact that they can be constructed out of materials that naturally occur on campus – redwood logs and quarry rock. The proposed use of culverts or pipelines has been limited to situations where an existing pipeline needs to be

extended; where water needs to be conveyed underneath roads, parking lots, or landscaped areas; or where geology and/or topography have required their use. The University is committed to the use of “soft” techniques where they are appropriate. The design described in the EIR for each improvement project is still in the conceptual stage and is anticipated to be refined as design and engineering proceed. Each of the storm water drainage projects will be re-evaluated and considered for soft techniques as part of the final design process.

The commenter also addresses LRDP Mitigation HYD-3D, which would apply to all new development under the 2005 LRDP. The mitigation measures for LRDP Impact HYD-3 are intended to filter any increased runoff close to the point where it is generated. LRDP Mitigation HYD-3 has been revised to specify particular low-impact development measures. The word “preferably” was used because the specific projects have not yet been identified or designed and it is uncertain whether or not the new runoff can be infiltrated near the project sites. At the time that specific projects are proposed and designed, the project-specific control measures, including the details of where the runoff will be infiltrated, will be included in the project-specific CEQA documents. Approximately 65 percent of the proposed development under the 2005 LRDP will be infill in already developed areas, which may limit the space available for infiltration of runoff directly adjacent to the new development.

**Response to Comment SA-5-15.** The Campus is preparing the Storm Water Management Program (SWMP) and the LRDP EIR simultaneously. The Campus submitted a revised SWMP to the RWQCB in March 2006. While the two documents address related water quality issues, the SWMP and the 2005 LRDP EIR respond to different regulatory requirements, and it is important that the distinction between the two processes be maintained. Therefore, the University will respond to comments regarding the 2005 LRDP EIR in the Final EIR, and comments on the SWMP in communications with the RWQCB on the SWMP.

**Response to Comment SA-5-16.** The comments provided about procedural concerns are noted for the record and do not require or warrant any changes to the Draft EIR. Please see pages 1-9 (Volume I) and 4-23 (Volume III) of the Draft EIR for additional information about Coastal Permit requirements. Please also refer to Response to Comment LA-2-89, which indicates that the University will not seek approval of the 2005 LRDP from the Coastal Commission.



State of California – The Resources Agency

ARNOLD SCHWARZENEGGER, Governor

DEPARTMENT OF FISH AND GAME

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(707) 944-5500

REC'D JAN 17 2006



January 12, 2006

Sally Morgan, Senior Environmental Planner  
UCSC Physical Planning and Construction  
University of California, Santa Cruz  
Santa Cruz, CA 95064  
Via Fax (831) 423-7346  
E mail: lrdp-eir@ucsc.edu

Dear Ms. Morgan:

University of California Long-Range Development Plan  
SCH # 2005012113

The Department of Fish and Game (DFG) has reviewed the long range development plan (LRDP 2005-2020). The 2005 LRDP has been prepared to accommodate an increase in student enrollment from approximately 14,000 (2003-2004 levels) to 21,000, and an increase of approximately 1,500 faculty and staff from approximately 4,500 at 2003-2004 levels. This expansion will require the development of an additional 2.6 million gross square feet (gsf) of academic and support space on campus, and the development of 1.5 million gsf of housing, which would provide housing for more than 3,400 additional students and employees.

Please be advised this project may result in changes to fish and wildlife resources as described in the California Code of Regulations, Title 14, Section 753.5(d)(1)(A)-(G). Therefore a de minimis determination is not appropriate, and an environmental filing fee as required under Fish and Game Code Section 711.4(d) should be paid to the Santa Cruz County Clerk on or before filing of the Notice of Determination for this project.

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DFG would like to urge caution in your planning effort in the context of ensuring sufficient water supply for the proposed expansion. UCSC relies on the water supplied by the City of Santa Cruz (City). Currently, DFG and NOAA Fisheries are working with the City to develop a Habitat Conservation Plan in compliance with State and Federal Endangered Species Acts. Sufficient bypass and passage flows for two listed species, steelhead trout (*Onchorhynchus mykiss*) and coho salmon (*Onchorhynchus kisutch*) are at the core of these negotiations. Although the City is currently developing their Integrated Water Plan (IWP) (which the LRDP uses as a basis for projections of sustaining the campus expansion), their plan failed to account for the possibility of needing to curtail their withdrawals from North Coast streams and the San Lorenzo River in response to new restrictions that may be necessary to mitigate existing impacts to listed species.

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Ms. Sally Morgan  
 January 12, 2006  
 Page 2

The campus peak water demands in October and November coincide with the critical periods of water availability for fish in the streams and river that are currently being diverted from, and this potential conflict is likely to be exacerbated during drought years. DFG commends the planned emphasis on conservation and curtailment during drought and normal years.

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The DEIR indicates that California Endangered Species Act (CESA) Permits must be obtained if the project has the potential to result in take of species of plants or animals listed under CESA, either during construction or over the life of the project. Issuance of a CESA Permit is subject to California Environmental Quality Act (CEQA) documentation; therefore, the CEQA document must specify impacts, mitigation measures, and a mitigation monitoring and reporting program. Under the preferred alternative, no impacts to the plants listed under CESA that are present on the UCSC campus are currently proposed. If the project will impact CESA listed species, early consultation is encouraged, as significant modification to the project and mitigation measures may be required in order to obtain a CESA Permit.

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The LRDP describes a current list of approximately 94 individual improvement projects in the campus watercourses of Cave Gulch, Moore Creek, Jordan Gulch, and the Pogonip drainage. DFG staff had responded to an earlier query from your office about early consultation, and remain willing to provide more detailed review of your existing plans prior to your submittal of notifications of lake and streambed alteration. Please note that Section 1602 of the Fish and Game Code applies to lakes as well as streams. Any work to be done on the Arboretum Pond also warrants notification. For any activity that will divert or obstruct the natural flow, or change the bed, channel, or bank (which may include associated riparian resources) of a stream or lake, or use material from a streambed, DFG may require a Streambed Alteration Agreement (SAA), pursuant to Section 1600 et seq. of the Fish and Game Code, with the applicant. Issuance of SAAs is subject to CEQA. DFG, as a responsible agency under CEQA, will consider the CEQA document for the project. The CEQA document should fully identify the potential impacts to the stream or riparian resources and provide adequate avoidance, mitigation, monitoring and reporting commitments for completion of the agreement. In the sections that defer the specific restoration of impacted stream features to a future effort, DFG may not be able to use the existing EIR to fulfill its obligations under CEQA. Such projects may therefore require UCSC to prepare additional CEQA documents as a lead agency. To obtain further information about the SAA notification process, please access our website at [www.dfg.ca.gov/1600](http://www.dfg.ca.gov/1600); or to request a notification package, please contact the Streambed Alteration Program at (707) 944-5520.

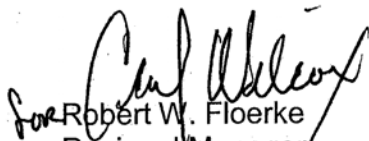
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Ms. Sally Morgan  
January 12, 2006  
Page 3

The thresholds proposed as triggers for riparian mitigation, 300 linear feet of permanent impact or 600 feet of temporary impact, may not be considered adequate by DFG in cases of moderate or high quality sites. Because of their importance as wildlife corridors and California red-legged frog habitat on campus, DFG anticipates developing mitigation requirements on a site- or reach-specific basis.

If you have any questions about these comments, please contact Serge Glushkoff, Environmental Scientist, at [sglushkoff@dfg.ca.gov](mailto:sglushkoff@dfg.ca.gov) or (707) 944-5597; or Scott Wilson, Habitat Conservation Supervisor, at (707) 944-5584.

Sincerely,

  
for Robert W. Floerke  
Regional Manager  
Central Coast Region

cc: State Clearinghouse

## Response to Comment Letter SA-6

**Response to Comment SA-6-1.** An environmental filling fee, as required under Fish and Game Code 711.4(d), will be paid by The UC Regents when the Notice of Determination for the project is filed.

**Response to Comment SA-6-2.** Please refer to Section 5.2.15.1.1 in Master Response UTIL-1, which discusses some of the factors that potentially could affect the City's water supply at the source, including the federal Endangered Species Act Section 10 permit process noted in the comment. Please refer to Section 5.2.15.3.1 in Master Response UTIL-1 regarding how such factors are considered in the University's impact conclusions.

**Response to Comment SA-6-3.** Please see Master Response UTIL-1 regarding the north coast streams. Please refer to Master Response UTIL-2, which provides additional details about the mitigation measures included in LRDP Impact UTIL-9 to reduce water use on the campus during normal years and drought years.

**Response to Comment SA-6-4.** As discussed on page 4.4-47, under LRDP Impact BIO-5, no impacts to plant species listed under CESA are anticipated from development under the 2005 LRDP.

**Response to Comment SA-6-5.** No alterations of the Arboretum Pond are proposed under the 2005 LRDP. The University acknowledges the need to obtain Streambed Alteration Agreements for the proposed Infrastructure Improvements Projects. The need for these permits is discussed under IIP-SW Impact BIO-1 (page 2-50, Volume III). Impacts to riparian vegetation and water quality that may result from proposed storm water drainage improvement projects are quantified and discussed under IIP-SW Impact BIO-2 (page 2-50, Volume III). Mitigation IIP-SW Mitigation BIO-3B quantifies the area of riparian vegetation that the University expects to restore to mitigate for these impacts. In addition, pages 4.4-46 and 4.4-47 in Volume I discuss total impacts to riparian vegetation anticipated from proposed bridge crossings and storm water drainage improvements. LRDP Mitigations BIO-4A through -4D would reduce these impacts to a less-than-significant level.

**Response to Comment SA-6-6.** The thresholds proposed as triggers for riparian mitigation were based on site visits to each of the proposed storm water drainage improvement sites. Benefits to riparian vegetation would be expected to result in reduced peak flows, which will reduce consequent bank destabilization and erosion. Mitigation for impacts above these thresholds would reduce the overall potential impact of proposed activities to a less-than-significant level. As stated on page 4.4-46, the terms of the restoration and mitigation plans will be determined in consultation with California Department of Fish and Game (CDFG). The University welcomes CDFG's input on the proper stewardship of riparian corridors on campus. LRDP Mitigation BIO-9 provides a general structure for the protection of California red-legged frog during construction activities. Consultation with the U.S. Fish & Wildlife Service and CDFG will occur on a project-specific basis and detailed mitigation measures will be outlined on a site or reach specific basis.



DEPARTMENT OF FORESTRY AND FIRE PROTECTION  
San Mateo – Santa Cruz Unit, Resource Management  
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Felton, CA 95018  
Website: www.fire.ca.gov  
(831) 335-6740



Date: March 17, 2006  
SCH#: 2005012113  
DEIR, University of California, Santa Cruz  
The 2005-2020 Long-Range Development Plan

John Barnes  
Director of Campus Planning  
University of California, Santa Cruz  
Physical Planning and Construction  
1156 High Street  
Santa Cruz, CA 95064

Dear Mr. Barnes:

The above referenced Draft Environmental Impact Report (DEIR) was reviewed by the Resource Management office of the San Mateo-Santa Cruz Unit of the California Department of Forestry and Fire Protection (CDF). In light of CDF not having received this document during the public comment period we appreciate having the opportunity to provide late comment on your document. The following points of concern or agreement were generated in our review of this document.

**Conversion of Timberland**

- The DEIR is correct in its statements that a Timberland Conversion Permit and a Timber Harvest Plan will be required for this project where timber operations occur as explained in a letter to your office from CDF Deputy Director William Snyder dated August 12, 2005. An Application for Timber Conversion Permit and Timberland Conversion Plan must be submitted to CDF, a Timberland Conversion Permit issued and recorded, and a Timber Harvest Plan approved prior to conversion operations commencing. Portions of the development area may be eligible for one or more of the exemption processes under the Forest Practice Rules.
- As correctly identified and described in your DEIR (4.4-68), approximately 120 acres of land classified as timberland is proposed for conversion to non-timber uses. This resource is described in the DEIR as a mixture of second growth redwood, Douglas fir, mixed evergreens, dwarf redwood and hardwoods. After our review we are concerned that your analysis of the removal of this resource was deficient in the project description, regional setting and alternatives analysis. While this resource is arguably not unique or threatened, it is significant both locally and regionally with respect to social, environmental, economic and aesthetic values.
- In light of the public controversy generated by previous development projects on the campus where considerably smaller amounts of this resource were removed it is confusing why the DEIR placed so little value or discussion on this resource. Evaluation of the value of this resource to the

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local economy, wildlife species, and aesthetics appeared to be absent. It appears that conversion of this resource to clearings is preferred as opposed to development in the abundant existing open areas on the ownership. For example, the DEIR did not address why converting >75 acres of timberland to build athletic fields instead of constructing the fields on existing grassland (4.4-69). The significance of this conversion of timberlands needs to be evaluated.

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- Section 4.4.2.6 discusses what is proposed for removal and where, but does not describe the consequences of this removal. The removal of dwarf redwood is mentioned, but the amount of removal is not compared to the small amount of this resources encountered in this area.
- A conversion area of this size (120 acres) has never been proposed in Santa Cruz County. Selective timber harvests are routinely proposed for larger areas, but not conversions. The project description didn't put the scope of the project in a regional context.
- Consideration of forest health and forest pest issues should be given to development projects within the timberland on this ownership. Compliance with both Sudden Oak Death (SOD) and Pine Pitch Canker mitigation measures will be a requirement for any timberland conversion and Timber Harvest Plan approved for this property. In addition, tree protection measures should be incorporated into any future development plans to ensure that trees selected for retention are not damaged or inadvertently removed during construction.
- On page 1-5 last paragraph, reference is made to relying on the approved EIR and not needing additional environmental documentation for projects generated by this EIR. The Timberland Conversion Application and Timber Harvest Plan may rely heavily on the analysis contained in the final EIR; however, these applications will be evaluated by a multi-agency review team (FPR 14 CCR § 1037.5) and could require additional site specific documentation and mitigations to address site specific issues encountered by those projects.
- Per PRC 750, *et seq*, it is required that a Registered Professional Forester practice forestry on non-federal, forested landscapes.

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Defensible Space and Fire

- Concern over “defensible space” issues as identified under Public Resources Code (PRC) 4291 need to be addressed in development plans if construction is proposed in timberlands or other wildlands types. CDF staff conversations with UCSC Chief Trapp identified that residential construction is proposed on State Responsibility Lands (SRA) which triggers PRC 4291 protection measures. One new revision to PRC 4291 strengthens the requirements of 4291 with an increase of the radius of the defensible space zone from 30' to 100' around structures.
- Defensible space issues would be simplified if alternatives proposing construction in existing open areas were considered. It is easier to protect structures built in existing clearings than to protect them in a forest environment. These rules will be enforced by the Fire Marshal's office during and following construction.
- As also suggested by our Fire Marshall's office during the scoping process, development utilizing the Urban Wildland Intermix Code (UWIC) should be anticipated as portions of this ownership fall within SRA lands.
- Earlier comments by our Fire Marshall's office expressed concern over increased development contributing to traffic impacts to Emergency Services both in and around the ownership. Traffic levels observed on Highway 1 below the campus already impedes emergency response times. A

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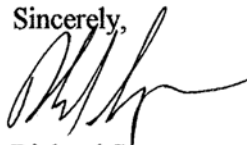
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review of how the proposed 50% increase in enrollment would effect emergency response times around the camp is recommended in this EIR.  12

- As suggested by our department during the 2005 scoping process, an aggressive fuels management plan and hazard tree evaluation should be included in this project. Our office is open to discussions over ways to prepare and implement such a plan.  13
- What is the difference between Figures 5-2 and 5-3? They appear to be essentially the same map.  14

If you need any assistance or information, please write or call my office at the above listed address or telephone number.

Sincerely,



Richard Sampson  
Forester II – Unit Forester  
Unit Environmental Coordinator  
RPF #2422

Cc:  
State Clearinghouse  
P.O. Box 3044  
Sacramento, CA 95812-3044

Allen Robertson  
California Department of Forestry and Fire Protection  
Environmental Protection,  
P.O. Box 944246  
Sacramento CA 94244-2460

## Response to Comment Letter SA-7

**Response to Comment SA-7-1.** Comment noted.

**Response to Comment SA-7-2.** Please refer to Responses to Comments SA-7-3 through SA-7-14 for responses to specific comments on these topics.

**Response to Comment SA-7-3.** The evaluation of the direct and indirect impacts on redwood and mixed evergreen forests (also classified as timberlands) in the Draft EIR is based on the CEQA standards of significance, as provided in Appendix G of the CEQA Guidelines. CEQA does not require an evaluation of the economic value of this resource to the local economy. The CEQA standards of significance for biological resources relate primarily to special status species, sensitive natural communities, and wildlife movement. As stated on Draft EIR page 4.4-70, the loss of redwood and mixed evergreen forests to development under the 2005 LRDP is not considered a significant impact in and of itself, because these vegetation types are not considered sensitive natural communities by California Department of Fish and Game and they are abundant in the region. However, as discussed on page 4.4-70, impacts to special status species for whom these forests provide habitat, and to wildlife movement, water quality, aesthetics, air quality, and noise, are analyzed in the Draft EIR, and mitigations are provided to reduce these impacts to a less-than-significant level where feasible. For example, potential impacts to active raptor nests that may occur in redwood or mixed evergreen forests are discussed on pages 4.4-56 and -57. Impacts to active nests would be minimized by implementation of LRDP Mitigation BIO-11, which requires projects constructed during the raptor breeding season to conduct preconstruction surveys for active nests and prohibits construction activities within 200 feet of an active nest.

Additionally, the CEQA Guidelines also require a discussion of any significant irreversible environmental changes that would be caused by the project. Section 6.2 of the Draft EIR (page 6-3 of Volume II) acknowledges that development of the north campus forested lands would constitute an irreversible use of these lands, and would result in the loss of approximately 50.2 acres of sensitive habitat and about 124 acres of redwood forest and mixed forest habitat. However, this section of the EIR concludes that the Campus would implement mitigation measures provided in Section 4.4, *Biological Resources* to reduce impacts to sensitive biological resources, and would preserve and enhance appropriate habitat elsewhere on campus lands.

The aesthetic impact associated with tree removal in forested areas on campus is evaluated as part of LRDP Impact AES-5. This analysis evaluates whether the 2005 LRDP would substantially degrade the existing visual character of the campus and adjacent areas. While redwood trees and timberlands in general are not identified as scenic resources on campus (see Draft EIR page 4.1-8), they are an important constituent of the existing visual character of the central and north campus. LRDP Impact AES-5 indicates that new development could affect the visual character of the campus. However, LRDP Mitigation AES-5A, which requires that project designs are reviewed by the UC Santa Cruz Design Advisory Board, would ensure that the visual character and quality of the project area are not substantially degraded as a result of development under the 2005 LRDP. LRDP Mitigation AES-5B would ensure that new buildings do not protrude above the redwood canopy. Additionally, with the implementation of LRDP Mitigations AES-5C and AES-5D, the Campus would only selectively remove trees from project sites, and would continue its practice of tree plantings and maintenance.

The Draft EIR concludes that these measures would help maintain the visual continuity of forested areas and would reduce potential impacts on the visual character of the central and north campus to less-than-significant levels. These measures would also ensure that from off-campus locations and from vantage points in the lower campus area, the forest areas would not appear substantially changed as a result of development under 2005 LRDP. In the north campus area, trees would be removed to make way for the north campus loop road and north campus development. However, under the policies of the proposed 2005 LRDP (page 72), new development north of the existing core would be sited sensitively in order to maintain the campus pattern of clustered development surrounded by undeveloped landscape. Please also refer to Response to Comment LA-6-15 for additional discussion of individual trees or tree groupings that may be considered aesthetically valuable components of the landscape.

The comment indicates that the Draft EIR did not address why converting more than 75 acres of timberland was preferred over construction in the lower campus grassland. In fact, LRDP Alternative 3, Southerly Expansion Alternative, does evaluate the possibility of accommodating the same population and building space as the proposed 2005 LRDP, without further developing the north campus (see Draft EIR pages 5-23 through 5-27). The northern areas thus would remain essentially undeveloped under this alternative and the facilities needed to serve the increased campus population would be provided by increased infill development within the central, south central, and southeastern portions of the campus. This alternative would convert less timberland in exchange for building in meadows.

Alternative 3 would not meet project objectives, however, especially the objective regarding maintaining the unique character of the campus, which relates specifically to the open space and meadows of the lower and central campus (see Draft EIR pages 5-26 through 5-27 for other objectives). Additionally, the alternative would result in increased aesthetic and cultural resource impacts that would likely make this alternative unacceptable to the campus community and Santa Cruz community as a whole. The increased aesthetic impacts would be associated with more development in the lower campus grasslands that would be visible from on- and off-campus vantage points. The increased cultural resource impacts would be associated with more development in the lower campus grasslands that would be visible from the Cowell Ranch Historic District, which could cumulatively diminish the integrity of the historic setting of the resource. The district might cease to be eligible for the California Register of Historical Resources if there were additional development within the district.

As indicated on Draft EIR page 5-24, because no development would occur on the north campus under this alternative, all of the significant biological resource impacts on northern maritime chaparral, Santa Cruz manzanita, jurisdictional wetlands, and certain special-status plant and wildlife species would be avoided. The impact of campus development on nesting and roosting habitat for special-status raptors would be reduced but not avoided as these species also occur on the central and lower campus. The impact on Ohlone tiger beetle from trail use and on California red-legged frog would remain unchanged under this alternative. The shift of development to the grassland and meadow areas of the lower campus under Alternative 3, however, would increase the impact to foraging habitat of the special-status raptors and birds of prey, habitat for the western burrowing owl, and potential breeding area for the coast horned lizard. Additionally, development along most of the length of the East Meadow would have a potentially significant impact on migration corridors across the campus between Wilder Ranch State Park, the Great Meadow, and Pogonip City Park.

It should also be noted that all north campus development, not just the athletic fields, would result in the conversion of up to 73 acres of timberland. Of that amount, approximately 14 acres would be associated with athletic fields. The north campus athletic fields are programmatically associated with the housing envisioned for the north campus. Therefore, these fields were not proposed for construction in existing campus grasslands in the 2005 LRDP.

**Response to Comment SA-7-4.** As discussed in Section 4.4.1.5 (*Natural Communities*) of the Draft EIR, dwarf redwood stands are not considered sufficiently rare or threatened to qualify as a sensitive natural community under CEQA (Please refer to Response to Comment SA-7-3 regarding the CEQA standards of significance for biological resources). Dwarf redwoods are not currently tracked by the California Natural Diversity Database (CNDDDB 2005) or recognized as a distinct natural community or vegetation association. While the 1988 UC Santa Cruz LRDP EIR considered them to be sufficiently rare to be recognized as a sensitive natural community (UC Santa Cruz 1989), dwarf redwood stands are currently known to occur throughout the range of coast redwoods where soil nutrients are lacking, or where other extreme conditions, such as salt spray near the coast, stunt growth (McBride 2005; Borchert et al. 1988). Buck (1986) describes other occurrences in the Santa Cruz Mountains north of the UC Santa Cruz campus on Ben Lomond Mountain, along Empire Grade Road in the “chalks” area of northern Santa Cruz and southern San Mateo Counties, and small patches in Henry Cowell Redwoods State Park and elsewhere in the Ben Lomond Sand Hills of Santa Cruz County. Dwarf redwood stands are also reported from Alameda, Marin, and Monterey counties (McBride 2005; Borchert et al. 1988).

**Response to Comment SA-7-5.** The maximum amount of timberland that could ultimately be converted to non-timber uses under the 2005 LRDP would be 120 acres, as indicated in Section 4.4.2.6. This acreage would be spread out over the campus in small clusters surrounded by remaining forest. Of the maximum 120 acres of timberland conversion, up to 73 acres would be converted as a result of north campus development. Up to approximately 47 acres of land that could be classified as timberland by CDF would be converted as a result of infill development in the mostly developed central campus. The “timberland” in the central campus includes small clusters of trees in open spaces between buildings, in parking lots, adjacent to roadways, etc. Timberland conversions would take place incrementally on a project-by-project basis, over the planning horizon for the 2005 LRDP. Trees would be removed selectively only in connection with approved projects on individual project sites. Therefore, describing the conversion as a single, 120-acre removal project is misleading.

Furthermore, it is not appropriate to compare the potential maximum size of timberland conversion for individual projects in the county with development under the 2005 LRDP. The University, as a public entity and as a campus, is like no other land use or agency in the County. The University’s LRDP is most similar to a local agency general plan, such as the general plans for the City and County of Santa Cruz. However, the University is very different from either the City or the County in that it owns and controls all of the campus lands under its jurisdiction. This is not the case for the City and the County. While the County, for example, would not apply for a TCP for all conversions that could result with buildout under its general plan, the University, as a single landowner, could apply for such a TCP for its LRDP. There does not appear to be a similar landowner, or landowners, in the County to which the University could be compared.

**Response to Comment SA-7-6.** Forest health and forest pest issues will be considered during the planning and implementation of specific development projects under the 2005 LRDP. The Campus

Standards provide design considerations for existing trees and tree protection measures. These standards will continue to be implemented on a project-by-project basis during design development and construction. LRDP Mitigation BIO-6 has been revised specifically to indicate that the Campus will amend Campus Standards to include measures to prevent the spread of Sudden Oak Death and Pine Pitch Canker during tree removal activities for specific projects. See Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*.

**Response to Comment SA-7-7.** Draft EIR page 1-5 indicates that no additional environmental documentation would be required for projects within the scope of the 2005 LRDP if: (1) no new significant effects would result from the proposed project, (2) all significant effects have been adequately addressed in the 2005 LRDP EIR, and (3) no new mitigation measures would be required to address the impacts of the project. Otherwise, subsequent environmental documentation must be prepared. The Timberland Conversion Application and Timber Harvest Plan (THP) may utilize information provided in the 2005 LRDP EIR and/or any subsequent environmental documentation. If additional site-specific documentation is required, this information can and will be provided in the THP.

**Response to Comment SA-7-8.** Comment noted.

**Response to Comment SA-7-9.** The current requirement for defensible space is cited on page 4.7-16 of the Draft EIR.

**Response to Comment SA-7-10.** Please refer to Response to Comment SA-7-3, which indicates that the Draft EIR did consider focusing new development in existing open areas (see LRDP Alternative 3: Southerly Expansion Alternative, Draft EIR pages 5-23 to 5-26).

**Response to Comment SA-7-11.** As stated on page 4.7-16 of the Draft EIR, the UWIC is part of the Campus's Fire Protection Policy.

**Response to Comment SA-7-12.** The relevant CEQA standard of significance related to emergency response times indicates that a project would have a significant impact if it would result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services (police, fire, schools, and libraries). During the preparation of the Draft EIR, the various service providers were contacted to determine if growth and development through 2020, including that associated with the 2005 LRDP would require new or physically altered governmental facilities in order to maintain response times among other objectives (see Section 4.12, *Public Services*, LRDP Impacts PUB-1, PUB-2, and PUB-5).

As the affected police departments have determined that either they have adequate facilities or do not have plans for expansion of facilities, there would be no environmental impacts from the provision of new facilities, as reported in LRDP Impacts PUB-1 and PUB-5. The UC Santa Cruz Fire Department building would need to be expanded within the planning horizon of the 2005 LRDP to accommodate new staff and an additional fire engine. While the expansion of the station could contribute to the environmental effects that are fully analyzed in the 2005 LRDP EIR, this expansion would not result in significant environmental impacts with the implementation of relevant mitigation measures identified in this EIR (see LRDP Impact PUB-2). None of the other fire service agencies that respond to the campus indicated

that they would require new or expanded facilities to serve growth through 2020, including growth under the 2005 LRDP (see LRDP Impacts PUB-2 and PUB-5).

While CEQA does not require analysis of response times, the Campus has considered the effect of the 2005 LRDP on emergency responses. Emergency response agencies would respond to an emergency incident on the campus from a variety of locations. The UC Santa Cruz Police and Fire Departments would respond from the southern and central portions of the campus, respectively, to other locations around the campus. Response from these on-campus locations would utilize on-campus roadways and off-campus roadways immediately adjacent to the campus. According to Section 4.14, *Traffic, Circulation, and Parking* (LRDP Impact TRA-1), growth under the 2005 LRDP would not result in any degradation of the level of service at on-campus intersections during peak hour conditions with the implementation of LRDP Mitigation TRA-1. This measure requires that the University monitor intersection levels of service and implement identified improvements as needed to maintain service levels (See Table 4.14-14 for levels of service at on-campus intersections with the LRDP). Moreover, off-campus intersections immediately adjacent to the campus (i.e., Bay Street-Glenn Coolidge/High Street, Empire Grade Road/Western Drive, and Empire Grade Road/Heller Drive) would operate with acceptable levels of service during peak hour conditions with the implementation of LRDP Mitigations TRA-2A and TRA-2B, which require the Campus to: (1) contribute its “fair share” of the cost of needed improvements at off-campus intersections (as described in Master Response MIT-1), and (2) expand its existing Transportation Demand Management programs. Overall, emergency response times on and immediately adjacent to the campus would not likely be significantly affected with growth and development under the 2005 LRDP, given expected traffic conditions as described above.

The City of Santa Cruz Fire Department would most likely respond to the campus from its station on Younglove Avenue on the Westside of Santa Cruz. The City of Santa Cruz Police Department would respond to the campus from its downtown station on Center Street. The County Sheriff’s Department would respond from the County Building on Ocean Street in the downtown area. The California Department of Forestry and Fire Protection would most likely respond to the campus from either the Felton Station on Highway 9, or the Bonny Doon Stations on Martin Road and Empire Grade Road. Response from these off-campus locations could utilize the Mission Street/Highway 1 corridor, as well as Bay Street, Laurel Street, High Street, Western Drive, and Empire Grade Road among others. According to Section 4.14, *Traffic, Circulation, and Parking* (LRDP Impact TRA-2), growth under the 2005 LRDP would result in degradation of the level of service at a number of off-campus intersections during peak hour conditions even with the implementation of LRDP Mitigations TRA-2A and TRA-2B, and the impact would remain significant and unavoidable. See Draft EIR page 4.14-43.

It should be noted that the 2020 with project traffic scenario analyzed in the Draft EIR was based on peak hour traffic volumes, which are expected to be worst-case conditions. Levels of service and delay at other times of the day and evening are expected to be less degraded and therefore would have less of an effect on emergency response times. Regardless, it is acknowledged that off-campus traffic conditions in 2020 may affect emergency response times to the campus, or elsewhere in the community, and that campus growth under the 2005 LRDP would likely contribute to such effects. However, there are no effective methodologies for estimating the increase in response times associated with a particular level of service degradation and/or increase in delay at intersections. For example, the amount of additional delay at intersections along a given route to the campus in 2020 would not correspond to an equivalent increase in



emergency response times. This is due to the fact that emergency vehicles can control traffic to a certain extent through the use of sirens and/or lights and therefore can readily move around traffic. Emergency vehicles can also select alternative routes if traffic conditions on a primary access route are severely degraded. For these reasons, it is unclear to what extent emergency response times may be increased over time as traffic conditions degrade.

**Response to Comment SA-7-13.** LRDP Mitigation HAZ-10B (page 4.7-28 of the Draft EIR) requires that the Campus develop and implement a Fire Management Plan before construction of north campus development begins. The Fire Management Plan will include provisions governing vegetation management, specify pruning guidelines, and include a rigorous inspection schedule to ensure that surrounding vegetation, including trees that may be hazardous, do not endanger buildings. As stated on page 4.7-29 of the Draft EIR, because much of the north campus is designated State Resource Area, the Fire Management Plan must be reviewed and approved by California Department of Forestry.

**Response to Comment SA-7-14.** Draft EIR Figure 5-2 illustrates the development areas under the 2005 LRDP. Draft EIR Figure 5-3 illustrates the development areas under LRDP Alternative 2, Reduced Enrollment Growth. The Final Draft 2005 LRDP (September 2006) revises the Draft 2005 LRDP (January 2005) to reflect the Reduced Enrollment Growth Alternative previously analyzed in the 2005 LRDP Draft EIR and identified as the Environmentally Superior Alternative. Campus proposes to recommend to The Regents the adoption of the Final Draft 2005 LRDP (September 2006). For more information regarding the Final Draft 2005 LRDP, please see Final EIR, Volume IV, Chapter 2. The Final Draft 2005 LRDP would not result in development west of Porter Meadow, which means that the development area proposed at that location under the 2005 LRDP would be reduced in size. This difference is reflected on Figure 5-3 in the Draft EIR and new [Figure 2-1](#) in Volume IV of the Final EIR.

REC'D APR 05 2006

STATE OF CALIFORNIA

ARNOLD SCHWARZENEGGER, Governor

PUBLIC UTILITIES COMMISSION

505 VAN NESS AVENUE  
SAN FRANCISCO, CA 94102-3298



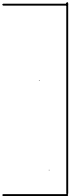
April 3, 2006

Sally Morgan  
University of California, Santa Cruz  
Physical Planning & Construction  
Santa Cruz, CA 95064

Dear Ms Morgan:

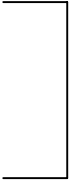
Re: SCH 2005012113; UC Santa Cruz 2005 Long Range Development Plan, etc.

As the state agency responsible for rail safety within California, we recommend that any development projects planned adjacent to or near the rail corridor in the County be planned with the safety of the rail corridor in mind. New developments may increase traffic volumes not only on streets and at intersections, but also at at-grade highway-rail crossings. This includes considering pedestrian circulation patterns/destinations with respect to railroad right-of-way.



1

Safety factors to consider include, but are not limited to, the planning for grade separations for major thoroughfares, improvements to existing at-grade highway-rail crossings due to increase in traffic volumes and appropriate fencing to limit the access of trespassers onto the railroad right-of-way. Of particular concern is that sufficient safety measures are implemented for any development of University property near the Union Pacific Railroad line.



2

The above-mentioned safety improvements should be considered when approval is sought for the new development. Working with Commission staff early in the conceptual design phase will help improve the safety to motorists and pedestrians in the County.

If you have any questions in this matter, please call me at (415) 703-2795.

Very truly yours,

Kevin Boles  
Utilities Engineer  
Rail Crossings Engineering Section  
Consumer Protection and Safety Division

cc: Pat Kerr, UP

Response to Comment Letter SA-8

**Response to Comment SA-8-1.** Comment noted.

**Response to Comment SA-8-2.** Please refer to Response to Comment SA-1-1.

**DEPARTMENT OF TRANSPORTATION**

50 HIGUERA STREET  
SAN LUIS OBISPO, CA 93401-5415  
PHONE (805) 549-3101  
FAX (805) 549-3329  
TDD (805) 549-3259  
<http://www.dot.ca.gov/dist05/>



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May 1, 2006

SCr-1-20.09  
SCH# 2005012113

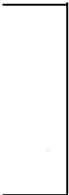
Ms. Sally Morgan  
University of California Santa Cruz  
Physical Planning & Construction  
1156 High Street  
Santa Cruz, CA 95064

Dear Ms. Morgan:

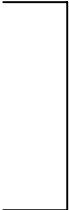
**COMMENTS TO THE RECIRCULATED DRAFT ENVIRONMENTAL IMPACT REPORT (EIR) – ADDITIONAL TRAFFIC ANALYSIS FOR THE UC SANTA CRUZ (UCSC) 2005 LONG RANGE DEVELOPMENT PLAN**

The California Department of Transportation (Department), District 5, Development Review, has reviewed the Recirculated Draft EIR Additional Traffic Analysis on the above project and the following comments were generated.

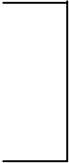
1. The Department was not afforded the opportunity to review the traffic analysis in it entirety. The additional traffic analysis submitted to the Department does not include the technical appendices to support the conclusions. The Department requested this information, however UCSC did not submit the requested information for our review. Without this information, the Department cannot determine whether all project generated impacts to the State Highway System have been identified and mitigated to a level of “less than significant.”
2. The traffic study does not provide an analysis of mainline highway operations, which currently operates at a Level of Service (LOS) F. When a State highway facility is operating at an unacceptable LOS, any additional trips are considered significant and must be mitigated accordingly. The traffic analysis looked at interchange ramp operations, however; an evaluation of the highway mainline operations was not included. In addition to the merge/diverge and weave analysis, a freeway segment analysis is also needed to accurately depict the project generated traffic impacts to the State Highway System.
3. Page 2-10 (2.2.2 Significance Thresholds) - UCSC has set the threshold at LOS D rather than CUSP "C/D" for all State highway facilities. The reason for setting this threshold is that the Departments Transportation Concept Report (TCR) indicates LOS D or better. Our LOS threshold is “C/D” cusp as defined by the Department’s “Guide for the Preparation of Traffic Impact Studies.”



1



2



3

Ms. Sally Morgan  
May 1, 2006  
Page 2

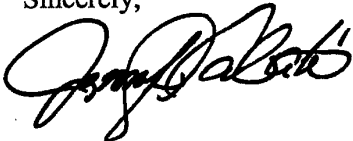
4. The traffic study states that this project's impact is considered "less than significant" if it does not increase traffic capacity by more than three percent. This concept is referred to as a "ratio theory" and is not supported by the Department. California Environmental Quality Act court cases validate our position:

*~ Kings County Farm Bureau v. City of Hanford (5th District 1990); Los Angeles Unified School District v. City of Los Angeles (2nd District 1997); Communities For A Better Environment v. California Resources Agency (3rd District 2002).* These court rulings invalidated the use of a "ratio theory" or "comparative approach" criterion because they improperly measure a proposed project's incremental impact relative to the existing cumulative effect rather than focus on the combined effects of both the project and other relevant past, present, and future projects.

4

Thank you for your consideration and action upon these issues. If you have any questions or concerns, or need further clarification on the items discussed above, please do not hesitate to call me at (805) 549-3099 or e-mail [jennifer.calate@dot.ca.gov](mailto:jennifer.calate@dot.ca.gov).

Sincerely,



JENNIFER CALATÉ  
Associate Transportation Planner  
District 5 Development Review Coordinator

c: R. Barnes (D5)  
D. Murray (D5)  
SCCRTC  
File copy (2)

## Response to Comment Letter SA-9

**Response to Comment SA-9-1.** The Campus has no record of receiving any requests from Caltrans for the technical analyses or modeling outputs for the additional traffic analysis that was presented in the Recirculated Draft EIR (RDEIR). The RDEIR analyzes impacts on the freeway facilities affected by the 2005 LRDP and concludes that even though the Campus would implement LRDP Mitigation TRA-2B and LRDP Mitigation TRA-6B (which is a fair share contribution to the cost of constructing improvements to the significantly affected facilities, as described in Master Response MIT-1), the impact would still be considered significant and unavoidable because the improvements are the responsibility of other jurisdictions that may elect not to implement them, and because detailed planning, environmental, and engineering standards for these improvements have not yet been completed.

**Response to Comment SA-9-2.** The RDEIR focused its analysis on ramp junctions (weave, merge, and diverge areas on the highway mainline) on State Routes 1 and 17 because ramp junctions are points on the freeway system that are capacity limitations (bottlenecks) preventing full use of the capacity of the upstream and downstream mainline highway lanes. In addition, the traffic conditions identified at the junction of a freeway on- or off-ramp and a mainline lane extend 1,500 feet or more upstream and downstream of the ramp junction. These ramp junction “influence areas” frequently overlap, particularly on State Route 1. Therefore, ramp junctions represent the worst case operating conditions on a segment of highway and were analyzed to evaluate locations where the project would have its greatest impacts. A basic freeway segment analysis between ramp junctions would indicate better operating conditions than the ramp junctions. Because the ramp junctions along State Route 1 are so closely spaced, the ramp junction level of service reasonably represents the mainline level of service. The analysis in the RDEIR (page 2-8) supports the commenter’s statement that State Route 1 operates at LOS F through much of its segments.

**Response to Comment SA-9-3.** Please refer to Master Response TRAFFIC-1 (Traffic Standards of Significance).

**Response to Comment SA-9-4.** Please refer to Master Response TRAFFIC-1.

REC'D JAN 13 2006



**MONTEREY BAY**  
Unified Air Pollution Control District  
serving Monterey, San Benito, and Santa Cruz counties

AIR POLLUTION CONTROL OFFICER  
Douglas Quetin

24580 Silver Cloud Court • Monterey, California 93940 • 831/647-9411 • FAX 831/647-8501

January 10, 2006

Mr. John Barnes  
Director of Campus Planning  
UC Santa Cruz Physical Planning and Construction  
1156 High Street, Barn G  
Santa Cruz, CA 95064

SUBJECT: COMMENT LETTER: UCSC LONG RANGE DEVELOPMENT PLAN DEIR

Dear Mr. Barnes:

The Monterey Unified Air Pollution Control District hereby submits comments concerning impacts to traffic and air quality, which are specified on the following pages. The District requests that the University quantify emissions reduced by mitigation measures that are measurable and enforceable. Air quality impacts identified in the Draft EIR as significant and unavoidable could be feasibly mitigated by measures similar to those previously approved by other jurisdictions in the North Central Coast Air Basin. We encourage your staff to contact us to discuss details regarding those mitigations.

1

Thank you for the opportunity to review the document.

Yours truly,

  
Jean Getchell  
Supervising Planner  
Planning and Air Monitoring

cc: Lance Ericksen, Engineering Division  
Mike Sheehan, Compliance Division

- DISTRICT BOARD MEMBERS
- CHAIR:  
Lou Calcagno  
Monterey County
- VICE CHAIR:  
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Santa Cruz County
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Marina
- Reb Monaco  
San Benito  
County
- John Myers  
King City
- Dennis Norton  
Capitola
- Ellen Pirie  
Santa Cruz  
County
- Jerry Smith  
Monterey County

Comments on UCSC Long Range Development Plan DEIR

Air Quality  
Demolition

Please contact Mike Sheehan of the District's Compliance Division concerning plans for demolition of structures. ] 2

Quantification of Emissions

Please quantify the emissions cited in Table 4.3-16 on pages 4.3-27-28, so they reflect only enforceable mitigations measures. ] 3

Permits

Please contact Lance Ericksen, Manager of the District's Engineering Division, to discuss any new permits or modifications to existing permits. ] 4

Mitigation Measures

No. DEIR Page Comment

2 2-11 "shall consider" is not an enforceable mitigation measure. Unless "shall consider" is replaced by "shall do", it cannot be enforced and any claimed reductions in emissions should be eliminated. ] 5

4 2-11 Working with AMBAG to make sure that growth associated with the 2005 Long Range Development Plan is accounted for in regional population forecasts does not guarantee any outcome. ] 6

6 2-12 "Cleaner fuels" should be defined.  
"Where possible" does not create an enforceable mitigation measure.  
"Discourage" does not create an enforceable mitigation measure.  
"As much as possible" does not create an enforceable mitigation measure.  
A construction logistics plan should be developed that lists the equipment to be used, fuel to be used and other details that would allow an objective evaluation of construction impacts. ] 7

7 2-12 "Continue its efforts" is not an enforceable mitigation measure. ] 8



Traffic

- | No. | DEIR page | Comment  |
|-----|-----------|--|
| 1   | 4.14-19   | "Caltrans plans include widening Highway 1 to six lanes from Morrissey Blvd. to San Andreas Rd." Is this unfunded project assumed in the DEIR traffic impact forecasts? <span style="float: right;">9</span>   |
| 1.1 | 4.14-29   | "...net new 3,100 parking spaces that could be added under the proposed 2005 LRDP". This growth in parking supply (60%) is greater than growth in campus students (49%) and faculty and employees (26%) shown in Table 4.14-10. Explain how increased parking per person will "Discourage automobile use to and on the campus" required by the LRDP physical planning principles and guidelines for access and transportation. <span style="float: right;">10</span> |
| 2   | 4.14-20   | The DEIR lists seven "proposed transit improvements in the UCSC Vicinity" and states that "some of which have already been implemented". Are any of these improvements included in the DEIR traffic impact forecasts? <span style="float: right;">11</span>  |
| 3   | 4.14-20   | The DEIR lists seven "proposed transit improvements in the UCSC Vicinity". Which of these services are planned and for which funding is constrained (reasonably assured) with or without the project? <span style="float: right;">12</span>  |
| 4   | 4.14-23   | "This difference in character supports the application of lower LOS standards in the central campus (Higgins Associates, 1999). Are the lower LOS E standards those of Higgins Associates or of the University of California?" <span style="float: right;">13</span>   |
| 5   | 4.14-30   | "To improve transit movement, the 2005 LRDP considers queue jump lanes...and transit priority signal systems..." Are these merely considered or are they commitments to implement mitigation measures for the project? <span style="float: right;">14</span>   |

- 6 4.14-31 [ 15 ] "...an impact to transportation/traffic would be considered significant if the proposed project would cause an increase in traffic that is substantial..." This standard is inoperative unless "substantial" is defined. Define "substantial" in this standard.
- 7 4.14-31 [ 16 ] Exceed...a level of service standard established by the county..." As the SCCRTC does not establish standards on Campus, what standards of significance were applied for the on campus impacts of this project?
- 8 4.14-31 [ 17 ] "Result in inadequate parking capacity". To avoid confusion, the DEIR should have noted that this standard may be met by increasing the price of parking and/or providing of more frequent/ convenient transit services, not just by adding parking supply.
- 9 4.14-31 [ 18 ] "LOS E is the minimum acceptable LOS for intersections in the central and north campus". Is this a UC standard, or a proposal by the DEIR consultant? If adopted by UC, the DEIR should reference the source of this statement. Explain why this standard is lower than that used for a busy off-campus commercial arterial street. (Mission St., LOS D).
- 10 4.14-32 [ 19 ] "A six percent downward adjustment was applied to the existing campus trip generation rates for students." Explain why this percentage is lower than the actual student trip rate implied by the data shown in Table 4.14-10 7.92 % less, not 6% less).
- 11 4.14-32 [ 20 ] "50 percent for undergraduates compared to 44 percent in 2003-04, and 25 percent for graduate students." To what exactly does the 25 percent refer?

21

12 4.14-33 "trip distribution pattern for the proposed project was determined using the AMBAG travel demand forecasting model..." This is vague. Explain how the project trip distribution was determined using the AMBAG 2005 model.

22

13 4.14-43; Table 4.14-16 The list of mitigations shown in 4.14.-18 do not mitigate the project's impacts to below a level of significance. If these mitigations are deemed feasible, so state. CEQA requires that all feasible mitigations be implemented for significant traffic impacts. State why the additional mitigations that would be required to reduce impacts to below a level of significance are not feasible. If "other improvements to achieve the City's level of service standards" are determined to be feasible by the City, would the Campus contribute its fair share to the costs of those improvements?

23

14 4.14-46 "There is uncertainty regarding whether the University can legally fund certain off-campus infrastructure improvements". Explain how the University can legally avoid its obligation to fund such improvements if required by CEQA.

## Response to Comment Letter RA-1

**Response to Comment RA-1-1.** This Draft EIR is a program-level document that estimates emissions associated with full development of the campus under the proposed 2005 LRDP. Other than the three development projects that are evaluated at a project level in Volume III of the Draft EIR, specifics of other future development projects are not available at this time. Without such specifics, the Campus cannot accurately quantify the reduction in emissions that would be achieved by the implementation of the mitigation measures included in the Draft EIR.

LRDP Impacts AIR-2 and AIR-4 are identified as significant unavoidable impacts because the effectiveness of proposed mitigation measures cannot be quantified. As indicated in LRDP Impact AIR-2, the major sources of VOC and NO<sub>x</sub> emissions are motor vehicles and space heating of nonresidential facilities. To address this impact, the Campus would implement LRDP Mitigations AIR-2A through -2C. LRDP Mitigation AIR-2A calls for design and construction features that reduce natural gas use in the design of each new project. Without project-specific details for each project that could be constructed under the 2005 LRDP, it is impossible to quantify the reduction in emissions that would be achieved by the implementation of this measure.

LRDP Mitigation AIR-2B calls for the implementation of transportation demand management (TDM) measures (LRDP Mitigation TRA-2B)<sup>1</sup> to limit the increase in the number of vehicle trips to the campus. LRDP Mitigation TRA-2B requires that the Campus implement TDM measures such that single occupant vehicles (SOVs) would continue to constitute no more than 45 percent of the transportation modes to campus. The reduction in trips associated with this measure was assumed in the estimate of new vehicle trips that would result from growth and development under the 2005 LRDP. Therefore, motor vehicle emissions reported in Table 4.3-16 (Draft EIR page 4.3-27) would not likely be further reduced with implementation of this measure. LRDP Mitigation TRA-2B would ensure that the identified level of trip reduction and associated emissions reduction are achieved with the implementation of the 2005 LRDP.

Under the 2005 LRDP the Campus may install two new gas turbines as part of its cogeneration system. LRDP Mitigation AIR-2C calls for the Campus to install VOC and NO<sub>x</sub> controls on the new turbines to reduce emissions by 90 percent, assuming these new turbines are installed. The effectiveness of this measure may be quantified. Implementation of this measure would reduce VOC emissions of the turbines to 0.6 pounds per day (down from 6 pounds per day) and NO<sub>x</sub> emissions to 3.8 pounds per day (down from 38 pounds per day), which would further reduce emissions over those generated by the existing cogeneration facility, as reported in Table 4.3-14, Draft EIR page 4.3-27. The implementation of LRDP Mitigation AIR-2C would reduce VOC emissions of the 2005 LRDP to 136 pounds per day and NO<sub>x</sub> emissions to 452 pounds per day. This is consistent with the Draft EIR conclusions, which indicate that LRDP Mitigations AIR-2A through -2C would reduce VOC emissions to a less-than-significant level, as VOC emissions would be reduced to below the significance standard of 137 pounds per day. NO<sub>x</sub> emissions on the other hand would remain above the significance threshold of 137 pounds per day, and

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<sup>1</sup> In the Draft EIR, LRDP Mitigation AIR-2B refers to LRDP Mitigation TRA-1B. However, the reference should have been to LRDP Mitigation TRA-2B. The text of LRDP Mitigation AIR-2B has been revised to make this correction. Please refer to Volume IV, Chapter 3 for changes to the Draft EIR text.

therefore LRDP Impact AIR-2 would be significant and unavoidable even with the implementation of mitigation measures.

As indicated in Response to Comment LA-2-51, LRDP Impact AIR-4 is also determined to be significant and unavoidable because even if the Campus's growth were to be included in the regional air quality management plan, the proposed LRDP would conflict with the plan because it would result in substantial emissions that potentially may hinder the attainment of air quality standards, especially with respect to  $\text{NO}_x$ , as described above.

**Response to Comment RA-1-2.** Demolition of existing structures will be an element of Family Student Housing Redevelopment Project. The District's Compliance Division will be contacted when detailed plans for demolition of the structures are developed.

**Response to Comment RA-1-3.** Table 4.3-16 shows emission levels before mitigation. Please see Response to Comment RA-1-1 for an explanation of why some of the reductions that would be achieved through mitigation cannot be quantified.

**Response to Comment RA-1-4.** The District's Engineering Division will be contacted to discuss any new permits or modifications to existing permits.

**Response to Comment RA-1-5.** LRDP Mitigation AIR-2A has been revised to state that the Campus shall incorporate in each new project design and construction features that conserve natural gas and/or minimize air pollutant emissions from space and water heating. The full text of the revised mitigation measure is presented in Volume IV, Chapter 3, Revised Table 2-1 of the Final EIR.

**Response to Comment RA-1-6.** As discussed in the Draft EIR (page 4.3-31), the purpose of LRDP Mitigation AIR-4A is to ensure that 2005 LRDP-related population growth is incorporated into the regional population and employment forecasts and the Regional Travel Demand Model prepared by AMBAG.<sup>2</sup> The Campus understands that the regional population and employment forecasts and information from the Regional Travel Demand Model are used in developing an emissions inventory for the air basin, and based on that emissions inventory, the Air District then prepares an air quality management plan that includes controls/mitigation measures to reduce ozone emissions. Therefore, inclusion of future campus population in the regional population and employment forecasts and the Regional Travel Demand Model is an essential step in preparing an appropriate air quality management plan for the air basin. The University does not suggest that this mitigation will in itself reduce the impact to a less-than-significant level. Rather, the Draft EIR concludes that conflict with the air quality plan would be a significant and unavoidable impact because the 2005 LRDP would result in substantial new emissions that could hinder the attainment of the air quality management plan.

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<sup>2</sup> Although AMBAG is not an air quality management agency, it is responsible for several air quality planning projects. As the designated Metropolitan Planning Organization for Monterey, San Benito, and Santa Cruz counties, it is responsible pursuant to the Clean Air Act, for providing population, employment, travel and congestion projections for regional air quality planning efforts. It is required to quantify and document the demographic and employment factors influencing expected transportation demand. AMBAG is also responsible for preparing and approving portions of the Air Basin's Air Quality Management Plans related to demographic projections and integrated regional land use.

**Response to Comment RA-1-7.** LRDP Mitigation AIR-6 includes a suite of measures that could be implemented in conjunction with a construction project in order to minimize emissions of toxic air contaminants during construction. Examples of cleaner fuels have been added to the first bullet of the measure. The phrase “where possible” in the second bullet was used to allow construction to proceed in situations where provision of electrical service may not be possible (see page 4.3-37; second bullet under LRDP Mitigation AIR-6). Other mitigations in this suite would also be implemented in conjunction with specific development projects when electricity is unavailable. The fourth bullet addressing idling has been revised in response to this comment. Additionally, the phrase “as much as possible” has been deleted from the last bullet. Please see Volume IV, Chapter 3, Revised Table 2-1 of the Final EIR for the full text of the revised mitigation measure.

Preparation of a construction logistics plan that lists the construction equipment and fuel to be used and other construction details cannot be developed for the LRDP EIR, which provides a program level analysis. Such a plan would require specific details about the nature and magnitude of construction activities and any specific construction requirements for each and every possible project that may be developed under the 2005 LRDP. Such information is not available at this time and typically would not be available until a contractor is selected for a particular project.

**Response to Comment RA-1-8.** As indicated in LRDP Impact AIR-7 the human health risks associated with regional growth, including growth under the 2005 LRDP, would not be significant under CEQA (see Draft EIR page 4.3-40). Moreover, through CARB’s implementation of its adopted Risk Reduction Plan, as well as future potential U.S. EPA emission standards, regional diesel emission sources including UC Santa Cruz will likely undergo further emission reductions (Draft EIR page 4.3-41). Therefore, mitigation measures are not required to reduce this impact to a less-than-significant level. LRDP Mitigation AIR-7 is identified to acknowledge the past and continued voluntary efforts of the Campus to reduce TAC emissions, especially those related to diesel emissions. Some of the past and continued voluntary efforts include the following:

- Researchers and teaching lab coordinators are continually searching for less toxic materials that can be substituted for materials currently in use. This is driven by the desire to reduce laboratory personnel risks and reduce hazardous waste disposal costs.
- The Campus is exploring alternative cogeneration systems and may replace the existing DeLaval engine with equipment emitting far fewer TACs.
- Physical Plant continues to replace older boilers with smaller, more efficient boilers that produce fewer TACs.
- The Campus continues to install natural gas/propane fueled back-up emergency generators rather than conventional diesel generators, providing a potentially significant reduction of TACs.

As this mitigation is not required under CEQA and relates to voluntary efforts on the part of the Campus, some flexibility in the interpretation of this measure is appropriate. Further, the Campus will be subject to mandatory control measures in the future, as noted above and in LRDP Impact AIR-7 (Draft EIR page 4.3-41).

**Response to Comment RA-1-9.** The widening of Highway 1 to six lanes is not a funded transportation improvement and has not been included as an improvement to the transportation network that would be in

place by 2010 or 2020, the years of analysis in the LRDP EIR. The only funded highway improvement considered in the analysis is the Highway 1/17 Merge Lane project (see Recirculated Draft EIR, March 2006 in Volume VI, Appendix A).

**Response to Comment RA-1-10.** Please refer to Response to Comment LA-6-76.

**Response to Comment RA-1-11.** The methodology used in the Draft EIR to project future traffic did not assume implementation of the proposed transit improvements.

**Response to Comment RA-1-12.** Several of the listed transit improvements have already been implemented. UC Loop has been funded and implemented. Daytime Core shuttle routes have been altered in response to changing ridership demand and on-going construction on the interior roadway network. Bike shuttle service hours have been extended (starting with the Fall 2005 Metro bus strike). Transportation and Parking Services (TAPS) has been able to extend service and improve service headways using three shuttles. TAPS now also funds the shuttles with parking fees. In fall 2005, the SCMTD reallocated underutilized transit service hours from the Route 12 bus to heavily utilized service periods along Routes 15, 16, and 20. Although the other listed transit improvements have not yet been implemented, the Campus is committed to working cooperatively with SCMTD, and under appropriate contractual arrangements, will continue to pay for transit services provided by SCMTD to the campus.

TAPS is continually assessing ridership patterns for both on- and off-campus (SCMTD) transit services to determine how capacity, frequency and convenience can be improved while operational efficiencies are maximized. An increase in the quarterly Student Transit Fee, approved during Spring 2006, will provide funding to relieve deficits and maintain support for the existing transit services.

**Response to Comment RA-1-13.** Please refer to Master Response TRAFFIC-1. The standards are those of UC Santa Cruz's, not Higgins Associates. The citation is a reference to a document where the standards are cited.

**Response to Comment RA-1-14.** A transit study recently completed by Urbitran Associates, *Bay Corridor Preliminary Feasibility Analysis: Bus Rapid Transit* (Urbitran Associates, March 2006), evaluated the potential for implementing Bus Rapid Transit on off-campus and on-campus roadways. The measures referenced in the Draft EIR as part of LRDP Mitigations TRA-4A and 4B (as stated on page 4.14-56), including queue jump lanes and transit signal priority systems, were identified in the study as feasible and effective in addressing transit delays. The Campus is committed to implementing feasible transit improvement measures on campus and working with SCMTD and the City of Santa Cruz to implement off-campus measures, through existing contract mechanisms or similar measures. However, more detailed conceptual design work is still needed and the Campus is collaborating with the appropriate agencies to identify the best solutions. Please see Master Response MIT-1 with regard to the University's fair share contributions.

**Response to Comment RA-1-15.** Please refer to page 4.14-31 in the Draft EIR, which presents the quantitative thresholds of significance used in the Draft EIR to evaluate traffic impacts.

**Response to Comment RA-1-16.** The Campus has developed thresholds of significance for on-campus intersections. Please refer to Master Response TRAFFIC-1. Also see page 4.14-31 where the LOS thresholds of significance for on-campus intersections are presented. Note that Glenn Coolidge Drive on

the campus and Empire Grade Road, which passes through and adjacent to the western portion of the campus, are both county-owned roadways.

**Response to Comment RA-1-17.** Comment noted. Note that LRDP Mitigations TRA-3A through -3C use a variety of methods to reduce parking impacts.

**Response to Comment RA-1-18.** Please refer to Master Response TRAFFIC-1.

**Response to Comment RA-1-19.** The trip generation rate for students calculated from existing traffic counts is 0.08 trips per student in the AM peak hour and 0.11 trips per student in the PM peak hour. For the Draft EIR analysis, these rates were reduced by 6 percent to reflect the proposed increase in on-campus undergraduate housing under the 2005 LRDP from the current 44 percent to 50 percent. The reduced rates of 0.075 and 0.103 in the AM and PM peak hours respectively were used to compute the peak hour trips shown in Table 4.14-10. It is not clear how the commenter derived a 7.92 percent reduction from the trips shown in the table. Please refer to Response to Comment LA-9-5 for a detailed table of the derived trip generation rates showing how the reduction was applied.

**Response to Comment RA-1-20.** The 25 percent represents the proportion of graduate students that are projected to reside on campus at full development under the 2005 LRDP.

**Response to Comment RA-1-21.** The trip distribution shown in Figure 4.14-8 reflects the year 2020 AMBAG model (February 2005) distribution of traffic among the UCSC campus traffic analysis zones (TAZs). Trip distribution was derived from a “select zone” evaluation of the AMBAG model’s TAZs representing the campus. This evaluation distributes only the traffic generated by the UC campus zones to the roadway network to determine how much traffic takes specific routes between the campus and various off-campus locations. The distribution pattern analyzed reflects future residence projections, in which more students, faculty and staff reside further from the campus (e.g., in the south county) than today. The model assumes that those who live further from the campus primarily use Highway 1 for longer distance travel.

**Response to Comment RA-1-22.** Most of the improvements listed in Table 4.14-18 will reduce the project’s impacts on the subject intersections to a less-than-significant level by reducing delays with the project to a level below what would exist without the project, even if the intersection continues to operate at LOS E or F. In other words, for intersections already operating at substandard LOS, the mitigation measure would ensure that the LOS was not further diminished as a result of the project’s traffic contribution. Two intersections (Bay/Mission and Chestnut/Mission) nonetheless would continue to operate at a LOS E or F with delays above those without the project. The analysis attempted to identify feasible improvements that would improve intersections to meet City level of service standards (LOS D or better). Intersections that continue to operate at LOS E or F are highly constrained, and improvement would require what are considered to be infeasible solutions (e.g., extensive right-of-way acquisition and demolition of homes and businesses to add additional through lanes in the corridor, or grade-separation of the intersection). Grade-separation of these two intersections is physically infeasible without acquiring many homes and businesses to accommodate ramps and bridges. This solution would cause many significant impacts in it of itself. Another solution would be to add through lanes to Mission Street at the Bay/Mission intersection or add through lanes to Mission Street at the Mission/Chestnut intersection. This solution would require acquisition of about 24 to 30 feet of new right-of-way width from west of Bay Street to east of Chestnut Street, a distance of about one mile, in order to provide a uniform six-lane



roadway. In addition to land acquisition and construction costs, this solution would displace many homes and businesses and would entail substantial relocation costs. The City likely would need to acquire the land through eminent domain, and there would most likely be significant community opposition to the widening or structures. Even with University fair share contributions, there would be substantial costs to the City that would need to be covered either by the City's Traffic Impact Fee or through a competitive federal and state funding process. Either way, the cost and time required to negotiate acquisition of the right of way and to obtain the funds would be prohibitive. For these reasons, this solution can reasonably be considered an infeasible mitigation measure. Please see Master Response MIT-1 regarding the University's fair share contributions to traffic mitigations.

**Response to Comment RA-1-23.** The text in the Draft EIR referred to by the commenter has been deleted in light of the recent California Supreme Court decision in the City of Marina versus California State University lawsuit.



**MONTEREY BAY**  
Unified Air Pollution Control District  
serving Monterey, San Benito, and Santa Cruz counties

AIR POLLUTION CONTROL OFFICER  
Douglas Quetin

24580 Silver Cloud Court • Monterey, California 93940 • 831/647-9411 • FAX 831/647-8501

REC'D APR 21 2006

April 18, 2006

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Mr. John Barnes  
Director of Campus Planning  
UC Santa Cruz Physical Planning and Construction  
1156 High Street, Barn G  
Santa Cruz, CA 95064

SUBJECT: COMMENT LETTER: UCSC LONG RANGE DEVELOPMENT PLAN  
RECIRCULATED DEIR (TRAFFIC)

Dear Mr. Barnes:

The Monterey Bay Unified Air Pollution Control District has no comments on the Recirculated Portion of the Draft EIR that deals with traffic.  
Thank you for the opportunity to review the document.

1

Yours truly,

  
Jean Getchell  
Supervising Planner  
Planning and Air Monitoring

Response to Comment Letter RA-2

**Response to Comment RA-2-1.** Comment noted.



ASSOCIATION OF MONTEREY BAY AREA GOVERNMENTS

REC'D NOV 21 2005

November 15, 2005

Ms. Sally Morgan  
University of California  
Physical Planning & Construction  
1156 High Street  
Santa Cruz, CA 95064

**Re: MCH# 100509- Notice to Draft Environmental Impact Report  
UC Santa Cruz 2005 Long Range Development Plan**

Dear Ms. Morgan:

AMBAG's Regional Clearinghouse circulated a summary of notice of your environmental document to our member agencies and interested parties for review and comment.

The AMBAG Board of Directors considered the project on **November 9, 2005** and has no comments at this time.

Thank you for complying with the Clearinghouse process.

Sincerely,

Nicolas Papadakis  
Executive Director

Response to Comment Letter LA-1

**Response to Comment LA-1-1.** Comment noted.



# County of Santa Cruz

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January 5, 2006

2005 LRDP EIR Comment  
UC Santa Cruz Physical Planning and Construction  
1156 High Street, Barn G  
Santa Cruz, CA 95064

RE: COMMENTS ON 2005 LRDP DRAFT EIR

To Whom It May Concern:

Thank you for the opportunity to respond to the Draft Environmental Impact Report (DEIR) on the proposed 2005 Long Range Development Plan (LRDP) and the Draft EIRs on related projects.

While the 2005 LRDP DEIR documents some of the overwhelming impacts the proposed LRDP will have on the Santa Cruz community, it is seriously inadequate in a number of very important areas, as described below. In order to comply with the requirements of the California Environmental Quality Act (CEQA), the DEIR must be revised and re-circulated for additional public review.

Following are my specific comments:

- INTRODUCTION - PAGES 1-3, 1-5 - There's a potential inconsistency in the projection of the increase in employees under the proposed LRDP. On page 1-1, the DEIR states that employees would increase by 1,520 over 2003-2004 levels under the plan, yet on page 1-5, Table 1-1 states that faculty and staff would increase by only 983 between the 1988 LRDP, which was to reach its maximum numbers in 2005, and the 2005 LRDP. The table on page 1-5 projects an increase of 983 faculty and staff between 2005 and 2020, while the figures on page 1-1 show an increase of 1,520 between 2003 and 2020. Did the employee increases anticipated in the 1988 LRDP not materialize and is it expected that the University will catch up during the next LRDP? This significant difference in numbers should be clarified.
- PAGE 2-5 - AREAS OF KNOWN CONTROVERSY - Clearly, the effect of the projected enrollment growth on local housing resources should be added. Regional resources aren't the only concern. In addition, drainage should be added to the list.

1

2

2005 LRDP EIR Comment  
 January 5, 2006  
 Page 2

- PAGE 2-11FF - SIGNIFICANT UNAVOIDABLE IMPACTS - The DEIR itself lists ten significant unavoidable impacts. On page 6-1, the list only shows nine. This needs to be clarified.

3

- PAGE 3-2 - PROJECT DESCRIPTION - The DEIR states that the use of leased space in town by the University is anticipated to "continue to be consistent with the City's General Plan through 2020." What does this mean? What if the City's General Plan determines that the use is inconsistent?

4

- PAGE 3-5 - The DEIR states that the 1988 LRDP included a north campus road with a connector to Empire Grade and the Meyer Drive Extension. Is this true?

5

- PAGE 3-6 - PLANNING PROCESS - The DEIR indicates that only 1.2 million assignable square feet (asf) of the 3.4 million asf projected in the 1988 LRDP were either built or under construction in 2003-04, about 35%, yet enrollment reached 14,400 out of the 15,000 projected, 96%. Is there any wonder why campus facilities are overcrowded?

6

The number of employees in 2003-2004 is listed as 4,230, which again seems inconsistent with the figures on pages 1-1 and 1-5. This should be clarified.

7

Footnote 7 states that the student enrollment and employee totals in the 1988 LRDP included students and employees at the Marine Science Campus. Since there was no such campus in 1988, what exactly is this referring to? Long Marine Lab?

8

- PAGE 3-7 - The DEIR is somewhat disingenuous in stating that the Draft LRDP was revised to incorporate public input. It certainly wasn't in any meaningful way and the community representatives voiced strong objections to the Draft. This should be clarified.

9

- PAGES 3-9, 10 - CAMPUS ENROLLMENT - Tables 3-1 and 3-2 contain the key projections regarding future campus populations and the numbers of students and employees who will be housed by the University, compared to 2003-04.

The DEIR projects an increase of 6,948 students over 2003-04, which is about a 49.5% increase. The total UCSC population is projected to increase by 8,715 people, from 18,579 to 27,294, which is about a 47% increase. About 3% of the total, or 892 employees, will work off-campus.

10

In terms of housing, Table 3-2 is somewhat unclear about the definition of Family Student Housing. It is listed separately in the table under the heading of "Partners/Dependents in on-campus housing," giving the impression that the numbers listed do not include students. Yet, under the heading "Students living in

11

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 Page 3

UC housing," there is no listing for Family Student Housing. The likely assumption is that the figures for students who live on-campus include those living in Family Student Housing, but if this is not the case, the EIR should clarify the matter.

11

Given this, about 43% of the students, or 6,050, in 2003-04 were housed by the University. This includes the 208 living off-campus. In 2020, the DEIR projects that 9,713 students will be living on-campus, an increase of 3,871, with no students living off-campus. Overall, then, about 46% of the students will be living on-campus. If just the increases are considered, 56% of the increased student enrollment will live on-campus. This all assumes, of course, that the University will actually construct the 4,191 new beds. In light of the University's failure to meet its housing goals in the 1988 LRDP, the EIR should evaluate the impacts if the University is equally unsuccessful under the 2005 LRDP.

12

Why is the University proposing to eliminate all its off-campus housing?

13

As far as employee housing is concerned, about 5.7%, or 234, of the 4,077 employees were housed by the University in 2003-04. The DEIR projects that, in 2020, about 7.9% of the employees will be housed by the University. 187 net new units for the 1,517 new employees will be provided, meaning that new housing will be available for about 12% of the new employees. This seems inconsistent with the housing goal on page 3-15 and needs to be clarified.

14

- PAGE 3-11 - STUDENTS - The DEIR projects that student enrollment growth will be about 430 students per year and that, by 2020, about 15% of the students would be graduate students.

The DEIR states that "anticipated demand for UC education could be consistent with greater enrollment growth than is projected" but it provides no evidence to justify this assertion beyond the earlier estimate of total enrollment growth projected for the UC system. What is needed is an analysis of each campus and each campus community in terms of the current and future enrollments and their impacts on the host communities.

15

- PAGE 3-13 - OTHER POPULATIONS - Table 3-1 presents the number of daily visitors to campus. These are projected to increase from 200 in 2003-04 to 250 in 2020. What is the basis for these numbers? What studies have been done to support them?

16

- PAGE 3-15 - HOUSING - Given the numbers for employee housing in Table 3-2, how can the DEIR project that 25% of the faculty will be housed by the University?

17



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 Page 4

- PAGE 3-16 - DEVELOPMENT ACREAGES - How is it possible for the University to construct housing for over 4,000 students and employees (Table 3-2) on 27 fewer acres than were available in the 1988 LRDP (235 versus 262)?

How many of the acres designated in the 1988 LRDP for housing have housing constructed on them?

18

- PAGE 3-19 - PHYSICAL EDUCATION - The 5,000 seat event center is included as part of the 2005 LRDP in the east field area. The impacts of this facility should be specifically analyzed in the DEIR beyond the inadequate traffic analysis in the transportation chapter. A more detailed description of this facility is also needed.

19

- PAGE 3-21 - RESOURCE LANDS - Although the DEIR states that additional environmental review will occur should the campus decide to develop portions of the Campus Resource lands, that review should occur as part of this EIR to the extent that the LRDP includes development within them to achieve its objectives.

20

- PAGE 3-29 - WASTEWATER - The projected increases shown in Table 3-6 for mg and mgd between 2003 and 2020 are inconsistent. Using mg (annual consumption), the total increase is about 54.5%. Using mgd (million gallons a day), the total increase is only 40.1%. Why the inconsistency?

21

- PAGE 3-32 - DRAINAGE - The DEIR refers to the 2004 Storm Water Drainage Master Plan for the campus and generally describes the Phase 1 and Phase 2 improvements. Has this Plan been funded?

22

- PAGE 3-34 - NATURAL GAS - Why is the use of natural gas projected to increase by about 182% (from 656 therms/hour to 1,850 therms/hour) under the LRDP? How can this large an increase be consistent with the campus demand reduction programs and the Energy and Green Building Policy, as stated on page 3-35?

23

- PAGE 3-38 - CHILD CARE FACILITIES - Are three separate child care facilities proposed for the campus, as indicated by the DEIR, or will there be one consolidated facility? If three, where will they be located?

24

- PAGE 4-1 - SCOPE OF IMPACT ANALYSIS - The DEIR affirms here, as elsewhere, that adoption of the proposed LRDP does not represent "a commitment to any specific project, constructions, or funding priority." The purpose of this statement isn't clear. CEQA requires that the level of analysis reflect the amount of

25

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information reasonably available on the project. Therefore, to the extent that the LRDP identifies a 5,000 seat stadium in a particular area of the Great Meadow, for example, the DEIR must analyze the potential impacts of that facility at that location.

25

Further, although the DEIR states that the EIR analyzes the proposed LRDP at the programmatic and not the project specific level, to the extent there is project specific information available, it must be evaluated.

- PAGE 4-3 - BASIS OF ANALYSIS - The DEIR states that it uses the student enrollment, faculty, and staff increases "to analyze all of the population-related impacts." What about the multiplier effect - the number of new off-campus jobs and households that will result from the University's growth? The impacts of this multiplier must be incorporated throughout the analysis in order for it to fully evaluate the impacts, not, as discussed below, tacked on at the end and analyzed separately.

26

- PAGE 4-3 - SUMMER ENROLLMENT - The DEIR indicates that it will analyze the water and traffic impacts of increased summer enrollment due to the influx of tourists during this time. In addition, the DEIR should consider the impacts on housing unless the University is committed to providing adequate housing during the summer sessions. A significant amount of off-campus student housing is converted to visitor use during the summer months and this needs to be considered. What is the housing goal for summer school students?

27

- PAGE 4-3FF - CUMULATIVE IMPACTS - The description of the process for analyzing cumulative impacts presented in the DEIR is seriously incomplete. It appears as if the cumulative analysis will only be carried out for the campus-wide, total population impacts. However, the factors considered under the "footprint of development" also need to be analyzed on a cumulative basis, at least as far as the entire campus is concerned. In other words, simply providing a drainage analysis on an area by area basis is insufficient. The EIR needs to examine the cumulative impact of all the area drainage impacts on the campus as a whole.

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- PAGE 4-4 - The discussion of the use of the AMBAG projections as part of the cumulative impact analysis is confusing and should be clarified in the Final EIR. Does it mean that the DEIR is using the AMBAG projections for the population analysis but not for the traffic analysis?

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- PAGE 4-7 - POPULATION DISTRIBUTION IN CITY - Table 4.0-2 indicates that, with the 2005 LRDP, 63% of the new students living off-campus (3,560 students) will live in the City of Santa Cruz and about 53% of the total new campus population (6,631 people) will live in the City. This table includes a category called "Residual Demand" and includes 492 people. What does this refer to?

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- PAGE 4-7 - PERCENTAGE DISTRIBUTION OF POPULATION - The DEIR is extremely misleading and incorrect in stating that only 5.9% of the City of Santa Cruz population will result from new campus growth. This assumes that the on-campus population does not reside in the City of Santa Cruz, which it obviously does. If the on-campus population is added, it would represent about 12.6% of the City's population. And, this does not include the multiplier effect, which should be added in.

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Since the AMBAG projections didn't include University growth, it could be argued that the total population projected (59,924) should be increased by the campus community. If this is done, the campus community still represents over 11% of the City's population.

Another important statistic missing from this table is the amount of overall City growth between 2003 and 2020. With that it becomes possible to compare the amount of overall City growth with the amount of "LRDP population." These numbers should be included in the EIR. In fact, the City population in 2003 was probably around 54,000 people, indicating projected growth of about 6,000 people in 2020. At over 7,500, the LRDP population growth by itself represents well over 100% of future City growth. The EIR needs to acknowledge this.

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- PAGE 4.1-5 - 2300 DELAWARE - Since 2300 Delaware is fully evaluated in Volume III of the DEIR, why is it mentioned here? Won't this unnecessarily confuse the public?

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- PAGE 4.1-7 - AESTHETICS POLICY - The DEIR states that "it is University policy to seek consistency with local plans and policies, where feasible." Where is this policy located and is it legally enforceable? And how is "feasible" defined?

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- PAGE 4.1-9 - ANALYTICAL METHOD - The methodology for analyzing the aesthetic impacts of the 2005 LRDP is flawed and needs to be corrected. First, Figure 4.1-7, Lands Visible from Off-Campus Viewpoints, categorizes the visibility of campus areas as high, medium, and low but is not useful in the CEQA context. Will structures located in areas with high and medium visibility be considered to have a significant impact?

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Certainly visibility impacts from high visibility areas should be considered significant, as could visibility from medium visibility areas, but this needs to be clarified. The EIR needs to relate these categories to the significant threshold for aesthetic impacts.

Furthermore, Figure 4.0-1, showing the development areas under the LRDP, provides a very helpful tool for environmental analysis. Rather than simply relying on a few simulations from selected areas and schematic building masses, this figure

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should be overlaid with the visibility area figures to identify those areas of the campus where growth is proposed and that have the potential to result in significant impacts. Mitigation measures could then be developed to reduce or eliminate these impacts.

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For example, the DEIR should consider whether it is feasible to prohibit development in areas with what are called high or medium visibility, if their visual impact can't be reduced to a less than significant level.

- PAGE 4.1-9 - SIMULATIONS - The EIR needs to make clear what assumptions were used in adding buildings to the simulations. There should be a chart listing the height and dimensions of each structure, such as the 5,000 seat event center, shown in the simulations. It is impossible to evaluate the adequacy of the simulations without some sense of the size assumptions used in developing them.

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On page 4.3-17, the Event Center is described as having about 3.4 acres of indoor space. Do the simulations reflect this?

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- FIGURE 4.1-8 - NUMBER OF SIMULATIONS - The number of simulations from the community is inadequate. On page 4.1-7, the DEIR discusses the University's commitment to seek consistency with local policies. It then lists relevant City of Santa Cruz and County policies, including the City's policy encouraging the University to maintain the natural skyline of the campus as seen from the City. Yet the DEIR contains only three simulations of views from the City and they are from the outer edges of the community--the wharf, Seymour Center, and Morrissey Boulevard. There are many other important City views, closer to the campus, and these should also be analyzed. If the University is serious about cooperation with the City, it should at least include a comprehensive analysis of the visual impacts of its planned growth on the community.

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- PAGE 4.1-12 - OAKES COLLEGE - The DEIR states: "In summary, because the 2005 LRDP carefully designates areas for new development, it would avoid significant impacts on scenic vistas as viewed from locations on the campus." This conclusion is not substantiated by the evidence presented. Without seeing an overlay of the figures, as suggested above, and without knowing the assumptions made in sizing the structures, it is impossible for the public or decision makers to adequately evaluate this conclusion and the resulting finding that the on-campus and off-campus aesthetics impacts are less than significant.

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- PAGE 4.1-15 - IMPACT AES-3 AND MITIGATIONS - The DEIR finds that development under the LRDP could substantially damage scenic resources around the lower campus meadows and includes three mitigation measures to reduce the potential impact to a less than significant level. The first two mitigations would only be applied "to the extent feasible." When using this caveat, the DEIR should

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acknowledge that if the mitigation measures are not feasible, the impact will be significant and unavoidable. Without doing this, the EIR simply creates the illusion of mitigation without a commitment to mitigate.

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The third mitigation concerns the design of the Meyer Drive Extension and does represent a meaningful change in the Plan. However, the simulation from Hagar Drive (Figure 4.1-11), which should represent the LRDP without mitigation, doesn't seem to show the Meyer Drive Extension as visible. Where is it in the simulations?

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- PAGE 4.1-18 - IMPACT AES-5 AND MITIGATIONS - The DEIR finds that the LRDP could substantially degrade the existing visual character of the campus and adjacent areas but that, with the proposed mitigations, this impact would be reduced to a less than significant level. While the mitigations would, by and large, reduce the impacts of the planned growth on the existing visual character, the DEIR analysis of the over 80% increase in building space on-campus is insufficient to justify the conclusion that the Plan would not degrade the still largely open space and forested character of the campus. This needs to be considered.

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Moreover, Mitigation AES-5B needs to be revised in the EIR. In the second paragraph on page 4.1-19, the DEIR states that this mitigation measure "would ensure that new buildings do not obtrude above the redwood canopy." However, the mitigation itself contains the words "to the extent feasible," which essentially negates its efficacy. These words should be removed.

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- PAGE 4.1-20 - MITIGATION AES-6E - This mitigation purports to reduce the impact of night lighting by requiring that illumination of the sports and recreation fields be turned off at 10:00 p.m., "except when special events are scheduled." Without a meaningful definition of special events or a limit to the number of special events annually, this mitigation is, in reality, meaningless, unenforceable, and inadequate under CEQA.

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- PAGE 4.2-2 - AGRICULTURAL IMPACTS - COUNTY PROGRAMS - Although the DEIR includes County agricultural protection policies, it does not discuss the fact that a portion of the campus is within the unincorporated Coastal Zone and, therefore, is subject to the County's Local Coastal Program, even though it would be administered by the Coastal Commission. While no development is proposed in the LRDP in these areas, the DEIR should recognize their existence and discuss the applicable policies.

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- PAGE 4.3-6 - AIR QUALITY - STANDARDS - Table 4.3-4 states that there is no 8 hour State standard for Ozone, yet Table 4.3-2 on page 4.3-4 says that the State 8 hour Ozone standard is 0.070 ppm. Why the inconsistency?

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- PAGE 4.3-17 - SPACE HEATING - Table 4.3-6 contains the first indication of the potential size of the 5,000 square foot event center. It is shown as 148,000 square feet, or about 3.4 acres of indoor space.

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- PAGE 4.3-24 - CONSTRUCTION IMPACTS - Following are questions on the construction air quality impacts that should be answered in the EIR:
  - What is the basis for the assumption that cut and fill on the construction sites would be balanced? This is particularly relevant in light of the statements in the DEIR on the Family Student Housing project that large amounts of fill would be removed from the site.
  - Will buildings, like the event center that will be constructed on a relatively flat site, not have basements?
  - Has this been the experience with other UCSC projects?
  - Would moving dirt on and off site have a significant impact on the amount of emissions?
  - Given that the total grading emissions were at 70 lb/day with the threshold of 82 lb/day, would changing the cut and fill assumption affect the conclusion? Again, was the Family Student Housing project factored into this?
  - Finally, given that the DEIR analyzes the construction air quality impacts assuming 6.75 acres of construction with 270,000 square feet of building, what sized project would it take to exceed the 82 lb/day threshold?
  
- PAGE 4.3-27 - OPERATIONAL EMISSIONS - The DEIR is confusing in its discussion of certain emissions. The relationship between Ozone, VOC, ROG, and NOx needs an explanation. In the discussion of air quality standards, VOC is not included. In Table 4.3-15, which estimates vehicle emissions, ROG is included, but it is not included in Table 4.3-16, which estimates emissions from all sources. As a result, the conclusion that the mitigations would reduce the VOC emissions to less than significant levels but that the NOx emissions would remain significant and unavoidable is not clear.
  
- PAGE 4.3-29 - CARBON MONOXIDE (CO) IMPACTS - While Table 4.3-17 includes predicted CO levels in 2020 with and without the project, these numbers are impossible to fully evaluate without a comparison to the levels in the baseline year, 2003. While the DEIR determines that the CO impacts aren't significant because they won't exceed the MBUAPCD thresholds, a significant increase over baseline levels would also be evidence that the project's impacts are significant. The Final EIR should include an expanded table showing the 2003 levels.
  
- PAGE 4.3-30 - AIR QUALITY MANAGEMENT PLAN (AQMP) IMPACT - The impact analysis here is somewhat confusing. The DEIR finds that the LRDP conflicts with the AQMP. It then includes two mitigations to ensure that campus growth is

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included in a revised AQMP. Even with these mitigations, though, the impact is considered significant and unavoidable. This gives the impression that the LRDP's impact is significant because it conflicts with the AQMP.

However, on page 4.3-31, the DEIR states "...even with the implementation of these mitigation measures, the increase in emissions from campus growth under the 2005 LRDP may hinder the region's attainment of air quality standards." This implies that, even with a revised AQMP reflecting LRDP growth, air quality standards would be exceeded. However, no discussion of why this would be the case is included and no mitigation measures are proposed to reduce this impact. If the intention here is to refer back to AIR Impact-2, this should be made explicit.

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- PAGE 3.4-32 - CANCER RISK - In evaluating the health risk for campus facilities, the DEIR assumes that two gas turbines would replace the internal combustion engine at the cogeneration plant. What is the basis of this assumption? Have the gas turbines been funded? If not, the Final EIR should include an evaluation of the impacts assuming the continued use of the internal combustion engine.

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- PAGE 3.4-34 - SENSITIVE RECEPTORS - Table 4.3-21 lists the sensitive receptors on and near campus and projects the cancer risk from LRDP growth on these. However, the new child care center proposed in the LRDP is not included. The Final EIR should include an evaluation of the cancer risk on the proposed as well as existing facilities.

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- PAGE 4.3-40 - CUMULATIVE IMPACTS - The DEIR states that localized pollutant particulate emissions from campus construction would not "cumulate" with off-campus construction activities and, therefore, there would be no cumulative impact. What is the basis for this conclusion? Wouldn't the particulate emissions from construction become part of the ambient air quality as would off-campus construction impacts? The EIR should either justify this conclusion or analyze the total likely particulate impacts from construction on and near the University campus.

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- PAGE 4.4-1 - BIOLOGICAL IMPACTS - STUDY AREA - The DEIR divides the campus into four study areas for the purpose of analyzing biological impacts. While this has some utility for the purposes of analyzing these impacts, it would be more useful to integrate the development areas from Figure 4.0-1 directly into this analysis. The development areas are more important and helpful units for evaluating the LRDP's impacts than the four study areas identified.

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In fact, the DEIR is inadequate because it does not clearly show the relationship between the sensitive biological species and habitats and the development areas. The maps included are inadequate for this purpose. What is needed in order for the public to understand the potential biological impacts of the LRDP is an overlay of Figure 4.0-1 on the campus locations of sensitive communities, wildlife movement corridors and special status species.

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- PAGE 4.4-6 - STANDARDS OF SIGNIFICANCE - One of the thresholds of significance listed is "conflict with any local applicable policies protecting biological resources." While County and City policies may not be "applicable" in the sense of their ability to regulate campus development, they are applicable in that they cover the totality of their jurisdictions, which include the campus. Therefore, the EIR should, at a minimum, review these policies and evaluate their relationship to proposed campus development. 57
  
- PAGE 4.4-38 - ANALYTICAL METHOD - The DEIR states that it overlaid the map showing the distribution of vegetation communities with the development areas map in order to estimate potential impacts on sensitive natural communities. This is insufficient for allowing the public to clearly evaluate the areas of potential impact. The vegetation communities map has so much information and similarly colored areas on it that it is very difficult to identify the exact location of the sensitive communities. Moreover, it doesn't show migratory corridors or the location of special status species and their potential habitats. As mentioned above, this needs to be corrected. 58
  
- PAGE 4.4-38 - BIOS-1 IMPACT AND MITIGATION - MARITIME CHAPARRAL - The DEIR proposes two mitigations to reduce the LRDP's impacts on the northern maritime chaparral sensitive community and the Santa Cruz Manzanita to a less than significant level. Unfortunately, based on the information presented, these mitigations seem totally inadequate. 59

Under the first mitigation, the campus would avoid removing patches of northern maritime chaparral larger than 10 acres and manzanita occurrences greater than a patch size of 2 acres "when possible."

The DEIR contains no analysis of how many acres of maritime chaparral might be removed by development and what size patches this would entail. It's possible that all the removal would occur in patches under 10 acres, thereby avoiding any requirement to mitigate yet still constituting a significant cumulative impact.

There is a similar problem in regards to the Santa Cruz Manzanita. Table 4.4-4 on page 4.4-40 indicates that there are 19 patches of Manzanita on-campus occupying a total of 36.3 acres. Theoretically, then, every patch removed could be smaller than two acres. Of the high stand density patches, the 9 patches occupy 12.3 acres, which seems to indicate that most of them would be smaller than 2 acres. Again, then, the requirement to avoid removal of patches only if they are greater than 2 acres could easily result in a significant impact cumulatively but no mitigation.

In addition, the words "where possible" make this mitigation meaningless.



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At a minimum, additional information on the potential impact area of development is needed for the public and decision makers to be able to evaluate whether this mitigation measure would, in fact, reduce the impact.

The second mitigation measure requires "preservation and management" of other chaparral and manzanita areas when larger patches of these species are destroyed. A number of questions need to be answered here in order to understand the meaningfulness of this mitigation:

- What does this mean in terms of the various land use categories used on-campus?
- What legal form would such preservation take?
- Land in Campus Natural Reserve is supposedly already protected. Would preserving land in this area constitute preservation under the mitigation? It shouldn't.

The terms of this mitigation measure should be clarified.

Overall, based on the language of the mitigations and the fact that the LRDP could remove up to 40% of the Santa Cruz Manzanita and 56% of the Manzanita in high density stands (page 4.4-40), the determination that the project's impact is less than significant is unsupported. In order to justify it, the Final EIR would need to show how the proposed mitigations would reduce the impact to a much lower figure, probably no more than 10%. Anything above this should be considered substantial.

- PAGE 4.4-43 - COASTAL PRAIRIE IMPACTS - The DEIR states that up to 1.5 acres out of 111 acres on-campus of coastal prairie could be lost as a result of the LRDP. However, it is impossible to evaluate this from Figure 4.4-5. Again, a clearer map showing the relationship of the Coastal Prairie to the development areas is needed.
- PAGE 4.4-45FF - RIPARIAN VEGETATION IMPACTS AND MITIGATIONS - The mitigations proposed by the DEIR seem out of compliance with the ACOE Nationwide Permit Program. The mitigation requirements for project impacts on riparian vegetation only kick in for direct impacts when development can't avoid patches of vegetation greater than 0.1 acre in size or longer than 300 linear stream feet. This threshold is justified on page 4.4-47 as the standard used in the ACOE Program to determine when a federal permit is needed. However, the DEIR also says that under the federal program, "Projects with impacts to waters of the U.S. less than 0.1 acre must still mitigate their impacts." Yet, the DEIR provides no mitigations for this circumstance. The EIR should correct this inadequacy.

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- PAGE 4.4-48FF - IMPACTS ON THE OHLONE TIGER BEETLE - Here and elsewhere the DEIR refers to Marshall Field and West Marshall Field. However, these areas don't ever seem to be identified on a map. This should be corrected.

In addition, the mitigation measure restricts bicycle use on trails located in ohlone beetle habitat. No map identifies the location of these trails and how closing them for almost half the year might impact bicycle transportation through the campus. The EIR should clarify this.

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- PAGE 4.4-56FF - SPECIAL STATUS RAPTORS - Although the impact description does not mention foraging habitat for special status raptors, it is discussed in the explanatory section that follows. The DEIR determines that the loss of 98 acres of foraging habitat would be less than significant because other foraging areas in the Great and East meadows would be "largely undisturbed." However, the size of these two meadow areas is only 170 acres, so the loss of foraging habitat is over 35%, which seems significant. What is the threshold the DEIR used and what evidence supports it?

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- PAGE 4.4-60FF - WOODRATS - The DEIR analysis of the LRDP's impact on San Francisco dusky-footed woodrat habitat is inadequate. First of all, the DEIR states that there are about 193 acres of suitable habitat for the woodrats on-campus, yet this area is not shown on a map and cannot be compared to the areas of proposed development.

Further, the DEIR states "development would result in the removal of roughly a quarter of the nests on the north campus." While this is identified as a potentially significant impact, the mitigation, at most, would result in moving nests from one location to another. There is no analysis of the potential effects of this level of disturbance on the overall habitat or what effect it might have on the species living in the area. In the end, no justification is given for considering the relocation of one quarter of the woodrat nests a less than significant impact.

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- PAGE 4.4-61 - WILDLIFE CORRIDORS - The discussion of wildlife corridors in the DEIR does not include consideration of the LRDP's impacts on the viability of species through the fragmentation of their habitat. For example, campus development could fragment the habitat of the San Francisco dusky-footed woodrat so as to undermine the continued viability of the species on-campus. This issue is completely ignored in the DEIR yet could be a significant impact of the project. It should be examined in the EIR.

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- PAGE 4.4-67 - CUMULATIVE IMPACT ON SPECIAL STATUS SPECIES - The DEIR finds that, because of the mitigations it proposes, the cumulative impacts on the burrowing owls and San Francisco dusky-footed woodrat would be less than significant. However, to the extent the mitigations for the direct impacts aren't sufficient, the cumulative impacts could be affected.

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- PAGE 4.4-68FF - TIMBERLAND CONVERSION - The DEIR indicates that approximately 120 acres of timberland would be lost as a result of campus development. Of this, 61 acres are second growth redwoods, representing 13% of the campus redwood forest, and 63 acres are mixed evergreens, representing about 15% of the mixed evergreen forest on-campus. Because of the overall population of these species on and off-campus, this impact is considered less than significant. How much of the campus forest would have to be lost before the DEIR would determine that the impact is significant? Since redwoods are not a listed species, could the entire campus population be cut down and the impact still be less than significant? A meaningful threshold is needed.

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- PAGE 4.5-21FF - CULTURAL RESOURCES - ARCHAEOLOGICAL RESOURCES IMPACTS AND MITIGATIONS - While the DEIR seems to identify the archaeological sites and indicates where that development may impact some of them, there is no analysis of how substantial the impacts would be.

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Also, the mitigations, while extensive, seem weak. Would a feasible mitigation be for development to avoid the archaeological sites? If not, why not?

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Both here and in LRDP Impact CULT-3, concerning resources that cannot be preserved, no distinction is made between resources that are known and resources that may have been found during the development process. Where resources have already been identified, a wider array of feasible mitigation exists. The ability to avoid impacting the resource is greater, especially given the size of the campus. Existing resources should be compared to development areas and mitigation measures proposed to avoid those areas.

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- PAGE 4.5-25FF - CULT-3 IMPACT AND MITIGATIONS - The difference between this impact and CULT-1 needs to be clarified. From the impact statement it appears that the LRDP could cause an adverse change to archaeological and historic resources and "values that contribute to the significance of the resource cannot be preserved through documentation and data recovery." This last phrase is confusing, especially since Mitigation CULT-3A calls for a documentation program for resources that can't be preserved. This seems to contradict the impact statement. A clarification is needed.

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- PAGE 4.5-27 - HUMAN REMAINS - The DEIR identifies the possible disturbance of human remains as a potentially significant impact and includes a series of mitigation measures that seem to only cover situations where such remains are found. Yet, in the explanatory discussion on page 4.5-28, the DEIR states: "Avoidance of disturbance of archaeological sites may reduce the potential for such impacts." Shouldn't avoidance, then, be one of the mitigation measures?

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- PAGE 4.5-5 - GEOLOGY, SOILS, AND SEISMICITY - SOILS - In the section on Central/Lower Campus soils, the DEIR says that erosion hazard of Nisene-Aptos soil is high, yet Table 4.6-1 lists it as moderate. Why the discrepancy?

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Also, in the section on Erosion Potential, Bonnydoon Rock Outcrop and Ben Lomond-Catelli-Sur complex are mentioned as having high erosion potential, yet they are not listed in Table 4.6-1. Why not?

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- PAGE 4.6-6 - COUNTY EROSION CONTROL STANDARDS - The DEIR indicates that the Campus erosion control standards are substantially based on the County Erosion Control Ordinance. Why wasn't the County's Sensitive Habitat Ordinance considered in the biological resources section?

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- PAGE 4.6-13 - LOCAL SEISMIC POLICIES - The DEIR discusses the seismic policies of the City of Santa Cruz but does not mention the County. Since much of the campus is outside the City of Santa Cruz, the County seismic policies are applicable under University policy and also should be considered.

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- PAGE 4.6-16 - EROSION - The DEIR states that development under the LRDP would not result in substantial erosion of soils. Does this mean that there are no erosion related mitigations in the Hydrology and Water Quality section? To the extent they are, this impact determination should be revised and the mitigations cross referenced.

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Further, to simply assume that because there are campus erosion policies that should be applied during design there would be no potential impact seems contrary to CEQA. In other impact areas, the DEIR recognizes the potential substantial impacts and proposes mitigations, including existing campus studies or regulations, to assure that the impact is reduced to a less than significant level. This approach should be employed here.

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- PAGE 4.6-17 - KARST FEATURES - The DEIR recognizes that development on karst features could lead to settling or collapse beneath these structures. However, the mitigation is simply to require adequate engineering. Wouldn't it be preferable to avoid the possible environmental damage by not building in areas with a high hazard to karst features, if feasible? Figure 4.6-8 identifies these areas and the EIR should include an overlay of this map with the development areas map. Avoiding development in high hazard areas should at least be considered as a mitigation measure.

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- PAGE 4.7-28FF - HAZARDOUS MATERIALS - WILDLAND FIRES - The DEIR includes a mitigation measure to reduce fire danger in the north campus area that would require the development of a Fire Management Plan. In the discussion of the components of this plan, no mention is made of the possible role of controlled burns. Given the high fire danger in this area, some discussion of using controlled burns as a mitigation measure should be included in the EIR.

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- PAGE 4.8-9 - HYDROLOGY - EXISTING EROSION - The DEIR states that, since 1989, the campus has taken steps to control soil erosion. This is a misleading statement since it fails to acknowledge that the University did not carry out a number of erosion control mitigations contained in the 1988 LRDP EIR.
- PAGE 4.8-12 - FLOODING - One of the reasons given in the DEIR for the flooding of the Highview Drive area in 2000 was the inadequate size of the culvert. Since this culvert had never failed before, the EIR should clarify whether the actual source of this inadequacy was the increased drainage from increased University development and inadequate detention facilities.
- PAGE 4.8-21 - RUNOFF POLLUTANTS - The DEIR states that water sampling on the campus over time indicates "an increase in urban runoff pollutants." Tables D2-2 through D2-10 in Appendix D2 are given as the source for this conclusion. However, Appendix D2 does not appear relevant and Tables D1-2 to D1-10, in Appendix D1, are probably the tables cited. However, it is extremely difficult to interpret and compare these tables. The Final EIR needs to include a summary table showing the total and percentage increase of pollutants on-campus over the time period of study.
- PAGE 4.8-29FF - HYD-3 IMPACT AND MITIGATIONS - The DEIR finds that the increase of surface runoff and amount of urban pollutants resulting from the LRDP will be substantial and unavoidable despite the mitigations proposed. Given that increases in urban runoff pollutants are at least in part a result of increased traffic on-campus, the DEIR should propose mitigation measures to reduce on-campus traffic.
- PAGE 4.8-31 - WATER QUALITY IMPACTS - The DEIR states here that water quality sampling over time does not indicate an increase in urban runoff pollutants. The discrepancy in the two sections needs to be clarified and, again, a summary chart comparing the pollutant increases over time is needed.
- PAGE 4.8-32FF - IMPERVIOUS SURFACE INCREASES - The DEIR, in discussing the increase of impervious surfaces in the different watersheds, makes reference to the study summarized in Appendix D2. The tables in Appendix D2 indicate that the LRDP will result in an increase of 218 acres of impervious surface, a 25% increase over existing levels. As a result of this, campus runoff will increase by about 31% during a two year storm. Is this correct?
- PAGE 4.8-34 - EROSION IMPACT SUMMARY - While the DEIR recognizes that, even with the mitigation measure to maintain post development runoff to pre-development levels, it may not be possible to prevent increased erosion problems, it includes no mitigation measure to ensure that future erosion problems are corrected. Potentially feasible mitigation measures that should be considered include: 1) periodic inspection of drainage facilities to ensure they are working as designed;

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2) regular sampling of runoff to determine how well the other mitigation measures are working; and 3) a requirement that drainage improvements be installed where necessary and feasible to correct any increased erosion problems.

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- PAGE 4.8-35 - HYD-4 - OFF SITE FLOODING - The DEIR determines that flooding in the Highview Drive area will not be a significant impact because the Arboretum dams have sufficient capacity to hold runoff. There are two problems with this analysis. First, the 20 to 40 year storm in 2000 did lead to the dam overflowing. Since elsewhere the design criterion for detention facilities is the 25 year storm, shouldn't that be applied here?

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Second, and more important, the DEIR doesn't consider the potential effects of sedimentation on the Arboretum dams. How quickly will the sedimentation from upstream runoff reduce the capacity of the dams?

- PAGE 4.8-37 - HYD-5 IMPACT AND MITIGATIONS - GROUNDWATER WELLS - The DEIR includes a mitigation that would require the University to stop using groundwater wells if there were a "substantial" decrease in water levels in any monitored wells or a "substantial" reduction of flows in monitored springs. For this mitigation to be meaningful, the EIR needs to define "substantial" in this context. Would a 10% decline be substantial? 20%? Some quantitative figure is needed in order for the mitigation measure to be adequately enforced.

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- PAGE 4.9-8 - LAND USE AND PLANNING - COASTAL ACT - The DEIR states that campus lands are not included in either the City or the County Local Coastal Program (LCP). I don't think this is the case for the County's LCP. As I understand it, the campus lands in the unincorporated Coastal Zone are designated for agriculture in the County's LCP. Further, the campus, should it want to develop these lands, would need to conform to the policies of the County LCP, even though approval would be obtained from the Coastal Commission directly because the Commission has certified the County's LCP as consistent with the Coastal Act. The EIR should clarify this situation (see also page 4.9-10).

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- PAGE 4.9-9FF - IMPACT LU-1 - CONSISTENCY WITH LOCAL PLANS - The DEIR finding that the LRDP "is not expected to conflict with the implementation of" the City and County general plans is extremely misleading and inadequate under CEQA. The only policies in these general plans that are reviewed in the DEIR are those that specifically mention the University. Other policies that would impact the LRDP if they were applied to it are ignored. For instance, the County has a Sensitive Habitat Ordinance and a Riparian Corridor Ordinance that might affect the campus growth plans if they were applicable. It is impossible to know if the LRDP is consistent because these and other policies are never mentioned, let alone analyzed. This is a significant shortcoming in the DEIR.

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Even more important, the LRDP is totally inconsistent with the local plans because neither the City nor County general plan anticipated the 6,000 student enrollment increase proposed in the LRDP. This increase is inconsistent with both plans and, as the DEIR previously mentions, the County General Plan's time frame is 2015.

90

While it is true that the University is not subject to local land use authority, this does not mean that the LRDP is consistent with local general plans. The DEIR is inadequate in its consideration of local plans and the analysis and conclusions should be revised and, if necessary, the document re-circulated.

- PAGE 4.9-10FF - IMPACT LU-2 - COMPATIBILITY WITH LAND USES - The DEIR states that the LRDP "would not conflict with on-campus conservation efforts." This is not completely true. One of the major land use categories in the LRDP is Campus Resource Lands. While ostensibly protected from development, the LRDP includes the possibility of development within them if "the LRDP is amended by the Regents." Since development is possible on all campus lands except those protected by a Habitat Conservation Plan, if the Regents amend the LRDP, this language is a signal that such amendment is anticipated. And, in fact, development is cited in the LRDP as a possible use of the Campus Resource Lands. Given this uncertainty about the future of these lands, it is not correct to conclude that the LRDP doesn't conflict with conservation efforts. The recognition that development may occur on them represents a conflict with their protection and should be re-evaluated in the EIR.

91

The DEIR also finds that although the Campus Trailer Park may be replaced by permanent housing, there would be no land use conflict by its removal because the LRDP designates the area where it is located as Colleges and Student Housing. The Campus Trailer Park represents a unique housing opportunity on the campus, both in its affordability and the nature of the community it has created. Replacing it with typical student housing would clearly be a significant land use change and should be recognized as such.

92

- PAGE 4.9-12 - CAVE GULCH - The DEIR finds that the development of the physical plant facilities on Empire Grade would not result in a land use conflict with existing nearby development. No evidence is provided to support this conclusion. In fact, the facility would increase traffic on this somewhat dangerous road that would impact residents living in the area. Moreover, some of this traffic would be truck traffic, which would also impact the public safety along the road.

93

More important, though, than the proposed physical plant facility is the proposed new road that would be constructed to Empire Grade. This road would change the traffic patterns in the area, increase the noise levels, alter the visual quality, and would be incompatible with the rural quality of the area. The EIR needs to consider the land use compatibility of this road with the adjacent area as it appears significant and unavoidable.

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- PAGE 4.10-8FF - NOISE LEVELS - The DEIR is inadequate in its treatment of noise impacts and must be revised to correct this deficiency. The noise survey conducted as part of the EIR process only considered specific built up areas, called sensitive receptors, such as residences, schools, and daycare facilities. From Figure 4.10-2, it appears that all the locations used to measure noise levels were in these developed areas.

However, one of the CEQA thresholds of significance identified in the DEIR is "A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project." The standard contains quantitative levels for determining whether the noise increase is substantial.

94

Much of the development proposed under the LRDP is in currently undeveloped areas. These are now used for recreational and educational purposes in a low impact and passive manner and probably have very low noise levels. LRDP development will increase the noise levels in these areas significantly, particularly as a new road will be constructed in the north campus, yet the DEIR totally ignores them both in the noise surveys and in the consideration of potential project impacts. This oversight must be corrected.

- PAGE 4.10-15FF - NOIS-1 IMPACT AND MITIGATION - CONSTRUCTION NOISE - The DEIR minimizes the construction noise impact, despite the fact that it determines the impact to be significant and unavoidable, by stating "there could potentially be some construction sites on-campus where, even with the recommended mitigation, the noise levels would not be reduced to levels below the thresholds." This caveat is misleading given that much of the proposed LRDP development would be infill and very likely closer than 100 feet to sensitive receptors. In this case, the mitigation measure would do little to prevent the significant noise impact during construction. To justify its claim, the EIR should provide a more detailed analysis of the distances between existing and proposed developments. A figure that overlays current development with the areas proposed for development would be useful for analyzing this impact.

95

- PAGE 4.10FF-17 - NOIS-2 IMPACT - OFF-CAMPUS NOISE IMPACTS - The DEIR determines that the noise impact of the LRDP at several off-campus locations would be less than significant, even though the levels would be significantly over the standard, because the incremental increase due to LRDP growth would not reach the threshold for significant permanent noise increases. However, the CEQA thresholds don't give lead agencies a choice of which to use. They all apply, not just the ones for permanent noise increases.

96

While the increase in off-campus noise levels at several locations would not exceed the threshold for significant noise increases, there is another standard that applies to the overall exposure to noise levels that exceed certain levels. For example, the noise standard for the High Street location is 60 decibels. The projected noise level



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with the project is 71.2 decibels. This is obviously significantly over the threshold despite the fact that LRDP growth only contributes 0.8 decibels to the increase and the 2005 level was 70.5 decibels. The continued existence of this excessive noise impact is significant and the LRDP's growth represents 80% of the increase over current levels. This impact should be identified as significant and mitigations developed to reduce it.

96

- PAGE 4.10-19 - NOIS-3 IMPACT - EXPOSURE OF FUTURE RESIDENTS TO HIGH NOISE LEVELS - The DEIR determines that since the north campus road will mainly serve persons living in that area, "traffic volumes would not be high and therefore are not expected to expose the new residents of the north campus to high noise levels." Again, this ignores the threshold of significance related to increases in the noise levels over pre-project levels (page 4.10-11). Since no noise survey was done in the area of the north campus road, it isn't possible to predict the increase in noise levels over current conditions. However, since the area is currently undeveloped, noise levels are very likely to exceed the thresholds.

97

Also, the noise analysis does not seem to consider the noise impacts of the Meyer Drive Extension or other new road projects proposed in the LRDP. It isn't clear whether the on-campus noise analysis incorporated additional noise impacts from these new roads. If it didn't, the noise analysis needs to be updated in order for the EIR to be adequate. If the noise impact from these roads was incorporated in the noise analysis, the EIR needs to describe the impacts.

98

- PAGE 4.11-8 - ON-CAMPUS STUDENT HOUSING - The DEIR is somewhat unclear regarding the number of beds on-campus. Table 4.11-3 states that the Fall 2004 Design Capacity was 6,891 beds. Does this include the 603 "temporary" beds referred to later in the page?

99

Also, on pages 3-9 and -10, the DEIR indicates that about 43% of the students, or 6,050, in 2003-04 were housed by the University. This includes the 208 living off-campus, so it appears that 5,842 students lived on-campus in 2003-04, yet Table 4.11-3 indicates that 6,237 students lived on-campus in the Fall of 2004. Does this mean that the number of students living on-campus increased by about 400 in one year? The EIR should clarify this.

100

- PAGE 4.11-9 - ON-CAMPUS HOUSING DEMAND - The DEIR states that the lower occupancy level of on-campus student housing is "because in recent years more rental housing has been available in off-campus areas due to the economic downturn in the region." However, the economic downturn has existed for several years, but recently the City has added a significant number of rental units to the housing stock. The DEIR should analyze these additions and the effect they may have had on off-campus rents. These rents should then be compared to on-campus rents to try to evaluate the effect of campus rents on occupancy levels.

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- PAGE 4.11-9 - EMPLOYEE HOUSING - The DEIR is unclear about the number of staff and faculty living on-campus during the baseline year of 2003-04. It gives a range of percentages for faculty living on-campus from a high of 35% to a low of 24%, but doesn't state what the percentage was in 2003-04. It does say that 50 staff were housed on-campus in 2003-04. Since the table on page 4.11-3 shows a total of 240 staff and faculty living on-campus, it would appear that 190 faculty members were so housed. Given that there were 815 faculty members in 2003-04, the percentage living on-campus would only be 23.3%, below the minimum stated. Also, based on the figures in the DEIR, only about 1.5% of the staff are housed on-campus (3,265/50). These numbers need to be clarified.
- PAGE 4.11-11 - TABLE 4.11-4 - RESIDENCE PATTERNS - The presentation of the data on the percentage of students and employees living off-campus is seriously misleading and needs to be clarified. Table 4.11-4 gives the percentage of students and employees living off-campus in terms of the total student body. For example, the table shows the percentage of students living in the City of Santa Cruz in Spring 2004 as 39.8%. However, since 41% of the students live on-campus, which for all practical purposes is part of the City of Santa Cruz, about 81% of the student body lives in the City of Santa Cruz.

Moreover, to better understand the impact of off-campus housing on the various communities, the EIR should give the percentage of students and employees living in each community based on the total number of students and employees living off-campus. This is a more meaningful number than the one contained in the table. For example, the table indicates that 39.8% of the student body lives in the City of Santa Cruz. However, when only the students who live off-campus are counted, over 67% of these students who live off-campus live in the City of Santa Cruz. The table, then, gives a misleading impression of the impact of the campus population living off-campus on the surrounding communities.

Also, the EIR should indicate the overall impact of the campus population on the surrounding communities, particularly the City of Santa Cruz since it is the most impacted. Based on the figures in this chapter, the total campus community living both on-campus and off-campus in the City of Santa Cruz in the Spring of 2004 represents about 22.8% of the City's total estimated population in 2005. The off-campus population alone represents about 12.7% of the City's total estimated 2005 population. These percentages were even higher using the Fall 2003 numbers. Even without the proposed University growth, then, the campus represents a very significant proportion of the City's population.

Finally, the figures in Table 4.11-4 indicate that 5,558 students, 41%, lived on-campus in the Spring of 2004. From Table 4.11-3, the design capacity for student housing in Fall 2004 was 6,891 beds. This indicates that the occupancy rate for the on-campus housing was only 80.7%. Was the vacancy rate really this high (19.3%)? If it was, the EIR needs to consider the impact of the University's high vacancy rates on the demand to construct additional housing in the city.

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- PAGES 4.11-12, 13 - CITY HOUSING PROJECTIONS - The DEIR discussion of the City's Housing Element is extremely misleading and needs to be corrected. The DEIR states that the City's Housing Element demonstrates how it "would" develop needed housing and that the City is "committed" to meeting the housing goals in the Element. On page 4.11-13, the DEIR states that the Housing Element objective is for the City to "produce" additional units during the Element's time period. Also, the City has already "developed" 886 units and needs to "develop" a specific number of additional units to meet its goal.

From reading this description, a reader would be under the impression that the City constructs housing. This is not the case. The Housing Element is part of the General Plan and describes how City policies could, not "would," allow the housing goals to be met. The City is committed in the Element to provide adequate sites for the housing goals to be reached. It is not committed to reaching the goals, as it produces no housing itself. Finally, while units have been "produced" in the City, private developers and non-profit agencies have produced them. Housing units have been developed under the General Plan and additional units need to be developed in order to meet the goals, but the City has not and will not develop any of them. The EIR needs to clarify this situation.

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- PAGE 4.11-15 - ON-CAMPUS HOUSING BEDS - The section on Projected On-Campus Student Housing states that in order to meet the housing goals of housing 50% of the undergraduates and 25% of the graduate students on-campus, 3,220 student beds would need to be added, yet in the following section the DEIR says that 3,390 new student beds would be needed to meet these goals. This discrepancy needs to be corrected.

105

- PAGE 4.11-16 - STUDENT HOUSEHOLD SIZE - What evidence supports the assumption that there would be three students to a household on average? The BAE Housing Impact analysis refers to a May, 2005 survey but that survey seems to combine both on-campus and off-campus student housing. What is needed is evidence of average household size for students living off-campus.

106

- PAGE 4.11-18FF - IMPACT POP-1 - While the DEIR finds that the impact of the LRDP on population growth would be **significant and unavoidable**, it understates the consequence of that impact on the City of Santa Cruz. The DEIR does find that, under Scenario 1, about 63% of the new students living off-campus (2,253) would live in the City of Santa Cruz and about 53% of the total campus population living off-campus (3,514) would live in the City of Santa Cruz.

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Table 4.11-6 includes a row labeled "Residual Demand" and indicates that 462 students and employees in this category would not be able to find housing at a price they can afford based on their income. No further discussion of this group is provided in the DEIR. However, the BAE Housing Impact Analysis includes additional information. The BAE methodology compares estimated incomes of

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UCSC households to estimated housing prices in the City of Santa Cruz and the rest of Santa Cruz County. Even with the optimistic assumptions used regarding future housing prices, their analysis indicates that over 8% of the UCSC population living off-campus but in the County of Santa Cruz will be unable to afford housing without spending a very high percentage of their income on housing or moving out of the County where, theoretically, housing prices may be lower. While the BAE analysis recognizes some of the hardships this will impose, the DEIR ignores this group and the University takes no responsibility for mitigating the impacts on them.

In Table 4.11-7, the DEIR documents that this population of 3,514 would represent about 118% of the City growth in 2020 projected by AMBAG and 5.9% of the future City's population. However, the DEIR assumes that the on-campus population is not counted as part of the City's population. This is not justifiable, as the campus is integrated into the City. If the on-campus population is included in measuring the impact of LRDP growth on the City's population, the total would represent about 254% of the City's projected population growth and 12.6% of the City's population. And this is just the growth. Moreover, these numbers don't, as they should, include the additional community growth generated by the multiplier effect discussed in the Growth Inducement section of the DEIR. Those numbers should be added here.

107

To better understand the total impact of the University on the City, the new growth needs to be added to the current situation. Based on the numbers in Table 4.11-4, the total campus population in 2020 living in the City of Santa Cruz would equal about 18% of the City's projected population. If the on-campus population is included, the University population would equal about 34.2% of the City's population. And this number represents only the direct campus population and not the campus induced growth or the number of students who don't move out of Santa Cruz after leaving UCSC.

- PAGE 4.11-21 - IMPACT POP-2 - INDUCED GROWTH THROUGH INFRASTRUCTURE EXTENSIONS - The DEIR analysis of this potential impact is inadequate because it doesn't specifically consider the possible effects of the North Campus loop road on the Cave Gulch neighborhood. While the County's land use regulations currently limit development in the Cave Gulch and Bonny Doon areas, new infrastructure can stimulate demand pressures that can lead to changes in these regulations. New University growth in the north campus area, combined with the new loop road, could increase housing demand in the Cave Gulch area leading, ultimately, to additional growth. This is a potentially significant impact and the EIR needs to evaluate it in some depth, including a consideration of the vacant land in the area that could be developed and converted to residential use.

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- PAGE 4.11-21FF - CUMULATIVE HOUSING DEMAND - HOUSING AFFORDABILITY - The DEIR finds that the housing demand created by the LRDP will be **significant and unavoidable** but some of the analysis seems unsupportable.

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For example, based on the "model" used for the Scenario 1 housing demand analysis, 90% of the new students and about 86% of the new employees would find affordable housing in Santa Cruz County based on the assumption that these households would only spend 30% of their income on housing.

109

Given the housing prices in Santa Cruz and the difficulty University students and employees currently have finding affordable housing, this conclusion seems unlikely. The EIR needs to be more explicit regarding the assumptions used by the model. The BAE Housing Impact Analysis seems to assume that new housing created will sell at prices similar to the range of prices for houses currently being sold. What is the basis for this assumption?

It should also be pointed out that under this Scenario, the total housing demand in the city under the LRDP would be for 1,146 units. The projected new housing supply is 1,684 units. The direct campus population, then, would consume about 68% of the new housing built in the city. Even under Scenario 2, which assumes that a relatively small percentage of University employees will move to Santa Cruz, the new housing demand would consume about 55.8% of the projected new housing stock. The EIR needs to consider the impact on other city development as well as traffic resulting from this impact.

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- PAGE 4.11-24 - CUMULATIVE DEMAND - JOBS/HOUSING BALANCE - The DEIR analyzes the differences between the AMBAG forecasts for population and job growth in the City of Santa Cruz and finds that, while the population is estimated to grow by 2,970, translating into a housing demand for 1,220 dwelling units, the job growth is projected to be 12,185 new jobs, which would translate into a demand for 8,123 households. The DEIR concludes that there would be .21 new housing units for every household. This indicates that, if the estimates are correct, a significant number of people working in Santa Cruz would have to commute in and, obviously, regional traffic congestion would worsen.

111

Unfortunately, the DEIR doesn't apply the same analysis to University growth. In fact, based on the numbers in Table 4.11-10, the new University employee households would create the demand for 1,393 housing units. The University intends to supply 125. So, while the ratio for the City is .21 new housing units for every household, the ratio for the University is about .09 new housing units for every household. The EIR needs to consider the impact of the cumulative jobs/housing balance from both the City and the University in analyzing increases in traffic impact.

In addition, the BAE Housing Impact Analysis recognizes that University growth and the resultant housing demand will force lower income people working in Santa Cruz to commute further to their jobs. The EIR needs to evaluate this impact.

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- PAGE 4.11-25 - TABLE 4.11-12 - CUMULATIVE HOUSING SUPPLY AND DEMAND - This table clearly documents the overwhelming impact of future growth,

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both on and off-campus, on the City of Santa Cruz. While 1,684 housing units are predicted by AMBAG in 2020, which is not unreasonable given the historical pattern of housing growth in the City, the total demand for housing based solely on population growth is 2,366 units and the demand shown in the table based on employment growth is 9,269 units.

However, even this figure is an understatement. The notes to the Table are incorrect. The Total Demand based on Population Growth (a) is said to be the sum of columns 3 and 5 but, in fact, is the sum of columns 2 and 3. The Total Demand based on Employment Growth (b) is said to be the sum of columns 3 and 5, but these columns only show population growth. The total given in this column for the City of Santa Cruz is the sum of LRDP Related Growth, column 2, and Demand Based on Regional Employment Growth, column 4. Since there seems to be no reason to include LRDP Related Growth and not Demand Based on Regional Population Growth, the numbers in this column, 3, should be added to the Total Demand based on Employment Growth. This brings the total housing demand to 10,489 units. This means that the future projected supply will only meet about 16% of the future demand in the City of Santa Cruz. The EIR needs to clarify the numbers here and correct the information.

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Also, while the DEIR discusses the numbers in this chart countywide, it needs to describe the impact in the City of Santa Cruz, due to the extreme impact that will be absorbed.

- PAGE 4.11-26 - CUMULATIVE HOUSING DEMAND MITIGATION - The DEIR includes a mitigation measure directing the University to work with the City "to encourage and facilitate the development of additional housing that could support the City workforce." This mitigation is so vague as to be meaningless. What, specifically, is the University willing to do to facilitate workforce housing in the City? Why isn't it feasible for the University to build more on-campus employee housing?
- PAGE 4.12-1 - PUBLIC SERVICES - The DEIR states that the concern expressed during the scoping period regarding "potential public school closures as a result of a demographic shift in the city to more university students and fewer families" was not considered in the DEIR because it did not have "environmental implications." School closures will have traffic impacts as some students need to travel greater distances to attend the remaining schools. This is an environmental impact and should be evaluated in the EIR.
- PAGE 4.12-3 - FIRE PROTECTION - The paragraph contains a footnote 1 reference but there is no footnote at the bottom of the page. This needs to be clarified.
- PAGE 4.12-6 - BONNY DOON FIRE STATION - The DEIR states that a new station is being built on Empire Grade. In fact, this station has been in operation for several years. In addition, the DEIR should indicate how many times a year the various CDF stations have responded to campus incidents.

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- PAGE 4.12-16 - CUMULATIVE POLICE AND FIRE IMPACTS - The DEIR finds that off-campus growth under the LRDP will not cause the need for expanded police or fire facilities in the City of Santa Cruz based on conversations with City personnel. The EIR should clarify whether this determination by City staff was made with an understanding of the proposed LRDP growth plans, given that the current City General Plan does not incorporate the projected campus growth.

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- PAGE 4.12-17 - OFF-CAMPUS SCHOOL IMPACTS - The DEIR finds that the direct impact of students from campus households will not have a significant impact on school facilities because there is significant existing capacity and enrollment levels are projected to continue to decline. However, the DEIR does not evaluate how the increase in student households in the City will contribute to the increased decline in local school enrollment levels and the possible resultant need to close additional schools. Further, school closing is an environmental impact because it will cause further traffic congestion as students will have to travel farther to reach their schools. At a minimum, the EIR should consider this impact.

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In addition, since most of the students from campus households will reside in the Family Student Housing project, which will be constructed within the next five years, the EIR should consider the potential impact of this growth on overcrowding in the nearby elementary school and the traffic impacts resulting from families having to transport students greater distances to get to school.

- PAGES 4.13-9, 10 - RECREATION - INCREASED DEMAND FOR PARKS - The analysis in the DEIR of the increased off-campus demand for additional parks in the City of Santa Cruz is inadequate and must be corrected. The DEIR determines that the LRDP will not cause a significant increase in new park facilities in the city because City staff indicated that "it does not expect to develop substantial new park acreage" and that limited land is available. This is insufficient.

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The EIR needs to evaluate how the increased growth under the LRDP will impact the demand for City parks. In particular, it should consider the park standards used by the City of Santa Cruz and whether the increased demand would cause a significant deviation from these standards. To the extent that the increased growth would create a significant additional demand for parks in the city, this would be a significant impact and the EIR would need to consider potentially feasible mitigation measures, such as the University providing land for a City park and/or funding to acquire land and develop and maintain facilities.

- PAGE 4.13-11FF - IMPACT REC-2 - DETERIORATION OF CITY PARKS - The DEIR finds that the LRDP could cause a potentially significant impact on the deterioration of parks both on and off-campus, but that mitigation measures would reduce this impact to a less than significant level. Unfortunately, however, the analysis does not justify this conclusion, at least as far as the City of Santa Cruz is concerned.

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First of all, there is no quantitative analysis substantiating the DEIR determinations. For example, on page 4.13-12, the DEIR states: "There is no reason to expect that students and campus employees would extensively use city parks," because "equivalent recreational resources would be available on the campus." The DEIR contains no evidence to support this and, in fact, the existing evidence and logic would lead to the opposite conclusion. For example, campus playgrounds are located within residential facilities on-campus and members of the campus community who have kids are not likely to feel that these facilities are available to them. Moreover, it is likely that members of the University who are parents would prefer to visit parks in their neighborhoods rather than travel up to campus, particularly on the weekends.

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In terms of students, it is reasonable to think that some students would prefer to play sports, such as basketball and soccer, in their neighborhoods and in community leagues. The DEIR does not mention the basketball courts at Meder Street Park, the full sized soccer field at Depot Park, and the City tennis courts. Use of these facilities, at no cost, would be significantly more convenient for students and employees living off-campus, particularly on the weekends. Increased campus growth is likely to increase demand for these facilities and the EIR needs to submit some evidence to support its conclusions--or change them.

Finally, the multiplier effect documented in the Growth Inducement chapter would increase demand for recreational facilities in the City and should be incorporated in the EIR analysis.

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- PAGE 4.13-12 - TRAIL MITIGATION - The DEIR recognizes that population growth resulting from the LRDP could exacerbate the problem of trail deterioration at Pogonip City Park, which is a potentially significant impact, and proposes mitigation measures that it determines would reduce this impact to a less than significant level.

These measures commit the University to work with the City and other groups to educate the public about the problem and to seek volunteers for periodic trail maintenance days. While these measures are laudable, there is no evidence that they would be effective in reducing the impact at all, let alone to a less than significant level. A more meaningful mitigation measure would commit the University to fund its fair share of the costs of trail maintenance days. The mitigation measures must include actions that can assure that the impact will actually be reduced to a less than significant level. Without such measures, the impact should be identified as significant and unavoidable despite the mitigations.

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- PAGES 4.13-13, 14 - LOSS OF NORTH CAMPUS TRAILS - The DEIR determines that the loss of North Campus trails and roads through the development of facilities and the North Campus Loop Road would not be a significant impact because these roads are not designated for recreational use. This determination is inadequate under CEQA. CEQA is concerned about the impact of development on the

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environment. The fragmentation of the recreational trail system in the North Campus area due to LRDP development is a significant impact irrespective of whether some of those trails are authorized for recreational use or not. If they are used for recreational purposes now and that use will be substantially diminished, that is a significant impact of the project.

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- PAGES 4.13-14, 15 - CUMULATIVE IMPACT REC-4 - NEW FACILITIES - The discussion of this impact in the DEIR is an excellent example of the University's definition of cooperation and collaboration with the City of Santa Cruz. The City provided information that there is a park deficit on the west side and that, while it does not expect to develop substantial new park acreage, it is examining the possibility of developing a 2 to 3 acre neighborhood park on Shaffer Road and is planning to make improvements to Derby Park.

The DEIR even used the City's park standards to determine that, while other City growth would create the demand for 13 acres of neighborhood and community parkland, the new off-campus population would create a demand for 17 acres of neighborhood and community parkland.

The DEIR then uses the total amount of recreational acreage in the City to determine that there is an abundance of recreational facilities to meet the future needs of the 2020 population.

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The DEIR finds that the LRDP's increase in the need for neighborhood and community parks by 17 acres is less than significant, but offers a mitigation to make campus recreational facilities available to the community, which they already are. The City's increased need for a neighborhood park in the campus area is dismissed.

The EIR needs to re-examine the determination that an increased need of 17 park acres in the City of Santa Cruz is a less than significant impact. In particular, analysis of the neighborhood and community parks available to City residents needs to be considered. In addition, both the on-campus population and the population induced by campus growth should be included in the calculation. Finally, a mitigation measure should be evaluated whereby the University would commit to paying its fair share of additional parks developed and/or improved on the west side.

- PAGE 4.14FF - TRANSPORTATION - OFF-CAMPUS STREETS - On page 4.14, the DEIR states that Empire Grade begins at Bay and High Streets. In fact, the name change from High Street to Empire Grade occurs at the City/County boundary. On page 4.14-5, the DEIR says that Swift Street is four lanes. However, for most, if not all, of its length it is two lanes. On page 4.14-6, the DEIR states that High Street is accessed from Mission Street via King and Storey. This is incorrect. High Street is accessed from Mission via Highland. Mission Street is accessed from High Street via Storey and King.

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- PAGES 4.14-6, 7 - EXISTING TRAFFIC - In 2003-04, there were 1,452 vehicle trips during the AM peak and 2,040 trips during the evening peak hour, with the Average Daily Traffic (ADT) of 24,830 trips. The DEIR indicates that the traffic numbers reflect the average of counts that were done during the fall of 2003 and winter of 2004 on different days to reflect varying class schedules. How many counts were done overall? How were these divided between the fall and the winter, and how many were done on the different days?

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On page 4.14-7, over how many days and during what time of year was the 2004 modal share study done?

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- PAGES 4.14-12, 13 - PARKING - In order to make a more meaningful comparison of the off-campus and 4,840 space on-campus parking supply, it would helpful for the EIR to include the total number of parking spaces in the 17 parking lots in the City of Santa Cruz downtown area.

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- PAGE 4.14-16 - PEDESTRIAN LEVEL OF SERVICE AT CROSSWALKS - The DEIR uses the 1994 Highway Capacity Manual to determine the pedestrian Level of Service at selected crosswalks at peak periods. However, no explanation is given for how these levels of service are determined. For vehicular traffic, level of service is explained in terms of seconds of delay at an intersection. What is the measure for determining pedestrian level of service? It isn't possible to evaluate the credibility of the conclusions that the average Level of Service for pedestrians is A at all the intersections without knowing how this is measured.

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- PAGES 4.14-17, 19 - TRANSPORTATION RELATED AGENCIES - The DEIR lists a variety of agencies that provide transportation services related to the University but does not include the County of Santa Cruz. Since a significant portion of the UCSC campus is in the unincorporated area of the County, one of the two main entrances to the campus is from a County road, and one of the major campus roads, Coolidge Drive, is in fact a County road, this oversight needs to be corrected.

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- PAGE 4.14-18 - TRAFFIC IMPROVEMENTS - The DEIR states that the intersection of Empire Grade and Heller Drive meets the warrants for a signal and one is planned for that location. When is the University planning to have this signal installed?

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- PAGE 4.14-19 - PLANNED IMPROVEMENTS - The DEIR indicates that the City of Santa Cruz anticipates funding "through gas tax and grant funds" traffic improvements at the Mission/Bay intersection. The need for these improvements is largely the result of University growth, yet no contribution from the University is mentioned, nor is it recognized that the University has some responsibility for helping to relieve the congestion that has resulted from previous campus growth. This needs to be corrected.

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Further, the DEIR assumes in its later traffic analysis that these improvements are made. At this point, this is an extremely speculative assumption. In order to make it, the EIR needs to contain an estimate of the possible cost of these improvements and a more specific identification of potential funding sources than is contained in the DEIR. Given existing development at this intersection, the proposed project will probably require the taking of existing businesses.

133

It is probably reasonable for the DEIR to assume that projects listed in the City's Capital Improvement Program (CIP) will be built. Additional unfunded improvements should not be similarly assumed. The analysis in the EIR needs to be revised to reflect this.

- PAGE 4.14-19 - HIGHWAY 1/17 INTERCHANGE PROJECT - The DEIR needs to be revised to reflect the fact that this project has now received its funding and is out to bid.

134

- PAGE 4.14-19 - HIGHWAY 1 WIDENING PROJECT - The DEIR should recognize that a countywide sales tax election was held in 2004 to provide funding for this project and was defeated with less than a 43% "yes" vote.

135

- PAGE 4.14-20 - ON-CAMPUS INTERSECTIONS - TABLE 4.14-4 - While this table lists the on-campus intersections studied, it does not include the intersection of the proposed extension of Meyer Drive and Hagar Drive. In fact, Figure 4.14-5, which shows the campus roads, indicates that Meyer Drive will terminate at Steinhart Way. However, in the discussion of the Meyer Drive Extension on page 4.14-27, the DEIR describes the project as "An extension of Meyer Drive from its existing terminus at the Music Facility to Hagar Drive." The table and figure need to be corrected.

136

Moreover, this oversight is not inconsequential because the DEIR indicates that, while there is the "flexibility to prohibit private vehicle access," such access is not prohibited. Therefore, the EIR needs to not only analyze the potential traffic impact at Meyer Drive and Hagar Drive, but also needs to evaluate the effect of this new road on traffic generally on-campus assuming that private cars are allowed.

As an aside, Figure 4.14-5 labels the Santa Cruz Municipal Wharf the "Capitola Wharf." This needs to be corrected.

137

Finally, while the table of studied intersections includes Laurel and Chestnut and Laurel (Broadway?) and San Lorenzo Boulevard, it does not include Laurel and Front Street. This is a significant oversight. Front Street is a major arterial from Highways 1 and 9 to the beach and also serves the downtown area. It has significantly more traffic than Chestnut Street and, since San Lorenzo Boulevard is not a cross street, it is the major street crossing Laurel below Mission Street. Impacts of University growth on it need to be analyzed in the EIR.

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- PAGE 4.14-24FF - EXISTING LOS - Table 4.14-9 indicates that, based on traffic studies in 2003 and 2004, 14 off-campus intersections operated at Level of Service (LOS) D during either the AM or PM peaks, or both. In addition, two intersections operated at LOS E during either the AM or PM peak and four intersections operated at LOS F during either the AM or PM peak, with one of these, Bay Street and Escalona, at LOS F during both times. The DEIR doesn't describe when the traffic counts were taken. Since traffic levels vary during months of the year as well as days of the week, the study parameters need to be better explained.

139

- PAGE 4.14-28 - TRAFFIC ASSUMPTIONS - The DEIR indicates that assumptions used in the traffic analysis include the closing of Hagar Drive from Meyer Drive to McLaughlin and the Meyer Drive Extension to public vehicles. This would be justified if the LRDP proposed to close these road sections to public vehicles. However, it simply allows these closures as an option. Therefore, under the LRDP both these road sections would be open to public vehicles.

140

Because of this, the DEIR is inadequate in not analyzing the potential traffic impacts of allowing public vehicles on these road segments. CEQA requires analysis of all the potentially significant impacts of a project. On-campus LOS at different intersections as well as public safety would likely be impacted should these road segments be opened to public vehicles. In fact, should the impacts of such public use be significant, a mitigation measure might well be to prohibit such use. Without the analysis, the University is free to choose either option, with the impacts of one never evaluated. This is inadequate under CEQA and must be corrected.

- PAGE 4.14-29 - PROPOSED PARKING FACILITIES - The DEIR is somewhat unclear regarding the number of new parking spaces proposed under the LRDP. It says that 3,100 net new spaces will be created (about a 60% increase over the current number). However, this number is said to be the result of adding 5,600 new spaces and losing 2,500 existing spaces. No detailed information is presented showing where the new spaces will be added and the existing spaces displaced. A figure depicting this should be provided.

141

In addition, the EIR needs to clarify whether the LRDP limits the number of net new spaces to 3,100 or simply provides for 5,600 new spaces (over a doubling of the existing number) with simply the expectation that 2,500 spaces will be displaced but with no binding commitment to achieve this reduction.

The analysis is particularly perplexing because the DEIR states that 1,000 of the new parking spaces would be associated with new on-campus housing. In addition, two new parking structures are proposed and the East Remote lot would be expanded. The addition of these spaces would probably displace few existing spaces. How, then, will the 2,500 existing spaces be lost?

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Another issue concerns the financial feasibility of the LRDP's proposal to build additional parking spaces and its potential environmental consequences. Given that new parking spaces must be paid for with parking fees, which are already extremely costly, the EIR should consider the potential environmental impacts if the University is unable financially to construct additional facilities. For example, if the parking spaces are not built, there will be greater parking impacts in the off-campus neighborhoods and, perhaps, more trips to and from campus as drivers seek parking spaces and are unable to find them.

142

Finally, a possibly feasible mitigation measure for the increased traffic and parking impacts resulting from the lack of adequate on-campus parking might be to tie enrollment growth to the provision of an adequate number of parking spaces.

143

- PAGES 4.14-31, 32 - TRAFFIC THRESHOLDS OF SIGNIFICANCE - Both the on-campus and off-campus thresholds of significance used by the DEIR are inadequate. In both cases, a project could have a significant traffic impact and not meet the proposed thresholds. There is no factual evidence to support these thresholds beyond the fact that they have been used in the past.

For example, the on-campus threshold of significance for traffic is whether the project will exceed the minimum acceptable LOS for a particular intersection. In other words, an intersection could be operating at LOS A and the project could increase the congestion to LOS D, a jump of three levels, and still not be considered a significant impact because LOS D, the acceptable level, hadn't been exceeded. If the LOS levels have any relevance, a project causing the congestion at an intersection to worsen by one service level at a minimum should be considered a significant impact. The thresholds used for the on-campus traffic analysis are, therefore, inadequate and need to be revised, with the analysis updated using the revised thresholds.

144

For off-campus intersections, the DEIR uses the City of Santa Cruz thresholds, which are equally indefensible and to which Caltrans has consistently objected. Like the campus threshold, off-campus traffic congestion could increase by any amount as long as the LOS standard isn't exceeded. Since for most intersections this standard is LOS D, this means that traffic in a neighborhood could deteriorate from LOS A to LOS D with the impact considered less than significant.

The City's thresholds are even more generous to traffic congestion than the University's. Even when traffic exceeds the acceptable LOS at an intersection, if the project does not increase the congestion by more than 3%, the project's impact is considered less than significant. For intersections operating at unacceptable levels, perhaps a 1% increase could be considered de minimus, but a 3% increase is significant.

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Moreover, the way this standard works, the worse the traffic is at an intersection, the greater the project's impact would have to be in order to meet the City's 3% thresholds. So, for example, if an intersection were operating at an unacceptable level and 1,500 cars were going through it during the peak hour, a project adding 46 cars to this load would be considered creating a significant impact. If, however, the congestion was worse and 2,000 cars were going through the intersection during the peak hour, 61 cars would need to be added to the load in order for the impact to be considered significant.

144

These standards are not supportable under CEQA. No evidence is provided to justify them, Caltrans objects to them, and they defy logic. More appropriate thresholds for this project would be the following: 1) for those intersections operating at acceptable levels, the project causing a loss of one service level or increasing delay at the intersection by more than 10 seconds should be considered significant; 2) for intersections operating at unacceptable levels, a project increasing traffic by 1% or increasing delay by more than 10 seconds should be considered significant.

The analysis of traffic impacts in the EIR needs to reflect more defensible significance thresholds.

- PAGES 4.14-32, 33 - TRIP GENERATION RATES - The DEIR states that trip generation rates were derived from recent traffic counts adjusted downward by 6% to reflect the increase in on-campus housing proposed in the LRDP (50%) compared to the actual on-campus housing in 2003-04. This is not adequate under CEQA. Under the 1988 LRDP, the campus included a goal of housing 70% of its undergraduate students on-campus. In fact, only about 50% of the undergraduate students are housed on-campus. What is the basis for thinking that the University will be more successful creating housing under the 2005 LRDP?

145

Moreover, the EIR for the 1988 LRDP analyzed minimum and maximum on-campus housing scenarios. This is a much more defensible approach. The EIR should analyze what the traffic impacts would be under a continuation of the University's existing effort as well as under the proposed plan.

146

Further, the estimates of future traffic generation seem low given the growth of faculty, staff and students. AM peak vehicle trips are projected to increase by 558 trips (38%), the PM peak by 724 trips (35.5%), and the total daily traffic by 9,343 trips (37.6%), for a total of 34,173 daily vehicle trips. The 2300 Delaware project, clearly much smaller than the growth under the LRDP, is projected to generate by itself 271 AM peak vehicle trips, almost half of those projected for the entire campus, and 311 PM vehicle trips, about 43% of the number of campus PM trips. The EIR needs to explain why the campus vehicle peak hour trips are comparatively so low.

147

This analysis is even more questionable when the figures from Table 4.14-10, page 4.14-34, are considered. The trips to the campus are reduced based on the traffic

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going to and from 2300 Delaware. So, AM peak trips are shown as 476 and PM peak trips are reduced to 632. This means that the trips to Delaware, not counting the trips to the main campus, are over half of the number of trips to campus during the AM peak (about 56%) and are about 49% of the PM peak vehicle trips to campus. Again, given that there will be 3,560 new students living off-campus and 1,382 employees living off-campus (page 4.11-18), the trip generation rates seem too low, despite the existence of the University's aggressive TDM program.

147

- PAGE 4.14-33, FIGURE 4.14-8 - TRIP DISTRIBUTION - Figure 4.14-8, which shows the percentage distribution of LRDP project trips, seems to indicate that almost no UCSC traffic traveling to the mid-county areas of Live Oak and Capitola would use City streets (1% on Soquel and 2% on Murray). 25% of UCSC trips are allocated to Highway 1, which seems to indicate that almost all traffic going to the mid-county will use the highway. Is this how the model worked? If so, it seems to significantly underestimate the amount of traffic on Bay, Laurel and other City streets that feed into the mid-county area. This needs to be clarified. What is the evidence to support this distribution?

148

- PAGES 4.14-34, 35 - 2020 WITHOUT LRDP PROJECTIONS - The DEIR makes two very questionable assumptions for use in its model to project traffic conditions in 2020 with the assumption that the LRDP was not implemented (2020 Background). First, it assumes that a home improvement center will be approved on the west side of Santa Cruz. While one has been proposed, it has not been approved and there is a good deal of local opposition.

The second assumption is that annual growth rates in travel would continue to 2020. Given increasing congestion on the roads and the limited traffic improvements that are likely, it is highly questionable that the ever increasing traffic growth rates will continue over the next 15 years, with or without University growth.

The EIR needs to analyze traffic projections without the assumption of a west side home improvement center and with lower traffic growth rates. These changes are important because, to the extent that non-University growth is overstated, the impact of University growth is understated.

149

This is borne out by Table 4.14-12 projecting congestion levels in 2020 without LRDP growth at various intersections. This table shows 12 intersections operating at LOS D during the AM or PM peaks, or both. 10 intersections are shown as operating at LOS E during the AM or PM peaks, or both. And 10 intersections are shown as operating at LOS F during the AM or PM peaks, or both, with 5 of these operating at LOS F during both these peak periods. As indicated in Table 4.14-13, page 4.14-38, 17 intersections will be operating at unacceptable levels during peak periods in 2020. This analysis needs to be compared to one based on assumptions that don't include such unrealistically high levels of off-campus growth.

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In fact, there should be a table showing the effect of LRDP growth by itself on current traffic conditions. This would provide a better way to understand the actual impacts of the proposed project.

149

- PAGE 4.14-39 - TABLE 4.14-14 - LOS AT ON-CAMPUS INTERSECTIONS WITH PROJECT - This table indicates that all on-campus intersections will operate at acceptable levels under the project. As discussed above, the EIR needs to show what the LOS would be at campus intersections should private vehicles be permitted on Meyer Drive Extension and all of Hagar Drive.

150

- PAGES 4.14-40, 41 - LOS LEVELS OFF-CAMPUS WITH PROJECT - TABLE 4.14-15 - This table compares traffic delays and LOS in 2020 at the off-campus intersections studied with and without the project. What should have been included is a direct comparison with existing conditions so that it wouldn't be necessary to check back with Table 4.14-9 on page 4.14-25.

151

Despite the fact that projections of traffic conditions are overstated in the 2020 without project analysis, the impacts of University growth are still extremely significant. 10 of the intersections are shown to operate at LOS D during the AM or PM peaks, or both. 7 intersections are shown to operate at LOS E during the AM or PM peak periods, and 15 intersections operating at LOS F during the AM or PM peak periods, or both, with 9 at LOS F at both.

For comparison purposes, see the following chart indicating the impacts of the proposed LRDP on off-campus intersections:

NUMBER OF OFF-CAMPUS INTERSECTIONS AT LOS D-F

	EXISTING	W/O LRDP	WITH LRDP
LOS D	14	12	10
LOS E	2	10	7
LOS F - TOTAL	4	10	15
LOS F - AM AND PM	1	5	9

Table 4.14-15 also shows increases in intersection delay, the project's percentage of intersection traffic, and whether or not the traffic impact is significant. Some of the determinations seem questionable even under the thresholds used.

152

For example, traffic at High Street and Laurent will go from LOS D, an acceptable LOS, to LOS F during both the AM and PM peaks as a result of the project. During the morning peak, intersection delay will almost double, yet the DEIR determines the impact to be less than significant. This seems unsupportable.



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Likewise, at Highland Avenue and High Street, while LOS is F both with and without the project, intersection delay during the PM peak will increase by more than 36 seconds. During the AM peak the delay will increase by over 42 seconds, yet the DEIR finds that the impact is not significant. This determination seems insupportable, especially considering that LOS D by itself represents a delay of between 35 and 55 seconds. These are very significant increases in the intersection delay.

For the Delaware and Swift intersections, also projected to operate at LOS F with and without the project, the delays are less than elsewhere but they still are significant - almost 13 seconds during the AM peak and over 13 seconds during the PM peak.

152

With Mission and King, traffic deteriorates from LOS E to LOS F during the PM peak as a result of the project, with the delay increasing by over 18 seconds, but the DEIR determined the impact less than significant.

At Bay and California, traffic resulting from the project will cause the LOS during the AM peak to deteriorate from LOS D to E, moving congestion from an acceptable to unacceptable level. Yet the DEIR does not find this impact significant.

In all these cases, the EIR needs to justify its determination or change it.

However, despite these inadequacies, the DEIR still finds a significant traffic impact at 11 intersections either during the AM or PM peaks, or both.

- PAGE 4.14-42 - IMPACT TRA-1 - ON-CAMPUS TRAFFIC - As discussed above, the determination that there will be no significant traffic impact at on-campus intersections if the proposed improvements precede the planned growth is not supportable without an analysis of the traffic impacts that would result from the use of the Meyer Drive Extension and all of Hagar Drive by public vehicles as allowed by the LRDP.
- PAGE 4.14-43FF - IMPACT TRA-2 - OFF-CAMPUS TRAFFIC - The DEIR finds the traffic impact of the project at 11 off-campus intersections to be significant and unavoidable despite the two proposed mitigation measures.

153

First, a small error in the DEIR. The DEIR refers to Table 4.14-17 in discussing Mitigation TRA-2A. This should be Table 4.14-18.

154

Mitigation TRA-2B is not meaningful under CEQA. The University is directed to "expand" its existing TDM programs. "Potential" measures that the campus will "consider" are listed in Table 4.14-19, although the DEIR incorrectly says Table 4.14-18. While the mitigation measure seems to commit the University to expanding

TDM, this is really not the case. The measures proposed just have the "potential" of being implemented and the University need only consider them. A mitigation measure needs to change the project in order to actually reduce its adverse impacts. Potentially implemented measures are not adequate under CEQA. The EIR needs to indicate which measures will be implemented.

154

On page 4.14-44, Table 4.14-16, the project's contribution to congestion should be listed for those intersections where the impact is not considered significant. Also see previous comments on thresholds of significance and, in addition, comments on significance determinations at specific intersections.

155

- PAGE 4.14-46 - MITIGATION TRA-2A - This mitigation measure puts an unfair burden on the City of Santa Cruz because it only commits the University to contribute to a needed improvement if a campus project triggers the need for the improvement. As written, future campus projects could contribute to the need for a particular project but the project that triggers the need for it might not be a campus project. The University should pay its fair share of a project whenever the City determines that the need for the project is there and the University determines that the need is justified and University growth contributes to the need. The measure needs to be revised to allow the City to determine when off-campus projects are needed without losing the chance of having the University contribute its fair share.

156

- PAGE 4.14-50 - EASTERN ACCESS - The first sentence on this page states that the eastern access "would eliminate the increased traffic" that campus growth would add to affected intersections. Is this a typo? Table 4.14-20 and the discussion on page 4.14-50 both indicate that while the roadway would improve congestion at some intersections, most would still be heavily impacted. In fact, the conclusion on page 4.14-51 is that the "Eastern Access would provide only marginal benefits" and it is not recommended as a mitigation. The opening statement, then, needs to be corrected or clarified.

157

A final general comment on the off-campus traffic impact analysis. While the trip distribution figure, Figure 4.14-8, shows 25% of the LRDP's projected trip generation on Highway 1, there is no analysis in the DEIR of this impact. This is a serious oversight, especially given the congested existing conditions of the highway. The DEIR is inadequate for not evaluating this potential impact.

158

- PAGE 4.14-59FF - EVENT CENTER TRAFFIC - The DEIR analysis of the traffic and parking impacts of the proposed Event Center is totally inadequate. This is because the analysis is based on a number of unsupported and unsupported assumptions.

159

First of all, there is no explanation of the types or frequency of events at the Event Center. The DEIR states that events will be held infrequently, but no evidence is presented to support this assumption. In fact, it isn't even possible to determine from reading the DEIR what events will take place at the Event Center. However,

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since the Center is near the existing and proposed recreational area and, also, since there was a funding proposal for a sports center of similar size voted on by the students during the 2005 Spring quarter, it is probably reasonable to assume that the 5,000 seat Event Center will probably host sports events some, if not most, of the time.

If this is the case, the additional DEIR assumptions that events at the Center will occur between 8:00 and 10:30 p.m. is incorrect. Many league sporting events occur in the afternoon. This is important because the DEIR assumes that vehicular traffic to and from the Event Center will occur during non-peak traffic times. The impact analysis, then, is done assuming that both inbound and outbound peak traffic will occur at times when other campus-related traffic is below peak. The assumption is made that inbound traffic during the inbound Event Center peak will be 71% of weekday peak hour traffic. For outbound traffic, which is assumed to occur after 10:30 p.m., the non-event center traffic is assumed to be only 27% of weekday peak hour traffic.

Finally, the DEIR seems to assume that the Event Center inbound traffic will occur over a two hour period. If sports events are held at the Event Center, the more likely situation will be for all the inbound and outbound traffic to occur during the one hour before and after the event.

The DEIR finding, then, that the Event Center traffic will be less than significant is not supported by the analysis. Given that the estimated vehicular traffic for the Event Center alone is projected to be 1,350 trips inbound during the peak hour and 1,800 trips outbound during the peak hour and that the normal campus generated weekday PM peak hour trips are projected to be 725, which is considered significant at a number of off-campus intersections, surely the Event Center impact on traffic would be significant if it were added to the weekday PM peak.

In order for the DEIR's analysis of the Event Center traffic to be adequate, it needs to consider the impacts of Event Center traffic should events occur during the weekday PM peak hour. This is likely to be a significant impact requiring the re-circulation of the EIR.

The only alternative to this is to include a mitigation measure in the EIR that would restrict the starting time of all weekday events at the Event Center to 8:00 p.m.

As with the traffic analysis, in order for the EIR to be adequate in its consideration of Event Center impacts, the evaluation of the parking impacts must consider that events would occur during regular weekday hours and spectators would compete for parking with the rest of the campus population.

- PAGE 4.15-5 - INTEGRATED WATER PLAN (IWP) - The DEIR states: "The desalination component bridges the deficit between existing supply sources in dry

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years and system demand." This is only true for the first phase of the IWP, in which a 2.5 mgd desalination plant is proposed. The later stages would be needed to serve future demand once the excess capacity is allocated. The EIR needs to clarify this.

160

Also, the discussion of the IWP needs to be revised to reflect the recent actions of the City Council to approve it.

161

- PAGE 4.15-6 - WATER PROJECTIONS - The DEIR is inadequate in its discussion of future water projections because it doesn't integrate the various available projections. For example, Table 4.15-1 contains the water demand forecasts from a 1998 analysis. At that time, total water use in 2005 was estimated to be 4,867 mg/year, with the University demanding 321 mg/year or about 5%. On page 4.15-4, the DEIR presents updated numbers from the City of Santa Cruz indicating that the 2005 water use was only 4,000 mg/year, with the University representing about 5% of this demand, or 200 mg/year. This is relatively close to the 2003 campus water use stated on page 4.15-2 of 206 mg/year.

162

Since the DEIR, under CEQA, has an obligation to analyze the actual potential impacts of the LRDP on the environment and not the impacts that would occur based on an outdated and inaccurate forecast, it must provide its independent analysis of what future water demands are likely to be based on current information. While it should consult with the City Water Department in making these projections, it has an obligation to update the analysis. Moreover, the projections should evaluate the demand of the University on the City's future water supply with assumptions of both no campus growth and the proposed growth under the LRDP.

Unfortunately, this chapter of the DEIR is written so as to make the evaluation of the DEIR's analysis of any one utility service very difficult. For example, the environmental setting for water ends on page 4.15-7, while the discussion of the analytic method used for the water analysis isn't until page 4.15-17. The analysis of the direct impacts of water starts on page 4.15-19 but is pretty meaningless. The more substantive analysis occurs in the cumulative impact discussion, which doesn't start until page 4.15-30. Anyone interested in understanding and commenting on the water analysis has to jump around the chapter trying to integrate the various parts of the analysis. This does not conform to the CEQA objective to encourage informed public decision making.

163

In terms of the projections of future system water demand, though, one approach the DEIR could take as an alternative to simply using the clearly outdated 1998 projections would be to extrapolate from the revised 2005 data using the percentage increases from the earlier forecast, which could be looked at as a worst case analysis. For example, the 1998 projections estimate that, between 2005 and 2020, total water demand would increase by about 7.3%, or about .5% per year. If this percentage were used in the analysis, total demand in 2020 would increase by about

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292 mg/year to a total demand of about 4,292 mg/year. And, if UCSC didn't grow beyond its 2005 water demand, it would then represent about 4.7% of the demand on the system.

The 292 mg/year increase could be reduced further in order to understand the potential demand without UCSC growth by subtracting the 87 mg/year new water demand attributed to UCSC in the 1998 forecast.

164

However it is done, the DEIR needs to contain an updated projection of water system demand in 2020 based on the latest available data, especially since the older data is seriously inaccurate.

- PAGE 4.15-7 - SOQUEL CREEK WATER DISTRICT - The discussion of the water sources of the Soquel Creek Water District is inadequate because it does not mention that the district's water supply is seriously overdrafted at this time. Since a portion of the UCSC community does and will live in the area served by the District, its water supply situation needs a more developed description.

165

- PAGE 4.15-11 - RECYCLING - Since the University has agreed to comply with the State diversion requirement of at least 50% diversion by 2000, how can a 26% diversion rate in 2003 be seen as being "in compliance with the recycling goal"? Footnote 3 indicates that, when construction debris is hauled away by contractors, an over 50% diversion goal is met. Does this mean that the contractors are required to recycle the construction debris, which would justify the conclusion, or simply that the contractors dumped the debris in a landfill and not the University, which wouldn't justify the conclusion?

166

- PAGE 4.15-17 - WATER IMPACTS - The DEIR states that impact of the LRDP on water supply is not analyzed as a project impact but only as part of the cumulative impact analysis because campus growth, by itself, will not cause a need to expand the City's water supply. This is inadequate under CEQA and, if allowed, would set a very unfortunate precedent in terms of the analysis of the impacts of projects.

CEQA requires that an EIR evaluate the direct and indirect potentially significant impacts of a project. The direct impact of on-campus growth is to increase the demand for water by about 173.6 mg/year (page 4.15-18). This is over half of the City's remaining supply. The campus population living off-campus and the population growth induced by University growth also need to be evaluated as impacts of LRDP growth. To not recognize this as a significant impact and thoroughly evaluate it makes the DEIR inadequate under CEQA.

167

Moreover, the City Water Commission recently recommended that the City adopt a threshold of significance for water impacts. This was done to ensure that proposed projects in the service area were evaluated in terms of their water supply impacts in a consistent manner. The LRDP's impact would greatly exceed this threshold.

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While this threshold has not been formally adopted by the City, it represents a rational standard, based on evidence, for determining a project's significant impact on water demand, and the DEIR needs to consider this threshold in its analysis.

167

A final objection to the DEIR determination not to evaluate the direct impacts of LRDP growth on the City's water supply is that it causes the DEIR to understate the number of significant and unavoidable impacts resulting from the project.

- PAGE 4.15-23 - STORM DRAINAGE SYSTEM - The DEIR finds that the expansion of the campus storm drainage system will cause a significant impact because it would "likely not" disturb cultural and natural resources and would "likely" be located in existing right of way. Wouldn't the impact be significant if the storm drainage system were placed in culturally and biologically sensitive areas? Since this is allowed under the LRDP, the EIR needs to recognize that it would result in significant impacts. Mitigations requiring the measures from other sections could then be listed. But, as written, this impact analysis is inadequate.

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- PAGE 4.15-30FF - IMPACT UTIL-9 AND MITIGATIONS - CUMULATIVE WATER IMPACTS - On page 4.15-32, the DEIR explains that the cumulative impact analysis does not include the off-campus growth resulting from the LRDP because the City's water demand projections exceed the AMBAG population growth projections. There are a number of serious problems with this explanation and, as a result, the demand analysis is legally inadequate under CEQA.

First, CEQA requires that the EIR evaluate the direct and indirect impacts of a project that may cause significant impacts to the environment. It is, in part, an informational document to inform decision makers of the potential consequences of their decisions before they make them. Particularly since the City's water supply is limited and in danger of being exceeded within the project's timeframe, it is important that the Regents and the public understand the total impact that the LRDP may have on future water supply.

169

In light of this, it is irrelevant whether other projections would provide for the future off-campus growth or not. Under CEQA, the EIR must disclose the impacts of the project. Therefore, the EIR must estimate what the total demand for water on the City's remaining supply from the LRDP will be. Moreover, this should not only include the new on-campus and off-campus population, it must also include the population growth induced by campus growth.

Second, as mentioned above, simply relying on outdated and inaccurate forecasts in its analysis is not adequate under CEQA when updated data is available. The EIR has an obligation to incorporate the most recent information in its analysis. Simply using the outdated 1998 demand forecasts as the basis for its determination of future cumulative water supply impacts is not adequate. On page 4.15-33, the DEIR recognizes the inaccuracy of the 1998 projections over the years, but does nothing to attempt to update them.

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The EIR needs to project the total future campus water demand by adding the following:

- The projected on-campus water demand of about 174 mg/year (page 4.15-33);
- A projected off-campus water demand derived by multiplying the projected off-campus population living in the service area of 3,500 persons (page 4.15-32) by the current per capita residential water demand in the district of about 75 gallons per day, which totals about 95.8 mg/year; and
- A projected induced growth water demand derived by multiplying the induced population estimated to live in the service area (perhaps the 1,322 new persons projected to move into the study area on page 6-9) by the per capita residential water demand, which totals about 36.2 mg/year.

This totals **306 mg/year and represents the water demand impact resulting from the LRDP.**

This projected demand needs to be compared to the City's remaining supply to understand the impact of the LRDP on the City's need to provide additional water. The remaining supply (300 mg/year excess capacity plus 150 mg/year remaining from conservation) would need to have the Marine Sciences Campus projected demand of 19.8 mg/year (page 4.15-33) and the projected Ranch View Terrace project demand of 10.7 mg/year (Ranch View Terrace DEIR, page 4.16-8) subtracted from it.

Based on these figures, then, the remaining City supply (450 mg/year minus the estimated water demand from other campus projects of 30.5 mg/year) totals about 419.5 mg/year. **LRDP growth will consume about 73% of this supply.**

As written, the DEIR does not provide sufficient or relevant information for decision makers or the public to understand the impact of the proposed LRDP on the City's water supply capacity.

- PAGE 4.15-33 - 2020 CAMPUS WATER DEMAND - The DEIR states that the estimated campus demand for water in 2005 was 225 mg/year. What is the basis for this figure? Since the water demand in 2003 was only 206 mg/year (page 4.15-32), what would cause the demand to increase over 9% in two years? Further, the City estimated that the current campus demand is only 200 mg/year (page 4.15-2).
- PAGE 4.15-33 - PROJECTED CAMPUS WATER DEMAND - The DEIR finds that because the demand projections in the City's IWP include 408 mg/year as the University's demand and that projected on-campus demand plus the Marine Sciences Campus only totals 399.4 mg/year, the City has "adequately considered

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UC Santa Cruz growth in its water supply planning.” This conclusion is incorrect and inadequate under CEQA for a number of reasons. The foremost reason is that the demand projection of 399.4 mg/year doesn’t include off-campus or induced demand.

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Second, the issue under CEQA isn’t simply whether the City has considered University growth, but the impact of that growth on the City’s need to construct additional water supply facilities.

174 mg/year of new on-campus demand represents about 43% of the City’s remaining capacity. When off-campus and induced demand are factored in, the increased demand from the LRDP totals almost 75%. Even though this demand, by itself, is not sufficient to require the City to add new supply facilities, the City would not need to add such facilities before 2020 without University growth. The University will be responsible for the City having to construct these additional facilities but the DEIR recognizes no responsibility on the part of the University to pay for their construction or operation.

Under the IWP, the additional supply to meet future demand would be provided through the expansion of the desalination plant. If this proves environmentally feasible, and this has not yet been determined, the City will have to construct and operate this very expensive facility because of University growth.

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To the extent the proposed desalination facility provides water during severe droughts, it will only need to be operated by the City occasionally. When it is expanded to serve new University growth during normal years, it will have to operate much more frequently. Due to its use of energy, operational costs are extremely expensive. Existing customers should not be required to pay these costs of University growth, on top of all the other costs, both financial and non-financial, that they will have to bear.

The EIR needs to recognize that the project’s growth will necessitate the construction of additional water facilities by 2020 and include mitigation measures to require the University to pay the full costs of construction and operation. That is its fair share, since the facility would not need to be constructed without the project. Under the first phase of the desalination project, the City would only need to use it during drought periods. With the University’s growth, it would need to serve daily customer demand.

In addition, because expansion of the desalination facility, if it is determined to be feasible, is an indirect consequence of the LRDP, the EIR needs to identify this expansion as part of the LRDP project and evaluate its potential impacts, especially the potential growth inducing impacts. In the San Joaquin Raptor case, the court found that the construction of a sewer treatment plant, which became necessary as a result of a project, had to be analyzed as part of that project, despite the fact that a separate EIR had been prepared on the facility. A similar circumstance occurs here,

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where the LRDP project will require the expansion of a water supply facility that otherwise would not be necessary during the term of the project. The expanded facility may, in itself, induce additional population growth, which this EIR must evaluate.

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- PAGES 3.15-34, 35 - WATER DEMAND PROJECTIONS - The DEIR uses a mishmash of updated and out of date projections to analyze the overall shortfall in supply by 2020. Although the impact of University growth and the actual shortfall are not accurate, the DEIR does reach the correct conclusion that additional supply will be required by 2020. However, it doesn't accept the consequence that University growth makes this expansion necessary. The DEIR finds that the water supply shortfall in 2020 will be 80 mg/year. Even if only the new on-campus water demand of 174 mg/year is subtracted from this amount, and off-campus and induced growth are ignored, the desalination facility would not need to be expanded if the University didn't grow. The DEIR, however, does not consider the consequences of this fact. This is not adequate under CEQA.

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- PAGE 4.15-37 - CUMULATIVE WATER IMPACT - The DEIR discussion of the cumulative water impacts from the project concludes by finding that because "it is unknown at this time whether all environmental impacts associated with water development projects could be reduced to a less-than-significant level, this EIR conservatively concludes that the cumulative impact would be significant and unavoidable." This is an extremely misleading statement. It implies that, if all the impacts of an expanded desalination facility could be reduced to a less than significant level, the cumulative impact of the project would not be significant and unavoidable. In fact, the impact of a project causing the construction of a water supply facility should be considered significant and unavoidable whether that facility's impacts would be fully mitigated or not.

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- PAGE 5-8 - INCREASED ON-CAMPUS HOUSING ALTERNATIVE - In giving reasons for rejecting this alternative, the DEIR focuses on potential increases in water demand that would result from housing a higher percentage of students on-campus. However, impacts on traffic are not mentioned. Would the extremely serious traffic impacts resulting from campus growth be significantly reduced?

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Also, the major justification given for rejecting this alternative is economic. The DEIR refers to national housing enrollment trends, UCSC market analysis and historical trend analysis to support its conclusion that no more than 50% of the undergraduate students would prefer to live on-campus. No specific studies or references are cited, thus making it impossible for the public to verify this conclusion. Given the importance of off-campus housing and traffic impacts resulting from the project and the fact that the 2005 LRDP proposes to reduce the current on-campus housing goal of 70% to 50%, the EIR must provide the public the ability to verify the basis of the determination made.

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- PAGE 5-9 - SATELLITE CAMPUS IN SILICON VALLEY - The rationale in the DEIR for rejecting this alternative seems shortsighted. The University has a letter of intent that would allow it to develop a campus for 2,000 students. In pursuing this letter, the University must have considered that the site would be an adequate location to educate students. The infrastructural problems with the site seem real, but the LRDP is a 15 year plan. If the University made it a priority to locate a satellite campus at this site and allocated significant resources, it could very well become a reality within the 15 year timeframe of the LRDP. The University should reconsider this alternative for further analysis in the EIR, particularly in light of the problems with the Fort Ord alternative.

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- PAGE 5-12FF - SATELLITE CAMPUS AT FORT ORD - It is unclear why the DEIR considered the Fort Ord satellite campus as a potentially feasible alternative but rejected the Silicon Valley satellite campus option. The Silicon Valley campus alternative appears to have fewer impacts than the one at Fort Ord and deserves full treatment as a project alternative.

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- PAGE 5-20FF - REDUCED ENROLLMENT OPTION - The figures included in this chapter to show the different alternative growth options are almost unreadable. What would be more useful are maps that simply outline the proposed development areas under the different on-campus options so that a reader would easily be able to determine the differences. The EIR should include such figures.

180

It is not surprising that this alternative, which would decrease enrollment by only 1,500 students, would not do much to decrease the project's impacts. Since any reduction in the proposed enrollment would reduce the University's ability to achieve its academic objectives as discussed on page 5-23, the EIR should at least contain an alternative that would significantly reduce the environmental impacts under the proposed LRDP. The EIR should examine a reduced enrollment option whereby enrollment would only increase by 3,000 students. This would allow for a serious consideration of a meaningful reduction in the project's impacts.

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- PAGE 5-27FF - NO PROJECT ALTERNATIVE - This alternative would allow for an increase in enrollment of almost 1,000 students and the construction of a large amount of additional support facilities. While aesthetics impacts could increase should the University build additional student housing, of which a significant number is unlikely, given the assumption that no more than 50% of the student body would live on-campus, air quality impacts would be significantly reduced, significant population and housing impacts would be avoided, and traffic impacts would be reduced by 76%. In light of this, the EIR should consider a delayed project alternative in which the 1988 LRDP would stay in effect until the originally proposed facilities to support the student enrollment growth under that plan are constructed.

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- PAGE 5-33 - TABLE 5-2 - COMPARISON OF ALTERNATIVES - This chart is misleading because it doesn't identify which project impacts were found to be

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significant and unavoidable. In comparing alternatives, it would be useful to the public to understand whether unavoidable impacts of the project could be avoided by one or more of the alternatives. This should be added to the EIR.

183

- PAGE 6-1 - UNAVOIDABLE SIGNIFICANT IMPACTS - This section lists nine environmental impacts of the proposed LRDP. While this is a significant number, it is probably incomplete. The revised EIR needs to consider the additional significant impacts described above that need to be analyzed. It is likely that one or more of them, such as the project's impact on water demand, will also be found significant and unavoidable.

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In addition, a comparison of the list here with the chart in the Summary chapter indicates that Impact AIR-5 should be AIR-4 and, more important, that CULT-2 was omitted from the list and the total of unavoidable and significant impacts should be ten.

- PAGE 6-3 - SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL EFFECTS - The DEIR considers as a significant irreversible impact of the project the loss of 50.2 acres of sensitive habitat for plants and wildlife and about 124 acres of redwood forest and mixed forest habitat. However, these are not considered significant impacts of the project. Why are these losses considered significant irreversible environmental effects but not significant project impacts?

185

- PAGE 6-5 - GROWTH INDUCEMENT - The DEIR limits its analysis of the LRDP's growth inducement impacts "to the potential for the 2005 LRDP to induce growth through the workings of the multiplier process." While this is a necessary component of an adequate growth inducement analysis, it is not sufficient.

The University also induces additional population growth to the community by bringing students to the community who don't move away after they leave the University. The EIR needs to analyze the impact of this population on the community. This group competes for jobs and housing in the community and is population growth that would not occur but for the University's presence. What percentage of the students moving to Santa Cruz to attend the University remain once they leave the University? This could be an important component of the University's growth inducement impact and should be included.

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- PAGE 6-5 - ECONOMIC EFFECTS - Although not required by CEQA, the DEIR contains a description of the very significant economic benefits the University provides the Santa Cruz community. However, if the benefits are to be listed, the document should also include its negative economic effects, which tend to fall on local government. The EIR should identify the amount of property tax revenue the City and County have lost from properties the University has taken off the tax rolls, for example.

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- PAGE 6-8 - INDIRECT EMPLOYMENT GROWTH - The DEIR cites a 2003 study used for estimating the multiplier employment effect of UCSC growth. The EIR should indicate where this study is available for public review.

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The 2003 study determined that the multiplier effect was between 1.74 and 2.4 induced jobs for every job created on-campus. The difference between the two numbers is based on the proportion of UCSC spending in the local community. The DEIR determined to use the lower multiplier because "a small fraction of non-wage expenditures by UC Santa Cruz are made within Santa Cruz County." What is the basis for this assumption?

189

Even using the lower multiplier of 1.74, the DEIR finds that the project would induce about 2,645 additional jobs in the County. The DEIR recognizes that other sources of induced growth would result from the campus's "magnet effect" and "incubator effect," but no estimates are given of the potential size of such additional employment.

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Given the overall size of UCSC, as a result of the 2005 LRDP, and its potential impact on the limited vacant and underutilized land available for additional commercial and industrial development, the EIR should provide an estimate of this induced job growth so that the full growth inducement impact can be determined.

- PAGE 6-9 - INDIRECT POPULATION GROWTH - The DEIR finds that, despite the inducement of 2,645 jobs, the induced population growth will only be 1,325 persons and their dependents because the other job holders will already live in the county. Is there any evidence to support the contention that new job growth doesn't induce population and that unemployment levels will be reduced as a result of University growth?

191

Santa Cruz County has experienced significant employment growth over the last 30 years, but the unemployment levels have remained high. Employment growth seems to stimulate population growth as people tend to move to areas where jobs are being created. The DEIR assumption here needs to be substantiated by evidence in order for the conclusion to be justified.

The DEIR concludes by stating that the demands placed on public utilities, like water, are accounted for in the cumulative analyses in other sections. This points out a major inadequacy of the DEIR. The increased water demand, for example, from the 1,325 persons and their dependents who move into the county as a result of the University's growth needs to be counted when the direct and indirect impacts of the campus growth are considered. They move here because of campus growth and, therefore, the environmental impacts caused by them need to be included in the analysis contained in the previous sections.

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The DEIR has tacked on this induced population growth discussion at the end of the document and seeks to ignore its role in the overall impacts of campus growth. Not only is this unacceptable under CEQA, it also represents a change from the methodology used in the EIR on the 1988 LRDP. That document recognized that the population induced by campus growth had to be considered in the analysis of the LRDP's impacts on, at least, housing, water, other public services, and recreation. The analysis contained in these other sections will not be adequate under CEQA until the effects of the induced growth are included.

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**INFRASTRUCTURE IMPROVEMENTS PROJECT**

- PAGE 2-7 - IMPACT SUMMARY - NOISE-1 - The IIP impact statement says that the project would "not" result in significant temporary noise impact, yet finds that the impact is significant and unavoidable. Is this a typo?
- PAGE 2-17 - ACCESS ROUTES - The DEIR is inadequate in its description of the access routes necessary for carrying out the drainage projects. Table 2-3 contains a detailed list of each of the access routes and Figure 2-2 shows them on a map, but there is no meaningful summary discussion.

193

The DEIR states that "in some cases" temporary access roads will need to be constructed, that such roads would "generally" use existing paths and traveled areas, and that access routes would be developed into access roads where dump trucks or other heavy equipment would be used. It is very difficult, if not impossible, for the public or decision makers to evaluate the overall impacts of these improvements with these kinds of general statements.

The following questions need to be answered:

- In total, how many feet or miles will be needed for access routes?
- How many routes and for what distances would existing paths be used?
- How many routes and for what distances would access routes be developed into permanent access roads?
- How many and for what distances, if any, would new routes and/or roads be required?
- Would all of the new routes be temporary?
- Does temporary mean the life of the project?
- How many routes and for what distances would be needed for on-going and permanent maintenance?

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Without the answers to these questions, the reader is simply overwhelmed with project details, underwhelmed with vague generalities, and unable to adequately understand the nature of the project.

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- PAGES 2-32, 33 - AESTHETICS - AES-1 - CONSTRUCTION IMPACTS ON VISUAL QUALITY - The DEIR finds that the visual impact of the project will be less than significant because construction of the project components will be relatively short term and "consistent with campus standards, all disturbed areas would be restored to their pre-construction conditions."

However, it isn't clear that all the access routes will be returned to their pre-construction conditions and, in fact, there doesn't appear to be an independent analysis of the visual impacts of any of the new or expanded access routes. Table 2-3 doesn't speak to their visibility.

195

Also, it isn't clear what will occur with highly visible new detention basins.

For example, the DEIR states, in Table 2-2b, for project #60, that it is "assumed" that the basin will be kept in grass cover. This should be a requirement. With project #91, the DEIR is clear that the basin will be covered with grass to reduce its visual impact.

Moreover, it isn't clear from Table 2-2b that the high visibility impacts identified only refer to the construction phase of the project. In fact, a reading of the Table leaves the impression that the improvements will be permanently visible. This needs to be clarified in the table.

- PAGE 2-48 - BIOLOGICAL RESOURCES - IIP-SW MITIGATION BIO-1 - The DEIR identifies the mitigation measure here as LRDP Mitigation BIO-3. However, on page 4.4-43, there is no BIO-3. Instead, there are four measures identified as BIO-3A-3D. The EIR needs to clarify whether the mitigation measure on page 2-48 refers to all of these measures or just some of them.

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- PAGES 2-58, 62 - CULTURAL RESOURCES MITIGATIONS - The DEIR contains a sliding scale of mitigations for the cultural resource impacts of the project. Avoidance is required by IIP-SW Mitigation CULT-1A, which is appropriate. However, IIP-SW Mitigation CULT-1B allows for other mitigations when 1A is not feasible. No standards for determining feasibility are included. Finally, if the archaeologist finds that the impacts to the resource can't be mitigated, LRDP Mitigations CULT-3A and 3B, which provide for documentation of a resource before it is destroyed, will be implemented.

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The 2005 LRDP DEIR found that if Mitigations CULT-3A and 3B were employed, the resulting impact would be significant and unavoidable. However, for the Infrastructure project, the DEIR finds that, because these mitigations might only be

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necessary in rare situations and it would be premature to assume such situations would arise, the impact after mitigation is found to be less than significant. No evidence is provided to justify the conclusion that CULT-3A and 3B would only be employed on rare occasions. Since there are 24 instances, from Table 2-7, of improvements where mitigations would be necessary, the less than significant conclusion does not seem justified. The Residual Significance finding on page 2-58 should be changed to recognize that if LRDP Mitigations CULT 3A and 3B are necessary, the residual impact would be significant and unavoidable.

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- PAGE 2-67 - HYDROLOGY - EROSION IMPACTS - The DEIR does not appear to include a discussion of a potentially significant impact of the Infrastructure project, which is construction-related erosion impacts. The DEIR analyzes the potential erosion impacts of the completed projects and finds the overall impacts to be beneficial, although it includes a mitigation measure requiring the annual monitoring of the project to determine if "the dispersion manifolds are causing erosion."

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However, there is no evaluation of the potential erosion impacts that might occur during the construction of the project. This is particularly a concern given the number of new, albeit temporary, roads that will be constructed as part of the project and the fact that many of the improvements will be constructed in erosion prone areas. Not only is the project's potential erosion impact during construction significant, but mitigation measures, like the implementation of best management practices, are needed to assure that the residual impact will be less than significant.

This oversight needs to be corrected.

- PAGE 3-12 - FAMILY STUDENT HOUSING REDEVELOPMENT - PROJECT DESCRIPTION - POPULATION - While the DEIR states that the redeveloped project would contain 625 dependents and that 134 of the 178 children at the child care center would be from the project, it does not estimate the total number of children that would live there. This is an important number because the recreational amenities seem lacking.

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In fact, the Project Description does not include mention of any recreational amenity except for the existing playing field and the community room in the child care center. Since there are likely to be over 200 children living at the site, the need for nearby recreational opportunities will be great.

The section of the DEIR on Recreation, page 3-56, says that there will be "informal recreational spaces within the development, as well as small tot-lots." However, these are not described in the Project Description nor clearly shown in Figure 3-1. The potential recreational impact of the project on the children living in the development is potentially significant and the EIR needs to evaluate, specifically, the recreational space provided for the use of children and its relationship with any relevant standards. There should also be a figure showing the location and size of the recreational facilities.

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- PAGE 3-16 - BICYCLE FACILITIES - The DEIR states that bike paths would be part of the circulation plan for the development but Figure 3-1 doesn't clearly show where they would be located. It also isn't clear where bike storage facilities would be located since the only parking shown on the site plan is on the street. Finally, the Project Description mentions a parking garage but the site plan doesn't seem to show it. The DEIR contains a figure showing the preliminary grading and drainage plan. It should also contain a figure showing the pedestrian and bicycle circulation system, as well as the location of bicycle parking. This is a project level DEIR and such detail is necessary in order for the public and decision makers to adequately evaluate the transportation impacts of the project.

200

- PAGE 3-17 - DOMESTIC WATER - The DEIR states that domestic water use "would be controlled through efficient use and conservation of water" yet there is no mention of metering each unit separately. What will be done to ensure that water is used efficiently if separate meters are not installed?

201

- PAGE 3-20 - SOLID WASTE - Figure 3-1, the project's site plan, does not clearly show where the project dumpsters would be placed. The DEIR indicates that there would be one dumpster per building but no mention is made of recycling containers. Given that residential recycling and composting is considered part of sustainable development and the project is committed to sustainability, the project description should include a more detailed discussion concerning the disposal of solid waste.

202

- PAGE 3-21 - CONSTRUCTION - The DEIR indicates that construction on the first phase of the project is anticipated to begin as early as 2008. Has the University carried out a financial feasibility analysis of this project that documents this estimate? With the seismic construction requirements and use of elevators in a number of the buildings, not to mention other potentially high cost factors, like grading, related to the site, this is likely to be an expensive project to build. Since student housing must be self supporting, will student households be able to afford the rents that will need to be charged?

203

While perhaps not directly a CEQA issue, the financial feasibility of projects to relieve housing pressures on the community do have environmental impact implications. If they are not feasible, a number of impacts will be greater than projected in the DEIR and the 2005 LRDP DEIR. Some discussion in the EIR of the project's financial feasibility, then, does appear justified under CEQA.

It would also be helpful to an understanding of the project if a figure were added superimposing the proposed project over the existing development. It is difficult to evaluate the proposed changes to the site without having this information.

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- PAGE 3-23 - ENVIRONMENTAL SETTING, ETC. - The DEIR says that the analysis is tiered to Volume I of the 2005 LRDP. Shouldn't this be Volumes I and II?

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- PAGES 3-24-27 - AESTHETICS - The analysis of aesthetic impacts in the DEIR is inadequate. It is not acceptable in a project level EIR to rely solely on one visual simulation from the program EIR to justify conclusions on the potentially significant aesthetic impacts on scenic vistas, damage to the scenic resources on campus, and degradation of the site's visual character. This is particularly true where the DEIR, on page 3-24, states that "the complex is located on a highly visible site just inside the West Entrance to the campus." It also states that views of the site are available from several locations on and off campus.

206

Moreover, the simulation referred to in the program DEIR, which is taken from Empire Grade, only seems to show the proposed densification on the site. The fact that some of the buildings will be five stories does not come across.

207

In addition, the DEIR indicates, on page 3-14, that about two-thirds of the mature trees on the site will be removed. Some evidence, then, is necessary to justify the conclusion that tall trees will screen the development and diminish the impression of height (page 3-26).

208

- PAGE 3-36 - BIOLOGICAL RESOURCES - Although the first paragraph on this page states: "The affected woodland has an open understory with suitable habitat for woodrats," the DEIR contains no analysis of the potential impacts of the project on the campus woodrat population or possible mitigations. This oversight needs to be corrected.

209

Also, the project description indicates, on page 3-14, that over 100 mature trees, representing about two thirds of the mature trees on the site, would be cut down as a result of this project. This loss, however, is not considered a significant impact. Is there any threshold for the number of trees destroyed as part of a University project that would be considered a significant impact?

- PAGE 3-52 - NOISE - What is the source of the significance threshold of 80 decibels 100 feet from construction activities, which is identified in the last paragraph on this page?

210

- PAGE 3-55 - PUBLIC SERVICES - The DEIR relies on the 2005 LRDP DEIR for the analysis of the project's impacts on public services. This is a questionable approach, at least as far as school impacts are concerned. Most of the school age children resulting from the 2005 LRDP will live in the expanded Family Student Housing project. The rather cursory analysis of school impacts in the 2005 LRDP DEIR only evaluates the impacts on the overall school district. It finds that there is sufficient capacity and that, therefore, no new school facilities will be required.

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However, there are other impacts that should be analyzed. Especially since the 2005 LRDP DEIR considers the impact to 2020 and the Family Student Housing project will be constructed over the next five years, the DEIR should consider the

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shorter term impacts of the additional school age children who will reside in the project. For example, neighborhood schools allow students to bike and walk to school. An overcrowded school would increase the number of automobile trips. If the elementary school that the additional students from the development will attend becomes overcrowded as a result of the project, students will have to be assigned to other schools, which will likely result in long trips and increased traffic congestion. A project level EIR requires analysis at the project level. Relying on a programmatic EIR covering a 15 year period for specific project related impacts that will occur within five years is insufficient.

211

- PAGE 3-56 - RECREATION - As mentioned above, relying on the program EIR for the 2005 LRDP to evaluate the specific recreational impacts of this project, especially in light of the number of additional children that will live there, is not sufficient.

212

The kind of project level analysis used for traffic impacts should be applied to public services and recreation impacts.

- PAGES 3-58, 59 - TRAFFIC IMPACTS - Some of the figures presented as part of the traffic analysis defy logic. Since the numbers are simply presented as conclusions, the supportive data needs to be provided.

For example, Table 3-8 estimates that the project will generate 143 PM peak hour trips in 2010. Table 3-9 estimates that the background campus growth to 2010 will generate a total of 272 PM peak hour trips. This means that the 200 new units, occupied by students and their dependents, will generate over half as much PM peak hour traffic as over 3,000 new students, faculty and staff. The EIR needs to contain an explanation for the relatively low increase in background traffic due to campus growth compared to the project's impacts.

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- PAGE 3-65 - CUMULATIVE IMPACTS - The DEIR states that the cumulative traffic impact in the 2005 LRDP DEIR "adequately addressed" the impacts on the transportation network in LRDP Impacts TRA-1 and TRA-2. However, it isn't mentioned, and should be, that the Residual Significance of TRA-2 was significant and unavoidable. In other words, the 2005 LRDP DEIR found that campus growth, including this project, would "cause unacceptable levels of service at 11 off-campus intersections and, even after mitigation, this impact would be significant and unavoidable." The project level DEIR is inadequate in that it doesn't identify the cumulative traffic impact as significant and unavoidable.

214

- PAGE 3-66 - UTILITIES - Again, by not evaluating the project level impacts of the Family Student Housing project but, rather, relying on the programmatic DEIR for the 2005 LRDP, the DEIR inadequately evaluates the project's potential impact.

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First of all, the DEIR conducts no analysis of the impact of the project on the City's water system. There is no discussion of the water demand resulting from the project and whether it represents a significant impact on the City's water supply. Simply referring to the programmatic DEIR on the 2005 LRDP, especially when that document did not evaluate the water demand resulting from the proposed Plan, is inadequate. The DEIR needs to evaluate the specific impacts of the project by itself.

215

Moreover, under Cumulative Impacts, by simply referring to Impacts UTIL-9 and UTIL-10, the DEIR impermissibly omits the fact that the Residual Significance of Impact UTIL-9 is significant and unavoidable. Again, the DEIR understates the cumulative impacts of the project.

- PAGE 3-67 - SIGNIFICANT IMPACTS OF THE PROPOSED PROJECT - Unlike the 2005 LRDP DEIR, this DEIR does not list the impacts found to be significant and unavoidable. This oversight should be corrected and compounds the problem mentioned above where relevant significant and unavoidable impacts of the project identified in 2005 LRDP DEIR are not included in this one.

216

In general, this DEIR sets an unfortunate precedent in a number of areas. By over-relying on the 2005 LRDP DEIR analysis in a number of impact areas, a meaningful and adequate DEIR evaluation of the specific project impacts is not included. This represents a misuse of the tiering process and should not be the model for future EIRs on campus projects under the 2005 LRDP.

217

- PAGE 4-12 - 2300 DELAWARE - PROJECT DESCRIPTION - In the top paragraph, the DEIR refers to the "Technology Incubator Project, as described above." Should this be "as described below" since the project is discussed on page 4-14?

218

- PAGE 4-13 - PROJECT DESCRIPTION - BUILDING C FACILITIES - Where, in Building C, will Campus Receiving Services, Printing Services, and Campus Mailing Services be located? Between them, according to the DEIR, they will require about 23,000 square feet of space. But the other, previously described activities appear to require all the space in the building.

219

Table 4-2 shows the space allocation for Building C. There should be a similar table for buildings A and B.

220

- PAGE 4-17 - PARKING SUPPLY - There are only 270 parking spaces for the proposed 782 employees. In the Traffic section, a total of 277 spaces is used. What is the correct number?

221

- PAGE 4-17 - FIRE PROTECTION - The DEIR incorrectly states that the nearest City fire station is at 230 Walnut Street. Not only isn't there a fire station on Walnut Street, it's Center Street, but the nearest station is on Almar Street.

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- PAGE 4-23 - COASTAL PERMIT - The DEIR states that the project "could" be subject to Coastal Commission approval. Is there a question about this? Under what circumstances would it not need a coastal permit?

223

- PAGE 4-46 - RECREATION - The DEIR relies on the analysis of recreation impacts of proposed campus growth in the 2005 LRDP DEIR. However, that analysis is inadequate as far as this facility is concerned.

The 2005 LRDP DEIR finds, on page 4.13-12, that there is no reason to expect that campus employees would extensively use city parks because "equivalent recreational resources would be available on the campus." While this assertion is questionable even for employees who work on the main campus, it is not relevant here. The 2300 Delaware facility will employ about 782 people and will thus, by itself, be one of the largest employers in the city. Those employees are likely to use City park and recreational facilities, especially since the vast majority of them will be living off-campus. The EIR needs to evaluate the recreational demand of this location by itself, due to the number of employees who will work there.

224

Moreover, the inadequacies cited above in the Recreation chapter of the 2005 LRDP DEIR apply here to an even greater extent.

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Finally, while the project description identifies the recreational resources, tennis and volleyball courts on the site, they are not mentioned in the recreation section. A possible feasible mitigation measure for the recreation impacts of this facility would be for the University to allow unrestricted use of these facilities by community residents.

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- PAGE 4-48 - TRIP GENERATION - TABLE 4-8 - This table, which projects the number of AM peak, PM peak, and daily trip generation in and out of the facility, is somewhat unclear. Footnote (a) seems to indicate that 30% of the trips from the facility to the main campus are included in the total number of trips. If this is the case, it would mean that the 782 employees working at the site would generate only 189 AM peak automobile trips and 218 PM peak automobile trips. Since it appears that almost all the employees will work normal business hours, this seems to imply very low single vehicle use. Is this number of trips usual for employers of this size and type?

227

- PAGE 4-52 - LEVELS OF SERVICE - TABLE 4-12 - This table identifies the intersections where the project's traffic impact will be significant. It indicates that the project will have a significant impact at only two intersections, Empire Grade/Western Drive and Mission/Bay. However, the table understates the significant impacts of the project for at least two additional intersections.

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For the Mission/Bay intersection, the project's traffic impact is deemed significant where the delay increased by 11 seconds. At the Mission/King/Union intersection,

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the AM peak delay caused by the project is projected to be 11.9 seconds, yet because the percentage delay was only 2%, the impact was found to be less than significant. This makes no sense. The significance threshold essentially finds increased delays less significant as the overall traffic at an intersection deteriorates. This is not justifiable.

228

At the Laurel/Mission intersection, the project will cause the PM peak LOS to decline from LOS D--the LOS standard--to LOS E, a 3% decrease, yet the DEIR finds this impact to be less than significant. There seems to be no justification for this finding and it needs to be changed.

Moreover, the DA Mitigation TRA-1A needs to be revised to require the University to pay its fair share toward the costs of improving these two additional intersections.

229

Finally, LRDP Mitigation TRA-2b, with transportation demand management strategies, which, on page 4-54, is included as a mitigation measure, needs to be expanded to include providing bus passes to the employees at the 2300 Delaware facility. This is consistent with the City's General Plan policy for large employers (Policy 6.1.2).

230

- PAGES 4-56, 57 - PARKING - The DEIR finds that the number of on-site parking spaces, 277 spaces, probably will be adequate for the 782 employees based on an analysis of parking on the main campus and the transit demand management strategies employed there. While the DEIR recognizes that this facility may not have the same characteristics as the central campus, it totally ignores the City parking requirements in its analysis. How many parking spaces would the City require of a private employer for this type of facility?

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It is important to include this analysis not only because the University proclaims its desires to cooperate and collaborate with the City, but because the City's parking standards are probably part of its Local Coastal Program (LCP), and the LCP will be used by the Coastal Commission in evaluating this project for a Coastal Permit.

- PAGE 4-60 - WATER DEMAND - The DEIR analysis of the project's water demand is inadequate for three reasons.

First, the threshold of significance used is inappropriate. The DEIR compares the project's estimated water demand to the total estimated existing demand. This is not meaningful. The comparison should be with the remaining supply available to the system. As part of its collaborative relationship with the City, the City's Water Department staff should be consulted in determining the appropriate significance threshold.

232

Second, and more important, the DEIR does not discuss the project's water demand in terms of the City's water supply during drought conditions. While the City has

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sufficient water to serve this project during normal rain years, this is not the case during severe droughts. In terms of drought year supply, the project's increased demand would constitute a significant impact.

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Finally, while the DEIR recognizes that the project's contribution to the cumulative water demand impact would be cumulatively considerable, it states that this impact was adequately addressed in the 2005 LRDP DEIR. However, the DEIR does not acknowledge that the residual significance of UTIL-9 was found to be significant and unavoidable. Therefore, this is a significant and unavoidable cumulative impact of this project.

234

- PAGE 4-62 - SIGNIFICANT PROJECT IMPACTS - The DEIR should list those impacts found to be significant and unavoidable.

235

- PAGE 4-64 - LOWER DENSITY ALTERNATIVE - The DEIR states that under this alternative University employees would remain in leased space on the west side. However, in the Project Description, Table 4-2, showing the use of space in Building C, which has a reduced number of employees under this alternative, none of the allocated space seems to be for existing employees working in leased space off-campus. This needs to be clarified.

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In conclusion, thank you for the opportunity to comment on the Draft EIRs. I sincerely hope the University makes the necessary revisions and at least re-circulates the 2005 LRDP DEIR, rather than attempting to proceed with such a grossly inadequate document.

Sincerely,



MARDI WORMHOUDT, Supervisor  
 Third District

MW:ted

cc: Santa Cruz City Council  
 Santa Cruz County Board of Supervisors  
 Santa Cruz County Planning Department

1281H3

## Response to Comment Letter LA-2

**Response to Comment LA-2-1.** Table 1-1 in Chapter 1 of the Draft EIR presents data from the 1988 and the 2005 LRDPs for purposes of demonstrating the key differences in the two plans. As far as evaluation of environmental impacts is concerned, the Draft EIR evaluates the impacts of the 2005 LRDP relative to a baseline of actual 2003-04 conditions, and therefore the Draft EIR reports and analyzes the impacts from an additional 1,520 employees on the campus. The 1988 LRDP employee projection does not constitute baseline for the project. It is true that the projected number of employees in the 1988 LRDP is higher than the number of current UC Santa Cruz employees.

The projected increase in employees of 1,620 presented in the Draft 2005 LRDP (January 2005) was an earlier estimate that included employees at the Marine Science Campus. The projected increase of 1,520 used in the Draft 2005 LRDP EIR is more refined and does not include Marine Science Campus employees because the effects of growth at the Marine Science Campus are addressed in the Coastal LRDP (UCSC 2004). Table 1-1 in the Draft EIR shows the number of employees the 1988 LRDP EIR projected for 2005, not the actual number of employees in 2005. The baseline for the EIR analysis consists of the actual conditions at the time the Notice of Preparation was issued.

Note that the Campus proposes to recommend to The Regents the adoption of the Final Draft 2005 LRDP (September 2006), which revises the Draft 2005 LRDP (January 2005) to reflect the Reduced Enrollment Growth Alternative previously analyzed in the 2005 LRDP Draft EIR and identified as the Environmentally Superior Alternative. Table 2-3 in Chapter 2 of the Final EIR (Volume IV) shows the projected increase in employees under the Final Draft 2005 LRDP. The Final Draft LRDP (September 2006) also shows the projected increase in campus employees (1,340) based on the population associated with the Reduced Enrollment Growth Alternative.

**Response to Comment LA-2-2.** *Known Areas of Controversy* on Draft EIR page 2-5 identifies the effect of projected enrollment growth on regional housing resources. The word “regional” was used, as it encompasses all housing resources in the region, including local housing resources. Drainage issues are also addressed in the list of known areas of controversy, as impacts on hydrological resources and on local public services and utilities are identified.

**Response to Comment LA-2-3.** Draft EIR Table 2-1, Chapter 2, *Summary of Environmental Impacts and Mitigation Measures*, erroneously identifies LRDP Impact CULT-2 as significant and unavoidable after mitigation, however, this impact is actually mitigated to a less-than-significant level. Draft EIR Table 2-1 has been corrected, in the Final EIR, to reflect the analysis in the text. In addition, LRDP Impact UTIL-7 related to expansion of campus cooling and heating water systems was inadvertently omitted from the list of significant unavoidable impacts in Chapter 6 of the Draft EIR. The Recirculated Draft EIR (RDEIR) identified one additional significant unavoidable impact related to traffic. (Please see Volume IV, Section 2.2.4 for the RDEIR). The new impact identified in the RDEIR is also included in Revised Table 2-1. Therefore, the total number of significant and unavoidable impacts is 11. The list of significant unavoidable impacts of development under the 2005 LRDP that is provided in Chapter 6, *Other CEQA Considerations*, has been revised for consistency with Revised Table 2-1. Please see Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*, Revised Table 2-1, and revisions to Chapter 6.

**Response to Comment LA-2-4.** When the University leases space off-campus, presumably those existing structures and facilities were constructed in conformance with the applicable General Plan and zoning requirements. The University does not intend to use leased space for purposes inconsistent with the General Plan. Furthermore, the University's use of leased space is governed by the lease agreement with the landlord and the landlord is responsible for ensuring that the proposed use of the building is in compliance with applicable zoning and land use laws.

**Response to Comment LA-2-5.** The 1988 LRDP (page 46) proposed a north loop road with a connector to Empire Grade Road and an extension of Meyer Drive to Hagar Drive. The 1988 LRDP also included a second extension of Meyer Drive, from Hagar Drive to Coolidge Drive, if an eastern access were constructed to the campus.

**Response to Comment LA-2-6.** Comment noted.

**Response to Comment LA-2-7.** Please see Response to Comment LA-2-1 regarding employee information reported in Chapter 1 of the Draft EIR. The employee number (4,230 employees in 2003-04) reported on page 3-6 includes all UC Santa Cruz employees including those at the Marine Science Campus and other off-campus locations. The Draft EIR evaluates impacts from the new employees that would be added only to the main campus and 2300 Delaware Avenue site, as these are the areas covered by the 2005 LRDP. The Marine Science Campus has its own Coastal LRDP that has already been adopted. The analysis uses the 2003-04 data for main campus employees as baseline and estimates the increment over that baseline.

**Response to Comment LA-2-8.** Footnote 7 on page 3-6 of the Draft EIR refers to student enrollment and employee totals in the 1988 LRDP, which included students and employees at the Long Marine Lab, now part of Marine Science Campus, which was called Long Marine Laboratory in 1988. The footnote refers to the new name for the University's coastal property at the end of Delaware Avenue.

**Response to Comment LA-2-9.** All public comments received on the first draft of the 2005 LRDP were posted on the Campus's LRDP website (<http://planning.ucsc.edu/lrdp>). All of these comments were carefully considered and resulted in revisions to the first draft of the 2005 LRDP Land Use Plan, as appropriate. Some of the revisions to the 2005 LRDP that occurred as a result of public input on the plan are documented on the LRDP website in the November 14, 2004 meeting minutes of the Long Range Development Committee.

**Response to Comment LA-2-10.** Comment noted. Please note that while a total of 892 employees would work off-campus in 2020, of this number 317 campus employees currently work in off-campus facilities. Therefore, the increase in off-campus employees is 575 (see Draft EIR page 3-10, Table 3-1).

**Response to Comment LA-2-11.** Students living in Family Student Housing complex on the campus are included among the students shown in the Draft EIR, Volume I, Table 3-2 as living on campus. The data under the subheading "Partners/Dependents in On-Campus Housing" was provided with the purpose of accounting for the remainder of the on-campus population. Family Student Housing is the only on-campus development where partners and dependents of students reside.

**Response to Comment LA-2-12.** For the analysis in the Draft EIR, the total number of students that would be housed on the campus in 2020 was derived based on the assumption that 50 percent of the undergraduates in 2020 and 25 percent of the graduate students would be housed on the campus. With



respect to the likelihood that this projected housing will be built, please refer to Master Response POP-1. Note that the Campus proposes to recommend to The Regents the adoption of the Final Draft 2005 LRDP (September 2006), which revises the Draft 2005 LRDP (January 2005) to reflect the Reduced Enrollment Growth Alternative previously analyzed in the 2005 LRDP Draft EIR and identified as the Environmentally Superior Alternative. For more information regarding the Final Draft 2005 LRDP, please see Final EIR, Volume IV, Chapter 2, *Project Refinements*.

**Response to Comment LA-2-13.** Colleges and University Housing Services (CUHS) may or may not renew the leases on the two off-campus properties. Final decisions will be made as part of a due diligence analysis. All leases are analyzed in the context of program needs and financial feasibility. Additionally, the University will continue to consider ways to develop more housing for students both on and off campus. A footnote has been added to Draft Table 3-2 to state that the University might lease or purchase properties for housing in the city for this purpose in the future. Should this be proposed, the Campus will conduct appropriate environmental review of such an action at the time that it is proposed. Please see Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*.

**Response to Comment LA-2-14.** There are some mathematical and other errors in Draft EIR, Table 3-2, Volume I. See Final EIR Volume IV, Chapter 3, *Changes to Draft EIR Text*, for the corrected numbers. Also, note that Table 3-2 reports population numbers, rather than number of housing units. Note that, for new housing, the projected populations represent about 1.1 employees per unit, which is the historic average occupancy for University housing.

A total of 254 employees were housed by the University in 2003-04. Thus, the University housed about 6.2 percent of the campus's 4,080 faculty and staff in 2003-04. In 2003-04, there were 241 employee-housing units on campus. Eighty-four additional units have been approved as the Ranch View Terrace project. Construction on the first phase of this project (45 units) is planned to begin in fall 2006. The Draft 2005 LRDP as analyzed in the Draft EIR includes development of 125 additional employee-housing units on campus. This would increase the total number of employee housing units on campus by 209 units, for a total of 450 employee units on campus. This number of units would house 8 percent of the 5,600 total employees projected in 2020 under the Draft 2005 LRDP, assuming that each unit was occupied by only one employee.

The 2005 LRDP includes a goal of housing 25 percent of all faculty, and 3 percent of all staff. The 5,600-employee total included in the 2005 Draft LRDP (January 2005) would include about 370 additional faculty and 1,150 additional staff. Under the LRDP housing goals, this population would require a total of about 415 on-campus housing units, even assuming, conservatively, that each unit housed one employee. The existing and envisioned housing, thus, would be more than sufficient to meet the housing goals set forth in the 2005 LRDP. Furthermore, the Final Draft 2005 LRDP (which represents the project previously analyzed in the Draft EIR as the Reduced Enrollment Growth Alternative projects a total employee population of only 5,074 in 2020, yet retains the 125 new housing units previously proposed. Thus, under the Final Draft 2005 LRDP (September 2006), 8.8 percent of all campus employees would be housed by the University. The housing included in the LRDP would more than accommodate the LRDP's housing goals.

**Response to Comment LA-2-15.** Please refer to Master Response PD-1 (Magnitude of Enrollment Growth).

**Response to Comment LA-2-16.** The average number of visitors in 2003-04 presented in Draft EIR Table 3-1 is based on information provided by the Office of Physical Education, Recreation, and Sports and the Special Events office. The information includes estimates of the number of members of the public participating in sports and other recreational activities on campus; the number of people attending special events such as performances by Arts Division, Shakespeare Santa Cruz and Arts & Lectures, summer conferences, University Center events, events at colleges (including gallery visitors), public lectures presented by academic departments, and admission-related events; and parking permits sold by Event Parking. As shown in Draft EIR Table 3-1, the number of visitors is projected to increase by about 25 percent under the 2005 LRDP. A lower growth rate than the projected 40 percent increase in student population was used for visitors because low population growth rates are projected for the Santa Cruz community.

**Response to Comment LA-2-17.** Please refer to Response to Comment LA-2-14 above.

**Response to Comment LA-2-18.** To conserve land resources and other environmental resources on the campus, the 2005 LRDP proposes development of new housing at densities that are much higher than those envisioned under the 1988 LRDP. For example, while adding only 4 acres to the 21-acre site, the proposed Family Student Housing project will consist of twice the current number of the apartments at the site. The Campus also plans to continue an infill strategy, adding housing adjacent to existing residential facilities.

The commenter's question concerning areas designated for housing under the 1988 LRDP misunderstands the meaning of such designations. It is not intended that housing would cover every acre in a residential designation.

**Response to Comment LA-2-19.** The Event Center is a facility that could be developed under the proposed 2005 LRDP land use plan, but no specific project has yet been proposed. Therefore, it is not appropriate to include a project-specific analysis of the impacts of this facility in the 2005 LRDP EIR. Other than its envisioned capacity, general location and approximate dimensions, a detailed description of this facility has not yet been developed. Based on the conceptual information that is available, the EIR adequately evaluates the effects of this facility on scenic vistas and views (see Draft EIR, pages 4.1-10 through 4.1-16), traffic (see Draft EIR, pages 4.14-58 through 4.14-61), and air pollutant emissions from building space heating (see Draft EIR, page 4.3-17). Similarly, the "footprint" impacts of this facility, such as increased runoff from impervious surfaces and runoff and the impact on biological resources, are included in the impact assessment in other sections of Chapter 4. Additional project-level environmental review of the project will be conducted at the time that it is proposed for development.

**Response to Comment LA-2-20.** The 2005 LRDP land use plan does not designate Campus Resource Land for development. It does however, identify Campus Resource Lands at locations that could be suitable for additional housing in the event that market conditions result in a greater demand for campus housing than can be foreseen at this time. As discussed on page 4.11-8 of the Draft EIR, decisions to construct new housing on the campus are based on demand. The land use plan designates land for student and employee housing that would be adequate to meet the demand that is projected based on currently available information. According to current projections, demand during the 2005 LRDP time frame can be met without using Campus Resource Land. As explained on page 3-21 of the Draft EIR, land designated Campus Resource Land could not be developed without an amendment to the 2005 LRDP,

which would require additional environmental review. As such an amendment is not currently anticipated or foreseeable, it cannot be considered in the 2005 LRDP EIR.

**Response to Comment LA-2-21.** The estimates in Table 3-6 of the Draft EIR of the daily and annual volumes of wastewater that would be generated under 2020 conditions were in error. For purposes of projecting wastewater volumes for 2020-21, total annual wastewater flow is assumed to be the same percentage of indoor water consumption as in 2003, the baseline for the 2005 LRDP water demand projections. Therefore, wastewater volumes would increase at the same rate as the indoor water consumption. For the Draft 2005 LRDP, the projected volume of wastewater generated by the main campus would be approximately 228 million gallons per year, or an average of about 625,000 gallons per day. This correction to the total volume of annual discharge does not affect the results of the analysis in the EIR, because the analysis of effects on the campus sewer lines and on the City's wastewater treatment plant in the Draft EIR is based on average and peak flow rates (rather than total daily or annual flow volumes). The average and peak flow rates used in the Draft EIR are correct for the Draft 2005 LRDP. As discussed on pages 4.15-21 to -22 of the Draft EIR, the expansion of on-and off-campus wastewater conveyance facilities needed to accommodate the increased flow would not result in significant environmental impacts. Under the Final Draft 2005 LRDP, the average and peak flow rates would be somewhat smaller, and the impact would still be less than significant.

**Response to Comment LA-2-22.** Construction of the Phase 1 improvements is included in the Campus's State-funded Capital Improvement Program for 2006-07 but is subject to statewide voter approval of a general obligation bond measure in November 2006. Construction of the Phase 2 improvements is currently planned to begin in summer 2008 and continue through summer 2009, subject to approval of bond measures in 2006 and 2008.

**Response to Comment LA-2-23.** Natural gas is used at the Campus Cogeneration Plant and in boilers in individual buildings for space heating on the campus. The natural gas estimate reported on page 3-34 of the Draft EIR is based on the additional space that would be built on the campus under the Draft 2005 LRDP (January 2005). Given the uncertainty involved in long-term energy demand projections, the natural gas demand projections developed for the Draft 2005 LRDP conservatively assume only marginal gains in efficiency. It is also assumed, however, that conservation efficiency will increase over time, such that there will be an increase in savings by about 10 percent for development between 2015 and 2020, compared to current consumption rates. The projections assumed that commonly available efficiency measures would be aggressively pursued for all new buildings but that the Campus would not attempt to accelerate adoption of "emerging technologies."

**Response to Comment LA-2-24.** As explained on page 3-38 of the Draft EIR, the 2005 LRDP envisions three childcare facilities: the existing facility near the main entrance (the Granary), an expansion of the existing facility at Family Student Housing, and a third facility to be developed in conjunction with employee or student housing on the north campus.

**Response to Comment LA-2-25.** The 2005 LRDP EIR is a Program EIR that evaluates at a program level the effects of the maximum growth that could occur on the campus under the proposed LRDP. The degree of specificity required in an EIR correspond to the degree of specificity involved in the underlying activity being addressed in the EIR, according to CEQA Guidelines Section 15146. As indicated in Draft EIR Section 1.0, *Introduction*, the 2005 LRDP describes a program of potential development for the entire main campus and the 2300 Delaware Avenue property through 2020-21. It describes general types

of campus development and land uses to support projected enrollment growth. While certain individual projects, such as the Event Center, are envisioned in the 2005 LRDP, each development proposal undertaken during the planning horizon of the 2005 LRDP will be subject to individual approval by the University, in compliance with CEQA. (Volume III does provide project-specific evaluation of the Infrastructure Improvements Project, the Family Student Housing Redevelopment Project, and the 2300 Delaware Avenue Project, due to their concurrent timing with the proposed LRDP EIR.)

The assessment of impacts considers envisioned projects to the extent that information is available for these projects. While the 2005 LRDP EIR is a Program EIR under CEQA, available information about envisioned projects is considered in the 2005 LRDP EIR on a topic-by-topic basis. Such information varies by project and may include approximate project location, section drawings with approximate building heights, footprints, building massing information, rendered drawings, and roof ideas. Each subsequent development project undertaken during the planning horizon of the 2005 LRDP will be examined in light of the Program EIR to determine what additional environmental documentation must be prepared.

**Response to Comment LA-2-26.** The effects of the direct population associated with the LRDP are addressed in Draft EIR Section 4.11, *Population and Housing*. CEQA also requires analysis of a project's growth-inducing impacts. This analysis, which includes an analysis of the multiplier effect, is presented in Draft EIR Section 6.3. There are more data, and therefore, a higher level of certainty with respect to the direct population impacts of the proposed project compared to the multiplier effects. That is because the geographical distribution of the direct population can be predicted with some certainty, whereas the distribution of the jobs and population associated with the multiplier effect is far more speculative. Nevertheless, the EIR presents a reasoned estimate of the growth associated with the multiplier effect as applied to growth under the 2005 LRDP (Draft EIR, Section 6.3). Also note that the analysis of growth impacts is typically provided in a separate chapter of the EIR and not in the chapter that discusses the project's direct and indirect population or other impacts.

**Response to Comment LA-2-27.** Note that the Final Draft 2005 LRDP (September 2006) revises the Draft 2005 LRDP (January 2005) to reflect the Reduced Enrollment Growth Alternative previously analyzed in the 2005 LRDP Draft EIR and identified as the Environmentally Superior Alternative. For more information on the Final Draft 2005 LRDP, please see Final EIR, Volume IV, Chapter 2, *Project Refinements*.

The housing target for summertime student population is the same as it is for the rest of the academic year. For the project proposed as the Final Draft 2005 LRDP (September 2006), the increase in summertime student population of about 5,030 students would be less than the increase in the other three quarters (averaged at about 5,450 students). More importantly, the total number of students present on campus during the summer months by 2020 would be a maximum of 7,530, whereas the total number of students is projected to be 19,500 during the rest of the year. The 2005 LRDP target of housing 50 percent of all undergraduates and 25 percent of graduate students on campus applies to the summer sessions as well as during the school year. However, the projected on-campus housing would be adequate to house all of the projected summer students, should they choose to reside on campus. See Final EIR, Volume IV, Chapter 2, *Project Refinements*, which shows that by 2020 the University would have enough housing resources to house 8,792 students on campus. Because adequate housing would be available on the campus to accommodate the increased summer session students, there would be no impact on off-campus

housing from this increase in summer session enrollment. Note also that CUHS has a policy to offer housing to summer session students first. Only in the event that the student demand does not fill the on-campus housing is the housing offered to campus visitors and conference attendees.

Although it is likely that some of the summer session students would choose to live off campus, even when on-campus housing is available, the type of housing that summer session students use is mostly sublets or private residences, and not the hotels that typically are used by visitors and tourists.

**Response to Comment LA-2-28.** The cumulative impact of development proposed under the 2005 LRDP, in conjunction with other regional development, was evaluated for all impact categories, including those topics that focus primarily on “footprint impacts,” such as Cultural Resources, Biological Resources, and Hydrology and Water Quality. Draft EIR Section 4.8, *Hydrology and Water Quality*, evaluates the cumulative impact of development proposed under the 2005 LRDP, in conjunction with other regional development. The analysis is conducted for watersheds as the existing conditions and proposed on- and off-campus development are different in each watershed. These watershed impacts, such as erosion due to increased storm water runoff, do not accumulate from watershed to watershed. In other words, the impacts to one watershed do not make conditions in another watershed worse.

An exception is the potential for increased urbanization to increase the amount of urban pollutants that are ultimately discharged into the Monterey Bay and the ocean. This impact is acknowledged on Draft EIR pages 4.8-43 through 4.8-47. The LRDP EIR notes that, “efforts at the state, county and city level to control and reduce pollutants in storm water will offset and eventually reduce the overall cumulative contribution to water quality degradation of the ocean and Bay resulting from cumulative development in the region.” See Draft EIR page 4.8-47 for additional information.

**Response to Comment LA-2-29.** The AMBAG travel demand model was used to develop growth factors for study roadways, which were applied to existing traffic counts at study intersections to develop cumulative traffic projections for the years 2010 and 2020 that were analyzed in the Draft EIR. For the year 2010 traffic projections, the AMBAG model was used to derive an annual growth rate for the period of time between 2003/04 and 2010, a seven-year period. This annual growth rate was used to adjust existing traffic volumes at the study intersections to reflect projected non-campus related traffic growth on City streets, and then campus-related traffic growth was incrementally added in order to assess the impacts of 2005 LRDP projects, slated for build out by 2010, described in Volume III of the Draft EIR, the 2300 Delaware Avenue Project and the Family Student Housing Project. This included main campus traffic and projected traffic associated with the proposed 2300 Delaware Avenue Project. Similarly, to project traffic volumes in the year 2020, the AMBAG model was used to derive an annual growth rate, which was applied to existing traffic volumes, to determine future “background” traffic volumes. To determine the LRDP impacts, traffic that would be generated at full growth of the main campus (see Table 4.14-10) and the 2300 Delaware Avenue Project (also shown in Table 4.14-10) was added to the future “background” volumes. Note that the AMBAG travel demand model is based on AMBAG’s 2004 forecasts of population and land use. The AMBAG 2004 Population, Housing and Employment forecasts were also used in the Draft EIR to conduct the housing and population impact analysis.

**Response to Comment LA-2-30.** Please see the last paragraph on page 4.11-22 in Draft EIR Section 4.11, *Population and Housing*, which explains the concept of residual demand. A footnote has been added to Draft EIR Table 4.0-2 and Table 4.0-3 explaining the term. See Final EIR Volume IV, Chapter 3, *Changes to Draft EIR Text*. Also see Response to Comment LA-2-107.

**Response to Comment LA-2-31.** On-campus population was broken out and reported separately from the LRDP-related persons who would live off-campus within the City of Santa Cruz in Sections 4.0 and 4.11 of the Draft EIR. This was done in order to keep the population analysis in LRDP Impact POP-1 consistent with the housing analysis that follows in LRDP Impact POP-3, and also because the Campus provides many services to its on-campus population that are separate from City services. Footnotes have been added to Tables 4.0-3, 4.11-7 and 4.11-9 in both sections explaining that because a substantial portion of the campus lies within the City of Santa Cruz, the percent of the City's 2020 population that would be made up of campus-related population would increase as a result of campus growth under the 2005 LRDP. See Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*.

Note that Section 4.0, cited in the comment, is an introductory section that explains the broad concepts and approach to the impact analysis that is contained in the subsequent sections of the EIR. The multiplier effect is fully addressed in Chapter 6, Section 6.3, *Growth Inducing Impacts of the 2005 LRDP* and Response to Comment LA-2-26. Please also note that while the AMBAG forecasts do not include enrollment growth, they do account for increased employment under the 2005 LRDP.

**Response to Comment LA-2-32.** Please refer to Response to Comment LA-2-31 above, which explains the purpose of Draft EIR Section 4.0. Overall city growth is discussed and evaluated in Section 4.11.

**Response to Comment LA-2-33.** The 2005 LRDP is a plan to guide future development of the entire main campus and the 2300 Delaware Avenue property. The program-level environmental analysis of the 2005 LRDP, including development proposed for the Delaware Avenue property, is provided in Volumes I and II of the Draft EIR to ensure a comprehensive analysis of the entire program, including the campus population and associated population-related impacts such as traffic and water demand. The project-level environmental analyses of the 2300 Delaware Avenue Project is provided in Volume III of the Draft EIR.

**Response to Comment LA-2-34.** Please refer to Master Response LU-1, which addresses the question about University policy. In addition, please refer to Response to Comment LA-3-9 regarding mitigation measure feasibility.

**Response to Comment LA-2-35.** Under the LRDP EIR's Standards of Significance (Section 4.1.2.1), a scenic vista is defined as an expansive view of a valued landscape from a publicly accessible vantage point. The designations high, medium and low on Figure 4.1-7 indicate the degree to which areas of the campus are visible from publicly accessible vantage points. Section 4.1.2.3, Analytical Method (Draft EIR page 4.1-9) is intended to provide the reader with an understanding of the methods used to develop the subsequent analysis of aesthetic impacts of the 2005 LRDP. Figure 4.1-7 identifies and classifies lands visible from off-campus locations, and also shows areas, in gray, where new development on the campus is planned under the 2005 LRDP. Additionally, the Analytical Method section (Draft EIR page 4.1-9) specifically describes those facilities envisioned in the 2005 LRDP that would likely be visible from on- and off-campus viewpoints and indicates that the analysis of impacts on scenic vistas focuses on the effects of these facilities. This discussion also accounts for the likely visibility of proposed development given the vegetation type and topography in a particular area.

The visibility categories shown on Draft EIR Figure 4.1-7 are used as a tool in the analysis of off-campus visual impacts and are not intended to relate directly to the CEQA thresholds of significance for aesthetic impacts. Figure 4.1-7 taken together with information provided in the Analytical Methods section helps to focus the subsequent analysis of the effects of the 2005 LRDP on uphill scenic vistas (LRDP Impact

AES-2). This impact analysis addresses only those portions of the campus: (1) that are visible from on- and/or off-campus publicly accessible vantage points (as defined by high, medium, and low visibility categories in Figure 4.7-1 and in text), and (2) where new development planned under the 2005 LRDP would likely be visible from these locations (i.e., in some campus grasslands along the edge of the forested central campus). This information is used as the basis for identifying those areas of the campus where growth is proposed that has the potential to result in significant impacts. Impact significance in LRDP Impact AES-2 is ultimately determined based on an assessment of the nature and magnitude of the anticipated visual change that would likely be visible from a given public viewpoint. The visual simulations provided in Figures 4.1-10 through 4.1-15 were utilized in this assessment.

The comment also indicates that the information on Draft EIR Figure 4.0-1 should be overlaid with Figure 4.7-1 as the basis for identifying those areas of the campus where growth is proposed that has the potential to result in significant impacts. Figure 4.7-1 does provide an overlay of lands visible from off-site locations (as shown in hatched areas) and development areas under the LRDP (as shown in gray outline). This information was used in part, as noted above, to focus the subsequent analysis of effects on scenic vistas to addressing only those areas of the campus that have the potential to result in a significant impact. The detailed analysis provided in LRDP Impact AES-2 indicates that these impacts are not significant based on analysis of all relevant factors and therefore, no mitigation measures are required.

**Response to Comment LA-2-36.** As indicated on Draft EIR page 4.1-10, the simulations are based on general building massing and height. The Draft EIR also indicates that design details used in the simulations could change over the course of development of each individual project, but that these changes would not affect the conclusions concerning the project's impact on visual quality as long as the general height, mass and location of future development are similar to those modeled. Please also refer to Response to Comment LA-3-10 for a discussion of environmental review requirements for future projects.

**Response to Comment LA-2-37.** The visual simulations assume that the Event Center would have the height and building footprint provided in the new Table 4.1-1 (Please see Response to Comment LA-2-36 and Volume IV, Chapter 3, *Changes to Draft EIR Text* of the Final EIR). The building space (148,000 square feet) provided for the Event Center in Table 4.3-6 (Draft EIR page 4.3-17) represents the estimated total square footage for this building, not the building footprint, as appropriate for the estimation of maximum heating loads for the facility.

**Response to Comment LA-2-38.** The off-campus vantage points used in the visual simulations were selected to provide off-campus viewers a sense of the nature and magnitude of visual change that would result from campus development under the 2005 LRDP. In identifying the viewpoints to be used in the visual simulations, the Campus and consultant team conducted a thorough site tour of the City to identify public viewpoints where: (1) campus open space lands that have scenic values are visible and expansive, and (2) where potential 2005 LRDP development would also likely be visible. Additionally, the City of Santa Cruz General Plan was also reviewed to identify any viewpoints identified in that document. Three viewpoints are identified in the General Plan (Map CD-3) that provide views of the rolling hills on the University campus and Pogonip. Two of these viewpoints, the Wharf and Highway 1 (near the Morrissey Bridge), were used in the visual simulations included in the Draft EIR, as noted below. The third viewpoint, located near the intersection of Chestnut and Mission, was not modeled, as this location does

not provide views of the portion of the campus where potential 2005 LRDP development would be located.

Ultimately, four off-campus public vantage points were selected for the visual simulations, including a location along Empire Grade adjacent to the campus (Draft EIR, Figure 4.1.12), Highway 1 at the Morrissey Bridge (Figure 4.1-13), the Wharf (Figure 4.1-14), and the Seymour Discovery Center at the UC Santa Cruz Marine Science Campus (Figure 4.1-15). These public viewpoints provide both close-in and distant views of the lower campus grasslands and forest canopy of the upper campus. While campus lands along Glenn Coolidge Drive may be visible from other close-in public viewpoints such as the Water Street Bridge, campus lands subject to development would generally not be visible from such locations due to topography, vegetation, and/or existing development. Please also refer to Response to Comment LA-9-16 regarding scenic vistas in the City.

**Response to Comment LA-2-39.** As discussed in Response to Comment LA-2-35, Draft EIR Figure 4.7-1 does provide an overlay of campus lands visible from off-campus locations, and areas where new development on the campus is planned under the 2005 LRDP. However, the impact referred to in the comment addresses campus viewpoints that look towards the Monterey Bay. Figure 4.7-1 is not relevant to that analysis, as it identifies campus lands visible from off-campus viewpoints, the subject of LRDP Impact AES-2. A figure such as Figure 4.7-1 was not developed for use in evaluating LRDP Impact AES-1 because the view of concern from these on-campus vantage points is of the Monterey Bay, not of campus lands. This is illustrated in Figure 4.1-8, which shows that the views from certain on-campus vantage points are towards the Monterey Bay. The impact significance for LRDP Impact AES-1 was determined based on evaluating: (1) the 2005 LRDP development that could result in a particular area, (2) the likely visibility of proposed development from a given campus viewpoint given the vegetation type and topography in a particular area, and (3) the nature and magnitude of the anticipated visual change that would likely be visible from key viewpoints across the campus to the Monterey Bay. Visual simulations were used in part to determine impact significance. See new Table 4.1-1 in Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*, regarding the building height and size assumptions used in the simulations.

**Response to Comment LA-2-40.** Please refer to Response to Comment LA-3-9 regarding revisions to 2005 LRDP EIR mitigation measures and Final EIR Volume IV, Chapter 3, Revised Table 2-1, of the Final EIR for the full text of revised measures.

**Response to Comment LA-2-41.** As shown on Draft EIR Figure 3-6, Transportation Network Improvements, the Meyer Drive extension would generally be sited north of the existing Academic Resource Center and within the redwood trees located in this area. As a result, the roadway extension would not likely be visible from this or other mid-and long-range vantage points (see Figure 4.1-11). A specific roadway design and alignment have not been developed to date, but LRDP Mitigation AES-3C would ensure that new roadway alignments related to the Meyer Drive extension would not be visible from Hagar Drive south of the East Collector Parking area.

**Response to Comment LA-2-42.** While the Draft 2005 LRDP (January 2005) does allow for up to an 80 percent increase in new building space, approximately 65 percent (Draft 2005 LRDP, page 1) of the new space would be located in already developed portions of the campus and sited as infill development (Draft EIR, page 3-15). Additionally, approximately 330 acres or 73 percent of the undeveloped north campus would be retained in open space land use categories under the 2005 LRDP. Development that would



occur in the north campus would be clustered to retain the valuable visual and environmental features of the surrounding undeveloped landscape. Moreover, LRDP Mitigations AES-5A through 5E would ensure that: (1) new project designs preserve the valued visual elements of the landscape, (2) new buildings would not protrude above the tree canopy, (3) trees around new projects would be preserved and the wooded visual character would be maintained, and (4) development in the Campus Support area on Empire Grade Road adjacent to Cave Gulch would include an undeveloped buffer that would screen views from Empire Grade and the Waldorf School. Additionally, new LRDP Mitigation AES-5F would ensure that aesthetically valuable trees removed with development are replaced.

As indicated on Draft EIR page 4.1-19, these measures would help to maintain the visual continuity of forested areas and would ensure that forested areas would not appear substantially changed from off-campus and lower campus viewpoints. Overall, trees would continue to screen buildings from roads and new development north of the existing campus core would be sited sensitively to maintain the campus pattern of clustered development surrounded by undeveloped landscape. For these reasons it was determined that the 2005 LRDP would not substantially degrade the existing visual character of the campus and adjacent areas, with the implementation of identified mitigation measures.

**Response to Comment LA-2-43.** Please refer to Response to Comment LA-3-9 regarding revisions to 2005 LRDP EIR mitigation measures and Volume IV, Chapter 3, Revised Table 2-1 of the Final EIR for the full text of revised measures.

**Response to Comment LA-2-44.** While the comment specifically refers to LRDP Mitigation AES-6E, the text of the comment appears to be related to AES-6D related to lighting of playing fields. Special events would include outdoor sports events such as tennis or soccer games. According to the Office of Physical Education, Recreation and Sports (OPERS), these events would likely occur up to 25 times a year.

**Response to Comment LA-2-45.** Please see Section 4.9 (Land Use) in the Draft EIR (pages 4.9-6, 4.9-8 and 4.9-10) that discusses the portion of the campus that lies west of Empire Grade Road within the coastal zone. Also see Responses to Comments LA-2-89 and SA-5-2 with respect to this issue.

**Response to Comment LA-2-46.** The 8-hour state standard for ozone was approved by CARB on April 2005 and went into effect in May 2006, but was not in effect when the Draft EIR was prepared. Table 4.3-2 accurately reflects the newly approved standard and Table 4.3-4 accurately indicates that the attainment status for this new standard is “not applicable” as the newly approved standard was not yet in effect and the attainment status had not yet been determined.

**Response to Comment LA-2-47.** The comment mentions a “5,000 square foot event center”. The Event Center would have 5,000 seats; it would not be 5,000 square feet. The commenter correctly states that it would involve about 3.4 acres (148,000 square feet) of indoor space.

**Response to Comment LA-2-48.** LRDP Impact AIR-1 presents estimates of construction emissions that would result assuming that construction of three projects involving 6.75 acres of land area and 270,000 square feet of building space is underway on the campus at any given point in time (see Draft EIR, page 4.3-16). Of the 6.75 acres, 25 percent of the total area was treated as disturbed on the worst-case day, based on the assumptions incorporated into the URBEMIS2002 model. This reasonable worst-case scenario is based on recent construction projects on the campus. Further details such as whether there would be basements associated with future projects are not available. For this reasonable worst-case

scenario, the Draft EIR presents fugitive dust emissions (PM<sub>10</sub>) assuming a mix of projects with both minimal and major grading. As stated in the Draft EIR (page 4.3-25), the analysis assumes that cut and fill at the construction site would be balanced, and that there would be no off-haul or in-haul of soil. This assumption was made as project-specific construction details for development under the 2005 LRDP are not yet known and therefore, there is no reasonable way to estimate possible cut and fill requirements. It should also be noted that typically, the Campus tries to balance cut and fill on construction sites. However, this is not always possible and depends on site conditions and building design features. Given that cut and fill is assumed to be balanced, the analysis does not account for exhaust PM<sub>10</sub> emissions from on-road hauling trucks moving dirt on- and off-site, which would occur if cut and fill at a given construction site were not balanced. Under the major grading scenario, see Table 4.3-10 in the Draft EIR, the total grading phase PM<sub>10</sub> emissions, excluding emissions from off-site dirt hauling, would be 70 pounds per day, which is 12 pounds less than the significance threshold of 82 pounds per day. However, on-road trucks are required to meet stricter emission standards than off-road trucks and equipment. As a result, these hauling trucks would not likely emit more than 12 pounds per day and therefore any additional emissions from such trucks when added to the PM<sub>10</sub> emissions estimated reported in the Draft EIR, would not cause an exceedance of the significance threshold of 82 pounds per day. It should also be noted that the primary concern with PM<sub>10</sub> from construction projects is the localized effect of dust emissions on sensitive receptors near construction sites, and not the emissions along travel routes from dirt hauling trucks.

As indicated on Draft EIR page 4.3-25, the analysis of construction emissions of PM<sub>10</sub> is based on the campus's best estimate of future construction activities that would take place concurrently. However, a future project involving more than 6.75 acres cannot be ruled out. Additionally, it is possible that more than three projects could be underway at one time involving more than 6.75 acres. Therefore, in conjunction with the environmental review of all future land disturbing construction projects, the Campus will estimate construction emissions and will apply LRDP Mitigation AIR-1 to minimize emissions by more than 50 percent. A project or set of projects approximately 20 percent larger than assumed in the Draft EIR, which would involve 8.1 acres, would result in PM<sub>10</sub> emissions exceeding 82 lb/day. However, implementation of LRDP Mitigation AIR-1 would reduce such emissions to a less-than-significant level.

**Response to Comment LA-2-49.** NO<sub>x</sub> (oxides of nitrogen) and VOC (volatiles organic compounds) are ozone precursors. Ozone is formed through a complex reaction between NO<sub>x</sub> and VOC in the presence of sunlight. VOC is defined by the U.S. Environmental Protection Agency (EPA) as a compound of carbon excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate, which participates in atmospheric photochemical reactions (U.S. Environmental Protection Agency Code of Federal Regulations, Title 40, Chapter 1, Subpart F, Section 51.100(s)). The U.S. EPA has identified a list of chemicals that have negligible photochemical activity. ROG (reactive organic gases) is a California Air Resources Board (CARB) term that is similar to VOC, except there are slight differences in the list of chemicals that have negligible photochemical activity. Emission factors presented in literature will sometimes present ROG and sometimes use VOC. For the purposes of the Draft EIR, ROG was assumed to be the same as VOC. In fact, MBUAPCD's definition of VOC (MBUAPCD Rule 101) states, "When used in District permits, the terms "reactive organic gas" and "reactive organic compound" shall be synonymous with volatile organic compound." Draft EIR Table 4.3-16, Summary of 2020 Emissions from All New Sources, includes both VOC and ROG from Tables 4.3-11 through 4.3-15 under the VOC column. Therefore, this table accurately calculates total VOC

emissions from all sources as exceeding the emissions threshold of 137 pounds per day by a small amount (about 4 pounds per day). NO<sub>x</sub> emissions, however, exceed the emissions threshold by a fairly substantial amount. Therefore, the identified mitigation measures are expected to reduce VOC emissions to less-than-significant levels, but would not do so for NO<sub>x</sub> emissions. Also see Response to Comment RA-1-1 for further discussion of emissions.

**Response to Comment LA-2-50.** Per the MBUACPD CEQA guidelines, if modeling demonstrates that the project would not cause an exceedance of the CO ambient air quality standard the project would not have a significant impact on local air quality. Hence, for areas where the CO standard is not already exceeded, the threshold for CO is based on the incremental level plus the background level. In contrast, where background levels exceed the CO standard without the project, the incremental impact is examined to determine the project's impact. The proposed project is in an area where CO concentrations are below the CO standards and thus the project's impact is based on the incremental plus background levels (see Draft EIR page 4.3-29).

**Response to Comment LA-2-51.** The Draft EIR conservatively concludes that even if the campus's growth were to be included in the regional air quality plan, the proposed LRDP would still conflict with that plan because it would result in substantial emissions that potentially may hinder the attainment of air quality standards, especially with respect to NO<sub>x</sub>. Also see Response to Comment RA-1-6 regarding AMBAG modeling.

**Response to Comment LA-2-52.** As discussed on Draft EIR page 4.3-19, the Campus has conducted a feasibility study that has examined various options to expand the campus's main cogeneration system to handle future electrical and heating demand. The study determined that the most feasible of the available options is to replace the existing system with two 5 MW gas turbines. It is the most feasible and is likely to be the option that would be selected. The Draft EIR also notes that in the event that the existing cogeneration system is maintained, it would ultimately be fitted with an emissions control system that would reduce emissions of VOC, NO<sub>x</sub>, and PM<sub>10</sub> by 75 percent. If neither of the two options is pursued, the existing main cogeneration system would likely be maintained in its current condition with any additional power needed for the campus obtained from the PG&E grid.

Should the use of the existing main cogeneration system be continued without the installation of emissions controls, the estimated cancer and acute risks reported in the Draft EIR would increase. The maximum cancer risk reported in Table 4.3-19 (Draft EIR page 4.3-33) is estimated to increase from 5.14 to 7.03 in one million and the highest predicted hazard index for acute exposure would increase from 1.34 to 1.41. This is due to the fact that the existing cogeneration system operates on natural gas with diesel pilot injection (99.5% natural gas and 0.5% diesel fuel) whereas the two gas turbines would only run on natural gas. While maintaining the system in its current state constitutes the existing condition, more people would be exposed overall to greater emissions of toxic air contaminants with growth and development under the 2005 LRDP. However, these increased risk levels associated with the scenario that includes continued operation of the existing main cogeneration system would not change the overall impact conclusion reported for LRDP Impact AIR-5 (Draft EIR pages 4.3-31 through 4.3-35). This conclusion indicates that the total estimated cancer risk from campus operations in 2020-21 is predicted to be below the significance threshold of 10 in one million. As noted above, the highest predicted hazard index for acute exposure for campus operations in 2020-21 with the continued use of the existing cogeneration systems is predicted to be above the significance threshold of 1. This hazard index is driven

primarily by acrolein emissions from the back-up/emergency generators at the Central Heating Plant and in the Science Hill area and from the campus main cogeneration system. To address this impact, LRDP Mitigation AIR-5B would be implemented. This mitigation requires additional source testing to determine the accuracy of the acrolein emission factors for the main cogeneration system and the Central Plant back-up generator, and if necessary the replacement of the engine in the Central Plant generator or installation of emission controls on that generator. For full text of LRDP Mitigation AIR-5B, see Final EIR Volume IV, Chapter 3, Revised Table 2-1, *Changes to Draft EIR Text*, Revised Table 2-1.

**Response to Comment LA-2-53.** The Health Risk Assessment (HRA) related to cancer risks evaluated two different types of receptor locations. First, the location of the off-campus and on-campus maximally exposed individual (MEI) were determined (See Draft EIR page 4.3-32 for additional information about the MEI locations). These locations represent the highest calculated lifetime cancer risk from the total combined academic year 2020-21 operations. As shown in Draft EIR Table 4.3-19, neither the on-campus MEI cancer risk (2.48 in one million) nor the off-campus MEI cancer risk (5.41 in one million) would exceed the significance level of 10 in one million. All other on- and off-campus locations would have a lower cancer risk than the MEI locations.

The HRA modeling also included specific on- and off-campus locations for which health risks to students and children were estimated (see Draft EIR Table 4.3-21, on page 4.3-34) including the two existing childcare centers. The on-campus locations are representative of the various portions of the existing developed campus, and the estimated cancer risk at all modeled locations would be less than the on-campus MEI location (2.48 in one million). A possible new childcare center in the undeveloped north campus would also have an estimated cancer risk that would be less than the on-campus MEI location.

**Response to Comment LA-2-54.** PM<sub>10</sub> emissions directly emitted from construction activities tend to be a concern at the local level. In fact, according to the MBUAPCD CEQA guidelines, “Construction activities (e.g., excavation, grading, on-site vehicles) which directly generate 82 pounds per day or more of PM<sub>10</sub> would have a significant impact on local air quality when they are located nearby and upwind of sensitive receptors.” Construction sites on the campus would be distant from construction sites in the city; therefore, emissions from on-campus construction activities would not combine with construction emissions at off-campus locations to result in high concentrations of PM<sub>10</sub>. Therefore, there would not be a cumulative impact.

**Response to Comment LA-2-55.** The current division of the UC Santa Cruz campus into four evaluation units (Upper Campus, North Campus, Campus Core, and Lower Campus) is defined not just by the geographic and ecological characteristics of each area, but also in terms of the proposed development. The 2005 LRDP proposes to leave the Upper Campus unaltered, while a portion of new development will occur in the north campus area, and infill will occur in both the lower campus and the campus core. Additionally, impacts are analyzed within the larger context of the entire campus and the region.

**Response to Comment LA-2-56.** Development areas in the context of vegetation communities at UC Santa Cruz are shown in Figure 4.4-5 of the Draft EIR. The Draft EIR also provides specific acreages of impact for each vegetation community that could result from the proposed development under the 2005 LRDP. For instance, see page 4.4-10 for acres of northern maritime chaparral that would be removed. It directly associates impact to each community with the special status species that could utilize that habitat, for example coastal prairie and Ohlone tiger beetle, Draft EIR page 4.4-43. These analyses are used to determine potential impacts to communities and to species.

**Response to Comment LA-2-57.** Please refer to Master Response LU-1 regarding the applicability of City and County policies to University lands.

**Response to Comment LA-2-58.** Development areas in the context of vegetation communities at UC Santa Cruz are shown in Figure 4.4-5 of the Draft EIR. Every attempt has been made to make the graphic as clear as possible. However it is important to recognize that vegetation communities at UC Santa Cruz are complex and varied and that the figure has to include a substantial amount of information, which can make interpretation difficult.

Figures showing the distribution of specific special status species and wildlife movement corridors were only included when such a presentation provided a clear, distinct perspective to the discussion. Species composition and range are discussed in several recent documents that are cited in the Draft EIR and readily available to the public through UC Santa Cruz Physical Planning and Construction.

**Response to Comment LA-2-59.** Mitigations for the impacts to chaparral (LRDP Mitigations BIO-1A, -1B and -1C) have been revised to increase their clarity and efficacy. Please refer to Master Response BIO-1 (Northern Maritime Chaparral and Santa Cruz Manzanita). Please see Final EIR, Volume IV, Chapter 3, Revised Table 2-1, for the full text of the revised mitigation measures.

**Response to Comment LA-2-60.** Please refer to Master Response BIO-4 (Coastal Prairie).

**Response to Comment LA-2-61.** Riparian vegetation is under the jurisdiction of the U.S. Army Corps of Engineers (Corps) if the riparian vegetation is below the ordinary high water mark of drainage or if in an area that contains hydric soils and is hydraulically connected to drainage. The Draft EIR requires mitigation for impacts to riparian vegetation above a certain size whether or not these are in areas considered jurisdictional by the Corps. If riparian areas that are impacted are under the jurisdiction of the Corps, the California Department of Fish and Game (CDFG), or the Central Coast Regional Water Quality Control Board, the Campus would implement mitigations according to terms that the responsible agency or agencies deems acceptable. See LRDP Mitigations BIO-3A, through 3D on Draft EIR pages 4.4-43 through 4.4-45.

**Response to Comment LA-2-62.** West Marshall Field and Marshall Field are shown in Draft EIR Figure 3-3 entitled *UC Santa Cruz Campus Natural Features*. The Campus will only restrict bicycle use during the part of the year when adult beetles are active. All known populations of Ohlone tiger beetles are in the northwest and southwest corners of the campus. Temporary closure of trails in these areas should not significantly inhibit travel through the heart of the campus.

**Response to Comment LA-2-63.** The determination of no significant impact was based on professional judgment of the magnitude of the impacts relative to available foraging habitat. This took into account the availability of foraging habitat not only within the campus boundaries, but also within the larger geographical area of Santa Cruz County.

**Response to Comment LA-2-64.** Maps are included for all known populations of federally listed species within the proposed development area. Because the San Francisco dusky-footed woodrat is not a federally listed species no map is provided. The 193 acres of potential woodrat habitat identified are within the north campus; the identification is based on previous findings on woodrat habitat use (Bankie 2005). LRDP Mitigation BIO-14 is focused on protecting nests during the breeding season and movement of nests and/or individuals will only occur during non-breeding periods. The overall potential for impact was

found to be less than significant due to the estimation that three quarters of all woodrat habitat at UC Santa Cruz would be unaffected. Thus, only direct impacts to active nest sites were found to be significant.

**Response to Comment LA-2-65.** Please refer to Master Response BIO-5 (Wildlife Movement).

**Response to Comment LA-2-66.** As discussed in the Draft EIR at page 4.4-67 and in Response to Comments LA-2-64 and 65, mitigations will reduce impacts to burrowing owls and San Francisco dusky footed woodrats to a less-than-significant level, sufficiently to avoid cumulative impacts.

**Response to Comment LA-2-67.** As stated on Draft EIR page 4.4-70, under CEQA, the loss of redwood and mixed evergreen forest to development under the LRDP is not considered a significant impact in and of itself, because these vegetation types are not considered sensitive communities by CDFG and they are abundant in the region. However, as discussed on page 4.4-70, impacts to special status species for which these forests provide habitat, and impacts to wildlife movement, water quality, aesthetics, air quality, and noise are analyzed in the Draft EIR, and mitigations are provided to reduce these impacts to a less-than-significant level where feasible. For example, potential impacts to active raptor nests that may occur in redwood or mixed evergreen forests are discussed on pages 4.4-56 and 57. Impacts to active nests would be minimized by implementation of LRDP Mitigation BIO-11, which requires projects constructed during the raptor breeding season to conduct preconstruction surveys for active nests and prohibits construction activities within 200 feet of an active nest.

**Response to Comment LA-2-68.** The programmatic assessment presented in the 2005 LRDP Draft EIR describes the universe of known cultural resources on the campus that could be affected by activities undertaken under the 2005 LRDP. The nature of potential impacts to specific sites cannot be determined until specific project footprints and actions are proposed. The Draft EIR includes mitigation measures to ensure that potential cultural resources within a project development area are identified prior to development activity, and protected and avoided if possible. In the event that impacts to a significant cultural resource cannot be avoided through design measures, in most cases additional mitigation measures would reduce the significance of the impact, to a less-than-significant level. This process is conducted as part of project-level CEQA analysis. For example, a project-level cultural resources analysis was conducted for the Infrastructure Improvements Project (Volume III, Section 2.4.5 of the Draft EIR). This analysis assessed potential impacts to the specific identified cultural resources that are located in and near the project footprint (see Table 2-7, page 2-59 of that section), and identified project-specific mitigation measures (IIP-SW Mitigations CULT-1A through -1D) to avoid or minimize impacts to those cultural resources.

**Response to Comment LA-2-69.** Draft EIR LRDP Mitigation CULT-1E includes measures for avoidance or substantial preservation in place of archaeological deposits, which is the preferred mitigation under CEQA. However, it is not always possible to avoid significant archaeological deposits. For instance, archaeological sites may be so extensive that avoidance could completely preclude development of a site that is otherwise environmentally preferable, or there may not be suitable alternative sites for a particular development. Further, archaeological deposits often are not evident on the surface, and it may not be possible for a project to avoid disturbance to a deposit that is discovered during construction. For these reasons, although avoidance is the preferred mitigation, a suite of alternative mitigation measures are included in the Draft EIR to ensure that the significant data represented by an archaeological site are preserved in instances when the site itself cannot be preserved.

**Response to Comment LA-2-70.** The presence of known significant cultural resources was taken into account in the development of the 2005 LRDP. For example, the 2005 LRDP identifies the Cowell Ranch and Lime Industry Historic District as an historic overlay, and the Draft EIR includes provisions to avoid direct and indirect impacts to the historic district. Draft EIR LRDP Mitigation CULT-1E includes project design and redesign measures to avoid significant cultural resources, including both previously known resources and those that might be discovered during project-level analysis.

The presence of known, significant cultural resources is one of the factors considered in site selection for proposed projects. Avoidance of impacts to significant sites (LRDP Mitigation CULT-1E) is the preferred mitigation measure. Measures to avoid archaeological impacts may include alternative site selection, placement of fill or barriers to protect the site, or design or redesign to move project components away from the site. A blanket prohibition against development in proximity to cultural resources is not necessary, as the potential for impacts is dependent upon the type of resource present and the type of activity proposed. For example, the Infrastructure Improvements Project includes temporary construction roads in the vicinity of historic features. The project includes mitigation measures to ensure that these historic resources are protected during construction, such that no adverse impacts to these resources will occur.

**Response to Comment LA-2-71.** Under CEQA Guidelines 15126.4(b)(2), in some circumstances, documentation of a significant cultural resources (termed “historical resource” under CEQA), by way of historic narrative, photographs or architectural drawings, will not mitigate the effects of demolition of the resource to a point where clearly no significant effect on the environment would occur. If a proposed project were to entail the destruction or demolition of a site or building, and the significant historic value of that resource was such that it could not be captured through documentation and data recovery, the University would endeavor to avoid the impacts as specified in Draft EIR LRDP Mitigation CULT-1E. Where impacts could not be avoided, the University would carry out all effective documentation measures identified in LRDP Mitigations CULT-1 and CULT-2. LRDP Impact CULT-3 recognizes that, in some cases, the full implementation of these documentation and data recovery measures might not reduce the impact to a less-than-significant level. Documentation and data recovery would be conducted, but the residual impact would remain significant and unavoidable. Because the impact to specific sites cannot be determined until specific projects are proposed, the Draft EIR does not identify any specific resources to which this exception would apply. The monitoring program for cultural mitigation measures sets forth clear procedures for compliance with these mitigation measures.

**Response to Comment LA-2-72.** Under LRDP Impact CULT-4 (potential disturbance of human remains), LRDP Mitigation CULT-4A references the suite of mitigation measures CULT-1A through -1H, which are directed toward avoiding disturbance to archaeological sites, including archaeological sites that might contain human remains. Preservation in place is identified as the preferred mitigation measure for archaeological resources. The monitoring program for cultural mitigation measures sets forth clear procedures for compliance with these mitigation measures.

**Response to Comment LA-2-73.** The erosion potential of the Nisene-Aptos complex is characterized as High. Draft EIR Table 4.6-1 erroneously referred to the permeability of the soil instead of the erosion potential. That table has been corrected. See Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*.

As the text indicates, Draft EIR Table 4.6-1 summarizes the erosion potentials for the major soil types within the boundary of the campus. The erosion potential of the Bonny Doon Rock Outcrop and the Ben Lomond-Catelli-Sur complex are included in the text for the purpose of completeness because these soil types are shown on Figure 4.6-6. However they are not major soil types found on the campus, and are mapped only in very small areas of the southwest portion of the campus, and are therefore not listed in the table.

**Response to Comment LA-2-74.** Please refer to Master Response LU-1 regarding the applicability of City and County policies to University lands.

**Response to Comment LA-2-75.** A summary of the County's seismic policies has been added under Section 4.6.1.8 of the EIR. Please refer to Volume IV, Chapter 3 of the Final EIR, *Changes to Draft EIR Text*.

**Response to Comment LA-2-76.** The analysis under LRDP Impact GEO-3 is focused on erosion and the loss of topsoil due to temporary soil disturbing activities during construction of projects. With the application of erosion-control measures included in the Campus Standards Handbook (which are based on County standards) along with measures that will be included in the stormwater pollution prevention plans required by federal law for every construction site over one acre, this impact will be less than significant. It is further proposed that the Campus adopt LRDP Mitigations HYD-2A and -2B for construction sites less than one acre and for sites on hillsides in order to reduce sediment levels in surface waters. These measures would further reduce this less-than-significant impact. A revised discussion of this impact is presented in Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*.

**Response to Comment LA-2-77.** Please refer to Response to Comment LA-2-76, above.

**Response to Comment LA-2-78.** A figure similar to Draft EIR Figure 4.7-8 was used during the development of the 2005 LRDP to identify and avoid areas on the campus that have high geologic hazard. The LRDP land use plan reflects this and generally does not allow development in areas with high karst hazard. However, as discussed in Draft EIR Section 4.6.2.4 (LRDP Impact GEO-4 page 4.6-17), many karst features are not visible at the surface. As a result, the degree of hazard often can only be determined by a detailed site-specific subsurface investigation. The campus has been divided into four geologic hazard levels based on bedrock characteristics and previous investigations as shown on Figure 4.6-8 (and discussed in Section 4.6.1.7). Note that Figure 4.6-8 will be used as a general guide but the actual hazards at a specific construction site will be determined based on a site-specific geotechnical investigation conducted in compliance with LRDP Mitigation GEO-1. Based on the results of the investigation, the feasibility of mitigating the any hazards associated with that specific building site would be determined. If feasible engineering measures are not available to mitigate the hazard, an alternative site would be selected.

Most of the existing campus core building are located in Karst Hazard Zones 3 and 4 and were designed accordingly. Existing Campus practices have been successful in preventing settlement or collapse of building structures. The potential hazards do not necessarily preclude construction in Karst Hazard Zone 4 areas.

**Response to Comment LA-2-79.** Controlled burns are one of the vegetation management techniques that will be investigated during preparation of the UC Santa Cruz Fire Management Plan, which will be developed prior to development on the north campus.



**Response to Comment LA-2-80.** The statement on page 4.8-9 of the Draft EIR referred to by the commenter describes erosion control measures included in new development since 1989. This point has been clarified in the Final EIR. Please see Volume IV, Chapter 3 of the Final EIR, *Changes to Draft EIR Text*. Please refer to Response to Comment SA-4-2 regarding the status of the 1988 LRDP EIR mitigation measures.

**Response to Comment LA-2-81.** The investigation of the Highview Drive culvert failure (Singer 2001) concluded that runoff from the Arboretum Pond spillway due to blockage of the regular discharge pipe was a contributing factor, but the main reasons for the failure were an unusually severe 24-hour storm event and the lower culvert on Highview Drive, which was undersized and had other design flaws. Unless the Arboretum Pond overtops (at approximately 29 acre-feet of water), outflow is through a 12-inch outlet. The outlet was originally 14 inches until an inner sleeve was installed in 1998, as a preventive measure to ensure the integrity of the outlet pipe. Other sources of inflows to the Highview Drive culvert consist of runoff from a drainage turnout on Empire Grade Road, runoff from a channel that is apparently spring-fed that begins not far from the UC Santa Cruz Natural Reserve fence line, and possible flows along an old roadbed that leads up to a meadow within the Campus Natural Reserve. Since the lower culvert under Highview Drive is only 12 inches in diameter, flows draining to this culvert tend to pond behind the road embankment until they reach the upper 18-inch culvert, located 7 feet above the lower culvert and approximately one foot below the roadbed. Litter from the eucalyptus trees near the inlet and sediment deposited in the ponded water contributed to clogging the lower culvert. The statement that the 12-inch culvert was undersized refers to its size in relation to the culverts upstream and downstream (which are at least 30 inches in diameter), and in relation to the stream channel upstream, which is 24-32 inches wide. Replacement of the lower culvert with a properly designed and sized new culvert would eliminate the risk of road overtopping, barring slope failure, road prism failure, tree failure, or other catastrophic events.

**Response to Comment LA-2-82.** The water quality monitoring data in Draft EIR Tables D1-2 to D1-10 do not show an increase in pollutant concentrations over time. The error in the text on page 4.8-21 has been corrected. Please see Volume IV, Chapter 3, *Changes to Draft EIR Text* of the Final EIR.

There is no summary statistic that can be estimated and reported in a table that would allow a reader to determine whether there has been an increase in pollutants as the campus has continued to grow. Because trends can be seen best in graphs, a series of graphs have been prepared using the data in Tables D1-2 through D1-10, and are presented as [Figures 4.8-5a through -5e](#) in the Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*. Because the data sets for several pollutants contain a large number of samples in which these pollutants were not detected, graphs are presented for only those pollutants for which there were adequate data to show temporal variability in concentrations. These graphs show that the concentrations of these contaminants do not exhibit a consistent trend toward higher concentrations in recent years. The graphs for the Moore Creek monitoring station show high levels of lead and turbidity in 2004-05. However, these were one-time peaks and the data for 2005-06 show levels that are consistent with previous years. Furthermore, the monitoring point collects water from the campus and Empire Grade, so it is unknown whether the source of these pollutants was the campus or not.

**Response to Comment LA-2-83.** The EIR includes LRDP Mitigation TRA-2B (Draft EIR page 4.14-32) to minimize the increase in the number of cars traveling to and from the campus. Note that the Draft EIR concludes that LRDP Impact HYD-3 would be significant and unavoidable only because at some project

sites it may not be possible to limit runoff sufficiently to avoid an increase in erosion. Existing campus practices in addition to measures included in the Storm Water Management Program would adequately address pollutants that would be generated by vehicles on roadways and in parking lots.

**Response to Comment LA-2-84.** Please refer to Response to Comment LA-2-82 above.

**Response to Comment LA-2-85.** The addition of the projected 218 acres of impervious area would be a 90 percent increase over the existing estimated 243 acres of impervious area. The results shown in Draft EIR Table D2-3 show an increase of about 31 percent in runoff for a two-year storm. This is a conservative estimate because the analysis did not account for water draining through sinkholes or captured in depressions. Table D2-4 shows that for the 25-year, 24-hour storm, the same increase in impervious area would result in a seven percent increase in runoff. In large storms, once the ground is saturated, water runs off pervious ground surfaces at about the same rate as from impervious surfaces. Therefore, depending on the size of the storm, an increase in impervious surface does not necessarily result in a proportional increase in runoff.

**Response to Comment LA-2-86.** The Campus has an ongoing program for inspection and preventive maintenance of storm water drainage facilities, which will be continued as a “best management practice” under the Storm Water Management Program. The program includes the following: (1) Physical Plant equipment operators who work throughout the campus monitor over 400 drainage systems by reviewing maps and maintenance logs, visual inspections, and checking flows as needed. They also replace oil-absorbent socks where these are used to filter parking-lot runoff. (2) Area gardeners and groundskeepers, each responsible for about 10 acres of land, receive updated maps and logs of their storm drain systems. They perform inspections of these systems weekly from October through March, and monthly or as needed during the remainder of the year. They clean catch basin grates and outfalls, sign off that inspections have been completed, and contact their supervisor if any problems are encountered. (3) During storm events, gardeners and groundskeepers check their area storm drains several times a day and equipment operators respond to area concerns as needed with specialized storm drain clearing equipment. Although engineered drainage systems that could threaten buildings are their first priority, the crews also inspect natural drainages and sinkholes as time permits.

The EIR follows the approach of the NPDES permit system, which requires controls to reduce the discharge of pollutants to the maximum extent practicable. Compliance is achieved through implementation and monitoring of BMPs, not by meeting specific water quality standards.

LRDP Mitigations HYD-3C and -3D require projects to include design measures to reduce runoff and erosion. Drainage improvements are planned in the Campus Storm Water Management Plan. The first two phases of the planned improvements are analyzed as the Infrastructure Improvements Project in Volume III of the Draft EIR.

**Response to Comment LA-2-87.** The storm water control measures that the Campus routinely implements as part of any development should minimize any increase in sediment production due to development under the Draft 2005 LRDP. In addition, the storm water drainage improvements included in the Infrastructure Improvements Project are designed to decrease the amount of erosion and sedimentation in creeks on campus. Once implemented, these should reduce the rate of sedimentation behind Arboretum dams. Please refer to Response to Comment I-74-1. Note that outflow from the

Arboretum Dam is not the only source of inflow to the Highview Drive culvert. Also refer to Response to Comment LA-2-81.

Any new development in the Moore Creek drainage would follow the storm drainage system standards in the Campus Standards Handbook, which require that the post-development runoff rate not exceed the pre-development runoff rate. Continuation of this existing standard was included in the EIR as LRDP Mitigation HYD-3C. With the implementation of LRDP Mitigations HYD-3C and HYD-3D are fully implemented at all new development sites, the peak flows and the volume of runoff that would reach the Arboretum Pond would not increase substantially over current conditions and there would be no change in the probability of the flows overtopping the dam and thereby contributing to downstream flooding. In the event that all increased flows from new development are not detained, retained or infiltrated upstream of the dam, additional flows would enter the reservoir and would be detained there and slowly released downstream via the 12-inch outlet. Therefore, the reservoir would serve to dampen the downstream effects.

Based on the storage in the reservoir and the historical record of overtopping, it appears that the reservoir would likely control flows from smaller most storms but the flows could overtop the dam in larger storms (greater than a 20-year event). Therefore, if under the 2005 LRDP conditions, the additional flows from these larger events are not controlled upstream of the pond and additional runoff reaches the pond, this additional runoff would increase the probability of the overtopping of the dam. The increase in the probability of overtopping cannot be reasonably estimated for two reasons: first, design information for the future projects in the Moore Creek watershed is not available that would allow for an estimation so it is not possible to estimate of new flows and the volume of new runoff that would not be detained, retained or infiltrated; second, a large volume of runoff in the Moore Creek drainage is lost to sinkholes and swallow holes, and the proportion of new runoff would be absorbed by these in-stream sinkholes and swallow holes is not known. Note also that in large storms, once the ground is saturated, water runs off pervious ground surfaces at about the same rate as from impervious surfaces. Therefore, in large storms, the runoff from the Moore Creek watershed under 2005 LRDP conditions would not be much greater than the runoff from the watershed without the 2005 LRDP development, and the Arboretum Pond would not provide protection against downstream flooding with or without the 2005 LRDP.

Note that the proposed storm drainage improvements for the Moore Creek watershed under the Infrastructure Improvements Project would also help to reduce the risk of high flows downstream of the campus (see Response to Comment I-74-1).

**Response to Comment LA-2-88.** Please refer to Response to Comment I-48-1.

**Response to Comment LA-2-89.** According to the Santa Cruz County GIS Interactive Map (<http://gis.co.santa-cruz.ca.us>), the 1994 County of Santa Cruz General Plan and Local Coastal Program designates campus lands outside of the City limits and west of Empire Grade Road mostly as Public Facility, which is consistent with University uses on this site. A narrow sliver of land in the southwestern corner of the campus is designated for Mountain Residential and Agriculture uses.

Campus lands west of Empire Grade Road are in the Coastal Zone and are identified in the 1994 Santa Cruz County General Plan/LCP. No development is proposed under the 2005 LRDP in this area, and Coastal Commission approval is not needed. In the future, if the University were to proceed with development in this area, the University would comply with all requirements of the Coastal Act.

**Response to Comment LA-2-90.** Please refer to Master Response LU-1, which addresses the County’s concern regarding the range of policies reviewed in LRDP Impact LU-1 (Draft EIR page 4.9-9).

**Response to Comment LA-2-91.** Please see Response to Comment LA-2-20 regarding Campus Resource Lands.

**Response to Comment LA-2-92.** The potential future replacement of the Campus Trailer Park with permanent housing does not represent a land use conflict with “existing adjacent or planned land uses” per the relevant CEQA standard of significance for land use, which is based on Appendix G of the CEQA Guidelines. As indicated on Draft EIR page 4.9-11, the Colleges and Student Housing designation of the site would remain the same.

**Response to Comment LA-2-93.** Please refer to Response to Comment ORG-4-2 for a discussion of land use compatibility issues related to the Cave Gulch neighborhood. Please refer to Master Response TRAFFIC-2 with respect to traffic on Empire Grade Road.

**Response to Comment LA-2-94.** Contrary to the comment that much of the development under the 2005 LRDP would be in undeveloped areas, note that about 65 percent of development under the Draft 2005 LRDP will be infill and only 35 percent would extend into currently undeveloped areas. Although it is not clear to which undeveloped areas the commenter is referring, it is assumed that the reference is to the north campus where a loop road and a connector road to Empire Grade are planned. The noise impact from traffic on these new roads cannot be estimated at this time because the exact alignment of the roadways is not known, so the relationship of the road to sensitive receptors, or the setbacks between these roadways and the receptors, is unknown. Specific impacts cannot be identified without identifying sensitive receptors. It is true that this area of the campus has low noise levels under existing and future No Project conditions. The north loop road and the connector road would serve a limited area of the campus and consequently would not be very heavily traveled. Therefore, a substantial increase in noise levels due to the traffic is not anticipated. Please note that at the time that the new roadways are proposed for construction, the University will conduct a project-specific environmental review, which will include an evaluation of the noise impacts from the proposed roadway.

Also note that in areas where the existing ambient noise levels are below 50 dBA CNEL (that is, areas that currently are quiet), noise levels would need to increase by more than 10 decibels to be considered a substantial increase (see Draft EIR page 4.10-11 where a “substantial increase” is defined, based on a sliding scale).

Lastly, noise impacts are evaluated for areas where sensitive receptors are currently present or are anticipated to be present in the future, and are not evaluated for areas where receptors are not present. Users of parks and other natural areas may be sensitive receptors. However, while the undeveloped north and upper campus is used for informal recreation, the areas are not designated parkland, and therefore, if noise levels in the north campus are elevated compared to current or future no project conditions, the increase would not represent a significant impact on persons using the area for recreation. Environmental impact assessment for each specific project proposed in the future under the LRDP will include an assessment of potential noise impacts upon residential and other noise-sensitive receptors in the vicinity of each project, and any specific impact identified will be mitigated.

**Response to Comment LA-2-95.** The Draft EIR (pages 4.10-15 through -17) identifies construction noise as potentially significant because some of the construction sites associated with infill development,

especially in the campus core, will be less than 100 feet from existing sensitive receptors. As stated in the Draft EIR (page 4.10-16), if a construction site is less than 100 feet from a sensitive receptor, the noise levels would likely exceed the significance criteria. Because the LRDP describes general development for the entire campus rather than specific projects, the type of construction equipment used, the duration of noisy activities, the type of noisy activities, and the restrictions that will be imposed on the contractors are not known at this time. The Draft EIR (page 4.10-16) specifically states that one of the reasons that the impact would be significant and unavoidable is that infill development could be less than 100 feet from existing buildings. Furthermore, in the absence of site details, the effectiveness of the construction noise mitigation measures (LRDP Mitigation NOIS-1) in particular circumstances cannot be determined. For all of these reasons, the impact is determined to be significant and unavoidable. A figure that overlays current development with the areas proposed for development cannot be used to determine distances between construction sites and receptors, because the locations of specific future buildings on the campus are not known. For each future building project, an evaluation of construction noise impacts would be conducted as part of the environmental review of that project, and a construction noise mitigation program would be implemented (see Draft EIR, page 4.10-15). For these reasons, the Draft EIR's characterization of this impact at the programmatic level only is appropriate.

**Response to Comment LA-2-96.** According to the standards of significance used in this EIR, a permanent increase in noise due to project-related traffic would be considered significant if it caused the noise thresholds of 60 dBA CNEL or 65 dBA CNEL to be exceeded at single-family and multi-family receptors, respectively, or where the noise levels even without the project would exceed these thresholds, and the project would cause the noise to increase by 3 decibels or more. As the analysis on pages 4.10-17 through -19 of the Draft EIR shows, the project-related traffic would not cause noise levels to exceed 60 DBA CNEL or 65 dBA CNEL, and along heavily traveled streets where the noise levels will exceed these thresholds without the project, the project-caused increase in noise would be less than 3 decibels. For this reason, the impact is considered less than significant. Note, however, that a new mitigation measure has been added to the Final EIR to ensure that construction traffic associated with implementation of the 2005 LRDP is restricted to designated truck routes. See Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*, Revised Table 2-1, for the text of the added mitigation measure.

**Response to Comment LA-2-97.** Please refer to Response to Comment LA-2-94.

**Response to Comment LA-2-98.** The noise analysis is based on traffic data generated for and used in Draft EIR Section 4.14, *Traffic and Circulation*. Under the 2020 With Project Scenario, the traffic analysis assumed that roadway improvements such as the Meyer Drive extension and the north campus loop road would be in place. Therefore, the noise analysis, which is based on traffic data, takes into account the changes in on-campus traffic as a result of the new roadways.

**Response to Comment LA-2-99.** Draft EIR Table 4.11-3 lists the housing design capacity of existing housing, which does not include temporary beds. Footnote (a) of Table 4.11-3 has been revised to clarify the difference between design capacity and maximum capacity. Please see Volume IV, Chapter 3 of the Final EIR, *Changes to Draft EIR Text*.

**Response to Comment LA-2-100.** Table 3-2 in Chapter 3 of the Draft EIR reports students living in UC housing on and off campus based on three-quarter average student enrollment levels for the academic year 2003-04, whereas Table 4.11-3 reports the occupancy levels for UC housing for one quarter – Fall 2004. Fall is the quarter with the highest enrollment level; therefore the number of students living in UC

housing during that quarter tends to be higher than it is during other quarters. Also, the Infill Apartments Project, which provides 652 new student bed spaces, was first occupied in Fall 2004. Also, please see Response to Comment LA-2-103, below.

**Response to Comment LA-2-101.** Please refer to Master Responses POP-1 (Impact on Regional Housing Supply) and ALT-5 (Increased On-Campus Housing Alternative).

**Response to Comment LA-2-102.** About 23.3 percent of faculty and 1.5 percent of staff lived in University housing in 2003-04. The 24 percent figure cited on page 4.11-9 in the Draft EIR was the result of an erroneous rounding up.

**Response to Comment LA-2-103.** Table 4.11-4 in the Draft EIR presents the distribution of students and employees by place of residence, based on campus surveys by zip code. The table reports the percentage of those living in the City of Santa Cruz as distinct from on-campus residents in order to show what proportion of the total population lives off campus but within the City of Santa Cruz. The University acknowledges that persons who live on campus are technically within the City of Santa Cruz. The University also notes that there are several alternate ways to express the percentages reported in Table 4.11-4, including the variations suggested by the commenter. While Table 4.11-4 was developed mainly to provide the reader with a sense of how campus-related population currently resides within and outside the region, these historical residence patterns were not used to determine how the 2005 LRDP-related population would reside in the study area. That analysis was based on the projected supply and cost of off-campus housing and is reported under LRDP Impact POP-3.

The occupancy rates in the Spring Quarter tend to be lower than Fall or Winter quarters because enrollment is lowest in the Spring and the total demand for housing therefore tends to be lower. However, the vacancy rates on campus fluctuate from year to year in relation to a number of factors, some of which are discussed in detail in Master Response ALT-5. In particular, vacancy rates may increase for a period, when the housing supply jumps up as the result of a large housing project coming on line, such that the housing supply for a time exceeds demand. The 2004 baseline year is a case in point. In Spring 2004, the design capacity of on- and off-campus student housing was 5,883 beds and the number of students living on campus was 5,642, so the vacancy rate was 4.1 percent. In Fall 2004, there was a jump in the total design capacity of on-campus housing, as the 652 Infill Apartments became available for the first time. The design capacity of on-campus housing (i.e., not including off-campus University housing) in Fall 2004, as shown in Draft EIR Table 4.11-3, was 6,535. With 6,074 students living on campus that quarter, the vacancy rate was seven percent. The atypical higher vacancy rate in the Fall Quarter of that year is attributable to large increment of new housing added to the on-campus inventory that semester.

**Response to Comment LA-2-104.** The text on pages 4.11-12 and -13 of the Draft EIR has been revised in response to this comment to clarify that the City, through the General Plan process, facilitates the development of new housing but does not itself produce housing. See Final EIR, Chapter 3, *Changes to Draft EIR Text*. Note that given the tight housing market in the study area, if the City allow for the development of housing by designating additional housing sites and by allowing higher densities on sites already designated for residential use, then the probability is fairly high that additional housing will be developed. Therefore, if the City is committed policies that would facilitate meeting its housing goals as stated in the City's Housing Element, there is a very strong chance that the housing projected in the City's Housing Element will come on line.

**Response to Comment LA-2-105.** There is no discrepancy in the on-campus student housing numbers reported on page 4.11-15 of the Draft EIR. Under the Draft 2005 LRDP (January 2005), the total number of students to be housed on campus in 2020 would be 50 percent of the projected 17,850 undergraduates and 25 percent of the projected 3,150 graduate students, for a total of 9,713 students. To meet these targets, 3,220 new or replacement student beds would be needed by 2020. Based on the actual land acreage included in the 2005 LRDP for student housing, however, the Campus determined that in fact it could build about 3,390 additional student beds. Therefore, the Draft EIR used 3,390 additional on-campus student beds to estimate housing impacts of the project. The Draft EIR noted that some new students already live in the study area before they enroll. It is anticipated that some of these students would choose not to relocate their residences, so would not contribute to the housing demand created by growth under the 2005 LRDP. However, the Draft EIR did not quantify the number of students in this category.

Note that the Campus proposes to recommend to The Regents the adoption of the Final Draft 2005 LRDP (September 2006), which revises the Draft 2005 LRDP (January 2005) to reflect the Reduced Enrollment Growth Alternative previously analyzed in the 2005 LRDP Draft EIR and identified as the Environmentally Superior Alternative. For more information regarding the Final Draft 2005 LRDP, please see Final EIR, Volume IV, Chapter 2, *Project Refinements*. The Final Draft 2005 LRDP includes the same housing goals as analyzed in the Draft EIR.

**Response to Comment LA-2-106.** In May 2005, as part of the housing and economic impact analysis prepared for the EIR a survey of UC Santa Cruz employees and students was conducted (Sedway Group 2003). Over 2,350 students responded to the survey. As part of this survey, students were asked to report the number of persons living in their households. Looking at the surveys returned by students who reported living independently of their families in non-University off-campus housing, it was determined that there are approximately three persons per student household. The results from the survey were independently confirmed by examining the 2000 Public Use Microdata Samples dataset from the US Census, which also showed that the average size of a UC Santa Cruz student household is approximately three persons (BAE 2005).

**Response to Comment LA-2-107.** With respect to the analysis presented in LRDP Impact POP-1, under both scenarios, approximately 53 percent of all the off-campus population associated with the 2005 LRDP (including LRDP-related out-of-county students and employees) would live within the city of Santa Cruz. If the numbers for only the study area are examined, under Scenario 1 about 64 percent of the off-campus population would live in the city of Santa Cruz; under Scenario 2 about 78 percent of the off-campus population would live within the city of Santa Cruz.

The EIR fully discloses that a portion of the 2005 LRDP-associated population will not be able to afford housing in the city or county and, thus, is considered the “residual demand” group. The footnote to Table 4.11-6 explains the term “residual demand.” Further information about residual demand is presented on page 4.11-22 in the discussion of the project’s impact on housing. The information in the Draft EIR is consistent with the information contained in the BAE report cited by the commenter. Because of the interrelationship between population and housing, the implications of the unmet housing demand are discussed under LRDP Impact POP-3 on page 4.11-26 of the Draft EIR.

The University recognizes that a substantial portion of the campus lies within the City limits of the city of Santa Cruz; therefore, LRDP-related new population that would reside on the campus would constitute

City population. However, the population that would live on campus was separated out from the overall City of Santa Cruz population in the population analysis. This was done to ensure that the population data are consistent with and presented in a form that would be usable for the housing analysis that follows; and because the Campus provides many services to its on-campus population that are separate from City services. As shown in the Draft EIR analysis under LRDP Impact POP-3, the impacts on off-campus housing are evaluated after accounting for the on-campus housing. If the LRDP-related on- and off-campus population (that would live in the City of Santa Cruz) is compared to the City of Santa Cruz's 2020 population, the LRDP-related population would make up about 12.6 percent of the total population. The induced population associated with the multiplier effect is not added into the City totals because the distribution of this population within the study area cannot be reasonably predicted, and trying to predict how many persons out of this group would reside within the City of Santa Cruz would be speculative.

**Response to Comment LA-2-108.** As indicated on Draft EIR page 4.11-20, additional growth beyond that directly associated with the proposed project can be triggered if the infrastructure to serve the proposed project is constructed with excess capacity or, where the lack of infrastructure is an obstacle to growth and that obstacle is removed by the project. LRDP Impact POP-2 discusses the fact that improvements to the infrastructure on the campus, including the extension of utilities to the north campus, would not result in induced growth in the Cave Gulch area because the Cave Gulch community is not served by City water service or wastewater collection service. Further, proposed growth and development under the 2005 LRDP does not call for extending services beyond the campus boundaries, nor is excess capacity in utility extensions being contemplated under the plan.

The comment indicates that new University growth in the north campus area, combined with the new north campus loop road, could increase housing demand in the Cave Gulch and Bonny Doon areas, which ultimately could lead to additional growth in these areas if demand pressures stimulate changes in land use regulations. It is assumed that the commenter is concerned that the on-campus daily population will more likely seek out housing in these communities under the 2005 LRDP, given that the new loop road would make these areas more accessible from some on-campus locations. The new north loop road would in fact make some portions of the campus more accessible to the Cave Gulch and Bonny Doon communities. However, as indicated in the impact analysis for LRDP Impact POP-2, the 2005 LRDP would not remove or otherwise minimize obstacles to growth in the Cave Gulch and Bonny Doon areas, as the LRDP does not propose any improvements (such as widening) to Empire Grade Road. Even after development of the envisioned north loop road, it is anticipated that the general public would continue to access these communities via Empire Grade Road, because it has a higher posted speed limit (40 mph) and is more direct than the circuitous north loop road route. Moreover, campus intersections are stop- or signal- controlled, which increases travel time through the campus, whereas Empire Grade Road north of the main campus entrance is generally not stop-controlled.

Overall, it is unlikely that access issues on Empire Grade Road are currently limiting the campus population from residing in these communities. Issues that are more likely to affect choice of residential location include price and availability of housing and, given the limited parking on campus, proximity to alternative means of transportation. Given all of these factors, it is unlikely that the construction of the new north campus loop road would induce substantial population growth in the Cave Gulch and Bonny Doon communities through the extension of roads and utilities.



Please refer to LRDP Impacts POP-1 and POP-3 for a discussion of the direct effect of development under the 2005 LRDP on population and housing growth. This analysis acknowledges that the 2005 LRDP would result in increases in population and housing demand outside of the City of Santa Cruz in Santa Cruz County, which is where the Cave Gulch and Bonny Doon communities are located. Under the 2005 LRDP as analyzed in the Draft EIR, approximately 697, new housing units outside of the city limits, could be needed to serve the new LRDP-related population (see Draft EIR page 4.11-23, Table 4.11-10).

Note that the Campus proposes to recommend to The Regents the adoption of the Final Draft 2005 LRDP (September 2006), which revises the Draft 2005 LRDP (January 2005) to reflect the Reduced Enrollment Growth Alternative previously analyzed in the 2005 LRDP Draft EIR. For more information regarding the Final Draft 2005 LRDP, please see Final EIR, Volume IV, Chapter 2, *Project Refinements*. As described in that chapter, the demand for off-campus housing would be reduced, although there could still be demand for housing outside the City. Some of these housing units could be located in the Cave Gulch and Bonny Doon communities, however, it is expected that the vast majority would be located elsewhere in the County due primarily to housing cost and availability. Given that the projected new housing supply in the County outside of the city consists of approximately 8,147 new housing units, there would be adequate supply to serve new growth without building additional housing or converting non-residential land to residential uses. Therefore, it is unlikely that housing demand in the Cave Gulch and Boony Doon areas would be such that it would result in changes to the land use regulations. Moreover, the Draft EIR (page 4.11-21) indicates that the County's growth management ordinance places an annual limit on the number of residential permits for new construction that can be issued for projects in the county, including in the Cave Gulch and Bonny Doon communities.

**Response to Comment LA-2-109.** The analysis of population and housing impacts in the EIR is based on the BAE housing impact analysis, which is presented in a memorandum dated September 30, 2005. This memorandum is included in Appendix C in Volume VI of the Final EIR.

In order to estimate future housing affordability levels, the BAE analysis utilizes 2005 data regarding the for-sale and rental housing markets. The analysis also utilizes 2005 data regarding UC Santa Cruz employee household income levels and actual rents paid by UC Santa Cruz students. The sources of these data are documented in the BAE memorandum (BAE 2005). As an underlying assumption, the analysis assumes that distribution of rents and home prices will remain constant relative to affordability levels for students and employees. This assumption is reasonable based on the fact that it relies on relationships between incomes (which rise over time) and housing prices (which can rise, flatten, and fall over time). Forecasting with certainty future incomes and housing price increases, and any shifts in these relationships, is not possible and was not undertaken by BAE.

It should be noted that the assumptions used by BAE regarding affordability, and the terms of mortgages underlying those assumptions, are very conservative, leading to a possible over-estimation of affordability impacts. To translate UC Santa Cruz employee household incomes into housing affordability levels, BAE assumed a maximum down payment of five percent and maximum total housing costs, including mortgage, tax, and insurance payments, of no more than 30 percent of income. If the analysis made more aggressive assumptions (which more closely reflect current market trends), "affordability" levels could be shifted upwards and the residual demand number would shift downwards. For these reasons, the housing analysis is also very conservative.

In addition, please note that LRDP Mitigation POP-3 has been revised as Mitigation POP-3A, and two new mitigation measures POP-3B and -3C have been added to the Final EIR (Volume IV, Chapter 3, Revised Table 2-1) to address issues of housing supply. However, these do not reduce the impact to less-than-significant levels.

**Response to Comment LA-2-110.** The commenter is correct that based on the numbers presented in Draft EIR Tables 4.11-10 and 4.11-11, depending on the scenario, demand associated with the Draft 2005 LRDP-related population for the Draft 2005 LRDP as analyzed in the Draft EIR, would constitute approximately 56 to 68 percent of the new housing that would be added to the city. The number used in these tables for new housing units (1,684) in the City of Santa Cruz is from the AMBAG 2004 forecasts. The AMBAG planning forecast does not provide the maximum number of units that the city can accommodate but represents a policy decision by the City to plan for fewer housing units. As discussed on pages 4.11-12 and -13 of the Draft EIR, this number is lower than the 2,167 units that are projected in the City's Housing Element. Therefore, through 2020, it is considered likely that housing units in excess of 1,684 will be added to the city's housing stock. In this case, the LRDP-related 2020 demand would form a smaller proportion of the additional housing stock than the percentages reported above. The Draft EIR analyzes the impact of the LRDP-related off-campus population on traffic, recreation, public services, and utilities. Note that the Campus proposes to recommend to The Regents the adoption of the Final Draft 2005 LRDP (September 2006), which revises the Draft 2005 LRDP (January 2005) to reflect the Reduced Enrollment Growth Alternative previously analyzed in the 2005 LRDP Draft EIR and identified as the Environmentally Superior Alternative. For more information regarding the Final Draft 2005 LRDP and its environmental impacts compared to those associated with the Draft 2005 LRDP, please see Final EIR, Volume IV, Chapter 2, *Project Refinements*.

**Response to Comment LA-2-111.** As reported on page 4.11-25 of the Draft EIR, if AMBAG projected new jobs in the City of Santa Cruz are compared to the projected number of housing units, the ratio is 0.21 housing unit for every 1.5 new jobs (taking into account that BAE (2005) assumes 1.5 jobs per household). If the jobs projected by the Campus are compared to the 125 housing units provided for in the 2005 LRDP, the ratio is 0.12 housing unit for every 1.5 new jobs.

All of the employment growth that is projected by the Campus under the 2005 LRDP is already included in the City of Santa Cruz employment projections (see Response to Comment LA-3-20). According to AMBAG, however, the 125 employee housing units under the 2005 LRDP are not included in the City's housing projections. Therefore, if these units were added to the projected housing units in the city, these units would slightly improve the local jobs-housing imbalance. In the City, the units provided under the 2005 LRDP in fact would slightly improve the job-housing ratio from 0.21 housing units for every 1.5 jobs to 0.22 housing units for every 1.5 new jobs (BAE 2005).

**Response to Comment LA-2-112.** The traffic analysis, based on the AMBAG travel demand model for the county, evaluates traffic impacts from employees and students commuting from communities throughout the county as well as from out of county areas. The AMBAG model also accounts for non-LRDP-related population by distributing housing and jobs according to the projections provided by the various cities and counties.

**Response to Comment LA-2-113.** Draft EIR Table 4.11-12 does not report population but the demand for housing, expressed in terms of housing units. Because the commenter's confusion appears to stem from a misinterpretation of the column headings and the column numbers noted in the footnotes to this

table, the column headings and footnotes in Table 4.11-12 have been revised for clarification. See *Changes to Draft EIR Text*, Chapter 3 (Volume IV) of the Final EIR. Note that the most pertinent data in the table are the sums reported in the last two columns, which show the cumulative demand for housing, including the demand related to the 2005 LRDP, based on population growth and based on employment growth. The table shows both the city-level and the county-wide impact, and the impact discussion on Draft EIR page 4.11-26 states that the incremental demand for housing as a result of the 2005 LRDP would further exacerbate the imbalance between demand for and supply of housing both in the city of Santa Cruz and in the rest of the county.

**Response to Comment LA-2-114.** Please refer to Master Response POP-1 (Magnitude of Enrollment Growth). Also note that LRDP Mitigation POP-3 has been revised to provide additional mechanisms to address housing demand issues. See LRDP Mitigations POP-3A, -3B, and -3C in the Final ER, Volume IV, Chapter 3, *Changes to Draft EIR Text*, Revised Table 2-1.

**Response to Comment LA-2-115.** The Santa Cruz City Schools District does not have current plans to close any existing schools due to declining enrollment levels, as indicated in Section 4.12, *Public Services* (see Draft EIR page 4.12-6). School closures are not planned in other study area school districts. The campus and other cumulative development would add school-age children to districts that generally have declining enrollments; therefore, such development would support existing schools and contribute somewhat to stabilizing enrollments. At the same time, such development and associated population increases would likely put pressure on the existing housing market, which may ultimately cause some families to leave the area. The ultimate product of these opposed trends cannot be determined, and it cannot be predicted which families may have school-age children. Determining whether and where these trends may lead to future school closures would be speculative. The increased traffic impacts associated with possible future closures cannot be determined without knowing when and where such closures may happen and to what extent families with school-age children would be required to increase their travel distance. These factors, too, are entirely speculative at this time.

**Response to Comment LA-2-116.** The reference to footnote 1 on Draft EIR page 4.12-3 was erroneous.

**Response to Comment LA-2-117.** Information on existing conditions is generally based on conditions at the time the NOP was issued, which was January 2005. The information provided in the Draft EIR was based on information provided on the Bonny Doon Fire Department website in 2005. While the McDermott Fire Station is now operational, it is still in the final phases of construction according to information obtained in March 2006 from the same website.

In 2004 and 2005, CDF responded to incidents on campus three times. During the same years, the UC Santa Cruz Fire Department responded 17 times to incidents in CDF's jurisdiction (Hernandez 2006).

**Response to Comment LA-2-118.** The various service agencies were informed of the proposed 2005 LRDP when they were contacted for their input.

**Response to Comment LA-2-119.** Please refer to Response to Comment LA-2-115 for information about impacts related to additional school closures. As indicated in Section 4.12, *Public Services* (Draft EIR page 4.12-14), the increase in on-campus population associated with development under the 2005 LRDP, including that associated with the development of Family Student Housing, would result in an additional 85 kindergarten through 12<sup>th</sup>-grade students added to the SCSD system by 2020. Of those students approximately 55 percent (or 47 students) are expected to be elementary students that would

likely attend the nearby Westlake Elementary School. This estimated percentage is based on the number elementary school students in Santa Cruz County as a percentage of total students in 2002-2003 (Santa Cruz County Educational Demographics, [www.santacruz.k12.ca.us/schools/demographics.pdf](http://www.santacruz.k12.ca.us/schools/demographics.pdf)). As there is remaining capacity at this school for 63 students (see Table 4.12-1, Draft EIR page 4.12-6), the new on-campus population is not expected to result in overcrowding of the school or additional traffic impacts related to families having to transport students to other schools that are farther away. See LRDP Impact PUB-6 for a discussion of cumulative impacts on school facilities.

**Response to Comment LA-2-120.** The comment refers to the analysis of increased demand for parks and recreational facilities provided on Draft EIR pages 4.13-9 and 4.13-10, which includes LRDP Impacts REC-1 and REC-2. In considering recreation impacts, the EIR divides growth under the 2005 LRDP into two categories. LRDP Impacts REC-1 through REC-3 (Draft EIR pages 4.13-9 through 4.13-13) address growth in the on-campus daytime and residential population under the LRDP. LRDP Impacts REC-4 and REC-5 (Draft EIR pages 4.13-14 through 4.13-17) consider the contribution to cumulative recreational impacts associated with the LRDP-related population living off-campus. Section 4.13.2.3, *Analytical Methods*, of the Draft EIR, page 4.13-9, has been revised to clarify this point. See Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*.

LRDP Impact REC-1 acknowledges that the on-campus population would contribute to the demand for parks and that this would require construction of new facilities. See Response to Comments LA-2-121 and LA-2-125.

The EIR concludes in LRDP Impacts REC-4 and REC-5 that off-campus population growth under the 2005 LRDP would not make a cumulatively considerable contribution to recreation impacts, as explained below in Response to Comment LA-2-125.

**Response to Comment LA-2-121.** Please refer to Response to Comment LA-2-120, which indicates that LRDP Impact REC-2 addresses only the on-campus daytime and residential population. The impacts related to deterioration of recreational facilities associated with LRDP-related population that would live off campus are analyzed as cumulative effects of growth (LRDP Impact REC-5). Although the LRDP-related off-campus population may use City recreation facilities, the Campus has consulted with City staff regarding use of City parks and the Campus determined that this use will represent a small portion of park users and is not expected to make a cumulatively considerable contribution to the deterioration of City facilities.

**Response to Comment LA-2-122.** As indicated in Section 6.0, *Other CEQA Considerations* (pages 6-6 through 6-9), the indirect population growth associated with the 2005 LRDP is accounted for in the cumulative analyses contained in Section 4.12, *Public Services*, Section 4.13, *Recreation*, and Section 4.15, *Utilities*.

**Response to Comment LA-2-123.** LRDP Mitigation REC-2C has been revised for increased effectiveness, in response to this comment. Please refer to Volume IV, Chapter 3, Revised Table 2-1, of the Final EIR for changes to the Draft EIR text.

**Response to Comment LA-2-124.** Undesignated trails are not part of the designated multi-use trail system currently on the north campus, so their removal would not result in fragmentation of the multi-use trail system. Removing them is thus not a significant effect on the environment. Many of these undesignated trails have been created over time by bicycles, an illegal use in the north campus, which

have caused erosion and damage to biological resources. The Campus patrols and posts signs on many of these undesignated trails in an attempt to minimize bicycle use, and reduce erosion and damage to biological resources. The elimination of such trails, therefore, would provide an environmental benefit. Designated trails that would be removed with 2005 LRDP development would be relocated such that fragmentation of the designated multi-use trail system would not occur. Overall, removal of undesignated trails with development under the 2005 LRDP would not result in a significant impact under CEQA standards of significance for recreation. The removal of undesignated trails would not increase the use of other trail facilities such that substantial physical deterioration of the facilities would occur. In fact, the overall maintenance requirements for the north campus trails would be minimized and consolidated with the removal of undesignated trails. Moreover, the removal of undesignated trails would not require the construction of new trail facilities that could have an adverse physical affect on the environment. As noted above, 2005 LRDP development would not cause fragmentation of the designated multi-use trail system, and therefore, new trail facilities would not be required.

**Response to Comment LA-2-125.** LRDP Impact REC-4 (Draft EIR page 4.13-15) acknowledges that the City will examine the possibility of developing a park on Shaffer Road and will also make improvements to Derby Park to increase the availability of park lands to serve population on the west side. Additionally, as indicated in the comment, LRDP Impact REC-4 does calculate the demand for active recreational park facilities based on the City's park standards and indicates that the 2005 LRDP off-campus population would result in the need for about 17 acres of parks.

The increased demand for recreational facilities alone is not considered significant under CEQA. The relevant CEQA standard of significance (Draft EIR page 4.13-8) indicates that the impact on recreational facilities would be considered significant if the 2005 LRDP proposes the construction of recreational facilities or requires the expansion of recreational facilities that might have an adverse physical effect on the environment. LRDP mitigation for such an impact would seek to reduce the physical impacts associated with constructing or expanding a particular park facility. The standard does not indicate that impacts would be significant if proposed development would increase the demand for park facilities. Therefore, mitigation that requires the University to provide land for a City park and/or funding to acquire land and develop and maintain facilities, as requested in the comment, is not required under CEQA.

Overall, the impact of this increased demand is determined to be less than significant because: (1) substantial recreational acreage (including both developed parkland and open space) is available in the City; (2) There will be no significant impacts from new park construction because the City has indicated that it does not expect to develop substantial new park acreage, due to limited appropriate land area available in the city for this type of use; and (3) the potential development of a City park on Shaffer Road and improvements at Derby Park would not likely result in significant environmental impacts. Moreover, new and existing recreation facilities on campus, including 18 acres of new playing fields, would be available for use by the off-campus population, under LRDP Mitigation REC-4, which will help meet potential increased future demand.

Please also refer to Response to Comment LA-2-122 regarding the inclusion of population induced by University growth in the analyses of recreational impacts.

**Response to Comment LA-2-126.** The Campus acknowledges that the commenter is correct regarding errors in street descriptions on pages 4.14-5 and -6 of the Draft EIR. This information does not change any of the conclusions in the Draft EIR, but is incorporated into Final EIR by reference.

**Response to Comment LA-2-127.** Transportation and Parking Services (TAPS) conducted gate counts at Glenn Coolidge Drive and Heller Drive in October and November 2003. These 24-hour counts were conducted on October 23<sup>rd</sup>, 24<sup>th</sup>, 27<sup>th</sup>, 28<sup>th</sup>, 29<sup>th</sup>, 30<sup>th</sup>, 31<sup>st</sup>, and on November 3<sup>rd</sup> and 4<sup>th</sup>. Each weekday was counted twice. These data were averaged for Monday, Wednesday, and Friday, and also for Tuesday and Thursday, as well as for an average weekday, for use in deriving existing campus trip generation rates.

**Response to Comment LA-2-128.** Transportation and Parking Services (TAPS) conducted the modal share survey in the Spring of 2004. The data were gathered on Wednesday May 26<sup>th</sup> between the hours of 7 AM to 6 PM. Modes observed at the two campus entrances included bicycles, pedestrians, single-occupant automobiles, multi-occupant automobiles with two, three, or four or more passengers, motor cycles, shuttles associated with Campus Transit, and SCMTD buses with ridership estimated by quartile of capacity. Data were compiled by observers in 15-minute increments throughout the study period. Vehicle counts collected by the observers were compared with counts from mechanical hose counters located at the observation points to test the reliability of the observers and to measure the number of vehicle trips made during the 24-hour period outside the study period. An identical modal share survey was conducted in Fall 2003 (Wednesday, October 22, 2003). The Spring 2004 study was conducted in part to determine whether the Fall 2003 findings were representative of mode share patterns at other times of the year. The modal share surveys indicated that 55.4 percent of all passenger trips observed were made via an alternative transportation mode. Similar results were obtained from both fall and spring modal share counts.

**Response to Comment LA-2-129.** Because downtown parking spaces do not satisfy on-campus parking demand, an account of the number of parking spaces in the downtown would not assist in the analysis of the impacts of development under the Draft 2005 LRDP, and therefore was not included in the Draft EIR.

**Response to Comment LA-2-130.** The analysis of existing pedestrian crosswalk capacity (Urbitran Associates 2004a) presented on 4.14-16 of the Draft EIR was based on Chapter 13 of the 1994 *Highway Capacity Manual (HCM)*. This chapter describes basic principles of pedestrian traffic flow on sidewalks, crosswalks, and street corners. The chapter makes use of two distinct descriptive measures of pedestrian facility performance. Chapter 13 uses pedestrians per minute per feet-width to represent pedestrian flow rate (ped/min), and square feet per pedestrian to represent the average space available (in square feet) per pedestrian (ft<sup>2</sup>/ped) on pedestrian facilities (such as sidewalks and crosswalks). The table below shows the correspondence between space available and flow rate and the corresponding letter grade level of service (LOS) (e.g., A, B, C, etc.), as presented in Table 4.14-3 in the Draft EIR.

**HCM Walkway Level of Service (LOS) Criteria**

LOS	Space Available (ft <sup>2</sup> /ped)	Flow Rate (ped/min/ft)
A	≥130	≤2
B	40-130	≤7
C	24-40	≤10
D	15-24	≤15
E	6-15	15-25
F	≤6	var.

Source: Highway Capacity Manual, Page 13-9, Figure 13-8. TRB 1994.

**Response to Comment LA-2-131.** The Campus acknowledges that a portion of the UC Santa Cruz campus is located within unincorporated Santa Cruz County, gains access from County roads, and is crossed or bordered by two County roads and that the County of Santa Cruz is one of the transportation agencies relevant to transportation planning in the region.

**Response to Comment LA-2-132.** The intersection of Empire Grade Road and Heller Drive currently meets one of the 11 warrants for the installation of a traffic signal (Peak Hour Warrant). The Campus recently applied for, but did not receive, a grant for the cost of the traffic signal. Consequently, the Campus is seeking alternative sources of funds for its installation, possibly in 2007 or 2008. This project will be coordinated with the County.

**Response to Comment LA-2-133.** The Bay Street/Mission Street intersection is identified in the Draft EIR as a significantly affected intersection. Planned improvements at the intersection of Mission Street and Bay Street are identified in the City's current Capital Improvement Program (CIP) as being funded through either gas taxes, grants, or through the City's traffic impact fee program. Because the improvements at this intersection are identified as being funded through the City's traffic impact fee program it is reasonable to assume the improvements will be implemented. The University will contribute its fair share of the cost of improvements implemented by the City to mitigate these impacts, as described in Master Response MIT-1. CEQA does not require that an Environmental Impact Report include an estimate of the cost of improvements, as suggested by the commenter.

The Draft EIR analysis does not assume that any planned improvements will be in place in 2010 and 2020, except for those that have been funded or identified for funding by an ongoing City funding program, such as its traffic impact fee.

**Response to Comment LA-2-134.** The Recirculated Draft EIR – Additional Traffic Analysis for Highways 1 and 17 (UC Santa Cruz March 2006) reflects that the Highway 1/17 Interchange Project has been funded and that the improvements will be implemented.

**Response to Comment LA-2-135.** Because the sales tax measure was defeated by the voters in the November 2004 election, widening of Highway 1 was not assumed as a planned or funded improvement in the Recirculated Draft EIR – Additional Traffic Analysis for Highways 1 and 17 (UC Santa Cruz March 2006).

**Response to Comment LA-2-136.** The project description (page 4.14-28 of the Draft EIR) defines the existing and envisioned internal circulation system for analysis in the Draft EIR. The 2005 LRDP circulation plan, as described and analyzed in the LRDP EIR, includes restricting general traffic use of both Meyer Drive and Hagar Drive. Under this plan, Meyer Drive would be open only to transit and emergency vehicle access from Hagar Drive, but not to general traffic. Similarly, with the provision of the Meyer Drive bridge to the Hahn Peninsula, under the 2005 LRDP circulation plan, traffic on Hagar Drive between the Meyer Drive extension and McLaughlin Drive would be restricted. Private vehicles would be able to access the Hahn Peninsula but would be prohibited from traveling north on Hagar Drive. The University may consider the use of Meyer Drive for general traffic in the preparation of a management plan for special events. The Meyer Drive extension and the portion of Hagar Drive from the East Collector Lot access to McLaughlin Drive were not studied in the Draft EIR because, as set forth in the project description, these roadways would not be available to general traffic. The Draft EIR analyzed the reasonable worst-case scenario of concentrating all traffic using the main campus entrance on the lower

portion of Hagar Drive, the Hagar/Glenn Coolidge Drive connector, and Glenn Coolidge Drive. Please refer to Figure 25 on page 80 in the Draft 2005 LRDP.

**Response to Comment LA-2-137.** Comment noted.

**Response to Comment LA-2-138.** In determining which intersections would be included in the traffic study, existing intersection level of service and the project's contribution to the total intersection volume were considered. Intersections were selected for study by conducting a preliminary assignment of project traffic and determining whether the project would contribute more than three percent to the existing traffic volumes at any key intersection--thereby determining whether there was a possibility of a significant impact. If the project would contribute more than three percent to existing volumes, it was assumed to have the potential of contributing more than three percent under future conditions. Intersections so affected were studied in the context of full development under the 2005 LRDP in the year 2020.

The intersection of Laurel/Front currently operates at LOS C in both the AM and PM peak hours (Fehr & Peers, May 2004). In 2020 the 2005 LRDP project would contribute 51 trips to this intersection in the AM peak hour and 65 trips in the PM peak hour. These project trips equate to a project contribution of 2.7 percent and 2.4 percent in the AM and PM peak hours respectively. Because the project would not contribute greater than three percent in any of the planning horizons (i.e., 2010 or 2020) it was determined that the project would not cause a significant impact and therefore this intersection was not studied further.

The number of trips generated by campus population under the Final Draft LRDP would be reduced relative to the Draft LRDP. See Final EIR, Volume IV, Chapter 2, *Project Refinements*.

**Response to Comment LA-2-139.** As stated on Draft EIR page 4.14-22, peak-hour turning movement counts for the study intersections were conducted in October and November of 2003 and in May 2004 (data from Fehr & Peers 2003 and 2004; Draft EIR Appendix E). All traffic counts were conducted on a Tuesday, Wednesday or Thursday during on-campus peak hours.

**Response to Comment LA-2-140.** Please refer to Response to Comment LA-2-136.

**Response to Comment LA-2-141.** Under the Draft 2005 LRDP, approximately 2,500 parking spaces would be displaced as a result of the construction of new buildings on existing parking facilities. This is an estimate, since the exact locations and footprints of the new buildings that would be built on existing parking lots have not yet been developed. About 1,000 new parking spaces would be developed for new on-campus housing (including about 165 new spaces for the Family Student Housing Redevelopment Project). In addition, page 14.4-29 of the Draft EIR identifies the following potential new parking facilities, which are also identified in Figure 20 of the 2005 LRDP:

- The East Collector Parking Facility (currently called the East Remote parking lot) would serve as the primary on-campus parking facility and would be expanded. Improved access via the new Glenn Coolidge Drive/Hagar Drive connector road would serve to distribute vehicle traffic and improve peak-hour flows, while its location on the southeast edge of the campus core would serve to "capture" auto traffic outside the Academic Core.
- A new parking structure, accessed from Heller or Meyer Drives, would be constructed in the vicinity of Performing Arts.



- A new parking facility would be located in the north campus growth area.
- New parking spaces would be constructed in association with housing developments on the north campus lands, with access via the extension of Heller Drive and Chinquapin Road.
- New parking spaces would be constructed in association with the Family Student Housing Redevelopment Project planned for the existing FSH site, to replace and augment spaces currently available at the site.

While the precise number of spaces at each of these locations has not been determined, collectively they would accommodate about 3,100 net new parking spaces as proposed under the Draft 2005 LRDP. The 2005 LRDP does not prescribe a ceiling for the number of parking spaces on campus. It identifies a future parking supply based on the estimated capacity of identified parking facilities (see Figure 20 of the Draft 2005 LRDP). These facilities would meet the future parking demand, which was derived from the current ratio of parking spaces to campus population. In fact, parking spaces will be constructed as warranted by demand, as described in LRDP Mitigation TRA-3B.

Note that the Campus proposes to recommend to The Regents the adoption of the Final Draft 2005 LRDP (September 2006), which revises the Draft 2005 LRDP (January 2005) to reflect the Reduced Enrollment Growth Alternative previously analyzed in the 2005 LRDP Draft EIR and identified as the Environmentally Superior Alternative. The Final Draft 2005 LRDP anticipates that full implementation of the LRDP program would include development of up to 4,050 new parking spaces and displacement of up to 1,950 existing parking spaces, to provide up to 2,100 net new parking spaces, for a total of about 7,300 parking spaces on Campus by 2020. Over 900 of the new spaces would be associated with on-campus housing. For more information regarding the Final Draft 2005 LRDP, please see Final EIR, Volume IV, Chapter 2, *Project Refinements*.

**Response to Comment LA-2-142.** The 2005 LRDP includes the development of sufficient additional parking to meet the projected demand associated with campus enrollment growth. As stated in the Draft EIR “parking on campus is strictly controlled and enforced through the distribution of permits and restrictions. Ongoing transportation demand management programs have been effective, and future measures are expected to further reduce single occupant vehicle parking demand. Therefore, the total parking supply under the 2005 LRDP will be adequate to meet demand in 2020 and, in fact, the number of spaces included in the Draft 2005 LRDP may not be needed in 2020.” However, LRDP Impact TRA-3 identifies several potential parking-related impacts including the potential that the parking supply might not keep up with parking demand (see page 4.14-51 of the Draft EIR). The Draft EIR anticipates that demand could exceed supply at some times during the term of the 2005 LRDP, should infill development displace parking at a faster rate than new parking is created. LRDP Mitigation TRA-3B requires that the University monitor on-campus parking utilization rates annually and construct additional parking when demand approaches capacity. The implementation of LRDP Mitigation TRA-3B would provide for management of on-campus parking supply to ensure that the supply keeps pace with demand during campus growth.

Most parking will be funded by TAPS through parking and permit fees, with debt service spread out over time as needed. It is possible that parking fee increases could be needed to support future parking. Nonetheless, the Campus is committed to continue to build new parking to accommodate demand, as described in LRDP Mitigation TRA-3B.

While some drivers may seek off-campus parking to avoid the cost of parking fees on campus, the intent of the University's TDM program is to increase the use of alternative transportation to the campus and, thus decrease the overall volume of automobile traffic and, thereby, the demand for parking. This program is presently very effective, and the Campus will continue to seek means of increasing its effectiveness, as described in LRDP Mitigation TRA-2B.

**Response to Comment LA-2-143.** LRDP Mitigation TRA-3B requires annual monitoring of parking supply and demand and allows the Campus to project the point at which parking demand could begin to exceed supply. This annual monitoring and the requirement for the Campus to provide additional parking when projected demand approaches capacity, functions to link enrollment growth with the provision of adequate parking.

**Response to Comment LA-2-144.** Please refer to Master Response TRAFFIC-1 (Traffic Standards of Significance).

**Response to Comment LA-2-145.** CEQA requires the evaluation of impacts of the project described in the Project Description, which in this case includes a projected increase in on-campus housing for undergraduate and graduate students. The University analyzed on-campus housing demand (Sedway Group 2003) in the process of developing the 2005 LRDP, and has concluded that the housing goals included in the 2005 LRDP are reasonable, as discussed in Master Response ALT-5. The trip generation analysis is consistent with the Project Description; therefore, it is consistent with CEQA. Please also see Master Response POP-1, as to why the Draft EIR appropriately assumes that the housing under the 2005 LRDP will be built.

**Response to Comment LA-2-146.** The proposed project analyzed in the Draft EIR includes the proposed 2005 LRDP housing target, which is not a range. An increased on-campus housing scenario alternative was considered in the Draft EIR Alternatives section (please refer to Section 5.3 of the Draft EIR). Please also refer to Master Response ALT-5 (Increased On-Campus Housing Alternative).

**Response to Comment LA-2-147.** The trip generation of the main campus is based on actual traffic counts at the main campus' two entrances. The counts, along with existing student, staff and faculty population, were used to derive trip generation rates used to project future trips. The main campus trip rates reflect the actual level of transit, carpooling, and bicycling identified in the Spring 2004 mode share study (UCSC 2004), particularly by the student population. The 2300 Delaware Avenue site, in contrast, would be populated entirely by administrative and research staff and few if any students. Its trip generation characteristics are different from those of the main campus, because it would operate more like a research and development park or light industrial facility than a university campus. Therefore, the trip generation of the 2300 Delaware Avenue site is expected to be more intensive than the main campus. This more intensive trip generation was taken into account in the Draft EIR in projecting traffic associated with the 2300 Delaware Avenue Project.

The trip generation estimates in Draft EIR Table 4.14-10 represent the trip generation of both the main campus and 2300 Delaware Avenue. Approximately 10 to 13 percent of the main campus trips are trips going to/from 2300 Delaware Avenue, as shown in Table 4.14-10 and described in the table's footnote (a). The upper portion of the table derives the main campus trip generation and includes a reduction for a small number of trips between 2300 Delaware Avenue and the main campus, to avoid double counting.

The trips between the main campus and 2300 Delaware Avenue are accounted for in the lower portion of the table.

**Response to Comment LA-2-148.** The trip distribution on Draft EIR Figure 4.14-8 reflects the AMBAG model distribution for the UC Santa Cruz campus traffic analysis zones (TAZs). This evaluation considers only traffic from the UC campus zones to determine how much traffic takes specific routes. The distribution pattern reflects projected future residence patterns in which more students, faculty, and staff reside further from the campus (e.g., south county) than today. In making the model, AMBAG determined that people who live further from the campus most likely would use Highway 1 for longer distance travel.

**Response to Comment LA-2-149.** The proposed Home Depot project was included in the cumulative analysis because it was a proposed project at the time the Draft EIR was prepared. In addition, during preliminary scoping meetings the City of Santa Cruz and members of the public requested that the Home Depot project be included in the cumulative analysis to ensure its impacts were taken into account.

Historical annual traffic growth was not used to develop cumulative traffic volumes. Rather, projected cumulative traffic growth (excluding the campus) was obtained from the AMBAG travel demand model which utilizes the same data as 2004 population and employment forecasts prepared by AMBAG (2005). AMBAG's regional land use projections are the result of a collaborative process between AMBAG and local jurisdictions. The land use forecasts are used in the AMBAG travel demand-forecasting model to project traffic volumes to the years 2010 and 2020. The 2010 and 2020 model forecasts were used to derive growth factors that were applied to existing traffic volumes to project future traffic volumes. This method constitutes a generally accepted procedure using the best available tools.

Finally, because the LRDP would not be realized for 15 to 20 years, comparing the traffic associated with full development under the 2005 LRDP to existing traffic conditions would not offer meaningful analysis.

**Response to Comment LA-2-150.** Please refer to Response to Comment LA-2-136.

**Response to Comment LA-2-151.** Comment noted.

**Response to Comment LA-2-152.** The status of each intersection identified in the comment under cumulative conditions including the full implementation of the 2005 LRDP is described below.

- High/Laurent – As an all-way stop controlled intersection, this intersection must meet warrants for the installation of a traffic signal before traffic impacts will be considered significant. The intersection of High/Laurent does not warrant the installation of a traffic signal.
- Highland/High – As an all-way stop controlled intersection, this intersection must meet warrants for the installation of a traffic signal before traffic impacts will be considered significant. The intersection of Highland/High would not warrant the installation of a traffic signal.
- Delaware/Swift – Because this intersection currently meets warrants for the installation of a traffic signal, the relatively small amount of delay caused by the 2005 LRDP would constitute a significant impact and would require mitigation. The impact would be mitigated by installation of a traffic signal.
- Mission/King (west) – In 2020 with the project, this stop-controlled intersection would meet warrants for installation of a traffic signal in the AM peak hour but not the PM peak hour. Thus, there would be a significant impact in the AM peak hour but not in the PM peak hour).

- Bay/California – This intersection would be significantly impacted in the PM peak hour; therefore, mitigation is required.<sup>1</sup>

**Response to Comment LA-2-153.** Please refer to Response to Comment LA-2-136.

**Response to Comment LA-2-154.** The effectiveness of TDM measures is dynamic and is dependent on factors that are subject to change. TDM strategies must continue to evolve to meet the changing demands of the traveling public, and to adapt to new technologies. Mitigation measures identified in the Draft EIR are designed to ensure that the University's TDM program will continue to have this flexibility to meet changing conditions. Locking the University into measures that may be ineffective in 10, 15 or 20 years is contrary to the intent of the mitigation measure, which is to identify and implement the measures that will be most effective in reducing SOV trips at any given time. LRDP Mitigation TRA-2B commits the Campus to maintain an effective TDM program through a combination of measures that produces the best results cost-effectively. The key objective of the mitigation measure is to continuously improve the program by identifying and using the most effective combinations of measures to achieve, maintain and if possible improve a goal of 55 percent or higher non-auto mode share. The commenter is correct that Tables 4.14-17 and 4.14-18 were incorrectly referenced in LRDP Mitigations TRA-2A and TRA-2B, respectively. The error is corrected in the Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*, Revised Table 2-1.

**Response to Comment LA-2-155.** Please refer to Master Response TRAFFIC-1 (Traffic Standards of Significance).

**Response to Comment LA-2-156.** Please refer to Master Response MIT-1 (Government Code Section 54999 Obligations and University Fair Share Contributions).

**Response to Comment LA-2-157.** Development of the Eastern Access was not proposed as a mitigation measure for the reasons discussed in Master Response TRAFFIC-3.

**Response to Comment LA-2-158.** An analysis of impacts on Highways 1 and 17 was prepared and circulated for public and agency comment in the Recirculated Draft EIR – Additional Traffic Analysis. That document is available for review at UC Santa Cruz Physical Planning and Construction, Barn G, UC Santa Cruz, Santa Cruz and on the Internet at <http://lrdp.ucsc.edu/recirculated-draft-eir.shtml> and is included in Appendix A in Volume VI of the Final EIR.

**Response to Comment LA-2-159.** The intent of the special events analysis in the Draft EIR was to evaluate a reasonable worst-case scenario consisting of simultaneous full capacity on-campus events at existing campus venues, and at the Performing Arts Auditorium and the Event Center, two new venues that are proposed under the 2005 LRDP. The scenario that was evaluated represents the reasonable worst-case scenario because it evaluates the impact associated with the maximum number of visitor vehicles traveling simultaneously to and from the campus. Simultaneous full capacity evening events at all campus venues were considered a worst-case scenario because the two new venues would likely be in simultaneous use only in the evenings. It is unlikely that a full-capacity sporting event at the Event Center that started in the afternoon and ended in the evening, and thus coincided with the PM peak hour traffic, would occur in the same timeframe as a full capacity event at the Performing Arts Auditorium.

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<sup>1</sup> Bay Street/California Street intersection will not be significantly affected as the result of traffic generated by the Final Draft LRDP (September 2006) and mitigation will not be required.

Please note that LRDP Mitigation TRA-5D has been revised for increased effectiveness. Please see Final EIR, Volume IV Chapter 3, *Changes to Draft EIR Text*, Revised Table 2-1.

**Response to Comment LA-2-160.** Please refer to Master Response UTIL-1 (Section 5.2.15.3) regarding the need for a new desalination plant. The text on page 4.15-5 has been revised to clarify that subsequent phases of the desalination plant would be required in order to serve likely future growth in demand beyond 2020. Please see Final EIR Volume IV Chapter 3, *Changes to Draft EIR Text*.

**Response to Comment LA-2-161.** The University acknowledges that since the publication of the Draft EIR, the City has approved the IWP. See also Master Response UTIL-1 for additional information about the IWP.

**Response to Comment LA-2-162.** Please refer to Section 5.2.15.2 in Master Response UTIL-1, which summarizes both the demand projections of the campus and the system-wide demand forecasts. It also explains why it is not necessary for the University to prepare new forecasts of system-wide demand. The effects of “no campus growth” on water supply are addressed in the Draft EIR under Alternative 4, the No Project Alternative.

**Response to Comment LA-2-163.** Please refer to Master Response UTIL-1, which presents a summary of the City’s existing and future water supply, system-wide demand projections, and the water supply related impacts as evaluated in the Draft EIR.

**Response to Comment LA-2-164.** Please refer to Section 5.2.15.2 in Master Response UTIL-1, which explains why it is not necessary for the University to prepare revised system-wide demand forecasts. That master response also presents updated forecasts of system-wide demand prepared by the City.

**Response to Comment LA-2-165.** As indicated in Master Response UTIL-1, more information regarding the Soquel Creek Water District has been added to the discussion on page 4.15-7 of the Draft EIR. See Volume IV, Chapter 3, *Changes to Draft EIR Text*, in the Final EIR.

**Response to Comment LA-2-166.** The University’s recycling goal referred to on Draft EIR page 4.15-11 is from the 1988 LRDP EIR, Mitigation Measure 4.10-1, which indicates that the Campus will implement a comprehensive campus recycling and waste reduction program for both residential and office wastes with a goal to reduce the waste stream by 20 percent. Therefore, the statement that the Campus had achieved approximately 26 percent diversion of its waste stream and was in compliance with its recycling goal in 2003 is accurate.

As is indicated in footnote 3 on page 4.15-11 of the Draft EIR, the 26 percent diversion rate does not include construction waste. The Campus, like most municipalities, cannot achieve the 50 percent diversion rate without including construction waste recycling. In 2000 and 2001, when construction debris recycling was included in the campus waste diversion totals, 59 and 52 percent of the campus waste was diverted, respectively, as reported in footnote 3. However, it is unclear whether the Campus has met this diversion rate on a consistent basis because tracking diversion of construction waste is difficult as it is off-hauled by independent construction contractors. The Campus will explore ways to track diversion of construction waste.

**Response to Comment LA-2-167.** Please refer to Section 5.2.15.3.1 in Master Response UTIL-1, which explains why a project-only impact analysis was not developed in this EIR. That section also discusses the evaluation of the effects of off-campus population on water demand.

The University notes that at the time that the Draft EIR was prepared, the City had not adopted any thresholds of significance for evaluating water impacts. The Draft EIR uses standards of significance based on Appendix G of the CEQA guidelines. Based on these standards, the EIR concludes that campus growth in conjunction with other growth in the City's water service area would result in a significant cumulative impact on water supply (see LRDP Impact UTIL-9). Please refer to Master Response UTIL-1 (Section 5.2.15.3) for additional information about this impact.

**Response to Comment LA-2-168.** The conclusion that impacts on biological and cultural resources from utility development typically are less than significant is supported by the analysis in Chapter 2 of Volume III of the Draft EIR. The basis of this argument is that utility corridors typically are narrow, so that the impact footprint is relatively small. In addition, utility lines are most often placed in roadways or other previously disturbed areas that do not contain sensitive biological or intact cultural resources. In those instances where a utility improvement is proposed for construction in a previously undisturbed area, the Campus would implement applicable LRDP mitigation measures including pre-construction surveys for sensitive biological resources (LRDP Mitigations BIO-3, BIO-9, BIO-11, BIO-12, BIO-13, and BIO-14) and crew education and monitoring for cultural resources (LRDP Mitigation CULT-1), depending on location. There also would be a project-level environmental review of any storm drainage improvements that may be proposed in the future to serve the growth under the 2005 LRDP. As the analysis on pages 2-50 through 2-56 in Volume III shows, most of the storm drainage improvements would not result in significant or potentially significant impacts on biological resources. To the extent that there would be some potentially significant biological resource impacts (IIP-SW BIO-1, IIP-SW BIO-2, IIP-SW BIO-5, IIP-SW BIO-6, IIP-SW BIO-7) associated with storm water drainage improvements at some locations, these impacts would be mitigated to a less-than-significant level through avoidance or other measures. A similar conclusion, that any potentially significant impacts would be mitigated to a less-than-significant level, is drawn with respect to cultural resources (IIP-SW CULT-1).

**Response to Comment LA-2-169.** Please refer to Master Response UTIL-1 (Sections 5.2.15.2 and 5.2.15.3), which discusses the effect of campus growth under the 2005 LRDP (including the LRDP-related off-campus population) on water supply, and also why the University did not prepare revised system-wide demand forecasts.

**Response to Comment LA-2-170.** The 2005 data for the campus are presented in Draft EIR Table 4.15-3 and in the analysis reported on pages 4.15-34 and -35 because system-wide demand estimates for the period 2000 through 2020 are available from the City's Integrated Water Plan in five-year increments. At the time that the Draft EIR was prepared, actual 2004-05 water usage for the campus was not available. Therefore, the 2005 volume was derived by interpolating between 2003 and 2020 (see footnote to Table 4.15-3 on page 4.15-34). Since publication of the Draft EIR, 2005 water usage data for the campus has become available. The actual annual water consumption in 2005 was 189.5 million gallons, much lower than 225 million gallons estimated by interpolation. Also refer to Master Response UTIL-1 (Impacts on Regional Water Supply).

**Response to Comment LA-2-171.** Please refer to Section 5.2.15.2 in Master Response UTIL-1 for information about whether the campus's water demand with full development under the Draft 2005 LRDP falls within the City's demand projections for the campus. Please also see Section 5.2.15.3 of this response regarding the effects of the LRDP-related off-campus population on the water supply system, which explains why the water demand associated with the off-campus LRDP-related population should

not be added to the City's demand forecasts. The text on page 4.15-32 of the Draft EIR has been revised to make clear that the LRDP-related off-campus population within the City's service area also would contribute to the water demand, and thus to the need for a new water supply source. See Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*.

**Response to Comment LA-2-172.** Please refer to Section 5.2.15.3 in Master Response UTIL-1 with respect to the need for a new water supply source to meet the projected demand in the City's service area.

**Response to Comment LA-2-173.** Please refer to Section 5.2.15.4 in Master Response UTIL-1 with respect to the environmental consequences of developing a new water supply source.

**Response to Comment LA-2-174.** Please refer to Section 5.2.15.2 in Master Response UTIL-1, which explains why it is not necessary for the University to prepare revised system-wide demand forecasts. Contrary to the commenter's statement, the Draft EIR does not suggest that campus growth will not contribute to the need for a new supply source. The EIR clearly acknowledges that campus growth, in conjunction with other regional growth, would generate increased demand for water during normal and drought years, that the development of new water supplies could result in significant impacts, and that the contribution of the proposed project to this impact would be cumulatively considerable. On pages 4.15-36 and -37, the Draft EIR states that although the Campus will implement numerous mitigation measures to reduce the campus's contribution to the cumulative water supply impacts, the mitigation measures would not eliminate the campus's contribution to the need for a new water source. The Draft EIR concluded that there would be a shortfall in supply sometime after 2015. However, the City's Draft 2005 Urban Water Management Plan, published after publication of the Draft EIR, finds that in normal water years, the existing water supply system is capable of meeting the community's total annual water needs through 2020, including campus growth under the 2005 LRDP. Please see Master Response UTIL-1 (Section 5.2.15.3.1) for additional information about the City's Draft 2005 Urban Water Management Plan and the Draft EIR impact conclusion for LRDP Impact UTIL-9.

**Response to Comment LA-2-175.** The Draft EIR evaluates the impacts of the proposed project based on CEQA Guidelines Appendix G. According to the Appendix G, Section XVI (d), the applicable standard of significance is not how much of the available supply the project would use but whether the project's demand would necessitate the development of a new source of water, which in turn could result in significant environmental impacts. The evaluation of the impact on water supply in the Draft EIR is consistent with this standard of significance.

**Response to Comment LA-2-176.** Please see Master Response ALT-5 (Increased On-Campus Housing Alternative). Under the Increased On-Campus Housing Alternative, the Campus would establish a goal to house all new students under the 2005 LRDP (5,065 undergraduates and 1,885 graduate students for a total of 6,950 students) on campus. This would translate into providing housing on campus for 64 percent of all undergraduate students enrolled and 66 percent of all graduate students in 2020. For faculty, the housing goals would be the same as those under the 2005 LRDP. A trip generation estimate of this alternative showed that, should this level of on-campus housing be attained, the alternative would generate about 42 percent less traffic than would be generated by the proposed project. The alternatives analysis did not include a quantitative analysis of level of service impacts at off-site intersections under this alternative, but based on the estimated fewer trips in the peak hours, the Increased On-Campus Housing Alternative would add about the same number of trips to off-campus intersections in the Westside as were added under the Eastern Access (see discussion on page 4.14-49 and Table 4.14-20 in

the Draft EIR). Like the Eastern Access, traffic impacts at some of the intersections in the Westside would be reduced under the Increased On-Campus Housing Alternative, but not all of the significant traffic impacts of the project would be reduced to a less-than-significant level.

**Response to Comment LA-2-177.** Please refer to Master Response ALT-5 for citations and documentation regarding the Increased On-Campus Housing Alternative.

**Response to Comment LA-2-178.** Please refer to Master Response ALT-4 (Moffett Field Satellite Campus/ Silicon Valley Center Issues) and Responses to Comments I-26-2 through -4, -7, and -8.

**Response to Comment LA-2-179.** The environmental impacts associated with the Fort Ord Satellite Campus Alternative and with the Moffett Field site are discussed in Response to Comment LA-9-139 and Master Response ALT-4, respectively. The Moffett Field site poses a number of environmental constraints to development and development there will also result in environmental impacts. The Moffett Field site also has less capability to house a substantial part of the proposed program than does the Fort Ord site. Further, the NASA Ames contends the terms of development and the development entitlements within the NASA Research Park (NRP). There are no agreements in place between the University and NASA Ames regarding future UC development within the NRP. The University owns the Fort Ord site. For these reasons, the Fort Ord site provides a more feasible alternative than does the Moffett Field site, and that is why the Fort Ord Alternative was carried forward for detailed evaluation in the EIR and the Moffett Field site was not.

**Response to Comment LA-2-180.** The comment appears to address Draft EIR Figure 5-1. This figure shows land use plan options that the Campus considered during initial development of the LRDP, but did not carry forward. This figure was not revised since it is not pertinent to the Final Draft 2005 LRDP, which reflects the previously analyzed Reduced Enrollment Growth Alternative. Minor revisions have been made in Figure 5-3, which shows the footprint of Reduced Enrollment Growth Alternative as analyzed in the Draft EIR. This land use plan now represents the proposed project as described in the Final Draft 2005 LRDP (September 2006). Please refer to Final EIR, Volume IV, Chapter 2, *Project Refinements*, Figure 2-1.

**Response to Comment LA-2-181.** Please refer to Master Response PD-1 (Magnitude of Enrollment Growth).

**Response to Comment LA-2-182.** Consistent with CEQA guidance for a proposed land use plan (Section 15126.6(e)(3)(A)), the No Project Alternative for the 2005 LRDP was defined as continued operation under the previously-adopted 1988 LRDP. As explained in Section 5.4.4 of the Draft EIR, under the 1988 LRDP, student population grew at about the rate anticipated in the LRDP, but substantially less building space was constructed on campus than projected. Enrollment thus has outstripped building space, in large part due to State budgetary constraints that limited investment in capital projects during the 1988 LRDP planning period, despite increases in enrollment; this pattern is atypical of University growth in the past. Under the No Project Alternative, which is analyzed in the Draft EIR Section 5.4.4, student population growth would cease at 15,000 (the enrollment level envisioned in the 1988 LRDP), but some growth in faculty and staff would be anticipated, particularly in relation to new research initiatives. Up to 2.7 million gsf of building space could be developed, in addition to space already developed or approved, which would allow development to reach the level approved under the 1988 LRDP. Development could occur as needed to relieve overcrowding and to provide space to



accommodate new research initiatives as programmatic needs arise and funding becomes available. Based on current trends, it is anticipated that the enrollment level analyzed in the 1988 LRDP EIR would be reached in 2006-07, while development of all of the space envisioned in the 1988 LRDP might not occur until 2020 or later. Faculty and staff increases could occur simultaneously with new development.

The commenter suggests an alternative under which the incremental population growth allowed under the No Project Alternative should not occur until the facilities envisioned in the 1988 LRDP to support the 1988 LRDP student population are constructed. Because campus population is expected to reach about 15,000 in the 2006-07 school year, no further population growth would be permitted under this alternative. The alternative would diminish near-term population-related impacts, including impacts with respect to traffic and off-campus housing. However, the off-campus traffic impacts that did occur would still have to be considered significant and unavoidable because it would still not be possible to guarantee the implementation of mitigations by others. Furthermore, because new capital project funding from the State typically is responsive to growth in student enrollment, it is unlikely that the full amount of building space development and related infrastructure projected under the 1988 LRDP would occur in the absence or severe limitation of enrollment growth. Similarly development of building space, under the commenter's proposed alternative, most likely would occur primarily in relation to research initiatives or public/private joint ventures. This development could result in similar footprint-related impacts to those identified in the 2005 LRDP, depending on the extent of development.

With respect to the development of additional housing space under the commenter's proposed alternative, since housing on UC campuses is required by the University to be self-supporting, and since current trends indicate that on-campus housing demand at the 70 percent level projected in 1988 is unlikely to arise (as discussed in Master Response ALT-5 regarding the Increased On-Campus Housing Alternative), the construction of the full amount of housing projected under the 1988 LRDP would be unlikely given the small increase in enrollment remaining.

The commenter's proposed alternative would not meet the key central objective of the proposed project, which is to accommodate anticipated enrollment growth and program development, nor would it support increased breadth and depth of academic programs. These goals require continued growth in campus enrollment.

The full implementation of the 1988 LRDP under the No Project Alternative would result in fewer population-related impacts (traffic, housing and water demand) than the proposed 2005 LRDP, but would have similar biological, hydrologic and other footprint-related impacts, and similar construction-related impacts, such as construction noise, traffic and air quality. As discussed above, however, full development of the projected building space would be unlikely given the limited amount of enrollment growth under this alternative.

**Response to Comment LA-2-183.** As required by the CEQA Guidelines (Section 15126.6), the Draft EIR provides an analysis of each alternative and a comparison with the proposed project. Note that the Campus proposes to recommend to The Regents the adoption of the Final Draft 2005 LRDP (September 2006), which revises the Draft 2005 LRDP (January 2005) to reflect the Reduced Enrollment Growth Alternative previously analyzed in the 2005 LRDP Draft EIR and identified as the Environmentally Superior Alternative. For more information regarding the Final Draft 2005 LRDP, please see Final EIR, Volume IV, Chapter 2, *Project Refinements*. Revised Table 2-1 in Chapter 3 of Volume IV in the Final

EIR identifies the significant and unavoidable environmental impacts of the Final Draft 2005 LRDP (the Reduced Enrollment Growth Alternative).

**Response to Comment LA-2-184.** Please refer to Response to Comment LA-2-3 regarding revisions made in the Final EIR to correct errors in the list of significant unavoidable impacts provided in Chapter 6, *Other CEQA Considerations*. These typographic changes do not alter the impact significance conclusions presented in the Draft EIR. See also Volume IV, Chapter 3 of the Final EIR for changes to the Draft EIR text.

**Response to Comment LA-2-185.** Pursuant to the EIR's standards of significance, which are based on Section IV of Appendix G to the CEQA Guidelines (see also Draft EIR page 4.4-36), impacts on biological resources include impacts on sensitive natural communities. LRDP Impacts BIO-1, BIO-2, and BIO-4 address the impacts on northern maritime chaparral, coastal prairie, and riparian woodland all of which are considered sensitive natural communities (see Draft EIR, Section 4.4.1.6, page 4.4-9) With implementation of the proposed mitigation, the 2005 LRDP would not have a substantial adverse effect on these communities (see Draft EIR pages 4.4-38 to 4.4-46). Redwood forest and mixed evergreen forest are not considered sensitive natural communities, although they are described in the EIR (see Draft EIR, Section 4.4.1.5); therefore, the loss of these areas due to development under the LRDP would not constitute a significant impact on biological resources. CEQA also requires an EIR to include a separate discussion of significant irreversible environmental changes which would be caused by the proposed project should it be implemented (CEQA Guidelines Section 15126.6(c).) Accordingly, because the loss of 124 acres of redwood forest and mixed evergreen forest due to development would be irreversible, this was properly disclosed in Section 6.2 of the Draft EIR along with the impacts of the 2005 LRDP on sensitive natural communities.

**Response to Comment LA-2-186.** A consultant to the University recently prepared a study of UC Santa Cruz's contribution to regional economy (BAE 2005). This study indicates that, of the 64,000 UC Santa Cruz alumni since 1965, 60 percent reside in the greater San Francisco/Monterey Bay Area. About 17 percent of all UC Santa Cruz alumni (10,800 people) currently live in Santa Cruz County. While UC Santa Cruz alumni represented about 4.3 percent of the population of the county in 2005, this fact must be considered in the context of student residence prior to enrollment: 16.9 percent of graduates who first enrolled at UC Santa Cruz in 2005 had hometowns in the Monterey Bay Area or Santa Clara Valley. Furthermore, as documented in the BAE study, many of the alumni who have chosen to reside in Santa Cruz have made substantial contributions to the community by providing jobs and services for others (BAE 2005).

**Response to Comment LA-2-187.** The economic benefits provided by the University, listed on page 6-5 of the Draft EIR relate strictly to the multiplier effect and are presented to show the reader the scale of University related income/spending that is responsible for generating income and employment in the regional economy. Note that some of this information was used in determining which employment multiplier would be more appropriate to use for this campus (see page 6-8 of the Draft EIR). Also see Response to Comment LA-2-189 below. Provision of the additional information requested in the comment would not assist the EIR's analysis of environmental impacts.

**Response to Comment LA-2-188.** The University of California (2003) study is listed in the references of Chapter 6. A copy of the report is available for review during normal office hours by appointment with UC Santa Cruz Physical Planning and Construction.

**Response to Comment LA-2-189.** The Draft EIR (page 6-8) explains that according to the 2003 study, cited above, if it were assumed that 50 percent of the campus spending occurs within the 10-county<sup>2</sup> study area, the higher multiplier would apply. On the other hand, if 25 percent of the campus spending occurred within the study area, then the lower multiplier would be more appropriate. The lower multiplier was used because about 23 percent of the campus spending occurs within the county (see Draft EIR page 6-5).

**Response to Comment LA-2-190.** The jobs induced through the working of the multiplier process are reported in the Draft EIR (page 6-8). The Draft EIR explains that this number represents the bulk of the induced employment related to campus growth. The Draft EIR acknowledges that some additional jobs related to the magnet and incubator effects of the campus are likely but the number of such jobs cannot be estimated accurately. The incubator and the magnet effects cannot be predicted or quantified with any certainty at this time. This type of spin-off growth depends on a number of factors, including the programs, policies, reputation and academic orientation of the campus, the labor force and business environment in the area, and national economic trends and forces affecting those industries attracted by university research. Although there are instances of spin-off growth associated with the research programs at Stanford, UC San Francisco, UC Berkeley, and UC Irvine, there are numerous examples of UC campuses (UC Davis, UC Santa Cruz, UC Riverside) and CSU campuses where limited or no spin-off growth has been observed even though some of the campuses have been actively encouraging this type of development. Unless a specific combination of regional economic conditions exists, substantial spin-off growth would not occur. Quantifying such growth would be speculative.

**Response to Comment LA-2-191.** The Draft EIR (page 6-9) presents a number of reasons why an influx of a large number of persons into the study area in response to indirect and induced jobs would not occur. These include the fact that not only would there be unemployed local residents who would fill some of these jobs but also that some of these jobs would be filled by students and spouse/dependents of persons who move to the area to fill the new jobs at the campus. Usually, the types of jobs that are created or supported by the income multiplier process are in the retail and services sector and are not high paying jobs. Studies of individual relocation decisions and migration show that in making decisions to relocate from one area to another, individuals are influenced to a substantial extent by income prospects at the destination and that higher wages (associated with well paying jobs) are a major factor in determining relocation decisions (Bukenya, et al 2003; Keenan and Walker 2005)

**Response to Comment LA-2-192.** As discussed in Section 5.2.15.3 of Master Response UTIL-1, the new residential population that would be added to a community in the future is a function of the number of housing units that would be constructed in the community in the future. Therefore, the number of persons who would be added to the study area between 2005 and 2020 would not exceed the projections prepared by AMBAG, and the estimated additional population (1,322 persons reported on page 6-9) that would be added to the study area as a result of non-University jobs that are created in response to demand generated by 2005 LRDP growth would not be additional to the population that is projected for the study area in the AMBAG forecasts. The analysis in the EIR, therefore, correctly assumes that these 1,322 persons are a subset of the regional population projections. The impact of these persons on the demand for regional resources, such as housing, water, other utilities, and recreation, is addressed in the cumulative impacts analyses in the pertinent sections of the EIR.

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<sup>2</sup> The 10-county study area includes the nine Bay Area counties and Santa Cruz County.

**Response to Comment LA-2-193.** The typographical error in IIP-All Impact NOIS-1 on page 2-7 has been corrected by deleting the word “not.” With that correction, the statement is consistent with the analysis on pages 2-72 and 2-73 of Volume III. See Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*.

**Response to Comment LA-2-194.** The main concern with respect to these improvements is the potential for impacts to sensitive biological and cultural resources. In order to evaluate the potential impacts of access roads and the proposed improvements on these resources, it is important to know the approximate alignments, length, and width of the access roads and the location and footprints of the proposed improvements. That information is presented in Draft EIR Table 2-3 and in graphics that are included in Appendix A, Volume III. Based on this information and large-scale maps of the campus, the biologists and archaeologists were able to conduct surveys for the Draft EIR and determine whether the construction of the proposed improvements and the access roads would result in a significant or potentially significant impact on sensitive biological or cultural resources.

Most of the access routes that are constructed for the proposed IIP project would be temporary, and would be removed and revegetated or otherwise restored once the specific storm drainage improvement is constructed. Only those new access routes providing access to a storm drainage improvement site that requires periodic maintenance would be retained. Where existing trails, paths or service roads provide access to a new storm drainage improvement, those trails, paths and roads would remain in place unless the Campus elects to remove those for other reasons.

**Response to Comment LA-2-195.** IIP-SW Impact AES-1 addresses the visual impacts both during the construction of the proposed improvements and after construction is complete. Because some of the improvement sites would not be visible from public gathering places or from roads and paths on the campus, construction-phase disturbance or any long-term modifications to the visual landscape at these locations would not be a concern. Table 2-2b in the Draft EIR identifies the level of visibility of the project sites (high, moderate, low, or not visible from publicly accessible areas). This table was used to determine which project sites would be highly to moderately visible such that a temporary or a permanent change to visual resources at these sites could be a concern.

With respect to the comment related to the detention basin (IIP Item 60), the Campus anticipates that at all detention basins, either natural vegetation will be allowed to grow in the detention basins, although it could be removed if sediment accumulates and detention basin needs cleaning out; or, the basin could be rock-filled, like the existing detention basin north of Kerr Hall above Steinhart Way. In either case, the new detention basins would be similar in appearance to existing detention basins on campus. Note that the detention basin (Item 60) would not be visible from Kerr Hall but it would be visible from the path between McHenry and Kerr Hall. To the greatest extent feasible, access routes use existing or abandoned roads, and have been carefully selected to minimize topographic and vegetation disturbance. In most cases, the temporary routes descend into drainages, would be visible only from close range, and would be restored to their natural conditions when construction is complete. For these reasons, the Draft EIR concludes that the Infrastructure Improvements Project’s impact on visual resources due to implementation of the storm drainage improvements would be less than significant.

**Response to Comment LA-2-196.** The reconnaissance level survey of the project sites required pursuant to LRDP Mitigation BIO-3A was completed during the preparation of the Draft EIR and was the basis of the initial assessment that approximately 0.85 acres of waters of the United States including jurisdictional

wetlands would potentially be filled as a result of project implementation. The text on page 2-50 has been revised to clarify that LRDP Mitigations BIO-3B through 3D will be implemented to reduce the IIP's potential impact on waters of the United States. Please see Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*.

**Response to Comment LA-2-197.** A number of potentially significant historical resources have been identified in close proximity to storm water drainage improvement sites included in the Infrastructure Improvements Project. As identified in Table 2-7 of Volume III in the Draft EIR, the preliminary project design options and associated access routes were assessed for their potential to result in impacts to each of the identified features, and means of avoiding impacts to each of the resources were identified. No impacts are anticipated.

Conditions could emerge in the process of final design or construction that would make it impossible to completely avoid impacts to a resource. For example, if there were an obstacle along an identified access route (such as large trees too close together to allow the necessary equipment to pass), it might be necessary to change the access route, and the route might then pass closer to the resource and make it vulnerable to vibration effects. In such a case, additional measures to protect the resource (such as detailed recordation and documentation to preserve the significant information represented by the resource, and shoring of unstable structures) would be identified and carried out. In most cases, measures of this type would preserve the significance of the resource. There is at this time no expectation that any significant historical resource would be destroyed or demolished through implementation of the proposed project, even if there are small changes in project design, because there is some flexibility in how project elements will be designed and constructed and in the access routes that can be used, and it is expected that this will make it possible to avoid resource impacts.

LRDP Mitigations CULT-3A and -3B were included in IIP-SW Mitigation CULT-1B to provide for the unlikely event that a significant resource cannot be avoided and will be destroyed or demolished, and the significance of that resource cannot be fully captured through documentation and data recovery. The 2005 LRDP Draft EIR acknowledges that there might be rare instances during the planning horizon when an unmitigable impact would occur. Because it is not anticipated that this outcome will occur during implementation of the Infrastructure Improvements Project, the residual impact to cultural resources from this project was assessed as less than significant.

**Response to Comment LA-2-198.** The potential for construction impacts from the Infrastructure Improvements Project is discussed on page 2-67 in Volume III of the Draft EIR under IIP-All Impact HYD-2. The contractor for each component of the project would need to implement a SWPPP, which would identify potential sources of pollution associated with the proposed construction and describe runoff controls to be implemented during and after construction. Also, as discussed on page 2-19 of Volume III of the Draft EIR, in-channel work would only be conducted during the dry season when most of the drainages are dry. If water were present, it would be temporarily diverted around the construction site and returned to the channel downstream. The discussion of access routes under Section 2.3.3.5 states, "The access routes proposed were designed to minimize the need for grading and vegetation removal. Consistent with Campus standards, all roads will have drainage facilities sufficient to prevent erosion on or adjacent to the roadway; in areas of high erosion hazard, erosion-proof surfacing would be used." These design features would serve to limit the potential erosion impacts that could occur during construction.

**Response to Comment LA-2-199.** Currently there are 138 children living in FSH (Wolff 2006). Based on the current ratio of children per housing unit, it is projected that there would be about 276 children living in the redeveloped and expanded complex.

As noted in Volume III, Section 3.4.3.3 of the Draft EIR, the Family Student Housing Project is in the schematic phase of design. However, the recreation facilities at FSH will include the playing field to the south of the housing complex, the playground outside the Child Care Center, informal recreational spaces with amenities such as picnic tables and shade structures, and small tot-lots. In addition to these recreation spaces at FSH, all recreational facilities on the campus are available for use by all UC Santa Cruz students/affiliates and the surrounding community.

**Response to Comment LA-2-200.** As stated on page 3-15 of the Draft EIR, the FSH Redevelopment Project will have bicycle paths. As explained on page 3-11 of the Draft EIR Volume III, parking would be provided in garages at the ground level for the “double corridor” prototype buildings. A “tuck-under” parking space would be provided for each unit of town housing. Bicycle parking would be distributed throughout the site near individual buildings. The precise location of these facilities within the development footprint is not necessary for the analysis of project impacts.

The present level of planning for the FSH Redevelopment Project does not include detailed plans for bicycle storage and/or racks, nor does it include detailed plans of sidewalks and other pedestrian facilities. UC Santa Cruz has Campus Standards and Guidelines for the planning and design of campus facilities, which include requirements for bicycle access and parking, pedestrian facilities, and compliance with local, state, and federal requirements for accessibility. Campus Standards and Guidelines would be applied as detailed site-specific plans are developed. The present level of detail is sufficient to evaluate the potential transportation impacts of the project.

**Response to Comment LA-2-201.** Individual water meters are not planned for the FSH Redevelopment Project at this time. However, as mentioned in the Project Description, the use of sustainable designs will be encouraged in the construction of FSH. This will include the installation of very high efficiency plumbing fixtures and the selection of appliances that meet Energy Star criteria. Also, please refer to revised water conservation measures under LRDP Impact UTIL-9, in the Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*, Revised Table 2-1.

**Response to Comment LA-2-202.** As stated on page 3-20 of the Draft EIR Volume III, recycling containers would be provided near each dumpster. Campus recycling programs are described on page 4.15-10 of the Draft EIR, Volume II.

**Response to Comment LA-2-203.** Colleges and University Housing Services (CUHS) has analyzed the financial feasibility of the project and has concluded that the project is financially feasible. Phase 1 of the FSH project is included in CUHS’s 10-year plan (UC Santa Cruz CUHS 2006).

**Response to Comment LA-2-204.** Draft EIR Figure 3-3 shows the proposed project superimposed on the existing facility.

**Response to Comment LA-2-205.** Draft EIR, Volume III, page 3-23, has been revised to indicate that the project-level analysis is tiered from the analysis in Volumes I and II of the Draft EIR. See Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*.

**Response to Comment LA-2-206.** The Draft EIR acknowledges that the FSH site is visible from several locations on the campus. The visual simulation in Draft EIR Figure 4.1-12 provides the EIR reader with a clear image of how the proposed complex would look in relationship to other development and landscape features nearby.

**Response to Comment LA-2-207.** Draft EIR Figure 4.1-12 (Volume I) provides an accurate representation of how the FSH complex will appear from Empire Grade Road. As explained in the discussion of FSH Impact AES-3, Volume II, page 3-26, the tallest buildings will be positioned against a dense screen of tall, compacted trees, thus diminishing the impression of height.

**Response to Comment LA-2-208.** Most of the mature trees that would be removed from the central portion of the site were planted as part of the landscaping of the existing development, although some redwood trees could also be removed. However, as directed by LRDP Mitigation AES-5C, the Campus will direct the designers and construction contractors to minimize the removal of mature trees that are on the perimeter of the site, especially those that are along the southern boundary of the project, so that they would continue to screen the development as viewed from Empire Grade Road and Heller Drive. Additional trees would be planted as part of the landscaping of the new development.

**Response to Comment LA-2-209.** As discussed in the Draft EIR, the proposed redevelopment of the FSH would not have a direct substantial adverse effect on any special-status plant species or on California red-legged frog (CRLF). Regarding impacts to woodrats, please note that a survey of the woodlands that would be affected by the FSH project was conducted by the project biologists during the preparation of the Draft EIR. That survey did not reveal any woodrat nests within the woodlands. Furthermore, only one woodrat nest has been observed outside of the north campus in the surveys that have been conducted on the campus. Therefore, the potential for the FSH project to affect woodrats nests is considered low. However, because woodrat nests could be established in the woodlands before commencement of construction at the FSH site, to avoid any impacts to the species, the Campus will require the implementation of LRDP Mitigation BIO-14, which requires preconstruction surveys of the affected area for active woodrat nests. The text in Draft EIR Section 3.5.4.2 of Volume III has been updated to reflect this information. For the revised text, please see Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*.

In addition, as described in Draft EIR Section 4.4, *Biological Resources*, Section 4.4.2.6, *Effects of Timberland Conversion*, removal of redwood trees and mixed evergreen forest would not have a significant adverse effect on sensitive species or sensitive natural communities. However, any tree removal that is considered timberland conversion would be subject to the permitting and planning requirements of the Z'berg-Njedly Forest Practice Act and its implementing regulations.

**Response to Comment LA-2-210.** The significance thresholds for evaluation of both construction and operational noise are presented in Draft EIR Section 4.10, page 4.10-11. With respect to construction noise, the significance threshold used in the Draft EIR is 80 dBA  $L_{eq}$  daytime and evening, and 70 dBA  $L_{eq}$  nighttime.

**Response to Comment LA-2-211.** The analysis of school impacts under LRDP Impact PUB-3 adequately addresses the impact from the redevelopment of the FSH complex. As discussed on page 4.12-14, the Santa Cruz School District (SCSD) uses a student generation rate of 0.261 student for every dwelling unit on the campus. Applying that rate to the total number of additional units that would be

constructed on campus (201 units for student families under the FSH Redevelopment Project and 125 units for faculty and staff for a total of 326 additional housing units for families on the campus), the Draft EIR estimates that 85 school age children would be generated by this new housing (Draft EIR page 4.12-14). As discussed in the Draft EIR and further explained in Response to Comment LA-2-119, the addition of these 85 students to the SCS D schools including the nearby elementary school would not result in a significant impact. Since the commenter is concerned about the near-term effect of FSH Redevelopment Project only, additional information is provided below which also shows that the FSH Redevelopment Project will not result in significant impacts on local schools.

With the redevelopment of the FSH complex, there would be 201 additional apartments for student families on the campus. If the student generation rate is applied only to the 201 new FSH units, the number of school-age children generated would be 52. Assuming that 55 percent of these are elementary school students (see Response to Comment LA-2-199 as to how this percentage was derived), the total number of additional elementary school children associated with FSH Redevelopment Project would be about 29 students who would likely attend the nearby Westlake Elementary School. That school currently has capacity for 63 additional students and therefore would be able to accommodate the students from the FSH Redevelopment Project.

**Response to Comment LA-2-212.** Please refer to Response to Comment LA-2-199.

**Response to Comment LA-2-213.** The Draft EIR, Volume III, Table 3-8, shows a detailed year 2010 trip generation estimate of the FSH Redevelopment Project based on the project description. Table 3-9 shows the year 2010 trip generation for the level of growth of the 2005 LRDP estimated to occur in a six-year period. The LRDP trip generation is derived from a straight-line interpolation between existing (2004) traffic counts and 2020 trip estimates. Since the interpolation reflects six years of a 16-year program of overall campus growth, it represents about 37 percent of the campus' total growth. Therefore the traffic associated with the FSH project (one of the major projects during the six year planning period) would appear high relative to the LRDP's growth. Also, the FSH project-level year 2010 evaluation does not include trips generated by the 2300 Delaware Avenue site. Each project-specific evaluation is conducted separately (see pages 3-57 and 4-47 in Volume III of the Draft EIR, but each also addresses the cumulative impacts of the project and other campus and regional growth that are projected to occur in the same timeframe as full development of the proposed project.

**Response to Comment LA-2-214.** The analysis of cumulative impacts in the Draft EIR takes into account the traffic contributions of the FSH Redevelopment Project. There would be residual impacts following mitigation of 2020 cumulative impacts, as noted by the commenter. These are addressed in LRDP Impacts TRA-1 and TRA-2, Section 4.14 of Volume II of the Draft EIR. As reported in that section, the residual cumulative traffic impact would be significant and unavoidable, even after mitigation.

**Response to Comment LA-2-215.** As shown in Draft EIR Table 3-3, the proposed project would result in an annual demand for about 16 million gallons of water. If this demand is compared to the currently available reserve capacity 300 million gallons (as noted in the Draft EIR, Volume II, page 4.15-34), the comparison shows that the incremental demand for water associated with the proposed project would be easily met by the existing supplies and that the proposed FSH Redevelopment Project would not require the development of a new water supply source.



Regarding the discussion of cumulative impacts (LRDP Impacts UTIL-9 and UTIL-10) of campus growth under the 2005 LRDP, the proposed FSH Redevelopment Project would contribute to the significant and unavoidable cumulative impact on water supply but would not exceed it. For revised text, please see Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*. Please note that FSH Project water demand was included in the total projected demand from all development under 2005 LRDP.

**Response to Comment LA-2-216.** The Draft EIR lists the impacts of the FSH Redevelopment Project that were found to be significant and unavoidable in two places. Table 3-1, Family Student Housing Redevelopment Project Summary of Impacts and Mitigation Measures, starting on page 3-1, lists all the impacts and Mitigation Measures. They are also listed on page 3-67 of the Draft EIR, Volume III, under Section 3.6.2, *Significant Impacts of the Proposed Project*.

**Response to Comment LA-2-217.** Please refer to Responses to Comments LA-2-193 through LA-2-236 for responses to specific concerns about the adequacy of the environmental analysis for these projects.

**Response to Comment LA-2-218.** The commenter is correct in that the text on Draft EIR, Volume III, page 4-14, should have referenced the “Technology Incubator Project, described below.”

**Response to Comment LA-2-219.** The commenter suggests that Building C would not be able to accommodate all the described activities. Draft EIR, Volume III, Table 4-2 on page 4-11 shows the space that would be allocated to service and storage uses in Building C (25,000 asf). The specific service and storage uses described on pages 4-13 to 4-14 include all the potential uses that are being considered for accommodation in this space. Not all of these uses would actually be located at the 2300 Delaware Avenue site.

**Response to Comment LA-2-220.** Unlike Building C, which would be developed for a variety of uses, Buildings A and B are already developed to provide office space and would be used for that purpose. Therefore, a space allocation table for Buildings A and B is not necessary.

**Response to Comment LA-2-221.** Page 4-17 of Chapter 4 in Volume III of the Draft EIR states that there are 270 regular parking spaces and seven ADA-accessible parking spaces at 2300 Delaware Avenue, for a total of 277 parking spaces at 2300 Delaware Avenue, consistent with the traffic section (see page 4-57 in the same chapter).

**Response to Comment LA-2-222.** The fire station closest to 2300 Delaware Avenue is Fire Station #3 at 335 Younglove Avenue. 230 Walnut Street is the location of the Headquarters of the City of Santa Cruz Fire Department. The correction is noted.

**Response to Comment LA-2-223.** A Coastal Development Permit would be required if new development or change in the use were proposed at the 2300 Delaware Avenue site. The 2300 Delaware Avenue Project does not require any development or alterations to the exterior of the buildings nor does it propose any change to the overall use of the site. The University will seek a Coastal Development Permit if required for the proposed project.

**Response to Comment LA-2-224.** The Draft EIR acknowledges that employees at 2300 Delaware Avenue likely would contribute to increased use of the trails and open space areas around Antonelli Pond and this increased use could result in substantial physical deterioration of recreational facilities (Draft EIR Volume III, DA Impact REC-1). The Draft EIR includes DA Mitigation REC-1A, -1B and -2 to address this impact. With respect to impacts to other City parks as a result of increased use by 2300 Delaware

Avenue employees, it is anticipated that the residences of these employees would be rather widely distributed, particularly since only limited new housing is expected to be developed in the City of Santa Cruz under AMBAG forecasts. While these employees and their families would be expected to use local parks, it would not be expected that this use would be concentrated in any one area of the City or County (with the exception of Antonelli Pond, which is adjacent to the project site), but would, instead, be distributed among the residence locations of these employees. For this reason, it is not anticipated that 2300 Delaware Avenue employees would make a discernable contribution to the use of any single local park, and a significant impact is not anticipated.

**Response to Comment LA-2-225.** Please refer to Responses to Comments LA-2-120, -121, -122, -123, -124 and -125.

**Response to Comment LA-2-226.** Please refer to Response to Comment LA-9-66.

**Response to Comment LA-2-227.** The trip generation estimates in Draft EIR Table 4-8 are based on the building square footage. The trip generation rates are from the Institute of Transportation Engineers' Trip Generation Manual (7<sup>th</sup> Edition). Building square footage is a more reliable independent variable than the number of employees for trip generation because building size is less subject to change and variation than building population. It is important to note that the estimated employee "capacity" of a building is higher than the actual occupancy of the building. This is because not all employees are present on any given day. Typically 15 percent to 25 percent of employees representing the building's capacity are absent. ITE's trip generation rates reflect typical building occupancies. Additionally, for this type of facility, employees commute at different times of the day, so the peak hour generation does not reflect all of the site's employees traveling at the same time. The footnote simply states that 30 percent of the trips generated by the 2300 Delaware Avenue site are between the site and the main campus. This information is important to the 2005 LRDP trip generation estimates, which include the 2300 Delaware Avenue site traffic as a separate line item. It is separately identified in both the program-level and the project-level analyses; therefore the trips are not double counted in the 2005 LRDP trip generation estimates.

**Response to Comment LA-2-228.** Based on the standards of significance used in this Draft EIR, the intersections of Mission/King-Union and Mission/Laurel are not significantly impacted, despite increases in delay or worsening of the levels of service, because the project contributes three percent or less to the traffic volume at either intersection. Also refer to Master Response TRAFFIC-1 regarding traffic impact significance standards.

**Response to Comment LA-2-229.** Based on the standards of significance adopted by the City and used in this Draft EIR, the two identified intersections are not significantly impacted, and therefore mitigation is not required.

**Response to Comment LA-2-230.** Currently, UC Santa Cruz provides all faculty and staff the opportunity to purchase annual bus passes for \$3.00 per month, which allows the staff or faculty member to ride any SCMTD bus countywide at no extra charge. It is expected that this current service would be continued for employees at the 2300 Delaware Avenue site. Further increasing the subsidy would not be expected to increase ridership.

**Response to Comment LA-2-231.** The 2300 Delaware Avenue site is expected to generate parking demand consistent with current campus parking characteristics for staff and faculty. The parking requirement for Research and Development Facilities, under the City of Santa Cruz zoning code, requires

parking to be calculated in one of two ways (whichever is greater): (1) one space for every 325 square feet of building space, or (2) one space for every two employees. Based on building size the 2300 Delaware Avenue site would be required to provide 495 parking spaces. Based on projected employees, the 2300 Delaware Avenue site would be required to provide between 332 and 391 spaces, depending on how many employees would be present on a typical day. There are currently 277 parking spaces at the site.

The City of Santa Cruz requirements result in parking ratios of 0.63 and 0.50 spaces per employee respectively. These parking ratios are 60 percent to 100 percent higher than the documented campus-wide parking demand among staff and faculty at the main campus (Transportation and Parking Services (TAPS) Spring 2004 Parking Utilization Survey). Based on the TAPS data, the University does not anticipate that faculty and staff at 2300 Delaware Avenue site would generate parking demand at the parking ratios required by the City, although the facility may generate parking demand at higher ratios than documented on site. The Draft EIR provides for monitoring of parking demand, and the provision of additional parking should the demand exceed supply. DA Impact TRA-2 and LRDP Mitigation TRA-2A remain relevant.

As a State owned property located within the Coastal Zone, 2300 Delaware Avenue site is subject to California Coastal Act requirements, and not to the City's local coastal program (LCP). Therefore, the City's parking standards are not relevant to the proposed project. The Coastal Act does not set specific standards for parking, but does require that a development include adequate parking or a substitute means of serving the development with public transportation (California Coastal Act Section 30252). The University anticipates that the existing parking on the site, in conjunction with University's TDM measures to develop and encourage the use of alternative transportation and limit SOV traffic to the site, will meet the Coastal Act requirement for adequate parking.

**Response to Comment LA-2-232.** The CEQA threshold of significance used in this analysis indicates that a project would have a significant impact if it would: (1) require or result in the construction or expansion of water facilities, which would cause significant environmental effects, and/or (2) result in the need for new or expanded water supply entitlements due to insufficient water supplies available to serve the project from existing entitlements and resources (see Draft EIR Volume II, Section 4.15, *Utilities*). Water use for the 2300 Delaware Avenue Project was compared to the existing system-wide demand in order to demonstrate that the incremental increase in demand from this project would not be considered significant. Comparing the project's water demand of 3.4 million gallons per year to remaining system capacity, as requested in the comment, would show that the 300 million gallons per year of existing surplus water (see Draft EIR Volume II, page 4.15-4) would be adequate to serve the project during normal years. During drought years, while supply falls severely short of demand, the 2300 Delaware Avenue project alone would not warrant development of a new supply source to address drought supply issues, as further discussed below.

As indicated in the Draft EIR Volume II, Section 4.15, *Utilities*, and elaborated on in Master Response UTIL-1, the need for a new supply source initially to address drought conditions is due to existing system-wide demand, as well as anticipated cumulative growth. Likewise, the need to ultimately expand this new source to provide for adequate supplies during normal years, which is likely to occur beyond 2020, is also due to anticipated cumulative growth. The 2300 Delaware Avenue Project alone would not warrant such a new source to address either drought or normal conditions. As the project would not

require new or expanded entitlements, or the construction of new or expanded water supply facilities, the project would not result in a significant water supply impact under CEQA (see Draft EIR Volume III, page 4-60).

**Response to Comment LA-2-233.** Please see Response to Comment LA-2-232 for a discussion of the 2300 Delaware Avenue Project's water supply impacts during drought conditions.

**Response to Comment LA-2-234.** The cumulative impacts of campus growth under the Draft 2005 LRDP, including the 2300 Delaware Avenue Project, are adequately addressed under LRDP Impacts UTIL-9 and UTIL-10. Moreover, the project specific analysis of water supply issues for 2300 Delaware Avenue provided in Draft EIR Volume III correctly indicates that the project's contribution to these impacts would be cumulatively considerable (see Draft EIR Volume III, page 4-61). This and other cumulative impacts of the project were not acknowledged separately in Table 4-1, because they were fully accounted for in the Draft EIR analysis of the Draft 2005 LRDP (Volumes I and II).

**Response to Comment LA-2-235.** Draft EIR, Volume III, Table 4-1 on pages 4-4 through 4-7, lists all impacts of the proposed project, including those found to be significant and unavoidable.

**Response to Comment LA-2-236.** The Lower Density Laboratory Space Alternative differs from the proposed project only with respect to the use of Building C, and that the use of the building under the proposed project does not involve relocation of any employees from west side leases.

However, under the proposed 2005 Draft LRDP, a net total of 575 University employees would work at facilities on the west side. Since under the Lower Density Lab Space Alternative, the 2300 Delaware Avenue facility would accommodate only 423 employees (300 in Building A and B and 123 in Building C), the University would seek to accommodate up to 152 employees in west side leases. Occupancy of leased spaces would be subject to project-specific environmental analyses as appropriate.



REC'D JAN 10 2006  
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January 10, 2006

Mr. John Barnes  
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Re: Comments on University of California, Santa Cruz ("UCSC") 2005-2020  
Long Range Development Plan ("LRDP") Draft Environmental Impact  
Report ("DEIR")

Dear Mr. Barnes:

The County of Santa Cruz Board of Supervisors (the "County") has requested that this Office review and submit its comments on the LRDP and DEIR. Our comments are in addition to those submitted by other County departments and the individual members of the Board.

Based upon our review, we conclude that the DEIR for the LRDP does not comply with the basic legal requirements of the California Environmental Quality Act ("CEQA") particularly with respect to its analysis relating to water supply, housing, and consideration of project alternatives. Pursuant to Public Resources Code § 21092.1<sup>1</sup>, the necessary revisions to the DEIR will result in significant new information being provided to the public that will necessitate recirculation of the DDEIR.

We have divided our comments into eight general subject areas as follows:

**1. LRDP and Project Description**

- The primary stated purpose of the LRDP DEIR is to provide environmental clearance to allow an increase of approximately 7,000 students and 1,500

<sup>1</sup> All subsequent statutory references are to the California Public Resources Code, unless otherwise indicated.

faculty and staff at UCSC above what is allowed under the 1988 LRDP. In addition, the LRDP purportedly authorizes the construction of over four million gross square feet of additional building space to accommodate this growth in enrollment. This constitutes an almost 100% increase over the amount of development that currently exists on campus. The DEIR does not explain why such a large-scale building expansion is necessary to accommodate this growth in light of the recognized negative impacts of such construction.

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- The LRDP makes clear that it does not constitute a mandate for growth, nor is it a detailed implementation plan for development, and it does not commit the campus to carrying out development on any given time line. (Page 6, LRDP). Consistent with this concept, the Physical Planning Principles and Guidelines Chapter of the LRDP states that the Physical Planning Principles (which will guide campus development) are not intended to serve as planning restrictions, but will guide future planning of individual projects, “whenever feasible”. Furthermore, the land use patterns and goals stated in the LRDP, such as respect for the natural environment, integration of the natural and built environments, maintaining UCSC’s core configuration, and encouraging sustainability and efficiency in building layouts are all qualified by the statement that these principles will be implemented “where feasible” or “where possible”. (Page 47, LRDP). The DEIR’s project description should recognize that the LRDP does not require future development to comply with the specific requirements of the LRDP. Even the boundaries of the land use designations and the land use plan are “intended to provide a general framework for campus uses and may be adjusted based on field conditions at the time of implementation as long as the overall area with a given land use remains the same.” (Page 62, LRDP). This undermines the value of the DEIR as an information disclosure document because actual future development, as well as the location of this development, could be very different from what is contemplated in the DEIR. In addition, the DEIR should not rely upon the planning principles in the LRDP as mitigation measures because the planning principles are not enforceable on the actual development as required by CEQA.
- Finally, the LRDP proposes a water supply strategy that purports to build on existing conservation programs and explore options for new source development, including the viability of a possible on-campus water supply source, subject to test pumping and aquifer capacity. (Page 86, LRDP). To the extent such new sources of water supply will involve reasonably foreseeable impacts to the environment including the construction of new

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facilities, these new facilities should be disclosed in the project description and analyzed in the DEIR See *Santiago County Water Dist. v. County of Orange* (1982) 118 Cal.App.3d 818, 830 [DEIR for sand and gravel mine failed to analyze construction of related infrastructure]. In particular, the project’s reliance on the desalinization plant as a future source of water supply should be analyzed and disclosed in the project description.

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**2. Aesthetics**

- The DEIR contains substantial information and analysis regarding the aesthetic impacts of the proposed UCSC expansion. With respect to some viewshed impacts, the DEIR concludes that significant effects can be mitigated. On the other hand, with respect to other impacts on scenic resources, the DEIR concludes that these impacts are significant and unmitigatable, i.e. that LRDP development could substantially damage scenic resources on campus or on the lower campus meadows, damage the aesthetic quality of the Cowell Ranch Historic District as a scenic resource, degrade the existing visual character of the campus in adjacent areas, and create new sources of substantial light and glare on campus. In response to these scenic and aesthetic impacts, the LRDP and DEIR propose numerous mitigation measures, which upon close scrutiny are not mitigation measures at all. For example, it is proposed that the UC Santa Cruz Design and Advisory Board “shall consider” effects on scenic resources (AES Mitigation Measure-3A). This mitigation measure is inadequate because the Design Board is not required to make findings of consistency with the LRDP and is not required meet any performance standards relative to the design concepts contained in the LRDP.
- AES Mitigation Measure-3B provides that the campus shall limit the removal of natural vegetation close to development of meadow edges, “to the extent feasible.” What is the feasibility of the removal of vegetation based upon? Is such removal consistent with the Biological Resources section of the DEIR?
- Similarly, AES Mitigation Measure-4 provides that the impact to the Cowell Ranch Historic District shall include a buffer of at least 200 feet “to the greatest extent feasible.” What will feasibility be based upon?
- With respect to the potential to substantially degrade the existing visual character of the campus on adjacent areas, the DEIR proposes that for projects in a redwood area, building heights will be designed to be below the height of the surrounding trees “to the extent feasible.” (AES

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Mitigation Measure-5B). Again, what will feasibility be based upon? For impacts that are unmitigated and significant the DEIR must thoughtfully consider feasible mitigation measures and, if feasible, must impose these mitigation measures in a legally enforceable manner.

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- Similarly, the DEIR states that campus development shall be designed and constructed and shall be undertaken in a manner that shall preserve healthy and mature trees “to the extent feasible.” (AES-Mitigation Measure 5C). This is an illusory mitigation measure.
- As pointed out in Section 1 above, none of the development standards in the LRDP require that any of the above mitigation measures be implemented. To the extent they are implemented in the DEIR, the DEIR only imposes them on a qualified basis, i.e. “to the extent feasible.” The County recognizes that the DEIR is analyzing impacts on a program level of detail so that it may be difficult to impose project specific mitigation measures at this stage. However, CEQA imposes a duty on the University to conduct rigorous CEQA analysis as early as is feasible, particularly where information necessary to conduct the analysis is available, as is the case here.
- The DEIR provides no information regarding the assumptions used in the visual simulations and fails to disclose that actual development is not required to be built in a manner consistent with the simulations. The DEIR should disclose that the LRDP-authorized development may have many more unmitigated impacts related to visual resources than stated in the DEIR in the event mitigation measures, such as restrictions on building height, are found to be infeasible.

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**3. Hydrology**

- The DEIR concludes that campus development will result in significant unavoidable drainage related impacts that will damage water quality due to increased pollutants. (HYD Impact 3). In order to justify this finding of a significant unmitigated impact, the DEIR must evaluate fully the feasibility of mitigation measures designed to address these impacts, and, to the extent feasible, impose such measures. Mitigation Measures HYD 3A through 3D provide no required mitigation measures and design features. Instead, the DEIR states that future development will be reviewed and mitigation measures will be imposed later. No performance standards are provided that will ensure that future development is consistent with the analysis

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contained in the DEIR. *See Endangered Habitats League v. County of Orange*, (2005) 131 Cal.App.4<sup>th</sup> 777[improper deferral of mitigation found by the court because future noise study would determine mitigation but DEIR contained no future performance standard to guide subsequent project-specific mitigation measure].

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- Hydrology Impact HYD-4 concludes that campus development under the 2005 LRDP could alter drainage patterns in the project area and would increase the rate and amount of surface run-off, which could exceed the capacity of storm water drainage systems, resulting in flooding on or off site and concludes that this is a less than significant impact. There is no substantial evidence to support the conclusion that on or offsite flooding will not result in a significant impact.

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- Hydrology Impact HYD-5 concludes that campus development under the 2005 LRDP would not deplete ground water supplies through pumping of ground water for beneficial use and interfere with ground water recharge such that there would be a net deficit in aquifer volume, a lowering of the ground water table, or a reduction in groundwater quality. As with Impact HYD-4, there does not appear to be evidentiary support for this conclusion.

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- The DEIR at Page 4.8-38 states that to offset campus water demand in drought years as mitigation under drought conditions, the campus would draw ground water for non-potable uses from an existing well. Furthermore, Mitigation Measure HYD-5 concludes that if pumping of this well contributes to a net deficit in aquifer volume or a reduction in monitored spring flows, then the Campus will terminate use of groundwater from this aquifer. The discussion contained in the Hydrology section needs to be integrated and be consistent with the discussion of water supply impacts contained in the Utilities section. It is unclear how this purported groundwater pumping relates to the condition of overdraft and lack of future water supply in 2020 as disclosed in other sections of the DEIR. If increased pumping of the well on campus constitutes a feasible mitigation measure, it needs to be fully discussed, disclosed and analyzed throughout the DEIR, including the project description and other sections.

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**4. Land Use and Planning**

- The County acknowledges the statement in the DEIR that the County has no land-use entitlement jurisdiction over the physical development of the campus. However, the discussion under Impact LU-1 states that the LRDP is not expected to conflict with the implementation of the City and County General Plans. This statement could be misleading to the public because neither the City nor the County General Plan anticipates or includes a 7,000 student and 1500 faculty and staff increase in campus population and an approximately 4,000,000 square foot physical development expansion of the campus.
- In addition, it appears the DEIR only evaluates those portions of the general plans that reference the campus and does not evaluate the expansion project within the context of the general plans as a whole.
- The DEIR’s conclusions that campus growth will not result in incompatible land-uses both on- and off-campus is not supported by substantial evidence. With respect to compatibility on campus, the DEIR references potential residential development in Campus Resource lands “if the LRDP is amended by the Regents.” Is there any plans at this time for the Regents to pursue such an amendment? If not, why is this reference included?
- With respect to compatibility of campus growth with off-campus growth, the DEIR’s conclusion is based almost entirely on vague references to “reasonable setbacks” and “adequate buffers” that will be imposed between new campus development and the surrounding community. As stated above, the DEIR contains no requirement that imposes or defines these setbacks as a condition of future development. Therefore, the DEIR’s reliance on these setbacks as justification for why the project will not conflict with on-campus uses is illusory and improper under CEQA.

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**5. Population and Housing**

- The DEIR recognizes that the AMBAG population and housing forecasts to the year 2020 do not include anticipated new growth in population and housing resulting under the LRDP. Therefore, the AMBAG forecasts are not particularly relevant to the analysis of the LRDP-related growth. The DEIR should integrate the anticipated on-campus growth as well as the multiplier effect of this growth and provide revised regional housing,

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population, and employment growth forecasts that more appropriately predict the effects of the LRDP expansion.

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- Existing AMBAG forecasts predict very minimal population and housing growth in the County between 2005 and 2020, absent the UCSC expansion. Thus, the impact of the proposed expansion on population and housing and related impacts, is greatly magnified and this should be disclosed in the DEIR. Furthermore, the DEIR’s assumption that the AMBAG forecasts include LRDP-related employment growth (because these forecasts are considered high) is not supported by substantial evidence.
- CEQA Guidelines § 15131, subdivision (c), provides: "Economic, social, and particularly housing factors shall be considered by public agencies together with technological and environmental factors in deciding whether changes in a project are feasible to reduce or avoid the significant effects on the environment identified in the DEIR." The DEIR fails to meet this requirement.
- With respect to student enrollment growth, the DEIR states that the campus added approximately 4,500 students between the 1995-96 and 2003-04 academic year. During this time, the DEIR recognizes that demand for housing was particularly intense, with the University adding 600 beds above existing design capacity and an additional 360 beds off-campus to accommodate this growth. The DEIR does not disclose whether further “stop gap solutions” are available to accommodate growth under the LRDP. Furthermore, the DEIR recognizes that existing and projected on-campus housing can be expected to be 100% (or a higher percentage) occupied based upon past demand patterns over the last 20 years.
- The DEIR concludes that it is reasonable to assume approximately 3,390 student beds will be constructed as a result of the LRDP authorized enrollment growth. However, nothing in the DEIR requires the University to provide these housing facilities in conjunction with the anticipated enrollment growth. The DEIR’s justification for this failure to link enrolment growth with housing construction appears to be that “UC housing is a self-supporting enterprise that brings housing on line based upon demand.” The LRDP enrollment growth would appear to induce greatly increased housing demand. In addition, the alternatives analysis assumes that no more than 50% of the student population could be expected to live on campus based upon a vague reference to the preferences of upper-

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class undergraduate students for more independent living environments. UCSC relies on this assumption for its implied finding that requiring a linkage between housing and enrollment growth is infeasible. This finding is not supported by substantial evidence.

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- Based on UCSC’s decision not to directly link future enrollment growth with construction of on-campus housing resources to accommodate this growth, it would appear that the University wants to leave open the possibility that it could add the additional 7000+ students and related faculty and staff and not build the necessary housing on-campus to accommodate this increase in enrollment. The possibility that enrollment will grow without sufficient new housing should be fully analyzed and disclosed in the DEIR as a worst-case scenario. Such an analysis constitutes significant new information and requires recirculation of the DEIR once this information has been provided.
- Impact POP-3 concludes that growth of the campus under the 2005 LRDP, in conjunction with other regional growth, would create a demand for housing that would exceed the supply and concludes that this is a significant unmitigated impact. The DEIR includes the Mitigation Measure Pop-3 that “the Campus will work with the City of Santa Cruz to identify means of providing additional housing in the City, including affordable housing, particularly in the areas with good access to public transit.” This mitigation is vague and unenforceable and fails to recognize that the City of Santa Cruz does not produce housing. It is inadequate under CEQA.
- In addition, the DEIR should provide substantial evidence why there are no feasible alternatives or mitigation measures to the unmitigated significant impacts caused by increases in on-campus and off-campus housing demand as a result of increased enrollment and faculty and staff increases. The DEIR recognizes that demand for on-campus housing will increase based upon the constrained development opportunities available off-campus in both the City of Santa Cruz and the County. All of this data points to the feasibility of a mitigation measure that would require the University to phase enrollment growth with increases in affordable housing opportunities on-campus. In addition, other measures, such as alternative housing products, should be considered.
- The DEIR states that the implications of this unmet housing demand might be that communities would build more housing, which could result in significant impacts on the environment. This is inconsistent with numerous

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statements in the DEIR indicating the lack of additional housing opportunities and/or capacity remaining in the County as well as the AMBAG forecasts for low to moderate housing and population growth, absent the UCSC expansion. Alternatively, the DEIR states that the communities might not provide additional housing, and the lack of sufficient affordable housing in the City area would continue. This does not meet the burden imposed under CEQA to fully evaluate the impacts imposed by the LRDP project.

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**6. Water**

The DEIR does not document a future, reliable source of water to support anticipated growth caused by the LRDP through the 2020 planning horizon. *See Planning and Conservation League v. Department of Water Resources*, (2000) 83 Cal.App.4<sup>th</sup> 892, 914 [DEIR must adequately describe existing conditions and offer a plausible view of availability of future supplies]. A few points bear emphasis as follows:

- The DEIR acknowledges the need for a new water source to meet LRDP-related demand, but claims that prior 1962 and 1965 agreements with the City of Santa Cruz create an entitlement that the City will supply water to serve the University’s reasonable needs. This reliance on a “paper” entitlement is not consistent with recent CEQA case law. *Santa Clarita Organization for Planning and the Environment v. County of Los Angeles*, (2003) 106 Cal.App.4<sup>th</sup> 175. Even assuming the old agreements do guarantee water, the DEIR must still analyze the impacts of the City being forced to obtain this water. There is not substantial evidence of an approved, feasible water supply framework that can reasonably be expected to meet future demand.
- The DEIR does not disclose that the City’s existing Integrated Water Management Plan does not include growth under the LRDP.
- The DEIR improperly segments its analysis of project impacts relating to water supply, particularly with respect to the likelihood of development of the desalinization plant and, if it is developed, its increased use as result of campus growth. To the extent UCSC is relying on development of the desalinization plant by the City has a source of water necessary to meet future projected demand, the EIR should include an analysis of the potential impacts of the desalinization plant as they relate to the LRDP project and include the plant in its project description. *San Joaquin Raptor/Wildlife Rescue Ctr. v. County of Stanislaus*, (1994) 27 Cal.App.4<sup>th</sup> 713.

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- The DEIR does not account for increases in water demand as a result of off-campus growth. □ (31)
- Mitigation Measure Utility 9G improperly defers implementation of mitigation measures relating to water supply until certain levels of annual water consumption are met, contrary to CEQA. □ (32)
- The DEIR only includes an analysis of future water demand based upon a cumulative impact analysis; however, the DEIR should analyze the direct impact of the LRDP project on water demand. Reliance solely on the cumulative impact analysis is improper under CEQA. □ (33)

7. **Traffic**

A number of conceptual flaws with the DEIR traffic analysis exist as follows:

- The study area for the traffic study includes only the main campus and the City of Santa Cruz, even though numerous other sections of the DEIR recognize that the expansion will impact the unincorporated area and other incorporated cities within Santa Cruz County, and will Highway 1. □ (34)
- The traffic analysis does not include an analysis of the LRDP project as compared to existing baseline conditions as of the present, contrary to CEQA. Instead the DEIR improperly relies on the 2020 AMBAG projections as its baseline. □ (35)
- The DEIR defers implementation of specific traffic mitigation measures to a future date. □ (36)
- If a future traffic analysis conducted on a project level indicates that the project's traffic contribution would degrade levels of service to unacceptable levels, the DEIR states that UCSC will inform the City and contribute its "fair share" of improvements. The DEIR at Page 4.14-6 defines "fair share" to mean that the University has agreed to negotiate for a contribution to the identified improvement pursuant to procedures similar to those described in Government Code sections 54999 for contributions to utilities. In each case a fair share payment is agreed upon the University will pay its fair share only if the applicable jurisdiction has established and implemented a mechanism for collecting funds from parties contributing to the identified impact and providing that the jurisdiction builds the identified □ (37)

improvements. This agreement to negotiate is vague and unenforceable and improperly defers mitigation.<sup>2</sup>

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- Because not all of the enrollment growth will occur at one time, CEQA requires analysis of reasonable phased increases in enrollment likely to occur over time. The impact of this growth should be analyzed in a manner that takes into account likely future planned transportation improvements over time.
- The DEIR's traffic counts and analysis fail to utilize accepted traffic count methodology, as well as the Institute of Transportation Engineers ("ITE") trip generation estimates. How do the University's traffic counts compare to estimates of future traffic using the ITE accepted trip generation methodology for campus uses?
- As there is no binding requirement to provide on-campus housing in the DEIR in conjunction with enrollment growth, the traffic analysis should include a worst-case scenario that does not contain any additional on-campus housing construction. For the same reason, the DEIR's assumption that a reduced trip generation rate is appropriate based upon additional anticipated on-campus housing construction is legally insufficient without disclosure and analysis of the worst-case scenario.

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**8. Alternatives Analysis**

The Alternatives analysis contained in the DEIR is inadequate and does not comply with CEQA. CEQA review must consider a reasonable range of alternatives to the project, or to the location of the project, which: (1) offer substantial environmental advantages over the project proposal ( Pub. Resources Code, § 21002); and (2) may be "feasibly accomplished in a successful manner" considering the economic, environmental, social and technological factors involved. ( Pub. Resources Code, § 21061.1; CEQA Guidelines, § 15364).

- A fundamental flaw that pervades the DEIR is that while it authorizes the increased enrollment and related impacts, it does not evaluate the feasibility of, or impose, appropriate and feasible mitigation measures that mitigate this growth. These feasible mitigation measures might include a phasing plan that ties increases in enrollment to on-campus housing construction,

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<sup>2</sup> Due to a case involving the California State University system and the City of Marina pending in the California Supreme Court, it is unclear whether UCSC can fund off-campus infrastructure improvements that are not within the jurisdiction of the university. Therefore, it is possible that fair share mitigation measures proposed in the DEIR may need to be modified in response to the outcome of this litigation.

water infrastructure and supply, and traffic improvements. The Alternatives Analysis should include a phased project alternative consistent with this approach, which would accomplish the project's goals while reducing the project's impacts.

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- Based upon recent CEQA law, the DEIR should have seriously considered a reduced enrollment growth alternative, not the very modest reduced growth alternative in the DEIR. *See In Re Bay-Delta Programmatic Environmental Impact Report*, (2005) 133 Cal.App.4<sup>th</sup> 154 [DEIR should have considered alternative that reduced water demand]; *County of El Dorado v. Dep't of Transportation*, (2005) 133 Cal.App.4<sup>th</sup> 1376 [DEIR should have considered a reduced hotel alternative].

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- The Alternatives Analysis does not cite evidence supporting its conclusion that UC system wide population growth cannot be accommodated at other UC locations.

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- The Alternatives Analysis rejects an increased on-campus housing alternative at Section 5.3.3 of the DEIR. This alternative would require an additional 6,950 student beds as compared to the 3,390 student beds anticipated proposed in the 2005 LRDP. The DEIR recognizes that accommodating increased housing demand on campus would reduce the demands on regional services and recreational facilities associated with the campus-related population growth that would be housed off campus under the proposed project. With respect to the increased housing alternative, the DEIR concludes that the impacts of regional demands on water supply would increase because if 2005 LRDP-related population found housing on campus, this would free up existing housing in the City and adjacent communities for use by non-UCSC population, which would likely be taken up by others who might have otherwise resided in areas outside the Santa Cruz water supply area. This statement is unsupported by substantial evidence.

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- With respect to the increased housing alternative, the DEIR concludes that the increased density of development demanded by this alternative would make it difficult to design the housing to comply with the campus physical planning principles and guidelines. Again, these statements are unsupported by evidence in the DEIR.

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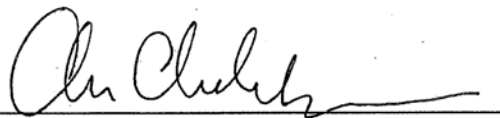
- Furthermore, the DEIR finds that the most significant effect on the feasibility of the increased housing alternative is the issue of housing demand. Again, the DEIR states that UC housing construction is approved only when the result of a demand analysis can support the need for additional housing unit development. The DEIR states that based upon “national housing enrollment trends and UC-Santa Cruz market analysis and historic trend analysis” the likely level of undergraduate students living in the University housing will be in the range of 50% and that the provision of housing units above 50% would result in substantial vacancy rates on campus. The DEIR states that these trends are driven by several factors that are primarily associated with the preferences of undergraduate students seeking increased levels of independence as they progress through their academic careers. There is not sufficient evidentiary support for these statements necessary for the university to rely upon for its conclusion that the increased on-campus housing alternative is not feasible.

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Thank you for the opportunity to comment on the LRDP and DEIR. We look forward to reviewing revised documents consistent with our review of these documents.

Sincerely,

DANA McRAE, COUNTY COUNSEL

By 

CHRISTOPHER R. CHELEDEN  
Assistant County Counsel

cc: Board of Supervisors  
Planning Director  
County Counsel

**Response to Comment Letter LA-3**

**Response to Comment LA-3-1.** The building program described in the 2005 LRDP is based on the California Postsecondary Education Commission's (CPEC) space standards for the state's higher education facilities. As the Campus does not currently meet these standards, the amount of additional building space provided for in the 2005 LRDP is greater than what would be required based solely on the projected enrollment growth.

**Response to Comment LA-3-2.** Similar to a city or county general plan, the 2005 LRDP is a policy document that provides a planning and design framework for campus development over the next 15 years. Please see Response to Comment FA-1-1. The language cited by the commenter from page 62 of the Draft LRDP explains to the reader that specific development projects may involve site-specific adjustments to the land uses identified in the LRDP, but that the overall development thresholds established in the LRDP and analyzed in the 2005 LRDP EIR will not be exceeded.

**Response to Comment LA-3-3.** The use of an existing on-campus well to supplement the water supply during drought emergencies is a mitigation measure (LRDP Mitigation UTIL-9I) identified under LRDP Impact UTIL-9, and the impact of this mitigation measure on the groundwater aquifer and down-gradient streams and springs is evaluated under LRDP Impact HYD-5. With respect to on- and off-campus water supply infrastructure that would be constructed to serve the growth on the campus, the impact of these infrastructure improvements is discussed under LRDP Impact UTIL-1. Regarding the City's desalination plant, please refer to Section 5.3.15.3 in Master Response UTIL-1, which explains that campus growth on its own would not require the development of a new water supply source. This Master Response further explains that a new supply source is needed now in order to provide for reliability in the system during drought conditions even without campus growth. The environmental consequences of constructing and operating a desalination plant are discussed on page 4.15-6 and pages 4.15-35 and -36 of the Draft EIR and in Section 5.2.15.4 of Master Response UTIL-1.

**Response to Comment LA-3-4.** Please refer to Response to Comment LA-3-9 regarding revisions to 2005 LRDP EIR mitigation measures and Volume IV, Chapter 3 of the Final EIR for the full text of revised measures.

**Response to Comment LA-3-5.** Please refer to Response to Comment LA-3-9 regarding revisions to 2005 LRDP EIR mitigation measures and Volume IV, Chapter 3 of the Final EIR for the full text of revised measures. As indicated in Section 4.4, Biological Resources, the 1.5 acres of coastal prairie in Crown Meadow are the only grasslands identified for development that contain sensitive natural communities or special-status plant species. Grasslands may contain habitat for some special-status wildlife species and LRDP mitigation measures identified in the Biological Resources section would be implemented on a project-by-project basis, as warranted, to ensure that impacts to special-status wildlife species do not occur.

**Response to Comment LA-3-6.** Please refer to Response to Comment LA-3-9 regarding revisions to 2005 LRDP EIR mitigation measures and Volume IV, Chapter 3 of the Final EIR for the full text of revised measures.

**Response to Comment LA-3-7.** Please refer to Response to Comment LA-3-9 regarding revisions to 2005 LRDP EIR mitigation measures and Volume IV, Chapter 3, Revised Table 2-1 of the Final EIR for the full text of revised measures.

**Response to Comment LA-3-8.** Please refer to Response to Comment LA-3-9 regarding revisions to 2005 LRDP EIR mitigation measures and Volume IV, Chapter 3, Revised Table 2-1 of the Final EIR for the full text of revised measures.

**Response to Comment LA-3-9.** In response to comments, LRDP Mitigations AES-3A, AES-3B, AES-5B, AES-5C, AIR-1, AIR-2A, AIR-6, HYD-3C, HYD-3D, NOIS-1, and POP-3 have been revised to eliminate phrases that commenters have objected to as vague, such as “to the extent feasible,” “where feasible,” “when possible,” and “as appropriate.” Please refer to Final EIR Volume IV, Chapter 3, Revised Table 2-1, for the full text of the revised mitigation measures. Some references to feasibility are appropriate, however, and have been retained in the following circumstances:

- For mitigation measures that will be implemented on a project-by-project basis, the feasibility may depend on the specific site conditions and project objectives, and cannot be determined until details of the proposed project are available. In such cases, the EIR identifies several alternative mitigation measures or options for implementation. This group of mitigation measures includes LRDP Mitigations AIR-2A, BIO-1A and BIO-1B, BIO-2A and BIO-2B, BIO-3A through BIO-3D, BIO-4A through BIO 4C, BIO-12A and BIO-12B, CULT-1A through CULT-1H, CULT-2D through CULT-2F, CULT-3A and CULT-3B, and CULT-4A through CULT-4D.
- In a few instances, the EIR has identified mitigation measures for less-than-significant impacts. Mitigation of less-than-significant impacts is not required by CEQA, however, and it is appropriate for these voluntary measures to be worded to provide flexibility in their implementation. Mitigation measures that fall into this group are LRDP Mitigations NOIS-3 and UTIL-5.
- LRDP Mitigation NOIS-1 requires locating construction equipment and staging areas at least 100 feet away from noise-sensitive land uses “as feasible” and also requires notification “whenever possible” of academic, administrative and residential areas that will be subject to construction. The mitigation measure has been revised to eliminate “whenever possible” from the notification requirement and to clarify this requirement. The impact analysis acknowledges that for infill development, where new construction may be located adjacent to existing buildings, it may not be possible to locate construction equipment and staging areas 100 feet from buildings. The EIR therefore appropriately concludes that the impact is significant and unavoidable.

**Response to Comment LA-3-10.** Please refer to Response to Comment LA-2-36 regarding assumptions used in the visual simulations. Also, as stated in Chapter 1, Introduction (page 1-5), the 2005 LRDP EIR is a Program EIR that evaluates at a program level the effects of the growth that could occur on the campus under the proposed LRDP. Therefore, approximate building height and massing information is used as the basis for developing visual simulations for this Program EIR. As noted in Response to Comment LA-2-36, new text has been added to the Analytical Methods section (page 4.1-10), providing the general height and size information that was used to develop the visual simulations (See also Volume IV, Chapter 3 of the Final EIR for changes to the Draft EIR text). Each subsequent development project undertaken during the planning horizon of the 2005 LRDP will be examined in light of the Program EIR

to determine whether additional environmental documentation must be prepared. This documentation could include additional visual simulations and/or analyses and may require new mitigation measures.

**Response to Comment LA-3-11.** Please refer to Master Response HYDRO-1.

**Response to Comment LA-3-12.** Please refer to Responses to Comments I-74-1 and LA-2-81.

**Response to Comment LA-3-13.** The discussion provided on pages 4.8-16 to -17 and 4.8-37 to 4.8-41 supports the conclusion that the project would not result in significant impacts to groundwater supplies, recharge, or quality. Even though the addition of impervious surfaces would prevent recharge within the building footprint, LRDP Mitigation HYD-3D would be implemented to maximize infiltration near the building site, and recharge would still occur downstream where runoff enters sinkholes. As explained on pages 4.8-39 to 4.8-40 of the Draft EIR, numerous precautions are heeded during pressure grouting for construction to avoid impacts to water flow and quality.

Based on data presented in Table 4.8-1 and on pages 4.8-40 and -41, the groundwater aquifer yield is sufficiently large that withdrawing 3.38 acre-feet per year would have little or no effect.

**Response to Comment LA-3-14.** The discussion in the Hydrology and Water Quality section of the Draft EIR is consistent with the discussion and analysis in the Utilities section of the EIR. The use of an existing on-campus well to supply water for irrigation purposes during drought years is one of several mitigation measures (LRDP Mitigation UTIL-9I) included in the Draft EIR Section 4.15 (page 4.15-33) to address the project's impact on water supply during drought years. Note that groundwater extraction from the on-campus well is not proposed for normal water years. The mitigation measure from the Utilities section of the Draft EIR is cross-referenced on page 4.8-40 of the Hydrology and Water Quality section, and the potential effects of pumping water from this well are evaluated on pages 4.8-40 and -41 and are found to be less than significant. There would be no other impacts from the operation of the well.

**Response to Comment LA-3-15.** The current City of Santa Cruz General Plan has a horizon year of 2005 and the Santa Cruz County General Plan has a horizon year of 2014. Because neither plan has a horizon year to 2020, as does the 2005 LRDP, they would not include University growth through that date. Additionally, as UC Santa Cruz is a state entity, these plans are not applicable on University property. Therefore, the growth anticipated within these municipalities would not necessarily reflect the growth of the campus. Please also refer to Master Response LU-1 for additional information regarding consistency with the City and County general plans.

**Response to Comment LA-3-16.** Please refer to Master Response LU-1, which addresses the County's concern regarding consistency with the City and County general plans.

**Response to Comment LA-3-17.** The analysis of the compatibility of campus growth with existing on- and off-campus land uses is evaluated in LRDP Impact LU-2 (Volume II, Draft EIR page 4.9-10). Substantial land use incompatibilities typically relate to noise, air quality, public health, and/or traffic impacts that can occur when siting different types of land uses in proximity to one another, such as residential and industrial uses. The conclusion reached in LRDP Impact LU-2 related to compatibility with existing on-campus land uses is supported by the evidence, as described below (Please refer to Response to Comment LA-3-18 regarding the impact conclusions related to the compatibility of campus growth with off-campus land uses).

- The 2005 LRDP land use designations take into consideration the compatibility between existing adjacent and proposed campus land uses by maintaining the existing pattern of concentrating development in the central campus core with the colleges forming an arc around it. Therefore, most new construction would occur adjacent to existing similar uses. For example, new academic uses would be sited mostly in the existing campus core adjacent to other academic uses, with some expansion of these functions to the north.
- The Cowell Ranch Historic District “overlay” proposed for the Campus Support area surrounding the main entrance of campus would avoid visually incompatible land uses via a detailed land use compatibility analysis as part of planning for specific projects within the overlay area. This analysis would ultimately be conducted under the Final Cowell Ranch Historic District Management Plan, once adopted. However, LRDP Mitigation AES-4 is intended to be an interim protective measure to avoid visually incompatible land uses, as the visual setting of the historic district is the principal issue for adjacent development.
- Development under the 2005 LRDP would not conflict with on-campus land conservation efforts, because the amount of natural and preserved habitat lands on campus would increase under the 2005 LRDP, and new buildings adjacent to natural lands would be required to use best management practices for construction and follow LRDP guidelines for sustainability and maintenance of the unique natural setting. Additionally, LRDP Impact BIO-1 addresses the edge effects of new development on sensitive habitats and LRDP Mitigations BIO-1A and –1B minimize these edge effects and other indirect impacts.
- The possible displacement of the Campus Trailer Park would not result in a land-use conflict, as the land use designation for the site would remain the same. Please also refer to Response to Comment LA-2-92 for additional information about land use conflicts related to the Campus Trailer Park.

Please refer to Response to Comment LA-2-20 for a discussion of Campus Resource Land. There are no plans for amendment of the 2005 LRDP at this time; such an amendment would be necessary before any housing could be built on lands designated Campus Resource Land.

**Response to Comment LA-3-18.** Incompatibilities with adjacent off-campus uses are analyzed in LRDP Impact LU-2 on Draft EIR page 4.9-12. Text has been added to the Final EIR to provide additional information on this issue. See Final EIR, Volume IV, Chapter 3, text change to page 4.9-12. The vast majority of campus lands that are subject to new development under the 2005 LRDP Land Use Plan (Figure 3-5) are set back from campus boundaries and adjacent off-campus development, and therefore, would not result in incompatibilities with adjacent off-campus uses. Setbacks from campus boundaries and adjacent development would be provided through the Land Use Plan itself. The text on page 4.9-12 has been revised to clarify this point. There are a few exceptions with respect to setbacks from adjacent development including the main campus entrance area and the Campus Support area off of Empire Grade Road. The main campus entrance area is already developed in a manner that is compatible with existing adjacent residential, school, and commercial uses. Moreover, very little new development is planned for this area of campus under the 2005 LRDP. The other area proposed for development that is in relatively close proximity to developed areas off-campus is the Campus Support area off of Empire Grade Road, which is addressed in detail in LRDP Impact LU-2. LRDP Mitigations AES-5E, AES-6B, and AES-6C would ensure that University activities at this location would not be visually obtrusive at the site’s

boundary and therefore land uses would be compatible. Please also refer to Response to Comment ORG-4-2 for additional information about the Campus Support area off of Empire Grade Road related to land use compatibility issues.

**Response to Comment LA-3-19.** The Draft EIR reports all available data and forecasts of population, including the 2000 US Census, the 2004 AMBAG forecasts, and population estimates from the Department of Finance. As explained in the Draft EIR (page 4.11-5), AMBAG forecasts are used throughout the analysis because they are the only source of city-level population, housing and employment forecasts. In addition, the use of these forecasts for evaluation of population and housing impacts is consistent with the traffic analysis contained in the Draft EIR, which uses the AMBAG Travel Demand Model for the study area. That model is also based on the 2004 AMBAG forecasts. Development of revised regional population, housing, and employment forecasts that incorporate the LRDP growth was not considered necessary because AMBAG population forecasts are reliable city-level population forecasts; all of the projected employment on the campus is already included in the AMBAG employment forecasts (see Response to Comment LA-3-20 below); and housing forecasts in the AMBAG projections are conservative compared to previous City housing forecasts. In addition, the impact analysis in the Draft EIR is conservative because it assumes that none of the 2005 LRDP-related population (students and employees) is accounted for in the AMBAG forecasts and incrementally adds that population to the AMBAG forecasts. Also refer to Response to Comment LA-9-39.

**Response to Comment LA-3-20.** The Draft EIR explains on pages 4.11-5 and -6 that because AMBAG adopted the constrained growth scenario for the Santa Cruz area, minimal increases in population and housing are projected in the county. The low growth rates for the study area are also presented in Table 4.11-2. It is because of the low growth rates that the Draft EIR finds that Draft 2005 LRDP-related growth will account for 31 to 38 percent of the projected population growth in the entire study area (Draft EIR page 4.11-19) and between 100 to 118 percent of the projected growth within the city of Santa Cruz in 2020. Note that the population associated with the Final Draft 2005 LRDP, which reflects the Reduced Enrollment Growth Alternative previously analyzed in the Draft EIR, would account for a relatively smaller portion of the population growth in the City and region.

The Draft EIR notes on page 4.11-6 that the Campus's employment growth under the LRDP is more than adequately addressed in the 2004 AMBAG forecasts. This is based not just on the fact that the AMBAG forecasts include substantial employment growth within the city of Santa Cruz, but also on an examination of the AMBAG travel demand model. That model shows that, in the Traffic Analysis Zones 34 and 35 (the zones corresponding to the Campus), AMBAG included a total of 6,175 jobs in 2020. If the existing 4,080 jobs on the campus were added to the new 1,520 new jobs that would be created on the campus under the Draft 2005 LRDP, the total jobs on the campus in 2020 would be 5,600. Under the Final Draft 2005 LRDP the total number of employees in 2020 would be 5,420. Thus, AMBAG forecast includes more employment growth on the campus than is projected under the Final Draft 2005 LRDP.

**Response to Comment LA-3-21.** The comment does not raise an environmental issue regarding the EIR. Therefore, no response is required.

**Response to Comment LA-3-22.** As the Draft EIR explains, to address the need for housing, the University has instituted measures in the past to create additional housing capacity, including the conversion of student lounges to bedrooms and the leasing of properties in the city. The demand for this additional capacity has fluctuated over time, and some of the spaces converted to accommodate housing

demand have reverted to other uses when not in demand for housing. The University would continue to use strategies of this kind to accommodate demand that might occur in excess of available on-campus housing in any given year.

**Response to Comment LA-3-23.** Please see Master Response POP-1 (Impact on Regional Housing Supply) and Master Response ALT-5 (Increased On-Campus Housing).

**Response to Comment LA-3-24.** Please see Master Response POP-1 (Impact on Regional Housing Supply). The Draft EIR analyzes the impacts of the housing proposed by the 2005 LRDP.

**Response to Comment LA-3-25.** The text on pages 4.11-12 and -13 of the Draft EIR has been revised to clarify that the City, through the General Plan process, promotes the development of new housing but does not itself produce housing (See Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*). Therefore, in addition to building on-campus housing, the University will work with the City in planning for additional housing (see Master Response POP-1 regarding revised LRDP Mitigation POP-3). However, the housing industry is a private sector enterprise, and new housing is constructed in areas that have unmet housing demand. Given the tight housing market in the study area, if the City encourages the development of housing by designating additional housing sites and by allowing higher densities on sites already designated for residential use, then the probability is fairly high that additional housing will be developed. The LRDP includes land use designations and goals to increase the on-campus housing supply and will continue, as in the past, to respond to increased demand for on-campus housing by providing additional on-campus housing. Also, please refer to Response to Comment LA-3-41 and Master Response ALT-5 (Increased On-Campus Housing).

**Response to Comment LA-3-26.** Please see Response to Comment LA-3-41 regarding enrollment and on-campus housing. Please also see Master Response ALT-5, which demonstrates why more housing cannot be provided on the campus. The University has, however, expanded and improved the mitigation measures to address housing impacts. Please see Master Response POP-1 with respect to improved LRDP Mitigation POP-3.

**Response to Comment LA-3-27.** The Draft EIR discusses the limited growth in housing stock projected for the City and the rest of the county in the 2004 AMBAG forecasts, and the somewhat higher number of housing units targeted in the City's Housing Element. Housing impacts are evaluated in the Draft EIR by comparing the cumulative demand for housing, including the demand created by the proposed project, to the projected supply. Because the demand would exceed the supply, on page 4.11-26 the Draft EIR states that there could be one of two outcomes of this condition. In response to the unmet demand for housing, the communities in the study area might decide to plan for and encourage the development of additional housing; and if so, there would be environmental effects from the development of housing, which are discussed in Section 6.3, *Growth Inducing Impacts of the LRDP*. Alternately, the communities may decide not to allow for the provision of any additional housing, and the new population would be forced to live at greater distances and commute to the study area. Beyond what is discussed in the Draft EIR, further evaluation of these secondary consequences of the cumulative impact on housing, or potential environmental effects (such as the potential for increased long distance commuter traffic) would be speculative.

**Response to Comment LA-3-28.** The 1962 and 1965 Agreements referred to by the commenter commit the City to provide water to the entire Campus, including areas that would be developed for the first time

under the 2005 LRDP. The City agreed to extend water lines “as may be necessary to provide for campus development” and “as...the reasonable needs of the University...may require.” (1962 Agreement, Section 6.) Under California law, the City’s promise to provide this infrastructure is a promise to provide water: the right to connect to City water or sewer lines is equivalent to the right to use them (See also 1965 Agreement, Section A (2) (Drumm 2006). As the Draft EIR shows, the City has the capacity to provide sufficient water for all of its users, including the Campus at the development levels envisioned in the 2005 LRDP, during normal years through 2020. The 1962 and 1965 agreements thus are not paper water, because the water to fulfill them actually exists. The Draft EIR acknowledges, however, that the City will need to develop new water sources for drought-year supplies. The Draft EIR at pages 4.15-35 through –37 considers the environmental impacts of developing those sources. See Master Response UTIL-1, Section 5.2.15.4. Further information concerning the environmental impacts of new water supply is available in the City’s Integrated Water Plan and the associated EIR. The 2005 LRDP EIR thus considers the reliability of future supplies and the consequences of developing new ones. Please see Master Response UTIL-1 for detailed explanation of water supply and demand projections, and why the analysis in the Draft EIR is accurate and appropriate.

**Response to Comment LA-3-29.** The City’s 1998 water demand estimates prepared by Maddaus and used by the City in preparing the 2000 Urban Water Management Plan (UWMP) and the Integrated Water Plan (IWP) included a separate line item for the UC Santa Cruz campus water demand, as discussed on page 4.15-33 of the Draft EIR. The City did not contemplate the level of campus growth now being proposed under the 2005 LRDP in its water planning efforts because the IWP predates the 2005 LRDP. While this is the case, the City’s forecasts include more than the amount of water for the campus as is now being projected by the Campus as needed to serve the campus growth under the 2005 LRDP. Please see Master Response UTIL-1 (Sections 5.2.15.2 and 5.2.15.3) for information about the inclusion of the Campus’s water demand under the 2005 LRDP in the City’s water demand forecasts. Section 5.2.15.3.2 of this response also discusses the demand for water by the LRDP-related off-campus population that would reside within the City’s service area.

**Response to Comment LA-3-30.** Please refer to Master Response UTIL-1 (Section 5.2.15.3) for a discussion of LRDP impacts related to the need for a desalination plant.

**Response to Comment LA-3-31.** Please refer to Master Response UTIL-1 with respect to the impact of LRDP-related off-campus growth.

**Response to Comment LA-3-32.** Please refer to Master Response UTIL-2 with respect to LRDP water supply mitigation measures, which have been revised to clarify the Campus’s commitment to reduce campus water demand.

**Response to Comment LA-3-33.** Please refer to Section 5.2.15.3.1 in Master Response UTIL-1 as to why a discussion of a “project-only” water supply impact would not accurately describe the impacts of the 2005 LRDP on water supply.

**Response to Comment LA-3-34.** An analysis of Highways 1 and 17 has been prepared and circulated for public and agency comment in the Recirculated Draft EIR – Additional Traffic Analysis. With respect to the selection of study intersections, please refer to Response to Comment LA-2-138.

**Response to Comment LA-3-35.** Because full development under the 2005 LRDP will not be realized for at least 15 years, an evaluation of the project’s impacts under an artificial existing plus project



scenario would not be meaningful because conditions are expected to change during the course of project development, independent of the proposed LRDP.

**Response to Comment LA-3-36.** The Draft EIR, as a program-level document, identified mitigation measures for implementation of the full 2005 LRDP program. In addition, it is anticipated that project-specific mitigation measures may need to be identified and implemented in conjunction with individual capital projects based on project-specific environmental review as these projects are proposed.

**Response to Comment LA-3-37.** Please refer to Responses to Comments LA-2-133 and LA-3-36.

**Response to Comment LA-3-38.** With respect to the timing of growth relative to infrastructure improvements, please see Response to Comment LA-3-41 below. The year 2020 With Project scenario includes any programmed (i.e., funded) transportation project that is expected to be constructed before or by 2020, based on the planning of UC Santa Cruz and of local and regional agencies.

**Response to Comment LA-3-39.** Traffic counts were conducted by professional data collection firms using standard industry practices. The Institute of Transportation Engineers (ITE) provides very limited trip generation data for universities. The 7th Edition of ITE's Trip Generation manual publishes trip generation rates based on six surveys across the United States. Because of the unique nature of traffic associated with individual universities, the limited ITE data do not provide an "accepted" rate. In fact, ITE encourages the derivation of a local trip generation rate when the Trip Generation manual includes a very limited number of surveys and the land use is highly unique. Accordingly, the actual trip generation at the UC Santa Cruz campus was studied. The use of existing traffic counts provided more precise traffic generation rates for the UC campus than could have been derived by using the ITE national rates.

**Response to Comment LA-3-40.** Please see Response to Comment LA-2-145.

**Response to Comment LA-3-41.** As required by CEQA, the Draft EIR identifies and imposes feasible measures to mitigate environmental impacts of the proposed project. The commenter states that an alternative should have been considered which links enrollment growth with the pace of growth of housing, water infrastructure and supply improvements, and traffic improvements.

The 2005 LRDP, in combination with proposed mitigation and existing University policy, already provides for phasing to link infrastructure and housing development to enrollment growth. Analysis of the proposed alternative is thus not necessary. With respect to housing supply, because it is campus policy to construct housing as demand warrants, since the demand for additional housing would be a result for enrollment growth, housing effectively would be phased with the pace of enrollment growth. As discussed in Master Response ALT-5 (Increased On-Campus Housing Alternative), the LRDP program goal of housing 50 percent of undergraduates (and portions of the graduate, faculty and staff populations) is realistic. In addition, LRDP Mitigations POP-3A through 3C have been added to the Final EIR to more effectively address housing impacts. With respect to water supply, the Draft EIR includes mitigation measures that would be triggered by defined levels of water consumption. These have been further refined in the Final EIR for more effective implementation, and particularly to ensure early implementation of water-saving measures (see LRDP Mitigations UTIL-9A through 9I). With the inclusion of specifications regarding timing of implementation, the water supply mitigation measures are appropriately designed to ensure that their implementation would be appropriately linked with population growth and campus development. With respect to off-campus traffic mitigations, as discussed in the Draft EIR the implementation of off-campus traffic improvements is beyond the control of the University, irrespective

of the timing of University development. The Campus has committed to pay its fair share of traffic improvements that would mitigate impacts to which campus traffic contributes significantly (See Master Response MIT-1 regarding the University's fair share contributions). It is assumed that the appropriate timing of those improvements will be determined by the agencies responsible for the affected intersections. The mitigation measures proposed in the EIR are feasible and the University is committed to implementing them.

**Response to Comment LA-3-42.** The Draft EIR considers a Reduced Enrollment Growth Alternative (Draft EIR, pages 5-20 to 5-23). Please refer to Master Response PD-1 (Magnitude of Enrollment Growth). Note that the Campus proposes to recommend to The Regents the adoption of the Final Draft 2005 LRDP (September 2006), which revises the Draft 2005 LRDP (January 2005) to reflect the Reduced Enrollment Growth Alternative previously analyzed in the 2005 LRDP Draft EIR and identified as the Environmentally Superior Alternative. For more information regarding the Final Draft 2005 LRDP, please see Final EIR, Volume IV, Chapter 2, *Project Refinements*.

**Response to Comment LA-3-43.** Please refer to Master Response ALT-2 (Proposed Program Growth at Another UC Campus or a New Site).

**Response to Comment LA-3-44.** Please refer to Master Response ALT-5 (Increased On-Campus Housing Alternative) and Master Response UTIL-1 (Impacts on Regional Water Supply).

**Response to Comment LA-3-45.** The proposed Draft 2005 LRDP included provisions for 3,390 new student beds. Note that the Campus has refined the proposed project since publication of the Draft EIR. The Final Draft 2005 LRDP, which represents the Reduced Enrollment Growth Alternative previously analyzed in the Draft EIR, includes enrollment of 19,500 students and construction of 2,299 student beds. Student beds would be provided by some reconstruction of and increased density in existing housing (as is proposed for the Family Student Housing Redevelopment Project, Draft EIR, Volume III, Chapter 3), and by new construction and by overflow conversion as needed (conversion of common areas into beds spaces as needed on an interim basis). The proposed project also includes 125 new units of employee housing, but designates sufficient land area to accommodate about 250 employee-housing units, which could be constructed if demand were identified. Under the Increased On-Campus Housing Alternative, which was considered but rejected as infeasible (Draft EIR, Volume II, Section 5.3.3), all new undergraduate and graduate students would be housed on campus, for a total of 6,970 new student beds, or over twice as many beds as under the proposed project. In addition, 375 new faculty and staff units would need to be constructed, which is three times the number proposed in the 2005 LRDP, and 50 percent more than could be accommodated on the lands designated for employee housing in the 2005 LRDP. Assuming that the land use plan would be maintained as proposed, under the Increased On-Campus Housing Alternative new housing would have to be developed at significantly higher densities than anticipated under the 2005 LRDP, in order to fit into the areas designated for housing in the land use plan. Increased density at these sites could be achieved through development of high-rise apartments, or larger buildings spaced more closely together, or both. It is unlikely that the employee housing areas could accommodate single-family homes, and it is possible that some high-rise employee housing would be needed here as well. Such high-rise development conflicts with campus principles. Please also refer to Master Response ALT-5 (Increased On-Campus Housing) and Master Response ALT-6 (Increased Infill Development) for more on these topics.

Increased housing could be accommodated on the campus without increasing the planned density by designating additional areas for housing development. The disadvantage of this approach is that more land would be developed, with a resulting increase in impacts with respect to storm water runoff from impervious surfaces, loss of sensitive habitats, and potential intrusions into valued landscapes and views (such as open meadow area), and visual impacts to the Cowell Ranch and Lime Industry Historic District.

**Response to Comment LA-3-46.** Please refer to Master Response ALT-5 for an in-depth discussion of the feasibility of the Increased On-Campus Housing Alternative.



REC'D JAN 13 2006

SANTA CRUZ COUNTY REGIONAL TRANSPORTATION COMMISSION

1523 PACIFIC AVENUE, SANTA CRUZ, CALIFORNIA 95060-3911 • 831/ 460-3200 • FAX 831/ 460-3215

SERVICE AUTHORITY FOR FREEWAY EMERGENCIES (SAFE)

RAIL/TRAIL AUTHORITY

COMMUTE SOLUTIONS

TRANSPORTATION POLICY WORKSHOP

BUDGET & ADMINISTRATION PERSONNEL COMMITTEE

INTERAGENCY TECHNICAL ADVISORY COMMITTEE

BICYCLE COMMITTEE

ELDERLY & DISABLED TRANSPORTATION ADVISORY COMMITTEE

John Barnes  
2005 LRDP EIR Comment  
UCSC Physical Planning and Construction  
1156 High Street, Barn G  
Santa Cruz, CA 95064

January 11, 2006

RE: Comments on the Draft EIR for the University of California at Santa Cruz (UCSC) Long-Range Development Plan

Dear Mr. Barnes,

Thank you for the opportunity to comment on the Draft Environmental Impact Report (EIR) for the UCSC Long-Range Development Plan (LRDP). As you know, the Santa Cruz County Regional Transportation Commission (SCCRTC) serves as the Regional Transportation Planning Agency for Santa Cruz County. In general, the transportation analysis and mitigation measures in the Draft EIR appear to be inadequate.

Please accept the attached specific comments on the Draft EIR from the SCCRTC staff for your consideration.

Thank you for the opportunity to comment on the Draft EIR for the UCSC LRDP. If you have any questions, please contact Grace Blakeslee of my staff at (831) 460-3219.

Sincerely,

Pat Dellin  
Acting Executive Director

cc: Commissioner Mardi Wormhoudt  
Commissioner Emily Reilly  
Caltrans District 5 Regional Planning and Development Review  
SCMTD  
SCCRTC  
City of Santa Cruz

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**Santa Cruz County Regional Transportation Commission  
Staff Comments on the University of California at Santa Cruz Long Range  
Development Plan Draft Environmental Impact Report  
(1/06)**

1. UCSC relies on Santa Cruz Metro to provide transit service to the campus. As noted in the Draft EIR, Santa Cruz Metro (Metro) and UCSC continue to work together to better integrate UCSC's and Metro's transit services which serve students, faculty, staff and visitors. RTC staff supports TRA-4A which will facilitate on-going evaluation of campus transit services. RTC staff recommends that UCSC continue to work closely with Metro to maximize both off-campus and on-campus transit services for students, faculty, staff and campus visitors. (2005 RTP Policy 2.3)

The Draft EIR indicates that in 2020, 73% of trips to the UCSC campus will be made by transit. This increase will result in transit demand that exceeds existing Metro capacity. In addition, the Draft EIR relies upon existing transit routes to provide transit access for trips to and from the campus. However, existing and new trips generated by implementation of the LRDP to the campus include origins, such as mid and south county locations, not serviced by existing express transit routes. To effectively mitigate impact TRA-2, RTC staff recommends that the Draft EIR add to mitigation measure TRA-2B, "identify new express transit routes from regional centers in south county, mid county and the east side of City of Santa Cruz to the UCSC campus, fully fund new express transit services and fully fund overhead and increased transit operations required from new ridership resulting from implementation of the LRDP". (2005 RTP Policy 5.2)

2. Thank you for including an analysis of potential mode conflicts in the Draft EIR as discussed in LRDP Impact TRA-4. Staff is pleased to see that UCSC continues to support dedicated transit routes such as Bus Rapid Transit. Dedicated transit can decrease conflicts between transportation modes and increase transit efficiency. RTC staff recommends that, "UCSC support funding of a dedicated transit way", be included in LRDP Mitigation TRA-4B. (2005 RTP Policy 2.3.2)

3. The 2005 RTP supports all forms of transportation demand management strategies for school and work trips. RTC staff would like to thank UCSC for your commitment to Transportation Demand Management (TDM) Programs both currently and as part of the LRDP. The Draft EIR identifies the expansion of TDM programs to increase the use of transportation alternatives to campus by 55%. The Draft EIR mitigation measure TRA-2B references potential measures that UCSC will consider to achieve this objective. However, as written, TRA-2B is not an effective mitigation measure for impact TRA-2 and does not commit UCSC to implementation of TRA-2B which mitigates off-campus transportation impacts using TDM strategies. RTC staff recommends that the mitigation measure TRA-2B be changed to state that, "Potential Transportation Demand Management Measures indicated in Table 4.14-19 will be funded and implemented by UCSC" to mitigate impact TRA -2. (2005 RTP Policy 1.3.1)

In addition, RTC staff recommends that the Potential Transportation Demand Management Measures indicated in Table 4.14-19 related to carpooling, vanpooling and

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park and ride lot facilities be revised to say, “expand and fully fund commuter vanpools, fully fund on campus carpool promotions, fully fund new park and ride lot facilities and multi-modal hubs in the west and east side of the City of Santa Cruz”. (2005 RTP Policy 5.2, 2.4.9)

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The RTC’s Commute Solutions Program provides ridematching services and commute alternative information for commuters traveling to, from or within Santa Cruz County. RTC staff recommends that UCSC work with the RTC’s Commute Solutions Program to identify and fund innovative ways to promote carpooling among campus commuters as noted in Table 4.14-19 and to conduct a study and fund Park & Ride facilities to serve carpoolers and transit service at major centers within Santa Cruz County. RTC staff also recommends that, “UCSC will continue to be a member of the Santa Cruz Area Transportation Management Association”, be added to Table 4.14-19. (2005 RTP Policy 1.3.2)

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4. The Draft EIR identifies off-campus parking permit programs in place to manage neighborhood parking in the City of Santa Cruz. RTC staff recommends that UCSC continue to work cooperatively with the City of Santa Cruz to implement, administer and enforce the City of Santa Cruz Parking Programs in the downtown and Westside areas of the City. If the City needs funding participation by UCSC for the program, it should be added to a mitigation measure. (2005 RTP Policy 3.5)

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5. The Draft EIR identifies 11 off-campus intersections which will be significantly impacted by the implementation of the LRDP. Although impacted, some intersections are not considered significantly impacted as interpreted by the Standards of Significance referred to in the Draft EIR. RTC staff requests that any intersections for which delay is increased due to implementation of the LRDP be considered a significant impact. Mitigations measures should be established for all intersections which will experience an increase in delay, including funding participation by UCSC as determined by the local jurisdiction. Staff also recommends that UCSC work with the City of Santa Cruz to identify the correct Significant Thresholds for the City of Santa Cruz. In particular, RTC staff recommends the delay caused at the Highland Ave/High Street intersection as a result of LRDP implementation be identified as a significant impact. (2005 RTP Policy 2.4.3)

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6. The Draft EIR discusses Off-Campus Transportation System Improvements. The Bay Street/Escalona Traffic Signal Project and the Mission Street/Bay Street Improvements are included as planned improvements. These are two of several unfunded local and regional transportation projects in Santa Cruz County. Please provide a funding and construction timeline for these projects as part of this discussion in the Draft EIR to explain why these improvements are assumed in the traffic analysis. Also, if the City identifies funding participation by UCSC, it should be included as a mitigation measure.

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7. The Draft EIR did not include a traffic analysis for regional transportation facilities. However, the addition of over 10,000 trips to and from the campus will impact the regional transportation system including the Highway 1 corridor between Morrissey and Larkin Valley Road, Highway 1/San Lorenzo Bridge corridor and the Highway 1/17 Interchange. UCSC’s strategies to increase on-

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campus housing for students and staff and faculty to reduce daily trips supports 2005 RTP policies and goals. However, the cumulative regionally significant impacts as a result of the LRDP cannot be completely addressed by on campus housing. RTC staff recommends that the EIR analyze and discuss the cumulative impacts of the LRDP implementation on Highway 1 between Morrissey and Larkin Valley Road, Highway 1/San Lorenzo Bridge and the Highway 1/17 Interchange and provide mitigation measures for associated impacts as appropriate, including funding participation by UCSC as determined by the SCCRTC.

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8. Please correct the discussion under Planned Regional Improvements to reflect the funding received for the Highway 1/SR 17 Interchange Project in September 2005. The project is scheduled to begin construction in Spring 2006.

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9. The 2005 RTP goals and policies support efficient connections among all transportation modes. RTC staff recommends that mitigation measure TRA-2B include funding bicycle parking at transit centers in Santa Cruz County. (2005 RTP Policy 2.8)

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10. RTC staff supports that new bicycle lanes be included on all new roads and existing campus roadways. RTC staff recommends that UCSC's financial contribution to the addition of bicycle lanes on new and existing roads be added as a mitigation measure for impact TRA-4. (2005 RTP Policy 1.6.2)

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11. The Draft EIR notes that 3% of trips to and from the campus are bicycle trips. This mode split combined with an increase in alternative mode trips stated in mitigation measures TRA-2B will create a greater demand for bicycling facilities within a reasonable bicycle distance of campus and transit routes serving campus. RTC staff recommends that the Draft EIR add "partnering with local agencies to fund bicycle infrastructure improvements that fill gaps and enhance the regional bicycle network serving campus and transit routes" to mitigation measures TRA-4B. (2005 RTP Policy 2.7)

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12. RTC staff requests the Draft EIR note that the Eastern Access discussed in the Draft EIR is not included in the 2005 RTP.

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13. LRDP Mitigations for Impact TRA-5 include several strategies to mitigate traffic generated by full-capacity special events. To enhance these mitigation measures, RTC staff recommends that on-line carpool matching services be provided by UCSC for each event. Ridesharing is a cost-effective strategy for reducing the total number of trips attending special events in addition to reducing the number of idling cars associated with the end of a special event.

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## Response to Comment Letter LA-4

**Response to Comment LA-4-1.** As part of LRDP Mitigation TRA-2B, the University will evaluate the effectiveness of the Level 1 and Level 2 Transportation Demand Management measures shown in the Draft EIR, Table 4.14-19, and will, as warranted, implement effective measures that are within the University's jurisdiction. This includes working with SCMTD to identify the most effective routes for possible express service. The Campus is committed to working cooperatively with SCMTD, and under appropriate contractual arrangements, will continue to pay for transit services provided by SCMTD and others to the Campus.

**Response to Comment LA-4-2.** The University will support implementation of the Bus Rapid Transit alternatives presented in the *Bay Corridor Preliminary Feasibility Analysis: Bus Rapid Transit* (Urbitran Associates, March 2006) and related future studies. The University will collaborate with local agencies to further evaluate and refine the alternatives such as a dedicated transitway and implement feasible measures within the University's jurisdiction. During the preparation of the Draft EIR, Urbitran Associates identified the types of measures that were being studied in the feasibility analysis. These measures were included as potential types of mitigation measures in the Draft EIR. Measures including queue jump lanes and transit signal priority systems were found to be feasible and effective and are therefore included in LRDP Mitigations TRA-4A and 4B as stated on page 4.14-56. The Campus is committed to working cooperatively with SCMTD and, will negotiate, in the context of existing contractual mechanisms, to determine the University's appropriate contributions for transit services and service improvements provided by SCMTD. Feasible BRT improvements have been added to the list of measures in Draft EIR Table 4.14-19 that would implement LRDP Mitigation TRA-2B. Please see Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*.

**Response to Comment LA-4-3.** As explained in more detailed in Response to Comment LA-2-128, currently, about 55 percent of trips to the campus are made by transit, carpool, bike and walking. LRDP Mitigation TRA-2B commits the University to expanding its Transportation Demand Management (TDM) program. The program will aim to at least maintain, and if possible, raise the proportion of person-trips to and from campus that use alternate transportation modes (such as transit, multi-occupant autos, vanpools, and bicycles) above the current 55 percent of trips made using these modes. The particular methods to be used in meeting this goal will be determined as LRDP implementation progresses in order to ensure that the most effective measures are put in place.

Moreover, it should be noted that the Draft EIR primarily relies on the infrastructure improvements to mitigate traffic impacts, although these improvements are not sufficient to reduce the impacts to less-than-significant levels. The Draft EIR thus concludes that traffic impacts are significant and unavoidable. With the ongoing TDM program, the Campus will attempt to further reduce traffic impacts, but the Draft EIR does not conclude that it can eliminate all significant adverse effects, as the effectiveness of the TDM program cannot be guaranteed. The current program is already quite successful, and as the number of single-occupancy vehicle trips shrinks, eliminating more of them will become more difficult. However, because of its commitment to continue to seek effective up-to-date solutions, the University expects to be successful in at least maintaining and, if possible, increasing the share of alternative transportation modes in trips associated with the campus.



**Response to Comment LA-4-4.** Please refer to Response to Comment LA-4-3. The University is currently planning to expand and fully fund University vanpools. The University will contribute its fair share (as defined in the Draft EIR and Master Response MIT-1) to the implementation of park and ride facilities and multi-modal hubs utilized by University students, staff, and faculty.

**Response to Comment LA-4-5.** Please refer to Response to Comment LA-4-3.

**Response to Comment LA-4-6.** As stated in the Draft EIR, the University recognizes that students, faculty and staff may park on the residential streets surrounding the campus, and the demand for parking on these streets may result in inconvenience for local residents. The University also recognizes that the demand for neighborhood parking by local residents themselves may be high, particularly because many households have multiple cars and limited off-street parking. In response to this potential impact with respect to parking supply, the proposed 2005 LRDP includes adequate parking supply on campus to meet the anticipated demand from the campus and visitor population, such that the proposed project would not increase parking demands on surrounding streets. However, even if an adequate supply of parking is provided on the campus, there may be those who will still park on surrounding public streets to avoid paying parking fees. The City of Santa Cruz' Residential Parking Permit program for the neighborhoods in the vicinity of the campus already provides an enforcement mechanism to control this effect, and this program could be expanded if needed. The Campus will continue to support the City in its efforts related to this program by providing campus affiliates with a range of viable options to driving to the campus and by providing adequate parking on campus. LRDP Mitigation TRA-2B is aimed at reducing SOV use and would also address parking storage demand associated with the campus by expanding facilities and services that make alternatives to driving attractive and cost-effective. With these measures in place, it is anticipated that 2005 LRDP development will not contribute significantly to non-resident parking in neighborhoods adjacent to the campus.

**Response to Comment LA-4-7.** The Draft EIR uses the City of Santa Cruz's adopted standards of significance for traffic impacts, which are set forth on page 4.14-32 of the Draft EIR (also see Master Response TRAFFIC-1 [Traffic Standards of Significance]). While implementation of the 2005 LRDP would increase the delay at the unsignalized intersection of Highland Street and High Street, the intersection still would not meet warrants for the installation of a traffic signal, and traffic related to the 2005 LRDP therefore would not cause a significant impact.

**Response to Comment LA-4-8.** Planned improvements at the intersections of Mission Street and Bay Street, and Bay Street and Escalona Street are identified in the City's current Capital Improvement Program (CIP) as being funded either through gas taxes or grants, or through the City's traffic impact fee program. Because the improvements at this intersection are identified as being funded through the City's traffic impact fee program, it is reasonable to assume the improvements will be implemented. The intersection of Mission/Bay Street is identified as a significantly affected intersection in the Draft EIR and the University will contribute its fair share to mitigate these impacts as described on page 4.14-46 of the Draft EIR and in Master Response MIT-1.

**Response to Comment LA-4-9.** Please refer to Response to Comment LA-2-158.

**Response to Comment LA-4-10.** Please refer to Response to Comment LA-2-158.

**Response to Comment LA-4-11.** Please refer to Response to Comment LA-4-1.

**Response to Comment LA-4-12.** LRDP Mitigation TRA-4E states that the University shall implement the bicycle circulation elements of the 2005 LRDP as needed to maintain and enhance the effectiveness of bicycles as a transportation mode. The 2005 LRDP includes a bicycle circulation plan that includes bike lanes on new and existing major roads throughout the campus. Where constraints such as topography limit the ability to widen roads, bike lanes may be installed in the uphill direction, and bikes and vehicles will share the downhill travel lane. Class III bike routes are proposed along campus service roads.

**Response to Comment LA-4-13.** Please refer to Response to Comment LA-4-1.

**Response to Comment LA-4-14.** The comment is noted.

**Response to Comment LA-4-15.** Please refer to Response to Comment LA-4-1.



REC'D JAN 11 2006

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January 11, 2006

Mr. John Barnes, Director of Campus Planning  
2005 LRDP EIR Comment  
UCSC Physical Plant and Construction  
1156 High Street, Barn G  
Santa Cruz, Ca 95064

Subject: 2005 Long-Range Development Plan and Environmental Impact Report

Dear Mr. Barnes:

State law mandates the Santa Cruz Local Agency Formation Commission (LAFCO) to regulate the boundaries and service areas of cities and special districts within the county. This authority covers the municipal services provided by the City of Santa Cruz to the University of California, Santa Cruz campus. For that reason, Santa Cruz LAFCO is a responsible agency under the California Environmental Quality Act for any changes to the boundary or service area of the City. Thank you for an opportunity to comment on the Draft EIR and the Long-Range Development Plan.

Comment 1 and Request

LAFCO is concerned about the statement on page 4.15-2 under the discussion of water supply, that the University "does not believe LAFCO approval is necessary for the campus to receive increased service for the development of those portions of the campus that lie in unincorporated County." Until such time that LAFCO can evaluate this claim and make its own determination regarding the claim, LAFCO must contest that statement.

LAFCO hereby requests copies of the UC/City agreements cited in that section of the EIR together with any supporting documents and legal authorities.

Comment 2

In its mandated role as the countywide coordinator of public services and growth plans, LAFCO carefully scrutinizes growth plans in an effort to assure that each community's proposed growth can be accommodated within the capacities of the service agencies. A city's or special district's service area expansion can only occur with LAFCO's approval. This will either be accomplished through annexation pursuant to Government Code Section 56650 et seq. or through exterritorial service authorization pursuant to Government Code Section 56133. The City of Santa Cruz, the County of Santa Cruz, and CALTRANS are currently straining to provide adequate services to UCSC. The Draft

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Environmental Impact Report identifies many of these strained services, but does not propose full mitigations. In reviewing any future application to expand the City's boundary or service area to the areas of the campus outside the current City limits, LAFCO will expect the City and the University of California to demonstrate a coordinated plan for expanding services within the City's service area, the University fully paying for the incremental cost of services that it requires, and the environmental impacts to be minimized to the extent feasible.

2

Comment 3

As shown on the attached table, the EIR projects campus water use increasing 84% from the current baseline to 2020, while the principal demand factors, such as enrollment, faculty/staff size, and on-campus student housing, are projected to increase at lower rates (49%, 39%, and 61%). Wastewater is expected to increase 55% in this time period. Please verify your water demand calculations and explain the high water demand figure. If the high number is correct, the University should propose additional mitigation measures to reduce its use of City water.

3

Since the City of Santa Cruz provides a series of services to the campus, LAFCO will be very interested in the City's comments on the draft EIR, as well as the ability of the University and City to cooperatively plan for the University's growth in a manner that minimizes environmental and service level impacts in the City and the surrounding communities.

To respond to the request in this letter or to discuss our comments, please contact the Commission's Executive Officer, Patrick McCormick.

Very truly yours,

*Don Ramos*  
for  
Don Ramos  
Chairperson

Attachment

Summary of Selected Changes Projected in Draft Environmental Impact Report  
For 2005 Long-Range Development Plan, UCSC

	2003-04	Projected 2020	Change	% Change	Source Page
Students	14,052	21,000	6,948	49%	3-9
Faculty, staff, non-UC employees	4,527	6,294	1,767	39%	3-10
Students living in UC housing	6,050	9,713	3,663	61%	3-10
Faculty and staff living in UC housing	254	441	187	74%	3-10
Partners and dependents in UC housing	677	1,270	593	88%	3-10
Existing and approved total assignable square footage of buildings	3,245,316	5,944,066	2,698,750	83%	3-13
Instruction square footage	913,817	1,692,417	778,600	85%	3-13
Housing square footage	1,423,788	2,529,938	1,106,150	78%	3-13
Annual water demand (million gallons)	206	379.6	173.6	84%	3-29
Wastewater (million gallons)	110	170	60	55%	3-29
Solid waste (tons)	2,450	3,580	1,130	46%	3-29
Electricity (megawatts)	52,900	116,000	63,100	119%	3-29
Natural gas peak demand (therms/hour)	656	1,850	1,194	182%	3-34
Average daily traffic, main campus	24,830	34,173	9,343	38%	4.14-34
Afternoon peak hour traffic out of main campus	2,040	2,765	725	36%	4.14-34

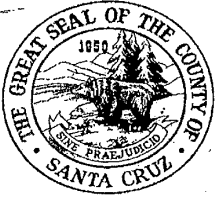
## Response to Comment Letter LA-5

**Response to Comment LA-5-1.** As described in Response to Comment LA-3-28, the 1962 and 1965 agreements between the City and the University commit the City to providing water to the entire campus, whether within the City limits or outside the City limits in the unincorporated County. The City has been committed to providing water to the entire Campus since 1965 and has, in fact, been providing water to the campus for all of that time. The City also has provided water to parts of campus outside the City limits. Specifically, the Campus uses City-provided water from the storage tank outside the City limit (see [Figure 3-7](#) in Chapter 3 of Volume IV for the location of the storage tank) for fire protection in the mostly undeveloped campus areas in the unincorporated County. Also, the City has provided domestic and fire protection water to buildings in the Crown-Merrill Apartments and the College 9 Apartments, outside the City limit (see Draft EIR, Figure 1-2, for the City limit), since at least 1986. Government Code section 53133, which requires LAFCO approval of extraterritorial water service in certain situations, therefore, does not apply to the 2005 LRDP. Section 53133 only requires LAFCO approval of “new or extended” water service. Because the water required for development under the 2005 LRDP is not “new or extended” water service, LAFCO approval is not required. Moreover, Section 53133 does not apply to service that was provided before January 1, 2001. The City began providing water to the Campus well before that date. For a more detailed explanation of the University’s position concerning the applicability of Section 56133, please see July 21, 2006 letter from Kelly Drumm of the University of California to John Barisone and Richard Wilson of the City. This letter is incorporated herein by reference and is available for review at the offices of UC Santa Cruz Physical Planning and Construction.

**Response to Comment LA-5-2.** The Draft EIR evaluates the environmental effects of the proposed project on study area services and includes numerous mitigation measures to avoid or minimize significant environmental effects. With respect to utilities such as water and wastewater, the University will comply with its obligation under Government Code 54999. Please refer to Master Response MIT-1 for more information on Government Code 54999. All of these actions would reduce the impacts to the maximum extent feasible. However, LRDP Impact UTIL-9 (cumulative increase in the demand for water supply) would remain significant and unavoidable (see Draft EIR pages 4.15-28 through 4.15-37).

**Response to Comment LA-5-3.** Please refer to Section 5.2.15.2.2 in Master Response UTIL-1, which explains how the campus water demand under the 2005 LRDP was calculated. Note that the Campus proposes to recommend to The Regents the adoption of the Final Draft 2005 LRDP (September 2006). The Final Draft 2005 LRDP revises the Draft 2005 LRDP (January 2005) to reflect the Reduced Enrollment Growth Alternative previously analyzed in the 2005 LRDP Draft EIR and identified as the Environmentally Superior Alternative. For more information regarding the Final Draft 2005 LRDP, please see Final EIR, Volume IV, Chapter 2, *Project Refinements*. Appendix B of the Final EIR (Volume VI) includes details of the Campus’s water demand projections for both the Draft 2005 LRDP (January 2005) analyzed in the Draft EIR and the Final Draft 2005 LRDP (September 2006). The three elements that contribute most to the water demand estimate associated with development under the 2005 LRDP are the increase in instructional space (about 85 percent over existing instructional space for the Draft 2005 LRDP as analyzed in the Draft EIR), the increase in on-campus housing, and the increase in summer time enrollment. For the increase in water demand relative to existing conditions, under the Final Draft LRDP, please refer to Chapter 2, *Project Refinements*, in Volume IV of the Final EIR.

The University has revised and reorganized the water supply mitigation measures to further reduce water usage on the campus. Please refer to Master Response UTIL-2 (Water Supply Mitigation Measures). Please also refer to Response to Comment LA-2-21, which indicates that although the total annual volumes of wastewater reported in the Draft EIR were in error, the peak flows used in the analysis of impact were correct. Assuming that wastewater discharge grows in proportion to indoor water use (including the water use by summer student residents), based on the revised annual volume, annual wastewater discharge under the Draft 2005 LRDP would be approximately twice the existing discharge. Note that indoor water use would increase at a greater rate than total campus water use if the entire 2005 LRDP building program were constructed. Under the Final Draft 2005 LRDP (September 2006) the increase in annual wastewater discharge would be proportionally reduced (see Chapter 2 in Volume IV of the Final EIR, *Project Refinements*).



REC'D JAN 11 2006

## COUNTY OF SANTA CRUZ

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### PLANNING DEPARTMENT

701 OCEAN STREET, 4<sup>TH</sup> FLOOR, SANTA CRUZ, CA 95060  
(831) 454-2580 FAX: (831) 454-2131 TDD: (831) 454-2123  
TOM BURNS, PLANNING DIRECTOR

January 6, 2006

John Barnes, Director of Campus Planning  
Physical Planning and Construction  
University of California, Santa Cruz  
1156 High Street, Barn G  
Santa Cruz, CA 95064

**SUBJECT: Comments on Draft EIR for UCSC's 2005 Long Range Development Plan**

Dear Mr. Barnes,

Thank you for providing the County the opportunity to comment upon the Draft Environmental Impact Report (DEIR) for the University of California at Santa Cruz (UCSC) 2005 Long Range Development Plan (LRDP). This letter and its Attachment #1 consist of comments on the DEIR made by various County departments in addition to the Planning Department, including the Department of Public Works, Environmental Health Services, the District Attorney's Office, and the Department of Parks and Recreation. We note that some of our suggestions made in our EIR scoping letter of February 25, 2005, regarding what should be addressed in the DEIR, were incorporated into the DEIR. However, many of the issues we raised were not addressed, or not fully addressed, in the DEIR and continue to be of concern to the County.

The specific and detailed comments County staff has on the DEIR for the 2005 LRDP are listed in Attachment #1 to this letter. Let me take a moment, however, to highlight and summarize some of the most significant broad areas of County concern in the body of this letter. You will note that these are largely the same concerns we outlined in our February 2005 scoping letter. They include:

- Enrollment projections that are sharply inconsistent with the State's projections of growth in California's college-age population and of growth of the UC system's overall enrollment;
- Proposed building area expansion that is disproportionate to proposed enrollment growth;
- Significant questions regarding the source of water supply to meet projected growth demands;
- A lack of adequate capacity in the transportation system to accommodate projected growth;
- A lack of sufficient sites to accommodate new housing needed to accommodate the anticipated growth, both in students and support staff;
- A lack of thorough analysis of useful alternatives; and



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- Lack of commitment to fulfill proposed mitigations given the University's past track record relative to mitigating the impacts of growth from the previous LRDP, and the new proposed mitigations containing non-committal qualifying language, such as saying mitigations will be implemented only "when feasible" or "if possible".

These seven major areas are discussed in more detail below and detailed further in Attachment #1 to this letter along with County staff's numerous other comments and concerns.

**Enrollment Projections**

A fundamental aspect of the LRDP and its DEIR is the underlying enrollment projections used as the basis for justifying the proposed University growth. Despite the fact that the County's February 2005 scoping letter specifically requested that the enrollment forecast assumptions and process be described and detailed in the DEIR, the explanation of how the growth projections were derived is presented in only the most general terms. Failure of the DEIR to fully explain the derivation of these projections is a fundamental flaw that undermines the entire environmental analysis.

This is a critical point because the growth projections provide the sole basis for the extensive 15-year building program, which, in turn, gives rise to the anticipated environmental impacts. The campus growth projections therefore represent the foundation upon which the entire environmental analysis is based. It is not possible to evaluate the adequacy of the impact analysis, or the proposed mitigation or range of alternatives, without assuring that the growth projections are reasonable and accurate. This deficiency is so fundamental that the DEIR should be revised to thoroughly explain the derivation of the growth projections and re-circulated for public review.

Why does enrollment at UCSC need to grow by almost 50% when the statewide student-aged population will only be growing by 15.2% and UC system-wide growth is projected to be only 20.3% during the same timeframe (according to the State Department of Finance)? The answer to this question is not provided in the DEIR, or any of the supporting documents cited (e.g., Strategic Futures Committee reports). The University should provide, in the EIR or elsewhere, a detailed, demographic data-based rationale, fully disclosing why campus planners believe that UCSC should accommodate nearly 50% more students by 2020 when the Statewide growth in that age-group is projected to be so much less.

1

It appears that UCSC is either planning to accommodate far more than its fair share of the anticipated UC system-wide growth, or that the campus is planning to accommodate a disproportionate ratio of out-of-state to in-state students, or both. The University should answer the following questions:

- Why should UCSC be expanding at a rate faster than other campuses in the UC system?
- Why should UCSC have to accommodate a level of out-of-state demand that is disproportionate to in-state demand when the University of California is supported by California tax dollars and, therefore, its primary mission should be to serve residents of California?

The public deserves an honest explanation of the basis for the LRDP's enrollment projections. The University, in the EIR or elsewhere, should present detailed and up-to-date demographic data in addressing this issue. It is County staff's view that the LRDP should be revised and significantly scaled back to accommodate UCSC's fair share of the expected 2005-2020 statewide growth in UC-system bound California-resident students which, given the State's demographic projections, would be no more than a 15-20% increase rather than the proposed 50% enrollment increase. Short of that, at a minimum, the University should fully explain, in the EIR or elsewhere, how the enrollment projections were derived.

1

**Disproportionate Floor Area Expansion**

As we mentioned in our February 2005 scoping letter, the LRDP proposes a near doubling of UCSC's floor area. The amount of new building area<sup>1</sup> is proposed to grow from the current 4.8 million square feet to 8.9 million square feet (an 84% increase in 15-years). Despite our request that it do so, the DEIR fails to explain why the LRDP assumes the campus needs an 84.3% expansion in floor area to accommodate a proposed increase in student population of only 49.5%. **Again, the public deserves an honest explanation of why the University believes that it must add such a large amount of new building space. It is County staff's view that the amount of new floor area planned should be roughly proportionate to the projected growth rate in California's college-age population - i.e., something closer to a 15-20% increase in Outside Gross Square Feet (OGSF) rather than the proposed 84% increase, unless a larger amount of new floor area is clearly tied to other policy objectives (e.g., increasing the percentage of students housed on campus). The University should explain this discrepancy in the EIR, or elsewhere.**

2

**Water Supply**

UCSC is currently served by the City of Santa Cruz Water Department. The City's (and most of the County's) water supply system is at, or in some cases, already beyond safe yield. There is barely enough reserve capacity to survive minor drought years, let alone the next major long-term drought. The DEIR's analysis of the proposed sources of water supply for the anticipated growth is inadequate. Alternative means of obtaining water, such as conservation, reuse of gray water, storage and use of runoff, reclamation of wastewater, and development of on-campus groundwater supplies were not given enough attention. The University is mainly relying on the City's proposed desalination plant, the considerable construction and operating expense of which will be borne by Santa Cruz Water District rate payers, to provide the water needed to sustain its growth. **Given the universal problems being experienced by local water districts, it is critical that the Final EIR (or revised DEIR) fully address these critical issues related to water supply that were not sufficiently covered in the DEIR. The University owes it to the public to fully explore and implement alternative and more environmentally-benign water sources.**

3

<sup>1</sup> According to the LRDP, "outside gross square feet" (OGSF) which includes the square footage of all building floor areas and half of all covered unenclosed areas (i.e., not including roads, pathway, uncovered pave open areas, etc.) is proposed to expand by 84% by 2020.

**Transportation**

The DEIR does not adequately address the off-campus traffic impacts that would result from the LRDP's anticipated growth, particularly those outside the City of Santa Cruz. For example, impacts to the freeway portion of Highway 1 are not analyzed. **Given the extent of traffic problems currently being experienced along the access roads serving the University, including those outside of the City limits, it is critical that the EIR more sufficiently address all possible viable transportation solutions, including increased on-campus housing of students and employees, restriction of on-campus parking, and expansion of alternative transportation options. The University owes it to the broader community, which is greatly impacted by UCSC-generated traffic, to fully explore and implement measures such as these that will reduce driving to and from campus.**

4

**Housing**

While there are many factors that have caused the current housing crisis in the County, no one can deny that the University's growth and lack of providing adequate housing on campus have been key factors. Without a comprehensive and enforceable housing strategy adopted as part of the proposed LRDP, this problem will surely be further compounded. The impacts of LRDP-envisioned growth on regional housing stocks are not sufficiently addressed in the DEIR. This growth in students, faculty and staff will severely impact an already overburdened housing supply. These impacts to the County's housing stock should be more adequately addressed in the EIR, with more effective and enforceable mitigations proposed.

5

In addition to building more on-campus student housing (i.e., enough for 70% of undergrads and 50% of grad students), the University should explore ways to more fully utilize on-campus housing and reduce current high vacancy levels, to encourage more students to choose on-campus housing, through such means as offering below-market rents, not requiring the purchase of meal plans, lowering the cost of meal plans, etc. **We asked that alternatives such as these be evaluated in the DEIR, but this was not done. The LRDP and its EIR must include clearly defined and enforceable strategies – not just ideal goals – to address the impact that the proposed University growth will surely have on the local housing market. The University has an obligation to the public to proactively and effectively minimize impacts to the local housing market.**

**Lack of Thorough Analysis of Useful Alternatives**

The DEIR's alternatives analysis is woefully inadequate. The "Reduced Enrollment Growth" alternative is inadequate because it is for only a slightly lower growth rate than the proposed project (40% instead of 49.5% enrollment growth), and still does not provide a reason for why UCSC needs that much growth. The "Satellite Campus at Moffett Field" alternative was apparently rejected from receiving detailed consideration solely because it "...would not meet the goal of providing an intellectual and social community". The "Increased On-Campus Housing" alternative was rejected from receiving detailed consideration for a similarly specious reason - because of the DEIR's unsupported claim that no more than 50% of undergrads can ever be expected to live on-campus, even though no consideration was given to providing on-campus housing at below market rent levels as an incentive to live on-campus. Several alternatives were rejected because the DEIR claims that they would not achieve the LRDP's

6

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enrollment objectives, yet no data to support UCSC's claimed need for 6,950 more students by 2020 is provided as a basis for this objective. Moreover, several of the alternatives suggested in our February 2005 scoping letter were not considered in the DEIR. These deserve consideration. In addition, a common sense alternative that combines some of the aspects of several of the other alternatives should be considered. This hybrid or combination alternative would assume UCSC accepting it's fair share of the UC system's projected enrollment increase by 2020 (i.e., 15-20% more students than now), a proportional increase in building area, restricting the new development primarily to the already developed portion of campus (i.e., no significant northern campus expansion), minimizing the addition of new parking spaces on-campus, use of on-campus sources of water (e.g., groundwater, recycled gray water/wastewater, storage and use of runoff, etc.), phasing enrollment increases to coincide with the implementation of needed mitigations, and requiring the on-campus housing of 70% of undergrads, 50% of grad students, and 25% of new faculty and staff. **UCSC owes the public a better analysis of a full range of feasible alternatives that could lessen LRDP impacts while meeting most of the LRDP's stated objectives.**

6

#### **UCSC's History in Implementing Past Growth Impact Mitigations**

Over the years the University has made a variety of commitments to the community as part of past growth plans. Unfortunately, a number of critical commitments – from drainage improvements to on-campus housing goals – have not been met. As a result, many community members have a diminished level of confidence in UCSC's ability to grow responsibly and in a cooperative manner with the City and County. To help restore trust, we asked that the 2005 LRDP DEIR include an evaluation of UCSC's track record in implementing all previous mitigations related to 1988 LRDP, with strategies to ensure that all those unfulfilled mitigations plus the mitigations for the 2005 LRDP, are fully implemented in a timely manner. Except in a few cases, by and large this was not done. **Appropriate strategies for implementing the 1988 mitigation measures and the mitigations included for the 2005 LRDP EIR should include timelines for implementation and should be tied to enrollment levels and construction phases of new development.**

7

Community mistrust is heightened by the use, widespread throughout the descriptions of the proposed mitigations, of wishy-washy qualifying terms such as "to the extent feasible", "where feasible", "when possible", "as appropriate", etc. Who decides what is "feasible" or "possible"? The words "feasible" and "possible" are not even defined. Moreover, there generally are no committed mitigation implementation funding sources identified. Especially in light of UCSC's poor track record in implementing mitigations that were required for previous LRDPs and development projects, the DEIR's approach to mitigations creates the illusion of mitigation without the commitment to mitigate. **These qualifying terms should be removed wherever they appear in proposed mitigations, as they allow for the possibility that the mitigations may never be implemented. Furthermore, stable, secure and committed mitigation implementation funding sources should be identified, and the EIR should commit the University to a phased growth approach that makes any enrollment increase beyond specific levels contingent upon successful mitigation implementation, especially in the areas of transportation, housing and water supply.**

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**Conclusion**

We thank you for the opportunity to comment upon the 2005 LRDP Draft EIR. However, it is clear that the Draft EIR still has a long way to go in adequately addressing the considerable impacts of LRDP-anticipated growth, and in fully considering reasonable alternatives to the proposed plan. We must stress that the University and the UC Regents need to better acknowledge and appreciate that this proposed high level of growth in such a relatively small community the size of Santa Cruz, with its considerable environmental constraints, is unprecedented throughout the UC system and, therefore, is highly inappropriate. Nevertheless, the County looks forward to hearing back from the University to see how it can better address the impacts of its proposed growth on the community. We look forward to reviewing your responses to our comments in the Final EIR, or preferably in a revised Draft EIR. Please feel free to call me or Frank Barron of the Planning Department staff (454-2530) if you should have questions regarding this letter.

Sincerely,



Tom Burns  
Planning Director

Attachment 1: Santa Cruz County Staff's Specific Comments on the LRDP Draft EIR

cc: County Board of Supervisors  
County Planning Commission  
County Department of Public Works  
County Environmental Health Services  
County Fire Marshall  
County Department of Parks & Recreation  
District Attorney's Office  
State Clearinghouse  
AMBAG  
Santa Cruz County Regional Transportation Commission  
Caltrans, District 5  
Regional Water Quality Control Board, Central Coast Region  
Monterey Bay Unified Air Pollution Control District  
California Coastal Commission, Central Coast District  
State Department of Fish & Game  
Santa Cruz City Council  
Santa Cruz City Planning Department  
Santa Cruz City Water Department  
LAFCO  
UCSC Chancellor's Office  
UC President's Office  
UC Regents  
Assemblymember John Laird's Office  
State Senator Joe Simitian's Office  
U.S. Fish & Wildlife Service  
U.S. Army Corps of Engineers  
U.S. EPA  
U.S. Congress Member Sam Farr's Office

## ATTACHMENT 1

**COUNTY OF SANTA CRUZ COMMENTS ON THE  
DRAFT EIR FOR UCSC'S 2005 LONG RANGE DEVELOPMENT PLAN**

Listed below are Santa Cruz County staff's specific comments on the University of California at Santa Cruz's (UCSC's) 2005 Long Range Development Plan (LRDP) Draft Environmental Impact Report (DEIR). These comments have been developed in response to review of the 2005 LRDP and its associated DEIR as well as other pertinent California Environmental Quality Act (CEQA) documents (e.g., Notice of Preparation, Initial Study, 1988 LRDP EIR, etc.). The comments and recommendations below reflect the concerns expressed by various County departments, including the Planning Department, the Department of Public Works, Environmental Health Services, the Department of Parks and Recreation, and the District Attorney's Office.

**Need for Additional CEQA Review:**

Regarding the discussion of the DEIR as being both a program and project-level EIR, the last paragraph on page 1-5 implies that additional CEQA analyses may not be performed on subsequent projects within the scope of the approved 2005 LRDP. While the reference to CEQA is correct, this passage in the EIR should be revised to clearly reflect that additional environmental analyses will be performed on subsequent projects. As acknowledged elsewhere in the document (e.g., page 4-8), the environmental analysis included in Volumes 1 and 2 of LRDP Draft EIR has been prepared at a programmatic level and is not as detailed as an environmental analysis done for a specific development project.

The need for subsequent, project-specific analyses is also reflected in many of the mitigation measures throughout the DEIR that require avoidance of impacts "where feasible" and "if possible." This language makes it impossible to determine what level of impacts would actually occur and to what extent they could be mitigated. Accordingly, the LRDP DEIR should expressly state that subsequent, project-specific CEQA reviews will be prepared in the future and released for public review.

**Summary of Impacts and Mitigations (Chapter 2):**

As listed in Chapter 2 and other sections of the DEIR, the proposed LRDP and building program would likely cause 11 significant and unavoidable impacts, in at least eight resource categories, including: 1) daily operational emissions above MBUAPCD thresholds, 2) conflicts with the Air Quality Management Plan, 3) damage or destruction of a historic building or structure, 4) substantial adverse change in the significance of a historical resource or unique archeological resource, 5) decrease in water quality from increased urban pollution and erosion, 6) exposure of nearby sensitive receptors to excessive noise, 7) inducement of substantial population growth, 8) a demand for housing that combined with demand created by other growth in the county, would exceed the supply, 9) unacceptable traffic levels of service at 11

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off-campus intersections, 10) significant environmental impacts associated with expansion of the campus cooling water and heating water generation and conveyance facilities, and 11) increased demand for water during normal and drought years, and development of new water supply infrastructure could result in significant environmental impacts.

The DEIR does not adequately explain why these significant impacts are unavoidable; specifically, why the identified mitigation will not reduce impacts to a less than significant level, and why other mitigation options and/or alternatives are infeasible. Without this information, it is not possible to determine whether the conclusions about significant and unavoidable impacts are supported by substantive evidence. This information should be included in the Final EIR (or a revised DEIR). In addition, according to Section 15126.2(b) of the CEQA Guidelines, the EIR should explain why the project is recommended to go forward despite the significant and unavoidable impacts.

9

Also, the list of "Known Areas of Controversy" (Sec. 2.6) should be expanded to include:

- Controversy over the discrepancy between the proposed 50% enrollment increase on the significantly lower State DOF enrollment and demographic projections.
- Controversy over the discrepancy between the proposed 84% expansion in floor area and the proposed 50% enrollment increase.
- Controversy about the housing impacts that will be created by LRDP growth.
- Controversy about UCSC's poor track record in mitigating the impacts, and particularly the drainage impacts, from implementation of the 1988 LRDP, and how that raises questions about UCSC's commitment to implement the required mitigations for the 2005 LRDP's impacts.

10

**Project Description:**

Demographic Assumptions: County staff continues to question the demographic assumptions that are the basis for the project objective of accommodating 21,000 students at UCSC by 2020. Based on this project objective, the DEIR's project description, in Chapter 3 and in the Project Background section (pg. 1-4), assumes there will be a demand for 6,948 more on-campus students. However, there is no supporting data contained in the LRDP or the DEIR, or any other data available on-line (that County staff is aware of) to support this assumption. It appears that the enrollment growth projections for UCSC are still based on relatively old information given the reference in paragraph three of page 1-4 to "The Regents 2000." Moreover, the explanation of how the growth projections were derived is presented in the most general terms. This is despite the fact that the County's February 2005 scoping letter

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specifically requested that the enrollment forecast assumptions and process be described and detailed in the DEIR. Failure of the DEIR to fully explain the derivation of these projections is a fundamental flaw that undermines the entire environmental analysis.

This is a critical point because the growth projections provide the sole basis for the extensive 15-year building program, which, in turn, gives rise to the anticipated environmental impacts. The campus growth projections therefore represent the foundation upon which the entire environmental analysis is based. It is not possible to evaluate the adequacy of the impact analysis, or the proposed mitigation or range of alternatives, without assuring that the growth projections are reasonable and accurate. This deficiency is so fundamental that the DEIR should be revised to thoroughly explain the derivation of the growth projections and recirculated for public review.

According to the DEIR (Table 3-1), the LRDP plans for a projected level of 21,000 “on-campus” students by 2020, a 6,948-student increase over the 2003-04 level of 14,052 “on-campus” students. This represents an almost 50% increase in just 15 years. However, the State Department of Finance (DOF), the State agency charged with analyzing demographic trends in California, projects that there will only be a 15.2% increase in the college-age population statewide between 2005 and 2013. 2013 is the peak year for that age group, after which the numbers of 18-24 year olds are forecasted to decline, level off, and slowly increase back to 2013 levels by 2027<sup>1</sup>. The State DOF also forecasts enrollment levels for the UC system out to the peak year of 2013<sup>2</sup>. These forecasts indicate that UC-system-wide growth will increase 20.3% between 2005 and the demographic peak in 2013. Enrollment levels would likely decline and then rebound to 2013 levels by 2027, mirroring the forecasted trend the 18-24 year-old age group.

Why does enrollment at UCSC need to grow by 50% when the statewide student-aged population will only be growing by 15.2% and UC system-wide growth is projected to be only 20.3% during the same timeframe? The answer to this question is not provided in the LRDP, its DEIR, or any of the supporting documents cited (e.g., Strategic Futures Committee reports). The University should provide, in the EIR or elsewhere, a detailed, demographic data-based rationale explaining why the campus must accommodate nearly 50% more students by 2020 when the Statewide growth in that age-group and UC system-wide growth are projected to be so much less.

It is critical that the most up-to-date and accurate demographic projections be used in determining the campus growth need. However, it appears that out-of-date population projections (i.e., DOF’s 2000-2040 projections issued in 1998) may have been used by UCSC’s Strategic Futures Committee (SAC) to calculate UCSC’s 2005-2020

<sup>1</sup> 2005-2027 college-age (18-24 year-olds) individual year population projections were obtained from State Department of Finance, *Race/Ethnic Population with Age and Sex Detail, 2000-2050*, dated May 2004.

<sup>2</sup> State of California, Department of Finance, *California Public Postsecondary Enrollment Projections, 2004 Series*, Sacramento, California, March 2005.



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growth need, as the SAC's enrollment projections were issued in April 2004 and the most up-to-date DOF projections were not issued until May 2004. These latest DOF projections are (unlike DOF's previous 1998 projections) based on 2000 Census data, and happen to be substantially lower than DOF's earlier 1998 population projections. These more recent and more accurate projections should be used by UCSC to recalculate their growth needs, and the EIR should include detailed results of this analysis. The EIR should also include UC system-wide projections as well, as it appears that the 2005 LRDP is proposing that UCSC accommodate more than its fair share of the statewide need. There needs to be more transparency into how UCSC determined its growth need, and this process and data should be detailed in the EIR, or elsewhere.

11

It is County staff's view that the project objective and, therefore, the project description, should be revised and significantly scaled back because the current project description and LRDP appear to be based on old and inaccurate projections of future enrollment levels. If this is not the case, and the LRDP's student growth projection is not based on out-of-date enrollment projections, the University should provide evidence of this, since none of the documents available provide any detail as to which projections were used or specifics about how the 21,000 FTE student figure was derived. Moreover, these issues should be added to the list of "Known Areas of Controversy" on DEIR page 2-5.

Floor Area Need: As we mentioned in our February 2005 scoping letter, the LRDP (pg. 58) proposes a near doubling of floor area (an 84% increase). The proposed amount of new building area<sup>3</sup> is proposed to grow from 4.8 million square feet to 8.9 million square feet. Put in perspective, this proposed increase of 4.1 million square feet is roughly equal to over thirty (30) County Government Center buildings' worth<sup>4</sup> of new floor area. Despite our request that it do so, the DEIR fails to explain why the project description assumes the campus needs an 84% expansion in floor area to accommodate a proposed increase in student population of 49.5% in the next 15 years (particularly in light of the fact that the state's college-age population is projected to grow only by 15.2% over the same period<sup>2</sup>). As stated above, it is County staff's view that the LRDP should be revised and scaled back to accommodate UCSC's proportional share of the expected 2005-2020 statewide growth in UC system-bound students. The amount of new floor area planned should also be roughly proportionate to the percentage growth rate in UC students statewide - i.e., something closer to a 15-20% increase in Outside Gross Square Feet (OGSF) rather than the proposed 84% increase. This issue should be addressed by the University, in the EIR or elsewhere, and also added to the list of "Known Areas of Controversy" on EIR page 2-5.

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<sup>3</sup> According to the LRDP (pg. 58), "outside gross square feet" (OGSF) which includes the square footage of all building floor areas and half of all covered unenclosed areas (i.e., not including roads, pathway, uncovered paved open areas, etc.) is proposed to expand by 84.3% by 2020.

<sup>4</sup> The County Government Center at 701 Ocean Street has a roof area of 26,400 sq. ft., which multiplied by 5 stories equals 132,000 sq. ft. of total floor area (i.e., not counting the basement, atrium or the neighboring Superior Court building). The proposed expansion of 4.069 million OGSF at UCSC is, therefore, equivalent to 30.8 County Buildings' worth of floor area.

**Basis of Impact Analysis:**

According to the discussion near the beginning of Chapter 4 (pg. 4-2), and other sections of the DEIR, impacts related to traffic, air quality, noise, utilities and public services are analyzed primarily on the basis of total population increase with full development under the 2005 LRDP. This approach does not afford the public or local governments an opportunity to see at what level(s) of campus population growth significant impacts would occur, or could be avoided, in these resource categories. It also prevents identification of potential alternatives based on a smaller increase in the campus population. Considering that the DEIR has identified 11 significant and unavoidable impacts, it is incumbent upon UCSC to fully evaluate the significant effects of the project and all possible ways to avoid or mitigate those impacts. Accordingly, appropriate sections of the EIR should be expanded to identify the population level(s) at which significant impacts would occur in each of the above resource categories. This might help identify when specific mitigation measures should be implemented to reduce impacts to a less than significant level. It might also lead to identification of another project alternative, at a reduced campus population level. If so, such an alternative should be fully evaluated in the Final EIR (or revised DEIR).

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**Aesthetics/Visual Impacts:**

Visual Character: The DEIR (pg. 4.1-2) states that the visual character of the campus "is defined by relatively dense building clusters connected by pathways through natural open spaces." However, the northern area of the campus, where 35% of the proposed development will occur, contains no buildings. This area's visual character is defined solely by the forests, meadows, and chaparral. In our February 2005 scoping letter we requested that the DEIR acknowledge this for both the northern campus and other currently undeveloped areas (e.g., areas west of Empire Grade). This has not been done in the DEIR and it should be done in the Final EIR (or a revised DEIR).

14

Loss of Trees: Despite our February 2005 scoping letter's suggestion, the DEIR fails to include provisions to minimize the loss of trees, particularly those with special aesthetic value. We suggested that the DEIR contain a definition for "significant trees" based on size, type, visual characteristics, etc. and enumerate how many such trees (as well as non-significant trees) will potentially be lost in each area proposed for development. This was not done in the DEIR and should be done in the Final EIR (or a revised DEIR).

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Visual Impacts – Building Heights: Because the DEIR does not disclose the proposed or potential heights of structures that are anticipated under the LRDP, it is impossible to evaluate the adequacy of the visual impact analysis. The EIR should set a upper limit for structures in each area in which there is a potentially significant visual impact and base the analysis of such impacts on the assumption that structures will be built to that height.

16

**Biological Resources:**

Natural Communities and Habitat Corridors: The County's February 2005 scoping letter requested that the DEIR evaluate the LRDP's consistency with the County's Sensitive Habitat Protection Ordinance (County Code Chapter 16.32) and County General Plan policies (including the General Plan Sensitive Habitat maps). This was not done in the DEIR and should be done in the Final EIR (or revised DEIR).

The scoping letter also requested that the DEIR include detailed and area specific evaluation of habitat connectivity issues for all relevant species. DEIR language suggests maintaining corridors (4.4.1.12) but does not map those corridors. In this regard, it would be helpful for the EIR to include a map of known campus locations of sensitive species, habitats and wildlife movement corridors overlain with a map of the proposed general locations for development under the LRDP (e.g., the map in Figure 4.0-1).

Cave System Biota: The DEIR does a poor job of addressing and mitigating for the impacts to the area's rare cave-system biota from LRDP development. Empire Cave lies beneath part of the UCSC campus in Cave Gulch and several other caves occur in Cave Gulch on or near the campus. In addition to being unique geological resources, these caves support unique biota, and in some cases endemic species that occur nowhere else. It is likely that some of these rare/endemic species also occur in other voids in the karst substrate that underlies many parts of the campus. This unique habitat type should be included as one of the Sensitive Natural Communities listed in Section 4.4.1.6. and fully evaluated as such.

According to a 2001 study of the biota of the Cave Gulch cave system entitled *Cavernicolous Invertebrates of Cave Gulch* (Ubick 2001)<sup>5</sup>, the Cave Gulch caves contain a rich fauna of over 70 invertebrate species, of which six are apparent endemics that have not been reported outside of this cave system. The DEIR addresses some of these six endemic species but not others, and does not even mention that they are in any way rare, much less found nowhere else on Earth. It is clear that due to their rarity, all six of these endemic invertebrate species, and likely many of the other 64 invertebrate species and other non-invertebrate species (e.g., Pacific Giant Salamander) known from these caves, qualify as special status species under CEQA, and thus require legal consideration in the EIR. The Final EIR (or a revised DEIR) should acknowledge the rarity and endemism of the species that make up this unique biota, and fully address their potential special status under CEQA and the potential threats to their continued existence posed by the development anticipated in the LRDP.

In particular, the EIR should determine whether modifications in karst geology and/or hydrology associated with implementation of the LRDP, including current and

<sup>5</sup> Ubick, Darrell. 2001. *Cavernicolous invertebrates of Cave Gulch*, Santa Cruz County, California.

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proposed future stormwater discharges (volume, timing, etc.) and runoff pollution (particularly any herbicides/pesticides used on campus), could adversely affect this extraordinary biotic community, both on campus and in the campus vicinity. It is not enough to simply state, as the DEIR does, that there will be no water quality impacts to cave species because sampling has shown that development on campus has not created water quality impacts (pg. 4.8-42) and because UCSC will be subject to NPDES stormwater regulations in the future.

Additionally, there appears to be an important inconsistency with respect to potential impacts to cave invertebrates (Pages 4.8-31 and 4.8-42). Statements on these two pages indicate that campus development has **not** resulted in an increase in urban runoff pollutants. These statements are integral to the conclusion that development under the 2005 LRDP would not adversely impact cave biota, including several special status species. However, on Page 4.8-21 of the Draft EIR it points out that: "Based on an analysis of the historic analytical database, the sampled water on the UC Santa Cruz campus **does** indicate an increase in urban runoff pollutants over time (emphasis added)." This discrepancy should be corrected in the EIR, and any changes in water quality that could potentially affect cave biota should be fully evaluated and mitigated.

Moreover, the DEIR implies on pg. 4.8-42 and elsewhere that water quality impacts to the cave biota of Empire Cave would not occur because drainage into this cave via the karst system would come from new residential areas, and such runoff is "...unlikely to be highly polluted". There is no documentation given supporting the contention that runoff from residential areas is not highly polluted, or does not periodically contain high levels of pollutants. Nor is there any evidence in the DEIR regarding what levels of urban runoff pollution (including herbicides/pesticides), for what durations, are detrimental to cave system biota. Due to the generally sensitive nature of this biota and its rarity, it should be assumed, unless there is evidence to the contrary, that **any** amount of urban runoff pollution, even for very brief amounts of time, is likely detrimental to the cave system biota. Unless and until such contrary evidence is provided, the EIR should consider impacts from urban runoff, even from residential areas, to be a potentially significant impact that can only be mitigated by eliminating the potential for any urban runoff entering the cave systems (i.e., Empire Cave and elsewhere).

In addition to insufficiently addressing water quantity and quality impacts as noted above, the DEIR assumes that there will be no impacts to portions of the cave system shallower than 4.9 feet, based on cave research done in Texas, because cave invertebrates will not live in areas so close to the surface due to high temperature variations. This assumption is faulty given obvious climatic differences between central Texas and coastal California, and the fact that many if not most cave invertebrates in local caves are found living near the cave entrance. The same is true for the other assumptions that stem from the research coming out of the Texas study, including the assumptions that karst system voids less than 6.6 feet wide, or 3.3 feet high, or which have a highly dissimilar morphology to occupied caves, are unlikely to serve as invertebrate habitat. Because of the climatic dissimilarities between Texas

and California it is highly dubious to make conclusions about what constitutes suitable habitat here based on studies from Texas. Impacts on sensitive cave biota from practices such as “pressure grouting” as described on pp. 4.4-51 & 4.4-52 should not be assumed to be non-existent simply because the voids to be filled or plugged are less than 4.9 feet from the surface or less than 6.6 feet wide or 3.3 feet high.

Due to potential impacts to rare and/or endangered cave species, which could potentially exist in any sinkhole or void regardless of size or depth on or near campus, a mitigation should be added to the Final EIR (or a revised DEIR) requiring that a comprehensive biological survey to be completed in **any**\* area where such species could conceivably be impacted by activities or actions such as “pressure grouting” or the conveyance of surface runoff (\*i.e., any area with karst features on or near campus, not just the Cave Gulch vicinity, regardless of void size or depth). If any such species are found to exist, this mitigation should prohibit any activities or actions, including pressure grouting, directing of runoff into such voids or sinkholes, use of herbicides/pesticides, etc., that could have any deleterious direct or indirect impact on the continued survival of these rare and unique creatures.

18

Sensitive Natural Communities – Shreve Oak Forest: Our February 2005 scoping letter requested that the relatively rare Shreve Oak forest plant community, which occurs on campus, be mapped and acknowledged as a CEQA Sensitive Natural Community in the DEIR. This was not done in the DEIR and should be included in the Final EIR (or revised DEIR).

19

Sensitive Natural Communities – Northern Maritime Chaparral: The mitigations to reduce impacts on northern maritime chaparral are inadequate. One mitigation (BIO 1-A) would involve avoiding removal of patches of northern maritime chaparral larger than 10 acres “when possible”, and would only require a 1:1 replacement ratio. This DEIR contains no substantial evidence that this proposed mitigation is sufficient. The DEIR contains no analysis of how many acres of maritime chaparral might be removed by development. It is conceivable that only patches under 10 acres would be removed, thus avoiding any requirement to mitigate, yet still constituting a significant cumulative impact. The conclusion that the impact to the Northern Maritime Chaparral plant community, mitigated as proposed, would be “less than significant” (Impact BIO-1) is not supported by substantial evidence. Such evidence and stronger mitigations are needed in the Final EIR (or revised DEIR).

20

There also needs to be a definition of the terms used in this section. Maps and population numbers should be added to allow analysis of impacts and mitigations. The map should show the “conservation area”, and there should be a discussion of efficacy of the proposed mitigation measures. “Removal of patch” language is not sufficiently detailed: does this mean part of a patch? There are no “patches” mapped in the LRDP or DEIR. No mention is made of prior prescribed fire practices, as was requested in scoping comments. The DEIR contains no discussion of the issue of proximity of development and decreased possibility of prescribed burning, which is known to be a necessary management mitigation even without impacts to “patches.”

Sensitive Natural Communities – Coastal Prairie: The DEIR states that up to 1.5 acres out of 111 acres on-campus of coastal prairie could be lost as a result of LRDP development. However, it is impossible to evaluate this from the Figure 4.4-5. A clearer map showing the relationship of the Coastal Prairie to the development areas, and analyzing the availability of mitigation areas, is needed. Past mitigations to 'restore' Coastal Prairie habitat have failed at UCSC. The DEIR does not contain substantial evidence the impacts to the Coastal Prairie plant community (Impact BIO-2), mitigated as proposed, would have a "less than significant" impact. The Final EIR (or revised DEIR) should contain such evidence and stronger mitigations. For example, a mitigation to require that installed landscaping avoid shading Coastal Prairie habitat should be added. Restoration at the Campus Habitat Reserve should not take place in areas already considered 'mitigation' areas for the Performing Arts Building – i.e., 3 acres already set aside for mitigation.

21

Sensitive Natural Communities – Purple Needlegrass Stands: This sensitive and important natural community-type exists on campus, provides critical habitat for the Federally-listed Ohlone Tiger Beetle, and should be listed and evaluated in the Final EIR (or revised DEIR) as a separate Sensitive Natural Community-type.

22

Special Status Plant Species – Santa Cruz Manzanita: The mitigations to reduce impacts on Santa Cruz Manzanita are also inadequate. Mitigation BIO 1-A would involve avoiding removal of patches of Santa Cruz Manzanita larger than 2 acres "when possible." Table 4.4-4 indicates that there are 19 patches of Manzanita on campus, occupying a total of 36.3 acres. It's conceivable that every patch removed could be smaller than two acres. The requirement to only avoid removal of patches greater than 2 acres could easily result in a significant impact cumulatively. Moreover, the DEIR contains no indication as to what percentage of the total population of this species occurs on campus. The DEIR does not contain substantial evidence the impacts to the Santa Cruz Manzanita (Impact BIO-1), mitigated as proposed, would have a "less than significant" impact. The Final EIR (or revised DEIR) should contain such evidence, include information on the species range, and should contain more effective mitigations to minimize impacts to this sensitive species (including a prescribed burning management program).

23

Special Status Animal Species: Our February 2005 scoping letter requested that, in addition to the 29 animal special status species mentioned in the Initial Study, the 70 species mentioned in the *Cavernicolous Invertebrates of Cave Gulch* report<sup>5</sup>, and those species and communities shown to occur in the campus vicinity in the CNDDDB, the DEIR also evaluate potential impacts to the following animal species that have been known to occur on campus or in its immediate vicinity: Burrowing owls, Pacific Giant salamanders, Mountain lions, Raptor species, Grasshopper sparrows, and American badgers. However the DEIR did not contain any evaluation of the use of campus by Grasshopper sparrows or American badgers. This should be done in the Final EIR (or revised DEIR).

24

In addition, with regard to Ohlone Tiger Beetles, proposed Mitigation BIO-7A seems to prohibit all bicycle use on trails in Marshall Field, regardless of the time of year. However, apparently the only critical time when beetles are at risk from bicycles on trails is from mid-January to late June. To encourage acceptance from the mountain biking public, the EIR should consider allowing bike use during non-critical times of the year, allowing the walking of bikes along trails during the no-ride periods, and the installation of information signage explaining why the restrictions are in place.

25

Additionally, no evaluation of potential impacts to the Steelhead trout, Southwestern pond turtle and Red-legged frog populations in the Wilder Creek watershed, which is downstream from portions of the UCSC campus, was included in the DEIR. These potential impacts should be fully evaluated in the Final EIR (or revised DEIR). Impact BIO-10, which states that there will be “less than significant” impacts to the Southwestern pond turtle is not based on substantial evidence.

26

Sensitive Natural Communities and Special Status Species – General: All natural communities and species that were treated as sensitive or special status in previous CEQA documents carried out by UCSC should be considered as such in the LRDP EIR. Impact BIO-5 states that impacts to special status plant species will be “less than significant”. This fails to take into consideration the special status plant species that are components of the Coastal Prairie and Northern Maritime Chaparral communities.

27

Campus-wide Wetland Delineation: Despite it being requested in our February 2005 scoping letter, no formal campus-wide wetland delineation was performed for the UCSC campus and incorporated into the DEIR’s analysis of biological resources. We believe that such mapping of jurisdictional wetlands (or at least rough estimates of the boundaries of probable jurisdictional wetlands), particularly in the northern campus, should be overlain with a map of the areas proposed for development under the 2005 LRDP and included in the Final EIR (or a revised DEIR).

28

Ecotone Areas: Our February 2005 scoping letter requested that the DEIR explain why the ecotone protection guideline contained in the October 2004 First Draft LRDP (pg. 45) was removed in the January 2005 Draft LRDP (pg. 45). This was not done. Ecotones are important habitat edge features occurring between two habitat types (e.g., grassland and forest) and, as such, are important landscape elements relied upon by numerous wildlife species. UCSC’s ecotones have always been protected in prior LRDP’s (as they were in the First Draft of the 2005 LRDP). The Final EIR (or revised DEIR) should include an explanation why this guideline was removed from the LRDP and also explain why the meadow/forest ecotone to the southwest of Kresge and possibly other ecotone areas, are being proposed for development. UCSC should continue to afford ecotones protected status as has been the policy since the inception of the campus.

29

Habitat Conservation Planning: Our February 2005 scoping letter requested that the DEIR discuss the need for a campus-wide Habitat Conservation Plan (HCP) for the 2005 LRDP and the status of existing campus HCP(s), and how they would relate to

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the presumed new required HCP. This was not done in the DEIR and should be part of the Final EIR (or revised DEIR).

30

1988 LRDP EIR Mitigation Implementation Status: Our February 2005 scoping letter also requested that the DEIR include an evaluation of UCSC's track record in implementing the biological resource-related mitigation measures that were supposed to have been implemented under the 1988 LRDP, with strategies to ensure that all those unfulfilled mitigations, plus the mitigations for the 2005 LRDP, are fully and conscientiously implemented in a timely manner. This was not done in the DEIR and should be part of the Final EIR (or revised DEIR).

31

Biological Impact Mitigations - General: The biological impact analysis in this portion of the DEIR (Pages 4.4-38 through 4.4-68) provides another clear indication that the document does not adequately evaluate significant impacts as required in Section 15162 of the CEQA Guidelines, and that project-specific CEQA analyses will be required in the future. For example, as noted on page 4.4-44, "Mitigation for impacts to wetlands shall occur on a project basis, because the extent of jurisdictional wetlands that would be affected would be determined on a project level." In addition, it appears there may be an important inconsistency in the cumulative impact analysis with respect to sensitive natural communities. On page 4.4-65, the Draft EIR indicates that one of the major reasons why these communities would not be significantly impacted is because they are protected by the County's Sensitive Habitat Protection Ordinance. While the County certainly endorses compliance with this local ordinance, it's our understanding that UCSC intends to exercise its' exemption from local requirements. If that's the case, the protection afforded by this local regulation cannot be used to justify why adverse impacts would be adequately mitigated.

32

**Cultural Resources:**

Impact Cult-2 (i.e., LRDP development could damage cultural resources) is listed a "significant but unavoidable" in Table 2-1, but as "less than significant" on page 4.5-25. The Final EIR (or revised DEIR) should rectify this inconsistency.

33

**Geology and Soils:**

Geology: As noted in the Initial Study and in our February 2005 scoping letter, there are potential hazards associated with the karst topography that underlie portions of the UCSC campus. These hazards include the collapse of caverns and subsidence of soils into voids, and zones of weak or soft soils directly overlaying the marble surface. The County's scoping letter strongly recommended that UCSC employ appropriately qualified and certified engineering geologists, hydrologists and civil engineers to map the extent of the karst features beneath the campus vicinity, as part of the preparation of a comprehensive hydro-geological study of the campus and surrounding areas that are hydrologically connected to the campus. This was not done as part of the DEIR. This study should also assess the potential habitat values and presence of species for

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cave-system biota in parts of the karst system that could be impacted by past and future campus development.

We still recommend that this comprehensive hydro-geological study be completed and its result summarized in the Final EIR (or a revised DEIR). This study should compare information obtained from karst mapping to the proposed building program and land use plan, and evaluate the potential effects of the LRDP on the karst terrain, including the cave system(s) biota and other species of concern. Groundwater flow patterns within the marble and the system's pre-development hydrology should also be carefully evaluated as part of this effort. The results and recommendations of this comprehensive hydro-geological study should become an integral component of the environmental review process for specific projects, and incorporated into the EIR. The EIR should include an assessment of potential geological/hydrological-related impacts and mitigations to avoid or minimize such impacts. A mitigation should be added prohibit development in karst areas so as to eliminate the possibility of damage due to sinkholes, void collapse, etc.

34

Soils: Our February 2005 scoping letter requested that the DEIR include a revised description of campus soils, as the description in the LRDP (pg. 35) is out of date and does not reflect the current soil survey. It is not clear if this was done. The Final EIR (or revised DEIR) should include an up-to-date soil survey.

35

Geological Impacts: The discussion of Impact GEO-3 (i.e., erosion from LRDP development) does not contain substantial evidence to support its claim that mitigation is not required for possible erosion impacts due to construction, tree removal and increased traffic.

36

**Hazards and Hazardous Materials:**

The EIR should consider a controlled burn program as a mitigation for Impact HAZ-10 (i.e., increased risk from wildland fires). If properly designed, such a program could also assist in maintaining the health of the campus' Northern Maritime Chaparral plant community, and the special status species therein.

37

**Hydrology and Water Quality:**

As noted in our February 2005 scoping letter, the 2005 LRDP does not adequately address the existing storm drainage system, nor the improvements to that system that will be needed to accommodate the proposed growth. The 2005 LRDP and its DEIR propose that the campus continue the historic practice of relying on a series of natural drainage courses and sinkholes for storm water conveyance. The LRDP states that the system meets current overall capacity requirements with localized areas of concern. However, the DEIR implicitly acknowledges that the existing campus stormwater drainage system is inadequate to serve existing development levels by proposing a major new campus-wide stormwater infrastructure project in DEIR Volume 3. It is curious that this major drainage infrastructure project is proposed to

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only accommodate the existing campus, not any future development. This drainage improvements project should be expanded in a revised EIR Volume III to accommodate all new development anticipated under the 2005 LRDP.

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The new drainage infrastructure project would implement some, but not all, of the recommended drainage improvements in UCSC's recently completed *Stormwater and Drainage Master Plan (SDMP)*, prepared by Kennedy Jenks Consultants (Sept. 2004). The SDMP found that the present drainage system is over-capacity and is causing significant environmental degradation. Approximately \$4 million worth of drainage improvements, consisting of 118 separate projects, was recommended in the SDMP to maintain and mitigate for the current development condition. However, only 94 of those projects are currently being proposed for implementation in DEIR Volume III. The 24 omitted SDMP projects would greatly improve water quality since among them are necessary drainage infrastructure maintenance projects, including the purchasing a vacuum truck that is necessary to clean silt from the detention ponds and settling basins and replacing 47 hatch covers that are not operable along Jordan Gulch. The Final EIR (or revised DEIR) should evaluate all 118 projects recommended by the SDMP and explain why 24 of them are not being proposed for implementation.

39

Glenn Coolidge Drive, a county road, is presently impacted by stormwater runoff from University development. Stormwater runoff from existing university development has been eroding the San Lorenzo watershed within Pogonip since the 1960's. Attempts at mitigating the runoff have not been successful. The current plan to use the Coolidge Drive county road embankment as a dam for a detention basin could jeopardize the stability of the embankment. Despite being recommended in our February 2005 scoping letter, the possibility of failure of this dam has not been fully evaluated in the EIR. This should be done in the Final EIR (or revised DEIR).

40

The LRDP also proposes the building of a new road that would connect Hagar Drive to Coolidge Drive to accommodate a new parking structure located on the current site of the East Remote parking lot. This additional impervious surface will further impact the San Lorenzo watershed. Despite being recommended in our February 2005 scoping letter, the water quality impacts of this new road and parking structure have not been fully evaluated in the EIR. This should be done in the Final EIR (or revised DEIR). Failure to do so could complicate County issuance of the necessary encroachment permit for the new intersection at Glenn Coolidge Drive.

41

Other identified problems discussed in the SDMP include the private property drainage issues west of Empire Grade. The LRDP outlines a plan to develop a large upper section of the campus that would be accessed via a new upper loop road accessed by way of Empire Grade. The proposed development will cause further impact to this area. Large peak flows increases from the upper campus development are expected and will be difficult to mitigate because the area is known to have high groundwater. The EIR and proposed drainage improvements should address these issues.

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Our February 2005 scoping letter requested that the DEIR address detention basin maintenance within Red-legged frog habitat. This was not addressed in the DEIR and should be addressed in the Final EIR (or a revised DEIR). We also asked that the DEIR acknowledge that the County will expect to review the completed mitigations before encroachment permits are issued, so as to prevent potential future litigation with downstream property owners and regulators. This also was not addressed in the DEIR and should be addressed in the Final EIR (or a revised DEIR).

43

As noted above, our scoping letter recommended that a comprehensive hydro-geological study, including thorough analysis of karst-related water issues, be included as part of the DEIR. This was not done. This study was requested to determine baseline conditions and address the potential impacts of urban runoff pollutants, and changes to runoff rates and amounts, on the karst substrate (e.g., possible destabilization from more acidic runoff, etc.), cave system-dependent biota and other species of concern both on-campus and downstream (e.g., salmonids in Wilder Creek watershed, Red-legged frogs in Wilder and Moore Creek watersheds, etc.), from both existing campus development and planned future development. We still believe that this type of analysis needs to be done and incorporated into the Final EIR (or a revised DEIR).

44

Our February 2005 scoping letter also requested that the DEIR answer questions such as “What happens to stormwater discharged to sinkholes?” and “What are water quality and other environmental impacts of direct stormwater discharge to underlying groundwater?” These were not sufficiently answered in the DEIR and should be in the Final EIR (or a revised DEIR). We also noted that due to the size and topography of the campus, each drainage area impacted by new development should be analyzed separately and in detail. This was not done in the DEIR. The Final EIR (or revised DEIR) should contain a detailed evaluation of potential drainage impacts in each specific area proposed for development.

45

Our scoping letter also requested that the DEIR thoroughly discuss and evaluate options for stormwater management. Two alternatives to the proposed drainage improvements project were considered in the DEIR: the “no-project” alternative, and a piped stormwater conveyance system. The DEIR (Vol. 3, pg. 2-82) determined that the proposed drainage improvements project that contained the practice of directing runoff into sinkholes and down on-campus creeks was the environmentally superior alternative because a piped system would cause erosion in off-campus creeks and would result in more construction-related temporary air quality impacts, which would outweigh the potential biological impacts of sending the runoff into the cave system. However, we find this reasoning faulty since use of the karst-cave system to convey potentially polluted runoff could result in significant harm to, or even extinction of, entire cave system species, an impact that would far outweigh possible off-site erosion problems or temporary air quality impacts in its irreversibility and mitigability. Moreover, the possible off-site erosion problems associated with the piped conveyance alternative could be mitigated through construction of detention facilities (in areas down-slope from the sensitive karst-related features) or extension of the piping all the

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way to the ocean. The Final EIR (or revised DEIR) should designate the piped conveyance alternative as the environmentally superior alternative and find ways to mitigate the off-campus erosion impacts of this alternative. It seems clear from all of the problems associated with using the karst system and campus creeks to convey campus drainage that this approach should be abandoned in favor of a piped system or a hybrid drainage system that uses campus surface drainages (i.e., but **not** sinkholes where there could be impacts to cave-system biota) where erosion and other problems can be mitigated, combined with a piped system that conveys some or most of campus drainage off-campus in an environmentally benign manner. Such a hybrid alternative should be evaluated in the Final EIR (or revised DEIR).

46

Our February 2005 scoping letter also asked that discrepancies between the key findings and recommendations of the SDMP and the 2004 Mitigation Monitoring Plan Report for the 1988 LRDP, and the 2005 LRDP's proposed drainage solutions, be addressed and resolved in the DEIR. This was not done and should be done in the Final EIR (or revised DEIR). For instance, among the SDMP's key findings are that the existing drainage, detention and erosion control systems have not been effective in preventing channel incision or spilling over of sinkholes, and that sinkhole sedimentation is limiting their capacity to convey stormwater and thus limiting future development options. The SDMP also concludes that: "Ongoing channel incision is so severe in many campus drainages that it is a significant constraint on the use of drainage channels for stormwater conveyance, which in turn constrains future development options". The Final EIR (or revised DEIR) should contain a detailed evaluation of potential erosion impacts in, and down-gradient of, each specific area proposed for development under the LRDP, and should incorporate the findings and recommendations of the SDMP. As noted above, while the proposed drainage infrastructure improvements described in Volume 3 address the numerous areas with existing erosion problems (but does not address possible existing impacts to cave-biota), it needs to be expanded to address erosion and biotic impact issues that will be created by the new development envisioned by the 2005 LRDP.

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Regarding the project-level analysis of proposed drainage infrastructure improvements and its adequacy under CEQA, while Volumes 1 and 2 of the DEIR acknowledge that project-specific EIRs require more detailed analyses than do programmatic EIRs, Volume 3 fails to provide the necessary level of detail. The project description for the storm drainage improvements is woefully inadequate to analyze environmental impacts. Portions of the project description are disjointed and overly complicated, while other aspects are extremely generic. For example, an overview of the drainage improvements, by stream channel, is presented on pages 2-14 through 2-17. This overview is cross-referenced with Tables 2-2a and 2-2b, which provide additional project description information for over 225 items, which are depicted at a very large scale in Figure 2-2. Thirty-six access routes to in-channel drainage improvement sites are then generally described in Table 2-3, and mapped at a very small scale on the maps in Appendix A.

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It would take a very careful and lengthy study of this information simply to understand what basic types of improvements would occur, approximately where they would be located, and generally how the sites would be accessed. Project boundaries, as required in Section 15124(a) of the CEQA Guidelines are not provided. Related information about project characteristics (i.e., staging areas, equipment and construction procedures, and project scheduling), as required in Guidelines Section 15124(c), is described only in the most generic terms. Because of these deficiencies in the project description, the ensuing environmental analysis for the storm drain improvements is seriously deficient. The DEIR should be revised (and re-circulated for public review) to more clearly identify the improvement sites in a way that can be easily understood, and include a sufficient level of project detail to support a meaningful environmental analysis that fully complies with CEQA requirements.

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Despite requests in our February 2005 scoping letter, the following issues were not sufficiently addressed in the DEIR and should be addressed/considered in the Final EIR (or revised DEIR):

- Applicable requirements of the federal Clean Water Act's National Pollutant Discharge Elimination System (NPDES), and/or other water quality standards/requirements as promulgated by the Regional Water Quality Control Board (Central Coast Region).
- Instituting low impact development and using alternative non-impervious paving as much as possible.
- Clustering development so that they disturb the least possible area.
- Utilizing landscaping and stable vegetated areas to dissipate roof runoff and allow water retention as much as possible.
- Recycling accumulated runoff to use for irrigation, toilet flushing, etc. (i.e., implement right away, not just "consider" it sometime in the future).
- The need for complete offsite analysis and review by the City and/or County of Santa Cruz as applicable, if there is increase in runoff leaving the campus.
- Specifics regarding utilization of stormwater runoff "best management practices" (BMPs).

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According to the DEIR the LRDP Impact HYD-3 (i.e., increased runoff will result in downstream erosion) will have a residual "significant and unavoidable" impact after considering mitigations HYD-3A, 3B and 3C. Why is this impact characterized as unavoidable? The proposed 218 acres of additional impervious area due to the LRDP is not unavoidable. Design and development should be seeking to minimize proposed impervious areas. The LRDP calls for a 96% increase in impervious area (from 226 to

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444 acres) when there is only a proposed 49% increase in student population (from 14,040 to 21,000 students). The ratio of impervious area to gross square footage actually increases from existing conditions to proposed conditions under the LRDP. This proposed increase in impervious area contradicts statements that the LRDP has incorporated sustainable practices in the proposed campus development. Low impact or sustainable development recognizes the hydrologic impacts that additional impervious areas have on watersheds and attempts to minimize these impacts by minimizing proposed impervious areas, while the LRDP does not. An additional mitigation measure should be included under HYD-3 to minimize proposed impervious areas. The University should be maximizing the permeability of proposed development using any and all available means, such as minimizing impervious areas, using pervious surfacing materials, clustering development, reducing building footprints, etc.

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According to the DEIR the LRDP Impact HYD-4 (i.e., runoff could exceed the capacity of the drainage system) will result in a less than significant potential for flooding on or off-site. The draft EIR and LRDP have not adequately assessed the potential off-site stormwater impacts to downstream properties, including County owned roads. While the DEIR and LRDP assume most campus runoff will be intercepted by sinkholes on the main campus, some surface runoff from the campus is expected (and is existing). For example, the DEIR has identified areas for development in the lower Jordan Gulch and High Street watersheds which are in areas that surface flow occurs. Yet, there was no assessment of the downstream drainage paths for these areas. The 2004 Drainage Study by Huitt-Zollars for the Ranch View Terrace housing project notes that the existing ditch in the Bay Street median downstream of the University is currently inadequate for conveying existing flows. The SDMP notes that four important sinkholes are already exceeding their inflow capacity. Given the existing conditions the proposed development seems to have significant potential for increasing flows offsite along with associated flooding and erosion/stability impacts. While the SDMP provided a detailed analysis of some of the on campus drainage facilities, neither the SDMP nor the DEIR nor the LRDP provided a complete analysis of the potential off-site stormwater impacts due to the proposed development. The University should provide a complete analysis of all downstream systems. Development on the campus should be contingent upon upgrading these systems, as necessary, so that they are adequate (in both capacity and condition) to handle expected flows. These analyses should include existing conditions and impacts to County roads both on the campus and downstream from the campus.

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Regarding construction activity water quality impacts (Impact HYD-2) on campus, both erosion and sediment controls should be implemented. Mitigation HYD-2B only calls for erosion control measures. Sediment controls should also be included in this mitigation, as well as management of non-storm water pollutants.

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In addition, many of the proposed storm water drainage system improvements under the infrastructure improvement project involve altering existing drainage patterns and diverting runoff from one watershed to another, in the attempt of alleviating existing on campus flooding and erosion problems. It is unclear if the cumulative impacts due to

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these proposed diversions have been fully assessed in conjunction with current University development (ex: Ranch View Terrace project, Digital Arts Facility project, etc.) and proposed development under the 2005 LRDP. A full assessment of the potential erosion and flooding impacts both on and off campus should be completed and evaluated as part of impacts HYD-3, HYD-4 and HYD-7.

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According to the DEIR the LRDP Impact HYD-7 (i.e., increase in impervious surfaces and runoff) will result in a less than significant potential for impacting water quality off-campus. This impact was to be analyzed in cumulative context in conjunction with other existing and proposed development in the larger watershed areas. As stated previously, a complete analysis of the downstream drainage systems has not been completed or presented with the draft EIR. Without this analysis it seems impossible to make conclusions regarding potential impacts. If the watersheds downstream of campus development are at or beyond their current capacity for erosion, any hydrologic change in the upper watershed may result in significant impacts. The DEIR only seems to address erosion and sedimentation impacts on site and has not looked at the potential impacts that altered runoff rates or volumes as a result of the LRDP may have on erosion and sedimentation in off-site drainage paths. The proposed detention basin mitigations may help attenuate peak flow rates, but will not mitigate for additional runoff volumes due to proposed impervious areas.

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The LRDP is proposing significant additional impervious area with mostly end-of-pipe mitigations (detention systems, diverting runoff, etc.) rather than minimizing the potential problems at the source by minimizing proposed impervious areas and infiltrating additional runoff at the project site. The development and mitigations proposed in the LRDP and DEIR are unclear. Specific projects and mitigations should be presented and analyzed in the Final EIR (or revised DEIR).

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The County questions the DEIR's designation of Impact HYD-3 (i.e., project will result in increased runoff and urban runoff pollution) as "significant and unavoidable". It may be possible to reduce this impact to a "less than significant" level by instituting a more rigorous stormwater management program than what is currently proposed.

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We also believe that there is no substantial evidence to support the DEIR's contention that impacts HYD-4 (i.e., development could lead to flooding), HYD-7 (i.e., increase of impervious surfaces will not result in off-campus runoff and pollution) and HYD-8 (i.e., on-campus groundwater extraction will not lead to local or regional groundwater lowering) are "less than significant" and do not require mitigation.

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Similarly, we do not believe the DEIR contains substantial evidence in support of its contention that impact HYD-6 (i.e., runoff from new development will not impact cave systems), mitigated as proposed, would result in a "less than significant" impact.

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**Land Use and Planning:**

Conflicts with County General Plan Policies: Our February 2005 scoping letter

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requested that the DEIR's evaluate all potential conflicts with specific policies of the County General Plan. This has not been done in the DEIR. For example, no analysis of LRDP consistency with the County's Sensitive Habitat and Riparian Corridor Protection Ordinances has been included. This should be done in the Final EIR (or revised DEIR).

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"Campus Resource Land" (CRL) Designations: The LRDP (pg. 66) states that the areas designated Campus Resource Land (CRL) could be developed before 2020. It is unclear why there are areas designated as CRL in the far northern portion of campus, in the lower campus meadows, and especially west of Empire Grade. These are valuable habitat and/or scenic areas and should be afforded the same protection as Protected Landscape (PL) or Campus Natural Reserve (CNR). As requested in our scoping letter, preferably the DEIR should include a re-designation of these areas to the PL or CNR categories or, short of that, explicitly prescribe unlikely to occur circumstances under which these areas could be developed. This should be done in the Final EIR (or revised DEIR).

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Coastal Act Consistency: The Final EIR (or revised DEIR) should fully evaluate the consistency with the California Coastal Act of any plans, including possible future plans for Campus Resource Lands, for portions of the campus that lie within the Coastal Zone.

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**Population and Housing:**

Our February 2005 scoping letter requested that the DEIR address the following housing-related issues and questions. These were not addressed in the DEIR and should be addressed in the Final EIR (or revised DEIR):

- Does the University plan to accommodate student housing demand by utilizing existing housing resources in the community that are currently used as either permanent housing or for transient use? If so what is the impact of these uses on 1) the community's housing resources; and 2) the financial implications of reducing Transient Occupancy Tax (TOT) revenues?
- What are the vacancy levels of the University's on-site housing and are the University's housing resources underutilized (either vacant or can accommodate more students/per bedroom)? In addressing these questions the analysis should include 1) a comparative rent analysis on a per person basis (on-campus vs. off-campus housing costs), 2) whether rent levels or the requirement that students participate in the meal plan (or the cost of meal plans) serve as a disincentive for living on campus, and 3) identification of strategies to ensure that the university fully utilize its own housing resources prior to relying on off-campus housing to accommodate the student body; Removal of disincentives to living on-campus would make the on-campus housing option more attractive to students and should be among the mitigations listed in the EIR.

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- The 2005 LRDP's goals for on-campus housing are sharply reduced from previous targets. As a required mitigation of the 1988 LRDP EIR, UCSC was supposed to provide on-campus housing for 70% of undergraduates and 50% of graduate students. However, these levels were never achieved. As of 2002-03, only 49% of undergrads and 14% of grad students were housed on-campus<sup>6</sup>. The 2005 LRDP (pg. 69) lowers the previous on-campus housing goals to only 50% of undergrads and 25% of grad students. The EIR should at a minimum include, as a mitigation measure, a requirement that UCSC increase the proportion students, faculty and staff that will be housed on-campus at least to the levels that were required in the 1988 LRDP EIR. Due to the impacts of the proposed growth on off-campus housing and traffic, the provision of on-campus housing should be tied to enrollment levels, such that enrollment can not increase beyond certain levels until identified amounts of on-campus housing are provided and being utilized.

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The DEIR assumption that "housing on campus has been fully occupied" is highly questionable and inadequate, especially considering reports that there are some 400 units of unoccupied housing on campus presently. Data for on campus vacancy rates are not complete, consistent or accurate. The accounting used to substantiate full occupancy of on-campus housing is not reliable. A review of what information is available - occupancy data from the UCSC Housing Office - seems to indicate a gradual increase in the vacancy rate from 3.6% in 1997 to the current 10.9%. We understand that the University has actually converted existing bed space to offices at College 9. The reasons for the recent high vacancy rate and a full accounting of campus-wide dorm space conversion should be fully explored and addressed in the Final EIR (or revised DEIR).

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It is likely that UCSC is having a hard time filling on-campus dorm space due to the above-market rate rents being charged by UCSC to students who want to live on campus. According to UCSC's Housing Office, the current rent (not including the meal plan costs) for a shared 2-person dorm room is \$1,708 per month (\$854/mo. per student). If those two students were to instead rent a 2-bedroom apartment/condo off-campus it would only cost them \$1,301 per month (\$650/mo. per student), according to UCSC Community Rentals Office. By living off-campus these students would save over \$200 per month each and they would not have to share a room! The discrepancy between what UCSC charges for housing and market rate rentals off-campus is even more pronounced when considering the cost for single rooms on campus (\$974/mo.). The fact that students (and their family members) living in on-campus apartments are required to participate in the cafeteria meal plan, even though such apartments are equipped with kitchen facilities, is a further disincentive to live on-campus. The EIR should acknowledge that the high costs of housing on campus (and mandatory meal plan participation) are disincentives for students to live on campus, and thus a strong

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<sup>6</sup> Campus Community Work Group White Paper, April 2004

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financial incentive to live off-campus, and that this phenomenon significantly increases off-campus traffic impacts.

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This connection between high on-campus housing costs and off-campus traffic should be fully addressed in the Final EIR (or revised DEIR). Moreover, given the high vacancy level of on-campus units, every effort should be made by the University to maximize occupancy levels of on-campus housing. To this end, the Final EIR (or revised DEIR) should include mitigation measures to increase occupancy levels of on-campus housing by establishing a rent structure that creates financial incentives for students to live on-campus rather than off-campus. These incentives should include:

- 1) Reduced rents to the point at which the units are fully, or nearly fully, occupied. While it is worth noting that this may result in below market rent levels, corresponding revenue increases will offset the financial implications for the university; and
- 2) Removal of the requirement that students living in apartment units participate in the meal plan.

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The current University policy is inappropriate for students living in units that include kitchens and results in an unnecessary cost, thereby encouraging students to seek off-campus housing alternatives. The EIR should acknowledge that, with such incentives in place, it is more reasonable to expect that 70% or more of UCSC undergrads would choose to live on-campus, if space were available. Therefore, another mitigation should be added to:

- 1) Require that at least 70% of undergrads and 50% of grad students live on-campus (as was required for the 1988 LRDP); and
- 2) Require that the University pursue every opportunity to minimize vacancy levels by ensuring that the vacancy rates of student housing be equal to or less than the vacancy levels in the Santa Cruz community. In order to ensure compliance with this mitigation, another mitigation should be added to limit enrollment growth to coincide with provision of on-campus housing and the concurrent achievement of the on-campus housing goals of 70% for undergrads and 50% of grad students.

The DEIR impact of demand for housing by the jobs created on local housing stock was not adequately addressed. As the DEIR itself states, "Although the increase in employment on the campus under the LRDP is fully accounted for in the AMBAG employment forecast, the residential population is not included nor is the student population" (DEIR p. 4.11.19).

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As part of analysis of social impacts, the DEIR fails to cite the September 2005 Bay Area Economics (BAE) study that was commissioned by UCSC to analyze the housing-related impacts of the 2005 LRDP, and states that "many students share units

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with multiple roommates or rely on their families for rent, allowing them to afford more expensive units and out compete employees. As a result most lower income employees households are forced into the Secondary Market Area” (BAE, pg. 9)(“Secondary Market Area” refers to areas in the County but outside of the City of Santa Cruz). The impact of the high demand for housing generated by UCSC employees in the local housing market is out of proportion to employment growth. For example, new LRDP employees add only 2% to the work force but add 4.6% to the housing demand (BAE, pg. 12).

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The recommended mitigation measures noted above for “significant and unavoidable” impacts are themselves insignificant and would do nothing to mitigate the impacts of LRDP projected growth. The County Planning Department’ Housing Section comments in the February 2005 scoping letter regarding a need for a timeline for implementation was not addressed in the DEIR. This should be addressed in the Final EIR (or a revised DEIR).

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In addition to those mentioned above, we recommend the University mitigate employee-related housing impacts by generating more on-campus faculty/staff housing, thereby reducing employee demand for local housing and minimizing traffic impacts. Again, UCSC employee housing impact is out of proportion to employment growth. For example, new UCSC employees as envisaged in the LRDP add only 2% to the City’s work force but 4.6% to the housing demand (BAE, p. 12). A mitigation that requires on-campus housing at least 25% of new on-campus faculty and staff should be added in the Final EIR (or revised DEIR).

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In addition, County staff questions the DEIR’s conclusion that Impact POP-1 (i.e., LRDP development would induce substantial population growth) is “significant and unavoidable”. This impact would be at least minimized, if not completely avoided, if UCSC chooses a substantially lower enrollment-level goal.

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Additionally, Impact POP-3 (i.e., increased housing demand exceeding supply), also designated “significant and unavoidable” in the DEIR, could be avoided if an on-campus housing of at least 70% of undergrads and 50% of grad students were to be required as a mitigation. The Final EIR (or revised DEIR) should contain such a mitigation.

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**Public Services:**

**Law Enforcement:** Potential impacts the LRDP’s planned growth (including indirect impacts) on the County’s law enforcement functions, including the Sherriff’s Department, County jail, and the County District Attorney’s office, should be fully evaluated in the Final EIR (or revised DEIR). The EIR’s Impact PUB-1 should be amended to include evaluation of impacts to the County Sheriff’s Department.

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**Recreation:**

Our February 2005 Scoping letter requested that the DEIR address the recreational needs of the additional population anticipated by the LRDP (taking the multiplier effect into account), and identify potential new park/open space areas needed to accommodate this increase in demand. This was only superficially addressed in the DEIR and should be more adequately covered in the Final EIR (or revised DEIR). In addition, impacts from University growth to non-park recreational resources/areas, including the County's already over-impacted surfing areas, should be addressed.

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**Transportation and Traffic:**

The DEIR includes evaluation of the impacts of increased traffic on intersections located on campus and in the City of Santa Cruz, volume-to-capacity ratios of key streets and neighborhood impacts on streets in the neighborhoods surrounding the campus. However, our request (in our February 2005 scoping letter) that the DEIR include an assessment of the impacts to all relevant County roads and State highways outside the City has not been fulfilled. Despite being requested in our scoping letter, the DEIR insufficiently addresses, and the Final EIR (or revised DEIR) should address, the following:

- Cumulative impacts to the freeway sections (Countywide) of Highway 1 and 17, including the fishhook intersection, as well as major arterial intersections outside the City limits, taking into consideration proposed growth in the City of Watsonville.
- According to the LRDP, some 40% of students and staff drive alone to campus. The proposed construction of more parking lots and structures will only encourage more driving. The Final EIR (or revised DEIR) should contain more explicit provisions for reducing vehicle trips to campus, including evaluation of the option of not building more on-campus parking, combined with increased use of a variety of alternative modes of transportation. As this would be contrary to proposed Mitigation TRA-3B (i.e., build more parking as needed), Mitigation TRA-3B should be eliminated and replaced with a new mitigation with the goal of reducing the existing ratio of parking spaces to employees/students, so as to discourage driving to campus.
- Impacts associated with construction of the proposed North Loop Road and new north entrance to the campus should be more thoroughly evaluated.
- Possible alternatives to construction of the North Loop Road and entrance should be evaluated. Analyzing only this option presumes there are no other preferable alternatives to minimize traffic impacts.

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- The EIR should determine whether proposed changes to traffic volume, campus access and circulation will increase traffic hazards to motorists, bicyclists, pedestrians and wildlife, particularly on Empire Grade.
- Since the LRDP proposes a future extension of Chinquapin Road across Cave Gulch to Empire Grade (a County maintained roadway), the EIR should evaluate impacts of additional vehicles, pedestrians, and bikes on Empire Grade, particularly the segment between Heller Drive and the proposed new intersection; This segment of Empire Grade is located within the Cave Gulch area and is a narrow, steep, winding road; The proposed additional impacts may necessitate extensive widening of this and other segments of Empire Grade; The EIR should evaluate the potential need for such widening and the resulting environmental impacts, as well as the impacts of the proposed bridge spanning Cave Gulch, particularly to the cave system and its unique biota.
- The EIR should evaluate impacts to Empire Grade due to anticipated use by construction trucks and UCSC maintenance vehicles (especially those related to the new proposed corporation yard), in addition to impacts from other increased campus-related traffic, including road safety implications, the possibility of County liability for road safety, fire and other emergency plan implications for Cave Gulch and Bonny Doon residents, etc.
- Existing road problems along sections of Empire Grade that are already prone to erosion, ground failure, landslides, etc., the potential for these problems to be exacerbated with increased traffic, and the probable costs to the County of addressing these problems should all be addressed in the EIR.
- The EIR should acknowledge that the main portion of Glenn Coolidge Drive is a County maintained roadway and any encroachments are subject to approval by the County.
- The EIR should include intersection level-of-service analyses on relevant County road intersections based upon the most current Highway Capacity Manual operations methodology.
- The EIR should include detailed level-of-service analyses to determine the adequacy of proposed improvements and/or modifications for the maintenance of acceptable levels-of-service during the AM and PM peak hours for all relevant traffic signal controlled and stop sign controlled intersections in the unincorporated area.
- The EIR should include a re-evaluation of the security access measures for checking after-hour vehicles into the main entrance on Glenn Coolidge Drive as

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current procedures put security personnel in unsafe positions within the roadway to check in-coming vehicles/drivers.

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- The County had requested to review the scope of work for the traffic section of the DEIR but was not offered the opportunity to comment.

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In addition, the Transportation and Road Planning Engineering Section of the County Department of Public Works and County Planning Department staff have the following new comments based upon their review of the DEIR:

- The DEIR utilized the AMBAG traffic model (a three county regional model) to identify potential traffic impacts to the surrounding street network near UCSC. It would be more appropriate to utilize a sub-regional model (perhaps the Santa Cruz City traffic model) to better identify the street network and associated detailed factors not readily apparent in a three-county regional model. The AMBAG model may contain information related to future build-out data that is inconsistent with local agency approved general plans and associated documents resulting in erroneous conclusions.
- All relevant traffic model information from Chapter 4.0 should be combined or repeated in Chapter 4.14 to clarify use of the model and associated factors and scenarios. The traffic model information in Chapter 4.14 should be presented at the beginning of the chapter to give the reader a better understanding of the model process and how it relates to the traffic information and conclusions contained in that chapter.
- The DEIR indicates what the intersection level of service (LOS) standards and significance thresholds are for the UCSC campus, but it does not reference a specific document where these criteria have been approved by the appropriate authority. The County of Santa Cruz General Plan outlines the standard as LOS C (LOS D is acceptable if constraints exist) and should be referenced in the EIR (Section 4.14.1.12 and 4.14.2.3).
- The County of Santa Cruz is not included as a transportation related agency (Section 4.14.1.9) and should be added.
- The LRDP proposes a new access road connecting to Empire Grade Road to serve the new development in the north campus area. The DEIR (pp 4.14-28 and -29) indicates that traffic impacts to Empire Grade Road, particularly from use by large/heavy vehicles associated with the proposed new corporation yard, are not an issue since the demand is consistent with the road being designated as a "truck route". However, this portion of Empire Grade Road is

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maintained by the County of Santa Cruz and is not designated as a truck route. Therefore, the analysis has failed to adequately address potential impacts to this very narrow, winding, rural roadway and the issue needs to be reevaluated.

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- Regarding the proposed new intersection on Empire Grade at Cave Gulch, the DEIR contains an inconsistency between Tables 4.14-14 and 4.14-15, which should be corrected. The EIR should also note that a County encroachment permit will be required for this proposed new intersection, but It should not be automatically assumed that the County will choose to grant such a permit.

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- The DEIR has stated that impacts to the intersection of Empire Grade Road and Heller Drive are significant and unavoidable due to the fact that the intersection is outside of UCSC jurisdiction. We question this impact being designated "unavoidable". The County of Santa Cruz has twice issued encroachment permits to UCSC for the construction of traffic signals on County maintained roadways (Glenn Coolidge Drive at Cam Fac, and Glenn Coolidge Drive at Hagar Drive) and can do so again if the traffic signal is funded by UCSC, is warranted, and will not cause a hazard. The DEIR also states a traffic signal is warranted and is planned. However, the County of Santa Cruz has not reviewed this information (not included in DEIR), and the County does not have this project listed (as programmed or unprogrammed) in the most recent (December 2005) five year Capital Improvement Program. Therefore, these statements need to be clarified, and the traffic signal warrants and a reference to a document for the planned traffic signal improvements need to be included in the EIR.

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- The existing traffic volumes are not included in the appendix for several of the study intersections (notably Glenn Coolidge Drive/CamFac and Glenn Coolidge Drive/Hagar Drive, and Empire Grade Road/Heller Drive), nor are the existing intersection levels of service calculations. These need to be added to the EIR.

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- It is apparent that a large volume of traffic during the pm peak hour is not accounted for at the Glenn Coolidge Drive/Hagar Drive intersection (southbound right turns) for the year 2020 scenarios. A higher traffic volume is indicated at the Glenn Coolidge Drive/CamFac intersection for the westbound through movement than is mathematically possible since there are no roads between these two intersections. The differences in volumes are consistently 331 peak hour trips. The existing pm peak hour southbound right turn at Hagar Drive is 396 vehicles but the year 2020 scenarios only have 35 vehicles (no project) and 127 vehicles (project). There also appears to be an inconsistency between the existing volumes and the year 2020 (no project) volumes on Glenn Coolidge Drive at Hagar Drive. Essentially, there are no net increases in trips

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between existing and year 2020 except for the westbound through volume. It increases during the am peak hour by half but yet does not appear at the Glenn Coolidge Drive/CamFac intersection. This of course creates erroneous intersection levels of service calculations and must be corrected. The cause of this significant difference may be attributed to the model and verifies the need to use a more detailed sub-regional model.

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- There was reference in the text to the fact that the Glenn Coolidge Drive/Hagar Drive intersection has been signalized, yet Figure 4.14-6a indicates it is a stop-controlled intersection. This should be updated to reflect the traffic signal operations.
- The Santa Cruz County Department of Public Works also recommends that discussions begin between UCSC and the County regarding the possibility of the County relinquishing the Glenn Coolidge Drive right-of-way to UCSC. This may benefit UCSC if and when intersection improvements would be necessary to mitigate potential future impacts due to the 2005 LRDP.
- If the existing UCSC traffic model (i.e., UCSC’s modification of the AMBAG traffic model) is to be used as currently intended, it is highly recommended that AMBAG staff review the UCSC model and verify that the input/output is consistent with current general practices, and that AMBAG staff can certify that the UCSC model has not been unnecessarily modified.
- Impacts to the Highway 1/Highway 9 intersection of a potential new eastern access road should be evaluated in more depth, including the evaluation need for and potential costs of a flyover interchange there if the eastern access were to be built.
- Potential construction of a people mover system from the downtown/Harvey West area to UCSC, as envisioned and proposed in the past, warrants discussion and evaluation in the EIR.
- Alternative transportation ideas, such as providing interested staff and students with free or subsidized electric bikes and/or mopeds, should be evaluated and considered as traffic impact mitigations.
- To minimize off-campus trips by on-campus residents, the University should consider establishing a small supermarket-type store, centrally located on-campus. The potential off-campus traffic benefits of such an on-campus store should be evaluated in the Final EIR (or revised DEIR).

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In addition, the County questions the DEIR’s conclusion that Impact TRA-2 (i.e., LRDP growth will lead to unacceptable LOS at 11 intersections) is “significant and unavoidable”. This impact would likely be avoidable if the on-campus housing of 70% of undergrads and 50% of grad students were to be required, along with the other alternative transportation mitigations included in the DEIR and/or noted above. The Final EIR (or revised DEIR) should include these mitigations and re-evaluate this impact in light of them.

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**Utilities and Service Systems:**

**Water Supply:**

Water Related Impact Overview:

The proposed UCSC expansion will have a significant impact on future hydrologic issues in northern Santa Cruz County. UCSC’s students and faculty create a population base the size of a small city. In Santa Cruz County this population base is only exceeded by the cities of Santa Cruz and Watsonville. County water resources staff believe that UCSC, as a responsible and progressive member of the community, should accept a larger role in dealing sustainably with local resources rather than relying upon the City of Santa Cruz and surrounding communities to absorb the impacts from campus growth. The proposed campus expansion creates an ideal opportunity for implementing sustainable practices with regards to water supply and wastewater disposal.

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The EIR makes numerous references to service agreements made between the university and the City of Santa Cruz back in the 1960s. Although UCSC doesn’t use all the water that the City agreed to supply in those agreements, staff thinks that UCSC is well advised not to view the maximum volume of agreed-upon water supply as an entitlement. It was a common practice of many local, state, and federal water purveyors, up through the past decade, to over allocate their water resources based on an inadequate understanding of local hydrology and available water supplies. Legally, the water purveyors may be obligated to supply the water. But, from a practical standpoint, the agreed upon water may not be available. Staff believes this is the case with the UCSC and City of Santa Cruz agreement. And, despite the DEIR comment on page 4.15-33, a paper water entitlement does not preclude the fact that the fulfillment of this entitlement can create a significant impact.

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County water supplies come from integrated and shared resources. The source of the City’s water supplies is not independent of surrounding water purveyors, thus, water supply impacts affecting surrounding water purveyors will likely have an impact on the City’s water supply. The DEIR discussion of water supply within the study area fails to identify the significant water supply issues in these surrounding water districts.

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All the major groundwater basins in this county are over-drafted. The overdrafts are manifested by declining water quality, declining stream base flows, seawater intrusion,

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and in some cases, rapidly declining groundwater levels. The Scotts Valley area of Santa Margarita basin, from which both the Scotts Valley and San Lorenzo Valley water districts extract groundwater, has experienced substantial groundwater level declines over the past 20-years. The Aromas aquifer, from which the Soquel Creek Water District and Pajaro Valley Water Management Agency draw water, is intruded by seawater. The Purisima Formation, from which the Soquel Creek Water District and City of Santa Cruz extract groundwater has water levels in some area below sea level and is exhibiting the chemical precursors to seawater intrusion.

108

Any future water supplies for county water purveyors will be hard to come by, very expensive and are likely to create environmental impacts. County water purveyors are evaluating several expensive options, such as desalting seawater, importing water from outside the county, developing conjunctive use management projects, and constructing tertiary level wastewater treatment facilities to supplement their water supplies.

The developable water sources for county water purveyors that are the easiest to obtain, the least expensive and most environmentally friendly, are conserved, captured and recycled water. Most county water purveyors have instituted water conservation programs, of which the City of Santa Cruz Water Department's is the most comprehensive. Only the City of Scotts Valley currently recycles wastewater, but the City of Watsonville will be treating wastewater to tertiary standards in the near future. The capture, treatment and reuse of stormwater runoff has yet to be employed on a large scale in this county (not including the City of Santa Cruz Loch Lomond Reservoir) by county water purveyors. However, county staff are working with some water districts to evaluate conjunctive use projects. The term 'conjunctive' is used here to mean the coordinated use of multiple water sources. County water resources staff have found that effective conjunctive use projects heavily depend on land availability and location on which to construct the project infrastructure.

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Water Related Impact Mitigations:

UCSC has two main water related issues that need mitigation: stormwater runoff and water consumption. It is ironic that the campus has problems dealing with excess water (i.e. stormwater runoff) on one hand while relying upon the City of Santa Cruz to find additional water supplies for the campus on the other hand. These water disposal and acquisition issues need not be mutually exclusive. UCSC should make every effort to minimize water consumption and maximize its ability to retain the water resources that naturally occur on their campus.

The first area of sustainable practices that can be addressed by UCSC is in stormwater management. The draft EIR acknowledges that erosion and sedimentation impacts from new development could be significant. UCSC's proposed Stormwater Master Plan has many practical designs to deal with the *current* drainage and erosion problems. However, the DEIR provides no discussion of why so much additional impervious surfaces are needed in the proposed expansion nor does it provide a

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breakdown of the proposed types of impervious surfaces (i.e., rooftops, roadways, walkways, etc). More use of pervious paving techniques for parking lots and walkways could mitigate some of the impact.

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Regardless of the total increase in runoff that will be created by the proposed development, County staff believes UCSC should evaluate taking stormwater management to the next level: retain and reuse the runoff. UCSC is in an ideal position to conjunctively use its water resources because 1) they have the land available to build the infrastructure, 2) the infrastructure can be constructed concurrent with the proposed campus development and 3) UCSC has numerous facilities where recycled water can be used.

The following are several measures UCSC can undertake to address water related issues and these should be fully addressed in the Final EIR (or revised DEIR):

- Rather than wait until certain campus population thresholds are reached, the campus should initiate a water education program and mitigate additional water use by retrofitting existing toilets and showerheads to low-flow standards as soon as possible.
- Conduct the feasibility study to retain/detain and *reuse* stormwater runoff now.
- Capture, treat, store and use roof runoff and other relatively clean runoff, for non-potable needs.
- Build an on-campus wastewater treatment plant that treats effluent to tertiary standards.
- Reuse tertiary treated wastewater (TTWW) for non-potable uses.

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By treating and reusing wastewater to tertiary standards, the campus will have a reliable year-round supply of water for non-potable uses. Recycled water, whether captured stormwater runoff or TTWW, can be employed for many existing campus uses including fire protection, use in cooling towers, landscape and agricultural irrigation, and toilet flushing. Plumbing in all new development should be designed to incorporate the recycled water. Where feasible, UCSC should retrofit plumbing in existing facilities to make use of recycled water. By retrofitting plumbing and making use of recycled for new development and irrigation needs, UCSC should not need additional water supply from the City Water Department through the year 2020.

By implementing these measures, UCSC can conjunctively manage its water resources from the City water, runoff, and TTWW, and mitigate the significant increase in proposed water consumption. These efforts may carry higher up-front costs than the mitigations proposed in the DEIR, but in the long run these efforts will save the campus money, minimize impacts to the local community and environment, and

decrease UCSC's dependence on the local community. The efforts will also demonstrate UCSC's commitment to work with the community as well as acting in a socially responsible manner. These types of innovative approaches to dealing with water supply and disposal would be befitting a progressive educational institution such as UCSC.

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Unaddressed Water Supply-Related EIR Issues:

In addition, our February 2005 scoping letter requested that the DEIR address the following issues that were not evaluated (or adequately evaluated), and should be evaluated in the Final EIR (or revised DEIR):

- The LRDP's consistency with the City of Santa Cruz Water Department's 2003 Integrated Water Plan, and also consistency with the City's recently updated Urban Water Management Plan.
- Identification of how the City Water Department will provide the water needed for the growth anticipated by the LRDP, while leaving enough capacity for the City's and the County's own anticipated levels of growth, with an adequate safety margin for times of drought.
- Identification of reliable funding sources for needed infrastructure improvements that do not include reliance upon the City's rate payers footing the bill for new water sources needed to allow UCSC expansion.
- Cumulative impacts to the City's water system and supplies, taking into account the growth anticipated by the 2004 AMBAG's population and employment forecasts, which projects the number of new dwelling units that are likely to be built by 2020 in each of the County's census tracts and traffic analysis zones. This cumulative water supply impact analysis should also account for a reasonable safety margin for times of drought.
- Measures to mitigate additional water consumption, including retrofit of existing facilities with more efficient plumbing fixtures, use of ultra-low flow fixture in new buildings, education of staff, faculty and student on water conservation practices, and the use of captured storm water runoff and recycled water for non-potable uses.
- While evaluating the viability of on-campus groundwater supplies, a careful evaluation on the impact on the karst system should be conducted. Removal of groundwater from this system may adversely impact down-gradient springs; and, if certain hydrologic conditions exist, removal of sufficient volumes of groundwater could destabilize karst structures and impact overlying buildings. Possible impacts of water withdrawal from the campus area on the City Water

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Department's water supply sources along North Coast streams and/or on the San Lorenzo River should also be evaluated.

- Identification and evaluation of the "University Assistance Measures" that have been applied to increase water supply, as referenced in the LRDP (pg. 23).
- Considering the projected increases in water demand for the projected campus growth and related community growth, it appears that direct and indirect LRDP-related growth will take up some 73% of the remaining water supply capacity in normal rainfall years. This is unacceptable. Mention is made of the desalination plant being considered by the City for use in times of drought, but the DEIR fails to mention that this facility would not even be needed if it were not for UCSC's growth plans. Therefore, the impacts of such a facility, including growth inducing impacts, need to be fully evaluated. Furthermore, no mitigation measure is proposed that would require UCSC to pay for the expensive daily operations cost of this plant that will be required due to LRDP implementation, since UCSC's growth will necessitate daily year around use of the desal plant even in non-drought years. Such a mitigation should be included in the Final EIR (or revised DEIR).

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**Sewage Treatment Capacity:**

Our February 2005 scoping letter requested that the DEIR address the potential for university expansion to use up capacity that is needed to serve existing development that is currently on septic systems (e.g., Pasatiempo, etc.). This was not done in the DEIR and should be done in the Final EIR (or revised DEIR).

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Our scoping letter also asked that the DEIR identify at what point in time, during implementation of the LRDP, that new or expanded wastewater facilities would be needed. This also was not done in the DEIR and should be done in the Final EIR (or revised DEIR).

**Campus Core Cooling Water System Improvements:**

Similar to the storm drain system improvements, the project description for this infrastructure upgrade (in Volume 3, Section 2) is lacking in sufficient detail to support an adequate environmental analysis. No site plan is provided, only a general overview at a very large scale (Figure 2-4). Two different sites for the cooling tower are apparently under consideration, but there is no indication as to why or how the final selection will be made. Project characteristics, such as the number and types of construction equipment and project schedule, are either completely lacking or presented in the most general terms. This level of detail, or rather lack of detail, precludes a meaningful evaluation of environmental effects. The project description for the cooling water system should be better defined, per CEQA Guidelines Section 15124, and the environmental impact analysis should be redone based upon that information and re-circulated for public review.

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**Need for Regional Electric-Grid Capacity Increases:**

The DEIR states (pg. 4.15-25) that the University's proposed growth will require a more than doubling of its current electrical power usage (a 121% increase). It has been brought to County staff's attention that the capacity of the existing P.G. & E. regional grid may be insufficient to accommodate this increase, and that P.G. & E. has no plans to upgrade the grid. The Final EIR (or revised DEIR) should fully address this issue, including evaluation of the impacts of any needed grid-capacity increases, and also explaining why UCSC will be using more than twice the electricity in 2020 than it uses now (a 121% increase), even though the enrollment is only going up 49%.

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**Project Alternatives:**

Due to the significant impacts to the adjacent community from development approved under the 1988 LRDP, and given the questions raised in this letter regarding the demographic assumptions that underpin the LRDP's proposed growth rate, the 2005 LRDP and its EIR should not be based on an assumption that a 6,900 increase in on-campus student enrollment is necessary. We note that several viable alternatives were addressed in the DEIR. However, we believe that additional alternatives (including those listed below) should be also be analyzed at the same level of detail as the proposed project.

As noted above, the LRDP is based on a projected 6,900 student or an almost 50% increase in the on-campus student population over the next 15 years. However, DOF is projecting a statewide increase in the college-age population of only 7.5% over the same period. We acknowledge that the DOF projects that the demographic peak of this age group will occur in 2013 then decline until 2027, but that 2013 peak is still only an increase of 15.2% over current levels. We also acknowledge that DOF's enrollment projections for the entire UC system also peak in 2013 with a 20.3% increase over 2005 enrollment levels. As we requested in our February 2005 scoping letter, the project description included in the EIR should contain a detailed explanation of how the 50% increase projection was derived, and why UCSC anticipates its student population will increase at a rate so much higher than the DOF projected rates of growth in the state's college-age population and UC system enrollment. As we also requested in the scoping letter, the EIR should also explain why the proposed rate of increase in floor area (84%) is so much higher than these DOF growth rate projections. This information is essential to understanding the need for the proposed project, which, in turn, is necessary to evaluate feasible project alternatives.

Section 15126.6 of the California Environmental Quality Act (CEQA) requires that EIRs describe a reasonable range of alternatives that would feasibly attain most of the basic objectives of the project while avoiding or substantially lessening at least some of the significant effects of the project. In order to identify and evaluate such alternatives, the EIR must present a thorough and accurate analysis of anticipated growth in the student population, how that growth will exceed the capacity of existing

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facilities, and why the LRDP proposes nearly doubling the outside gross square feet of UCSC facilities to accommodate the disproportionately far lower rate of anticipated student growth.

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We requested in our February 2005 scoping letter that the following alternatives to the proposed project be considered and evaluated in the DEIR:

- An alternative that allocates to UCSC its fair statewide share of the DOF projected 2005-2020 increase in the state's college-age population and UC system enrollment (i.e., a 15-20% enrollment increase between 2005 and 2020) and involves a more proportional and reasonable increase in building area increase in the campus' floor area (OGSF). We note that a lower growth rate alternative was analyzed in the DEIR, however, this alternative was still for a 40% increase over 2005 enrollment levels, only 1,500 students less than the proposed project, and still an enrollment growth rate twice as high as the UC-system as a whole is expected to experience over the same period. In conjunction with this alternative, we suggested that options should be explored that concentrate a majority of new development in the existing developed area.
- A "no growth" alternative (different than the "no project" alternative) that, maintains current student levels at UCSC and evaluates the impacts of diverting UCSC's share of the expected UC system growth to other UC campuses that have relatively fewer and less severe environmental constraints (e.g., UC Merced, UC Davis, UC Riverside, UC Irvine, etc.) or to satellite UCSC sites. We suggested that evaluation of this alternative include an analysis of the entire UC system's growth need and each campus' projected share of that total. We also suggested that analysis of this alternative incorporate the latest DOF 2005-2020 projections, as noted above, in re-evaluating the UC system's 2005-2020 growth need. We note that a "no growth" alternative was rejected as infeasible in the DEIR because it would not meet some of the objectives of the proposed project. However, no attempt was made to evaluate the possibility of other UC campuses, where there may be fewer environmental constraints, taking some of UCSC's "anticipated" enrollment growth. The Final EIR (or revised DEIR) should fully evaluate the possibility of other UC campuses taking at least some of the 6,900 additional students that UCSC says are "anticipated" by 2020, either as part of a "no growth" alternative or a slower growth alternative.
- A no-new parking alternative. Because the availability of parking on-campus acts as an inducement to more auto trips to campus, an alternative that involves no growth in the number of new parking spaces should be considered. Such an alternative would require a thorough analysis of the feasibility of expanded use of alternative transportation modes. No such alternative was considered in the Alternatives section of the DEIR. This concept should be fully explored in this section of the Final EIR (or revised DEIR).

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- An alternative that ties enrollment increases to implementation of specific mitigation measures needed to reduce/eliminate resulting growth impacts, such that enrollment would not be allowed to increase beyond certain levels until certain mitigations are already in place. We requested that an alternative be evaluated which include an enforceable phased approach to campus growth, allowing incremental growth only with the provision of adequate mitigation measures, particularly for the most significant cumulative concerns: water, traffic, and housing. This was not done in the DEIR and should be included in the Final EIR (or revised DEIR).

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We are also concerned that several other of the alternatives considered in the DEIR were rejected as being infeasible, particularly the "Increased On-Campus Housing" option (Sec. 5.3.3). We disagree with the DEIR's conclusion that this "...alternative would limit the campus's ability to retain the flexibility that would allow continuing evolution of the campus over time, in response to changing demographics, societal needs, technological developments and new external challenges." The DEIR provides no evidence to support any of these claims. The claim that no more than 50% of undergrads can ever be expected to live on campus, and that constructing more on-campus housing than that would lead to higher vacancy rates, is not sufficiently supported either. Moreover, no analysis was provided of the University's option of reducing (i.e., subsidizing) the rents charged to on-campus residents, and of not requiring meal plan participation, both of which would very likely increase demand for on-campus housing to such a degree that a 70% on-campus housing goal for undergrads would be very realistic.

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Another alternative that falls into this category is the rejection as infeasible of the Silicon Valley (Moffett Field) satellite campus. Since this site is located in the middle of a major population center it should be given renewed consideration.

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In consideration of the foregoing and upon review of the other alternatives evaluated in the DEIR, we formally request that a hybrid alternative be fully evaluated in the Final EIR (or revised DEIR) that would incorporate features of several of the alternatives discussed above and in the DEIR. Such a hybrid alternative would achieve most or all of the stated project objectives, under any reasonable interpretation of those objectives, while at the same time greatly reducing potential impacts. This combination, or hybrid, alternative should include:

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- An enrollment growth rate of no more than 15-20% over 2005 enrollment levels, proportional to statewide demographic forecasts (i.e., an increase of no more than approximately 2,800 students for an enrollment level of about 16,850 in 2020).
- A proportional increase in floor area (OGSF) and impervious surfaces (i.e., no more than a 20-25% increase over the current baseline).



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- Restricting new development to the southern (i.e., currently developed) half of campus (i.e., no new north campus loop road), and/or small/infill areas immediately adjacent to the northern edge of current development.
- On-campus housing for at least 70% of undergraduate and 50% of graduate students, with rents that are kept at levels that ensure that such ratios are maintained, and with voluntary (instead of mandatory) meal plan participation, so as to create a strong incentive for students to live on-campus.
- No (or only minimal) increase in the number of on-campus parking spaces, so as to discourage driving to campus, with implementation of measures to increase use of alternative transportation modes (e.g., more bikes, electric bikes, mopeds, busses, shuttles, etc.).
- Development and use of on-campus water sources (e.g., maximum conservation, on-campus groundwater, reused gray water, reclaimed wastewater, storage and use of runoff, etc.) to the extent that is sustainable and environmentally benign.
- Enrollment increases tied to implementation of specific mitigation measures needed to reduce/eliminate resulting growth impacts. Enrollment would not be allowed to increase beyond certain levels until mitigations needed to accommodate that growth level are already in place.

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**Mitigations:**

As requested in our February 2005 scoping letter, the EIR should include an evaluation of UCSC's track record in implementing the all mitigation measures that were supposed to have been implemented under the 1988 LRDP, with strategies to ensure that all those unfulfilled mitigations, plus the mitigations for the 2005 LRDP, are fully and conscientiously implemented in a timely manner. Mitigation measures included in the 2005 LRDP DEIR should include timelines for implementation and should be tied to enrollment levels and construction phases of new development. As stated above, enrollment increases should be tied to implementation of the specific mitigation measures needed to reduce/eliminate resulting growth impacts. Enrollment should not be allowed to increase beyond specific levels until the necessary mitigations are in place.

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Given the lack of trust in UCSC's willingness to implement needed and committed-to mitigations, of particular concern is the DEIR's widespread pattern of proposing mitigations containing non-committal qualifying language, such as saying mitigations will be implemented only "when feasible", "to the extent feasible", "if possible", "when possible", etc. Who decides what is "feasible" or "possible"? The words "feasible" or "possible" are not even defined in the DEIR. Moreover, there generally are no committed mitigation implementation funding sources identified. This indicates a lack

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of commitment to fulfill proposed mitigations on the University's part, particularly given the University's poor track record relative to mitigating the impacts of growth from the previous LRDP and other projects. These qualifying terms, which tend to weaken the mitigations in which they appear, and allow for the possibility that the mitigations will not be implemented, contrary to the requirements of CEQA, should be deleted where they appear in any and all proposed mitigations throughout the EIR.

**Response to Comment Letter LA-6**

**Response to Comment LA-6-1.** Please refer to Master Response PD-1 (Magnitude of Enrollment Growth).

**Response to Comment LA-6-2.** Please refer to Response to Comment LA-3-1.

**Response to Comment LA-6-3.** The Draft EIR includes a suite of mitigation measures (LRDP Mitigations UTIL-9A through -9I) to reduce campus water use during normal water years and develop supplemental sources of water as the demand on the campus increases. These also include additional measures that would be implemented during drought years, including the use of groundwater. Master Response UTIL-2 provides additional information regarding these proposed mitigation measures. Please also refer to Master Response UTIL-1 for additional information about the impact of UC Santa Cruz growth under the 2005 LRDP on the City's water supply system.

**Response to Comment LA-6-4.** Please refer to Response to Comment LA-2-158 regarding evaluation of impacts on regional highways. The 2005 LRDP describes a broad spectrum of strategies that are expected to limit increase in campus-related traffic. Specifically:

- Increased on-campus housing: The 2005 LRDP includes increased undergraduate, graduate, staff, and faculty housing on-campus relative to current conditions. (See Section D *Housing and Student Life*, page 65 of the LRDP). As demonstrated in the trip generation analysis on page 4.14-32 of the Draft EIR and in Volume IV of the Final EIR, Chapter 2 (*Project Refinements*) increased levels of on-campus housing would reduce the number of trips generated by the 2005 LRDP relative to the current level.
- Restriction of on-campus parking: As stated in the Draft EIR (page 4.14-53), parking on campus is strictly controlled and enforced through the distribution of permits and restrictions as one means of discouraging single occupant vehicle trips to campus.
- Ongoing TDM programs: The existing programs have been effective, and future measures are expected to maintain and further reduce the rate of single occupant vehicle trips. LRDP Mitigations TRA-2B, and TRA-4A through -4E provide viable transportation options for mass transit, bicycling and walking. These will continue to be expanded under the ongoing TDM program.

The Campus proposes to recommend to The Regents the adoption of the Final Draft 2005 LRDP (September 2006). The Final Draft 2005 LRDP revises the Draft 2005 LRDP (January 2005) to reflect the Reduced Enrollment Growth Alternative previously analyzed in the 2005 LRDP Draft EIR and identified as the Environmentally Superior Alternative. For more information regarding the Final Draft 2005 LRDP, please see Final EIR, Volume IV, Chapter 2, *Project Refinements*.

**Response to Comment LA-6-5.** The impact of campus growth under the 2005 LRDP on regional housing stock is evaluated in detail in LRDP Impact POP-3. The Draft EIR evaluates the impact of cumulative demand, including the demand created as a result of the 2005 LRDP, by comparing it to the projected housing supply. Revised mitigation measures are proposed in the Final EIR to address this impact, although the impact remains significant and unavoidable. Three new mitigation measures have been added to the Final EIR to address the cumulative effects of housing demand, to which the 2005

LRDP contributes. Please see Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*, Revised Table 2-1, for full text of these measures.

Please refer to Master Response ALT-5 (Increased On-Campus Housing) regarding housing costs, occupancy level, and strategies to maximize utilization of campus housing. The commenter's contention that campus vacancy rates are high is incorrect. As stated in the Draft EIR, the occupancy rate of on-campus housing has been high in most recent years. As with private developments, University housing is required to "pay for itself." For this reason, it is not feasible to offer student housing at below market rates, as the commenter suggests. With respect to services and programs that Colleges and University Housing Services offers to prospective residents, there is an on-going process for analyzing products and preferences for student services as well as analyzing the best practices in the student housing industry. Examples of such services include: meal programs, safety and security programs, residential programs, and phone/data/cable services. The scope of the service package influences the overall total cost of housing. Where appropriate, based on customer demand and financial feasibility, the University does and will continue to adjust service and rate packages.

**Response to Comment LA-6-6.** As noted in the Draft EIR, it was not possible, nor is it required under CEQA, to analyze all possible combinations of alternatives. Please refer to Master Response ALT-3 (Range of Feasible Alternatives). See also Master Responses ALT-1 (Appropriate Enrollment Level for Reduced Enrollment Growth Alternative), ALT-5 (Increased On-Campus Housing Alternative), and ALT-6 (Increased Infill Development). Also refer to Master Response ALT-4 with respect to Silicon Valley Center issues, Response to Comment LA-3-41 with respect to phased implementation of the proposed project and related mitigation measures, and Response to Comment LA-6-123 with respect to a Hybrid Alternative.

The commenter suggests additional water supply and traffic mitigation measures. Each of these has been given serious consideration by the Campus. LRDP Mitigations UTIL-9A through UTIL-9I have been modified to improve their effectiveness and to ensure that they will be implemented in a timely manner to conserve water and reduce water demand from the 2005 LRDP. Please see Master Response UTIL-2 regarding revisions to water mitigation measures.

Similarly, the Campus recognizes that limitations on parking are a significant element in Transportation Demand Management (TDM). The Campus already has stringent parking controls in place, with preferential parking locations and rates for carpools and vanpools and parking pricing designed to discourage single occupant vehicle commuting. New parking will be developed in conjunction with developments that displace parking, and in response to demand as evidenced by the occupancy of existing lots. It is the intent of the Campus to centralize parking, and to develop transit hubs at the same locations. TDM measures are an important element of the proposed project and are identified in several traffic mitigation measures. TDM would also be part of any adopted alternative.

**Response to Comment LA-6-7.** Please refer to Response to Comment SA-4-2 regarding the status of implementation of 1988 LRDP EIR mitigation measures. If the 2005 LRDP is approved by The Regents, the 1988 LRDP EIR mitigation measures will be superseded by the adopted 2005 LRDP EIR mitigation measures, except in cases where the University has committed by separate agreement to carry out a mitigation measure (For example, the University has signed a Memorandum of Understanding with the City regarding payment of a share of the costs of improvements to City water pump stations). In some

cases, moreover, the 1988 LRDP EIR mitigations are outdated. Mitigation Measure 4.12-4 adopted under the 1988 LRDP EIR, for example, requires the University to contribute to constructing an eastern access to the campus, but this improvement is no longer planned by the City or the County. Other 1988 LRDP EIR mitigation measures require the Campus to implement the 1989 Campus Drainage Plan, which has been superseded by the 2004 Storm Water and Drainage Master Plan. Where warranted based on the analysis in the 2005 LRDP EIR, new mitigation measures similar to those included in the 1988 LRDP EIR, but updated based on current conditions or new information, have been proposed for adoption by the University at the time it approves the 2005 LRDP.

The Mitigation Monitoring Program (Chapter 4 in Volume IV of the Final EIR) sets forth the procedures for implementing the mitigation measures in this EIR, including timing. It should be noted that the City or the County, as relevant, would be the agency responsible for designing, scheduling, and constructing any required off-campus improvements in their jurisdictions. Therefore, the timing of installation of such improvements is not within the control of the University. Please refer to Draft EIR Section 4.14, *Traffic, Circulation, and Parking* and Section 4.15, *Utilities* for a listing of the specific transportation, water, and sewer improvements that would likely be required to serve the cumulative population in 2020. As noted in these sections, and described in Master Response MIT-1, for improvements to public utilities that serve the campus, the University will comply with the fair share fee obligations under Government Code 54999. For traffic improvements, the University will make fair share contributions, as discussed in Master Response MIT-1.

While the University cannot control the timing of off-campus improvements, a number of LRDP mitigation measures for infrastructure and service impacts have identified triggers, to help determine when specific improvements and/or actions would be needed. For example, under revised LRDP Mitigation TRA-2A, the Campus would conduct traffic counts every three years or at increments of 1,000 student enrollment growth, as well as in conjunction with the environmental review of proposed capital projects as required under CEQA, to determine if the additional traffic generated by campus growth or by a given project would trigger the need for the specific intersection improvements listed in Table 4.14-18. If so, the Campus would inform the City of this conclusion and contribute its “fair share” of the cost of the needed improvements, as noted above. Additionally, the Campus would implement revised LRDP Mitigations UTIL-9A through UTIL-9I order to minimize its contribution to the regional water. Please see Master Response UTIL-2 for a discussion of these revised mitigations.

Please refer to Responses to Comment LA-3-9 and LA-6-5 regarding revisions to 2005 LRDP EIR mitigation measures and Volume IV, Chapter 3 of the Final EIR for the full text of revised measures. Regarding phased growth, please see Response to Comment LA-3-4.

**Response to Comment LA-6-8.** Please refer to Response to Comment LA-2-25 for information about project-specific environmental documentation for subsequent projects undertaken during the planning horizon of the 2005 LRDP. Please refer to Response to Comment LA-3-9 regarding revisions to 2005 LRDP EIR mitigation measures and Volume IV, Chapter 3, Revised Table 2-1, of the Final EIR for the full text of revised measures.

**Response to Comment LA-6-9.** The individual impact discussions in the Draft EIR, Chapter 4, *Environmental Setting, Impacts, and Mitigation* (Volume I), indicate why significant impacts are considered unavoidable, or whether identified mitigation would reduce impacts to a less-than-significant

level. For significant impacts considered unavoidable there are no other feasible mitigation measures available that would lessen or avoid the impact. Please see Response to Comment SA-4-2 for the definition of “feasible” under CEQA.

Section 15126.2(b) of the CEQA Guidelines indicates that, “where there are impacts that cannot be alleviated without imposing an alternative design, their implications and the reasons why the project is being proposed, notwithstanding their effect, should be described.” The Draft EIR provides the objectives of the 2005 LRDP, identifies a reasonable range of alternatives to the project that would avoid or substantially lessen the significant effects of the project while still achieving most of the objectives of the project, and provides an evaluation of the comparative merits of the alternatives and the project. As the EIR is an informational document, it does not indicate whether or how the project should be approved. CEQA provides that an agency may approve a project despite its significant and unavoidable environmental impacts if the agency finds the project’s benefits outweigh those impacts (Public Resources Code Sections 21002 and 21002.1(c)).

Please note that the Campus proposes to recommend to The Regents the adoption of the Final Draft 2005 LRDP (September 2006). The Final Draft 2005 LRDP revises the Draft 2005 LRDP (January 2005) to reflect the Reduced Enrollment Growth Alternative previously analyzed in the 2005 LRDP Draft EIR and identified as the Environmentally Superior Alternative. For more information regarding the Final Draft 2005 LRDP, please see Final EIR, Volume IV, Chapter 2, *Project Refinements*.

**Response to Comment LA-6-10.** Draft EIR Section 2.6, *Known Areas of Controversy*, addresses environmental issues associated with the proposed project that were known to the University or were raised by agencies or interested parties during the NOP review period. The list provided in the Draft EIR includes potential effects of projected enrollment growth on housing resources. The other three items listed in the comment are issues related to the characteristics of the 2005 LRDP itself or to the campus’s history rather than issues related to environmental impacts of the proposed project. Please refer to Master Response PD-1 for information about the proposed enrollment increases identified in the 2005 LRDP. Please refer to Response to Comment LA-3-1 for information about the proposed floor area expansion identified in the 2005 LRDP. Please also refer to Responses to Comments SA-4-2 and LA-6-7 for information about the previously approved 1988 LRDP EIR mitigation measures and the currently proposed 2005 LRDP EIR mitigation measures.

**Response to Comment LA-6-11.** Please refer to Master Response PD-1 (Magnitude of Enrollment Growth).

**Response to Comment LA-6-12.** Please see Response to Comment LA-3-1 and Master Responses PD-1 and ALT-3 (Range of Feasible Alternatives).

**Response to Comment LA-6-13.** Draft EIR Chapter 4, and the Recirculated Draft EIR—Additional Traffic Analysis (Final Draft EIR Appendix A) fully analyze all potentially significant environmental impacts of growth proposed under the 2005 LRDP, and identify all feasible mitigation measures, in accordance with Section 15126 of the CEQA Guidelines. The EIR also evaluates a reasonable range of alternatives to the project, as required by Section 15126.6 of the CEQA Guidelines. Section 15126.6 requires that an EIR describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the objectives of the project; every conceivable alternative need not be analyzed. The alternatives include reduced population levels on the UC Santa Cruz campus

(see Table 5-1, Draft EIR page 5-12), and the impact analysis indicates whether the alternative would reduce each significant unavoidable impact of the project. Please also see Master Response ALT-2 (Range of Feasible Alternatives).

**Response to Comment LA-6-14.** The sentence referred to in the comment was intended to describe the overall visual character of the developed portion of the campus, not the entire campus. Subsequent subsections describe the visual character of the undeveloped north campus. In particular, the Natural Landscapes and Vegetation subsection indicates that the north campus is undeveloped and contains chaparral, meadows, and mixed evergreen forests. The Protected Landscape, Campus Natural Reserve, and Campus Resource Land of the north campus and southwest campus (i.e., an area west of Empire Grade Road) are also described in this subsection.

**Response to Comment LA-6-15.** The contribution of individual trees to the visual quality and character of the campus depends on the specific landscape type. In redwood forest areas, trees are mostly valued in the aggregate, as defining the forest context. The Draft EIR includes LRDP Mitigation AES-5C, requiring preservation of trees around development projects, to maintain this forest context. In meadows, individual oak trees may be visually distinctive, depending on their size or the shape and configuration of their branches. In the mixed evergreen forest on the north campus, individual trees, for example, large oak trees or other large unique trees, may stand out visually in their particular setting and therefore may be considered unique due to their aesthetic value. Given the variety of trees that may be considered aesthetically significant, and the dependence of this significance on the context, the Campus does not consider it practicable to provide a specific definition of “heritage,” “specimen,” or “aesthetically valuable” trees. Moreover, the loss of such trees cannot be quantified in the programmatic analysis provided in the LRDP EIR, given that building locations, and design information is not available for specific projects. Instead, the Draft EIR includes a mitigation measure (LRDP Mitigation AES-5A) requiring review of project designs for consistency with the valued elements of the visual landscape identified in the 2005 LRDP. Under the 2005 LRDP, this review would aim to preserve open space, respect major landscape and vegetation features (e.g., aesthetically valuable trees), and maintain the continuity of wildlife habitat. LRDP Mitigation AES-5C has been revised to ensure that construction activities shall be undertaken in a manner that shall minimize the removal of healthy and mature trees around new projects. Additionally, a new mitigation, LRDP Mitigation AES-5F, has been added to address removal of individual trees that may be considered aesthetically valuable components of the landscape. Please refer to Final EIR, Volume IV, Chapter 3, Revised Table 2-1, for the full text of revised LRDP Mitigation AES-5C and new LRDP Mitigation AES-5F.

**Response to Comment LA-6-16.** Please refer to Responses to Comments LA-2-36 and LA-3-10 for a discussion of the building height and size assumptions used in the visual simulations, and the environmental review requirements of future projects.

**Response to Comment LA-6-17.** Please refer to Master Response LU-1 regarding the applicability of City and County policies to University lands.

For a discussion of wildlife movement and habitat fragmentation, please refer to Master Response BIO-5. Please refer to Response to Comment LA-2-58 for a discussion of figures and maps in the Draft EIR.

**Response to Comment LA-6-18.** Please refer to Master Response BIO-6 for discussion of issues regarding special-status species that occur in karst areas.

**Response to Comment LA-6-19.** Please refer to Master Response BIO-3 (Shreve Oak).

**Response to Comment LA-6-20.** Mitigations for LRDP Impact BIO-1 (LRDP Mitigations BIO-1A, -1B and -1C) been revised and augmented to increase their clarity and efficacy. Please refer to Master Response BIO-1 regarding Northern Maritime Chaparral and Santa Cruz Manzanita. Also, please see Final EIR, Volume IV, Chapter 3, Revised Table 2-1, for the full text of the revised mitigation measures.

**Response to Comment LA-6-21.** Please refer to Master Response BIO-4 (Coastal Prairie).

**Response to Comment LA-6-22.** The University acknowledges that purple needlegrass grassland is designated as a sensitive community by California Department of Fish and Game (CDFG). The presence of purple needlegrass in some grassland areas on campus is discussed on page 4.4-6. However, campus vegetation mapping (Jones & Stokes 2004; Ecosystems West 2004) did not identify stands where purple needlegrass was the dominant species or a co-dominant species (defined as representing at least 20 percent of the relative cover). Stands of purple needlegrass grassland may be identified in the course of the vegetation assessments conducted on campus by faculty and students or in the course of site-specific surveys for project-level review. If potential impacts to purple needlegrass stands are identified during project-level review, appropriate mitigation, including avoidance where feasible, will be developed and implemented to reduce these impacts to a less than significant level. However, currently, the LRDP EIR analysis has not identified any such impacts.

**Response to Comment LA-6-23.** Mitigations for LRDP Impact BIO-1 (LRDP Mitigations BIO-1A, -1B and -1C) been revised and augmented to increase their clarity and efficacy. Please refer to Master Response BIO-1 regarding Northern Maritime Chaparral and Santa Cruz manzanita. Also, please see Final EIR, Volume IV, Chapter 3, Revised Table 2-1, for the full text of the revised mitigation measures.

**Response to Comment LA-6-24.** Because the American badger has been designated a Species of Special Concern by CDFG and has been documented at UC Santa Cruz a discussion of the American badger has been included in the Final EIR. Please see Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*, Section 4.4.1.10, *Special-Status Wildlife Species*. However, the only known occurrence at UC Santa Cruz is the discovery of a single skull and partially attached neck tissues discovered by Kim Glinka of Ecosystems West in 2004. No living individuals have been sighted on campus. Furthermore, the only discovered specimen is a partial corpse that may have been deposited by another animal. These facts suggest that the badger is not a common resident or may not be a resident of the area at all. The only documented occurrence of a living American badger in Santa Cruz County was 4 miles northwest of Santa Cruz in 1983. Thus it seems likely that the badger is an infrequent resident of or occasional migrant through the campus. A discussion of the movement patterns of the American badger can be found in Master Response BIO-5 (Wildlife Movement). Because of the large home range and very infrequent occurrence of American badger on campus, development under the 2005 LRDP will not result in a significant impact to this species.

Grasshopper sparrows are known to occur in the grasslands of UC Santa Cruz. However, grasshopper sparrows are not a listed species by any State or Federal agency, plan, policy, or regulation and are, consequently, not analyzed in the Draft EIR.



**Response to Comment LA-6-25.** The intent of LRDP Mitigation BIO-7A was to limit bicycle use only between January and June. LRDP Mitigation BIO-7A has been revised for clarification. Please see Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*, Revised Table 2-1, for text of the revised measure.

**Response to Comment LA-6-26.** As discussed in Draft EIR Section 4.8, *Hydrology and Water Quality*, of the Draft EIR, no water quantity or quality impacts are anticipated downstream of the campus and thus, potential impacts to steelhead trout, California red-legged frog, or southwestern pond turtle would not occur downstream of UC Santa Cruz. Please also refer to Response to Comment LA-6-51.

**Response to Comment LA-6-27.** Draft EIR Table 4.4-1 on pages 4.4-81 through 4.4-85 evaluates special status plant species with the potential to occur in the vicinity of the UC Santa Cruz campus. Based on the habitats present on campus and the results of Jones & Stokes (2004) and Ecosystems West (2004) botanical surveys, four special status plant species were identified as occurring or suspected of occurring on campus: Santa Cruz manzanita, Point Reyes horkelia, marsh microseris, and San Francisco popcornflower. As discussed on page 4.4-47, no impacts to Point Reyes horkelia, marsh microseris, or San Francisco popcornflower are anticipated from development under the 2005 LRDP, because no development is planned for the areas where these species have been documented on campus. Impacts to Santa Cruz manzanita, a special status plant species associated with northern maritime chaparral and present in LRDP development areas, as well as associated mitigation measures, are discussed on Draft EIR, pages 4.4-38 to 4.4-42, and in Master Response BIO-1 (Northern Maritime Chaparral and Santa Cruz Manzanita).

**Response to Comment LA-6-28.** Please refer to Master Response BIO-2 (Wetland Impacts).

**Response to Comment LA-6-29.** Ecotones are analyzed with respect to the sensitive communities and/or special-status species that depend on them. If information became available showing that impacts to ecotones may result in substantial adverse effects on sensitive communities or special status species, these impacts would be analyzed in project-level EIRs.

**Response to Comment LA-6-30.** Please refer to Response to Comment FA-1-4.

**Response to Comment LA-6-31.** Please see Response to Comment SA-4-2 regarding the status of implementation of mitigation measures required for projects under the 1988 LRDP. The 1988 LRDP EIR, like the present EIR, was a programmatic document that identified mitigation measures to be implemented in conjunction with specific development projects. If any previously adopted mitigation measures proved unnecessary for the avoidance of a specific project's significant impacts that mitigation would not have been implemented in connection with that particular project.

**Response to Comment LA-6-32.** The University acknowledges the need for project-level environmental impact analysis in the future. For additional information about wetland impacts, please refer to Master Response BIO-2 (Wetland Impacts).

The conclusion that the County's Sensitive Habitat Ordinance would protect sensitive natural communities is based on the expectation that the ordinance will apply to almost all of northern Santa Cruz County. The University's exemption from this ordinance does not substantially change the ordinance's overall effect in protecting sensitive natural communities in northern Santa Cruz County. The ordinance

will thus prevent impacts from other projects, which might otherwise combine with 2005 LRDP impacts to result in cumulative effects.

**Response to Comment LA-6-33.** LRDP Impact CULT-2 was incorrectly identified as "significant and unavoidable" in Table 2-1 in the Draft EIR. The impact would be less than significant after mitigation. The error has been corrected in the Final EIR. See Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*, Revised Table 2-1.

**Response to Comment LA-6-34.** Please refer to Response to Comment LA-6-44, which explains why a comprehensive hydrogeological study as described in the comment was not found to be necessary in order to evaluate the impacts of the proposed project related to karst hazard, hydrology or cave species. Also refer to Response to Comment LA-2-78 regarding construction on karst.

**Response to Comment LA-6-35.** The characterization and mapping of soils on the campus in the Draft EIR is based on the Soil Survey for Santa Cruz County prepared by Soil Conservation Service (SCS) in 1980. Please see Figure 4.6-6 and the SCS reference on page 4.6-20 of the Draft EIR. This is the current soil data posted on the SCS website.

**Response to Comment LA-6-36.** Please refer to Response to Comment LA-2-76.

**Response to Comment LA-6-37.** Please refer to Response to Comment LA-2-79 regarding controlled burns.

**Response to Comment LA-6-38.** The purpose of the storm water drainage improvements included in the Infrastructure Improvements Project is to address existing erosion problems in campus drainages. The mitigation measures identified in this EIR, including LRDP Mitigation HYD-3A to HYD-3E, and measures in the Storm Water Management Program will address impacts of future development.

**Response to Comment LA-6-39.** With a few exceptions, all of the capital improvement projects recommended in the Storm Water and Drainage Master Plan are included in the Infrastructure Improvements Project Phase 1 and Phase 2. Three projects recommended in the Storm Water and Drainage Master Plan are included in the McHenry Library Project, which is currently under construction. Cleanout of the College Eight Detention Basin, also recommended, will be carried out with different funding, and a separate approval of the project will be sought at the time it is proposed. The other projects recommended in the Storm Water and Drainage Master Plan that are not included in the Infrastructure Improvements Project Phase 1 and 2, including the hatch modifications, installation of trash racks and purchase of a vacuum truck, will facilitate maintenance of storm water drainage facilities but are deferred to a later phase because they are not considered as urgent for correction of existing erosion conditions.

**Response to Comment LA-6-40.** The detention basin described in the comment is included in the City's Pogonip erosion control project. According to the cost-sharing agreement among the City, County and the University, the University is responsible for the full costs of constructing this improvement. The potential for the detention basin to affect the stability of the road will be taken into account during detailed project design. If necessary, the basin could be constructed to the west of the location indicated on Draft EIR Figure 2-2 to avoid impacts to the road.

**Response to Comment LA-6-41.** Increased runoff that would result from the construction of a connector road between Hagar and Glenn Coolidge Drives is included in the estimated runoff reported in Draft EIR

Appendix D2 and evaluated for impacts under LRDP Impact HYD-3 in Section 4.8 of the Draft EIR. Because the 2005 LRDP is a long-range land use plan for the entire campus, water quality impacts from the expansion of campus facilities and increased on-campus population are evaluated at a programmatic level under LRDP Impact HYD-3. Mitigation measures are proposed to minimize this impact. Water quality impacts of runoff from both the new road and the parking structure will be evaluated at a project level of detail as and when these improvement projects are proposed. As appropriate, LRDP mitigation measures, as well as any project-specific mitigation measures, will be implemented in conjunction with those projects in order to avoid and/or reduce water quality impacts to the maximum extent practicable.

**Response to Comment LA-6-42.** Highview Drive presents the primary off-campus flooding concern to the west of campus. The SDMP discusses off-site drainage issues with respect to Highview Drive, which but does not mention off-site drainage issues near the north campus. With respect to flooding at Highview Drive, please refer to Response to Comments LA-2-81 and I-74-1. The Draft EIR includes LRDP Mitigations HYD-3A through E, all of which are designed to minimize increases in peak flows as well as increases in the volume of runoff discharged into the creeks. LRDP Mitigations HYD-3C and HYD-3D have been revised to clarify the standards to be met. Each development project will be required to implement these LRDP mitigation measures, and any additional project-specific measures as appropriate to avoid increased runoff from the project site. The Draft EIR (page 4.8-34) acknowledges that there potentially could be some project sites on the campus, including some on the north campus, where avoiding an increase in total volume of runoff may not be possible. Therefore, the impact would be significant and unavoidable.

**Response to Comment LA-6-43.** With respect to detention basin maintenance, please refer to Response to Comment LA-6-39. No encroachment permits are needed for the detention basin maintenance because none of the basins is located on County-owned land.

**Response to Comment LA-6-44.** Based on data available and the approach to evaluation of impacts used in the LRDP EIR, the Campus determined that a separate hydro-geological study was not needed for a program-level analysis. The Campus has conducted a number of investigations of the karst aquifer in the past, including several dye tracing studies; a seven-day pump test; and more than 10 years of monitoring of water quality, water levels and spring and stream flow. These previous investigations provide baseline information sufficient to adequately characterize the karst aquifer on the campus. Similarly, the existing surface water hydrology and runoff was characterized in the Draft EIR at a watershed level based on acreages of each watershed, watershed properties including soil type and vegetation cover, stream length and average slope, local rainfall data, and the area within each watershed covered by impervious surfaces. The available data is adequate for the program-level analysis contained in the EIR and provides adequate baseline data for evaluation of water quality and hydrological impacts. Impacts to cave species are discussed in the Draft EIR, under LRDP Impacts HYD-6 and BIO-8. For reasons presented in Response to Comments LA-6-51 and LA-9-26, the proposed project would not result in significant downstream impacts on the resources present in the Wilder Creek watershed and the lower Moore Creek watershed.

**Response to Comment LA-6-45.** Please see Response to Comment SA-5-13 regarding potential impacts related to the discharge of storm water runoff to sinkholes.

A program-level analysis was performed for each watershed on the campus. Under the 2005 LRDP, more detailed analysis of individual drainage basins will be performed to evaluate impacts and develop mitigation design features for specific development projects as they are proposed.

**Response to Comment LA-6-46.** Under the discussion of alternatives to the proposed storm drainage improvements, Draft EIR Section 2.5.4.1 in Volume III explains that instead of constructing these storm drainage improvements, another option for the Campus to avoid erosion could be diverting all the existing runoff into a piped system, discontinuing the use of natural drainages, and eliminating discharge of runoff to sinkholes. Conveyance of urban runoff in a conventional piped system is generally not recommended because such systems divert runoff that would otherwise flow in the creeks and the reduced flow of water in creeks can in turn lead to loss of riparian habitat. Furthermore, diversion of all runoff into a piped system on the campus would also reduce aquifer recharge and potentially alter the cave habitat and California red-legged frog-breeding habitat in Moore Creek. The analysis in the Draft EIR shows that quality of discharge of runoff into the karst system under the 2005 LRDP would not degrade, and therefore campus growth under the 2005 LRDP would not adversely affect the special status cave species (See Master Response BIO-6). Moreover, if the erosion problems in the drainages are addressed as proposed, the sediment load in the runoff will decrease and both surface and ground water quality will improve. Therefore, the Draft EIR appropriately concludes that the proposed Infrastructure Improvements Project is environmentally superior to a piped system.

The proposed hybrid system that uses the drainages for storm water conveyance but does not discharge into the sinkholes is not feasible because all of the water conveyed in Jordan Gulch discharges into a swallow hole in the lower campus, and similarly there are several sinkholes and swallow holes in the Moore Creek drainage that capture a substantial amount of runoff in that watershed. Construction of detention basins downstream of the karst, as suggested by the commenter, is not feasible because all of the central and lower campus is underlain by karst. Moreover, large detention basins in the lower campus would have greater visual impacts than smaller detention basins located throughout the campus near new development when the runoff is generated.

**Response to Comment LA-6-47.** Many of the existing erosion control measures on the campus, such as detention facilities, were designed to control peak flows released from project sites. Controlling peak flows was a standard practice that was commonly used in development throughout California at the time that those development projects were constructed on the campus. As discussed in the Storm Water and Drainage Master Plan, these measures were found not to be completely successful in reducing or eliminating erosion in campus streams. Furthermore, these measures were not required until 1989, and runoff from much of the pre-1989 development on campus has not been detained. The proposed storm drainage improvement projects described in the Storm Water and Drainage Master Plan and in Volume III of the Draft EIR are designed to repair the problems caused by previous development and to restore the ability of the campus streams to convey existing flows.

Control measures proposed for future developments will be designed to control not only the peak flow rate from a new development but also the duration and volume of runoff. This should reduce the likelihood of new problems occurring in streams receiving runoff from new development. With the infrastructure improvements in place and the implementation of newer control measures there is no discrepancy between the findings of the Storm Water and Drainage Master Plan and those of the EIR.

The impact related to erosion and sedimentation as a result of new development under the 2005 LRDP is evaluated in LRDP Impact HYD-3, and the effect of runoff from new development on caves is addressed in LRDP Impact HYD-6. Also refer to LRDP Impact BIO-8 and Master Response BIO-6 with respect to potential impacts on cave biota.

**Response to Comment LA-6-48.** As described in Volume III of the Draft EIR, the storm drainage improvements project consists of a total of 94 separate small to medium sized improvements. These range from a simple improvement that would direct roof runoff from an existing building to a dispersion manifold or water spreader (a perforated pipe segment laid along the contour of a gentle slope), which does not require a lengthy description, to larger improvements such as detention basins, which require more explanation. As the information in Table 2-2a and 2-2b of the Draft EIR shows, most of the improvements would be small in terms of their size and footprint. The tables include information regarding those features of each improvement project (its location, dimensions, footprint, and visibility) that are necessary in order for a reader to understand the specific improvement and its potential environmental impacts. Similarly, all of the access roads and staging areas are identified and adequately described in Table 2-2c, and are also mapped. Construction techniques, schedule, and equipment are described in the Draft EIR in general terms because the proposed improvements do not involve unusual or special types of construction activity; rather the proposed construction is similar to general channel maintenance type activities, which are often treated as exempt from CEQA.

The main concern with respect to these improvements is the potential for impacts on sensitive resources such as biological and cultural resources. Please refer to Response to Comment LA-2-194 regarding the project description information that was developed to evaluate impacts on these resources.

**Response to Comment LA-6-49.** Applicable water quality regulations are discussed in Section 4.8.1.9 of the Draft EIR.

LRDP Mitigation HYD-3D will be implemented so that natural and engineered infiltration and storage techniques will be used to control storm water runoff, preferably close to where it is generated. This is one of the main components of low impact development (LID). One of the best management practices in the Storm Water Management Program specifies that UC Santa Cruz will continue to evaluate new products and applications for pervious paving and surfaces and, based on the results of a pilot project, will determine how the use of pervious pavement can be incorporated into future development. In some areas, it may not be possible to use pervious pavement due to constraints such as its ability to withstand the expected vehicle traffic load, vegetative detritus, accessibility compliance under ADA, emergency vehicle access, and soil permeability.

Approximately 65 percent of the proposed development under the 2005 LRDP will be infill in already developed areas, which would intensify the clustering of development in the central campus while leaving large areas of contiguous open space. Also, preserving open space as much as possible is one of the planning principles of the 2005 LRDP.

While it depends on the features and location of specific projects, utilizing landscaping and stable vegetated areas to dissipate roof runoff and allow water retention as much as possible, recycling of accumulated runoff for irrigation, toilet flushing, etc., are some of the ways to implement LRDP Mitigation HYD-3D. In addition, under revised LRDP Mitigation UTIL-9E the Campus will conduct a

feasibility study and develop an implementation plan for use of recycled water. See Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*, Revised Table 2-1, for text of revised mitigation measures. Please also refer to Master Response UTIL-2 (Water Supply Mitigation Measures).

Impacts on off-campus drainages are addressed in the Draft EIR under LRDP Impacts HYD-2, HYD-3, and HYD-7. Please also refer to Response to Comment LA-6-51.

Please refer to Master Response HYDRO-1 as to why specific design measures to control storm water runoff cannot be provided in this program-level EIR. Prior to construction, details of specific development projects under the 2005 LRDP would be used to perform a hydrologic analysis in order to determine the design measures required to mitigate the project-specific impacts. Results of this assessment would be included in the project-level environmental document. See Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*, Revised Table 2-1, for text of revised mitigation measures.

**Response to Comment LA-6-50.** Please refer to Master Response HYDRO-1 and Response to Comment LA-6-49, which explains why the Draft EIR concludes that LRDP Impact HYD-3 would be significant and unavoidable. For an explanation of why the increase in building square footage in the 2005 LRDP building program is proportionately greater than the increase in enrollment, please refer to Response to Comment LA-3-1. Minimization of impervious area, use of pervious pavement, and other low-impact development (LID) measures would be implemented under revised LRDP Mitigation HYD-3D. However, as a conservative estimate for the program-level analysis performed in the Draft EIR, it was assumed that all impervious areas would be directly connected, even though more LID design features will be incorporated into future projects to ensure that pervious areas were interspersed among impervious areas. Detailed analyses will be performed for project-level environmental documents.

The method used to estimate the increase in impervious surfaces used for the program-level Draft EIR is described in Appendix D2 of the Draft EIR. It was assumed that areas of new development would be 70 percent impervious, due to clustering of development, and that existing development was 60 percent impervious. The areas designated for development in the LRDP may be larger than the areas that would actually be developed or affected by development, and the ratio of impervious area to gross square footage therefore may be overestimated.

**Response to Comment LA-6-51.** All of the watersheds that drain the campus are discussed on pages 4.8-3 through 9 of the Draft EIR. As discussed there, although the vast majority of campus runoff is captured by the Cave Gulch, Moore Creek, and Jordan Gulch drainages, there are areas along the southwestern, southern and eastern boundaries of the campus that drain to other drainages in the city. These include a western tributary of Moore Creek, headwaters of Arroyo Seco, hillslope drainage onto High Street, drainage into Kalkar Quarry Pond, and the hillslope drainages within the San Lorenzo River watershed. The San Lorenzo-Pogonip watershed is discussed in detail on page 4.8-8 and the other local drainages listed above are also described further on pages 4.8-8 and 4.8-9.

The Draft EIR addresses impacts to downstream off-campus drainages under LRDP Impact HYD-2, Impact HYD-3, and Impact HYD-7. With respect to impacts to surface waters from construction activities, LRDP Impact HYD-2 explains on page 4.8-28 of the Draft EIR that construction activities could cause increases in erosion that could release sediment, and that other pollutants could also enter the surface waters and potentially affect not only the beneficial uses of campus creeks but also off-campus drainages. However, with the implementation of mitigation measures included in the EIR, the impact on

both on-campus and off-campus drainages would be less than significant. Similarly, the discussion of LRDP Impact HYD-3 on pages 4.8-33 and -34 focuses on impacts to the San Lorenzo-Pogonip watershed and other watersheds along the campus's southern and western boundaries. The impact on the High Street watershed was determined to be less than significant because minimal new impervious areas (less than 1 acre) would be added in the portion of the campus that drains to High Street or via High Street to Bay Creek. Similarly, less-than-significant impacts are identified in the Draft EIR with respect to the Arroyo Seco watershed, the western tributary of Moore Creek, and the Wilder Creek drainages, because limited or no development is proposed within these watersheds under the 2005 LRDP. All of the campus runoff within the Jordan Gulch watershed currently enters and would continue to enter the karst aquifer, and would not affect downstream off-campus drainages. Furthermore, the Draft EIR identifies mitigation measures to address erosion and sedimentation impacts from discharge of increased runoff into Jordan Gulch.

As described in the Draft EIR, the Moore Creek watershed originates on the campus and extends to Antonelli Pond near Natural Bridges State Beach. Other than limited improvements at the campus Arboretum, no development is proposed for campus areas below the Arboretum Dam. For new development within the Moore Creek watershed above the Arboretum Dam, the EIR includes a suite of mitigation measures to control erosion and sedimentation from discharge of additional runoff into Moore Creek. For any new development, the Campus would implement LRDP Mitigation HYD-3C, which would maintain flows from the campus to County roads and off-campus reaches of Moore Creek at pre-development rates. Through maximization of infiltration, flow dispersion measures, measures to minimize the volume of runoff, and runoff detention measures, peak flow rates from 2-, 5-, and 10-year storms would not exceed the 2-, 5-, and 10-year pre-development peak flow rates, and the peak flow rate from a 25-year storm would not exceed the pre-development peak flow rate from a 10-year storm. The control measures would still continue to prevent post-development peak flows from exceeding pre-project peak flows for storms larger than the 25-year event, although the flow would no longer be limited to the pre-project 10-year flow. The Campus would also implement revised LRDP Mitigation HYD-3D, which would require that projects include design features to minimize the increase in the volume of runoff to the maximum extent practicable. The EIR concludes, however, that impacts to campus drainages could be significant because it may not be possible at all project sites to limit increases in runoff volume to the extent needed to avoid exacerbating existing erosion conditions. However, the Arboretum Pond and other impoundments in the lower portion of Moore Creek on the campus would continue to attenuate flows and, in conjunction with LRDP Mitigations HYD-3C and HYD-3D, would minimize the potential for impacts downstream of the campus.

As discussed in Chapter 2 of Volume III of the Draft EIR, the proposed storm drainage improvements included in the Infrastructure Improvements Project Phase 1 and 2 include cleaning of clogged sinkholes in order to restore their infiltration capacity. Once the capacity is restored and other improvements and LRDP mitigations also have been implemented to avoid or reduce erosion in the drainages, the sedimentation of sinkholes should be slowed down, and the potential for the additional campus runoff generated as a result of LRDP-related development to continue downstream into off-campus drainages would be further reduced. For all of these reasons, impacts to off-campus drainages are not expected to be significant.

Please note that LRDP Mitigations HYD-3C, -3D and -3E have been revised to increase their effectiveness. Please see Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*, Revised Table 2-1.

**Response to Comment LA-6-52.** LRDP Mitigation HYD-2B calls for both erosion control measures and sediment control measures, described as "...controls that prevent sediment from leaving the site..." The Campus Erosion Control Standards cited under LRDP Mitigation HYD-2A require that, "Prior to beginning grading or site clearing operations, an erosion control plan indicating proposed methods for the control of runoff, erosion, and sediment movement shall be submitted by the Contractor and accepted by the University." The Storm Water Management Program also includes measures to address potential impacts of all construction site pollutants on storm water runoff.

**Response to Comment LA-6-53.** The Infrastructure Improvements Project involves five individual storm drainage improvement projects that would divert runoff from the Moore Creek watershed into Jordan Gulch watershed and Cave Gulch. Project Nos. 69, 72, 73, and 93 involve transfer of runoff from roofs, small parking lots, buildings and service roads from Moore Creek watershed into the Jordan Gulch watershed. Project No. 102 would divert the roof runoff from the Porter College academic buildings and transfer it to Cave Gulch watershed. None of the projects would release the diverted flows directly into a channel. All projects would either spread the water on upland vegetated areas where it can infiltrate or convey the water into a detention basin. Therefore, these diversions would not cause an increase in peak discharges in the receiving channels or channel erosion. In the case of Project No. 102, the water would be spread onto the grassland area to the southwest of the Porter College buildings. From this point the water would travel at least 300 feet before entering a swale. It would flow for several hundred feet in that swale and discharge into a sinkhole near Family Student Housing. Given the amount of water that would be diverted and the long distance it would travel before reaching the sinkhole, it is not anticipated that any water would spill out of the sinkhole and actually reach Cave Gulch. Note also that there is no evidence of flooding at this sinkhole in the past. As described on page 2-14 of Volume III of the Draft EIR, the project designs would be adjusted as needed to respond to field conditions at the time the projects are implemented.

At this time, no additional diversions (other than those described above) are proposed, although the Campus may construct other such diversions in conjunction with future development under the 2005 LRDP. Note that at the time that any new diversion is proposed a detailed project-level evaluation will be completed of the ability of the receiving drainage to handle diverted flows. Based on the current state of the campus drainages, it is considered unlikely that flows from other drainages would be diverted to Moore Creek, Cave Gulch or the Pogonip drainages. To the extent that such diversions are implemented, they would likely involve transfer of runoff from these drainages into Jordan Gulch.

**Response to Comment LA-6-54.** Please refer to Response to Comment LA-6-52, above. LRDP Mitigation HYD-3D is included to minimize increases in the volume of runoff. The goal is that the volume of runoff from a project area should not exceed pre-project conditions. Since actual projects have not yet been designed, however, it is not certain that achieving this performance standard will be possible everywhere. Therefore, as explained in Master Response HYDRO-1, the impact is considered significant and unavoidable. However, to the extent possible the mitigation measures will limit both the flow rate and volume to pre-project conditions.



**Response to Comment LA-6-55.** Revised LRDP Mitigation HYD-3D calls for project designs to incorporate measures to maximize infiltration near the area where the new runoff is generated. Please refer to Master Response HYDRO-1 (LRDP Impact HYD-3) regarding issues related to Impact HYD-3. See Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*, Revised Table 2-1, for revisions to mitigation measures.

**Response to Comment LA-6-56.** Opportunities for infiltration of runoff may be limited by specific site constraints such as limited space, relatively steep slopes, impermeable soils, and depth to groundwater. For these reasons, it is possible that on some project sites it may not be possible to limit the increase in the volume of runoff to the extent necessary to avoid a significant impact on a drainage, particularly if there are existing erosion conditions in that drainage. Please see Master Response HYDRO-1 and Response to Comment LA-6-54.

**Response to Comment LA-6-57.** Any new development would follow the storm drainage system standards in the Campus Standards Handbook, which require that the post-development runoff rate not exceed the pre-development runoff rate. This standard was included in the Draft EIR as LRDP Mitigation HYD-3C. Please refer to discussion of LRDP Impact HYD-4 in Responses to Comments I-74-1 and I-88-12. Regarding the substantial evidence supporting the conclusion that the impact related to groundwater extraction would be less than significant, please refer to Response to Comment I-48-1.

With respect to LRDP Impact HYD-7, the Draft EIR concludes that the cumulative impact from increased impervious surfaces and increased urban runoff would be less than significant. The Draft EIR includes a separate analysis for each study area watershed, and examines whether or not there would be significant new development or population growth in the watershed, and determines whether there would be a potential for a significant cumulative impact. In all the watersheds (Wilder Creek, Jordan Gulch, Moore Creek, and San Lorenzo River), limited or no new off-campus development is proposed; therefore, significant cumulative impacts from increased runoff due to increased impervious surfaces would not occur. Cumulative impacts in these watersheds would be related mostly to water quality impacts from increased urban activities. However, the Statewide General Permit for Phase II municipalities requires the City of Santa Cruz to implement a storm water management program to address urban runoff pollutants as well as erosion and sedimentation from any infill development. Similarly, the Campus will implement its Storm Water Management Program as well as mitigation measures contained in this EIR to avoid or reduce water quality impacts related to erosion, sedimentation, and urban activities. As a result of these programs, which address water quality impacts not only from the new growth but also from existing development, the quality of runoff should improve over existing conditions and therefore the cumulative impact would be less than significant. Please also refer to Response to Comment LA-6-51 above, which explains why erosion and sedimentation impacts in the Moore Creek watershed would be localized and contained within the portion of the watershed that is on the campus and would not affect downstream portions of the watershed.

The cumulative impact related to extraction of groundwater (LRDP Impact HYD-8) was determined to be less than significant because the well from which the Campus could extract groundwater if it implements LRDP Mitigation UTIL-9I, draws water from the karst aquifer that underlies the campus. This aquifer is not used by other local water purveyors and it is not hydrologically connected to the Purisima formation, which is the source of groundwater for the City of Santa Cruz and Soquel Creek Water District, or to the

weathered granitic rock in the Cave Gulch area in which some domestic wells are located. Therefore, there is no potential for a cumulative impact on groundwater levels in any of the local aquifers.

**Response to Comment LA-6-58.** The Campus's Storm Water Management Program also will require design and operational measures to be included in new projects to avoid polluting runoff and to provide treatment of runoff from certain types of facilities such as large parking lots. In addition, as explained on pages 4.8-41 to -42, the mitigation measures proposed in the Draft EIR (LRDP Mitigations HYD-3C and 3D) would require that increased storm water runoff be infiltrated near where it was generated to the maximum extent practicable. Even with implementation of the measures required by the Storm Water Management Program, there could be some increase in urban pollutants in the infiltrated water. However, the soils and underlying materials would filter additional pollutants near the source and the impacts to water quality would decrease rapidly with distance from the source.

**Response to Comment LA-6-59.** Please refer to Master Response LU-1, which addresses the County's concern regarding consistency with the City and County general plans.

**Response to Comment LA-6-60.** Please refer to Response to Comment LA-2-20 for a discussion of Campus Resource Land. Ultimately the decision about which land use categories apply to which lands is up to the discretion of The Regents, based on the analysis of impacts in the EIR.

**Response to Comment LA-6-61.** Please refer to Response to Comment LA-2-89 for a discussion of the University's obligations under the Coastal Act. Please refer to Response to Comment LA-2-20 for a discussion of Campus Resource Land.

**Response to Comment LA-6-62.** As shown on Draft EIR Table 3-2 in Section 3, *Project Description*, the 2005 LRDP does not propose to use existing UC-sponsored off-campus housing in the city to house students. However, UC Santa Cruz Colleges and University Housing Services (CUHS) has indicated that, if needed and as appropriate, it would secure housing in the city under lease agreements or by purchasing available properties. See new footnote to Table 3-2 in Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*. At the time that such an action was proposed, the University would conduct an environmental review of the proposed action, including the effect of the action on the community's housing resources. Any impacts on transient occupancy tax revenues of the City would be economic, and not physical effects on the environment. In addition, please refer to Response to Comment I-84-20.

**Response to Comment LA-6-63.** UC housing and residence patterns of students and employees are described on pages 4.11-7 through 4.11-11 of the Draft EIR. That section also discusses the fact that occupancy levels of student housing fluctuate from year to year in response to availability of housing on campus as well as the availability and cost of housing in Santa Cruz and other nearby communities. Also, refer to Master Response POP-1 (Impact on Regional Housing).

There is some evidence that on-campus housing costs are somewhat higher than costs of comparable housing in Santa Cruz. However, the cost of University housing includes utilities and services such as security, computer rooms, counseling services, and other types of student support. In a study conducted for the campus, about 57 percent of students reported that they would live on campus if all other factors, including cost, were equal. However, the same study shows that 20 percent of students paid higher rents off campus. There appear to be a wide range of reasons why a higher percentage of students do not

choose to reside on campus (Sedway Group 2003). This is discussed in more detail in Master Response ALT-5 (Increased On-Campus Housing Alternative).

**Response to Comment LA-6-64.** The 1988 LRDP goal of providing housing for 70 percent of undergraduates and 50 percent of graduate students was explicitly subject to financial feasibility. As explained in the 1988 Draft EIR, “These ancillary facilities are user-funded and/or gift-funded and thus subject to economic constraints that cannot be forecasted. Therefore, the feasibility of meeting the housing goals in the 1988 LRDP cannot be determined with certainty at this time. Accordingly, where the development of such facilities is of environmental significance, this EIR evaluates the effects of the project both with and without such facilities.” The constraints on construction of student housing identified in the 1988 LRDP EIR are still applicable. The Campus has met the housing goal for faculty identified in the 1988 LRDP in every year except 2002-03, but has not met the housing goals for students or staff. In part this is because, between 1990 and 1996, enrollment leveled off and declined, and vacancy rates both in the city and on campus were relatively high. During those years, the University determined that it would not be prudent to proceed with the development of additional housing. The Campus began aggressively to pursue the construction of on-campus housing after enrollment began to increase in 1997. Based on its experience under the 1988 LRDP, the Campus has concluded that the goals established in that LRDP were unrealistic and could not be financially sustained by the self-supporting housing program; therefore, a mitigation measure requiring the Campus to meet similar goals in the future would not be feasible.

For additional discussion of the reasons that the Campus considers housing more than 50 percent of undergraduates and 25 percent of graduate students to be infeasible, please refer to Master Response ALT-5 (Increased On-Campus Housing Alternative), and Response to Comment LA-3-41.

**Response to Comment LA-6-65.** Data gathered by UC Santa Cruz Colleges and University Housing Services (CUHS) were reviewed during the preparation of the Draft EIR to characterize historic residence patterns and occupancy levels. Those data show that the occupancy levels have ranged from a low of 91 percent of design capacity (and 93 percent if only the on-campus housing is considered) in 2003-04 to 106 percent in 2001-02. The Draft EIR assumes 100 percent occupancy of the on-campus housing in 2020, because, historically, the campus has experienced high occupancy levels, and because limited housing growth in the study area is projected by the City of Santa Cruz, other incorporated cities, and the County. Therefore, the demand for on-campus housing would be expected to increase because of limited availability elsewhere. Due to a shortage of academic space, a few apartments have been used for offices on a temporary basis until the Humanities and Social Sciences Building project is completed. These will be available for conversion back to apartments in the future. Conversely, spaces (such as student lounges) have at some times been converted temporarily into bed spaces in order to meet high housing demand—thus, resulting in occupancy rates of over 100 percent of design capacity. Flexible strategies in the use of space ensure that residential spaces do not stand vacant and contribute to higher housing costs for residents during periods of lower demand, and also allow CUHS to meet short-term demand in excess of the immediate housing supply.

**Response to Comment LA-6-66.** Please see Master Responses POP-1 and ALT-5 with respect to factors that influence the demand for on-campus housing.

**Response to Comment LA-6-67.** As discussed above, the University continually analyzes services to ensure that on-campus housing remains attractive to the students and to achieve occupancy goals. On-campus student housing occupancy rates have averaged over 90 percent for the past five years during a time of tremendous new housing construction. Since 2001, 1,742 new beds have been built, increasing housing capacity at a greater rate than enrollment growth. Costs incurred for new construction and operations such as dining are shared among all residents and across all types of housing accommodations.

Student housing goals and alternatives that would set higher housing goals are discussed in Master Response ALT-5. Students who live in University-sponsored housing are not all required to have a meal plan. For students who do not want to participate in the meal plan, there are several housing options available to them including the Village, the Campus Trailer Park, and the University Town Center. Students who choose to live in apartments in the colleges are choosing a housing option that is integrated with the overarching academic goals for the respective residential community in which they reside. The meal program is directly tied to the goal of enhancing student engagement with the broader college community, which includes the dining experience, college nights, and other sponsored co-curricular programming events. The Campus is considering the possible development of mixed-use apartment housing for upper division students in the next set of housing expansion projects. Such housing may not include a required meal plan if the units are not constructed as part of the college program.

**Response to Comment LA-6-68.** The Draft EIR analyzes the impact of all the new students (6,950 additional students) and new employees (1,520 additional faculty and staff) on the demand for housing in the study area under the Draft 2005 LRDP (January 2005). As stated on page 4.11-16 of the Draft EIR, the residences of those students who would live off-campus within the county were distributed in the study area based on the September 2005 BAE study cited by the commenter. Similarly, as stated on page 4.11-17 of the Draft EIR, the distribution of new employees who would live off-campus within the county was also based on the September 2005 analysis conducted by BAE. All of the population and housing analyses in the EIR and the conclusions are consistent with the results of the BAE report. Please see Response to Comment LA-2-111 regarding the jobs-housing imbalance. Note that the Campus proposes to recommend to The Regents the adoption of the Final Draft 2005 LRDP (September 2006). The Final Draft 2005 LRDP revises the Draft 2005 LRDP (January 2005) to reflect the Reduced Enrollment Growth Alternative previously analyzed in the 2005 LRDP Draft EIR and identified as the Environmentally Superior Alternative. The population and housing demand of the project as now proposed thus will be less than under the Draft 2005 LRDP as analyzed in the Draft EIR. For more information regarding the Final Draft 2005 LRDP, please see Final EIR, Volume IV, Chapter 2, *Project Refinements*.

**Response to Comment LA-6-69.** Please refer to Master Response POP-1 regarding proposed mitigation measures for the cumulative impact on housing resources. Note that three new mitigation measures, LRDP Mitigations POP-3A, -3B and -3C, have been added to the Final EIR to reduce this impact. Please see Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*, Table 2-1, for text of revised mitigation measures. With respect to a timeline for implementation of mitigation measures, please see Final EIR, Chapter 4, *Mitigation Monitoring Program*, in Volume IV.

**Response to Comment LA-6-70.** The University will continue to seek feasible means of providing more affordable on-campus housing for employees. At this time, the University expects to be able to construct about 125 additional units of housing for employees on campus through 2020. Eighty-four employee-

housing units under the Ranch View Terrace project have been approved but not yet constructed. Please see Response to Comment LA-2-111 regarding jobs-housing imbalance in the city of Santa Cruz. Also see Master Response ALT-5 as to why additional housing cannot be provided on the campus, and refer to Master Response POP-1 regarding revised LRDP Mitigation POP-3. Revised mitigation measures are presented in the Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*, Revised Table 2-1.

**Response to Comment LA-6-71.** The Draft EIR concludes that the impact of the project related to population would be significant and unavoidable, and no mitigation is feasible. The Draft EIR, in addition to assessing a No Project Alternative, analyzes the impacts of two alternatives (Reduced Enrollment Growth and Satellite Campus at Fort Ord) that would reduce the increase in enrollment at the main campus. Note that the Campus is recommending adoption of a Final 2005 LRDP EIR that represents the Reduced Enrollment Growth Alternative analyzed in the Draft EIR. This project was identified as the Environmentally Superior Alternative to the Draft 2005 LRDP EIR.

**Response to Comment LA-6-72.** For reasons presented in Master Response ALT-5 and Response to Comment LA-6-64, the University has determined that it cannot establish higher on-campus housing targets for students than those provided under the 2005 LRDP because the student demand for on-campus student housing will not support higher targets.

**Response to Comment LA-6-73.** The impacts of growth under the 2005 LRDP on the Santa Cruz County Sheriff-Coroner's Office were evaluated in LRDP Impact PUB-5, which evaluates cumulative growth, including the 2005 LRDP-related off-campus population. The impacts of the 2005 LRDP-related on-campus population were evaluated in LRDP Impact PUB-1. As the County Sheriff's Office generally only helps with occasional criminal investigations or coroner duties on-campus, growth in on-campus population is unlikely to affect the County Sheriff's Office significantly. Furthermore, as noted in LRDP Impact PUB-5 there are no plans to expand the County Sheriff's Office facilities. Therefore, there would be no environmental impacts from provision of new Sheriff's Office facilities to serve LRDP-related population growth and other regional growth.

**Response to Comment LA-6-74.** Please refer to Responses to Comments LA-2-120, LA-2-121, LA-2-122, and LA-2-125 for additional discussion of the impacts related to increased demand for recreational facilities. LRDP Impacts REC-2 and REC-5 evaluate the impact of the 2005 LRDP population on beaches, which includes surfing areas. LRDP Impact REC-2 (Draft EIR page 4.13-11) indicates that the beaches would experience increased use by LRDP-related population. However, the Draft EIR indicates that because non-local visitors and tourists also extensively use the beaches, the effect of the 2005 LRDP-related population cannot be easily isolated. However, as the LRDP daytime and residential campus population would represent a small portion of the overall population expected to use the beaches, the project's impact on these facilities is considered less than significant.

LRPD Impact REC-5 (Draft EIR page 4.13-16) indicates that the 2005 LRDP-related off-campus population, in conjunction with other study area population, would use state beaches and parks in the study area, and some of these facilities could experience deterioration related to overuse. However, as these facilities serve much wider areas and not just Santa Cruz County, and are used extensively by visitors and tourists, the effect of the 2005 LRDP-related population cannot be easily isolated. The Draft EIR indicates that because the 2005 LRDP-related population would represent a very small portion of the

overall population expected to use the state parks and beaches, the contribution of the project to the cumulative impact would not be cumulatively considerable.

**Response to Comment LA-6-75.** Please refer to Response to Comment LA-2-158.

**Response to Comment LA-6-76.** Existing parking ratios on campus are already quite low (about 0.297 spaces per person in the campus population), in part because campus parking has been managed deliberately to encourage the use of alternative transportation—that is, the cost of parking is a deliberate disincentive to drive a single-occupant vehicle to the campus. Further reductions in parking ratios could result in inadequate parking supply for the proposed population and development on campus and could create more on and off-campus parking impacts. Under the 2005 LRDP, it is projected that parking would be provided at a ratio of 0.301 parking spaces per person in the campus population. This ratio is very slightly higher than the current ratio of parking on campus, but substantially lower than the 0.56 ratio projected in the 1988 LRDP. TAPS monitoring of on-campus parking demand has shown that past and current demand is well below the 1988 LRDP ratios and there is no reason to believe that the rate of parking demand would increase as long as current TDM programs are maintained.

In comparison, the City of Santa Cruz Zoning Code would require one parking space for each employee and one space for every three students (Section 24.12.240.ac. Colleges and Universities). At full development under the 2005 LRDP, this translates to 4,702 parking spaces for employees (faculty and staff) and 7,000 spaces for students, resulting in a total of 11,702 parking spaces - a ratio of about 0.46 spaces per person. This is substantially higher than both the 2005 LRDP parking ratio and the current parking ratio on campus, and higher than the present rate of demand as demonstrated by TAPS surveys.

**Response to Comments LA-6-77 and 78.** The 2005 LRDP Draft EIR is a program level EIR. Impacts related to the construction of the North Loop Road and other new proposed roads will be addressed in the project-level assessment of the roadway at the time that the project is proposed. The North Loop Road is only a conceptual plan at this stage, and the design information necessary to determine construction impacts has not been developed. During the preparation of the LRDP, campus planners and the consultants reviewed alternatives to the North Loop Road and the new connection to Empire Grade Road. Alternatives to the North Loop Road included slightly different alignments or short extensions of Chinquapin Road and Heller Drive. In developing the proposed 2005 LRDP land use map (including the circulation plan), alternative plans were considered that did not include the new connection to Empire Grade Road. Considerations in selecting the roadways and alignments in the 2005 LRDP included:

- Impacts to topography, trails, wildlife crossings, and flora;
- Accessibility to developable land in the north campus area;
- Emergency access;
- Accessibility to the proposed Campus Support area and/or potential employee housing; and
- Potential impacts of the bridge spanning Cave Gulch.

The evaluation of LRDP options including the North Loop Road went beyond simply assessing traffic and circulation, and included assessment of the effects of increased traffic volumes on McLaughlin Drive, increases in pedestrian conflicts, design issues related to the new Empire Grade Road intersections (e.g., sight distance), increased traffic on Empire Grade Road, and routing of heavy vehicles.

**Response to Comment LA-6-79.** Potential internal and external hazards that might result from circulation changes were taken into consideration during the development of the circulation plan for the proposed 2005 LRDP. The proposed circulation plan was selected, in part, because the North Loop Road and Hagar/Glenn Coolidge connector permitted several internal roadways (including McLaughlin, Hagar, Meyer, and Steinhart) to emphasize pedestrian, bicycle and transit travel, and reduce vehicle/pedestrian conflicts on campus core roadways. Please see Master Response TRAFFIC-2 with respect to hazards associated with the new intersection on Empire Grade Road.

**Response to Comment LA-6-80.** Please refer to Master Response TRAFFIC-2 (Impacts on Empire Grade Road).

**Response to Comment LA-6-81.** Please refer to Master Response TRAFFIC-2.

**Response to Comment LA-6-82.** Please refer to Master Response TRAFFIC-2.

**Response to Comment LA-6-83.** The Draft EIR (page 4.14-3) identifies that Glenn Coolidge Drive is County owned. The Campus acknowledges that Glenn Coolidge Drive is a county-maintained roadway and any encroachments are subject to approval from the County.

**Response to Comments LA-6-84.** The Draft EIR traffic operations analysis used the 2000 Highway Capacity Manual methods to estimate the levels of service at relevant intersections on county roadways including the proposed Empire Grade Road access, Empire Grade Road at Heller Drive, and the intersections on Glenn Coolidge Drive at Campus Facilities, Hagar Drive, and the proposed Hagar/Glenn Coolidge connector. These analyses are presented in the Draft EIR in Table 4.14-14 on page 4.14-39.

**Response to Comment LA-6-85.** Please refer to Response to Comment LA-6-84 above. Draft EIR Table 4.14-14 shows the levels of service for the on-campus study intersections. At full development under the 2005 LRDP, these intersections (with the roadway network proposed in the LRDP and type of intersection control specified in the table) would operate at LOS B or better. Draft EIR Appendix E contains the detailed LOS calculations.

**Response to Comment LA-6-86.** The proposed 2005 LRDP would not affect existing conditions associated with nighttime security checks by personnel at campus entrances.

**Response to Comment LA-6-87.** Comment noted.

**Response to Comment LA-6-88.** The Draft EIR used the AMBAG model to develop traffic growth rates, and the existing street network to analyze existing and future conditions. The use of the AMBAG model is consistent with recommendation in the scoping comments received from the City of Santa Cruz and members of the public. The AMBAG model is based on population and employment forecasts developed in a collaborative process with local agencies. It is the only model available that produces forecasts to the year 2020. The City's local area model produces traffic projections only for a near-term scenario (through about year 2010) reflecting planned and approved development projects. The AMBAG model is better suited for the planning horizon of the Draft EIR and its predictive abilities related to traffic distribution and the influences of growth in the south county on traffic distribution patterns in Santa Cruz.

**Response to Comment LA-6-89.** To avoid redundancy, Draft EIR Section 4.14, *Traffic, Circulation and Parking*, provides references to the AMBAG documentation, which summarizes the population and employment forecasts on which the travel demand forecasting model is based.

**Response to Comment LA-6-90.** Comment noted. Please refer to Master Response TRAFFIC-1 (Traffic Standards of Significance).

**Response to Comment LA-6-91.** Please refer to Response to Comment LA-2-131.

**Response to Comment LA-6-92.** Please refer to Master Response TRAFFIC-2 (Impacts on Empire Grade Road).

**Response to Comment LA-6-93.** Comment noted. The intersection level of service for Empire Grade Road at Cave Gulch Road is correctly portrayed in Draft EIR Table 4.14-15, and is LOS B in both peak hours as a side-street stop controlled intersection. The Campus recognizes that this new access road would require an encroachment permit from the County. At the time the road project is proposed, the Campus will consult with the County, and will provide all necessary information to the County.

**Response to Comments LA-6-94.** The conclusion that off-campus traffic impacts would be significant and unavoidable refers to all 11 impacted intersections. The impact is significant and unavoidable because the University cannot guarantee implementation of the recommended mitigation measures, since the affected intersections are located outside of the University's jurisdiction. However, the University will pay its fair share towards implementation of the identified mitigation measures, as discussed in Master Response MIT-1.

The intersection of Empire Grade Road and Heller Drive meets one of the 11 warrants for installation of a traffic signal (Peak Hour Warrant). The Campus recently applied for, but did not receive, a grant for the cost of the traffic signal and is seeking alternative sources of funds for its installation. This project will be coordinated with the County.

**Response to Comment LA-6-95.** Existing traffic volumes at the intersections of Glenn Coolidge/Campus Facilities, Glenn Coolidge/Hagar, and Empire Grade Road/Heller are shown in Draft EIR Figures 4.14-7a, b, and c in the Draft EIR. Existing level of service calculation worksheets are included in Appendix E of the Draft EIR.

**Response to Comment LA-6-96.** Please refer to Response to Comment OPA-1-5.

**Response to Comment LA-6-97.** At the time traffic data were collected for the intersection of Glenn Coolidge Drive/Hagar Drive, the intersection was still stop-controlled. The traffic signal was added subsequent to data collection (as indicated in the footnote on Draft EIR Table 4.14-8). The existing conditions geometry showing the intersection as stop-controlled was retained in the analysis for consistency with the data collection.

**Response to Comment LA-6-98.** Comment noted.

**Response to Comment LA-6-99.** The traffic consultant preparing the traffic study contacted AMBAG staff to discuss the proposed traffic projection methodology. AMBAG staff indicated that the proposed method was consistent with their use of the model.

**Response to Comment LA-6-100.** Please refer to Master Response TRAFFIC-3 (Eastern Access).

**Response to Comment LA-6-101.** A people mover system between downtown Santa Cruz, the Harvey West area and the campus was evaluated in the City of Santa Cruz's Master Transportation Study (City of



Santa Cruz 2004) and was determined not to be a feasible system for accessing the campus at this time. Therefore, it was not addressed in the Draft EIR as a potential access alternative.

**Response to Comment LA-6-102.** A number of alternative transportation programs are already available to UC Santa Cruz faculty and staff. These include the Santa Cruz Area Transportation Management Association's Zero Percent Interest Bike Loan Program, Santa Cruz County Regional Transportation Commission's (SCCRTC) E-bike rebate program (administered through Ecology Action, a non-profit environmental consultancy), campus bicycle shuttles, van pools and carpools, and transit subsidies.

**Response to Comment LA-6-103.** During the development of the LRDP the potential for locating a market in the academic core area to provide a local source for food and sundries was considered. The 2005 LRDP allows retail uses within developed areas, particularly to serve the increase in on-campus residents. It is possible that retail development of this kind could be proposed in the future, if there is evidence of demand. The Campus has contract mechanisms in place that would accommodate establishment of a third-party retail outlet, such as a small supermarket. The benefits or impacts of such a facility with respect to traffic cannot be assessed in the absence of a specific proposal but would be assessed at the project-specific level should a facility be proposed in future.

**Response to Comment LA-6-104.** Please refer to Response to Comment LA-6-94. On-campus housing levels are part of the proposed LRDP program and are not a mitigation measure. It is a goal of the Campus to achieve the stated levels of on-campus student residents by the horizon year of the 2005 LRDP, and campus data indicate that this goal is feasible (see Master Response ALT-5). The Campus will implement the potential Transportation Demand Management measures in LRDP Mitigation TRA-2B, or alternatives, as necessary to achieve the objective of maintaining or improving the share of sustainable non-single occupant vehicle modes of travel at 55 percent or better.

**Response to Comment LA-6-105.** The Draft EIR presents a suite of mitigation measures to reduce both the indoor and outdoor water use rates on the campus in existing and new facilities. An additional effect of several of these mitigation measures will be to also reduce the volume of wastewater that is discharged to the wastewater treatment plant, which is proportional to indoor water use in most cases. All of the mitigation measures listed under LRDP Mitigation UTIL-9 are focused on conservation and sustainability. In particular, revised LRDP Mitigation UTIL-9F requires the Campus to prepare a study to look into the feasibility of using reclaimed water (including rainwater, grey water and/or recycled water) in new development, especially for irrigation, cooling, and toilet flushing, and recommend a plan for reclaimed water use. Please also refer to Master Response UTIL-2, which provides more information regarding mitigation measures to reduce water use on the campus under the 2005 LRDP and describes the proposed revisions to these measures, which would further reduce campus water use and associated wastewater generation. The text of revised measures is presented in the Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*, Revised Table 2-1.

**Response to Comment LA-6-106.** Please see Response to Comments LA-3-28 and LA-5-1 regarding the evaluation of water supply impacts of the 2005 LRDP and the service agreements made between the University and the City of Santa Cruz. See also Section 5.2.15.3 in Master Response UTIL-1 regarding the adequacy of existing supplies to serve growth through 2020 and Section 5.2.15.4 regarding the environmental impacts of a desalination plant as a new source of water supply.

**Response to Comment LA-6-107.** Please refer to Master Response UTIL-1, which discusses the interrelationship between the City's water supply and that of adjacent water districts, and also the potential impact of the proposed project on other study area water districts.

**Response to Comment LA-6-108.** Please refer to Section 5.2.15.1 in Master Response UTIL-1 with respect to current and future water supplies of the City of Santa Cruz and other study area water districts, and Section 5.2.15.4 regarding environmental impacts of constructing and operating a desalination plant.

**Response to Comment LA-6-109.** The County's comments with respect to conservation, recycled water and storm water are noted. Please refer to Master Response UTIL-2, which describes in further detail the LRDP mitigation measures to reduce the project's impact on water supply.

**Response to Comment LA-6-110.** The 2005 LRDP is a long-range development plan, the main element of which is the land use plan that identifies areas on the campus where new facilities could be built in order to accommodate the increase in enrollment and research activities. The LRDP also identifies the amount of additional building space that would be built on the campus between 2005 and 2020. The analysis of storm water runoff in the Draft EIR is based on the area of land (in acres) within each campus watershed where new building space would be constructed. A further breakdown of the types of impervious surfaces that would be developed, such as rooftops, roads, and paths will not be available until specific development projects under the 2005 LRDP are proposed. For the programmatic analysis, a conservative estimate was made of total impervious surface that could be developed under the 2005 LRDP, based on the coverage of impervious surfaces associated with existing development. For the methodology and assumptions used to estimate the total impervious surfaces that would be added to each watershed and the resultant additional runoff, please refer to Section 4.8.2.3 in Draft EIR Section 4.8, *Hydrology and Water Quality* and Appendix D2.

**Response to Comment LA-6-111.** Please refer to Master Response UTIL-2, which describes in further detail the LRDP mitigation measures to reduce the project's impact on water supply, including the use of recycled water and captured rainwater.

**Response to Comment LA-6-112.** Please see Master Responses UTIL-1 and UTIL-2 regarding impacts on regional water supply and water supply mitigation measures. The Draft EIR contains an analysis of the cumulative impact of the proposed project in conjunction with other growth within the City's service area (LRDP Impact UTIL-9) on water supply in normal water years. The analysis is done at the service area level; an analysis at a census tract or traffic analysis zone level would not be meaningful since a single supply and distribution system serves the entire service area. The analysis is based on demand projections for the service area prepared by the City. Master Response UTIL-1 explains why it is not necessary for the University to prepare revised demand projections for the impact analysis. The Draft EIR also evaluates the cumulative impact of the proposed project in conjunction with other growth on water supply during drought conditions. Measures identified by the County in its scoping letter are included in the Draft EIR as mitigation measures for the proposed project.

The Draft EIR evaluates the effect of pumping of groundwater for non-potable use from the karst aquifer under LRDP Impact HYD-5. That analysis, which is based on pump tests conducted at the campus, found that groundwater pumping would not have a discernible impact on nearby wells on the campus or on the discharge at springs downgradient of the well site. Given the distance between the well site and the San

Lorenzo River, and between the well site and the North Coast streams from which the City draws water, it is unlikely that these sources could be affected by the pumping on campus.

The 2005 LRDP does not say that University Assistance Measures implemented under the 1988 LRDP have been used to increase supply. Rather it describes a two-pronged approach to water issues – conservation and UAMs to improve the water infrastructure. UAMs 1, 3, and 4 address water distribution infrastructure, specifically City pump stations that serve the campus. The University has implemented these measures by entering into a Memorandum of Understanding (MOU) with the City to share the costs of necessary improvements. Some of these improvements have been completed, and the University has paid its share of the costs. The remaining improvements anticipated under the MOU are not yet needed, according to the City. The 1988 LRDP EIR also included a UAM stating that the University would negotiate with the City to determine the share of the cost of developing new sources of water or of improvements to the delivery system. However, this UAM was to be implemented “upon the City’s final approval of the development of ... new sources of water or of improvements to the delivery system....” This condition has not occurred; therefore, it has not been necessary to implement the UAM. The existing water supply has been sufficient to serve the campus.

**Response to Comment LA-6-113.** Sewer service to the campus is provided by the City of Santa Cruz. The City indicated that the existing wastewater treatment plant would be able to handle the increased flows from the campus that would result from the growth under the 2005 LRDP as well as other growth projected within the service area (see Draft EIR page 4.15-23). As shown in the Draft EIR, the City’s wastewater treatment plant currently is operating at about 60 percent of its design capacity (Draft EIR page 4.15-8). Additionally, wastewater flows projected under the 2005 LRDP would account for less than 6 percent of average daily flow at the plant (Draft EIR page 4.15-22). Under the Final Draft 2005 LRDP, the wastewater generated by the campus would be somewhat smaller, and the impact would still be less than significant.

**Response to Comment LA-6-114.** There are only two improvements that are proposed for the campus cooling water system. The first is a new cooling tower, which is described in the Draft EIR on page 2-24, including the differences in the cooling tower design depending on the site that is selected. The second improvement is the installation of approximately 1,100 feet of pipeline to convey chilled water from the existing chiller plant clusters to a number of existing buildings in the Science Hill area (page 2-25). Two new graphics ([Figures 2-9 and 2-10](#)) showing the general location of both cooling tower options, and the site plan for the proposed cooling tower near the Earth and Marine Sciences Building, has been added to the Final EIR (see Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*). With respect to the two alternate sites for the cooling tower, except for the operation noise impact, the environmental impacts at both sites are similar. Because at one of the sites, the cooling tower would be adjacent to the Earth and Marine Sciences Building, the operation of the cooling tower near would result in a significant noise impact, which would be reduced to a less-than-significant level with mitigation. At the time that the University considers the approval of the proposed cooling tower project, it will take environmental impacts and other factors into consideration in selecting one of the two options.

**Response to Comment LA-6-115.** The University consulted with PG&E during the preparation of the Draft EIR about whether new off-campus facilities would be needed to meet the projected increase in campus demand for electricity. PG&E has indicated that existing facilities have adequate capacity to meet

the projected growth in campus demand under the 2005 LRDP. PG&E indicated that the existing grid capacity and distribution system are adequate to meet the projected campus demand through 2020. The upgraded PG&E service discussed on page 4.15-26 of the Draft EIR is not necessary to meet the projected demand but would be desirable from the University's point of view to provide back-up capacity. Also, please see Response to Comment I-2-6.

**Response to Comment LA-6-116.** Please see Master Response PD-1 regarding the magnitude of enrollment growth analyzed in the Draft EIR, and Response to Comment LA-3-1 as to why the amount of additional building space provided for in the 2005 LRDP is greater than what would be required based solely on the projected enrollment growth.

**Response to Comment LA-6-117.** Please refer to Master Response PD-1 (Magnitude of Enrollment Growth) and Master Response ALT-6 (Increased Infill Development). Also see Response to Comment LA-6-116. If the level of development were decreased as suggested, it likely would be possible to accommodate much of the increased development as infill in developed areas of the campus. However, it would be difficult to accommodate the required housing in this manner, and the amount of open space available for storm water infiltration would be limited. Infill development on the campus was also considered under the southerly expansion option during the development of the LRDP. In the Draft EIR, it was determined that the Southerly Expansion Alternative would result in increased significant environmental impacts relative to the proposed project, as discussed in Draft EIR Section 5.4.3. Note that the Campus proposes to recommend to The Regents the adoption of the Final Draft 2005 LRDP (September 2006). The Final Draft 2005 LRDP revises the Draft 2005 LRDP (January 2005) to reflect the Reduced Enrollment Growth Alternative previously analyzed in the 2005 LRDP Draft EIR and identified as the Environmentally Superior Alternative. For more information regarding the Final Draft 2005 LRDP, please see Final EIR, Volume IV, Chapter 2, *Project Refinements*.

**Response to Comment LA-6-118.** Please refer to Master Response PD-1 (Magnitude of Enrollment Growth), Master Response ALT-2 (Accommodating Growth at Another Site), and Master Response ALT-4, which discusses growth at the Silicon Valley Center.

**Response to Comment LA-6-119.** The commenter suggests an alternative that emphasized alternative transportation and included no new parking. The Campus recognizes that transportation and parking are critical issues for campus development. Strategies to monitor and reduce traffic congestion are included both as elements of the 2005 LRDP, and as traffic impact mitigation measures in the Draft EIR. Please also refer to Response to Comment I-45-30.

As described in the Draft EIR and incorporated in the proposed project through the suites of mitigation measures proposed for LRDP Impacts TRA-2, -3 and -4, the Campus will continue to refine and enhance campus TDM measures, including continuing development of effective transportation alternatives, with the goal of reducing single-occupant vehicle traffic. Implementation of these measures also will provide benefits with respect to transit efficiency, intersection operations, and reduction of the parking demand rate. The Campus will continue to implement and refine these measures in conjunction with any on-going operations on campus, irrespective of the alternative adopted. However, the Campus has not been able to identify any feasible means of limiting parking demand to the point that no new parking would be needed on the campus.

**Response to Comment LA-6-120.** Please refer to Response to Comment LA-3-41.

**Response to Comment LA-6-121.** Please refer to Master Response ALT-5 (Increased On-Campus Housing Alternative).

**Response to Comment LA-6-122.** Please refer to Master Response Alt-4 (Moffett Field Satellite Campus/ Silicon Valley Center Issues).

**Response to Comments LA-6-123 and LA-6-124.** The commenter suggests that a hybrid alternative would reduce the identified environmental impacts of the proposed 2005 LRDP and that such an alternative should be analyzed. Project elements suggested by the commenter are addressed below.

- The commenter suggested that the enrollment increase should represent the campus' "fair share" of the system-wide increase. Please refer to Master Response PD-1 (Magnitude of Enrollment Growth) regarding enrollment growth.
- Under the suggested hybrid alternative, 70 percent of undergraduate students and 50 percent of graduate student would be housed on campus. At an enrollment level of 16,850, this would require a total of approximately 10,660 beds under the hybrid alternative, as compared with a total of about 9,715 beds under the Draft 2005 LRDP (January 2005). Thus, the suggested hybrid alternative would require construction of 4,335 new bed spaces in addition to the 6,325 existing bed spaces, an increase of beds relative to development at full implementation of the Draft 2005 LRDP. Please refer to Master Response ALT- 5 (Increased On-Campus Housing), which explains why provision of more on-campus housing is not feasible.
- The commenter suggests that, under a hybrid alternative, the increase in building space should be proportional to enrollment growth, for a growth of no more than 20 to 25 percent gsf above the current baseline. A 25 percent increase above current development would result in construction of a total of about 1,264,000 new gsf under the commenter's proposed hybrid alternative. At approximately 340 gsf per bed space, construction of 4,335 new bed spaces would require 1.48 million gsf, more than the total new building space under the commenter's suggested hybrid alternative. This alternative clearly is not feasible. Also, please refer to Response to Comment LA-6-116.
- Under the hybrid alternative, development would consist primarily of infill in currently developed areas of the campus--the southern and central campus. Issues regarding adoption of a Southerly Expansion Alternative are addressed in Draft EIR Section 5.4.3. Development through infill is addressed in Master Response ALT- 6. See also Response to Comment LA-6-117.
- The hybrid alternative, as proposed, includes very limited new parking and emphasizes increased alternative transportation measures. Please refer to Response to Comments LA-6-119 and I-45-30.
- The hybrid alternative would include maximization of water conservation, use of groundwater sources on campus, and use of reclaimed water as means of reducing the campus's demand on the regional water supply. All of these measures are included as mitigation measures for the proposed project. Please see the revised mitigation measures LRDP UTIL 9A-9I in the Final EIR. Also, see Master Response UTIL-2 and Response to Comment LA-6-6.

- Under the hybrid alternative, enrollment increases would be tied to implementation of specific measures to mitigate the impacts of growth and development as they occurred. Please see Response to Comment LA-3-41.

Note that the Campus proposes to recommend to The Regents the adoption of the Final Draft 2005 LRDP (September 2006). The Final Draft 2005 LRDP revises the Draft 2005 LRDP (January 2005) to reflect the Reduced Enrollment Growth Alternative previously analyzed in the 2005 LRDP Draft EIR and identified as the Environmentally Superior Alternative. For more information regarding the Final Draft 2005 LRDP, please see Final EIR, Volume IV, Chapter 2, *Project Refinements*.

**Response to Comment LA-6-125.** Please refer to Response to Comment SA-4-2 regarding the status of implementation of 1988 LRDP EIR mitigation measures. Please refer to Response to Comment LA-3-9 regarding revisions to 2005 LRDP EIR mitigation measures and Volume IV, Section 3 of the Final EIR for the full text of revised measures. Please also see Response to Comment LA-6-7 regarding the timing of implementation of proposed 2005 LRDP EIR mitigation measures.

REC'D JAN 11 2006

*Santa Cruz Metropolitan  
Transit District*



January 10, 2006

2005 LRDP EIR Comment  
UC Santa Cruz Physical Planning and Construction  
1156 High Street, Barn G  
Santa Cruz, California 95064

Dear UCSC,

The purpose of this letter is to provide the comments of the Santa Cruz Metropolitan Transit District (METRO) staff with regard to the Draft Environmental Impact Report (DEIR) for the UC Santa Cruz Long-Range Development Plan (2005 LRDP). The comments contained in this letter relate to the ability of METRO to continue to provide effective public transit service to UCSC with the growth levels of faculty, staff, and students that are projected to occur in the LRDP.

METRO believes that the increase of 6,950 students as well as the accompanying faculty and staff that will be needed will result in significant impacts on the transit service both on and off campus. The LRDP proposes to provide on campus housing facilities for 50% of the undergraduate students, 25% of the graduate students, 25% of the faculty and 3% of the staff. The result of this proposal is that 50% of undergraduate students, 75% of graduate students, 75% of faculty, and 97% of staff will need to travel to the campus from off-site locations which will increase the traffic volumes that need to be accommodated on Bay and High Streets as well as Western Drive. While the LRDP contemplates the use of signal preemption, bypass lanes, and queue-jump lanes on campus the greatest impact to the METRO service will occur on the city streets that must be used to travel to campus. METRO believes that the traffic volumes that are projected in the LRDP on the city streets are understated and that the travel times for buses will increase dramatically with the level of projected growth. The impact of the increased travel times for regional buses is a lowered level of service frequency if no additional buses are deployed at additional cost that is not addressed in the LRDP. METRO believes that the LRDP does not effectively address mitigation measures that will be implemented on the city streets that are necessary to maintain effective connectivity to the campus. The absence of off campus traffic mitigation measures limits the effectiveness of the projects that are proposed for on campus implementation and raises questions as to the feasibility and effectiveness of the entire transit mitigation components.

METRO recommends that the University revise the LRDP to give consideration to the implementation of Bus Rapid Transit and Bus Access strategies that include signal preemption, queue jump lanes at signal, bypass lanes and exclusive bus lanes on both the main campus streets and the streets leading to campus, including Western Drive and Bay Street. Additionally the reconstruction of intersections, bus stops and turnouts to accommodate 60 foot articulated buses should be included in the LRDP. METRO also recommends that the use of grade separated pedestrian walkways connecting to major bus stops be expanded. METRO is very supportive of the implementation of the recommendations contained in the Urban Report.

1

2

Currently the majority of service provided to UCSC by METRO is financed through a contractual arrangement that calls for the University to be billed on a "per-passenger-trip" basis. This financing mechanism has worked well for many years. However, the potential increase in traffic volumes that would accompany the growth in campus population envisioned by the LRDP could increase bus travel times to a point where a different type of financing mechanism would be necessary to cover the increased operating costs that would be experienced by METRO. The additional cost to provide enhanced regional transit service necessitated by the growth at UCSC is not identified as a financial responsibility of the University in the LRDP nor is it listed as a mitigation measure. METRO believes that the LRDP should identify a financial commitment to providing funding for capital and operating transit mitigation measures both on and off campus.

3

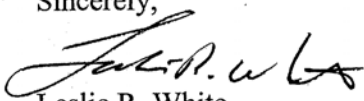
METRO is hopeful that UCSC will revise the LRDP to address the transit projects and services that need to be implemented to accommodate the proposed growth both on and off campus. METRO believes that it is essential to have an LRDP that identifies specific mitigation transit projects and transit services and identifies the sources of funds that will be committed to implementing those projects and services. METRO is ready and willing to collaborate with UCSC in developing the transit projects and services necessary to mitigate the impact of the proposed growth at UCSC in a meaningful way.

4

The UCSC and METRO have a long history of working collaboratively to address transportation needs. I am hopeful that the University will accept the suggestions and comments contained in this letter in the constructive manner in which they are offered and will consider revising the LRDP.

Thank you for your consideration of the comments from METRO contained in this letter. I will be happy to provide additional information to you if that will be of assistance.

Sincerely,



Leslie R. White  
General Manager

- Cc: METRO Board of Directors  
Margaret Gallagher, District Counsel  
Mark Dorfman, Assistant General Manager



## Response to Comment Letter LA-7

**Response to Comment LA-7-1.** The cumulative traffic projections used in the 2005 LRDP Draft EIR analysis are based on growth factors derived from the AMBAG regional travel demand forecasting model and assignment of traffic from proposed and approved development projects (i.e., Marine Science Campus and Home Depot). The regional traffic projections are based on forecasts of employment and population growth, which have been reviewed by local agencies and adopted by AMBAG. The AMBAG model is the most reasonable and best source of cumulative traffic conditions that was available at the time the Draft EIR was prepared.

The Draft EIR projects increases in delay at individual intersections on and off campus, which would translate to increased travel time for METRO bus routes. Significant impacts have been identified at intersections where increases in delay would meet the significance criteria. Feasible mitigation measures have been identified to address these impacts and many of the measures will reduce the University's traffic contributions to a less-than-significant level. However, substantial background traffic growth is anticipated in the region and in the City of Santa Cruz, irrespective of University growth. Due to this traffic growth, many of the affected intersections would operate at LOS E or F; even after all feasible mitigations have been implemented. Intersections so affected have been identified as having significant and unavoidable impacts because there are no feasible mitigation measures (e.g., due to right-of-way constraints and existing land uses/buildings) to mitigate traffic impacts to LOS D or better, as explained in Response to Comment RA-1-22. These significant unavoidable impacts would be expected to occur even if there were no campus growth. The University has coordinated with METRO to prepare a feasibility study of off-campus transit operational improvements (*Bay Corridor Preliminary Feasibility Analysis: Bus Rapid Transit*, Urbitran Associates, March 2006), and proposes to provide effective transit operational improvements within its jurisdiction.

**Response to Comment LA-7-2.** The 2005 LRDP fully supports transit improvements on and off-campus. Specifically, the LRDP provides for a major transit hub located in the East Collector Facility where METRO buses would interconnect with campus shuttles and provide an opportunity for timed transfers. The LRDP also supports the expansion and reconfiguration of the transit system and facilities on-campus, but is intentionally general as to the exact types of improvements, leaving the design to subsequent technical studies and advances. Two such studies have been completed to date: (1) The *UCSC Comprehensive Transit Study* (Urbitran Associates, February 2004), and (2) The *Bay Corridor Preliminary Feasibility Analysis: Bus Rapid Transit* (Urbitran Associates, March 2006). The first study provides detailed operational and capital recommendations for the on and off-campus transit system, and includes discussion of articulated (60-foot) buses as an option for improving capacity. The second study discusses the preliminary feasibility of a detailed menu of on and off-campus options for improving transit operations leading to the campus entrances. The Draft EIR includes mitigation measures that affirm the University's commitment to improving transit operations and facilities. The University will continue to work closely with METRO to implement the most effective improvements recommended in the Urbitran studies. The University is committed to working cooperatively with SCMTD and will, under appropriate contractual arrangements, continue to pay for transit services provided to the campus by SCMTD.

**Response to Comment LA-7-3.** Please refer to Response to Comment LA-7-2 above. The Campus has committed to a wide range of traffic impact mitigation measures in the LRDP EIR, many of which are directed toward reducing transit delays and maintaining and improving transit service. A range of specific measures to speed boarding and thus reduce delays would be considered, such as improved passenger queuing systems to improve loading/unloading; or the use of higher technology mechanisms for counting passenger trips (such as “swipe” cards). Other measures that could reduce bus travel times include increased use of “limited” express service off- and on-campus (i.e., certain buses stop at only a limited number of stops, rather than every stop) and, ultimately, conversion of much of SCMTD’s campus transit service to express service to the new Transit Hub at the East Collector Facility, where passengers could transfer to Campus Transit for the remainder of their trip. The University will continue to work with SCMTD to identify mechanisms to ensure that the SCMTD is appropriately compensated for service provided to the University.

**Response to Comment LA-7-4.** Please refer to Response to Comment LA-7-2.



REC'D JAN 17 2006

SANTA CRUZ COUNTY REGIONAL TRANSPORTATION COMMISSION  
1523 PACIFIC AVENUE, SANTA CRUZ, CALIFORNIA 95060-3911 • 831/ 460-3200 • FAX 831/ 460-3215

SERVICE AUTHORITY  
FOR FREEWAY  
EMERGENCIES  
(SAFE)

John Barnes  
2005 LRDP EIR Comment  
UCSC Physical Planning and Construction  
1156 High Street, Barn G  
Santa Cruz, CA 95064

January 11, 2006

RAIL/TRAIL  
AUTHORITY

RE: Comments on the Draft EIR for the University of California at Santa Cruz  
(UCSC) Long-Range Development Plan

COMMUTE  
SOLUTIONS

Dear Mr. Barnes,

TRANSPORTATION  
POLICY WORKSHOP

I am writing on behalf of the Bicycle Committee of the Santa Cruz County  
Regional Transportation Commission to comment on the Draft Environmental  
Impact Report (EIR) for the UCSC Long-Range Development Plan (LRDP).  
As you know, the Bicycle Committee is an advisory body to the Santa Cruz  
County Regional Transportation Commission (SCCRTC) which serves as the  
Regional Transportation Planning Agency for Santa Cruz County.

BUDGET &  
ADMINISTRATION  
PERSONNEL  
COMMITTEE

The Bicycle Committee is in agreement with SCCRTC staff's concerns  
submitted in respect to the following issues:

INTERAGENCY  
TECHNICAL  
ADVISORY  
COMMITTEE

➤ The Draft EIR discusses Off-Campus Transportation System  
Improvements. The Bay Street/Escalona Traffic Signal Project and the  
Mission Street/Bay Street Improvements are included as planned  
improvements. These are two of several unfunded local and regional  
transportation projects in Santa Cruz County. Please provide a  
funding and construction timeline for these projects as part of this  
discussion in the Draft EIR to explain why these improvements are  
assumed in the traffic analysis. Also, if the City identifies funding  
participation by UCSC, it should be included as a mitigation measure.

1

BICYCLE COMMITTEE

➤ RTC staff supports that new bicycle lanes be included on all new roads  
and existing campus roadways. RTC staff recommends that UCSC's  
financial contribution to the addition of bicycle lanes on new and  
existing roads be added as a mitigation measure for impact TRA-4.  
(2005 RTP Policy 1.6.2)

2

ELDERLY & DISABLED  
TRANSPORTATION  
ADVISORY COMMITTEE

➤ The Draft EIR notes that 3% of trips to and from the campus are  
bicycle trips. This mode split combined with an increase in alternative

3

mode trips stated in mitigation measures TRA-2B will create a greater demand for bicycling facilities within a reasonable bicycle distance of campus and transit routes serving campus. RTC staff recommends that the Draft EIR add "partnering with local agencies to fund bicycle infrastructure improvements that fill gaps and enhance the regional bicycle network serving campus and transit routes" to mitigation measures TRA-4B. (2005 RTP Policy 2.7)

3

- RTC staff requests the Draft EIR note that the Eastern Access discussed in the Draft EIR is not included in the 2005 RTP.

4

Additionally, the Bicycle Committee urges UCSC to:

- Implement a neighborhood parking program for UCSC students wishing to buy permits and park in neighborhoods in order to take the bus or ride bicycles to campus.

5

- Develop a Bicycle Plan for the campus that includes bike parking and other bike amenities as part of any new building design, construction or improvements.

6

- Improve bike access for cyclists traveling to the campus via High Street, Spring Street and Coolidge Drive.

7

- The Bicycle Committee prefers that the corporation yard not be moved to a location off Empire Grade which would increase truck traffic on Empire Grade. However, if the corporation yard is moved to the proposed location, the Bicycle Committee recommends that the shoulders on Empire Grade be improved for bicycling traffic.

8

Thank you for your consideration to this matter, for ensuring safety to all users of the transportation network and for the opportunity to comment on the Draft EIR for the UCSC LRDP. If you have any questions, please contact Cory Caletti, SCCRTC staff, at (831) 460-3201.

Sincerely,



Daniel Kostelec,  
Chair, SCCRTC Bicycle Committee

cc: SCCRTC

\\Rtcserv1\Shared\Bike\Committee\CORR\DEIRUCSCLRDP.doc

**Response to Comment Letter LA-8**

**Response to Comment LA-8-1.** Please refer to Response to Comment LA-2-133 for a discussion of the Bay Street/Mission Street intersection. Similarly, planned improvements at the intersection of Bay Street/Escalona Street are identified in the City's Capital Improvement Program (CIP) as being funded through either gas taxes, grants, or through the City's traffic impact fee program. Because the improvements at this intersection are identified as being funded through the City's traffic impact fee program it is reasonable to assume the improvements will be implemented. The City's CIP identifies the expenditure as occurring in 2008. While the funding source could be grants or gas taxes (if these funds can be acquired), most likely the Bay/Escalona intersection improvements will be funded through the city's traffic impact fee program. Please refer to Master Response MIT-1 regarding fair share contributions.

**Response to Comment LA-8-2.** Please refer to Response to Comment LA-4-12. The University will fund improvements including bicycle lanes on existing and new campus roads within its jurisdiction.

**Response to Comment LA-8-3.** LRDP Mitigation TRA-4E (Draft EIR page 4.14-54) states that the Campus shall implement the bicycle circulation elements of the 2005 LRDP as needed to maintain and enhance the effectiveness of bicycles as a transportation mode, referring to on-campus bicycle improvements. For off-campus bicycle improvements, the Draft EIR includes bicycle related measures in Table 4.14-19 including:

- Expand Bike Shuttle hours of operation and increase frequency of service, as needed.
- Work with local agencies to implement a series of off-campus bike circulation improvements (bike boulevards, secure bike parking at major transit stops, etc.).
- Work with local agencies to provide additional secure bike parking and/or "bike stations" at or near off-campus transit stops.
- Work with appropriate agencies to identify and develop a Westside Santa Cruz multi-modal hub, to connect Westside shuttle service with expanded automobile and bike parking and (ultimately) regional access via the adjoining rail right-of-way.

The University will collaborate with the local and/or regional agencies that are responsible for implementing the types of measures listed above. This may include contributions to funding the improvements through agreements established between the agencies and the University.

**Response to Comment LA-8-4.** Comment noted. Please refer to Master Response TRAFFIC-3 (Eastern Access).

**Response to Comment LA-8-5.** Parking in the neighborhoods around the campus tends to be congested, as discussed in Response to Comment LA-4-6. The City of Santa Cruz has instituted a Residential Parking Permit program in order to limit parking in surrounding residential neighborhoods to neighborhood residents, and the University is supportive of the City's program and the concerns of residents in these neighborhoods, and does not propose measures that would encourage students to park there. However, the Draft EIR identifies a suite of measures to encourage and facilitate the use of alternative transportation modes such as bicycles and transit for access to campus, and is exploring the

establishment of multi-modal transit hubs both on and off campus that would further facilitate the use and efficiency of these modes. Please refer to LRDP Mitigation TRA-2B and its implementing measures (in Table 4.14.19 of the Draft EIR), and to LRDP Mitigations TRA-4A through -4F. These measures are designed to maintain and increase the use of non-SOV modes, including bicycles, and to maintain and improve transit efficiency.

**Response to Comment LA-8-6.** The Campus guidelines for the planning and design of campus facilities include requirements for bicycles and pedestrian facilities, and compliance with local, state, and federal requirements. These guidelines would be applied in subsequent levels of planning and site and building design. The Campus has prepared a Draft Bike Plan, which describes policies, programs and proposed bike facilities. Please refer to Response to Comment LA-4-12 and Response to Comment ORG-5-6.

**Response to Comment LA-8-7.** High Street already has bicycle lanes along its length connecting to bicycle lanes on Storey Street. Glenn Coolidge Drive also has bicycle lanes along its entire length. Spring Street is a residential collector street and is not identified as a Class II bike route on the City's bicycle network. Local residents may not support formal designation of this street as a bike route, because of potential hazards associated with the slope of the road (i.e., slow uphill speeds, combined with high downhill speeds), and issues related to vehicle conflicts (bikes encountering cars exiting driveways or on-street parking). Without local support, the City of Santa Cruz is not likely to make such a designation. Spring Street provides indirect access to the campus (via on-street paths) and bicycle access to High Street. Based on its classification and relatively low traffic speed and volume, Spring Street should adequately serve bicyclists without additional markings or improvements beyond typical roadway maintenance.

**Response to Comment LA-8-8.** Please refer to Master Response TRAFFIC-2 (Impacts on Empire Grade Road).



MAYOR AND CITY COUNCIL

809 Center Street, Room 10, Santa Cruz, CA 95060 • (831) 420-5020 • Fax: (831) 420-5011 • citycouncil@ci.santa-cruz.ca.us

January 11, 2006

Mr. John Barnes  
2005 LRDP EIR Comment  
UCSC Physical Planning and Construction  
1156 High Street, Barn G  
Santa Cruz, CA 96064

**RE: University of California, Santa Cruz 2005–2020 Long Range Development Plan  
Draft Environmental Impact Report (SCH No. 2005012113)**

Dear Mr. Barnes:

Thank you for the opportunity to review and comment on the Draft Environmental Impact Report (DEIR) for the proposed 2005–2020 Long Range Development Plan (LRDP). The following comments are offered in response to the DEIR, tailored to areas of City responsibility or potential impacts on City resources and infrastructure. Staff from the Public Works, Fire, Police, Parks and Recreation, Water, and Planning and Community Development Departments have reviewed relevant sections of the DEIR and provide the following comments.

**Introduction**

1. Page 1-1: An inconsistency is noted in the estimated increase in staff and faculty described on Page 57 of the draft LRDP (net increase of 1,620 employees), and the LRDP DEIR which identifies a net increase of 1,520 employees. Please clarify in this section and in subsequent DEIR sections. If the net increase is 1,620 employees, the population/housing, public service, recreation, transportation, and utilities impact analyses must be revised using the correct numbers and the DEIR recirculated.

1

**Project Description**

1. Page 3-7, Section 3.5: One listed project objective is to accommodate anticipated enrollment growth, but no enrollment growth projections are provided. See comment below regarding Page 3-11.

2

Mr. John Barnes  
 January 11, 2006  
 Page 2

2. Page 3-11, Section 3.7.1, Third Paragraph: Provide Statewide University of California (UC) system demand and enrollment projections and show University of California, Santa Cruz' (UCSC) expected share. Clarify the last sentence that anticipated demand could be greater than the enrollment growth included in the 2005 LRDP; please provide the specific numbers supporting this statement. 3
3. Page 3-11, Section 3.7.1, Fourth Paragraph: Quantify summer conference participants under existing conditions and projected 2020 conditions to quantify the total summer on-campus population and to show how much summer enrollment increases may be offset by decreases in conference participants. Identify the net increase in summer on-campus population. 4
4. Page 3-12, First Paragraph: Identify the current (2005–06) enrollment. 5
5. Page 3-12, Second Paragraph: Identify the sections in the DEIR that address environmental effects of increased summer enrollment. 6
6. Page 3-21, Section 3.9.10, Second Paragraph: Section 3.9.4 indicates that employee housing may also be developed on designated Campus Resource Lands, but this is not identified in section 3.9.10. Additionally, it is unclear why lands designated for no development may be considered for future development. Campus Resource Lands that may be considered for future housing should be specified and evaluated. 7
7. Page 3-23, Section 3.10.1, Second Full Paragraph: Clarify whether the 787 new graduate student beds would be in addition to the 3,390 new undergraduate beds. 8
8. Page 3-23, Section 3.10.2, First Paragraph: Of the 125 additional on-campus housing units, what amount would be for faculty and what amount would be for staff? As faculty and staff are differentiated in some sections of the DEIR, please revise Table 3-1 to separately identify existing, projected, and changes in faculty and staff. 9
9. Page 3-23: Please provide a summary table of existing, projected, and changes in on-campus housing for undergraduate students, graduate students, faculty, and staff. 10

**Environmental Setting, Impacts, and Mitigation**

1. Page 4-3 – Year of Impact Analysis: The use of year 2020 as the baseline condition for evaluating traffic impacts conflicts with CEQA requirements for evaluating project impacts based on “baseline” conditions as stated on Pages 4-1 and 4-2 of the DEIR. As provided, the DEIR does not provide an analysis of the effects of the proposed project on existing traffic conditions, and is inadequate. The analysis must be revised based on actual baseline conditions, and the DEIR recirculated. See comments under Chapter 4.14 – Traffic, Circulation, and Parking for further discussion. 11



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2. Page 4-5, Table 4.0-1: The pending project list should include the following:
- Home Depot – 113,260 sq. ft. home improvement center with 36,292 sq. ft. garden center
  - Ocean Street Hotel – 100 hotel rooms
  - 108-122 Second Street – demolish 17 apartments and construct 44 SRO units
  - Grace Commons Apartments – 15 apartments
  - 527 Sumner – 4 townhouses and SFD demolition
  - 411 Broadway – 3 condominium units
  - 121 Kennan – 14 townhouses

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Additionally, the Village Oaks Subdivision is now referred to as the Branciforte Creek Subdivision and consists of 43 single-family units. The list should also include cumulative UCSC campus projects, such as the Ranch View Terrace faculty/staff housing project.

3. Page 4-7, Table 4.0-2: Table 4.0-2 identifies 138 on-campus employee residents, but Section 3.10.2 of the Project Description indicates that only 125 employee housing units would be built. Please clarify. This should also be clarified/corrected on Table 4.11-6 on Page 4.11-8.

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4. Page 4-7 – Cumulative Analyses: Based on the description provided in Section 4 of the DEIR, it would appear that the cumulative effects of the Citywide projects listed on Table 4.0-1 in conjunction with the secondary population related to LRDP enrollment and employment growth are addressed in the cumulative impacts sections. However, there is little cumulative quantification or analysis of these impacts provided in the Population/Housing, Public Services, Recreation, and Utilities sections of the DEIR. The cumulative sections should quantify the UCSC growth and secondary effects (demand) on public services, recreation, and utilities as well as quantify the other cumulative projects and growth to determine the total cumulative impact and level of significance.

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**Aesthetics**

1. A map depicting the key development sites/buildings (or addition of these key sites on Figure 4.0-1) that would be visible from public viewsheds would be helpful and provide a better background for understanding the photosimulations and the impact analysis.
2. Page 4.1-8, Section 4.1.2.1: Under the stated definition of a scenic vista, the City believes that unobstructed expansive views of the campus hillsides and wooded backdrop as viewed from key City public locations (such as northbound Highway 1 and the Wharf) would also be considered a scenic vista and should be added to the list. The City's General Plan (Page 82) indicates that the rolling hills of UCSC provide a scenic backdrop that is visible from many parts of the City.
3. Page 4.1-14 – Views from Northbound Highway 1 and Wharf: Per the visual photosimulations provided in Figures 4.1-13, -14, and -15, the mass and scale of the

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depicted facilities, especially the Event Center and Digital Arts Facility, create a significant visual intrusion upon the otherwise open hillside from Highway 1 and also result in significant visual intrusion from Wharf views. Visual impacts to City scenic resources should be considered significant, the analysis expanded, and mitigation measures provided. This would warrant recirculation of the DEIR.

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**Hydrology and Water Quality**

1. Page 2-38, Table 2-1: HYD-3 should include implementing previously formulated recommendations to mitigate erosion in the Pogonip caused by the concentration of the UCSC property runoff from existing development.
2. Page 4.8-4, Table 4.8-1: This table quantifies the percentage of runoff to individual watersheds originating from the UCSC property. The table should include the Pogonip Creek Watershed and what portion of the tributary area originates from UCSC. Instead the Pogonip is lumped with the San Lorenzo River to which the UCSC property contributes .7%. The proportion that the UCSC property contributes to the Pogonip is much greater.
3. Page 4.8-8: Describes the erosive impacts to the Pogonip which are in part caused by Coolidge Drive which is described as a County-owned and maintained road. Is the County responsible to correct these UCSC property-originating impacts? The LRDP DEIR should be revised to say that UCSC will correct these erosion impacts.
4. Page 4.8-14, Second Full Paragraph: The text indicates that Figure 4.8-3 shows the relationship between fractures and sinkholes, but sinkholes are not illustrated on this figure. It would be helpful to show the major drainage-capturing sinkholes so this relationship can be seen.
5. Page 4.8-29: The mitigation measures listed under LRDP Impact HYD-3 are insufficient. These mitigation measures do not adequately address offsite erosion impacts, specifically for two City-owned open space properties (the Pogonip and Moore Creek Preserve).
6. A significant, unavoidable impact of accelerated erosion and excessive sedimentation on City-owned open space natural areas and sensitive riparian habitats within City properties is unacceptable. UCSC must re-examine development plans and associated infrastructure to ensure that runoff from its property does not result in significant increases within offsite properties. More extensive use of detention and retention basins, minimizing impervious surfaces, and other measures to avoid increasing runoff to sensitive habitat areas must be more thoroughly researched and included in the project alternatives.
7. An additional mitigation measure should also be added requiring UCSC to ensure that no increase in runoff shall occur from campus development to Coolidge Drive or the Pogonip. (See comment below.)

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8. Additionally, UCSC should be responsible for documenting existing conditions within the downstream drainages in the Moore Creek Watershed such that any future accelerated erosion and environmental damage can be assessed. Similar to the previous agreement between the City of Santa Cruz and UCSC for the gullies within the Pogonip, an analysis should be undertaken to determine the percentage of the increase in runoff that is due to campus development. UCSC should then be financially responsible, by percentage of runoff attributed to campus development, for any future possible erosion repairs and restoration that are needed.
  
9. Page 4.8-33. The "Impact From Increased Impervious Surfaces" discussion regarding Moore Creek Watershed is inadequate. Mitigation measures HYD-3C and HYD-3D are vague and inadequate in regard to offsite impacts to Moore Creek downstream of the UCSC campus property. This discussion should clearly state that the project as proposed would result in significant impacts to Moore Creek downstream of the campus and those impacts would not be mitigated. UCSC campus development as proposed will therefore result in potential accelerated erosion and sedimentation within the east and west branches of Moore Creek. Accelerated erosion impacts within the east branch would likely result in bank failure, loss of trees, degradation of habitat and possible impacts to private property along the Moore Creek channel. UCSC must be financially responsible for the cost of any repairs, stabilization, and restoration efforts needed in the future. The impacts of increased runoff from UCSC campus development within the west branch of Moore Creek will also likely result in bank failures, increased sedimentation, and potential significant impacts to California red-legged frog habitat within the Moore Creek Preserve. These specific impacts to the Moore Creek Preserve must also be discussed in the hydrology and biotic sections of a revised DEIR that should be recirculated.
  
10. The discussion regarding the San Lorenzo-Pogonip Watershed (Page 4.8-33) is also inadequate. The City of Santa Cruz Parks and Recreation Department is currently working in cooperation with UCSC representatives on an erosion repair project for three gullies within the Pogonip. This effort has been ongoing for over a decade, and it is hoped that the project will be implemented in 2006-07. Within the Pogonip, the stabilization and repairs will focus on the areas where the gullies intersect service roads/trails. These repairs are not designed to withstand additional increased flows from UCSC property. There must be no further increase in runoff to Coolidge Drive or any drainages leading into the Pogonip. An increase in runoff from existing conditions would likely result in greatly accelerated erosion and extensive damage to service roads, trails and riparian habitat within the Pogonip.
  
11. Page 4.8-35, Second Paragraph: Although UCSC projects are intended to be designed to maintain pre-development peak flows, the analysis does not consider the fact that the duration of peak flows will increase. What impacts would this have to offsite springs and seeps? Would there be a potential for offsite flooding? Page 4.8-45 of the DEIR indicates that a portion of UCSC property runoff enters the karst aquifer in Jordan Gulch and emerges in off-campus springs and seeps.

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12. Page 4.8-36 - Impact HYD-4: UCSC has increased the peak from the Arboretum Dam by installing a 4-foot diameter spillway pipe in 2001. Does this impact the Highview Drive culvert? This will also increase downstream erosion by reducing the dam capacity. With further upstream development this will be exacerbated. What is the rated capacity (what size storm uses overflow) of the dam after development before the 4-foot diameter pipe overflows? The additional downstream erosion should be mitigated. 29
  
13. Page 4.8-39, First Full Paragraph: The DEIR text indicates that in the Moore Creek Watershed sinkholes may get filled with sediment, resulting in increased surface runoff. The DEIR does not address how this will be mitigated but indicates that implementation of LRDP Mitigation HYD-3C would reduce erosion and sedimentation of sinkholes and the drainage system would continue to handle UCSC runoff with continued recharge to the karst aquifer. However, this conclusion is not consistent with the analysis and conclusion of Impact HYD-3, which indicates that even with the referenced mitigation, the impact would remain significant. 30
  
14. Page 4.8-44. The Moore Creek Watershed discussion on Page 4.8-44 must specifically assess whether the impacts to the west and east branches of Moore Creek, downstream of the campus but north of Highway, will be significantly unavoidable. The specific impacts regarding water quality, erosion, and biotic resources must be addressed. 31

**Land Use**

1. Page 4.9-5, Section 4.9.1.4, First Paragraph: The last sentence is incorrect as there are several pending projects within the UCSC vicinity as summarized on Table 4.0-1 in the DEIR. 32
  
2. Page 4.9-6 – Land Use Designations: Figure 3-1 does not show City/County boundaries as implied in the statement referencing the figure. 33
  
3. Page 4.9-10 – LRDP Impact LU-1, Last Paragraph: Although the City acknowledges that it does not have land use regulatory authority over UCSC, the analysis does not review the LRDP for consistency with City General Plan policies, and, thus, the statement that development would generally conform to local policies is not supported by analysis. A complete review of LRDP consistency with all General Plan policies should be undertaken and the determination then made or the statement should be deleted. As written, the Land Use section identifies only those policies that are directed toward UCSC, but does not attempt to review future UCSC development consistency with the City's environmental protection policies. 34

**Population and Housing**

1. Page 4.11-1, Second Paragraph: As a point of clarification, changes in population is an environmental effect covered in the CEQA checklist, and a discussion of growth-inducing impacts is required in EIRs. 35

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2. Second Paragraph, Last Sentence: It is indicated that the consequences of population increase and housing demand are evaluated in other sections. This statement should be clarified to indicate that this includes the off-campus population growth and housing demand, and that the secondary impacts of this growth (primarily services, recreation, and utilities) are considered as part of the cumulative impact analysis as summarized in Section 4 of the DEIR. See comment for Page 4-7. 36
  
3. Page 4.11-5, Last Paragraph: The DEIR states that AMBAG adopted the “constrained version” of population forecasts; please clarify which version is summarized in Table 4.11-2. 37
  
4. Page 4.11-5: The DEIR erroneously states that “The AMBAG Board of Directors adopted the constrained version of the forecast at the request of the local jurisdiction.” This is correct for cities within the AMBAG region that are mostly located in the Monterey Peninsula; however, the unconstrained version of the forecast was used for cities and the unincorporated area of Santa Cruz County. 38
  
5. Page 4.11-6: Although it is acknowledged that the 2004–2030 AMBAG population and employment forecast does not account for growth in UCSC as projected under the 2005 LRDP, we believe that an adequate analysis cannot be completed without factoring in the proposed UCSC growth. It is necessary to include an accurate projection of population and employment to understand impacts from UCSC growth on housing, water, traffic, and other City services. 39
  
6. Page 4.11-8, First Paragraph: The total student housing stated in the text (7,112) does not match the numbers in Table 4.11.3; please clarify and correct. 40
  
7. Page 4.11-10, First and Third Paragraphs (and Table 4.11.4): The statement that 41% of the student population in 2003–04 was housed on-campus and the percentages shown on Table 4.11.4 appear to conflict with the data presented in Table 4.11.3, which show that 6,535 students were housed onsite (though enrollment for that date is not known). 41
  
8. Page 4.11-13: The DEIR should clarify that the Housing Element objective of creating 2,851 additional housing units between 2002 and 2007 is only a goal. The City of Santa Cruz does not build housing units. Construction of new housing units is a function of the market and the availability of sites. The 2002–2007 Housing Element demonstrated that there is a capacity of land to construct these new units, whether or not that occurs depends on market forces. Our experience over the past twenty-five years is that the City averages approximately 100 new dwelling units per year. 42
  
9. Page 4.11-15, First Paragraph, First Sentence: For the purpose of calculating project population, the number of student dependents would be other household members regardless of income contribution. The last clause of the sentence, “...who do not contribute to the household income,” is irrelevant to household size or population increases. 43

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Second Paragraph: Without a breakdown of existing and projected undergraduate and graduate students and housing units per each, it is not clear how the 3,220 needed student beds was calculated. Does this include graduate housing? Please provide a clear summary.

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Fifth Paragraph: The analysis assumes that additional on-campus student housing will be constructed. Is this a firm commitment established in the LRDP? Other references in the DEIR seem to call into question the feasibility of constructing on-campus housing given other market trends and demands. If there is not a solid UCSC commitment to construct the number of housing units that could be accommodated by the plan, a conservative, worst-case analysis would assume no new on-campus housing, and the analysis should be revised and the DEIR recirculated. The DEIR should include construction of affordable on-campus student housing as a mitigation measure.

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10. Page 4.11-16, First Paragraph: Based on the referenced BAE model, what percentage of students and faculty/staff living off-campus actually are forecasted to live in the City of Santa Cruz? Is this consistent with historical patterns? Based on projections in Table 4.11-6 compared to historic trends shown on Table 4.11-4, it appears that the percentage of students projected to live in the City (32% of new student enrollment) is less than historical trends (38% as shown on Table 4.11-4). Please provide additional clarification and supporting assumptions if this is true.

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Does Employee Scenario 2 include faculty? It would appear that new faculty would move to the area. Please provide a breakdown of faculty and staff (existing and projected) in order to identify the net increase for each element, since the 2005 LRDP identifies on-campus housing goals separately for faculty and staff.

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11. Page 4.11-17, Fourth Paragraph: The analysis assumes that additional on-campus employee housing will be constructed. Is this a firm commitment established in the LRDP? If not, the conservative, worst-case analysis would assume no new on-campus housing, and the analysis should be revised and the DEIR recirculated. The DEIR should include construction of affordable on-campus employee housing as a mitigation measure.

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12. Page 4.11-19: Tables 4.11-6 and 4.11-8 identify 138 on-campus employee residents, but Section 3.10.2 indicates only 125 employee housing units would be built. Please clarify, and revise analyses as needed.

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13. Page 4.11-20: The DEIR should also note that the planned increased enrollment of 6,950 students averages approximately 410 new students per year (over 17 years from 2003/04 to 2020), which is higher than the historical enrollment growth of approximately 310 students per year (over 17 years from 1987/88 to 2003/04). Thus, the planned enrollment not only results in a significant population inducement related to the City's projected population, but also results in an annual enrollment level that is approximately 25% higher than historical enrollment growth.

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14. Page 4.11-21: Mitigation POP-3 is vague and does not describe how UCSC will work with the City to identify means of providing additional housing; please describe specific actions that would be anticipated to be undertaken. Without identification of specific measures or joint housing ventures/programs that UCSC may consider, the measure does not appear to be feasible.

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**Law Enforcement**

1. Page 3-38: The City of Santa Cruz has experienced a higher calls-for-service rate proportional to student enrollment growth but not to general population growth. Meaning, overall City population has slightly declined (in some aspects held constant) as enrollment has gone up (students are often not counted in Census numbers) but calls have increased. Calls have increased in similar ratios to the student growth—especially in student dominated areas (west side of the City).
2. Page 3-38: Assuming that UCSC successfully houses 50% of its students in 2020, the growth would amount to a 7% increase over our current City population and an approximate 40% increase in growth in student population with other factors held constant. This would lead to an 18% increase in calls-for-service above current levels (a little over 90,000 calls). It is important to note that the general assumption underlying this is that there are direct correlations between calls-for-service and student population growth—even more so than general population growth. We believe this assumption holds true in this case.

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**Fire Protection**

1. Page 4.12-3: The statements made on pages 4.12-3 and 4.12-4 regarding the UCSC Fire Department being staffed sufficiently to handle simultaneous life-safety emergencies is not correct, at least as an unqualified statement. We believe this statement misrepresents the department’s true capacity to fulfill its reported mission.
2. Page 4.12-3: The statement is made that the City of Santa Cruz Fire Department (SCFD), under mutual aid, “is responsible for providing fire suppression services to the campus...” A more accurate description would include the provision of EMS, hazardous materials, and other related life-threatening emergency responses.
3. Page 4.12-4: In the second to last paragraph, the first sentence reads: “As of February 2005, the Santa Cruz Fire Department employed 51 full-time, sworn staff members and 19 paramedics.” The word and should be replaced with the word including.
4. On a general note, UCSC growth unquestionably impacts service demands on and off campus. Based upon current historical emergency response data, the projected campus population will generate between 5–6% of the SCFD’s emergency call volume. In terms of a percentage of the SCFD’s operating budget, a 6% share would equal approximately \$540,000 annually.

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**Recreation**

1. Page 4.13-5: The description of the City of Santa Cruz parklands and open space areas should be clarified to distinguish between active recreational facilities and open space/natural areas. Table L-7, Open Space Land Uses, in the City's General Plan makes this distinction.
  
2. The Pogonip, Moore Creek Preserve, Arana Gulch, and Neary Lagoon Wildlife Preserve offer passive recreation, which is limited to trail use and nature observation. A key goal of these open space areas is to protect and enhance natural resources. This goal is distinct from the goal of neighborhood and community parks with active recreation facilities, such as playgrounds, basketball courts, tennis courts, playing fields, picnic areas, skateparks, etc. This is a critical distinction because the DEIR incorrectly dismisses the need for additional neighborhood/community park acreage by stating that there is adequate open space acreage per capita. Per capita neighborhood/community park needs must be calculated for Impact REC-1 based on active recreation park acreage (community/neighborhood parks), not open space lands. Open space/natural area lands do not fulfill the need for active recreational facilities. Impact REC-1 addresses demand for active recreational park facilities (neighborhood parks) rather than availability of acreage as implied in the second paragraph on Page 4.13-10. The availability of open space acreage has nothing to do with the demand for neighborhood parks. While the Santa Cruz region may have adequate acreage/population of open space and natural areas, there is a shortage of active recreational facilities within the City of Santa Cruz, particularly on the west side of Santa Cruz.
  
3. LRDP Mitigation REC-2C should be revised to state that UCSC shall work to install signage on campus property, prior to entrances to the Pogonip, clearly stating that trail users are leaving campus property and where bicycles are prohibited in the Pogonip. This mitigation measure should also state that UCSC shall install fencing and other signage on campus property prohibiting unauthorized trail use into the Pogonip from the Coolidge Drive lookout, with review and approval by the City of Santa Cruz Parks and Recreation Department staff prior to installation.
  
4. LRDP Mitigation Measure REC-2D should be replaced with a mitigation measure that does not rely on volunteer assistance. While the City of Santa Cruz Parks and Recreation Department recognizes the value of volunteer programs, technical trail construction/erosion control specialists are needed to specifically address trail erosion, etc. The City contracts with trail construction/maintenance specialists to conduct trail maintenance in sensitive areas. A new mitigation measure should be developed stating that UCSC shall coordinate with the City of Santa Cruz' trail maintenance program at least once annually, particularly in areas where campus users are creating unauthorized trails and accelerating damage within the Pogonip. This coordination may include sharing of costs for trail repair/maintenance in those areas impacted by trail users from the campus, which includes staff, faculty, and students, and shall possibly include a Memorandum of Understanding between the City and UCSC regarding this issue.

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5. LRDP Impact REC-3 should be potentially significant because of the potential loss of the Cowell Wilder Regional Trail if UCSC does not closely coordinate with the City of Santa Cruz on any re-routing options on campus, which could affect the trail alignment within the Pogonip. It should also be noted that Cowell Wilder Regional Trail should continue to serve as a multi-use trail, open to bicyclists, equestrians, and hikers. A mitigation measure should be included stating that UCSC must coordinate with the City of Santa Cruz Parks and Recreation Department regarding any possible realignment of the Cowell Wilder Regional Trail to ensure that the trail connection remains feasible. The mitigation measure should also state that should realignment within the Pogonip be required due solely to rerouting of trails on campus, UCSC would be fully responsible for any environmental review and trail construction related costs for the Pogonip.
6. Page 4.13-12: The text regarding increased impacts on Antonelli Pond due to the proximity to the 2300 Delaware Avenue property should also discuss increased impacts on Moore Creek Preserve. This City-owned open space is the closest open space area with a substantial trail system to 2300 Delaware Avenue. The trails at Antonelli Pond are very limited in comparison to Moore Creek Preserve. The potential increase in use and potential problems with unauthorized uses such as bicycles should be discussed, and mitigation measures recommended as needed.
7. LRDP Impact REC-4 should be potentially significant. The City's General Plan and communication with the City of Santa Cruz Parks and Recreation Department referenced in the DEIR clearly indicates that there is a shortage of active recreation facilities (playgrounds, ball courts, etc.) within the west side of Santa Cruz. Specifically, there is a need for a new neighborhood park, minimum two acres in size, on the west side of the City in the vicinity of Shaffer Road. The increase in the off-campus population, particularly on the west side of the City, would result in increased demands for active recreational facilities (playgrounds, ball courts, etc). There are inadequate active recreational facilities on the west side to accommodate this increased use. Beaches, State Parks and nature preserves do not provide active recreational facilities and do not mitigate the shortage of neighborhood parks on the west side of Santa Cruz.
8. LRCP Mitigation REC-4 is inadequate and should be revised as discussed below. Continuing to make UCSC facilities open to the public does not mitigate the shortage of neighborhood parks on the west side of Santa Cruz. "Casual" walking paths and picnic tables are not active recreational facilities, and also do not mitigate the neighborhood park deficiency. The direct impacts of the off-campus population on the west side clearly warrant the need for additional active park facilities. In addition, the City standards address neighborhood park proximities (radii) to residential areas which must be addressed in the DEIR.
9. A mitigation measure is needed stating that UCSC shall dedicate a park site to the City, minimum two acres in size, in the vicinity of Shaffer Road on the west side of Santa Cruz. The City will then utilize Parks and Facilities Tax fees to develop the park facility. UCSC does not contribute to these fees as private residential development does.

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10. An additional mitigation is also needed stating that UCSC shall make the tennis courts at 2300 Delaware Avenue available to general public use indefinitely. This shall include ensuring adequate parking, signage, and public pathways to the courts so that it is clear that the courts are available to the general public. The mitigation measure should also state that the campus shall maintain the courts in a playable condition. Without this mitigation measure, there is no assurance that the tennis courts would be available to the public in the future.
11. Page 4.13-16: The discussion under City of Santa Cruz is incorrect. There is a shortage of neighborhood park facilities within the City, particularly on the west side near UCSC. This discussion fails to differentiate between open space/natural areas and active recreational facilities. The impact on neighborhood park facilities due to the increased population resulting from the campus expansion is significant. Without additional neighborhood facilities on the west side of the City, the existing parks will deteriorate at an increasingly accelerated rate and recreational demands will not be met. It is misleading and inaccurate to compare tourist use of the City's beaches and Boardwalk destination to residents' needs for neighborhood park facilities. The impact should be potentially significant. The mitigation measure should include dedication of a minimum two-acre site near Shaffer Road by UCSC to the City for development of a new neighborhood park facility.

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**Traffic, Circulation, and Parking**

1. Page 4.14-13: The DEIR discusses the West Side Residential Parking Permit Program and other parking permit programs which are the direct result of UCSC off-campus parking impacts. This existing condition should be quantified so as to provide a benchmark for increased demands with increased student and employee populations.
2. Page 4.14-19: Revise the Off-Campus Transportation System Improvements section. The City does not have a five-year CIP. Use of the improvement plan from the Citywide and Beach/SOLA Traffic Impact Fee areas would be more appropriate. The SR 1/17 Merge Lane Project is to begin in the spring of 2006 and last for approximately three years. The Highway 1 HOV Lane Project does not have a timeline or identified funding.
3. Page 4.14-23: The City of Santa Cruz level of service standards reflected on Page 4.14-23 and on 4.14-32 should be clarified. The General Plan policy identified applies to Congestion Management Intersections identified in the County Congestion Management Plan which is no longer applicable. The City does not have an adopted LOS policy for the circulation system. LOS D has been the standard used historically in the City. The LOS E standard for City intersections in the Central Core was proposed in an early draft of the City Transportation Study but was not ultimately included in the document approved by the City Council. The DEIR should use LOS D as the standard for all intersections in the City.

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4. Page 4.14-32: The 3% threshold of significance is not applicable for cumulative scenario analyses. The recent local court ruling regarding this value established that there is no de minimus value appropriate for the cumulative analysis.

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5. Page 4.14-32, Section 4.14.2.4: A reduced trip rate may be appropriate if UCSC is committed to construction of on-campus student housing. If not, the traffic projections may not be accurately identified. Additionally, Page 4.11-9 of the DEIR indicates that undergraduates housed on campus have averaged about 48% since 1990. Thus, a reduction does not appear appropriate. Identify the actual student and faculty trip rates used in the analysis and the source of the data from which these rates were derived.

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6. Page 4.14-34: The trip generation rate for existing conditions at UCSC may be calculated using the figures presented in Table 4.14-10. Total daily trip generation is 24,830 for a student population of 14,050 students in 2003-04. These figures calculate to a trip generation rate of 1.77 trips per student. Using this figure for estimating the future traffic generation for a 21,000 student population would result in 37,100 trips per day. This figure is 9% higher than the estimate made in the DEIR and would result in an increase in traffic 33% higher than the forecast in the DEIR. The traffic analysis did assume that trip generation would be reduced by 6% because of increased housing on campus. But this assumption is not supported in any way in the document. It should be noted that students living on campus make work, recreation, and shopping trips off campus.

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7. Page 4.14-33: The trip distribution for the LRDP assumes that 25% of the new trip generation would use Route 1 to the south of the City yet there is no analysis of this effect on the already impacted corridor.

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8. Page 4.14-34: The use of year 2020 as the baseline condition for evaluating traffic impacts conflicts with CEQA requirements for evaluating project impacts based on "baseline" conditions as stated on Pages 4-1 and 4-2 of the DEIR. The DEIR methodology uses a traffic model projection for the year 2020 instead of existing conditions. Thus, the reader cannot determine the effect of the LRDP on existing conditions, and the EIR is inadequate. The methodology presented in the DEIR represents a cumulative traffic analysis. As currently written, the DEIR does not provide a project traffic analysis and substitutes a cumulative traffic analysis as the project analysis. The off-campus intersection LOS analyses must be recalculated based on existing conditions, the project impact analysis revised, and the DEIR recirculated.

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9. Additionally, the DEIR uses the AMBAG travel demand model to estimate traffic for 2020 without the project. The City has noted that this model may be based on rather optimistic employment forecasts for the City. The resulting calculations present more congested conditions than are likely to occur, and, thus, dilutes UCSC's contribution to cumulative traffic conditions.

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10. Page 4.14-44: Table 4.14-16 should be reanalyzed with the more traditional contribution formula as developed by Caltrans in the "Guide for the Preparation of Traffic Impact Studies." The DEIR's method of calculating traffic (cumulative) impacts to intersections is inaccurate. It should be new UCSC traffic as a percentage of new traffic, not total projected traffic. The cost sharing formula should be based on the project's share of the total added traffic, not the total intersection traffic. This will result in a major change to the values presented in this table.
11. The City has implemented a new Traffic Impact Fee that should be assessed to UCSC for impacts similar to other new development. Based on daily trip generation of 10,590 from Table 4.414-10, this equates to \$3.6 million at the current fee structure. However, the traffic generation rate is in question, as well as the project impact analysis methodology, level of impact, and level of improvements proposed at intersections.
12. Page 4.14-43: Regarding Mitigation TRA-2B, UCSC already has an extraordinary TDM program addressing the needs of the campus. It is generally agreed that marginal improvements can be made to the system. The existing programs will have to expand to provide for the increment in demand anticipated with the proposed population. Maintaining existing modal splits will be challenging enough. It is not likely that TDM measures will reduce traffic demand more than existing ratios.
13. Page 4.14-47: Table 4.14-18 identifies potential improvements to the circulation system to address the identified impacts. Several of the improvements noted do not totally mitigate the impacts. Full disclosure requires that improvement projects be identified that fully mitigate the impacts. UCSC and the City can then consider whether those improvements are desirable.
14. Page 4.14-53: The last paragraph describes the impacts of students, staff, and faculty parking in neighborhoods surrounding the campus. The proposed parking program does not address the additional off-campus demand associated with increased enrollment. The suggestion is made that the permit programs can simply expand to address the moving target. This is not a mitigation measure. Identifying a program to provide parking and to reduce impacts to nearby City streets is warranted. Furthermore, UCSC summer programs expansion effects on residential parking are not addressed. The City West Side Residential Parking Permit program is currently seasonal, and impacts during the summer should be quantified and analyzed.
15. Page 4.14-61: The Reference section on 4.14-61 does not note the City Traffic Model provided to the UCSC consultant. Was the model used? If so, should be reflected in the reference.
16. There is no discussion of the impacts of the project on the capacity of the Metro Transit System serving the campus, although the Initial Study indicates that this will be analyzed in the DEIR. (Page-52; Subsection (g) of Appendix A). The transit system operates at or near capacity on some routes to UCSC. An analysis of a potential 49% increase in

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- demand for transit service should be included in this environmental review. The capital and operating costs needed to provide this additional service should be estimated.

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- 17. The noise analysis is based on the same traffic volumes as mentioned above, using the 2020 model forecast as a benchmark. This high benchmark and low traffic projection will result in a minimized noise analysis. The analysis needs to be revised based on a project impact methodology described above and the DEIR recirculated.

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- 18. One of the critical construction noise concerns for the City has been the number of trucks traveling through the City to serve the construction. This can be a significant temporary impact on some of the access routes to UCSC. A mitigation measure would be to direct all such trucking activity to designated truck corridors.

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- 19. The LRDP and DEIR do not address the impact of truck traffic from UCSC construction on City streets. In the last LRDP assistance measures, UCSC agreed to pay for construction vehicle impacts to Bay Street, but then never followed through on monitoring truck traffic to assess the impact. In some California communities, development projects are assessed a construction vehicle impact fee equal to 1% of private development project valuation. The City is considering implementing this type of fee and recommends that UCSC assess itself this fee to address construction vehicle impacts on the condition of City streets.

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- 20. The cumulative impact of UCSC traffic to and from the campus, the coastal marine campus, and the Delaware facility on Western Drive are not addressed. Western Drive is currently impacted, has limited sidewalks, and no bike lanes.

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- 21. Update Existing Off-Campus Bicycle Facilities section on 4.14-15 and Map 4.14-4. The section notes gaps that no longer exist and the map has incorrect designations.

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- 22. The summer peak traffic analysis noted on 4.14-45 and -46 uses the 3% traffic contribution factor which is not used appropriately, requiring revision of the section.

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- 23. Note that on 4.14-46 the City has developed a Citywide Traffic Impact Fee.

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- 24. The proposed improvements for Bay Street/Mission Street and King-Union/Mission Street noted in Table 4.14-18 are not just a question of re-striping. They require widening and parking removals as well.

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- 25. Include a mitigation measure on 4.14-54 stating that UCSC will pay for the expansion of the West Side Residential Parking Permit Program as any expansion is solely the result of UCSC impacts.

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**Water Supply**

In response to the Notice of Preparation, the City raised six issues of concern regarding water supply that it asked to be addressed in the DEIR. These issues are briefly summarized below.

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Water Demand: The City asked for a detailed assessment of the additional water that would be needed to serve the planned growth in enrollment and physical development on campus, the timing associated with that need, and to clearly show the assumptions used in developing the water demand analysis. The City asked that the DEIR examine the extent to which additional student population residing off campus and other planned UCSC facilities in town would influence demand for water provided by the City.

Infrastructure: The City noted that the proposed expansion of the academic core, colleges, housing, and recreational facilities into areas north of the existing developed campus was not envisioned in the 1996 University Water System Master Plan and could not be served directly from existing City facilities. The City asked that the DEIR identify the specific facilities needed to implement the proposed LRDP and evaluate how such facilities would be operated in connection with the existing system of pipelines, pump stations, and reservoirs presently serving the campus.

Service Area Policy and Jurisdictional Boundary: The City commented that a major portion of the area planned for future development is outside and beyond the current City water service area limits, and that UCSC must receive Council approval to expand the service area if UCSC is planning for this portion of its expansion to be served by the City water system. Furthermore, it was identified that written approval from LAFCO was needed before the City could provide new or extended services outside its jurisdictional boundaries.

Adequacy of Water Supplies to Support University Growth: The City commented that the DEIR should carefully evaluate the effect that the added water demand caused by planned growth in student enrollment and expansion of physical facilities would have on the City's existing water supply deficiency in drought conditions. The City commented that the DEIR should also address the impact of UCSC growth on the City's remaining water supply availability in normal water years under different scenarios, and the impact such growth would have on the ability of the City to meet its own identified housing and economic development objectives.

UCSC Water Utility Management and Conservation: The City noted that while efforts aimed at water conservation on campus have been advanced in recent years, many of the older buildings continue to use old, high volume plumbing fixtures, and that no position exists to manage information about water usage and efficiency programs on campus. The City asked UCSC to perform a comprehensive engineering audit of existing water management practices and equipment, and to make recommendations for specific ways UCSC can increase water use efficiency and mitigate growth in water demand.

UCSC Assistance Measures: The City commented that, as part of the 1988 LRDP EIR, the UCSC committed to providing reimbursement to the City for its proportionate capacity of new water sources and improvement to the delivery system that were determined to be attributable to on-campus needs, and that the baseline to determine UCSC's proportionate share of that project continues to be 1988 use.

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Prior to discussion of specific comments on the utilities section of the draft EIR, there are five overriding general comments that should be stated to put other comments in the proper context:

1. The City denies that UCSC enjoys an "entitlement" to the water supplies of the City of Santa Cruz any more than any other customer that requests consideration for increased water demand. Page 4.15-2 of the DEIR states that "Under the terms of a 1962 Water Services Agreement between the City of Santa Cruz and the University, the City agreed to provide sufficient water to meet University growth. The Agreement also states that the City will provide, at no expense to the University, water and sewer lines up to the boundaries of the campus. An additional agreement made between the University and the City of Santa Cruz in 1965 states that the City will install a water system capable of supplying 2 million gallons gpd to the campus."

Regarding the first point, i.e., whether the City agreed to provide sufficient water to meet UCSC growth, what the agreement actually states is that the City shall provide water lines and sewer lines up to the boundaries of the campus as good engineering practice and the reasonable needs of UCSC and of the City may require. It is the City's position that this language does not constitute an obligation by the City "to provide sufficient water to meet UCSC growth," but rather, a commitment by the City to provide water lines to meet reasonable needs *of the City and UCSC*.

Regarding the second point, i.e., whether the City would install a water system capable of supplying two million gallons per day (gpd) to the campus, what the February 8, 1965 agreement actually states is that "the system shall at all times be capable of supplying to the University water up to two million gallons in twenty-four hours for fire flow and ordinary use." To have a system that is capable of supplying two million gallons in any twenty-four-hour period for ordinary use *and fire flow* has a very different meaning than UCSC's statement that the City has committed to meet a daily demand of two million gpd, every day, on the campus. The current design of the pump stations and storage reservoirs serving UCSC have a capacity to deliver, in any twenty-four-hour period, more than three million gallons to the University, more than adequate emergency capacity to respond to emergency, extraordinary, and instantaneous need for that much water. The 1965 agreement does not imply, nor is the City capable, of delivering more than two million gallons of water to UCSC on an ongoing basis, as that amount of supply is simply not available. What the agreement does provide is that the infrastructure be capable of delivering that amount of water in any twenty-four-hour period for fire flows and regular demands, i.e., not continuously.

2. UCSC has stated that it may receive increased service for the development of those portions of the campus that lie in the unincorporated County. The City does not agree with this position. The City's water service area is currently defined by the corporate limits of the City of Santa Cruz and parcels outside the City that are inside the limits of parcels currently served (i.e., infill lots). Any other parcels must receive City Council approval in order to receive service, and, as evidenced by a currently ongoing annexation of an area not previously served, receive LAFCO approval. Without these approvals, the

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City has no legal authority to serve parcels or property currently outside the water service area.

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3. The City currently has approximately 200–300 million gallons per year (gpy) of reserve capacity in average hydrologic conditions. On Page 4.15-37 of the DEIR, UCSC states that after all proposed mitigation measures, UCSC water use would require a new water source. The discussion goes on to say that desalination may be that new water source and that such a facility could have environmental effects. This discussion acknowledges that there is not sufficient water currently available for this project (LRDP) and that before it is complete, the City will be required to develop new water supplies. UCSC evidently assumes that new water supplies will be available to accommodate full LRDP build-out on or before that build-out is completed. The problem with this is that the City does not have an approved project to augment its water supplies. It recently approved a plan that calls for the construction of 2.5 million gpd desalination facility, but that project still requires a one-year pilot plant, many more technical studies, final project design, approval of a project-level EIR, numerous regulatory approvals, and funding. All this is to say that any project that assumes in an EIR that water will be available that is not now available, nor even approved, is seriously flawed and is contrary to the principle enacted into State law that approvals of large new developments be linked to assurances that there is an adequate water supply.

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4. Economics Associated with this LRDP: In the 1988 LRDP, UCSC committed to certain “University Assistance Measures” that corresponded to mitigation measures stated in the EIR for the 1988 LRDP. The first of those was that UCSC would reimburse the City for new sources of water needed to serve UCSC’s growth as set forth in the LRDP. To date, the City has not constructed the new water sources, though it has invested heavily in the planning work that precedes the construction of that new water source (desalination). Measures 2 through 4 state UCSC’s pledge to pay its share of the costs to upgrade the pump stations that serve the campus as needed when the growth in water demand exceeds the design capacity of the stations. As the current DEIR correctly states, UCSC has participated in the first phases of those pump station upgrades.

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It is the City’s position that these obligations to which UCSC committed to in 1988 are still in full force and effect after UCSC’s adoption of the new LRDP and DEIR. This is especially true for the desalination facility, as the later phases for expansion of this facility will largely be driven by UCSC growth.

5. Finally, the City finds the mitigation measures proposed for UCSC’s significant impact on water supply to be vague and noncommittal. There is no specific information on implementation details, schedule, level of effort or coverage throughout the campus, or any quantitative estimate as to the reliable savings or even general effectiveness of the measure. At the end of the section, no information is offered as to how much overall impact these measure will have in reducing water use on campus. Language such as “if programs prove to be successful” and “these means could include...” create uncertainty about UCSC’s commitment to carry out the measures.

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Our specific comments on water supply in the DEIR are as follows:

1. Page 4.15-2 – Campus Water Conservation: The DEIR states that ongoing and past water conservation activities at UCSC have included retrofitting toilets, showerheads, and sink faucets with water efficient alternatives, but no quantitative information is given as to the proportion of buildings or fixtures that have been completed to date and what portion remains to be retrofitted. If residential use, academic buildings, and other uses together account for over 70% of the total consumption on campus, as indicated in the DEIR, in order to be in compliance with CEQA requirements the DEIR should have a current assessment of the status of its retrofitting program to know how much conservation potential remains in its building stock. The absence of specific information reinforces the impression that management of water use on campus is lacking and in need of greater attention.
2. Page 4.15-5 – Water Conservation Plan: A significant conservation measure not included is the City’s plumbing fixture retrofit program, which applies to all real property in the service area except UCSC. The UCSC exemption deprives the City of any way of mandating the retrofit of plumbing fixtures in older buildings on campus.
3. Page 4.15-6 – Future Water Projections: The DEIR incorporates the City’s 1998 water demand projections that indicate demand for water at UCSC growing from 204 million gpy in 2000 to 408 million gpy in 2020. It should be clarified that these projections were developed based on the 1988 LRDP with a maximum campus enrollment of 15,000 and 70% of undergraduates and 50% of graduate students housed on campus. By omitting this key fact, it gives the public the impression that the City’s water demand projections are considered and included the 2005 LRDP in its long-range water supply planning, which is not the case.
4. Page 4.15-6 – Other Water Districts in the Study Area: This section is deficient in that it makes no mention at all of the serious water supply challenges confronting the Scotts Valley Water District and Soquel Creek Water District. More importantly, by including this section in the DEIR, one would expect to find an analysis of the impact of UCSC growth on those water utilities elsewhere in the report. Inexplicably, there is no analysis whatsoever of population growth off campus that is related to the LRDP, either in the City’s service area or in the areas served by these other agencies. The failure to analyze the impact of off-campus population growth on water supply is inadequate under CEQA requirements. This section is also inaccurate in that part of the City of Capitola is served by the City of Santa Cruz.
5. Page 4.15-17 – Analytical Method: The approach used to analyze the environmental impacts of UCSC growth on water supply is inadequate under CEQA. The report states that the impact of the proposed project on water supply is evaluated as a cumulative impact. This approach circumvents the requirement to address the direct effects of the LRDP project by itself and shifts responsibility for impacts away from UCSC and onto the local communities served by the City. Furthermore, by evading the analysis of direct

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impacts, which we believe would result in a finding of significant impact because of the magnitude by which the 2005 LRDP increases consumption of limited potable supplies, it avoids any responsibility on the part of UCSC for mitigating its impact. This omission is a serious oversight which should be corrected.

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6. Page 4.15-18 – Water Supply: The report states that at full development the main campus would have an average daily demand of 1,000,531 gpd or 365.2 million gpy, but includes no technical information to substantiate this estimate or to show what assumptions were made in deriving the figure. It is not intuitive why water demand would be expected to grow to 365 million gpy in 2020 from 203 million gpy in 2003 or by 162 million gpy, or 80%, when student enrollment is projected to rise by 49% and faculty by only 25%. The report should make transparent the details used in developing the water demand analysis. The demand forecast should include a breakdown by sector, and analysis of indoor and outdoor usage. UCSC water demand should also be expressed on a monthly basis to show changes in the seasonality and peak month usage for current and future conditions, including the increase that would accompany the proposed expanded summer programs. The timing associated with increases in water demand is also important to know but missing from the DEIR. At a minimum, the report should present the expected growth in demand in five-year increments (2005, 2010, 2015, 2020) in order to evaluate the impact on the infrastructure serving the campus and on water system operations.

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7. Page 4.15-20, 21 – Water Infrastructure: The DEIR recognizes that further improvements to the City’s pump stations would be required to deliver water to UCSC for its expansion. Furthermore, the DEIR identifies the need for pipelines, pumping facilities and storage facilities to serve development above the elevation of approximately 900 ft. These are identified as UCSC facilities.

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8. The DEIR, however, does not mention whether improvements to the City’s Reservoir 4 as detailed in the 1996 University Water System Master Plan (Carollo) are still necessary for adequate domestic/fire water service to UCSC, given its plan and Infrastructure Improvement Project. Similarly, the DEIR does not mention any impact on operation of the City’s facilities due to UCSC’s plan. In particular, the DEIR should analyze the additional water demand due to increased summer enrollment and any impact on operation of the Bay Street Reservoir and Graham Hill Water Treatment Plant. The City currently has difficulty maintaining adequate water levels in the Bay Street Reservoir during peak summer demand periods, resulting in frequent flow changes at the Graham Hill Water Treatment Plant. This operation can result in low pressures in the City’s gravity zone as well as increased risk of treatment plant upset. The installation of the planned Bay Street Reservoir Transmission Main is intended to correct this situation, but its design did not incorporate this additional peak season demand.

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9. Page 4.15-30 – LRDP Mitigation UTIL-9A: The City does not agree that continuing current practices such as installing water meters and performing leak detection and repair qualifies as a mitigation measure. Meters are routinely installed in all new buildings on

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campus for rebilling utility charges to the appropriate budget account. Leak detection and repair is simply basic facility maintenance that cannot be ignored. Because these practices would occur in the absence of the 2005 LRDP, they should not be portrayed as a mitigation measure.

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10. Page 4.15-30 – LRDP Mitigation UTIL-9B: This mitigation measure is so vague and lacks any commitment as to be virtually meaningless. First, it is not clear what high efficiency plumbing fixtures it is referring to. Second, why make it contingent on the outcome of a pilot program? A better measure would be for UCSC to say that it will revise its standards for specific fixtures with stated standards for flow rates and flush volumes, and that it will proceed to replace any older fixtures not meeting these standards at a rate of so many per year, prioritized by building age or condition, until the entire campus has been fully retrofitted.

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11. Page 4.15-31 – LRDP Mitigation UTIL-9C: This mitigation measure is ineffective because all of the residential washing machines on campus already meet the proposed 5.5 water factor standard and therefore no additional water savings would result from the implementation of this measure. What purpose does it serve to propose a mitigation measure that merely lists what is already in place?

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12. Page 4.15-31 – LRDP Mitigation UTIL-9D: The requirement that all new landscape installations incorporate water efficient landscaping practices is, once again, simply restating existing practices described on Page 4.15-2.

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13. Page 4.15-31 – LRDP Mitigation UTIL-9F: The campus claims on Page 4.15-2 to have been retrofitting toilet, showerheads, and sink faucets with water efficient alternatives as part of its ongoing activity. Not only does this mitigation say it will do nothing new or more to offset growth in water demand, it actually proposes waiting until demand has risen to 250 million gallons to do what it claims to have been doing all along. No reason is given that explains the purpose in waiting until UCSC water consumption reaches a level of 250 million gpy.

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14. Page 4.15-31 – LRDP Mitigation UTIL-9G: Conducting a study does not do anything to mitigate growth in water demand. Mitigation would be committing to the installation of proven satellite reclamation facilities to offset irrigation demand and to reduce wastewater flows from UCSC.

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15. Page 4.15-31 – LRDP Mitigation UTIL-9H: Exploration does not constitute mitigation. Had UCSC conducted an engineering water audit of the campus as requested at the time of the notice of preparation, it would have had the information now on which to base recommendations for additional means to reduce residential water use. If the central controller system has resulted in a reduction in irrigation demand by 22% as stated on 4.15-3, it would be irresponsible of UCSC to wait until campus water demand reaches 300 million gpy to connect other existing irrigation systems. It should implement this measure immediately, and indicate the expected water savings of doing so in the DEIR.

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While education programs are helpful, the true conservation measures that can be counted on to save water in the long run are the fixture retrofits and technological changes that do not rely on behavioral change. With the large turnover in student population every year, this effort would have to be a sustained commitment.

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16. Page 4.15-31 – LRDP Mitigation UTIL-9I: The curtailment of water use on campus during a declared drought emergency would be mandated by City ordinance, not subject to discretionary control by UCSC. As such, it does not qualify as a true mitigation measure. Reduction of irrigation, residential, and institutional uses on campus would be required anyway. Moreover, because such measures are in effect temporarily only for the duration of the emergency, it would not serve to mitigate any growth in water demand at UCSC in non-drought years.

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17. Page 4.15-34 – Impact Under Normal Conditions: To assert that the City has adequately considered UCSC growth in its water supply planning is misleading. The 408 million gpy figure for UCSC in the City’s demand study was based on the previous 1988 LRDP, not on the 2005 LRDP. That forecast assumed that UCSC would house a significantly higher proportion of students on campus than it actually has; hence, water demand on campus is lower than anticipated. In no way did the demand forecast cited in the DEIR take into account growth planned in the 2005 LRDP, even though the new estimate for water demand at 2020 appears to come in under the earlier projection.

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18. The environmental analysis concludes that, under normal conditions, demand will exceed supply between 2015 and 2020, effectively meaning that: 1) there is not sufficient water presently available for this project, and 2) the City would be required to develop another source of water to meet the UCSC’s needs under the proposed LRDP. What the report does not state in its analysis is that, absent UCSC growth, the City would not need to secure a new water supply source to meet the community’s water needs under normal conditions through 2020. One of the standards of significance under CEQA listed on Page 4.15-17 states that the campus would have a significant impact with regard to utilities if it would “result in the need for new or expanded water supply entitlements due to insufficient water supplies available to serve the project from existing entitlements and resources.” Although UCSC is of the opinion that “the campus has sufficient entitlement to water and there would not be a significant impact associated with securing more water for the university,” a position with which the City disagrees, the fact that new or expanded water supply entitlements are needed within the timeframe of the LRDP is clearly a significant impact under CEQA that the report fails to identify, discuss, or mitigate.

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19. The analysis goes on to state that “by 2020 the campus would use about 56 percent (176 million gallons out of the 300 million gallons) of the remaining water supply.” This percentage is based on a questionable value of 225 million gallons from Table 4.15-3, which is much higher than present use at UCSC, so it has the effect of understating the proportion of the City’s remaining supply that UCSC would actually consume. The difference between 2003 (baseline water use in the DEIR) water use of 206 million gpy

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and 2020 use of 399.4 million gpy is 193.4 million gallons, which equates to 65% of the City's remaining water supply. This figure does not even include the additional water demand from more students and faculty/staff residing off campus, nor the additional population that would be induced by UCSC growth mentioned in Section 6.3 of the report. Accordingly, the City believes that the analysis, as presented in the DEIR, is flawed and should be revised.

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20. In summary, with respect to the six issues the City raised regarding water supply that it asked to be addressed in the DEIR, the City's position is as follows:

- The DEIR is inadequate in its assessment of future water demand due to the lack of detailed information in the report and the absence of any analysis of the impact on water demand stemming from additional student and faculty population residing off campus;
- The DEIR does not adequately address the City's infrastructure improvements that would be needed, nor does it mention any impact on operation of the City's facilities presently serving the campus;
- The DEIR is inadequate due to the way it dismisses outright the need to receive approval to expand the City's water service area limits and describe the LAFCO process involved;
- The DEIR is deficient in its assessment of the adequacy of water supplies to serve UCSC growth due to the way it misrepresents the proportion of the City's remaining supply that UCSC would consume, and because it fails to identify a clearly significant impact with respect to the need for new or expanded water supply entitlements resulting from the project; and
- The DEIR is inadequate in that it offers no specific information about ways UCSC can increase water use efficiency and mitigate its growth in water demand, sets no goals, or even discusses the effectiveness of its proposed mitigation measures.

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21. The DEIR is inadequate in that it does not discuss its existing prior commitment to provide reimbursement to the City for its proportionate capacity of new water sources, and appears to downplay the degree to which UCSC growth would cause the City to secure an additional source of water.

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22. Page 4.15-34: Table 4.15-3 and the water impact analysis must be based on the estimated water increase over existing conditions (existing at the time the NOP was distributed), and not interpolated year 2005 estimates. The numbers conflict with the text on Page 4.15-33 in which the LRDP (including Delaware Street facility) is said to result in a net increased demand of 174 million gpy. Is the 19.8 million gpy estimated at the Marine Sciences Campus a net increase?

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23. Page 4.15.36: Summer session water demand (estimated at 11 million gallons on page 4.15-18) should be added to the total UCSC water demand as summarized on Table 4.15.3. It appears that the total UCSC net increase in water demand is 205 million gpy (174-campus, 11-summer, and 20-Marine Sciences Campus). The DEIR should be revised to present the correct numbers.
24. Page 4.15-32: The cumulative analysis is deficient as it does not identify and quantify water demand from UCSC LRDP-related growth in the City, cumulative City projects, other City buildout, or other development/demand within the City's water service area (i.e., unincorporated areas).

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**Wastewater**

1. Table 2-1: UTIL-2 acknowledges that the 2005 LRDP will require on- and off-campus improvement to the wastewater collection system, but states that no mitigation is necessary. The mitigation should be revised to state that UCSC will pay its share of the improvements to the on- and off-campus collection system necessitated by its development based on projected peak wet weather flow.
2. Page 4.15-22 and Table 4.15-2: The report provides the project average daily wastewater flow of 423,875 gallons. Please provide projected (2020) peak dry weather flow (PDWF) and peak wet weather flow (PWWF). Collection system designs are based on peak flows not average flows. Also provide methodology and assumptions for projections. This will affect mitigation measures.
3. Page 4.15-23 – Impact UTIL-2: The last paragraph states that UCSC will pay for a portion of the cost to upgrade City pipelines as necessary due to impacts from UCSC growth as authorized under Government Code Section 54999.
4. Please clarify that UCSC will pay at a ratio of Projected (2020) PWWF/Projected (2020) Total PWWF of the actual cost to upgrade pipelines impacted by UCSC growth.

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**Other CEQA Considerations**

1. Page 6-2: The wording for LRDP Impact POP-1 is more detailed than the wording included in Section 4.11, and the latter should be corrected.
2. Page 6-6 – Direct Population Growth Section: This section should also indicate that the direct UCSC population growth in the City is substantial in relation to the City's projected population growth rates as discussed in Section 4.11, and that the planned UCSC growth rate (approximately 3% per year) is substantially higher than the City's historical growth rate (approximately 1% per year) and the City's projected growth rate for the next 15 years (approximately 0.3% per year).

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**Alternatives**

1. Page 5-4: The list of significant impacts may need to be revised based on additional analyses requested in previous comments. ☐ (129)
  
2. Page 5-8: Section 5.3.3, second paragraph states that the environmental effects of campus-related population on regional services and recreation can be mitigated to a less than significant level with the proposed project. This conflicts with the findings of the Population/Housing and Water sections in which significant unavoidable cumulative impacts on housing availability and water supply are identified. Additionally, the City believes that there are other additional impacts, i.e., impacts to neighborhood parks, that also are significant and not adequately analyzed as addressed in previous comments. Furthermore, the cumulative impacts of the off-campus LRDP-related population growth in the City are not adequately addressed for public services and utilities, and additional significant impacts may be identified. ☐ (130)
  
3. The statement that this alternative could result in a higher water use is summarily dismissed without any supporting evidence. An adequate cumulative analysis, as requested in previous comments, would look at LRDP-related growth and demand in the City in conjunction with City cumulative projects and buildout to quantify water demand. While on-campus water use may increase due to greater on-campus housing, it does not necessarily follow that City growth would increase. ☐ (131)
  
4. The third paragraph does not support the conclusion that this alternative does not meet project objectives as it is previously stated that the housing could be accommodated within the areas currently designated for housing without a change in the land use plan. ☐ (132)
  
5. Furthermore, it is not clear why UCSC cannot construct housing of a type that appeals to students, especially since there are no land acquisition or entitlement costs associated with developing housing on the campus. ☐ (133)
  
6. Given significant traffic, water, housing, and potentially other project and/or cumulative service and utility impacts identified within the City, in addition to air and noise impacts as cited later on Page 5-11, the City believes that this is a viable alternative that should be seriously evaluated in a recirculated DEIR. ☐ (134)
  
7. Page 5-12, Table 5-1: Clarify whether the "Housing Needed in Study Area Communities" represents dwelling units. If so, the numbers presented for the proposed project are not consistent with the numbers identified on Table 4.11-10 in the Population and Housing section of the DEIR. Additionally, it is unclear whether the Fort Ord Satellite Campus alternative includes both Santa Cruz and Monterey communities; it appears that only Santa Cruz is included. It is not clear why the Reduced Enrollment Alternative would result in increased housing demand. Please clarify. ☐ (135)

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8. Page 5-13, Section 5.4.1.1: The description of the UC MBEST development potential is not clear. It appears that of the 437 acres available for development, 127 acres have already been approved for development, thus about 310 acres remain for development. The description indicates that 1.3 million square feet would be needed for the LRDP but should also indicate how many acres would be needed as it appears that the LRDP development would not use up the remaining UC MBEST developable acreage.
9. It appears that the off-campus enrollment and development projected under this alternative is based in part on remaining water allocations for UC MBEST. Please provide the quantified evidence to support this conclusion.
10. Page 5-14: Without a quantification of approved UC MBEST development and land needed for a satellite campus, there is no evidence to support the conclusion that uses and programs envisioned under the UC MBEST Master Plan would have to be abandoned. This comment also applies to the statement on Page 5-17 under Land Use.
11. Page 5-18-19: The DEIR does not provide sufficient documentation regarding the degree of the impact reduction as related to services, traffic, and utilities. Without some general quantification of impacts there is no evidence to support the conclusions that impacts would not really change under this alternative. It would seem that a reduced enrollment would decrease the off-campus housing demand. As written, this alternative does not provide sufficient information to allow a meaningful evaluation, analysis, and comparison with the proposed project.
12. Page 5-20, Section 5.4.2 – Reduced Enrollment Growth: Provide the rationale for an enrollment level of 19,500 used for this alternative. The alternative should define an enrollment level that considers historical City and UCSC annual growth. The number used appears arbitrary.
13. The DEIR does not provide sufficient documentation regarding the degree of the impact reduction as related to services, traffic, and utilities. Without some general quantification of impacts there is no evidence to support the conclusions that impacts would not really change under this alternative. Additionally, it is not clear why this alternative would result in increased off-campus housing as identified on Table 5-1. It would seem that a reduced enrollment would decrease the off-campus housing demand. As written, this alternative does not provide sufficient information to allow a meaningful evaluation, analysis, and comparison with the proposed project.
14. Page 5-33: Table 5-2 should identify potentially significant, significant, and less than significant levels for each impact under each alternative with a note as to whether the impact is the same, less, or more than the project impact. As written, a meaningful comparison of impacts cannot be made as the level of significance is not provided.

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**2300 Delaware Avenue Project – Volume 3**

1. The overall approach for evaluation of this near-term project is to tier off LRDP DEIR analyses, but this DEIR is not yet certified, so project impacts are not evaluated or disclosed. □ (143)
  
2. Page 4-59: Increased wastewater flows to wastewater lines, some of which may be impacted in the area, requires evaluation. □ (144)
  
3. Page 4-48: The proposed near-term project will be implemented within the near future, and the analysis is intended to provide a project-level analysis, tiering from the LRDP analysis. However, the analysis uses a year 2010 scenario (with background traffic added) as the baseline condition for evaluating traffic impacts, which conflicts with CEQA requirements for evaluating project impacts based on “baseline” conditions as stated on Pages 4-1 and 4-2 of the DEIR. The methodology presented in the DEIR represents a cumulative traffic analysis. As currently written, the DEIR does not provide a project traffic analysis and substitutes a cumulative traffic analysis as the project analysis. The off-campus intersection LOS analysis must be recalculated based on existing conditions, the impact analysis revised as needed, and the DEIR recirculated. The near-term cumulative impact analysis should consider the City’s traffic model for the year 2010 cumulative analysis. □ (145)
  
4. The trip generation for the proposed project can be better estimated using employees as the study variable. Using this variable and the same reference material used in the traffic analysis will provide a trip generation estimate 33% higher in the AM than reflected in the study. Given that UCSC has gone to great lengths to estimate the population of this facility, this number is certainly more effective than a square footage variable. □ (146)
  
5. The proposed population of the site is about 20% higher than is estimated in the City Traffic Study. This project would be subject to a Traffic Impact Fee of approximately \$800,000 as its fair share of the measures needed to mitigate cumulative development. □ (147)
  
6. The proposed parking of 270 spaces is not adequate to provide for 782 employees. Using parking rates found at UCSC does not relate to the kind of operation described for this site. It can be assumed that most of the employees populating this site will be working a single shift. There is no credible justification provided that would support the concept that only one in three employees would drive to the facility. This level of mode split is not presently achieved at UCSC with its model TDM program. □ (148)

Again, thank you for the opportunity to provide comments on the DEIR. Staff of the various City departments is available to provide additional background or clarification of any of the items broached in this letter. We believe that the issues raised are significant and require the preparation of a revised DEIR and recirculation. The City is hopeful that UCSC will address these issues in the revised DEIR and provide either changes to the project or meaningful mitigation measures to impacts on City services, resources, and infrastructure.

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This letter represents comments on the DEIR by the City of Santa Cruz. An additional letter prepared by Remy, Thomas, Moose and Manley, Attorneys At Law is also attached and made part of comments by the City. This law firm has been retained to assist with our review and comments on the DEIR.

In addition, the City Council at its January 10, 2006 meeting approved a motion to include comments recorded on the enclosed video from Community Television's coverage of the Council discussion on the DEIR. Also, as part of that motion, the Council directed that the enclosed written communication from Mr. Don Stevens be included and made part of comments by the City.

Sincerely,

  
Cynthia Mathews  
Mayor

Attachments: Letter from Remy, Thomas, Moose and Manley, Attorneys At Law  
Video Tape  
Written Communication from Don Stevens

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**Response to Comment Letter LA-9**

**Response to Comment LA-9-1.** See Response to Comment LA-2-1.

**Response to Comment LA-9-2.** Section 3.5 in the Draft EIR lists the programmatic objectives of the 2005 LRDP. Campus enrollment and population projections for students and employees are included in the subsequent section, Section 3.7. Also, please see Master Response PD-1 regarding the projected magnitude of system-wide and campus growth.

**Response to Comment LA-9-3.** Please refer to Master Response PD-1 (Magnitude of Enrollment Growth).

**Response to Comment LA-9-4.** Currently, approximately 5,000 people participate in conferences at UC Santa Cruz each year. The extent to which the number of conferences would be reduced to accommodate increases in summer enrollment is not yet known; therefore, the EIR analysis does not assume any reduction in the existing summer population.

**Response to Comment LA-9-5.** Three-quarter average on-campus headcount enrollment for 2005-06 was 14,522. Please refer to [http://planning.ucsc.edu/irps/historicalData/HistoricalEnrollment2005\\_06.pdf](http://planning.ucsc.edu/irps/historicalData/HistoricalEnrollment2005_06.pdf).

**Response to Comment LA-9-6.** The environmental effects of increased summer enrollment are analyzed in Section 4.14, *Transportation and Circulation*, and Section 4.15, *Utilities*. See Draft EIR page 4-3 for additional information about the environmental impacts from the proposed increased enrollment during summer sessions.

**Response to Comment LA-9-7.** The Campus has no plans under the 2005 LRDP to develop Campus Resource Land (CRL). This designation identifies land reserved for future unidentified use. Should the demand for employee housing exceed the capacity of the land areas designated for Employee Housing during the term of the 2005 LRDP, it is possible that use of areas presently designated CRL could be proposed. Any such proposal would require an amendment of the 2005 LRDP, and also would be subject to project-specific environmental review.

**Response to Comment LA-9-8.** The 787 new graduate student beds were included in the total of 3,390 student beds included in the analysis of the Draft 2005 LRDP (January 2005) in the Draft EIR. Note that the Final Draft 2005 LRDP (September 2006) revises the Draft 2005 LRDP to reflect the Reduced Enrollment Growth Alternative previously analyzed in the Draft EIR, Volume II, Chapter 5. As detailed in the Final EIR, Volume IV, Chapter 2, under the Final Draft 2005 LRDP, enrollment could grow to 19,500 students and a total of about 2,300 student beds would be provided. These beds, with existing campus beds, would meet the housing goals of providing housing on campus for 50 percent of undergraduates and 25 percent of graduate students.

**Response to Comment LA-9-9.** The University's Housing Access Policy requires that 80 percent of all employee housing units built after 2003 be offered to faculty.

**Response to Comment LA-9-10.** Existing housing for students and employees is discussed in detail in the Draft EIR Section 4.11, pages 4.11-7 through 4.11-9. Projected housing for students is reported on page 4.11-15 and for employees on page 4.11-16. Please see Final EIR, Volume IV, Chapter 2, *Project Refinements*, for detailed population and housing information for the Final Draft 2005 LRDP.

**Response to Comment LA-9-11.** Please refer to Response to Comment LA-10-4 for a discussion of the baseline condition for evaluating traffic impacts.

**Response to Comment LA-9-12.** The list of pending or approved projects provided in Table 4.0-1 was used to evaluate any localized and/or regional cumulative impacts that may occur in the vicinity of the Campus and 2300 Delaware Avenue (see Table 4.0-1, Draft EIR page 4.5). For example, this list was used to evaluate cumulative construction PM<sub>10</sub> impacts associated with 2005 LRDP development (see Section 4.3, *Air Quality*, Draft EIR page 4.3-39). The list was also used to evaluate localized cumulative “footprint” impacts, such as were addressed in Section 4.4, *Biological Resources* (Draft EIR page 4.4-65) and in Section 4.8, *Hydrology and Water Quality* (Draft EIR page 4.8-43). As the additional projects listed in the comment would not be located in the vicinity of the main campus or 2300 Delaware Avenue, Table 4.0-1 does not include them. It should be noted that Home Depot will be opening a new store at the old K-Mart site on 41<sup>st</sup> Avenue in Capitola.

University projects, such as the Ranch View Terrace project, approved under the 1988 LRDP but not yet constructed, are considered in the analysis of 2005 LRDP impacts. The on- and off-campus populations associated with these projects are included in the estimate of new population associated with the 2005 LRDP. Other environmental impacts of such projects were considered in the 1988 LRDP and form part of the baseline for the present project. For this reason, these University projects are not listed in Draft EIR Table 4.0-1.

The Draft EIR and Recirculated Draft EIR fully evaluate the cumulative impacts of development under the 2005 LRDP, in accordance with CEQA. Section 15130(b) of the CEQA Guidelines indicates that cumulative analyses can be based on a list of past, present, and probable future projects, or on projections contained in an adopted general plan or related planning document. As described in detail in Section 4, *Environmental Setting, Impacts, and Mitigation* (Draft EIR Volume I, page 4-3 through 4-8), the cumulative impact analyses for population-related topics (i.e., air quality, noise, population and housing, public services, recreation, transportation, utilities) is based on the potential direct and indirect growth that would occur under the 2005 LRDP and on the *2004 AMBAG Population, Housing Unit & Employment Forecasts*. The forecasts provide projections of population, housing, employment, and traffic growth that is expected to occur in Santa Cruz County through 2030. Additionally, the potential direct and indirect growth that would occur under the 2005 LRDP is based on maximum projections about the growth in enrollment, faculty and staff that could occur by 2020.

**Response to Comment LA-9-13.** The 125 on-campus employee housing units would accommodate an average of 2.44 people per unit. It is assumed that at least some UC Santa Cruz employees that would be living in these units would have spouses that would also be UC Santa Cruz employees. This “double-up” rate (historically about 1.1 UC Santa Cruz employees/unit) is the basis for the 138 on-campus employee residents identified in Draft EIR Table 4.0-2.

**Response to Comment LA-9-14.** Please refer to the Draft EIR Section 4.3, *Air Quality* (Subsection 4.3.2.4); Section 4.10, *Noise* (Subsection 4.10.2.5); Section 4.11, *Population and Housing* (LRDP Impact POP-3); Section 4.12, *Public Services* (Impacts PUB-5 through PUB-7); Section 4.13, *Recreation* (LRDP Impacts REC-4 and REC-5); Section 4.14, *Transportation, Circulation, and Parking* (LRDP Impact TRA-2); and Section 4.15, *Utilities* (LRDP Impacts UTIL-9 and UTIL-10) for the cumulative impact

evaluations for these population-related topics. Quantification is provided for these evaluations as appropriate for the particular topic. Each of the cited cumulative impact analyses considers the LRDP's contribution to the extent possible without speculation.

**Response to Comment LA-9-15.** Draft EIR [Figure 4.1-7](#) identifies both lands visible from off-site locations and areas proposed for development under the 2005 LRDP. This figure has been revised to show the anticipated development projects and/or areas that would be visible from the simulated vantage points. Please see Volume IV, Chapter 3 of the Final EIR, *Changes to Draft EIR Text*. Please also refer to Response to Comment LA-2-35 for a discussion of the analytical methods used in the evaluation of aesthetic impacts.

**Response to Comment LA-9-16.** Text on Draft EIR pages 4.1-8 and 4.1-9 has been revised to clarify the scenic vistas standard of significance and method of analysis. Please see Volume IV, Chapter 3 of the Final EIR for changes to the Draft EIR.

**Response to Comment LA-9-17.** In the view from Highway 1 ([Figure 4.1-13](#)), only the Event Center and the East Collector parking Facility would be visible, not the Digital Arts Facility. This impact was determined to be less than significant in the Draft 2005 LRDP EIR because: (1) neither building would extend above the existing tree line, (2) the buildings would not dominate the distant view from this location, and (3) only intermittent and momentary views of the campus are available while driving along Highway 1 (see Draft EIR page 4.1-14). The distant view from this vantage point would continue to be dominated by open meadow with a forest backdrop. Overall, the visual change from this vantage point that would result from development under the 2005 LRDP was not considered to have a substantial adverse effect on views of the rolling hills of the University, which would continue to provide a distant scenic backdrop to the more urban views available from some off-campus locations.

From the Wharf vantage point ([Figure 4.1-14](#)) the proposed Auditorium and Events Center would be visible. This impact was determined to be less than significant, because: (1) the Auditorium would occur in an area with existing visible development in the Arts area, (2) the Event Center would not obscure the panoramic views of the hillside from the wharf, (3) most of the distant hillside would remain undeveloped under the 2005 LRDP, and (4) from the Wharf the hillside represents a distant backdrop to a developed visually stimulating scene (see Draft EIR page 4.1-14). As with the view from Highway 1, neither the auditorium nor the Event Center would extend above the existing tree line, nor would the buildings dominate the distant view from this location.

Additionally, as stated on Draft EIR page 4.1-10, the colors on the simulations were specifically selected to provide high contrast with the existing setting to allow readers to see the change in the views readily. The color palette that would actually be used would be consistent with the campus's grassland/forest setting or with the colors of existing buildings in the area and would be subject to Design Advisory Board review as part of the planning process. Moreover, the photographs on which the simulations are based represent only a limited portion of the views available from these vantage points, centered on the proposed buildings. As a result of both of these factors, the simulations likely overestimate the ultimate visibility and prominence of proposed development.

**Response to Comment LA-9-18.** The City of Santa Cruz, Santa Cruz County and the University have agreed to share the costs of the improvements needed to repair erosion conditions in the Pogonip. The University agreed to pay the full cost of improvements identified in the 1995 Bowman Williams report for

Gully G, specifically, developing a detention basin and installing rip-rap for energy dissipation at the end of the pipe. These improvements are included as Item No. 114 of the Infrastructure Improvements Project (see Table 2-2a). The University will reimburse the City for the costs of the other improvements according to the existing cost-sharing agreement. Please see Response to Comment SA-4-2 regarding the status of 1988 University Assistance Measures, and Master Response MIT-1 regarding the University's fair share contributions.

**Response to Comment LA-9-19.** If the Pogonip watershed (including the area draining to Pogonip, Redwood, and Arroyo de San Pedro Regaldo creeks) is broken out from the rest of the San Lorenzo River watershed, the total area of the Pogonip watershed is estimated to be 1,050 acres, with 184 acres (18 percent of total) on the campus. Of the on-campus acreage, 57 acres drain to the subsurface and 127 acres discharge to surface drainages.

**Response to Comment LA-9-20.** Pursuant to an agreement, the County has accepted responsibility for erosion conditions in the Pogonip resulting from runoff from Coolidge Drive and has agreed to pay its share of the cost of improvements needed to address these conditions.

**Response to Comment LA-9-21.** Draft EIR [Figure 4.8-3](#) has been revised to show sinkholes as well as fractures. Please see Final EIR, Volume IV, *Changes to Draft EIR Text*.

**Response to Comment LA-9-22.** LRDP Mitigation HYD-3C and -3D have been revised to improve their effectiveness. Please see Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*, Revised Table 2-1. The goal of LRDP Mitigations HYD-3, especially HYD-3C and -3D, is to maintain runoff at pre-project conditions for volume, peak flow rate, and duration. To the extent that the mitigation measures are successfully implemented, they will adequately minimize any offsite impacts of new development within the Pogonip watershed, as well as the on-campus impacts of new development within the Moore Creek watershed. For reasons presented in the Draft EIR and further explained in Response to Comment LA-6-51, no significant impacts to Moore Creek downstream of the campus (including the Moore Creek Preserve) are anticipated. As described in the Draft EIR, to avoid and minimize water quality impacts on the Pogonip drainages, the Campus would implement LRDP Mitigations HYD-3C and -3D. Nonetheless, the impact could nonetheless be significant and unavoidable for reasons presented in the Draft EIR and in Response to Comment LA-9-23 below.

**Response to Comment LA-9-23.** Mitigation measures to limit runoff from new development are intended to reduce the impacts of new development on erosion and sedimentation to a less-than-significant level. Even so, the impact on the Pogonip drainages was conservatively described as significant and unavoidable, because the feasibility of implementing the mitigation measures for every potential project is not known at this time. It is anticipated that mitigation measures for those projects, as revised in the Final EIR, will reduce erosion and sedimentation impacts to less-than-significant levels. See Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*, Revised Table 2-1. However, this cannot be confirmed without knowing the details of all the future projects. Regarding potential impacts on the Moore Creek Preserve, please see Response to Comment LA-6-51. Also, please see Master Response HYDRO-1 regarding LRDP Impact HYD-3.

**Response to Comment LA-9-24.** LRDP Mitigations HYD-3C and -3D are designed to limit runoff to pre-project conditions. This would include projects that drain to Coolidge Drive and the Pogonip. Also see Response to Comment LA-9-23 above.

**Response to Comment LA-9-25.** For reasons presented in Response to Comment LA-6-51, with the implementation of the mitigation measures included in the EIR, it is anticipated that there would be no significant increase above existing conditions in discharges in Moore Creek downstream of the campus. Furthermore, the sediment and erosion control mitigation measures in conjunction with detention provided by the Arboretum Pond would help control discharge of sediment to Moore Creek downstream of the campus. Because no significant impacts from new development are indicated, the University does not need to further characterize the downstream drainages in Moore Creek watershed at this time, and no mitigation is required.

**Response to Comment LA-9-26.** With respect to the east branch of Moore Creek downstream of the campus, please refer to Response to Comment LA-6-51. As discussed in the Draft EIR (page 4.8-34), no development is proposed for the campus lands west of Empire Grade Road that drain to the Moore Creek western tributary, and therefore there would be no increase in runoff into that tributary as a result of the 2005 LRDP. Because the proposed 2005 LRDP would not result in any significant hydrologic changes to the Moore Creek drainages downstream of the campus, it also would not result in any significant impacts to California red-legged frog habitat within the Moore Creek Preserve, impacts related to erosion and bank stability, or effects on private property adjacent to the drainages. No changes to the analysis or the conclusions in the Draft EIR are required. Also refer to Response to Comment LA-9-25.

**Response to Comment LA-9-27.** Please refer to Response to Comment LA-9-24.

**Response to Comment LA-9-28.** No increase in flooding is expected since peak flows would not be increased. Although there could be a small increase in the duration of flows, LRDP Mitigation HYD-3D, as revised in the Final EIR (Volume IV, Chapter 3, Revised Table 2-1) is intended to maintain the volume of runoff at pre-project levels so the increase in the duration of flows should not be substantial. Maintaining infiltration rates is also expected to maintain spring and seep flows at pre-project levels.

In the event that the current infiltration rates are not maintained, the water that would have infiltrated would instead drain to surface creeks and then enter the karst system via sinkholes and swallow holes. It is possible that in some areas, this may reduce the time required for water to reach the springs and seeps. However, for most areas the karst aquifer would serve as a detention basin and dampen the effect of this runoff on downstream springs and seeps.

Please also refer to Response to Comment I-34-47 which explains why under large storm event conditions (which are more likely to produce flows that could result in flooding in drainages), the volume of runoff that would drain into the karst system under the 2005 LRDP conditions would be similar to the volume of runoff under current conditions, and therefore spring discharge rates following large storms would not be significantly different under 2005 LRDP conditions from the rates under current conditions.

**Response to Comment LA-9-29.** Please refer to Response to Comment I-74-1.

**Response to Comment LA-9-30.** Under existing conditions, some sinkholes have filled with sediment and some have been clogged temporarily before opening back up as a result of natural processes. Some of the storm drainage improvements included in the Infrastructure Improvements Project would address

existing sinkhole capacity problems and include diverting runoff for surface dispersion and cleaning out sediment.

With respect to sinkholes in the Moore Creek drainage, on page 4.8-39 the Draft EIR notes that some sinkholes could potentially fill with sediment and that in that case the increased runoff would leave the campus as surface discharge. However, the Draft EIR explains further in the same paragraph that all new capital projects would be required to comply with the mitigation measures under LRDP Mitigation HYD-3 (as revised in the Final EIR, see Volume IV, Chapter 3), which are intended to minimize the generation of additional runoff. As explained in Master Response HYDRO-1, the Draft EIR states that this impact could be significant because it may not be feasible at some project sites to design measures that would decrease the volume of flow to the extent needed to prevent an increase in erosion compared to existing conditions. However, in the case of Moore Creek, should there be an increase in runoff that reached the Main Stem, or the West Entrance Fork, these flows would be detained by the Arboretum Pond and other impoundments. In other words, it is anticipated that any impacts of campus development on Moore Creek would occur above the Arboretum Dam. Downstream of the Arboretum Dam, the storage capacity behind the dam will dampen any effects of campus development.

**Response to Comment LA-9-31.** Please refer to Responses to Comments LA-6-51, LA-9-26, and LA-9-30 above.

**Response to Comment LA-9-32.** Draft EIR Table 4.0-1 includes pending projects within the vicinity of UC Santa Cruz. See Response to Comment LA-9-12. The sentence referenced, on Draft EIR page 4.9-5, indicated that development plans or proposals within the City limits in the vicinity of UC Santa Cruz consist primarily of infill development.

**Response to Comment LA-9-33.** Comment noted. Draft EIR Figure 3-1 does not show City and County boundaries. Portions of the UC Santa Cruz campus west of Empire Grade Road and the north and upper campus are within the unincorporated Santa Cruz County.

**Response to Comment LA-9-34.** Please refer to Master Response LU-1, which addresses the County's concern regarding consistency with the City and County general plans.

**Response to Comment LA-9-35.** The issues referenced are addressed in Draft EIR Section 4.11 (*Population and Housing*), and Section 6.3 (*Growth Inducing Impacts*).

**Response to Comment LA-9-36.** The environmental impacts of population growth are evaluated in several sections of the 2005 LRDP Draft EIR. Direct impacts are evaluated under Public Services, Recreation, Utilities, and Traffic sections. Indirect impacts associated with population growth are also addressed in analyses of air quality and noise.

**Response to Comment LA-9-37.** The data reported in Draft EIR Table 4.11-2 are based on the constrained forecasts. According to AMBAG, only the constrained forecasts are available, and there are no published unconstrained forecasts (Muck 2005).

**Response to Comment LA-9-38.** Please see pages 2, 10, and 55 of the AMBAG forecasts (AMBAG 2004), which state that constrained forecasts of population and housing growth were adopted for Santa Cruz County.



**Response to Comment LA-9-39.** The Draft EIR explains on pages 4-4 and 4.11-6 that AMBAG forecasts include substantial employment growth within the city of Santa Cruz, and the AMBAG travel demand model shows employment growth on campus in excess of the growth envisioned under the 2005 LRDP. Therefore, the regional employment forecasts include all of the new employees who would be added to the campus under the 2005 LRDP. Also, please see Responses to Comments LA-3-19, LA-3-20 and LA-2-110.

The Draft EIR acknowledges that not all of the growth in student population under the 2005 LRDP is accounted for in the AMBAG forecasts. Therefore, to fully account for and analyze the impact of the proposed project, all of the LRDP-related population (both new students and new employees) is conservatively presented as being incremental to the population projected in the AMBAG forecasts (see Draft EIR, Section 4.11).

**Response to Comment LA-9-40.** Please refer to Response to Comment LA-2-99.

**Response to Comment LA-9-41.** Both enrollment and on-campus housing occupancy levels vary from year to year and from quarter to quarter. Draft EIR Table 4.11-4 presents data from Spring 2004, because that is when the study of residence patterns was conducted. Table 4.11-3 presents data for Fall 2004. Please note that in Table 4.11-3, 6,535 is the design capacity of on-campus student housing, not the number housed. At all UC campuses, Fall is the quarter with the highest enrollment level; therefore, the number of students living in UC housing during that quarter tends to be higher than it is during other quarters. Fall population was used as the baseline for the EIR because it is assumed that enrollment will continue to peak in the Fall Quarter and population-related impacts would therefore be greatest at that time. Typically, however, the Campus uses a 3-quarter average enrollment for planning purposes. In Spring 2003, the number of students housed on campus (i.e., not including off-campus University-sponsored housing) was 5,554. The number of students enrolled on campus that quarter was 13,556 so 41 percent of students were housed on campus, consistent with Draft EIR Table 4.11-4.

**Response to Comment LA-9-42.** Please refer to Response to Comment LA-3-25.

**Response to Comment LA-9-43.** The commenter is correct that the clause is not relevant in determining the household size or population. It should be noted that in estimating household incomes of student households, BAE did not take the income of student dependents into account.

**Response to Comment LA-9-44.** Since the publication of the Draft 2005 LRDP, the Campus has refined the proposed project as the Final Draft 2005 LRDP. The proposed project now reflects the Reduced Enrollment Growth Alternative previously analyzed in the Draft EIR. The Final Draft 2005 LRDP (September 2006) includes the same housing percentage goals originally proposed for a total student population in 2020 (sufficient to accommodate 50 percent of undergraduates and 25 percent of graduate students) and includes a total of about 2,300 student beds in addition to existing campus bed spaces.

**Response to Comment LA-9-45.** Please refer to Master Response ALT-5 (Increased On-Campus Housing Alternative).

**Response to Comment LA-9-46.** Please refer to LRDP Impact POP-1, which presents the distribution of the LRDP-related population under two scenarios. Under both scenarios, approximately 32 percent of the total new students would live in the City of Santa Cruz. By comparison, based on the data contained in Draft EIR Table 4.11-4, historically between 38 to 43 percent of the students have lived in the City of

Santa Cruz. There are at least three reasons why a lower percentage of new student population is estimated for the City. First, the lower percentage reflects the projected lack of availability and cost of housing in the City of Santa Cruz, which are expected to result in a shift towards student residence in the central and southern portion of the county where cheaper housing is expected to be available. Second, the analysis applies this distribution only to the 6,950 additional students, and assumes the existing distribution for the baseline student population. The percentage of all students living in the city would be more than 32 percent but less than it has been historically. Finally, the analysis assumes that all 6,950 students who would be added to the campus by 2020 under the Draft 2005 LRDP (January 2005) would be “new” to the study area; that number is not discounted for students would be already be living in the study area at the time of enrollment.<sup>1</sup> If those students are accounted for, the percentage of newly-enrolled students living in the City would be slightly higher.

With respect to employees, historically 48 to 52 percent have lived in the City of Santa Cruz (BAE 2005). However under the first scenario, about 29 percent of the new LRDP-related employees would live in the City of Santa Cruz whereas under the second scenario this percentage would be 14 percent. The high historic percentages reflect long-term employees who moved into the City during the early years of the campus, are still employed at the campus, and continue to live in the City. The low percentage of new employees who would live in the City of Santa Cruz again reflects the low availability and high cost of housing in the City of Santa Cruz and a shift towards the central and southern portion of the county and outside the county, where cheaper housing is expected to be available. Employee survey data (Table 4.11-4) show that between 1998 and 2002, there was a large increase in the percent of employees commuting to the campus from homes outside the county. This can possibly be attributed to the lack of affordable housing in the city, as well as to the greater range of housing choices outside of Santa Cruz. Furthermore, this low percentage does not account for employees that would be hired from within the study area.

Note that the proposed project has been refined as the Final Draft LRDP (September 2006), which reflects the Reduced Enrollment Growth Alternative previously analyzed in Section 5.4.2 of the Draft EIR. As described in the Draft EIR, Volume II, Chapter 5, and in more detail in the Final EIR, Volume IV, Chapter 2, enrollment growth and employee growth would be reduced, and the magnitude of the housing impact would also be reduced under the Final Draft 2005 LRDP.

**Response to Comment LA-9-47.** Under both scenarios reported under LRDP Impact POP-1, the term “employees” encompasses both faculty and staff. Also refer to Master Response POP-1 (Impact on Regional Housing).

**Response to Comment LA-9-48.** Please see Master Response POP-1.

**Response to Comment LA-9-49.** It is assumed that the 125 new housing units that are planned under the 2005 LRDP would house 138 employees based on 1.1 employees per housing unit. This rate is based on a survey of housing patterns among existing campus employees. No changes to the analysis are necessary.

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<sup>1</sup> Note that the Campus has refined the project, and now projects a total student population in 2020 of 19,500, or 5,400 additional students.

**Response to Comment LA-9-50.** Comment noted. Please refer to Master Response PD-1 regarding the magnitude of enrollment growth. Also, please note that the Final EIR includes revised LRDP Mitigations POP-3A, -3B and -3C to more effectively address housing issues. See Final EIR, Volume IV, Chapter 3, Changes to Draft EIR Text, Revised Table 2-1 for the full text of these measures.

**Response to Comment LA-9-51.** Please refer to Response to Comment LA-9-50.

**Response to Comment LA-9-52.** The text on Draft EIR page 3-38 acknowledges that the proposed 2005 LRDP would increase operations and population that could contribute to an increased demand for police protection services. The impact of proposed growth under the 2005 LRDP on the provision of police protection services is evaluated in Section 4.12, *Public Services* (see LRDP Impact PUB-1 and PUB-5). The CEQA standard of significance used in this analysis looks at whether a project would “result in substantial adverse physical impacts associated with the provisions of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts...” An increase in demand for services or programs alone does not constitute a significant impact under CEQA. As the affected police departments have determined that either they have adequate facilities or do not have plans for expansion of facilities, there would be no environmental impacts from the provision of new facilities (see Draft EIR page 4.12-11).

**Response to Comment LA-9-53.** On page 4.12-3, the Draft EIR indicates that the UC Santa Cruz Fire Department provides sufficient staff and equipment to fulfill its role as a first response unit and to respond to more than one life safety emergency at a time. (A “life safety emergency” is defined as a non-fire emergency, such as a health emergency). This information is based on the 2004 Annual Mitigation Monitoring Report prepared by the Campus, which is based on consultation with the UC Santa Cruz Fire Department. The Campus monitors the UC Santa Cruz Fire Department in the Annual Mitigation Monitoring Program Reports for the 1988 LRDP EIR, based on criteria established in the that EIR. The criteria indicate that in order to permit the campus fire station to fulfill its role as a first response unit and to respond to more than one life safety emergency at a time, the following will be required:

1. All new non-type I structures will be provided with supervised automatic fire sprinklers and supervised early warning alarms. New type I structures will be provided with automatic fire sprinklers as required by State codes.
2. Adequate UC Santa Cruz Fire Department staffing will be provided to allow three fire fighters to be on duty at all times.
3. The need for additional staff, beyond that described above, and equipment to effect compliance with the mitigation measure is not currently anticipated. However, it is possible that such additional staff and equipment may be required in the future. They will be provided if it can be clearly demonstrated that they are required in order to comply with the provisions of the mitigation measure.

According to the 2004 Annual Mitigation Monitoring Report, the Campus meets the above criteria and fulfills its role as a first response unit and can respond to more than one life safety emergency at a time.

**Response to Comment LA-9-54.** It is acknowledged that the SCFD also assists with emergency management services, hazardous materials-related responses, and other responses to related life-threatening emergencies.

**Response to Comment LA-9-55.** It is acknowledged that the 51 staff members include 19 paramedics.

**Response to Comment LA-9-56.** The information related to the expected SCFD’s emergency call volume associated with the proposed campus-related population is noted for the record. The impact of proposed growth under the 2005 LRDP on the provision of fire protection services is evaluated in Section 4.12, *Public Services* (see LRDP Impact PUB-1 and PUB-5). The CEQA standard of significance used in this analysis looks at whether a project would “result in substantial adverse physical impacts associated with the provisions of new or physically altered governmental facilities, the construction of which could cause significant environmental impacts...”. An increase in demand for services alone does not constitute a significant impact under CEQA.

The UC Santa Cruz Fire Department building would need to be expanded within the planning horizon of the 2005 LRDP to accommodate new staff and an additional fire engine. The expansion of the station could contribute to the environmental effects that are fully analyzed in the 2005 LRDP EIR. Additionally, as the Santa Cruz Fire Department has determined that they have adequate facilities to serve the City, there would be no environmental impacts from the provision of new or expanded facilities.

**Response to Comment LA-9-57.** The discussion on Draft EIR page 4.13-5 is consistent with the information provided in City General Plan Table L-7, as it does distinguish between those areas considered to be “Parks” and those areas considered to be “Natural Areas.” For example, Antonelli Pond is described as a natural area, whereas Harvey West Park is described as a community park. Therefore, no changes to the text on Draft EIR page 4.13-5 are warranted.

**Response to Comment LA-9-58.** LRDP Impact REC-1 (Draft EIR page 4.13-10) evaluates the impacts of the 2005 LRDP on-campus daily and residential population related to the need for new recreational facilities off-campus. The on-campus population is not expected to contribute to the need for new recreational facilities in the City, as this population would generally not use off-campus recreational facilities. Please refer to Response to Comment LA-2-120, which indicates that the recreational impacts associated with the LRDP-related population that would live off campus are analyzed under cumulative impacts (LRDP Impacts REC-4 and REC-5). In particular, LRDP Impact REC-4 calculates the demand for active recreational and park facilities, based on the City’s park standards and indicates that the 2005 LRDP off-campus population would result in the need for about 17 acres of parks. Please refer to Response to Comment LA-2-125 for additional information about the EIR’s conclusion regarding LRDP Impact REC-4.

**Response to Comment LA-9-59.** LRDP Mitigations REC-2C has been revised to improve its efficacy. Please refer to Volume IV, Chapter 3, Revised Table 2-1, of the Final EIR for changes to the Draft EIR text.

**Response to Comment LA-9-60.** LRDP Mitigation REC-2C has been revised to improve its efficacy. Please refer to Final EIR, Volume IV, Chapter 3, Revised Table 2-1 for the text of revised mitigation measures. LRDP Mitigation REC-2D has been retained as is, to augment the measures described in LRDP Mitigation REC-2C.

**Response to Comment LA-9-61.** The relocation of the Cowell Wilder Regional Trail on the UC Santa Cruz campus would not impinge on, impact, or otherwise require realignment of the trail within the

Pogonip. The affected section of the trail would not include the segment that crosses the boundary between the campus and the Pogonip. Therefore, the requested revisions and additional mitigation have not been included in the EIR.

**Response to Comment LA-9-62.** The increased use of Antonelli Pond trails would be related to campus employees working at the 2300 Delaware Avenue facility who may take a short walk at lunch or after work, as described on Draft EIR page 4.13-12 (Volume II) and Draft EIR page 4-46 (Volume III). Antonelli Pond could potentially be subject to substantial physical deterioration from UC Santa Cruz employees because it is immediately adjacent to the Delaware Avenue facilities. There also may be some additional use of the Moore Creek Preserve from UC Santa Cruz employees at this facility and could be a focus of increased use before and after work and during the lunch hour. However, due to the distance of the Moore Creek Preserve from the 2300 Delaware Avenue property (approximately 1 mile), the lack of visible trailheads along Highway 1, and the lack of on-site parking, it is unlikely that the 2300 Delaware Avenue project would lead to substantial physical deterioration of the trail system from increased use. Moreover, there would be no student or residential population at 2300 Delaware Avenue that might use the Preserve for longer hikes during the day or the weekends.

**Response to Comment LA-9-63.** Increased demand for recreational facilities is not in itself an environmental impact. Please see Responses to Comments LA-2-125 and LA-9-58 for additional information about LRDP Impact REC-4.

**Response to Comment LA-9-64.** Please see Responses to Comments LA-2-125 and LA-9-58 for additional information about LRDP Impact REC-4.

**Response to Comment LA-9-65.** Please see Response to Comment LA-2-125 regarding the CEQA standard of significance for recreational resources and related mitigation requirements. It should be noted that owners of housing occupied by off-campus LRDP-related population that would contribute to impacts on City parks do pay City taxes.

**Response to Comment LA-9-66.** The tennis courts at 2300 Delaware Avenue will be available for public use, as are all other UC Santa Cruz recreational facilities under LRDP Mitigation REC-4. The proposed development at 2300 Delaware Avenue would not affect the existing public use of the tennis courts. LRDP Mitigation REC-4 is provided even though the impact of cumulative growth on off-campus recreation facilities under LRDP Impact REC-4 is less than significant. Therefore, additional mitigation, including a commitment to maintain the tennis courts at a specific level, is not required to mitigate an impact.

**Response to Comment LA-9-67.** LRDP Impact REC-4 (Draft EIR page 4.13-15) acknowledges that there is a deficit in park acreage on the west side of the city and that the City will examine the possibility of developing a new neighborhood park on Shaffer Road and will also make improvements to Derby Park, to increase the availability of park lands to serve population on the west side. Please also see Responses to Comments LA-2-125 and LA-9-58 for additional information about, the CEQA standard of significance used in this analysis, LRDP Impact REC-4, and mitigation requirements.

LRDP Impact REC-5 (Draft EIR page 4.13-15), the 2005 LRDP contribution to deterioration of recreational facilities, was determined to be less than significant because: (1) substantial recreational acreage (including both developed parkland and open space) is available in and near the city and on the

campus; (2) the availability of a wide variety of facilities and a large amount of recreational land in the region likely would minimize potential effects of overuse within the city because the new users would be distributed among a large number of park facilities; and (3) the 2005 LRDP-related population would represent a small portion of the overall population expected to use city parks. Overall, the contribution of the 2005 LRDP to substantial physical deterioration of park and recreation facilities would not be cumulatively considerable.

**Response to Comment LA-9-68.** Quantification of vehicles parked within neighborhoods under the West Side Residential Parking Permit Program (RPP) would be problematic because it would be difficult to distinguish between parked vehicles related to UC Santa Cruz and those not related to UC Santa Cruz. Without distinguishing the source of parked vehicles, a benchmark for measuring an increase in demand from UC Santa Cruz-related vehicles is not possible. Also, please refer to Response to Comment LA-4-6.

**Response to Comment LA-9-69.** The City of Santa Cruz provided the EIR traffic consultant with a table titled “Five Year Capital Improvement Program” (City of Santa Cruz 2005b) which included a list of planned and proposed transportation improvements and the proposed funding mechanism. This list was provided to the consultant in response to a request for a list of planned transportation improvements. Only transportation projects which were identified to be funded through the City’s Traffic Impact Fee program (a current program) were included in the list of planned transportation improvements presented on page 4.14-19 of the Draft EIR and used in the analysis. The comment regarding planned regional transportation improvements is noted. The timelines for the Highway 1/17 merge lane project and the Highway 1 HOV project are further described in the Recirculated Draft EIR--Additional Traffic Analysis (Final EIR Appendix A in Volume VI).

**Response to Comment LA-9-70.** Please refer to Master Response TRAFFIC-1 (Traffic Standards of Significance).

**Response to Comment LA-9-71.** Please refer to Master Response TRAFFIC-1.

**Response to Comment LA-9-72.** Trip generation rates used in the Draft EIR were derived from campus traffic counts conducted in the fall of 2003 and winter of 2004. Trip generation rates are developed by dividing actual traffic volumes by an independent variable. The independent variable must be some value that is both known in existing conditions and that can be projected into the future. For the 2005 LRDP, the independent variable selected was campus population, which includes students, faculty and staff. This variable was used to develop a generation rate of trips per campus capita. In order to account for a projected reduction in traffic due to an increase in on-campus student housing, it was necessary to separate the trips into those made by students and those made by faculty and staff. Table 1 below shows the derivation of trip generation rates by students and faculty/staff, based on the following procedure:

Trips per capita (trip rates) were computed by dividing traffic counts by the total campus population (students + faculty + staff). The separation of students from faculty/staff was computed by weighting the trip rates by the proportion of students and faculty/staff on campus in 2003/2004. The student trip rate was weighted by 80 percent and the faculty/staff rate was weighted by 20 percent.

Existing trip generation rates reflect that approximately 44 percent of undergraduate students currently live on-campus.

**Table 1  
Trip Generation Rates**

	<b>Existing (2003-04)</b>	<b>Student</b>	<b>Faculty/Staff</b>
2004 Campus Population	18,258	14,600	3,658
AM Peak Traffic Volume	1,452		
AM Peak Trips/Capita	0.0795	0.0796	0.0794
PM Peak Traffic Volumes	2,040		
PM Peak Trips/Capita	0.1117	0.1118	0.1115
Daily Traffic Volumes	24,890		
Daily Trips/Capita	1.3632	1.3638	1.3608
<b>Future Trip Generation Rates</b>			
AM Peak Trips/Capita		0.0752	0.0794
PM Peak Trips/Capita		0.1034	0.1115
Daily Trips/Capita		1.2784	1.3608

Source of data: UCSC Transportation and Parking Services (TAPS), 2004. Weighting of trip rates reflects the 2004 proportion of students and faculty/staff (80%/20%).

The derivation of future trip generation rates includes a 6 percent reduction in the student component of the trip generation rate to reflect the proposed increase in on-campus housing to the level necessary to house 50 percent of undergraduates and 25 percent of graduate students. These reductions are considered appropriate to reflect the fact that the project includes an increase in on-campus housing and an increase in the number of students residing on-campus, about half of which are freshmen and sophomores who are not permitted to park vehicles on campus, and thus would not be expected to generate vehicle trips.

**Response to Comment LA-9-73.** As described in Response to Comment LA-9-72, the trip generation rates for the Draft 2005 LRDP analyzed in the Draft EIR were derived using an independent variable of total campus population, not just students. Note that the Campus has refined the proposed project, as the Final Draft 2005 LRDP (September 2006), which represents the Reduced Enrollment Growth Alternative previously analyzed in the Draft EIR. The project as currently proposed includes a reduced population and would generate a smaller number of new trips than analyzed for the Draft EIR.

The trip generation rates were derived using a 2003-04-student population of 14,600, which was the average winter/fall quarter enrollment level (not 14,050 as indicated in the comment; this was the three-quarter average for 2003-04) and a faculty and staff population of about 3,660. Additionally, off-campus impacts were measured during the AM and PM peak hours. As these are the hours when the "reasonable worst case" congestion occurs, it is therefore appropriate for use in deriving trip generation rates. Table 2 below compares the trip generation used in the Draft EIR (using rates derived from total campus population) to the trip generation determined using students as the independent variable. Deriving rates from a student independent variable does not distinguish trips generated by students from those generated by non-students, UC employees, non-UC employees, construction workers, and visitors so the rate cannot be adjusted to reflect an increase in student housing. Additionally, using rates that distinguish between students and non-students allows for a more detailed trip generation estimate as shown in the table below.

**Table 2  
Traffic Generation Based on Rates Derived from Total Campus Population  
(see Draft EIR Table 4.14-10)**

	<b>Total Population</b>	<b>AM Peak</b>	<b>PM Peak</b>
Students	21,000	1,579	2,172
UC employees	4,702	376	517
Non-UC Employees	250	20	28
Construction Workers	200	16	22
Visitors	250	19	26
Total		2,010	2,765
<b>Traffic Generation Based on Rates Derived from Student Population (Without Reduction for Increase in On-Campus Housing)</b>			
		<b>AM Peak</b>	<b>PM Peak</b>
Students	21,000	2,100	2,940
Difference Between Methods	26,402	4%	6%

The difference in peak hour trips using the two different independent variables is an average of five percent, not 33 percent as indicated in the comment. If the rates derived using students as the independent variable could be adjusted to reflect the increase in on-campus housing, the resulting traffic generation between the two methods would be almost identical. The derivation of existing trip generation rates reflects that 44 percent of the University’s students reside on campus, and the baseline traffic counts (and derived trip generation rates) capture the trips these students make for work, recreation, and shopping trips off-campus. The derivation of future rates, even with a reduction for increased on-campus housing, also reflects that students residing on-campus would make these same trips off-campus.

**Response to Comment LA-9-74.** Please refer to Response to Comment LA-2-158.

**Response to Comment LA-9-75.** Please refer to Response to Comment LA-10-4 and LA-9-11.

**Response to Comment LA-9-76.** Please refer to Response to Comments LA-6-88 and LA-2-149.

**Response to Comment LA-9-77.** Table 4.14-16 shows the project’s contribution to “total intersection traffic volumes” for the purpose of identifying significant impacts consistent with the City of Santa Cruz’ adopted significance criteria and as identified by the City’s consultant (City of Santa Cruz undated). Please refer to Master Response MIT-1 with respect to the University’s fair share contributions.

**Response to Comment LA-9-78.** The University will contribute its fair share to the cost of traffic improvements that mitigate impacts to which University traffic contributes, as defined on page 4.14-46 of the Draft EIR and as described in Master Response MIT-1. Also see that Master Response in regard to the University’s fair share payments and the City’s Traffic Impact Fee. Regarding trip generation rates, please refer to Response to Comments LA-9-72 and LA-9-73.

**Response to Comment LA-9-79.** Despite challenges in improving its current level of Transportation Demand Management (TDM) success, the University will continue to attempt to increase the effectiveness of its programs and has identified a number of new programs that it will consider. Because



the effectiveness of these new programs is unknown, the Draft EIR does not assume, for purposes of the EIR analysis, that the effectiveness of TDM programs will be increased.

**Response to Comment LA-9-80.** Please refer to Response to Comment RA-1-22. All potential operational improvements that could be made at the affected off-campus intersections (signal timing, phasing, re-allocation of existing lanes, and new signals) were evaluated as potential mitigation measures. In some cases, residual impacts would remain even after the implementation of the proposed mitigation measures. It is possible that the remaining impacts at some of the affected intersections could be reduced to a less-than-significant level if additional land could be acquired and lanes added to the roadway to provide additional capacity. Mitigation measures that would involve acquisition of additional right-of-way in order to add new lanes were not proposed in the Draft EIR because it would be difficult even for the City to implement such improvements, as discussed in Response to Comment RA-1-22. However, the University would pay its fair share of the cost of these more effective improvements should the City of Santa Cruz elect to acquire the right of way and undertake the improvements in the future. Please see Master Response MIT-1 regarding fair share contributions.

**Response to Comment LA-9-81.** As discussed in Response to Comment LA-4-6, the 2005 LRDP would provide sufficient parking to meet on-campus demand. This would be true throughout the year. The University continues to support the City's Residential Parking Permit program and potential expansion thereof.

**Response to Comment LA-9-82.** The Draft EIR used the AMBAG travel demand model for development of both the 2010 and 2020 traffic projections for consistency. The traffic consultant preparing the Draft EIR used the City's Traffic Model to ensure internal consistency of intersection analyses. The consultant did not use the traffic projections generated by the City's Traffic Model.

**Response to Comment LA-9-83.** Please refer to Response to Comment ORG-5-5.

**Response to Comment LA-9-84.** Please see Response to Comments LA-2-149, LA-6-88, which explain why the 2020 AMBAG model is the appropriate traffic model for projecting future traffic in the study area. Even if the background 2020 traffic volumes were high, it would not affect the noise analysis and its conclusions. This is because of the methodology/approach used to estimate the noise impacts. To evaluate noise impacts, the Draft EIR first established existing noise levels by conducting measurements at a number of representative locations. These measurements were also used to calibrate the noise model. Next, using the 2020 Without Project traffic volumes, noise levels in 2020 without the project were estimated. Lastly, using 2020 With Project traffic volumes, the noise levels in 2020 with the project were estimated. The results for off-campus locations that were modeled are presented in Table 4.10-5. As shown in this table, at LT-3 on High Street (one of the modeled locations), the total increase in noise levels between 2005 and 2020 would be 1 dBA. Of this increase, LRDP-related traffic would be responsible for 0.8 dBA and non-campus related traffic would be responsible for 0.2 dBA. This shows that the traffic model used to develop 2020 traffic volumes does not load High Street with a lot of non-campus related traffic, and also by that token does not dilute the noise impacts of the proposed LRDP.

**Response to Comment LA-9-85.** The noise analysis conducted for the Draft EIR shows that the increase in traffic along High Street and other residential streets south of the campus related to campus growth under the 2005 LRDP would not result in a significant increase in the noise levels compared to existing noise levels and compared to noise levels that would exist in 2020 without the proposed project. The

traffic volumes used to model noise impacts included a vehicle mix of cars, construction trucks, delivery trucks, and buses. Because no significant traffic noise impacts would result, no mitigation is required. Nonetheless, the Campus has included a new mitigation measure in the Final EIR under LRDP Impact NOIS-2, Mitigation NOIS-2, to add to both Campus Standards and Campus contract specifications that contractors will be required to use only designated truck routes to access the campus. Bay Street and Empire Grade Road are truck routes designated by the City and the County. Please refer to Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*, Revised Table 2-1.

In addition, note that, consistent with the 2005 LRDP Draft EIR standards of significance, the project-level analysis for each proposed project will include an evaluation of construction impacts, including construction traffic and noise. For the FSH project, as identified in FSH Mitigation TRA-3, the Campus will develop a construction traffic management plan to delineate and monitor construction routes and schedule, and monitor construction traffic into and through the FSH complex, in order to prevent conflicts between construction traffic, other vehicles, and pedestrians and bicycles. Project-level analyses of future development projects will also assess these potential impacts and would implement similar mitigation measures as appropriate.

**Response to Comment LA-9-86.** Ordinary wear and tear on city streets due to construction and traffic is not a significant environmental impact under CEQA. Paving deterioration is not identified as a significant environmental impact in the 2005 LRDP EIR; therefore, no mitigation is required. The University's 1988 LRDP EIR also did not identify deterioration of Bay Street paving from construction truck traffic as an environmental impact. However, under a University Assistance Measure generated in response to comments on the 1988 LRDP EIR, the University committed to make a fair share contribution toward the cost of repairs of Bay Street pavement. In 1992, the City resurfaced Bay Street between Escalona and Mission Street. Subsequent to the repaving of this segment, the City did not carry out any further the paving repairs during the term of the 1988 LRDP, so the University did not make its fair share contribution during that time. In 2002 and 2003 the City completed reevaluations of Bay Street and determined expected costs for paving repairs. Since publication of the Draft EIR, the City of Santa Cruz has conducted a study of Bay Street traffic entitled "The Refuse and Construction Vehicle Street Maintenance Cost Analysis—Final Report" (December 23, 2005), which includes truck counts. The City is considering implementing a fee to collect equitable contributions from developers whose construction traffic contributes to paving deterioration. When the City proposes to conduct paving repairs, the University will negotiate with the City of Santa Cruz to determine the University's fair share contribution for Bay Street paving repairs. Please see Master Response MIT-I, which describes the University's fair share mitigation contributions.

**Response to Comment LA-9-87.** The Draft EIR evaluates the combined impacts of the main campus, the Marine Science Campus, and the proposed 2300 Delaware Avenue site. Traffic from the Marine Science Campus is included in the 2010 and 2020 traffic projections. The traffic between the main campus and the 2300 Delaware Avenue site is specifically identified in the trip calculations (Table 4.1.4-10 in Volume II and Table 4-8 in Volume III of the Draft EIR). Western Drive is analyzed in both the LRDP and 2300 Delaware Avenue Project analyses.

**Response to Comment LA-9-88.** The Campus has reviewed Figure 4.14-4 in the Draft EIR and determined it to be consistent with the bicycle facility graphic on the city's website and the Master Transportation Study. The figure shows both existing and planned facilities.

**Response to Comment LA-9-89.** The City of Santa Cruz' currently adopted thresholds of significance do not vary with the seasons. Therefore, the thresholds of significance were applied to summer conditions in the same manner they were applied to fall and spring conditions.

**Response to Comment LA-9-90.** The University acknowledges that the City of Santa Cruz has adopted a new traffic impact fee ordinance since publication of the Draft EIR.

**Response to Comment LA-9-91.** The Draft EIR identified mitigation measures for the intersections of Bay Street/Mission Street and King-Union/Mission Street. The mitigation measures are identified as conceptual only. The design of the improvements might identify further requirements such as the removal of parking and roadway widening. Also, please refer to Response to Comment RA-1-22.

**Response to Comment LA-9-92.** Please refer to Response to Comment LA-9-81.

**Response to Comment LA-9-93.** Please see Response to Comment LA-6-112 and Master Response UTIL-1. Regarding specific infrastructure that would be needed to serve campus growth, including the northward expansion of the campus's developed areas, the Campus discussed the need for additional improvements with City staff during preparation of the 2005 LRDP EIR. Other than expansion of the pumping capacity of Pump Stations 2 and 6, the City did not identify the need for new facilities. Based on that information, the Draft EIR (page 4.15-20) analyzed the potentially significant environmental effects from improvements to the off-campus water infrastructure, under LRDP Impact UTIL-1. The same impact discussion also discloses the on-campus water distribution system improvements that would be necessary to serve campus growth. Also see Response to Comment LA-9-106. Regarding the need for LAFCO approval to expand the on-campus water distribution system, please also see Response to Comment LA-5-1.

The Draft EIR includes an evaluation of the proposed project's impact on water supply in both normal water years and during drought conditions and finds the impact to be significant. In Chapter 5, *Alternatives*, the Draft EIR evaluates the impact on water supply for alternate growth scenarios, including three lower growth scenarios (Reduced Enrollment Growth, Satellite Campus at Fort Ord, and No Project alternatives).

The City's scoping comment with respect to a comprehensive engineering audit of water management practices and equipment at the campus concerns existing development and is not relevant to the EIR's analysis of the impacts of growth under the 2005 LRDP. However, see Master Response UTIL-2 with respect to LRDP mitigation measures to reduce water demand on the campus. A new mitigation (UTIL-9D) has been added, requiring the Campus to conduct an engineering water audit within one year following approval of the 2005 LRDP. Please refer to Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*, Revised Table 2-1, for the full text of this measure.

The 1988 LRDP EIR concluded that by 2005, cumulative growth, including that of the campus, would result in water shortages under drought conditions (in about 10 percent of years). The 2005 LRDP EIR draws a similar conclusion. The City's water supply planning documents also indicate that, with the current water demand for the system, severe shortage would result in about 10 percent of years. The City

is planning a desalination plant to supplement the City's water supply during drought conditions. As discussed in Master Response MIT-1, the University will comply with Government Code 54999 requirements and will pay its fair share of the cost of all public utility improvements that are needed to serve the campus. With respect to UAM measures, also see Response to Comment SA-4-2.

With regard to the appropriate baselines for determining the significant effect on the environment of the proposed 2006 LRDP, under CEQA the baseline for environmental impact analysis consists of the physical environmental conditions that exist at the time that the NOP was issued. The NOP for this EIR was issued in January 2005. Accordingly, 2004 (or 2003 where 2004 data are not available) is the baseline from which the impacts of implementation of the 2005 LRDP have been determined.

**Response to Comment LA-9-94.** Please see Response to Comment LA-3-28.

**Response to Comment LA-9-95.** Please refer to Response to Comment LA-5-1.

**Response to Comment LA-9-96.** Please refer to Response to Comment LA-3-28.

**Response to Comment LA-9-97.** Please refer to Response to Comment LA-6-112 and Master Response UTIL-2 regarding the mitigation measures in the 1988 LRDP EIR and the new mitigation measures identified in the 2005 LRDP EIR, respectively. Response to Comment SA-4-2 provides a detailed description of the status of implementation of the prior 1988 LRDP EIR mitigation measures and associated University Assistance Measures (UAMs). The University will comply with Government Code 54999 requirements with regard to paying its fair share of the cost of water supply improvements that serve the campus, as described in Master Response MIT-1.

**Response to Comment LA-9-98.** Please refer to Master Response UTIL-2, which provides more information on the water supply mitigation measures included in this EIR. Please also refer to Response to Comment SA-4-2, which indicates that the 2005 LRDP EIR includes only those mitigation measures that are feasible.

**Response to Comment LA-9-99.** Please see Master Response UTIL-2 regarding the status of retrofitting existing building fixtures.

**Response to Comment LA-9-100.** Please refer to Master Response UTIL-2, which provides more information on the water supply mitigation measures included in this EIR.

**Response to Comment LA-9-101.** Please refer to Section 5.2.15.3 in Master Response UTIL-1 for information that demonstrates that the campus's growth under the 2005 LRDP falls within the City's water demand projections for the campus.

**Response to Comment LA-9-102.** Please refer to Master Response UTIL-1 (Section 5.2.15.3), which discusses the effect of campus growth under the 2005 LRDP (including the off-campus population) on water supply.

**Response to Comment LA-9-103.** Please refer to Section 5.2.15.3.1 in Master Response UTIL-1 as to why a discussion of a "project-only" water supply analysis would not accurately describe the impacts of the 2005 LRDP on water supply.

**Response to Comment LA-9-104.** Please refer to Section 5.2.15.2 in Master Response UTIL-1, which provides more information on how the campus's water demand estimate was developed. It also explains why estimates of water demand in five-year increments would not provide useful information. Please also see Section 5.2.15.2 in Master Response UTIL-1 regarding the inclusion of summer water usage in the campus's water demand estimate. Draft EIR page 4.15-36 describes the seasonal demand peaks that occur on campus during the summer (May and June) and the fall (October and November), as part of the analysis of the impact associated with campus water demand during summer sessions (LRDP Impact UTIL-9). The analysis indicates that the incremental increase in water demand on the campus during the months of June through August would not be large enough to require the development of a new water source, although some improvements to the City's distribution system may become necessary. These improvements are described under LRDP Impact UTIL-1. Please also see Master Response UTIL-1 (Section 5.2.15.3.1) for additional information about distribution system improvements that may be required to serve expanded summer programs.

**Response to Comment LA-9-105.** Comment noted.

**Response to Comment LA-9-106.** The Draft EIR analyzed the effect of an increase in summer session enrollment on the annual water demand. With respect to impact on water system operations, especially modifications to the Bay Street Reservoir Transmission main (now under construction) that could be required if the City's planned design could not fully accommodate peak campus demand in 2020, the Campus consulted with City staff during the preparation of the Final EIR. In these communications with the Campus, City staff indicated that the design for the 24-inch Bay Street Reservoir transmission main now being installed between the Graham Hill Water Treatment Plant and Bay Street Reservoir is based on computer modeling. Design criteria for that model included the ability to accommodate pumping at the University Pump Station 2 at the rate indicated in the City of Santa Cruz/UCSC Water System Master Plan (Carollo 1996; Almond 2006). The Campus estimated a peak day demand for 2020, assuming a three academic quarter average enrollment of 21,000 FTE, and 4,000 students living on campus during a 10-week summer session (as analyzed in the Draft EIR). The Campus's estimated peak day demand of 1,901 gpm for the second half of June (the period with the highest average gallons per day) would not exceed the maximum day demand of 2,020 gpm, which was assumed for the design of the University Pump Station 2 upgrades. Note that, as described in the Final EIR, Volume IV, Chapter 2 (*Project Refinements*), the Campus plans to recommend to The Regents the adoption of the Final Draft 2005 LRDP (September 2006), which reflects the Reduced Enrollment Growth Alternative previously analyzed in Section 5.4.2 of the Draft EIR. Under this plan the peak day demand would be less than calculated.

**Response to Comments LA-9-107 through 114.** Please refer to Master Response UTIL-2 regarding water supply mitigation measures.

**Response to Comment LA-9-115.** Please see Response to Comment LA-3-29 and Master Response UTIL-1 (Section 5.2.15.2.1) for information about the inclusion of the campus's water demand under the 2005 LRDP in the City's water demand forecasts.

**Response to Comment LA-9-116.** Please refer to Response to Comment LA-3-28 and Master Response UTIL-1 regarding impacts to regional water supply.

**Response to Comment LA-9-117.** The commenter states that because the Draft EIR estimates the increase in campus water demand over 2005 base water demand, it understates the increase in demand,

and that the Draft EIR should have used 2003 (the year closest to the issuance of the NOP) as the baseline for estimating the increment of water that would be needed. The Draft EIR does, in fact, report the campus 2003 water usage and the increase in annual demand between 2003 and 2020. See pages 4.15-32 and 4.15-33. The reason that 2005 data for the campus are used in Table 4.15-3 and in the analysis reported on pages 4.15-43 and -35 is that system-wide demand estimates for the period 2000 through 2020 are available from the City's Integrated Water Plan (IWP) in five-year increments. In addition, the estimate of water conservation savings that would be achieved in the future was available from the City for the period beginning 2005 and not 2003. The use of 2005 water demand data for the campus has no effect on the analysis of impacts, because the impact on water supply is evaluated by comparing the 2020 demand projections (that is, the demand for water in 2020) from the IWP to the available reserve capacity presently in the system. Impacts are then determined by considering whether the 2020 demand will require new supplies and whether acquiring those supplies will have significant environmental impacts. With respect to the specific portion of the 2020 demand associated with LRDP-related off-campus population, please refer to Section 5.2.15.3.2 in Master Response UTIL-1.

**Response to Comment LA-9-118.** Please refer to Master Responses UTIL-1 and UTIL-2 related to water supply and responses to the City's comments above. These responses clearly show that the Draft EIR adequately addresses the impact of the proposed project on the City's water supply, including all the issues raised in the City's comments.

**Response to Comment LA-9-119.** Please refer to Master Response UTIL-1 related to the project's impact on water supply. Please also see Responses to Comments LA-6-7 and SA-4-2 for information about the implementation of the 1988 LRDP EIR mitigation measures once the 2005 LRDP and EIR have been approved and certified. In addition, please see Master Response MIT-1 with respect to the University's obligation, under Government Code 54999, to pay its fair share of the cost of improvements necessary to secure a new water supply source.

**Response to Comment LA-9-120.** There is no conflict between the numbers reported on pages 4.15-33 through -35 of the Draft EIR. The number 174 million gallons per year reported on page 4.15-33 is the increase in annual usage by 2020, over 2003 levels. The Draft EIR also reports the increase over 2005 levels. Please refer to Response to Comment LA-9-117 above, which explains why interpolated 2005 data were used in Table 4.15-3. Response to Comment LA-2-170 reports on actual 2005 water usage data that is now available. The current annual water usage at the Marine Science Campus is about 9 million gallons per year. It is projected to increase to 19.8 million gallons by 2020, a net increase of about 10.8 million gallons. For a discussion of the increased water demand under the Final Draft 2005 LRDP (the Reduced Enrollment Growth Alternative), please refer to Chapter 2, *Project Refinements*, in Volume IV of the Final EIR.

**Response to Comment LA-9-121.** Please see Master Response UTIL-1 (Section 5.2.15.2) and Response to Comment LA-2-170, which discuss the campus water demand estimates provided in the Draft EIR. Note, however, that the Campus has revised the Draft 2005 LRDP (January 2005) to reflect the Reduced Enrollment Growth Alternative analyzed in the Draft EIR. The Final Draft 2005 LRDP (September 2006) includes enrollment growth to 19,500 students, rather than the 21,000 students originally proposed. The water demand under the Final Draft 2005 LRDP would be reduced relative to the original analysis. Please

refer to Final EIR, Volume IV, Chapter 2, *Project Refinements*, for annual water demand under the Final Draft 2005 LRDP. The revised projections, which are lower than the previous estimate, will not result in any new or increased impacts with respect to water supply.

**Response to Comment LA-9-122.** The cumulative impact of the project in conjunction with other growth within the City's water service area is evaluated based on projections of water demand, which are in turn based on projected increases in population, housing and employment in the water service area. It is appropriate to use projections in conducting a cumulative impact analysis. The University does not need to add the demand from the cumulative City projects to the cumulative demand projections because the increased water demand associated with these projects is accounted for in water demand forecasts. As discussed in the Draft EIR and in Master Response UTIL-1, the City's water demand forecasts for cumulative water demand in the service area were used in the EIR. These forecasts are conservative because they are based on AMBAG 1997 population forecasts, which are higher than current forecasts for the service area by about 4,462 persons. As explained on Draft EIR page 4.15-32, in order to avoid double counting, the LRDP-related off-campus population was not added to the service area population. Please see Master Response UTIL-1 (Section 5.2.15.3.2) for additional information about the off-campus water demand forecasts.

**Response to Comment LA-9-123.** Table 2-1 is a summary table, which lists the significant impacts of the proposed 2005 LRDP and any mitigation measures proposed to address these impacts. The full discussion of each impact and associated mitigation is presented in the various sections of Chapter 4 of the Draft EIR. Please see the discussion of LRDP Impact UTIL-2 on Draft EIR page 4.15-24, regarding improvements to the off-campus wastewater system that are necessitated by the campus growth under the 2005 LRDP. The University's fair share fee obligations under Government Code 54999 with respect to public utility improvements are discussed under Master Response MIT-1.

**Response to Comment LA-9-124.** Estimates for the 2020 peak wastewater flows for the main campus under the Draft 2005 LRDP, including the methodology and assumptions used to develop these estimates are provided in Final EIR Appendix B in Volume VI. As discussed in the Draft EIR (pages 4.15-21 to -22), the environmental impacts of expanding on-and off-campus wastewater conveyance facilities to handle the increased flows would be less than significant. Note that the Campus proposes to recommend to The Regents the adoption of the Final Draft 2005 LRDP (September 2006). The Final Draft 2005 LRDP revises the Draft 2005 LRDP (January 2005) to reflect the Reduced Enrollment Growth Alternative previously analyzed in the 2005 LRDP Draft EIR and identified as the Environmentally Superior Alternative. For more information regarding the Final Draft 2005 LRDP, please see Final EIR, Volume IV, Chapter 2, *Project Refinements*. Development and peak flows would be reduced under the revised project, as described in that chapter, and the impact would still be less than significant.

**Response to Comment LA-9-125.** Comment noted.

**Response to Comment LA-9-126.** The University will comply with its fair share fee obligation under Government Code 54999 with regard to paying its fair share of the actual cost of necessary upgrades to public utilities that serve the campus. See Master Response MIT-1 for more detail on the University's Government Code 54999 obligations.

**Response to Comment LA-9-127.** The statement of LRDP Impact POP-1 on page 6-2 is revised by reference to conform to the impact statement on page 4.11-18 and in Draft EIR Table 2-1. Please refer to Final EIR, Volume IV, Chapter 3, Revised Table 2-1 for the correct version of Impact POP-1.

**Response to Comment LA-9-128.** LRDP Impact POP-1 adequately addressed the effect of the LRDP-related population on the City of Santa Cruz. That information is summarized in Section 6.3.2.1. Data on comparative growth rates at UC Santa Cruz and in the city would not provide any additional information that would alter the conclusions of LRDP Impact POP-1 or the analysis in Draft EIR Section 6.3.2.1, and, therefore, has not been added to the EIR.

**Response to Comment LA-9-129.** The Recirculated Draft EIR—Additional Traffic Analysis (provided as Appendix A of Volume VI of this Final EIR) identified a new significant unavoidable impact of the proposed Draft 2005 LRDP, LRDP TRA-6, which affects five freeway locations. This impact has been added to the last bullet point on page 5-4 and to Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*, Revised Table 2-1.

Additional analyses conducted during review and in response to comment on the Draft EIR, and subsequent analysis of the Final Draft 2005 LRDP, did not result in the identification of any new significant impacts of the proposed project.

**Response to Comment LA-9-130.** The Draft EIR analyzes the impacts of the 2005 LRDP on regional public services (police, fire, emergency services, etc.) and concludes that the impact will be less than significant. Public services impacts are identified if project demand would require expansion of public facilities, the expansion of which would result in environmental impacts. Information gathered from public service providers during the preparation of the Draft EIR indicated that no major new facilities or facility expansions were anticipated during the LRDP planning horizon; thus, the impact of the project was determined to be less than significant, both at the program level and cumulatively, as discussed in Draft EIR Section 4.12.2. With respect to recreation impacts, the Draft EIR concluded that the impact of the 2005 LRDP would be less than significant or could be mitigated to less-than-significant levels; because the Campus provides recreational facilities; because these facilities are available to the public; because there is little potential for recreational facilities expansion in the City that would result in environmental impacts; and because the University would provide assistance to the City in annual trail maintenance and would discourage inappropriate bicycle use in the Pogonip, as explained in Section 4.13.2 of Volume II of the Draft EIR.

The findings above are not inconsistent with the Draft EIR conclusion regarding 2005 LRDP impacts on housing supply and with respect to water demand. The housing analysis determined that population growth under the 2005 LRDP, in conjunction with other regional population growth, would result in a demand for housing in the Santa Cruz region that would exceed the supply of housing. Similarly, the Draft EIR analysis concluded that, under drought and normal conditions, the campus's demand for water, cumulatively with other demand in the region, could result in water supply shortfalls—that is, demand could exceed supply, and the cumulative demand would require the establishment of a new water supply source.

**Response to Comment LA-9-131.** With respect to the increase in water use that would result from increased on-campus housing, no growth in housing in the City is assumed. However, since it has been



demonstrated that there will be strong future demand for housing in the City (see Draft EIR, Volume II, Section 4.1.2.5), it is assumed that housing vacated by students who chose to live in new housing on campus would be taken up by others. Both the students residing in new housing on campus and those who replace them in the City of Santa Cruz would contribute to the increased demand for water.

**Response to Comment LA-9-132.** Please refer to Master Response ALT-5 (Increased On-Campus Housing Alternative).

**Response to Comment LA-9-133.** Please refer to Master Response ALT-5 (Increased On-Campus Housing Alternative).

**Response to Comment LA-9-134.** Please refer to Master Response ALT-5 (Increased On-Campus Housing Alternative).

**Response to Comment LA-9-135.** In Table 5-1, the column titled “Housing Needed” represents dwelling units. The data in Table 4.11-10 are correct. Please see Footnote (a) to Table 5-1 regarding the Fort Ord Alternative. Please refer to Final EIR, Volume IV, Chapter 2, *Project Refinements*, for detailed data on the Reduced Enrollment Growth Alternative.

**Response to Comment LA-9-136.** As explained on page 5-13 of the Draft EIR, MBEST is located on a total of 1,041 acres. Of this total area, approximately 605 acres are part of the UC Natural Reserve System and the University is obligated to manage this area as natural habitat in perpetuity under the terms of an Installation-Wide Multi-Species Habitat Management Plan. Therefore, a total of approximately 437 acres of land is available for development. The UC MBEST Master Plan proposes land uses for all 437 acres, to be developed in several phases. The first three phases would consist of approximately 1.3 million gsf of building space on 127 acres of UC MBEST lands within the City of Marina. Later phases would develop the remaining 310 acres of land, which is in unincorporated Monterey County, provided that water allocations are or become available in future. The UC Regents have approved the first three phases of the Master Plan but to date the only specific project that has been approved and constructed is the 26,200-gsf MBEST Center Headquarters Building.

If constructed at the UC MBEST Center, a satellite campus would replace all or part of the 1.3 million gsf envisioned in the Master Plan. This is because the total water allocation for the UC MBEST Center could support a total of about 1.3 million gsf, including the development envisioned under the Master Plan. If a satellite campus were constructed at the UC MBEST Center, it would need to be located on the 127 acres that make up the first three phases of the MBEST Center Master Plan, because that is the land that is closest to existing infrastructure and other development. Because the total water allocation will support only 1.3 million gsf, the satellite campus would displace the Master Plan uses. Although the 310 acres of the UC MBEST Center is “available for development” in the sense that there are no currently approved plans for the land, the existing water allocation would not support its development.

**Response to Comment LA-9-137.** Potable water for the former Fort Ord Army Base (“Ord Community”), including the UC MBEST Center, comes primarily from wells developed in the Salinas Valley water basin. Regulation and supply of water from the Salinas groundwater basin is under the jurisdiction of the Monterey County Water Resources Agency (MCWRA). A 1993 agreement between the federal government and MCWRA provides for groundwater extraction rights for the Ord Community from the Salinas Valley basin of 6,600 acre-feet (AF) per year. The Board of the Fort Ord Reuse

Authority (FORA) retains the authority to allocate Salinas Valley groundwater supplies among the various land-use or land-owning jurisdictions within the Ord Community. Currently FORA allocates 230 AF/year to the UC MBEST Center.

Marina Coast Water District, which operates the water distribution system for the Ord Community, is planning a Regional Urban Water Augmentation Project to increase water supply for the Ord Community by 2,400 AF/year by utilizing recycled water, desalination, or a combination of the two. MCWD expects that this additional water will be available by some time between 2008 and 2011. However, even with the Augmentation Project, MCWD estimates that by 2025 the Ord Community's projected annual demand would exceed supply by approximately 2,500 AF (Byron Buck & Associates, 2005). FORA would determine the allocation of the additional water among its member land use jurisdictions, including the UC MBEST Center. Although UC MBEST may be allocated a portion of the water from the Augmentation Project, which could be used to supply development beyond the approved first three phases of the Master Plan, the size of any such allocation is unknown. Therefore, the Draft EIR analysis of the Satellite Campus at Former Fort Ord Military Base must assume that water used by the satellite campus would come out of the current 230 AF/year allocation.

The size of the satellite campus that could be served by the 230 AF/year allocation depends on the water demand factors used in projecting water demand for the project. Applying the water demand factors used by MCWD in its planning for the UC MBEST Master Plan (a mix of research and development and other space that did not include academic or housing uses), the current allocation would be adequate to serve, at most, about 1.3 million gsf, (Draft EIR, page 5-13). However, MCWD uses a higher water demand factor for higher education and housing; (0.0003 AF/sf per year for higher education, compared with 0.000135 AF/sf per year for Research and Development, for example, and 0.25 AF per unit of multi-family residential housing). Using MCWD's water factors for higher education and housing, the existing water allocation would allow for construction of only 364,000 gsf of academic and administrative space, and about 475 student beds and 18 units of employee housing. Based on this water factor, the UC MBEST facility has limited capacity to serve as a satellite campus.

At the UC Santa Cruz main campus in 2003-04, however, the actual water use for academic and administrative space ranged from 0.00003 to 0.0001 AF/year/gsf, and 0.042 AF/year per bed for housing space in 2003-04 (Arup 2005). These water demand factors are only one-third to one-tenth of the water factor for higher education used by MCWD. If UC Santa Cruz water demand factors were used, the amount of building space that could be served would be larger.

**Response to Comment LA-9-138.** Please see Responses to Comments LA-9-136 and -137.

**Response to Comment LA-9-139.** The population and campus housing number associated with the Fort Ord Satellite Campus Alternative are provided in Table 5-1 of the Draft EIR. The table also shows the housing that would be needed in the study area communities under this alternative. Because the campus population-increase under this alternative would be smaller than under the Draft 2005 LRDP, other population related impacts in the Santa Cruz area would also be reduced. (See Table 5-2 of the Draft EIR). Reduction of the size of the development area under this alternative is described on page 5-14 of the Draft EIR.

**Response to Comment LA-9-140.** Please refer to Master Response PD-1 (Magnitude of Enrollment Growth).

**Response to Comment LA-9-141.** The Campus proposes to recommend to The Regents the adoption of the Final Draft 2005 LRDP (September 2006). The Final Draft 2005 LRDP revises the Draft 2005 LRDP (January 2005) to reflect the Reduced Enrollment Growth Alternative previously analyzed in the 2005 LRDP Draft EIR and identified as the Environmentally Superior Alternative. For more information regarding the Final Draft 2005 LRDP, please see Final EIR, Volume IV, Chapter 2, *Project Refinements*.

**Response to Comment LA-9-142.** Please refer Response to Comment LA-2-183 and to Master Response PD-1 (Magnitude of Enrollment Growth).

**Response to Comment LA-9-143.** The project-specific impact assessment for the 2300 Delaware Avenue Project in Draft EIR Volume III is tiered from the program-level analysis in Volume I and II of the Draft EIR, in that those impacts that are adequately addressed at the program level and the cumulative impacts of all development under the 2005 LRDP are not reevaluated in Volume III. Because the project-specific evaluation is tiered, the project EIR (Volume III) cannot be and will not be certified before the program-level EIR is certified and the 2005 LRDP is approved. All project-specific impacts are evaluated and disclosed in Draft EIR, Volume III.

**Response to Comment LA-9-144.** The Draft EIR (Volume III, pages 4-59 and -60) presents the estimated volume of wastewater that would be discharged following the full occupancy of the site by the Campus. Because the volume that would be discharged is well within the capacity of the sewer main that serves the project area, no improvements to the sewer are needed, and therefore there would be no environmental impacts associated with improvements to the sanitary sewer.

**Response to Comment LA-9-145.** The Draft EIR (Volume III, page 4-47) explains that in order to accurately assess the traffic effects of the proposed project, project-related trips were estimated and added to the projected (background) traffic that would exist in the study area in 2010, when it is anticipated that all three buildings at 2300 Delaware Avenue would be fully occupied. Note that Buildings A and B have already been occupied by the Campus by relocating existing employees who were working in leased buildings in the west side.<sup>2</sup> However, conservatively and for completeness, the Draft EIR traffic analysis included these existing trips associated with the relocated employees in the project traffic and treated them as new trips. About two-thirds of the proposed project trips are associated with occupancy of Building C (see Draft EIR Table 4-8 on page 4-48 in Volume III), and the full occupancy of Building C is not expected until 2010. Therefore, the traffic analysis evaluated the impacts relative to the conditions that would exist when the full volume of traffic associated with the project would be present. This approach to traffic analysis is conservative because it accounts for other growth in the region that may add to the congestion at study intersections. The traffic analysis uses the AMBAG travel demand model to estimate future traffic volumes. Please see Response to Comment LA-9-32 regarding the AMBAG travel demand model.

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<sup>2</sup> Please see page 4-2 in Draft EIR Volume III, which discloses the previous approval pursuant to which the University authorized the relocation of 246 existing employees from leased buildings into 2300 Delaware Avenue. The relocation of about 160 employees was completed in Fall 2005.

The analysis presented in the Draft EIR accurately reflects the actual traffic impacts of the proposed project. However, in response to the City’s request for an analysis of the proposed project’s traffic compared to existing conditions, the University conducted such an analysis for 14 intersections that currently are operating at LOS D or worse in at least one peak hour. Table 3 (at the end of LA-9 responses) shows the existing LOSs for these intersections and the LOSs under the existing plus 2300 Delaware Avenue Project traffic conditions. The table also reports the percent contribution the project’s traffic would make at these intersections, and in the case of unsignalized intersections, whether signal warrants would be met.

Based on this analysis and the significance criteria laid out in the Draft EIR for evaluating impacts at signalized and unsignalized intersections, the addition of all project traffic to existing conditions would result in significant impacts at three study intersections, as described below:

- Intersection #8 Empire Grade Road/Western Drive. This is an unsignalized intersection that meets signal warrants. The project would contribute more than 3 percent of the traffic volume increase.
- Intersection #12 Bay Street/Escalona Drive. This is also an unsignalized intersection that meets signal warrants. The project contributes more than 3 percent of the traffic volume increase.
- Intersection #14 Mission Street/Bay Street. This is a signalized intersection where the LOS degrades from LOS E to F in the PM peak hour and the project contributes more than 3 percent of the traffic volume increase.

Note that the Draft EIR (page 4-53 in Volume III) also determined that significance criteria were met at Intersections #8 and #14, and noted that the project would pay its fair share of improvements that the City implements at these intersections. In the 2010 plus project analysis, Intersection #12 was analyzed as a signalized intersection and was found not to meet the significance criteria. This intersection has been programmed in the City’s CIP for a traffic signal in Fiscal Year 2007. Because this programmed improvement will improve the LOS of this intersection to an acceptable level in 2007, by the time all of the new trips associated with the 2300 Delaware Avenue Project would affect area roadways (no earlier than 2010), the project will not result in a significant impact at this intersection. The University has also offered to contribute its fair share towards implementing the traffic signal at Intersection #12 to ensure that the traffic signal is installed in a timely manner.

**Response to Comment LA-9-146.** Please refer to Response to Comment LA-2-227.

**Response to Comment LA-9-147.** The University will pay its fair share of the cost of improvements to city intersections that are significantly affected by the proposed project. Please see Master Response MIT-1 with regard to the University’s fair share commitments.

**Response to Comment LA-9-148.** Please refer to Response to Comment LA-2-231.

**Table 3**  
**Existing Plus 2300 Delaware Avenue Project – Intersection Levels of Service**

Intersection	Control	Peak Hour	Existing Conditions	Existing plus Project Conditions	Percent Contribution	Met Signal Warrants
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**5.0 RESPONSE TO COMMENTS**

			<b>Delay</b>	<b>LOS</b>	<b>Delay</b>	<b>LOS</b>		
Empire Grade Road/Western Drive	TWSC	A.M.	26.7	D	32.7	D	5	Yes
		<b>P.M.</b>	<b>53.8</b>	<b>F</b>	<b>96.1</b>	<b>F</b>	<b>6</b>	<b>Yes</b>
Empire Grade Road/Heller Drive	TWSC	A.M.	19.5	C	21.5	C	3	-
		P.M.	35.3	E	40.3	E	3	-
Bay Street/Escalona Drive	TWSC	A.M.	73.3	F	85.9	F	3	Yes
		<b>P.M.</b>	<b>60.3</b>	<b>F</b>	<b>71.5</b>	<b>F</b>	<b>4</b>	<b>Yes</b>
Mission Street/Bay Street	Signal	A.M.	38.6	D	43.5	D	6	-
		<b>P.M.</b>	<b>65.7</b>	<b>E</b>	<b>80.5</b>	<b>F</b>	<b>6</b>	-
Bay Street/California Street	TWSC	A.M.	18.8	C	19.3	C	1	-
		P.M.	28.9	D	29.5	D	1	-
Mission Street/Laurel Street	Signal	A.M.	29.8	C	30.4	C	5	-
		P.M.	35.6	D	37.7	D	5	-
Mission Street/King Street-Union Street	Signal	A.M.	52.1	D	57.0	E	3	-
		P.M.	43.2	D	44.2	D	4	-
Highway 1/River Street	Signal	A.M.	42.3	D	42.5	D	2	-
		P.M.	49.0	D	50.0	D	2	-
King Street/Storey Street	AWSC	A.M.	25.3	D	25.3	D	0	-
		P.M.	32.3	D	32.3	D	0	-
High Street/Highland Avenue	AWSC	A.M.	30.0	D	30.0	D	0	-
		P.M.	110.0	F	110.0	F	0	-
River Street/Water Street	Signal	A.M.	27.9	C	27.8	C	1	-
		P.M.	38.5	D	38.8	D	1	-
Ocean Street/Water Street	Signal	A.M.	37.2	D	37.3	D	0	-
		P.M.	41.0	D	41.1	D	0	-
Capitola Road/Soquel Avenue	Signal	A.M.	51.9	D	26.1	C	0	-
		P.M.	38.5	D	38.5	D	0	-
Murray Street/Seabright Avenue	Signal	A.M.	39.3	D	39.6	D	0	-
		P.M.	53.0	D	53.2	D	0	-

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January 11, 2006

Mr. John Barnes  
2005 LRDP EIR Comment  
UCSC Physical Planning and Construction  
1156 High Street, Barn G  
Santa Cruz, California 96064

Re: Comments of the City of Santa Cruz on the University of California, Santa Cruz – 2005-2020 Long Range Development Plan Draft Environmental Impact Report (SCH No. 2005012113)

Dear Mr. Barnes:

On behalf of the City of Santa Cruz ("City"), thank you for the opportunity to review, and submit these comments on, the Draft Environmental Impact Report ("DEIR") for the University's proposed 2005-2020 Long Range Development Plan ("LRDP" or "Project"). Along with the Mayor and City staff, whose comments are found in a separate letter submitted herewith, we have identified what we, as special counsel to the City, believe are numerous serious legal deficiencies in the DEIR. These failures to fully satisfy the strictures of the California Environmental Quality Act (Pub. Resources Code, § 21000 et seq.) ("CEQA") are set forth below under the subject headings used in the DEIR. Before explaining these flaws in detail, however, we first wish to characterize generally the City's current position with respect to the proposed LRDP.

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January 11, 2006  
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The City believes that, as currently drafted, the DEIR is so inadequate that the City cannot yet formulate a fully informed position regarding the policy merits of the Project. Without better and more complete analyses of the direct and reasonably foreseeable indirect environmental consequences of the Project, as well as significantly improved mitigation measures addressing those effects, the City cannot yet determine whether the benefits of the Project outweigh its undeniable, though still ill-defined, adverse environmental impacts.

Without a revised DEIR correcting the deficiencies in the existing document, the City at present has no choice but oppose the proposed LRDP. In light of the existing environmental challenges already facing the City, the prospect of major increases in student, faculty, and staff populations is unacceptable to City residents, who already suffer from escalating housing prices and ever-worsening traffic congestion, and who already face the prospect of severe water shortages during drought conditions. Although the LRDP would clearly worsen these problems, the current DEIR neither grapples with them in earnest nor proposes feasible, effective means to try to resolve them.

The City's present position, however, might change should a revised DEIR accomplish what CEQA says it must. Such a revised document, first of all, must sufficiently address and analyze the full range of significant environmental impacts of the Project, and, second, must include tough but feasible mitigation measures to reduce such impacts to less-than-significant levels. In general, the revised mitigation should embody a *phased* approach to any enrollment increases, to allow the City and the University, as well as other affected local agencies, to work cooperatively to solve the difficult problems that the Project would create. In addition, the revised DEIR must give ample consideration to a significantly scaled-back alternative to the current proposal – one that might achieve most of the University's objectives while minimizing impacts to the City and its fragile coastal environment. Another alternative that should be considered in depth would increase on-campus housing, with

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enticing subsidies if necessary, to reduce adverse effects on the City's housing stock and infrastructure.

In other words, while the City at present has grave concerns about the Project, the City is not implacably opposed to *any* new growth of the University. The City's ultimate position on the Project will turn on how well the University takes to heart the need to improve the current DEIR and to formulate strong and effective new mitigation measures. As noted above, an approach to mitigation embodying the concept of *phasing* holds out the promise of solving environmental problems *before*, or as, they arise, rather than after-the-fact. Solutions coming out of such an approach should include, among other things, cooperative University/City efforts (i) to secure the additional water supplies the Project will require, (ii) to determine appropriate mitigation measures for impacts on the City's roadway network and public services, (iii) to ascertain the University's precise "fair share" contributions to the funding required for necessary improvements, including a possible expansion of the City's planned desalination facility, and (iv) to address, and mitigate for, the indirect but very real impacts caused by increased demands for housing and public services in Santa Cruz. In general, the City believes that the University must do much more *on-site* in order to address external effects that would otherwise be inflicted on the City. One obvious strategy, noted above, would be to build greater amounts of on-site affordable housing in order to reduce off-site impacts associated with new housing construction or overcrowding in existing housing.

In short, the University cannot simply decide to increase its population by one-third and then leave the City to scramble after-the-fact to solve the resulting problems. Instead, if additional on-campus growth is to occur, such growth should be carefully phased to occur only *after* the University, the City, and other agencies have identified – and resolved – the problems that will arise along the way. Though the City will be pleased to cooperate in such



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efforts, the University, as proponent of the Project, must lead the way, both in terms of funding necessary studies and mitigation measures, and in terms of identifying and obtaining all necessary regulatory approvals from other agencies.

Notably, CEQA case law clearly requires consideration of phasing as a mitigation strategy where build-out of a project could overload existing transportation networks or other public services. (See, e.g., *Federation of Hillside and Canyons Associations v. City of Los Angeles* (2000) 83 Cal.App.4th 1252, 1260-1261 (*Federation*) (to achieve real mitigation, mitigation measures for a proposed land use plan must be fully enforceable, either by requiring the phasing of development under the plan or by otherwise ensuring the mitigation actually will be implemented as impacts occur); *Napa Citizens for Honest Gov. v. Napa County Bd. of Supervisors* (2001) 91 Cal.App.4th 342, 374 (*Napa Citizens*) (court proposes a phased approach to development in situations in which the water supplies for a proposed plan were not certain at the time of plan approval).)

Although, as readers will see below, both these comments and those of the Mayor and City staff identify numerous issues that require full-scale reconsideration in a revised DEIR, the City regrets that it cannot provide more substantive comments for many of the subjects addressed by the current DEIR. Unfortunately, in many respects the current analyses and proposed mitigation measures are simply too superficial and vague to allow meaningful evaluation and comment. The City looks forward, however, to actively assisting the University's staff and consultants in the preparation of a new environmental document, in the hope that the next version, by analyzing impacts more fully and by proposing superior mitigation measures, will properly crystallize the true tradeoffs associated with the Project. With such information in hand, the City will finally be in a position to make a fully informed decision as to whether to support or oppose the LRDP.

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With a new “low-growth alternative” on the table, moreover, both the University and the City will be able to consider the option of scaling back the current proposal so that it better fits a small City that already faces great challenges in dealing with its limited water supplies, its vexing traffic problems, and escalating housing prices that threaten to change the face and the composition of the City in the future.

Project Description (Chapter 3)

The DEIR fails to adequately describe all of the City actions and other “responsible agency” approvals that will be needed for future projects within the scope of the LRDP, in violation of CEQA Guidelines section 15124, subdivision (d)(1).<sup>1</sup> As discussed below in the portion of these comments relating to water supplies, the LRDP includes new development in the upper campus area, outside of existing City limits; yet the DEIR wrongly assumes that the City is obligated under 40-year-old water infrastructure contracts to extend water service to the unincorporated area.

As further noted below, and as explained in detail in the separate comments submitted by the Mayor and City staff, the City does not believe the University has an unqualified right to unlimited water supplies and services under those contracts. Even assuming for the sake of argument, however, that the University does have such rights under those contracts, such rights would not trump state law prohibiting the City from unilaterally extending service to an unincorporated area. (Gov. Code, § 56133.) As the Santa Cruz Local Agency Formation Commission (“LAFCO”) has noted in its own comments on the DEIR, and contrary to the DEIR’s representations (DEIR, p. 4.15-2), LAFCO consultation and approval will indeed be required for the City to be able to serve new development in that area.

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<sup>1/</sup> The “CEQA Guidelines” are found in Title 14 of the California Code of Regulations, commencing at section 15000.

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Unfortunately, as explained further below, the City simply does not currently have adequate water supplies to serve the increased growth that the University envisions. Thus, even if the City were to propose, and LAFCO were to approve, the extension of service to the Upper Campus, the City would be required to obtain new water supplies to serve this area and other new development caused by the University's projected growth. These new agency actions qualify as the kinds of "responsible agency"<sup>2</sup> approvals that a lead agency, in preparing an EIR, is required to identify and analyze pursuant to CEQA Guidelines sections 15082 and 15124. The effects of such responsible agency approvals, moreover, are reasonably foreseeable indirect effects of the LRDP, and should be analyzed as such. In short, a revised DEIR must give the City and LAFCO the information they need both to alter existing service boundaries and to obtain the new water supplies to serve an enlarged, on-campus service area.

The University's failure to perceive the City and LAFCO as responsible agencies with respect to future water service is a serious flaw in the DEIR, as each of these agencies is legally entitled to the analysis they demanded through the scoping process. Contrary to the apparent belief of University staff and consultants, who prepared the DEIR with little regard for the City's scoping comments on water supply issues, CEQA gives responsible agencies a major role in determining the scope and content of EIRs. In particular, lead agencies *must* include in their EIRs information regarding the environmental impacts that are anticipated by responsible agencies as to matters within their expertise or jurisdiction. This obligation is evident from several provisions of CEQA and the CEQA Guidelines.

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<sup>2/</sup> As defined by statute, a responsible agency "is an agency, other than the lead agency, which has responsibility for carrying out or approving a project." (Pub. Resources Code, § 21069; see also CEQA Guidelines, § 15381.)

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For example, Public Resources Code section 21080.4, subdivision (a), provides, in pertinent part, as follows:

[E]ach responsible agency . . . shall specify to the lead agency the scope and content of the environmental information that is germane to the statutory responsibilities of that responsible agency . . . in connection with the proposed project and which . . . *shall be included* in the environmental impact report.

(Emphasis added.)

Key CEQA Guidelines sections also recognize lead agencies' *duty* to include in EIRs the information and analysis specified by responsible agencies. Section 15082 generally addresses the process by which the "scope" of an EIR is determined. The section requires lead agencies to send Notices of Preparation ("NOPs") to responsible agencies, which then have 30 days in which to respond in writing. Although a lead agency may begin work on a draft EIR before receiving these responses, any such work-in-progress "*may need to be revised or expanded* to conform to responses to the [NOP]." (CEQA Guidelines, § 15082, subd. (a)(4) (emphasis added).) The responsible agency's responses to the NOP must include "specific detail about the scope and content of . . . environmental information . . . which *must be included* in the draft EIR." (*Id.*, subd. (b).) Echoing this statement, section 15096, subdivision (b)(2), provides that "[t]he lead agency *shall include this information in the EIR.*" (Emphasis added.)

Case law has also recognizes lead agencies' obligation to conduct analysis demanded of them by responsible agencies. In *Save San Francisco Bay Association v. San Francisco Bay Conservation and Development Commission* (1992) 10 Cal.App.4th 908, petitioners challenged the issuance by the San Francisco Bay Conservation and Development Commission ("BCDC"), a responsible agency, of a permit authorizing the addition of "fill" to San Francisco Bay to accommodate a proposed aquarium. The project had already received previous approvals by the City and County of San Francisco ("City"), acting as lead

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agency. After noting that, as the lead agency, “the City had a duty to produce a *comprehensive* [document] that could be relied upon by BCDC,” the court concluded that the City had met this responsibility. (*Id.* at p. 922 (emphasis added).)

As these authorities make clear, the fact that a lead agency might have to undertake original analysis, at some expense, to satisfy the requests of responsible agencies does not alter the lead agency’s obligation to perform such analysis. As is clear from case law, CEQA contemplates that lead agencies must sometimes do a lot of work to provide sufficient information to assess the full panoply of environmental effects that might be caused by major projects. (See, e.g., *Berkeley Keep Jets over the Bay Committee v. Board of Port Commissioners* (2001) 91 Cal.App.4th 1344, 1370 (*Berkeley*) (where correspondence to a lead agency raises “substantial questions” about the environmental effects of a project, the agency must make a “reasonably conscientious effort . . . to collect additional data or to make further inquiries”); *Citizens to Preserve the Ojai v. County of Ventura* (1985) 176 Cal.App.3d 421, 432 (court requires lead agency to conduct additional research and analysis of cumulative effects).) The need to deal with issues raised by responsible agencies is just one example of such a burden.

As we explain in detail below, the failure of the LRDP DEIR to fully acknowledge and grapple with the inadequacy of the City’s current water supply to serve proposed University growth renders the DEIR deficient. For reasons discussed more fully *infra*, the obvious source of new water for an expanded on-campus population is an accelerated rate of expansion for the desalination plant that the City plans to build in the future to increase the reliability of its own supplies during drought conditions. Unfortunately, the water from this future facility, with its very energy-intensive technical processes, will be more expensive than other water sources used under normal conditions. Because the UCSC expansion, however, will drive the need for additional desalinated water, it is only fair that UCSC should

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bear the burdens not only of conducting the environmental review needed for the plant expansion, but also of funding the expansion and paying for the potable water generated through new capacity created for UCSC.

The City will be entitled to be made whole with respect to these costs because they are directly attributable to impacts of the proposed LRDP. To ensure such a legally-mandated result, the revised DEIR must

- (i) address in detail the steps the City must take to expand its overall water supply system, not only in normal years but also in drought conditions;
- (ii) fully analyze the environmental effects of the system expansion; and
- (iii) include fair and proportional mitigation measures requiring UCSC to pay the City's full costs for obtaining the new water, including the costs of meeting all environmental mitigation obligations associated with the desalination process.

The City recognizes that some of the details on these subjects may have to await later environmental documents "tiered" off the revised DEIR. But the broad outlines of a strategy must be laid out in a revised DEIR, despite its "programmatic" character. The fact that the DEIR is a "program EIR" does not alter the University's obligation to identify responsible agency approvals and to analyze the effects of such approvals, as requested by responsible agencies.

In *Stanislaus Natural Heritage Project v. County of Stanislaus* (1996) 48 Cal.App.4th 182 (*Stanislaus Natural Heritage*), the Court of Appeal rejected the notion that a program EIR for a land use project could fail to properly analyze water supply impacts simply because of the "first tier" character of the document. The court explained that:

a decision to "tier" environmental review does not excuse a governmental entity from complying with CEQA's mandate to prepare, or cause to be prepared, an environmental impact report on any project that may have a significant effect on the environment, with that report to include a detailed

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statement setting forth “[a]ll significant effects on the environment of the proposed project.” (Pub. Resources Code, § 21100.)

(48 Cal.App. 4th at p. 197.) The court added that “‘tiering’ is not a device for deferring the identification of significant environmental impacts that the adoption of a specific plan can be expected to cause.” (*Id.* at p. 199.) “Indeed, the environmental consequences of supplying water to this project would appear to be one of the most fundamental and general ‘general matters’ to be addressed in a first-tier EIR.” (*Ibid.*)

1

These principles apply herein. The need for additional water supplies to serve an expanded campus population is “one of the most fundamental and general ‘general matters’” raised by the proposed LRDP. The issue cannot simply be ignored based on a strained, self-interested reading of ancient contracts between UCSC and the City.

Biological Resources (Chapter 4.4)

CEQA Guidelines section 15124, subdivision (d)(1)(C), requires that an EIR include “[a] list of related environmental review and consultation requirements required by *federal, state, or local laws, regulations, or policies.*” (Emphasis added.) The provision goes on to add, moreover, that “[t]o the fullest extent possible, the lead agency should *integrate CEQA review* with these related environmental review and consultation requirements.” (Emphasis added.)

2

It does not appear to the City that, with respect to possible impacts on wetlands associated with the LRDP, the University has fully complied with the mandate to integrate its CEQA review process with the permitting process required under Section 404 of the Clean Water Act. (33 U.S.C. § 1344.) Nor does it appear that the University has done so with respect to the separate but related process needed to achieve compliance with the federal Endangered Species Act. (16 USC § 1531 et seq.)

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5. LRDP Impact REC-3 should be potentially significant because of the potential loss of the Cowell Wilder Regional Trail if UCSC does not closely coordinate with the City of Santa Cruz on any re-routing options on campus, which could affect the trail alignment within the Pogonip. It should also be noted that Cowell Wilder Regional Trail should continue to serve as a multi-use trail, open to bicyclists, equestrians, and hikers. A mitigation measure should be included stating that UCSC must coordinate with the City of Santa Cruz Parks and Recreation Department regarding any possible realignment of the Cowell Wilder Regional Trail to ensure that the trail connection remains feasible. The mitigation measure should also state that should realignment within the Pogonip be required due solely to rerouting of trails on campus, UCSC would be fully responsible for any environmental review and trail construction related costs for the Pogonip.
6. Page 4.13-12: The text regarding increased impacts on Antonelli Pond due to the proximity to the 2300 Delaware Avenue property should also discuss increased impacts on Moore Creek Preserve. This City-owned open space is the closest open space area with a substantial trail system to 2300 Delaware Avenue. The trails at Antonelli Pond are very limited in comparison to Moore Creek Preserve. The potential increase in use and potential problems with unauthorized uses such as bicycles should be discussed, and mitigation measures recommended as needed.
7. LRDP Impact REC-4 should be potentially significant. The City's General Plan and communication with the City of Santa Cruz Parks and Recreation Department referenced in the DEIR clearly indicates that there is a shortage of active recreation facilities (playgrounds, ball courts, etc.) within the west side of Santa Cruz. Specifically, there is a need for a new neighborhood park, minimum two acres in size, on the west side of the City in the vicinity of Shaffer Road. The increase in the off-campus population, particularly on the west side of the City, would result in increased demands for active recreational facilities (playgrounds, ball courts, etc). There are inadequate active recreational facilities on the west side to accommodate this increased use. Beaches, State Parks and nature preserves do not provide active recreational facilities and do not mitigate the shortage of neighborhood parks on the west side of Santa Cruz.
8. LRCP Mitigation REC-4 is inadequate and should be revised as discussed below. Continuing to make UCSC facilities open to the public does not mitigate the shortage of neighborhood parks on the west side of Santa Cruz. "Casual" walking paths and picnic tables are not active recreational facilities, and also do not mitigate the neighborhood park deficiency. The direct impacts of the off-campus population on the west side clearly warrant the need for additional active park facilities. In addition, the City standards address neighborhood park proximities (radii) to residential areas which must be addressed in the DEIR.
9. A mitigation measure is needed stating that UCSC shall dedicate a park site to the City, minimum two acres in size, in the vicinity of Shaffer Road on the west side of Santa Cruz. The City will then utilize Parks and Facilities Tax fees to develop the park facility. UCSC does not contribute to these fees as private residential development does.



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Land Use and Planning (Chapter 4.9)

The description of the regulatory setting in the Land Use and Planning chapter lists the City's applicable plans and policies, but then the rest of the section fails to specifically analyze the LRDP's consistency with all of those plans and policies. The DEIR merely makes blanket, conclusory assertions of consistency without explaining the bases or facts supporting these conclusions. This failure renders this entire chapter a meaningless exercise. This chapter should be revised to provide a more detailed discussion of the LRDP's consistency with each of the plans and policies listed.

An expanded discussion of the City's General Plan policies would not be a purely voluntary exercise. Although the University, as an entity of the State of California, is not legally bound by local policies, the City's General Plan is nevertheless an "applicable plan" within the meaning of CEQA Guidelines section 15125, subdivision (d), which requires an EIR to "discuss any inconsistencies between the proposed project and applicable general plans and regional plans."

Because the University intends many of its students, staff-persons, and faculty members to live within the City, and further intends to rely heavily, if not exclusively, on City services and infrastructure, including roads and water supply facilities, the City's General Plan, and particularly its Land Use, Circulation, Housing, and Community Facilities and Service Elements, are extremely pertinent to an informed discussion of the Project and its impacts. The conclusory, generalized and highly *selective* discussions on pages 4.9-7 and 4.9-8 of the DEIR are so abbreviated as to be of no practical utility.

Under *The Pocket Protectors v. City of Sacramento* (2004) 124 Cal.App.4th 903, a lead agency has a duty to undertake analysis as to whether significant impacts might result from a project's potential inconsistency with "any applicable land use plan, policy, or

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regulation . . . adopted for the purpose of avoiding or mitigating an environmental effect.”  
 (*Id.* at p. 929, quoting CEQA Guidelines, Appendix G, § IX, subd. (b).)

Here, the City’s General Plan contains numerous such policies, which should have been addressed in detail in the DEIR. Two of the many examples of such policies are L 4.1.2 and CF 6.6. The former requires the City to “[u]tilize *phasing* of development projects to mitigate service limitations.” (Emphasis added.) The latter policy requires the City to [e]nsure that new development occurs only when adequate water services are provided and require new development to install the infrastructure necessary to distribute water within and around the site.

3

These policies – included herein merely as *examples* of policies that should have been addressed – are consistent with previously-mentioned general CEQA principles favoring phasing as an obvious means to ensure that development-related impacts do not occur in the absence of the physical facilities or expanded services necessary for mitigation. (See e.g., *Federation, supra*, 83 Cal.App.4th at pp. 1260-1261; *Napa Citizens, supra*, 91 Cal.App.4th at p. 374.)

The Revised DEIR should include a much-expanded discussion of the Project’s inconsistencies with key General Plan policies, and in particular should include new mitigation measures requiring the phasing University growth so that it does not outpace the existence of adequate City services and infrastructure.

Traffic, Circulation, and Parking (Chapter 4.10)

We concur with the opinion of the Mayor and City staff that the University used an improper “baseline” for its analysis of the Project’s contribution to level of service (“LOS”) impacts on City roadways and intersections. The DEIR presents year 2020 traffic levels with

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and without LRDP projections, but fails to analyze *existing conditions* plus the LRDP. Instead, the University essentially prepared only a cumulative impacts analysis. This error pervades not only the off-campus intersection analysis (Impact TRA-2), but also the separate analysis for the new Performing Arts Auditorium and Events Center (Impact TRA-5). The University should have analyzed full LRDP growth on top of currently existing (2005) conditions, in addition to the cumulative year (2020) impacts it did analyze. The separate obligation to assess *cumulative impacts* (see CEQA Guidelines, § 15130) does not negate the more fundamental obligation to address *project-related impacts* (see *id.*, § 15126.4). Here, the DEIR addressed cumulative effects but skipped over the obligation to assess project-related effects.

4

The latter approach is legally necessary under CEQA,<sup>3</sup> and would have provided the public with a much more accurate picture of the Project's actual impacts, even if full implementation of the Project would not occur until 2020. In fact, analysis of "existing conditions" plus "proposed project only" is expressly recommended by the California Department of Transportation ("Caltrans"), which is unquestionably an expert agency with respect to traffic impact analysis. (See *Caltrans Guide for the Preparation of Traffic Impact Studies* (copy attached hereto as Exhibit A), p. 3.) Because of the undisputed expertise of Caltrans on this issue, the DEIR, absent a credible and legally sound basis for taking another approach, should have included an "existing conditions plus proposed project" analysis. (*County of El Dorado v. Department of Transportation et al.* (2005) 133 Cal.App.4th 1376,

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<sup>3/</sup> For more than 20 years, CEQA case law has emphasized the danger of using hypothetical *future* scenarios – even those consistent with existing planning and zoning designations – as the basis for assessing the significance of project impacts. (See, e.g., *Environmental Planning and Information Council v. County of El Dorado* (1982) 131 Cal.App.3d 350, 352; *Christward Ministry v. Superior Court* (1986) 184 Cal.App.3d 180, 186-187; and *Save Our Peninsula Committee v. Monterey County Board of Supervisors* (2001) 87 Cal.App.4th 99, 120-121; see also CEQA Guidelines, § 15125, subd. (a).

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1390 (a cumulative impact analysis “cannot be used to trivialize or mask project-specific impacts”).) Such analysis complements, but is not subsumed by, a proper cumulative impact analysis. In short, both “project-specific” and cumulative scenarios must be assessed in a legally adequate EIR.

4

The DEIR also fails to identify proper mitigation measures for those significant impacts identified as part of the cumulative impact analysis. The text identifies several intersections where the LRDP’s contribution to cumulative conditions will be significant (see, e.g., DEIR, p. 4.14-44); but the DEIR improperly defers effective mitigation by suggesting that new traffic trips be studied, and specific mitigation be determined, only as individual “capital projects” under the LRDP are proposed. (See Mitigation TRA-2A, DEIR, p. 4.14-43.) This project-by-project approach, if approved, could lead to a serious piecemealing problem, in which the effects of each new capital project, studied separately as the University proposes, are diluted over time, with the result that the mitigation measures generally outlined in this EIR may never actually be triggered, leaving the City on the hook for the substantial costs of the traffic improvements that will be needed. The risk of the project-by-project approach is that individual capital projects may not, by themselves, trigger significance thresholds and thus require mitigation, even though it is already clear, at present, that the LRDP *as a whole* will cause numerous significant traffic impacts requiring mitigation in the form of physical improvements.

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The University’s proposed mitigation, therefore, needs to be substantially strengthened to specifically identify when the intersection improvements discussed will be triggered and how the University’s “fair share” contribution to these improvements may be assessed. As currently stated, the University only proposes to “negotiate” for its fair share of the costs burden (Mitigation TRA-2). This requirement is so vague and unenforceable as to be nearly meaningless. (*Federation, supra*, 83 Cal.App.4th at pp. 1260-1261 (mitigation

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must be fully enforceable, either by phasing the project, or ensuring the mitigation actually will be implemented).) Rather than wait for individual capital projects to come forward before devising a comprehensive mitigation strategy, the University should undertake that extremely important task as part of preparing a Revised DEIR for the LRDP. As part of the process of creating the revised environmental document, City staff is willing to work with UCSC staff and consultants to precisely quantify the University's fair share contributions to various needed improvements.

5

The City's willingness to undertake such a process makes the proposed mitigation "feasible" despite the fact that the impacts at issue are occurring outside the University's physical boundaries. With the City on record as being willing to formulate the specifics of a mitigation program in coordination with campus staff and consultants, the University, in approving the LRDP, will not have substantial evidence to support a finding that such mitigation is beyond its control and thus impossible to effectuate. (See CEQA Guidelines, § 15091, subd. (a)(2).)

The analysis for the traffic effects of the new Performing Arts Auditorium and Events Center (Impact TRA-5) suffers from additional flaws. After noting that a "reasonable worst-case" scenario including simultaneous, full-capacity events occurring at these new facilities, as well as existing facilities, would result in significant, adverse LOS levels at several off-campus intersections, the DEIR blithely dismisses these impacts as less than significant because they would be "relatively infrequent and of short duration." (DEIR, pp. 4.14-60-4.14-61.) Yet nowhere in the preceding discussion does the DEIR text supply any information regarding the likely *frequency* of such "worst-case" scenarios. Without such information, the DEIR lacks any evidentiary support for its conclusion that these impacts on off-campus intersections would be less than significant. The analysis also purports to rely

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on mitigation measure TRA-2A to reduce the off-campus intersection impacts; but, as noted above, this mitigation is inadequate.

We therefore urge the University to revise the DEIR's traffic analysis and to examine a broader range of mitigation measures to address the potentially significant impacts on off-campus intersections associated with the worst-case scenario of simultaneous events at the new Performing Arts Auditorium, the new Events Center, and existing facilities. We recommend the revised DEIR examine, at a minimum, a mitigation measure that does the following: limits the number of special events that can occur annually; requires University events planners, through coordinated scheduling, to prevent the occurrence of simultaneous events that would cause or contribute to unacceptable LOS within the City; and requires the implementation of "traffic management plans" whenever such events are permitted to occur.

6

As a final note on the subject of traffic, the City acknowledges, as the DEIR mentions, that the California Supreme Court is currently considering the question of whether state college campuses can be required to mitigate off-campus traffic impacts in surrounding cities. (*City of Marina v. Board of Trustees*, S117816.) The high court's resolution of that question should provide direct guidance to UCSC in its dealings with the City of Santa Cruz. Should the court surprise observers by declaring that campuses *cannot* mitigate the off-campus traffic impacts of on-campus growth, the City will of course accept that result, as it must. In the meantime, however, the University would be wise not to assume that the court will adopt the very troublesome holding of the Court of Appeal, which the City considers to be contrary to public policy.

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At a minimum, the University, in the revised DEIR, should explore what kind of fair share or cost sharing mechanisms might be adopted to mitigate significant impacts in the City. Any formal arrangement between UCSC and the City can be conditioned on a

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recognition that the arrangement would not be enforced if it is determined to be contrary to law by the Supreme Court.

Regardless of the outcome of the pending *City of Marina* litigation, however, the University will have the option, and even the obligation, to *phase* development under the LRDP so that off-campus traffic impacts only occur as the City, through whatever means available, constructs the improvements and other mitigation measures necessary to avoid unacceptable LOS. Even if the Supreme Court issues a strong endorsement of traffic impact fees for off-campus mitigation, a mitigation measure requiring phasing should be a key part of the mitigation program developed in the revised DEIR.<sup>4</sup>

7

#### Population and Housing (Chapter 4.11)

The University appears to assume that the City's new residential construction projections would more or less accommodate the proposed increase in off-campus residents caused by the increased University enrollment. The City did not, however, have the enrollment increase contemplated in the LRDP in mind when it forecast the growth in residential units relied upon in the DEIR. As the DEIR does acknowledge, the same is true of the Association of Monterey Bay Area Governments ("AMBAG"), which projected only 3,000 new people in the City limits between 2005 and 2020.

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Rather, in looking forward to 2020, the City was planning only for a conservative, one-to-three percent annual population increase, as a continuation of ongoing growth trends

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<sup>4/</sup> We note that, in its comment letter dated December 2, 2005, the University's Academic Senate Committee on Planning and Budget has raised similarly serious and credible questions about the adequacy of the DEIR's traffic analysis. Most notable, from the City's standpoint, are concerns expressed regarding the methodology and assumptions used in the analysis, and regarding the implementation and enforceability of the proposed mitigation measures. We urge you to carefully consider those comments as you revise the DEIR and reissue the document for further public review.

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not related to the University's LRDP. Therefore, the University's 8,000 new students, faculty and employees, which the DEIR projects could require up to 2,095 new residential units (DEIR, p. 4.11-22), could use up the City's *entire* projected increase in residential units, potentially causing a serious shortfall in the City's housing supply, especially if the projected non-University growth also occurs as expected.

8

To add insult to injury, the DEIR notes that 1,144 of these new residential units would need to be "affordable," potentially using up all of the City's planned increments of "affordable housing." (DEIR, p. 4.11-22.) This unexpected population increase would almost certainly result in a variety of significant, if indirect, environmental effects, most of which are not addressed in the DEIR. The document's failure to examine these foreseeable ripple effects on the City and its environment renders many of the DEIR's current analyses inadequate, as the existing conclusions in the document would undoubtedly be significantly altered by a comprehensive, good-faith assessment of the indirect environmental effects caused by a housing shortage in Santa Cruz or an even tighter housing market than currently exists.

9

CEQA requires the University to make a far better effort to assess, in meaningful, quantitative terms, the actual effects of all of the growth that would be unleashed by the LRDP. As is well known, CEQA requires analysis of the environmental "effects" of a proposed action or project. CEQA Guidelines section 15358, subdivision (a), defines "effects" to include direct effects and "[i]ndirect or secondary effects which are *caused by* the project and are later in time *or* farther removed in distance, but are still reasonably foreseeable." (Emphasis added.) Direct and indirect significant effects of a project must be "clearly identified and described, giving due consideration to both the short-term and long-term effects." (CEQA Guidelines, § 15126.2, subd. (a).) CEQA Guidelines section 15064,



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subdivision (d)(3), states that “[a]n indirect physical change is to be considered only if that change is a reasonably foreseeable impact which may be caused by the project.”

“Indirect or secondary effects may include growth-inducing effects and other effects related to induced changes in the pattern of land use, population density, or growth rate, and related effects on air and water and other natural systems, including ecosystems.” (CEQA Guidelines, § 15358, subd. (a)(2).)

Furthermore, it is well-established that “an EIR must include an analysis of future expansion *or other action* if: (1) it is a reasonably foreseeable *consequence* of the initial project; and (2) the future expansion or other action will be significant in that it will likely change the scope or nature of the initial project or its environmental effects.” (*Laurel Heights Improvement Assn. of San Francisco v. Regents of the University of California* (1988) 47 Cal.3d 376, 396 (*Laurel Heights I*) (emphasis added).) Notably, CEQA case law assumes that “quantitative” information is generally required for meaningful analysis. (See *Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal.App.3d 692, 735 (*Kings County Farm Bureau*) (analysis of project alternatives was deficient because of lack of “quantitative, comparative analysis”).)

Because the adverse, secondary environmental impacts of the increased housing demand spawned by the LRDP are *reasonably foreseeable consequences* of the Project, the University is legally obligated to include a more detailed and accurate analysis of those secondary effects in a revised DEIR. (See CEQA Guidelines, § 15144; *Laurel Heights I*, *supra*, 47 Cal.3d at p. 396.) The University also must take into account the residential designations already found in existing City and AMBAG plans, and then predict how market

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forces could create additional pressures in the City and other area communities to open up still more land to housing in order to accommodate anticipated growth.<sup>5</sup>

As the Court of Appeal noted in *Stanislaus Audubon Society, Inc. v. County of Stanislaus* (1995) 33 Cal.App.4th 144, 157 (*Stanislaus Audubon*), in requiring an EIR for a growth-inducing resort project, “[t]he current agricultural zoning of the surrounding acreage is also not determinative. Zoning is subject to change and amendment of a general plan is not a rare occurrence.” In other words, changing economics often overwhelms the good intentions embodied in planning documents adopted under different economic circumstances. (See also *In re Bay-Delta Programmatic Environmental Impact Report Coordinated Proceedings* (2005) 133 Cal.App.4th 154, 214 (*Bay-Delta*) (“[i]n determining if a project has growth-inducing impacts, courts generally look to whether the project sets in motion market forces that can lead to economic pressure for growth”).)

Here, because new on-campus populations can unleash economic forces affecting the City’s housing market, the University’s DEIR must therefore better address the secondary effects of the increased demand for housing and the physical impacts that building that new housing would cause, such as the impacts on City infrastructure, traffic, air quality, biological

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<sup>5/</sup> The *Napa Citizens* court explained the University’s obligation as follows:

in order to fulfill its purpose as an informational document, the [Revised DEIR] should, at a minimum, identify the number and type of housing units that persons working within the Project area can be anticipated to require, and identify the probable location of those units. The [Revised DEIR] also should consider whether the identified communities have sufficient housing units, and sufficient services, to accommodate the anticipated increase in population. If it is concluded that the communities lack sufficient units and/or services, the [Revised DEIR] should identify that fact and explain that action will need to be taken to provide those units or services, or both.

(91 Cal.App.4th at p. 370.)

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resources, and land use policies, to name a few categories only. An EIR must discuss “the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment.” (CEQA Guidelines, § 15126.2, subd. (d).)

9

The CEQA Guidelines recognize that an analysis of increased population and housing is critical because “increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects.” (CEQA Guidelines, § 15126.2, subd. (d).) Here, the City of Santa Cruz will surely suffer many of the environmental burdens of an increased campus population; but, unlike many local governments approving *private* development proposals, the City will not enjoy any corresponding increases in sales or property taxes to help offset these burdens.

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The City acknowledges that, by itself, a mere increase in the number of residential units in within a local jurisdiction is not a *per se* a significant environmental impact under CEQA, but hastens to add that CEQA most surely is concerned with the increases in traffic congestion, air pollution, service demands, and other indirect environmental impacts associated with such increased housing construction. These reasonably foreseeable indirect effects should be addressed in an EIR. (See, e.g., *Napa Citizens, supra*, 91 Cal.App.4th at pp. 368-369.) Here, although the LRDP DEIR states that the secondary impacts of growth will be addressed in each chapter, the reader searches in vain for a discussion of impacts associated with the additional housing construction that will be needed to serve an increased UCSC population.<sup>6</sup>

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<sup>6</sup>/ The DEIR’s failure to address these secondary, growth-related impacts is not mitigated by the DEIR’s superficial discussion in Section 6.3 of “Growth-Inducing Impacts.” In Chapter 6, the DEIR merely notes in passing the fact that the direct and indirect growth relating to the LRDP would have several significant and unmitigated impacts on traffic,  
 (continued...)

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The DEIR should have studied these secondary, indirect effects in a much more comprehensive fashion, as there can be no question that the addition of so many new residents beyond those previously contemplated by the City and AMBAG could easily overwhelm many of the City's resources and infrastructure. The fact that the LRDP would not be the *sole* cause of these indirect effects does not mean that these effects should escape study. (See *Defenders of Wildlife v. EPA* (9th Cir. 2005) 420 F.3d 946, 961-962 (“[e]vents can, of course, have more than one cause”; “[e]vents can be caused by several actions in a ‘but-for’ causal chain”; “[i]f any one of the necessary actions does not take place, the ultimate event does not occur”; “[t]here are often multiple interrelated factual events that combine to cause any given injury”).)

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By approving a plan that would draw significantly more people to reside in the City, the University would force the City to take subsequent actions to provide services to such persons, and to facilitate the construction of new housing and infrastructure, all of which will cause secondary environmental effects that the DEIR should have addressed. Because the University may not ignore its role in causing these foreseeable, if indirect, impacts, the DEIR must be drastically revised to increase the scope of its analysis of indirect effects.

While the DEIR does take a conservative approach, in the sense that it calls the impacts of population significant and unavoidable due to the associated significant and unavoidable impacts on traffic and water supplies (DEIR, p. 4.11-27; and see below), this *conclusion* is no substitute for the *analysis* required by CEQA. (*Berkeley, supra*, 91 Cal.App.4th at 1371.) Furthermore, the DEIR does not seriously consider *mitigation* for the growth-related indirect impacts. Instead, the University merely proposes to cooperate with

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<sup>6</sup>(...continued)

biological resources, utilities and City services; but neither this discussion nor the preceding impacts chapters ever address these issues head-on; nor do they attempt to quantify these impacts or propose specific, enforceable mitigation measures.

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the City to “encourage and facilitate the development of additional housing.” (DEIR, p. 4.11-27.) This measure, which includes no binding commitment to *do anything concrete* to mitigate impacts, is simply too vague to assure the City or anyone else that the University is truly committed to any real efforts or funding to develop additional housing. “We do not impugn the integrity of the Regents, but neither can we countenance a result that would require blind trust by the public, especially in light of CEQA’s fundamental goal that the public be fully informed as to the environmental consequences of action by their public officials.” (*Laurel Heights I, supra*, 47 Cal.3d at p. 404.)

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As emphasized repeatedly above, the University should consider a *phased* plan for expansion under which the USCS, in considering capital projects or specific increments of new growth, could continually reevaluate the population growth pressures on the City and the progress made toward relieving the current and projected housing shortage. Alternatively, the University should have considered a much less aggressive growth strategy as an alternative as a means of addressing these impacts. As currently proposed, the DEIR’s University’s approach amounts to dismissing the impacts on the grounds that the LRDP is itself a “growth” plan, so that any proposal that would significantly limit growth is out of the question. (DEIR, pp. 4.11-20, 5-34.) CEQA does not allow, however, for such a cavalier dismissal of the substantive mandate to consider in good faith mitigation measures and alternatives to address significant impacts. (See Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15002, subd. (a)(3), 15021, subd. (a)(2).)

11

In order to address these concerns, we urge the University to reevaluate its position against providing on-campus housing for a significantly larger percentage of its future students, faculty, and staff. The DEIR states that, over the years, the University has seen a trend where, at most, only about 50 percent of its students reside on campus. (DEIR, pp. 4.11-9–4.11-10.) The DEIR attributes this statistic to social pressures on students to seek a

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more independent lifestyle; however, the City believes the more likely explanation is economic, namely, that the cost of living on campus is too expensive for many students to stay on campus for their entire course of studies.

The University should therefore consider a broader range of ideas to encourage and support on-campus residency, including providing rent subsidies to make the cost of on-campus residency competitive with the private, off-campus market, and offering more variety in the residency and dining packages, so as to allow students to choose less-expensive on-campus options other than dormitories. The current DEIR simply does not demonstrate a credible effort to explore all potentially feasible ideas to improve the on-campus residency rates as a means of reducing foreseeable impacts on the City and its environment.

11

#### Public Services (Chapter 4.12)

The DEIR correctly notes school enrollment rates in the Santa Cruz School District have recently declined, and that existing schools have the capacity to serve the projected increase in students caused by the LRDP. (DEIR, p. 4.12-17.) Even so, however, the DEIR fails to discuss significant, indirect effects of the LRDP on the school system. These relate to, and are part of, the larger problem, discussed above, of the DEIR's failure to analyze the indirect effects on the City's housing supply. The population growth triggered by the implementation of the LRDP would likely gobble up all of the City's projected increases in housing supply, substantially driving up housing prices. Currently, high housing prices already make it increasingly difficult for families to stay in the City. Additional pressures on housing supplies and the resulting increases in housing costs will exacerbate this trend, perhaps causing additional schools to close. Fewer operating schools translates to additional car trips and travel times to the schools that are left. The LRDP's indirect effect on schools

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is but one of the many indirect effects the DEIR failed to study. As noted above, virtually the entire document must be revised to examine these effects.

12

#### Utilities: Water Supply (Chapter 4.15)

The DEIR does not contain enough information to draw rational conclusions about the potential environmental impacts associated with supplying water for the campus growth projected under the LRDP.<sup>7</sup> The analysis in the DEIR consists of the following completely inadequate, and in most instances inaccurate, assumptions and conclusions.

The DEIR wrongly assumes that the University is entitled to unlimited water from the City to support any and all future University growth. (DEIR, pp. 4.15-2, 4.15-33.) The 1962 and 1965 Agreements cited in the Draft EIR, however, did not commit the City to providing any specific quantity of water, let alone water enough to support the *carte blanche* approach asserted by the University (i.e., “sufficient water to meet University growth”). (DEIR, p. 4.15-2.) Instead, as explained in greater detail in the comments from the Mayor and City staff, the agreements make it clear that the City’s obligations are limited to extending water infrastructure up to the University boundary and ensuring that the water system provided by

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<sup>7/</sup> It is “CEQA’s fundamental goal that the public be fully informed as to the environmental consequences of action by their public officials.” (*Laurel Heights I, supra*, 47 Cal.3d at p. 404.) “To facilitate CEQA’s informational role, the EIR must contain facts and analysis, not just the agency’s bare conclusions or opinions.” (*Ibid.*, quoting *Concerned Citizens of Costa Mesa, Inc. v. 32nd Dist. Agricultural Assn.* (1986) 42 Cal.3d 929, 935.) In short, “[a]n EIR must include detail sufficient to enable those who did not participate in its preparation to understand and to consider meaningfully the issues raised by the proposed project.” (*Laurel Heights I, supra*, 47 Cal.3d at p. 404.)

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the City be capable of supplying two million gallons of water per day for *peak fire flows* and ordinary use.<sup>8</sup>

The University relies on this faulty interpretation of the 1962 and 1965 Agreements to wrongfully conclude that, although “[c]ampus growth under the 2005 LRDP . . . would demand additional water from a system that does not have adequate supplies during normal and drought years in 2020,” nevertheless “the campus has sufficient entitlement to water and there would not be a significant impact associated with securing more water for campus growth.” (DEIR, pp. 4.15-32 to 4.15-33.) Furthermore, even if the Agreements were to include commitments to supply certain quantities of water to the University, such commitments would not provide a substitute for the legally adequate analysis of the potential impacts of physically obtaining the water needed to supply the expanded water needs of the expanded campus population.

13

The DEIR misuses its own standard of significance to measure the project’s potential water supply impacts. The DEIR asserts that the “2005 LRDP would have a significant impact with regard to utilities and service systems if it would [inter alia]:

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- Require or result in the construction or expansion of water or wastewater treatment facilities, which would cause significant environmental effects.

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<sup>8</sup>/ “As may be necessary to provide for campus development, City shall provide, at no expense to University, any and all *water lines* and sanitary sewer lines up to the boundaries of said Campus Area as good engineering practice and the reasonable needs of the University and of the City may require. . . . City shall make *water* and sewer *services* available to the University at rates no less favorable than those prevailing to large-scale industrial users.” (1962 Agreement, attached as Exhibit B, p. 5, paragraph 6 “Municipal Services” [emphasis added]; see also 1965 Agreement, also included in Exhibit B, pp. 2-3; compare 1964 Water Service Agreement between the University of California and Irvine Ranch Water District, attached as Exhibit C (District to provide up to 3,620 acre-feet per year of water to the UC Irvine campus).)



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- Result in the need for new or expanded water supply entitlements due to insufficient water supplies available to serve the project from existing entitlements and resources. (DEIR, p. 4.15-17.)

The DEIR continues, however, by analyzing the water supply impacts of the Project only in terms of cumulative impacts, because, supposedly, “campus growth on its own would not require the City to develop a new water supply source[.]” (DEIR, p. 4.15-18.) The approach taken by the University is factually wrong and legally invalid. Courts have repeatedly held that “[a] cumulative or regional impact analysis cannot be used to trivialize or mask project-specific impacts.” (*El Dorado, supra*, 133 Cal.App.4th at p. 1390, citing *Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, 118; *Kings County Farm Bureau, supra*, 221 Cal. App. 3d at p. 718.)

The University was required to analyze the project-specific impacts of supplying water for the growth planned in the 2005 LRDP. While it would be proper to analyze project-specific impacts in the context of the water needs of the rest of the City’s water service area, the University’s blatant lack of analysis of project-specific impacts renders the water supply impacts analysis in the DEIR completely inadequate.

The court in *Santiago County Water Dist. v. County of Orange* (1981) 118 Cal.App.3d 818, 829-831, held that a lead agency must analyze the potential impacts of constructing the facilities needed to supply water to a proposed project, and must include information in the EIR sufficient to evaluate whether supplying the project with water would adversely affect the supplier’s ability to serve its existing customers. In *Stanislaus Natural Heritage, supra*, 48 Cal.App.4th at pp. 199, 205-206, the court held that an EIR for a land use plan must identify potential sources of water to supply the needs of the project, must analyze potential impacts of using those sources, and must not “defer analysis of the environmental impacts of supplying water to the project until the actual source of that supply is selected sometime in the future.”

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Here, the University has acknowledged that the City will need to secure a new source of water supply to meet demand under normal and drought conditions, and that the City is currently evaluating the construction of a desalination plant as a possible source of additional supply. (DEIR, pp. 4.15-35 to 4.15-36.) The DEIR, however, includes *no* analysis of the potential impacts of constructing and using a desalination plant for LRDP demand, but rather improperly punts that analysis to be performed by the City at some point in the future. (*Ibid.*) The University proposes to add nearly 7,000 new students to the campus population without regard for how the additional water will be supplied. This head-in-the-sand approach to CEQA compliance is unacceptable and unfair to the City.

The University further improperly assumes that the water needed to support projected growth under the LRDP was anticipated by the City's water planning efforts, with the result that the environmental impacts of obtaining the water need not be studied any further. (DEIR, pp. 4.15-33 to 4.15-34.) The comments from the Mayor and City staff, however, explain that the 2005 LRDP population growth was not actually anticipated in previous City water usage projections. In fact, the Final EIR for the City's recently adopted Integrated Water Plan ("IWP") indicated that the LRDP EIR was the proper forum for studying the environmental effects, including increased water demands, of University growth. (IWP Final EIR, p. 2-8.)<sup>9</sup>

Once the University finalizes its plan for campus growth under the 2005 LRDP and properly evaluates the environmental impacts associated with such growth both on-campus and off-campus, those projections will be incorporated into the City's General Plan, which is currently undergoing revision. (*Ibid.*) Future project-level environmental analysis under the IWP will reflect the General Plan's revised projections. (IWP Final EIR, pp. 2-8 to 2-9.)

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<sup>9</sup>/ These and other relevant excerpts from the IWP FEIR are submitted herewith as Exhibit D.

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As explained earlier, however, the City looks to the University, through its revised DEIR for the LRDP, to generate analysis that can ultimately be used in some form in the General Plan EIR. The University, not City taxpayers, should bear the initial expense of such analysis, as well as the expense of expanding the desalination facility to create potable water for use on campus.

14

The University also explicitly refused to consider the impacts of supplying water for residential uses to students, faculty, and other employees who will live within the City's service area. (DEIR, p. 4.15-33.) The underlying assumption behind this omission seems to be that the University is somehow entitled to attract additional people to the City, effectively swallowing all of the City's projected population growth and remaining normal-year water capacity. It is improper, however, for the University to avoid the necessary analysis of impacts caused by the LRDP. This failure to analyze and evaluate water supply impacts causes the EIR to fail as an informational document under CEQA. As explained previously, because the need for new water supplies is a foreseeable indirect effect of the LRDP, the revised DEIR must include a searching analysis of the environmental impacts (on biological resources, water quality, etc.) associated with acquiring new supplies required by the LRDP.

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As noted above in our comments regarding the inadequacies of the Project Description, the DEIR does not address the need for LAFCO involvement in any expansion of the City's water service area to include areas of the campus not currently within the service area boundaries. In fact, although the City raised this issue in its comments on the NOP, the University explicitly denies that LAFCO approval is required for such an expansion of service territory. (DEIR, pp. 4.15-1 to 4.15-2.) The University is wrong. Under the Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000 (Gov. Code, § 56000 et seq.), the Santa Cruz LAFCO has authority to disapprove requests for a change of

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organization that would include the annexation of unincorporated portions of the County into the City's water service boundary. (See Gov. Code, § 56650 et seq.) Thus, the revised DEIR should include the required analysis for LAFCO to make the necessary findings to approve or disapprove such a change of organization. This analysis should address the various statutory factors LAFCO must address in deciding upon the requested change. (See e.g., Gov. Code, §§ 56133, 56434.)

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The DEIR also fails to adequately analyze the environmental impacts of increased summer water usage. (DEIR, pp. 4.15-36 to 4.15-37.) The DEIR acknowledges that the proposed expanded summer school program will increase total annual water usage and change the City's water demand patterns, but does not analyze the impacts associated with demanding more water during the driest part of the year when the City would be most likely to experience drought conditions requiring severe cutbacks in water usage.

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The DEIR also contains insufficient mitigation for Impact UTIL-9. The Draft EIR concludes that the University's growth contributes to a cumulative water supply impact that remains significant and unavoidable with mitigation. (DEIR, p. 4.15-37.)<sup>10</sup> The University should consider additional steps to mitigate this impact. For example, as suggested above for the Project's effects on housing supplies and traffic, the EIR should include a mitigation measure that would require campus growth to be phased in only as sufficient, reliable drought-year water becomes available from new sources currently being evaluated by the City. (See *Napa Citizens, supra*, 91 Cal.App.4th at p. 374 (sanctioning a phased approach to development where water supplies were not certain at the time of project approval).)

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<sup>10/</sup> Because the LRDP Draft EIR concludes that this impact is significant and unavoidable, the University must consider any mitigation suggested by the City that might help to reduce the severity of the impact. (*Los Angeles Unified School Dist. v. City of Los Angeles* (1997) 58 Cal.App.4th 1019, 1028-1030; see also Pub. Resources Code, § 21002; CEQA Guidelines, §§ 15002, subd. (a)(3); 15021, subd. (a)(2).)

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In short, the DEIR is completely inadequate in its analysis of potential water supply impacts. Although the DEIR attempts to justify its lack of consideration for the potential environmental impacts of obtaining water supplies to accommodate University growth, the University's utter failure to account for such foreseeable environmental effects is a violation of CEQA that must be remedied before the University can lawfully approve the LRDP.

Additionally, as the Mayor and City staff note in their separate comments, the City requested in its February 24, 2005, response to the University's NOP that several issues relating to water supplies should be addressed in the DEIR. Unfortunately, the current DEIR does not address these issues, even though the City is a "responsible agency" under CEQA. This failure to analyze the subjects requested by a responsible agency violates CEQA Guidelines section 15082 (quoted earlier).

#### Air Quality

The DEIR identifies some significant and unavoidable impacts associated with air quality (Impacts AIR-2 and AIR-5) relating to increases in NOx and the LRDP's inconsistency with the Air Quality Management Plan of the Monterey Bay Unified Air Pollution Control District ("MBUAPCD"). The analysis and mitigation the University offers, however, is, in some instances, extremely vague and dismissive. For example, the University suggests that to mitigate daily operational emissions above MBUAPCD thresholds, the campus shall implement traffic impact Mitigation TRA-1B in order to reduce motor vehicle trips. (DEIR, p. 4.3-25.) Leaving aside for the moment the fact that there is no Mitigation "TRA-1B," and the City therefore assumes the document is referring to TRA-2B (DEIR, p. 4.14-23), there is nothing in the discussion following the identification of this air quality impact that explains how, if at all, the traffic mitigation measure TRA-2B would help to lessen or avoid the significant air quality impacts associated with an increase in NOx

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emissions from 10,000 additional car trips under the LRDP. (See DEIR, pp. 4.3-25–4.3-28.) In short, the DEIR refers to a non-existent mitigation measure and then even fails to explain or quantify how, if at all, any of the other traffic-related mitigation measures would reduce the air quality impact.

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The discussion of the significant air quality impact associated with the LRDP's inconsistency with MBUAPCD's Air Quality Management Plan is similarly flawed. (DEIR, p. 4.3-30.) The DEIR suggests only that the LRDP should work with MBUAPCD to ensure that campus growth-related emissions are accounted for, but it proposes no substantive measures to actually lessen or avoid the impacts on MBUAPCD and its member agencies caused by the significant increases in pollutant emissions due to growth permitted by the LRDP.

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The University has a duty to examine all potentially feasible mitigation that might lessen or avoid the significant impacts on regional air quality that the DEIR identifies. There is no evidence in the DEIR that the University has fully explored and exhausted all potentially feasible measures to reduce these impacts. The DEIR should therefore be revised and recirculated after the University has consulted with the MBUAPCD and other experts to explore all potentially feasible measures. The City is confident that, after such consultation has occurred, additional feasible mitigation measures will emerge.

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Cumulative Impacts

The DEIR's discussion of cumulative impacts is problematic in several respects. For example, it repeatedly fails to satisfy the mandate of CEQA Guidelines section 15130, subdivision (b)(3), which requires that "[l]ead agencies should define the geographic scope of the area affected by the cumulative effect and provide a reasonable explanation for the geographic limitation used." The reference in that command to "the cumulative effect" in

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the singular, rather than plural, form demonstrates the obvious fact that different environmental effect categories often have different relevant geographic areas of effect. Thus, for example, the physical area relevant to cumulative air quality effects might be much larger than the area relevant to impacts on fire services. This common-sense fact was lost on the authors of the DEIR.

Related to this mandate to determine the relevant geographic area for each cumulative impact category is the recognition that, for different geographic areas, different “probable future projects” come into play. Here, the DEIR initially provides a list of such projects in the Project Description chapter (DEIR, pp. 4-5-4-6); but again, as with the geographic scope issue, the DEIR should have stated, in discussing each separate category of cumulative effect, which such projects were relevant to the particular discussion. It is not enough to simply identify a “master” list early in an EIR and then never relate the specific projects on list to particular categories of cumulative impact. Moreover, as is explained in the comments from the Mayor and City staff, the master list of projects is not complete.

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For these reasons, the DEIR should be revised to reassess cumulative impacts, with each specific impact analysis identifying the relevant geographic area and the relevant “probable future projects” occurring within that area.

Alternatives

The alternatives analysis, overall, does not fulfill CEQA’s mandate to examine a “reasonable range” of alternatives aimed at avoiding or reducing the significant impacts of the proposed project. (See CEQA Guidelines, § 15126.6.) As explained further below, and in more detail in the comments from the Mayor and City staff, the University has improperly constrained, based on insufficient and insubstantial evidence, the range of alternatives by eliminating options that would provide substantial reductions in the impacts of the LRDP.

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In particular, the DEIR should have included a “reduced growth alternative” along the lines proposed by the City in its NOP comments; and the DEIR wrongly summarily rejects an alternative that would increase the amount of new housing built *on-campus*. The revised DEIR should address both such alternatives in meaningful detail.

In response to the University’s NOP, the City urged consideration of “alternatives with substantially lower enrollment figures.” The “reduced growth” alternative considered in the DEIR, however, is not very serious about reducing growth, proposing as it does only 1500 fewer students than the proposed LRDP, resulting in a total on-campus population only 6.7 percent lower than the proposed LRDP. (DEIR, pp. 2-4, 5-21.) Indeed, the evidence that this alternative does not go far enough in reducing the projected population growth is set forth in the DEIR itself: the analysis therein reveals that the impacts of the “Reduced Growth” Alternative would be of little to no improvement over the proposed Project. (DEIR, pp. 5-22–5-24.)

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Two recent cases out of the Third Appellate District, *Bay-Delta, supra*, 133 Cal.App.4th 154, and *El Dorado, supra*, 133 Cal.App.4th 1376, strongly suggest that, as a matter of law, the University should give adequate consideration to a reduced growth alternative with a significantly lower student population, even if such an alternative would not be consistent with some key project objectives. As the *Bay-Delta* court explained,

CALFED’s rejection of a reduced exports alternative is premised on the false assumption that, for an alternative to be feasible, it must meet *all* of the Program’s goals. \* \* \*

\* \* \*

The feasibility of such a reduced exports alternative is clear, notwithstanding the projected population growth that undergirds the commitment not to reduce exports. \* \* \* Population growth is not an immutable fact of life. Stable populations have been established in such states as New York, Pennsylvania, Connecticut, and Rhode Island. [Citation.] Inflow of new residents to



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California continues to exceed outflow because conditions in the State are conducive to population growth. \* \* \*

\* \* \*

The California Supreme Court has stated that “an EIR for any project subject to CEQA review must consider a reasonable range of alternatives to the project, or to the location of the project, which: (1) offer *substantial environmental advantages over the project proposal* (Pub. Resources Code, § 21002); and (2) may be ‘feasibly accomplished in a successful manner’ considering the economic, environmental, social and technological factors involved. (Pub. Resources Code, § 21061.1 . . . .)”

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(Bay-Delta, *supra*, 133 Cal.App.4th at pp. 251, 254, 255, quoting *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 566 (emphasis in original in first instance; emphasis added in second instance).)

The *El Dorado* decision echoed these sentiments by setting aside an EIR for a proposed interchange to serve a Native American casino because the EIR lacked an alternative that would reduce significant impacts by assuming a much smaller casino. The court reached this result despite its acknowledgement that Caltrans, as lead agency, lacked any direct regulatory authority over the size of the casino. (133 Cal.App.4th at pp. 1407-1410.)

Here, not only should the DEIR have included an alternative that did not take for granted the need to dramatically expand the UCSC campus to address assumed student population growth; the DEIR also wrongly rejected an alternative that would reduce impacts by building more housing units on campus, thereby reducing off-campus effects.

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Several commenters, including the City, encouraged the University to consider accommodating significantly more of the proposed increase in student and employee population on campus, instead of assuming the City can and will absorb the bulk of the 50 percent of the new University students and staff who may live off-campus. The reasons

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given in the DEIR for rejecting the Increased On-Campus Housing alternative for further consideration are not valid, however, as they are grounded on baseless assumptions about the motivations and origins of the City's future non-University residents. (DEIR, pp. 5-8--5-9.)

As noted above, the City believes that the trend described in the DEIR of 50 percent off-campus residency by its student body stems more from economic than social pressures. Therefore, the DEIR should not have so readily dismissed an alternative with more on-campus housing on the assumption that, because the desire for more independence drives undergraduate students to off-campus living arrangements, much of the additional on-campus housing under such an alternative would simply sit vacant. (DEIR, p. 5-9.) These assumptions are not supported by any facts presented in the DEIR; indeed, they are called into question by the discussion in a footnote of the Population and Housing chapter, in which the University notes the traditionally high rates of occupancy for on-campus housing, suggesting that there is and will continue to be strong demand for on-campus housing. (DEIR, p. 4.11-3, fn. 1.)

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Has the University polled its students to find out *why* they move off-campus? Has it posed the question of whether students would forego affordable housing on-campus in favor of more expensive housing off-campus? If not, UCSC should do so and should present that study as part of a revised analysis in a revised DEIR. Where, as here, the University's plans would inflict serious problems on a city already struggling to address growth-related concerns such as water supplies and traffic, the University has a heightened burden to fully explore all feasible options to address these problems, and certainly not to make them significantly worse.

For reasons discussed earlier, one clear environmental benefit from a true low growth alternative would be reduced strains on the City's already-stretched water supplies. Such a benefit might also arise from an alternative with a greater percentage of on-campus housing.

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The DEIR fails to provide any factual basis for the assumption that the occupation of available off-campus housing by future new residents not associated with the University would *increase* the impacts on the City's water supply. (DEIR, p. 5-9.) The University makes a very strained argument to the effect that, if all of the new population growth projected under the LRDP were housed on campus, the impacts on the City's water supplies would increase because the existing housing in the City and nearby communities would be freed up for use by new, non-UC-residents, who might otherwise have resided in other areas. (DEIR, p. 5-9.) As noted above, however, the City has already planned for a certain amount of non-UC population growth, and the City's assumptions certainly did not include the approximately 8,000 new residents the University predicts under its proposed LRDP. With all due respect, it is disingenuous to suggest that the University is somehow *saving* the City from worse water supply impacts by bringing *even more* residents to the City than the City has already planned for.

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These assumptions, coupled with the University's erroneous assumptions about water supply – its availability, the University's rights under existing contracts with the City, and the University's assumptions about accounting for this water under previously adopted plans – are deeply flawed, rendering the water supply analysis wholly inadequate under CEQA, as explained earlier. The University compounds this error by using these same faulty assumptions as grounds for rejecting one of the best available alternatives to mitigate, reduce, or avoid many of the LRDP's significant impacts on the City's housing supply associated with population growth. (DEIR, p. 5-9.) The University should first correct its water supply analysis, and then it should reexamine its grounds for rejecting this alternative.

The other reasons cited for rejecting the increased on-campus housing alternative similarly lack a credible factual basis. No substantive or quantitative data is provided to support the assumption that constructing additional on-campus housing would preclude the

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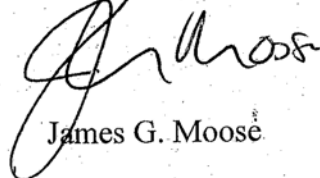
maintenance of adequate buffers between buildings, or that the University has considered any creative solutions to the stated trend of off-campus residency by half of its student body. As noted above, the City believes that the University has failed to explore the full range of potentially feasible options to encourage higher rates of on-campus residency by existing and future students, such as subsidized rents, a greater selection of room and board plans, cooperative living plans, and other options.

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Conclusion

On behalf of the City, thank you for the opportunity to provide comments on the DEIR. For the reasons set out in detail above, we echo the position of the Mayor and City staff that the document is deeply flawed and should be substantially revised and recirculated. To that end, we and City staff are available to discuss further any of the points raised herein with the University's representatives and consultants. As mentioned previously, the City desires to work cooperatively toward solutions to the substantial problems that would be caused by the LRDP as currently proposed. We look forward to coordinating with you on the preparation of a revised – and much improved – new DEIR. Only with the benefit of such a document will the City be in a position to determine whether it can support the LRDP in some form.

Sincerely,



James G. Moose

cc: Mayor Cynthia Mathews, City of Santa Cruz  
Members of the City Council of Santa Cruz  
John Barisone, City Attorney

**EXHIBIT A**



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**GUIDE FOR THE PREPARATION**  
**OF**  
**TRAFFIC IMPACT STUDIES**

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**STATE OF CALIFORNIA**  
**DEPARTMENT OF TRANSPORTATION**

**December 2002**

## PREFACE

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

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

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

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

## ACKNOWLEDGEMENTS

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

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

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## I. INTRODUCTION

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

Caltrans reviews federal, State, and local agency development projects<sup>1</sup>, and land use change proposals for their potential impact to State highway facilities. The primary objectives of this guide is to provide:

- guidance in determining if and when a traffic impact study (TIS) is needed,
- consistency and uniformity in the identification of traffic impacts generated by local land use proposals,
- consistency and equity in the identification of measures to mitigate the traffic impacts generated by land use proposals,
- lead agency<sup>2</sup> officials with the information necessary to make informed decisions regarding the existing and proposed transportation infrastructure (see Appendix A, Minimum Contents of a TIS)
- TIS requirements early in the planning phase of a project (i.e., initial study, notice of preparation, or earlier) to eliminate potential delays later,
- a quality TIS by agreeing to the assumptions, data requirements, study scenarios, and analysis methodologies prior to beginning the TIS, and
- early coordination during the planning phases of a project to reduce the time and cost of preparing a TIS.

## II. WHEN A TRAFFIC IMPACT STUDY IS NEEDED

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

<sup>1</sup> "Project" refers to activities directly undertaken by government, financed by government, or requiring a permit or other approval from government as defined in Section 21065 of the Public Resources Code and Section 15378 of the California Code of Regulations.

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

<sup>3</sup> "Level of service" as defined in the latest edition of the Highway Capacity Manual, Transportation Research Board, National Research Council.

**A. Trip Generation Thresholds**

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

1. Generates over 100 peak hour trips assigned to a State highway facility
2. Generates 50 to 100 peak hour trips assigned to a State highway facility – and, affected State highway facilities are experiencing noticeable delay; approaching unstable traffic flow conditions (LOS “C” or “D”).
3. Generates 1 to 49 peak hour trips assigned to a State highway facility – the following are examples that may require a full TIS or some lesser analysis<sup>4</sup>:
  - a. Affected State highway facilities experiencing significant delay; unstable or forced traffic flow conditions (LOS “E” or “F”).
  - b. The potential risk for a traffic incident is significantly increased (i.e., congestion related collisions, non-standard sight distance considerations, increase in traffic conflict points, etc.).
  - c. Change in local circulation networks that impact a State highway facility (i.e., direct access to State highway facility, a non-standard highway geometric design, etc.).

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

**B. Exceptions**

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

**C. Updating An Existing Traffic Impact Study**

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

**III. SCOPE OF TRAFFIC IMPACT STUDY**

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

**A. Boundaries of the Traffic Impact Study**

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

<sup>4</sup> A “lesser analysis” may include obtaining traffic counts, preparing signal warrants, or a focused TIS, etc.

## B. Traffic Analysis Scenarios

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

1. When only a general plan amendment or update is being sought, the following scenarios are required:
  - a) Existing Conditions - Current year traffic volumes and peak hour LOS analysis of effected State highway facilities.
  - b) Proposed Project Only with Select Zone<sup>5</sup> Analysis - Trip generation and assignment for build-out of general plan.
  - c) General Plan Build-out Only - Trip assignment and peak hour LOS analysis. Include current land uses and other pending general plan amendments.
  - d) General Plan Build-out Plus Proposed Project - Trip assignment and peak hour LOS analysis. Include proposed project and other pending general plan amendments.
2. When a general plan amendment is not proposed and a proposed project is seeking specific entitlements (i.e., site plans, conditional use permits, sub-division, rezoning, etc.), the following scenarios must be analyzed in the TIS:
  - a) Existing Conditions - Current year traffic volumes and peak hour LOS analysis of effected State highway facilities.
  - b) Proposed Project Only - Trip generation, distribution, and assignment in the year the project is anticipated to complete construction.
  - c) Cumulative Conditions (Existing Conditions Plus Other Approved and Pending Projects Without Proposed Project) - Trip assignment and peak hour LOS analysis in the year the project is anticipated to complete construction.
  - d) Cumulative Conditions Plus Proposed Project (Existing Conditions Plus Other Approved and Pending Projects Plus Proposed Project) - Trip assignment and peak hour LOS analysis in the year the project is anticipated to complete construction.
  - e) Cumulative Conditions Plus Proposed Phases (Interim Years) - Trip assignment and peak hour LOS analysis in the years the project phases are anticipated to complete construction.
3. In cases where the circulation element of the general plan is not consistent with the land use element or the general plan is outdated and not representative of current or future forecasted conditions, all scenarios from Sections III. B. 1. and 2. should be utilized with the exception of duplicating of item 2.a.

<sup>5</sup> "Select zone" analysis represents a project only traffic model run, where the project's trips are distributed and assigned along a loaded highway network. This procedure isolates the specific impact on the State highway network.

#### IV. TRAFFIC DATA

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

##### A. Trip Generation

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

1. Trip Generation Rates – When the land use has a limited number of studies to support the trip generation rates or when the Coefficient of Determination ( $R^2$ ) is below 0.75, consultation between the lead agency, Caltrans and those preparing the TIS is recommended.
2. Pass-by Trips<sup>6</sup> – Pass-by trips are only considered for retail oriented development. Reductions greater than 15% requires consultation and acceptance by Caltrans. The justification for exceeding a 15% reduction should be discussed in the TIS.
3. Captured Trips<sup>7</sup> – Captured trip reductions greater than 5% requires consultation and acceptance by Caltrans. The justification for exceeding a 5% reduction should be discussed in the TIS.
4. Transportation Demand Management (TDM) – Consultation between the lead agency and Caltrans is essential before applying trip reduction for TDM strategies.

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

##### B. Traffic Counts

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

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

##### C. Peak Hours

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

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

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

#### D. Travel Forecasting (Transportation Modeling)

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

#### V. TRAFFIC IMPACT ANALYSIS METHODOLOGIES

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

- A. Freeway Segments – Highway Capacity Manual (HCM)\*, operational analysis
- B. Weaving Areas – Caltrans Highway Design Manual (HDM)
- C. Ramps and Ramp Junctions – HCM\*, operational analysis or Caltrans HDM, Caltrans Ramp Metering Guidelines (most recent edition)
- D. Multi-Lane Highways – HCM\*, operational analysis
- E. Two-lane Highways – HCM\*, operational analysis
- F. Signalized Intersections<sup>8</sup> – HCM\*, Highway Capacity Software\*\*, operational analysis, TRAFFIX<sup>TM\*\*</sup>, Synchro\*\*, see footnote 8
- G. Unsignalized Intersections – HCM\*, operational analysis, Caltrans Traffic Manual for signal warrants if a signal is being considered
- H. Transit – HCM\*, operational analysis
- I. Pedestrians – HCM\*
- J. Bicycles – HCM\*
- K. Caltrans Criteria/Warrants – Caltrans Traffic Manual (stop signs, traffic signals, freeway lighting, conventional highway lighting, school crossings)
- L. Channelization – Caltrans guidelines for Reconstruction of Intersections, August 1985, Ichiro Fukutome

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

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

<sup>8</sup> The procedures in the Highway Capacity Manual "do not explicitly address operations of closely spaced signalized intersections. Under such conditions, several unique characteristics must be considered, including spill-back potential from the downstream intersection to the upstream intersection, effects of downstream queues on upstream saturation flow rate, and unusual platoon dispersion or compression between intersections. An example of such closely spaced operations is signalized ramp terminals at urban interchanges. Queue interactions between closely spaced intersections may seriously distort the procedures in" the HCM.

## VI. MITIGATION MEASURES

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

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

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

# **APPENDIX "A"**

## **MINIMUM CONTENTS**

### **OF A**

## **TRAFFIC IMPACT STUDY**

## MINIMUM CONTENTS OF TRAFFIC IMPACT STUDY REPORT

- I. EXECUTIVE SUMMARY
- II. TABLE OF CONTENTS
  - A. List of Figures (Maps)
  - B. List of Tables
- III. INTRODUCTION
  - A. Description of the proposed project
  - B. Location of project
  - C. Site plan including all access to State highways (site plan, map)
  - D. Circulation network including all access to State highways (vicinity map)
  - E. Land use and zoning
  - F. Phasing plan including proposed dates of project (phase) completion
  - G. Project sponsor and contact person(s)
  - H. References to other traffic impact studies
- IV. TRAFFIC ANALYSIS
  - A. Clearly stated assumptions
  - B. Existing and projected traffic volumes (including turning movements), facility geometry (including storage lengths), and traffic controls (including signal phasing and multi-signal progression where appropriate) (figure)
  - C. Project trip generation including references (table)
  - D. Project generated trip distribution and assignment (figure)
  - E. LOS and warrant analyses - existing conditions, cumulative conditions, and full build of general plan conditions with and without project
- V. CONCLUSIONS AND RECOMMENDATIONS
  - A. LOS and appropriate MOE quantities of impacted facilities with and without mitigation measures
  - B. Mitigation phasing plan including dates of proposed mitigation measures
  - C. Define responsibilities for implementing mitigation measures
  - D. Cost estimates for mitigation measures and financing plan
- VI. APPENDICES
  - A. Description of traffic data and how data was collected
  - B. Description of methodologies and assumptions used in analyses
  - C. Worksheets used in analyses (i.e., signal warrant, LOS, traffic count information, etc.)



# APPENDIX "B"

## METHODOLOGY FOR

## CALCULATING EQUITABLE

## MITIGATION MEASURES

**METHOD FOR CALCULATING EQUITABLE MITIGATION MEASURES**

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

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

The formulas should be used when:

- A project has impacts that do not immediately warrant mitigation, but their cumulative effects are significant and will require mitigating in the future.
- A project has an immediate impact and the lead agency has assumed responsibility for addressing operational improvements

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

**EQUITABLE SHARE RESPONSIBILITY: Equation C-1**

**NOTE:**  $T_E < T_B$ , see explanation for  $T_B$  below.

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

Where:

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

**EQUITABLE COST: Equation C-2**

$$C = P (C_T)$$

Where:

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

**NOTES**

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

3. If the per trip cost is not used for all subsequent projects, then the equation below will be necessary to determine the costs for individual project impact and will require some additional accounting.

**Equation C-2.A**

$$C = P(C_T - C_C)$$

Where:

- C = Same as equation C-2.
- P = Same as equation C-2.
- C<sub>T</sub> = Same as equation C-2.
- C<sub>C</sub> = The combined dollar contributions paid and committed prior to current project's contribution. This is necessary to provide the appropriate cost proportionality. Example: For the first project to impact the State highway facility in question since the total cost (C<sub>T</sub>) estimate for improvements necessary to mitigate the forecasted traffic demand, C<sub>C</sub> would be equal to zero. For the second project however, C would equal P<sub>2</sub>(C<sub>T</sub> - C<sub>1</sub>) and for the third project to come along C would equal P<sub>3</sub>[C<sub>T</sub> - (C<sub>1</sub> + C<sub>2</sub>)] and so on until build-out or the general plan build-out was recalculated.

**APPENDIX "C"**

**MEASURES OF EFFECTIVENESS**

**BY**

**FACILITY TYPE**

**MEASURES OF EFFECTIVENESS BY FACILITY TYPE**

<b>TYPE OF FACILITY</b>	<b>MEASURE OF EFFECTIVENESS (MOE)</b>
Basic Freeway Segments	Density (pc/mi/ln)
Ramps	Density (pc/mi/ln)
Ramp Terminals	Delay (sec/veh)
Multi-Lane Highways	Density (pc/mi/ln)
Two-Lane Highways	Percent-Time-Following Average Travel Speed (mi/hr)
Signalized Intersections	Control Delay per Vehicle (sec/veh)
Unsignalized Intersections	Average Control Delay per Vehicle (sec/veh)
Urban Streets	Average Travel Speed (mi/hr)

Measures of effectiveness for level of service definitions located in the most recent version of the Highway Capacity Manual, Transportation Research Board, National Research Council.

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

**BASIC FREEWAY SEGMENTS @ 65 mi/hr**

LOS	Maximum Density (pc/mi/ln)	Minimum Speed (mph)	Maximum v/c	Maximum Service Flow Rate (pc/hr/ln)
A	11	65.0	0.30	710
B	18	65.0	0.50	1170
C	26	64.6	0.71	1680
D	35	59.7	0.89	2090
E	45	52.2	1.00	2350

**SIGNALIZED INTERSECTIONS and RAMP TERMINALS**

LOS	Control Delay per Vehicle (sec/veh)
A	≤ 10
B	> 10 - 20
C	> 20 - 35
D	> 35 - 55
E	> 55 - 80
F	> 80

**MULTI-LANE HIGHWAYS @ 55 mi/hr**

LOS	Maximum Density (pc/mi/ln)	Minimum Speed (mph)	Maximum v/c	Maximum Service Flow Rate (pc/hr/ln)
A	11	55.0	0.29	600
B	18	55.0	0.47	990
C	26	54.9	0.68	1430
D	35	52.9	0.88	1850
E	41	51.2	1.00	2100

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

**TWO-LANE HIGHWAYS**

LOS	Percent Time-Spent-Following	Average Travel Speed (mi/hr)
A	≤ 35	> 55
B	> 35 - 50	> 50 - 55
C	> 50 - 65	> 45 - 50
D	> 65 - 80	> 40 - 45
E	> 80	≤ 40

**URBAN STREETS**

Urban Street Class	I	II	III	IV
Range of FFS	55 to 45 mi/hr	45 to 35 mi/hr	35 to 30 mi/hr	35 to 25 mi/hr
Typical FFS	50 mi/hr	40 mi/hr	35 mi/hr	30 mi/hr
LOS	Average Travel Speed (mi/hr)			
A	> 42	> 35	> 30	> 25
B	> 34 - 42	> 28 - 35	> 24 - 30	> 19 - 25
C	> 27 - 34	> 22 - 28	> 18 - 24	> 13 - 19
D	> 21 - 27	> 17 - 22	> 14 - 18	> 9 - 13
E	> 16 - 21	> 13 - 17	> 10 - 14	> 7 - 9
F	≤ 16	≤ 13	≤ 10	≤ 7

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

GRAY DAVIS  
Governor

MARIA CONTRERAS-SWEET  
Secretary  
Business, Transportation and Housing Agency

JEFF MORALES  
Director  
California Department of Transportation

RANDELL H. IWASAKI  
Deputy Director  
Maintenance and Operations

BRIAN J. SMITH  
Deputy Director  
Planning and Modal Programs

JOHN A. (Jack) BODA  
Chief  
Division of Traffic Operations

JOAN SOLLENBERGER  
Chief  
Division of Transportation Planning

Additional copies of these guidelines can be copied from the internet at,  
<http://www.dot.ca.gov/hq/traffops/developserv/operationalsystems/>



**EXHIBIT B**

A G R E E M E N T

THIS AGREEMENT, executed this 8th day of January, 1962, by and between the CITY OF SANTA CRUZ, a municipal corporation, hereinafter called "City", and THE REGENTS OF THE UNIVERSITY OF CALIFORNIA, a corporation, hereinafter called "University",

W I T N E S S E T H:

WHEREAS, University declared in October, 1957, its intention of establishing a new general campus in the South Central Coast Area of California; and

WHEREAS, a thorough search of this area disclosed many sites which satisfied the criteria for locating a new campus; and

WHEREAS, the City of Santa Cruz requested University to locate its proposed campus in the Santa Cruz Area and made representations, offers and commitments to induce the University to select Santa Cruz as the location of a general campus; and

WHEREAS, University, relying upon these representations, offers and commitments, among others, has selected Santa Cruz as the site for a general campus, providing this and other related Agreements are culminated; and

WHEREAS, University has received an offer from the S. H. Cowell Foundation of San Francisco to sell sufficient acreage to permit development of a general campus, consisting of approximately 1,994 acres of land, part of which is situated in the incorporated area of the City of Santa Cruz, and part of which is situated in the unincorporated area

of the County of Santa Cruz, which said land is identified as Parcels A, B, and C (hereinafter sometimes referred to as the Campus Area) on the map appended hereto, marked Exhibit I, and by this reference made a part hereof as though fully set forth; and

WHEREAS, University proposes to accept this offer of S. H. Cowell Foundation after execution of this and related Agreements;

NOW, THEREFORE, in consideration of the mutual covenants and conditions herein contained and hereinabove recited, it is agreed by and between City and University as follows:

1. Industrial Liaison Office and Laboratory Site.

Without cost to University, City shall provide a parcel of land, one and one-half acres in area, to be selected by the University from City-owned property in the westerly end of the Swanton Beach Industrial Park in the City of Santa Cruz. The conveyance of said parcel shall be on the condition that it shall be held solely for University purposes for use as an industrial liaison office and laboratory site, otherwise to revert to the City on breach of such condition.

2. University Area Development Plan. City shall

participate with the University and the County of Santa Cruz in the preparation and adoption of a University Area Development Plan for the area described in Exhibit II, appended hereto and by this reference made a part hereof as though fully set forth. Said Plan shall be subject to the approval of the University and prepared without cost to the University, and shall be approved not later than June 1, 1963, provided, however, that the physical plan for the area, as

provided in subparagraphs a through e, below, shall be completed not later than December 1, 1962. City in the preparation of said Plan shall undertake the following procedures:

a. Enact and enforce legislation directed toward maintaining the status quo of improvements and land uses in the area subject to formulation of said Plan pending its completion, implementation and enforcement.

b. Establish goals, criteria, and assumptions upon which said Plan is to be based.

c. Submit a sketch of the said Plan to the Committee of the representatives from the University, the County and the City, for review and recommendation.

d. Prepare preliminary University Area Development Plan for interim endorsement by the appropriate governing bodies of the City and the County of Santa Cruz, and of the University.

e. Prepare the University Area Development Plan, including phase development plans for review, recommendation and expeditious approval by the University, the County and the City, and adoption by the City.

f. Prepare and approve precise plans for those areas in the University Area Development Plan of particular concern to the City, the County and the University.

g. Prepare and adopt regulatory measures necessary to implement said Plan.

h. In the interests of preserving aesthetic values and promoting sound community planning City and University agree to the desirability of locating utilities underground wherever this objective can reasonably be accomplished.

City shall adopt and, to the extent authorized by law, enforce necessary ordinances, give any and all necessary notices, and take any and all actions legally available to it in order that all utility facilities hereafter installed, including major relocations thereof, within the areas outlined on Exhibit III shall be installed or relocated underground except in instances exempted by mutual agreement of City and University, without expense to University or City. The City further agrees to adopt and, to the extent authorized by law, enforce necessary ordinances, give any and all necessary notices, and take any and all actions legally available to it in order that other utility facilities hereafter installed, including major relocations, as may be determined by the University Area Development Plan shall be installed or relocated underground without expense to University or City.

1. In the event disagreements arise between the City and the County as to any of the provisions of the University Area Development Plan, University shall make the final determination.

3. Annexation. Any portion or all of said Parcels A, B, and C shall be annexed to the City upon request in writing from the University.

4. Fire and Police Protection. City shall, at its expense, provide fire and police protection to that portion of the Campus Area lying within the incorporated limits of the City and at the same level of service rendered to the inhabitants of the City of Santa Cruz.

5. Transportation Facilities. Parties hereto shall cooperate with the County of Santa Cruz in encouraging

the planning and development of such public transportation facilities as may be necessary to service the Campus Area in accordance with the University Area Development Plan.

6. Municipal Services. As may be necessary to provide for campus development, City shall provide, at no expense to University, any and all water lines and sanitary sewer lines up to the boundaries of said Campus Area as good engineering practice and the reasonable needs of the University and of the City may require. City shall provide, at no expense to University, any and all storm drainage lines up to the boundaries of said Campus Area within the City. City ~~shall make water and sewer services available~~ to the University ~~at rates~~ no less favorable than those prevailing to large-scale industrial users. University shall pay the ~~normal charges~~ for water service connections ~~in accordance with the Santa Cruz Municipal Code.~~

7. Relocation of City Streets and Municipal Services. The City and the University acknowledge that the proposed boundaries of the University Campus Area include existing City streets and municipal services not required for the maintenance and operation of University facilities and also that as part of the relocation of City streets and municipal services along with the expansion of municipal services a need by the City for rights of way for municipal services across the Campus Area will arise. Therefore the parties hereto shall do the following:

a. Concurrent with the relocation of Empire Grade by the County of Santa Cruz, City shall undertake the relocation of streets and municipal services situated within the boundaries of the Campus Area or any modification thereof,

and shall provide for the abandonment and relocation of City streets not required for University purposes.

b. Should it develop from the preparation of the University Area Development Plan that the relocation of any City streets on or adjacent to the Campus Area should by mutual consent be made upon the Campus Area, the University agrees to grant a right of way for street purposes to the City pursuant to said University Area Development Plan at a cost to the City of One Thousand One Hundred Dollars (\$1,100.00) per acre, or pro rata portion thereof.

c. City shall remove the water storage tank currently situated on property adjacent to Empire Grade to a location mutually acceptable to the City and the University on property granted in exchange by the University to the City for the present water storage tank site on the following conditions:

(1) The University shall make tank sites available to the City on areas mutually acceptable to the City and the University for water service in the Campus Area and adjacent to the Campus Area but not to exceed 1 acre in aggregate area.

(2) The City shall remove the water storage tank from the Empire Grade site upon eighteen (18) months' advance notice from the University and upon completion of exchange of properties by the City and the University for sites for water tank development.

d. The City is the present owner, for reservoir purposes, of a tract of approximately 26 acres situated in Parcel A of Exhibit I, attached hereto, acquired by the City from the predecessors in interest of the S. H. Cowell Foundation by Deed dated November 18, 1889, as the same is

recorded in Volume 75 of Deeds, Page 1, in the Office of the Recorder, Santa Cruz County. City shall release and convey unto said S. H. Cowell Foundation and/or the University all of its right, title and interest in and to said reservoir site.

e. Consistent with the design criteria required by the City as to location and grade, and with the development of improvements in the Campus Area, University shall make available rights of way for water transmission lines across the Campus Area to service properties adjacent to the boundaries of the Campus Area. Said rights of way, however, shall be consistent with Campus site plans, and said lines shall be subject to relocation at no cost to University if required for University development.

f. The City shall relocate at no cost to University all other municipal services located within the Campus Area not otherwise herein described within a period of two (2) years after request therefor by University.

8. Statement of Intention by City as to Times and Methods of Financing. Contemporaneously with the execution of this Agreement, City shall furnish University with a statement in writing of its intentions in regard to methods of financing the following:

a. Extension of municipal services to the boundaries of the University Campus Area.

b. Relocation of City streets and municipal services located within the Campus Area.

c. Relocation of utilities servicing the Campus Area.

9. Cooperation with County and University. City shall cooperate with the County of Santa Cruz in securing



such roadway and utility facility rights of way as may be necessary to enable the County to carry out its obligations under the University Area Development Plan. City shall execute any and all documents including, without limitation, deeds to roadways and utility rights of way which by reason of relocation or otherwise are no longer necessary for such purposes. City shall use its best efforts to make available to University shore line property for research and study.

10. Site for Student Recreational Use. In cooperation with the Santa Cruz Port District, the City shall use its best efforts to make available to University a site for student recreational use within the area of the Santa Cruz Small Craft Harbor Project.

11. Representations and Commitments of City. The foregoing provisions of this Agreement are intended to accomplish, in cooperation with the County of Santa Cruz, without cost to University, all written representations, offers and commitments made by the City contained in the prospectus and supplements presented to University as an inducement to select Santa Cruz as the location of a general campus.

IN WITNESS WHEREOF, this Agreement is executed by the City of Santa Cruz and by The Regents of the University of California the day and year first above written.

APPROVED AS TO FORM  
5 1982  
*[Signature]*  
CITY OF SANTA CRUZ, CALIFORNIA

CITY OF SANTA CRUZ  
BY *[Signature]*  
BY \_\_\_\_\_

APPROVED AS TO FORM:  
*[Signature]*  
ASSOCIATE COUNCIL OF THE REGENTS  
OF THE UNIVERSITY OF CALIFORNIA

THE REGENTS OF THE UNIVERSITY  
OF CALIFORNIA  
BY *[Signature]* CHAIRMAN  
BY *[Signature]* SECRETARY

FILE COPY

RESOLUTION NO. NS 7757

RESOLUTION OF THE COUNCIL OF THE CITY OF SANTA CRUZ AUTHORIZING THE CITY MANAGER TO EXECUTE AN AGREEMENT WITH THE UNIVERSITY OF CALIFORNIA FOR THE EXTENSION OF WATER SERVICES, FIRE STATION SITE, AND OTHER MATTERS.

BE IT RESOLVED by the City Council of the City of Santa Cruz as follows:

That the City Manager be, and he is hereby authorized and directed to execute that certain agreement between the City of Santa Cruz and University of California for the extension of water services, fire station site, and other matters, upon the terms and conditions as set forth in said agreement as the same is presented to Council this date.

PASSED AND ADOPTED this 22nd day of December, 1964,

by the following vote:

AYES: Councilmen - Foster, Leask, Fleming, Goodrich, Walters

NOES: Councilmen - None

ABSENT: Councilmen - Mayor Lezin

DISQUALIFIED: Councilman - Hackbarth

APPROVED           /s/           NORMAN A. WALTERS  
Acting Mayor

Attest           /s/           A. J. MILLER  
City Clerk

AGREEMENT

THIS AGREEMENT, executed this 8th day of February, 1965, by and between the City of Santa Cruz, a municipal corporation, hereinafter called "City", and The Regents of the University of California, a corporation, hereinafter called "University",

W\_I\_T\_N\_E\_S\_S\_E\_T\_H :

<sup>E</sup>WHEREAS, City and University have heretofore executed an Agreement dated the 8th day of January, 1962, pertaining to the selection of a University site in the Santa Cruz area, and setting forth certain agreements pertaining to municipal services; and

WHEREAS, the parties desire to clarify and set forth with more particularity their mutual understanding and agreement regarding certain of the matters referred to in said prior agreement, namely, annexation, sewer and water service, and fire protection facilities; and

WHEREAS, nothing in this agreement contained shall alter, change, or supersede the original agreement between the University and the City above referred to, dated January 8, 1962, except as to those matters specifically provided for herein;

NOW, THEREFORE, in consideration of the mutual covenants and conditions herein contained and hereinabove recited,

IT IS AGREED by and between City and University as follows:

A. Sewer and Water System and Services

1. The University shall pay to the City the sum of NINETY-TWO THOUSAND DOLLARS (\$92,000.00) as a contribution to the City toward the ~~cost of extending water facilities~~ necessary for providing water service to the University, as said facilities are described in Exhibit "A" of this Agreement. The extension of water facilities by City as shown in Exhibit A, and the payment by University of the \$92,000, shall not be deemed to change the basic rights of the parties under the original Agreement of January 8, 1962, this Agreement or the laws of the State of California. Payment of said sum shall be made to City upon review and approval of construction documents for the water system by University. Review and approval as used herein shall mean only that review and approval necessary to assure University that the water system to be constructed will deliver water as stated in Paragraph A.2 below. Such review and approval shall be accomplished by University within ten (10) days after submission to University of the construction documents by the City.
2. The water system to be provided by the City shall be as generally set forth upon the map attached hereto, designated Exhibit "A" and by this reference incorporated herein. Subject to interruption of service from causes beyond the reasonable control of the City, the ~~system~~ described ~~shall~~ ~~at all times be capable~~ of delivering to the University system in Pressure Zone 4, water at the rate of 3,000

~~gallons per minute~~ for fire protection at a residual pressure at point of connection to the University system equal to a water surface elevation of 930 feet; and the system shall at all times be capable of supplying to University water up to ~~2,000,000 gallons in twenty-four hours for fire flow and emergency use.~~

3. City shall take such steps as are necessary to authorize and provide for interconnection of services where circumstances require the University to provide fire hydrants on its premises. Backflow preventive devices, approved by the Water Department Director of City, shall be installed at each such service connection at the expense of the University.

4. Except as otherwise provided in this Paragraph, ~~University shall pay water and sewer rates~~ at the times, in the manner and in accordance with the schedule of rates from time to time adopted and published by the City. In no instance shall such rates be less favorable than those prevailing to large scale industrial users.

Irrespective of division by roads, streets or highways, whether public or private, University's Parcels A, B, and C, as described in Agreement of January 8, 1962, and University-owned and operated areas contiguous thereto shall constitute a single premise for billing purposes and readings of all meters serving University shall be combined until such time as City adopts and publishes a system-wide water rate schedule applicable to all customers based on equitable increases in rates in successively higher pressure zones, in which case, subject to all other provisions herein, only readings of

University meters within the same pressure zone shall be combined.

5. Water system facilities constructed after the date of this Agreement, for the purpose of serving the University, and located in the portion of the County road known as Empire Grade, located within Parcel A of University property, as described in the Agreement of January 8, 1962, and as designated on Exhibit A, shall be subject to the following terms and conditions:

a. University will provide, without a charge, a license in Empire Grade across Parcel A from the existing water storage tank, north-west to the edge of Parcel A. City will install a new water line from the existing tank northwesterly to the edge of Parcel A in the area covered by the license provided by the University.

b. If, at any time within twenty (20) years from the date of this Water Service Agreement, total removal and relocation of the water system facilities from the portion of Empire Grade within Parcel A is necessary, due to requirements of the University, University shall reimburse the City that portion of the total cost of such relocation in the ratio the length of line extending from the existing storage tank northerly bears to the entire length of the line lying within Parcel A to be relocated; and University shall provide an easement on University land, without charge to City, to and within

which City can relocate such facilities. This provision shall not apply to the existing one million gallon tank, the relocation of which is provided for in the Agreement of January 8, 1962.

c. If, at any time after twenty (20) years from the date of the Water Service Agreement removal of the water system facilities from Empire Grade is necessary, due to requirements of the University, the University would provide an easement on University land, without charge, to which and within which the City could relocate its facilities. City would pay for the cost of relocation of said facilities if moved in their entirety at the request of the University.

d. If University requests relocation of a portion of the water line within the portion of Empire Grade within Parcel A, for University convenience, it shall pay the cost thereof. In event City relocates a portion of the water line, for City convenience, City shall bear the cost thereof. When the line is to be relocated for University convenience, the University shall have the right to construct, at its expense, and in a location of its choosing, a suitable relocation pipe around the proposed obstruction.

6. In accordance with the conditions of Paragraph 7.c.(2) of the Agreement of January 8, 1962, University shall convey to City 0.48 acres of land at the site of proposed Reservoir No. 3, as shown on Exhibit "A", attached hereto, in exchange

for 0.48 acres of land at the site of the existing 1,000,000 gallon storage tank. At the time the 1,000,000 gallon storage tank is relocated, University shall convey to City 0.52 acres of land for Reservoir No. 2, as shown on Exhibit "A", attached hereto, in exchange for the remaining land at the existing 1,000,000 gallon storage tank site.

University shall grant to City a site consisting of 0.77 acres of land for Reservoir No. 4, as shown on Exhibit "A" attached hereto, and as required by City in excess of the 1-acre limitation provided for in Paragraph 7.c.(1) of the Agreement of January 8, 1962.

The conveyance of all said sites to City by University shall be on the condition that should City ever abandon the use of said sites as a part of the City Water System, University shall have the right to said land from City, and upon the further condition that University shall approve the aesthetic design of the tanks and pumping stations. University shall grant to City the land necessary for each particular site shown on Exhibit "A", attached hereto, within thirty (30) days after written request therefore has been directed to University by City. Variations in location of the sites from those shown on Exhibit "A" may be made at the request of University, provided that such relocated sites shall not be at an elevation varying more than ten (10) feet higher or lower than that shown on Exhibit "A", and shall not be more than two hundred (200) feet away from the pipeline to be constructed in Empire Grade as it now exists.



B. Annexation.

1. Any portion or all of said Parcels A and B as designated in Exhibit "I" of that certain prior Agreement between the parties hereto dated January 8, 1962, shall be annexed to City upon request in writing from either the City or the University, and the City and the University agree not to protest any proceedings for the annexation of such property.

2. Any portion or all of said Parcel C shall be annexed to the City upon request in writing from the University.

C. Fire Station.

1. University shall convey to City an easement for a fire station site, consisting of an area of land not to exceed one-half (1/2) acre, on the terms and conditions as set forth in the form of easement designated Exhibit "B", attached hereto, and by this reference incorporated herein. The precise location of said site shall be at a place mutually satisfactory to both parties, and so situated as to properly serve the University campus and surrounding territory. Said grant of easement shall be made to City by University within ninety (90) days after request in writing from City directed to University, and setting forth therein the site of said fire station as proposed by City.

In the event it becomes necessary to provide for utility services across University land to serve said fire station facilities, the location of said services shall be subject to the approval of University.

IN WITNESS WHEREOF, this Agreement is executed by the City of Santa Cruz and by The Regents of the University of California, the day and year first above written.

Approved as to Form:

Rodney R. Atchison  
Rodney R. Atchison  
City Attorney

CITY OF SANTA CRUZ, a municipal corporation

[Signature]  
City Manager

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA, a corporation

Approved as to Form:

By [Signature]  
Chairman

Counsel of The Regents of the University of California

By [Signature]  
Secretary

APPROVED AS TO FORM:  
[Signature]  
DONALD L. REIDHAAR  
ASSISTANT COUNSEL OF THE REGENTS  
OF THE UNIVERSITY OF CALIFORNIA

11/30/2005 15:42 10314200700

October 16, 1964

EXHIBIT "B"

EASEMENT DEED

The Regents of the University of California, a corporation, as Grantor, do hereby convey to the City of Santa Cruz, a municipal corporation, as Grantee, an easement for the construction, maintenance and operation at the Cities expense of a municipal fire station, and for use and occupancy by Grantee as a fire station and for activities normally carried out in connection therewith, upon, over and in the property more particularly hereinafter described, and upon the terms and conditions hereinafter enumerated.

The property which is the subject of this easement is more particularly described as all that certain parcel of real property, situated in the County of Santa Cruz, State of California, and described as:

(description)

Said grant is made upon the following express conditions;

1. The right of Grantee to use and occupancy of said property hereunder shall continue for a term of fifty (50) years, and shall be automatically renewed for an additional term of fifty (50) years unless express written notice be given by Grantor to Grantee, prior to the expiration of the first term of fifty (50) years, that Grantee's use and occupancy hereunder shall terminate upon the expiration of said first fifty (50) year term.

2. Grantee's right of use and occupancy hereunder shall terminate immediately upon Grantee's termination of fire protection service to Grantor's property situated within the incorporated limits of the City of Santa Cruz.

Executed this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_\_.

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA,  
a corporation,

By \_\_\_\_\_

FILE COPY

RESOLUTION NO. NS 7757

RESOLUTION OF THE COUNCIL OF THE CITY OF SANTA CRUZ AUTHORIZING THE CITY MANAGER TO EXECUTE AN AGREEMENT WITH THE UNIVERSITY OF CALIFORNIA FOR THE EXTENSION OF WATER SERVICES, FIRE STATION SITE, AND OTHER MATTERS.

BE IT RESOLVED by the City Council of the City of Santa Cruz as follows:

That the City Manager be, and he is hereby authorized and directed to execute that certain agreement between the City of Santa Cruz and University of California for the extension of water services, fire station site, and other matters, upon the terms and conditions as set forth in said agreement as the same is presented to Council this date.

PASSED AND ADOPTED this 22nd day of December, 1964,

by the following vote:

AYES: Councilmen - Foster, Leask, Fleming, Goodrich, Walters

NOES: Councilmen - None

ABSENT: Councilmen - Mayor Lezin

DISQUALIFIED: Councilman - Hackbarth

APPROVED           /s/           NORMAN A. WALTERS  
Acting Mayor

Attest           /s/           A.J. MILLER  
City Clerk

**EXHIBIT C**

Feb 08 05 03:08p

RVC Facilities Management (949)824-3091

002/008

p. 2

JGS:pab  
12-3-63

WATER SERVICE AGREEMENT

THIS AGREEMENT between THE REGENTS OF THE UNIVERSITY OF CALIFORNIA, a Constitutional corporation of the State of California (hereinafter called "Owner"), and IRVINE RANCH WATER DISTRICT, a California Water District, organized and existing under the California Water District Law (hereinafter called "District"),

W I T N E S S E T H :

Recitals

(a) District is empowered by Division 13 of the California Water Code to maintain and operate works for the production, storage, transmission and distribution of water for irrigation, domestic, industrial and municipal purposes, and District may fix and collect charges, including standby charges, from the holders of title to land to which water may be made available, whether water is actually used or not.

(b) Owner is the present owner in fee of lands within the District, being the 990.8 acres of land and the 510 acres of land described in deeds of even date herewith from The Irvine Company to Owner and recorded in the office of the County Recorder of Orange County, California, concurrently with the execution of this agreement.

(c) Owner desires water service from District for domestic or any other purposes in connection with the development and use of its land, upon and in accordance with the terms and conditions hereinafter set forth.

-1-

Post-it® Fax Note	7671	Date	12/15	# of pages	7
To	Jim Moose	From	Bill Kocher		
Co./Dept.		Co.			
Phone #		Phone #			
Fax #	916-443-9677	Fax #			

Feb 08 05 03:08p

AVC Facilities Management (949)824-3091

p.3

NOW, THEREFORE, in consideration of the mutual covenants hereinafter contained and the payment of the rates, charges and other costs and expenses hereinafter provided to be paid by Owner to District, it is agreed as follows:

Operating Provisions

1. Application for Service. Owner hereby applies to District for water service for use on lands of Owner above described up to but not to exceed 3620 acre feet per service year. For the purpose of this agreement a service year is defined as a period commencing July 1st of a calendar year and concluding June 30th of the following calendar year. Said water service shall be made available to Owner by District when water has been made available to District from The Metropolitan Water District East Orange County Feeder No. 2, but not later than September 1, 1964. Said water shall be supplied to Owner not later than ninety (90) days after receipt of payment from Owner of the Standby and Connection Charges hereinafter enumerated in paragraph 2.

2. Standby and Connection Charges. Owner shall pay to District a Standby Charge in the amount of \$646,000.00 and a Connection Charge in the amount of \$250,000.00. The payment of these charges will be made by Owner in a lump sum not later than December 1, 1964.

(a) IF and when Owner shall apply for and use on its said land, or any additional land that may be hereafter acquired and owned by Owner within the District, water in excess of 3620 acre feet per service year, thereupon and thereafter an

Feb 08 05 03:09p

AVC Facilities Management (949)824-3091

P.4

additional Standby Charge shall be fixed in accordance with the mutual agreement of the parties.

(b) Said Connection Charge above specified shall entitle Owner to:

(i) One (1) 8-inch connection to the District's main transmission line at Paularino Road and Campus Road A and District agrees to pay the cost of the meter, valves and appurtenant connection facilities for said one (1) connection; if Owner desires larger than the 8-inch connection as above specified, the additional cost attributable thereto shall be paid by Owner; and

(ii) The right to make nine (9) additional connections to the District's main transmission lines at the locations hereinafter specified in paragraph 3, but not elsewhere, for which said connections Owner agrees to pay the cost of meters, valves and appurtenant connection facilities. Additional connections may be made by Owner to the facilities of District in the manner and subject in each instance to the payment by Owner of all charges, costs and expenses involved as provided in the then published Rules and Regulations of the District.

*9 additional connections*

3. Transmission Mains. District shall construct, install and maintain water transmission mains and facilities, as specified in this paragraph, sufficient to supply the requirements of Owner up to but not to exceed 3620 acre feet per service year.

Said transmission mains and facilities shall be connected with and supplied from at least two separate sources. One separate source shall be The Metropolitan Water District



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AVC Facilities Management (849)824-3091

p. 5

East Orange County Feeder No. 2, from which service shall be available ninety (90) days after payment by Owner of the charges specified in paragraph 2. Another separate source shall be San Joaquin Reservoir or other comparable storage facility available for supplying fifty (50) acre feet of water to Owner, from which service shall be available not later than September 1, 1965.

District shall construct water transmission mains and facilities to make said water service available to Owner at the following locations and times:

(a) At two (2) points of connection on Paularino Road located approximately 1800 feet and 4200 feet, respectively, southeasterly from Crosstown Road which points of connection are located approximately as shown upon the attached Exhibit "A", not later than:

(i) September 1, 1964; or

(ii) Ninety (90) days after District's receipt of payment from Owner of the Standby and Connection Charges specified in paragraph 2 hereof, whichever date last occurs.

(b) At a point or points of connection, as may be requested by Owner in accordance with paragraph 2(b) of this agreement, to District's main transmission line along Crosstown Road from MacArthur Boulevard to Paularino Road, which road is located approximately as shown upon the attached Exhibit "A", not later than September 1, 1965.

(c) At a point or points of connection, as may be requested by Owner in accordance with paragraph 2(b) of this agreement, to District's main transmission lines along Crosstown

Feb 08 05 03:09p

RVC Facilities Management (949)824-3091

2/006/008

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Road, Paularino Road, Culver Road, Bonita Canyon Road east of The Metropolitan Water District East Orange County Feeder No. 2 and San Joaquin Road, all of which roads are adjacent to Owner's said land and are located approximately as shown upon the attached Exhibit "A", after (but not before) January 1, 1966 and within a reasonable time, not to exceed six (6) months, after District's receipt of Owner's written request or requests for service through said point or points of connection.

PROVIDED, HOWEVER, that the foregoing provisions of this paragraph 3 shall be subject to delays due to war, acts of God, the elements, strikes, shortage of materials or labor, or other causes beyond the reasonable control of District.

4. Water Service. Once service has commenced under this agreement, District shall make water service available to Owner at the points of connection as hereinabove provided in paragraph 3, at rates of flow as limited by the appurtenant meter installations up to but not to exceed 3620 acre feet of water per service year, such water service to be without payment of any Standby and Connection Charges in addition to those hereinabove specified and paid. All water provided by District under this agreement shall be potable.

5. Water Rates. Water applied for and used by Owner shall be paid for at the times, in the manner and in accordance with the schedule of water rates from time to time published in the Rules and Regulations of the District, subject to the provisions of this paragraph.

(a) The initial water rate applicable to Owner shall be twenty cents (20¢) per hundred cubic feet for water supplied to Owner in any calendar month when the total water supplied to Owner during that month is 100,000 cubic feet or less; and ten cents (10¢) per hundred cubic feet for all water supplied to Owner during any calendar month in which the total water supplied to Owner during that month is in excess of 100,000 cubic feet; which said water rate shall not be increased prior to June 30, 1966.

*Initial water rate*

(b) The rate or rates to be charged to Owner for water service after June 30, 1966 shall be the water rates which would be applicable to Owner under the schedules of water rates from time to time published in the Rules and Regulations of the District; provided that such water rate or rates shall in no instance be higher than the lowest rate charged for service to any other consumer within the District under the same schedule of water rates.

*After June, 1966  
- Published water rates*

(c) If requested by Owner, District shall install separate meters for supplying water service to Owner. District will combine readings of all meters supplying water to Owner under the same water rate schedule and will bill Owner for service on a combination basis in accordance with the published Rules and Regulations of the District.

6. Rules and Regulations. Except to the extent that any of the provisions of this agreement are or shall be inconsistent therewith, the Rules and Regulations of the District from time to time published in the manner provided by law shall govern

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AVC Facilities Management (949)824-3091

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the performance of this agreement, which Rules and Regulations, with the exception aforesaid, are incorporated herein by reference with the same effect as if fully repeated herein.

7. Successors and Assigns. This agreement and each and all of the provisions hereof shall inure to the benefit of and shall be binding upon the successors and assigns of the respective parties hereto.

IN WITNESS WHEREOF, the parties hereto have executed this agreement on the 3rd day of January, 1964.

APPROVED AS TO FORM:

THOMAS J. KENNEDY  
GENERAL COUNSEL FOR THE REGENTS  
OF THE UNIVERSITY OF CALIFORNIA

THE REGENTS OF THE UNIVERSITY OF CALIFORNIA

By Serald H. Hagar  
Chairman

By Virginia Madson  
Secretary

IRVINE RANCH WATER DISTRICT

By H. F. Mitchell  
Vice - President

By Mark E. Henderson  
Secretary

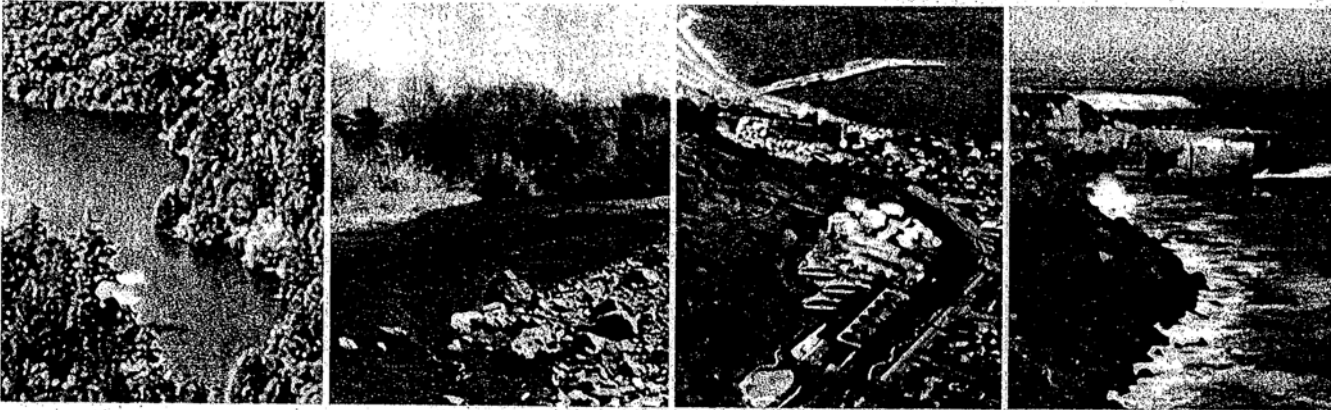
**EXHIBIT D**

# Integrated Water Plan

## Final Program Environmental Impact Report

### Response to Comments Document

State Clearinghouse #2003102140



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**Gary Kittleson**

**OCTOBER 2005**

## Chapter 2. Comments and Responses

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### 2.1 MASTER RESPONSES

#### 2.1.1 Master Response 1 (MR 1) – Existing Water Supply Conditions and Other Ongoing Water Supply Planning Issues

This Master Response responds to the following comments: CCC-1, CCC-2, CCC-10, CCC-17, MBNMS-2, NMFS-2, DFG-1, DFG-2, DFG-3, PM-15, and ACM-2.

In summary, these comments request clarification on the relationship of the Proposed Program to the City's existing water supplies, and any potential impact that the Proposed Program would have on the biological resources of the existing water supplies.

##### *Purpose of the Proposed Program*

It is important to reiterate the purpose of the Integrated Water Plan and the problem it was aiming to solve: the Proposed Program provides a flexible and phased approach for reducing near-term drought year shortages and for providing a reliable supply that meets long-term needs while ensuring protection of public health and safety (DEIR, p. 1-2). As such, the Program is critically important to the City's ability to provide water supplies during drought conditions, and thus, has independent utility apart from the Program's relationship to existing water supplies.

The primary water management problem that the City is presently facing, even with current levels of development, is a lack of adequate water supply during periods of drought. In normal and wet years when rainfall and runoff are normal to abundant, base flows in the coast and river sources are restored by winter rains. Under these conditions, the water supply system is capable of meeting the community's total annual water requirements.

In below normal, dry, and drought years, when the San Lorenzo river and coast sources run low, however, the system is highly vulnerable to shortage. In these year types, the system relies more heavily on water stored in Loch Lomond to satisfy demand, which draws down the reservoir level lower than usual and depletes available storage. In critically dry or multi-year drought conditions, the combination of very low surface flows in the coast and river sources and depleted storage in Loch Lomond reservoir reduces available supply to a level that cannot support even average dry season demands.

The City experienced severe water supply deficiencies in both the 1976-77 and 1987-92 droughts. In 1977, the City imposed severe water rationing in response to a critical shortage of water. During the 1987-92 drought, a water supply emergency was declared and either usage restrictions or rationing was imposed each year for five consecutive years. The 1976-77 event has since been established as the most severe drought of record, and is used by the City as a benchmark for assessing system reliability. If a critical drought similar to 1976-77 occurred in 2005, shortages would be in excess of 40%.

## 2. COMMENTS AND RESPONSES

Operations studies conducted by the City show that the problem of water shortage will worsen, in terms of both frequency and magnitude, as the population of the region grows and demand for water increases over time.

To address the problem of water shortage, the City has been actively considering possible new water supplies for many years. In 1997, the City initiated a new effort using a broader-based approach known as integrated water planning to consider all practical options for decreasing demand and increasing supply. A series of background studies were undertaken, including the Water Demand Investigation (Maddaus 1998), Water Conservation Plan (Fiske 2000), Water Curtailment Study (Fiske 2001), Alternative Water Supply Study (Carollo 2000), and the Evaluation of Regional Water Supply Alternatives (Carollo 2002).

The conclusion of this process, in 2003, were recommendations for solutions to the above described water management problem: two water supply strategies through desalination (Alternative D-1: City-only Desalination, and Alternative D-2: Cooperative Desalination) at 15 percent curtailment. The reduction of water demand through maximum practical water-use efficiency, or conservation, was also a key recommendation.

### *Existing Conditions*

In developing the IWP, a basic assumption regarding existing conditions was that the City would continue to use its existing sources of supply into the future as it has in the past. These include the north coast sources, diversions from Newell Creek and the San Lorenzo River at Felton and subsequent operation of Loch Lomond Reservoir, and water produced from the Live Oak wells. Without these sources, the need for additional water supply may be greater than projected in the IWP. Without adoption of the IWP, the City would experience water supply shortages in the range of 40-45 percent in a critical drought such as the one experienced in 1976-1977.

The flexible phased approach of the Proposed Program provides an immediate increment of water supply that would reduce near-term drought shortages and solve the City's current water management problem and crisis. For future water supply needs, this phased approach allows for consideration of water demand at that future time, and the development of additional water supply in response to that demand if and when it materializes. In this manner, the City can continue to assess the condition and viability of its water supply sources, including those mentioned above, and be responsive to any changes in those sources.

### *Links to Other Water Supply Sources*

Several commenters have suggested that the impacts of other projects or water supply sources within the City's jurisdiction may be offset by the use of increased amounts of desalination supply water. Commenters have also suggested that the IWP and Draft Program EIR should discuss actions to ensure that the new water supply source will provide a benefit to ecosystem restoration. In summary, these comments raised the question of this Program's relationship with any potential impacts that the City's current supplies might have on biological resources.



## 2. COMMENTS AND RESPONSES

One of the basic assumptions underlying the Integrated Water Plan was that no more water was available from the City's existing sources. Thus, the initial phase of the IWP Program speaks directly to insuring the City's water supply has some measure of drought reliability. For this reason, the IWP has independent utility. No cause and effect relationship between Phase 1 and possible increased diversions in other streams exists, as this Program augments existing supplies to assure 85% of average annual demand can be delivered in all drought conditions without any change in existing diversions or withdrawals from surface or groundwater storage. If in connection with consideration of future phases, the City were to identify any potential for interaction between desalination capacity and possible increased diversions, such relationships would be evaluated in the project-level analysis for any such later phases of the Program.

With respect to the relationship of this Program to the City's ongoing Habitat Conservation Plan, the two separate projects each have independent utility, in that neither is dependent in terms of timing or in terms of outcome on the other. The City voluntarily entered the applicant-driven Habitat Conservation Planning process for the purpose of assuring the City certainty in its future delivery of water from existing sources for the next 30 years. Negotiations are underway among the City, the National Marine Fisheries Service, and the California Department of Fish and Game to examine the life cycle stages of threatened and endangered species present in streams from which the City diverts water and the limiting factors that exist in those streams without regard to who is responsible for those limiting factors. The purpose of those discussions is to arrive at a suite of potential changes the City might make in its operations to benefit those threatened and endangered species. To the extent those operational changes might diminish the amount of water the City supplies seasonally, the City will need to deal with those changes independent of the implementation of the Integrated Water Plan.

In short, the IWP has independent utility apart from any potential to offset impacts of other projects or to further biological or habitat restoration goals. Therefore, the scope of the analysis in the Program EIR was proper. (See *Del Mar Terrace Conservancy v. City Council of the City of San Diego* (1992) 10 Cal.App.4th 712, 732-733; *Christward Ministry v. County of San Diego* (1993) 13 Cal.App.4th 31, 44-46.) To the extent that future phases, following City approval of an updated general plan, raise the prospect of increased potential for additional diversions, the City can consider such effects in future, project-level documents.

#### ***Endangered Species Issues***

Comment NMFS-1 notes several issues pertaining to the Endangered Species Act (ESA) and species listed as threatened. The commenter is suggesting that the City is responsible, through the IWP, for remedying prior impacts on endangered species in areas that are not related to the Proposed Program. The City has no such obligation as part of the IWP. Rather, to the extent listed and endangered species may be impacted by the Proposed Program, the Draft Program EIR assessed those potential impacts. Specifically, potential impacts to the Central California Coast Evolutionarily Significant Unit (ESU) steelhead were addressed (DEIR, p. 5.4-28) and it was found that the construction of the pipeline for Alternative D-2 would have the potential to affect steelhead. This impact was reduced to less than significant with the application of mitigation measures that would employ best management practices and erosion control measures.

2. COMMENTS AND RESPONSES

**2.1.2 Master Response 2 (MR 2) – Growth**

This Master Response responds to the following comments: SCC-4, SC-4, SC-5, JA-2, AS1-1, AS1-2, AS1-3, AS1-4, AS1-7, AS1-10, AS1-15, AS1-16, AS1-18, AS1-19, AS1-22, AS1-26, AS1-29, AS1-30, AS1-31, AS1-32, AS1-37, AS1-38, AS2-1, CORD-22, CORD-23, PM-10, WCM-1, WCM-2, WCM-4, PH-5, PM-11.

In summary, these comments ask if the provision for possible future expansion of a desalination plant puts water planning ahead of land use planning, and for clarification on the timing of Draft Program EIR certification and project approval.

***Water Supply Increments in Concert with Growth***

The provision of additional water supply through desalination as proposed in the IWP would occur in three staged increments, with the first increment supplying water for drought protection and to meet the currently approved and planned growth and the subsequent increments intended for drought protection and future growth (DEIR, p. 1-2, and Tables 1-1a and 1-1b). This approach was intentionally taken to enable the City, and the public, the flexibility and opportunity, in the future, to assess growth and the need (if any) for additional water supply. The phases are tied to the population projection horizons identified in the City of Santa Cruz General Plan and Local Coastal Program and the *Water Demand Investigation* (Maddaus, 1998). The near-term phase is defined as 2005 to match the current General Plan's horizon, which would not be achieved until 2009. The long-term phase is the period from 2005 through 2030 to synchronize with the planning horizon that would be identified in the updated General Plan, with the knowledge and understanding that the timing of, or need for, future phases is dependent on growth that is prescribed by adopted future General Plans for the Cities of Santa Cruz and Capitola and the County of Santa Cruz, and any increase in water demand that may accompany that planned growth. The need for consideration of expansion of the desalination plant to its future increments would be confirmed upon update of the population projections in the applicable future General Plans and timed for decision when actual water demands warrant that consideration. In this manner, the provision of water supply beyond the immediately needed first increment would not go beyond the City's needs, remove any barriers to growth, or cause growth inducement.

In addition, this phased and flexible approach for the provision of water supply would take into consideration any stabilization or lack of population growth in that additional water would not be needed if there is not a population need or water demand in the future.

This CEQA analysis is at a program-level, pursuant to *CEQA Guidelines* Section 15168, where a Program EIR may be prepared on a series of actions that can be characterized as one large project, and are related either geographically; as logical parts in the chain of contemplated actions; in connection with issuance of rules, regulations, plans or other general criteria to govern the conduct of a continuing program; or as individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.

## 2. COMMENTS AND RESPONSES

The program EIR is staged so that each phase of implementation can be approved in concert with the General Plan. The City Water Department intends to recommend to City Council that the IWP Final Program EIR, which covers each of the implementation phases as described above is certified and that the Integrated Water Plan as amended is adopted.

Prior to the construction and permitting of the first increment of desalination, which would be a plant with a capacity up to 2.5 mgd, project-level CEQA analysis would be completed. This analysis would include details regarding the operation of the desalination plant, connection points, and any necessary improvements to the wastewater treatment plant. Similarly, each subsequent increment of additional water supply, if needed as determined from the planned and approved growth at that time, would also undergo project-level CEQA analysis. As such, water supply improvements would not occur ahead of the General Plan process and the public will continue to have the opportunity to review the proposed programs.

#### *Water Supply and Land Use Planning*

Several commenters mentioned the case of *County of Amador v. El Dorado County Water Agency* (1999) 76 Cal.App.4th 931 (“*County of Amador*”), and suggested that the IWP, as proposed by the City, runs afoul of the holding of that case. To the contrary, the City considered that case in formulating the project and in preparing the EIR, and consequently followed an approach consistent with the holding and reasoning of that case.

In *County of Amador*, El Dorado County Water Agency prepared an EIR for a water program that included, among other things, a water rights application seeking to divert water from the American River watershed. (76 Cal.App.4th at p. 940.) The court summarized the problem with the water agency’s analysis as follows:

[T]he primary purpose of the water program [was] to provide water supplies to meet projected increased populations. These projections were contained in a draft general plan. In other words, water policy was predicated on the population forecasts of an unadopted general plan, and water projects were tailored to the needs outlined in that still-to-be finalized document. *In this case*, approving a water program before enacting a general plan places the proverbial cart before the horse.

(*Id.* at p. 949, italics added.) The court hastened to add that “[h]ad a general plan reflecting population and development policies been adopted, a water project to meet those needs would certainly have been appropriate.” (*Id.* at p. 950.) Because the general plan was only in the draft stages, the court said, the availability of additional water would “remove[] a major barrier to growth and can virtually ensure development.” (*Id.* at p. 951.) Thus, the court was concerned that the availability of additional water supply would induce growth and eliminate any incentive for the local planning agency to evaluate the “interrelationship of growth and water sources” through its general plan process. (*Ibid.*)

Formulated with the pitfalls identified by the court in mind, the City’s IWP represents a “flexible phased approach for reducing near-term drought year shortages and for providing a reliable supply that meets long-term needs[.]” (DEIR, p. 1-2.) The document repeatedly acknowledges that

2. COMMENTS AND RESPONSES

“development of additional water supply for Santa Cruz [must be] responsive to rather than built out ahead of planned growth.” (DEIR, p. 6-11; 6-16 (for this reason, “additional environmental review will be required for any expansion of the desalination plant or proposed change in operation”).) Thus, the DEIR is a program-level document designed to evaluate a “series of actions comprising a comprehensive water plan[.]” (DEIR, p. 2-1.) The phases of Program implementation “are tied to the population projection horizons identified in the City of Santa Cruz General Plan and Local Coastal Program.” (DEIR, p. 4-26.) The proposed desalination plant will not be constructed until project-level CEQA analysis has been completed, and the eventual expansion of the plant’s capacity to track updated population projections will be subject to additional subsequent environmental review. (DEIR, pp. 4-26 to 4-27.)

The City of Santa Cruz is currently facing a severe water supply shortage during times of drought. (DEIR, p. 3-1.) The City expects that under existing conditions, without adoption of the IWP, the City would experience water supply shortages in the range of 40-45 percent in a critical drought such as the one that occurred in 1976-1977. (DEIR, pp. 3-4, 4-27.)<sup>1</sup> To overcome this enormous potential shortfall and to prudently consider the water needs of future growth, the City embarked on a multi-year process of background studies leading up to the formulation of the IWP. (DEIR, p. 3-4.) Based on these studies, the City’s experts concluded that two potential desalination strategies should be evaluated at a programmatic level in the IWP DEIR: D-1 (City-Only Desalination) and D-2 (Cooperative Desalination). (DEIR, p. 3-12.) Under scenario D-1, the proposed desalination plant would provide “supplemental water supply to the City’s service area during drought events.” (DEIR, p. 1-8.) Under D-2, the plant would operate more frequently in order to provide non-drought supply to a potential partner water agency. (DEIR, p. 1-8.) Under either scenario, the plant’s operations would be phased in—the initial operational range would be up to 2.5 mgd, expanding to up to 3.5 mgd in 2015 and up to 4.5 mgd in 2025. (DEIR, pp. 1-8 to 1-10.)<sup>2</sup>

The initial 2.5 mgd capacity provided by construction of the desalination plant would not remove an obstacle to growth or induce growth because it is intended to supplement surface water supply in dry years and will not change the manner in which the City processes applications for service connections for new construction. (DEIR, p. 6-9.) Thus, unlike the situation in *County of Amador*,

<sup>1</sup> As illustrated in the following table, a potential forty percent shortage is much higher than anything tolerated by other California water agencies that have adopted integrated water plans:

Agency	Acceptable Shortfall	Acceptable Frequency
Alameda County Water District	10% annual	Once every 30 years
Contra Costa Water District	15%	
East Bay Municipal Utility District	25% limit on rationing	
Marin Municipal Water District	25%	
San Francisco Public Utilities Commission	0% goal for City; Suburban wholesale seeks 0% also	
Santa Clara Valley Water District	0%	Once every 100 years

<sup>2</sup> Notably, for all scenarios, the sizing of the desalination plant was based on the assumption that the City would plan for up to 15 percent curtailment in drought-year shortage situations. (DEIR, pp. 3-9 to 3-10, 3-12, 4-5 to 4-7.) “Acceptance of less than full supply in drought years means the capacity of the recommended desalination facility is approximately half the size it would otherwise have to be if the City opted to meet full demand in all years.” (DEIR, p. 4-5.)

## 2. COMMENTS AND RESPONSES

*supra*, the DEIR's analysis does *not* assume future action by the Santa Cruz City Council approving an updated General Plan allowing greater levels of population growth than found in the current General Plan. Rather, even the first phase of the IWP program, which is intended to serve population levels already anticipated by the existing, approved General Plan, must undergo project-level environmental analysis prior to construction.

As noted above, the EIR also serves as a program-level EIR for potential expansion of the desalination plant capacity to meet additional needs dictated by growth that will be allowed during future general plan cycles, including the proposed general plan that is currently in the process of being updated. (DEIR, pp. 4-26 to 4-27.) Because additional (project-level) environmental review will be necessary before these later phases of the IWP can be implemented, the City will not be in a position, in certifying this *program*-level EIR, to obtain water supplies beyond those required for currently anticipated levels of population growth, as found in the current General Plan. (DEIR, p. 6-17.)

Thus, unlike the situation in *County of Amador*, where the court was concerned that the availability of additional water would facilitate growth ahead of proper land use planning, here, "additional environmental review will be required for any expansion of the desalination plant or proposed change in operation to ensure that the capacity and manner of operation of the plant is consistent with future population projections and City/County planning documents, and to ensure that development of additional water supply for Santa Cruz is responsive to rather than built out ahead of planned growth." (DEIR, pp. 6-10 to 6-11.)

The environmental effects associated with the growth allowed in the 1992 General Plan were evaluated in the General Plan EIR. The initial 2.5-mgd component of the IWP would accommodate growth consistent with that Plan. (DEIR, pp. 6-12 to 6-13.) The IWP Draft EIR acknowledges that the analysis in the General Plan update EIR is not yet available, but explains that project-level analysis of potential future expansion of the desalination plant capacity will include analysis of consistency between the Program and future growth envisioned by the General Plan update. (DEIR, pp. 6-13 to 6-14.)

Based on the holdings of cases such as *Stanislaus Natural Heritage Project v. County of Stanislaus* (1996) 48 Cal.App.4th 182, 200 ("to defer any analysis whatsoever of the impacts of supplying water to this project until after the adoption of the specific plan calling for the project to be built would appear to be putting the cart before the horse[]") and *Napa Citizens for Honest Government v. Napa County Board of Supervisors* (2001) 91 Cal.App.4th 342, 372-374 (EIR for specific plan inadequate for failing to identify additional possible water sources where certainty of primary source was questionable), the City feels it is prudent to include consideration of the City's water needs into and beyond the next general plan cycle while addressing the current need to prevent severe shortages during drought years. Being mindful of *County of Amador, supra*, however, the City has tried to find a balance between securing water supplies to support future land uses and allowing water planning to run roughshod over the General Plan process. The City feels that the phased approach taken by the programmatic IWP EIR is a balanced approach.

## 2. COMMENTS AND RESPONSES

In light of this approach, any claim that the City is “violating” the *County of Amador* decision would boil down to an assertion that CEQA somehow prevents the City from seeking to augment current water supplies to avoid extremely severe water shortages facing the City’s *current* population during drought conditions, and also prevents the City from prudently looking beyond the near term by conducting a *program-level* analysis of *possible* future phases of the IWP. The City would respond to any such argument by noting that it does not read CEQA to *penalize* agencies for planning to avoid severe water shortages or for looking beyond the immediate future. Rather, more information is generally better than less, and more informed decisions are generally better than less informed decisions. The key point is that, if and when the City Council certifies this EIR, it will not yet be in a position to obtain water supplies beyond those needed in the current General Plan. It may be a step closer to obtaining such future supplies, but the mere fact that program-level analysis has been prepared is not, by itself, “growth-inducing.” Nor is it growth-inducing to take steps to ensure that, if a 1977-style drought occurs in the near future, Santa Cruz citizens and businesses are not required to make severe cutbacks in water usage resulting in severe hardships.

***University Growth***

At the time the NOP for the Draft Program EIR was issued, the UCSC’s LRDP Update and EIR had not yet begun. As such, it would have been speculative to include an analysis of that program in the Draft Program EIR. However, as it was known that the LRDP would soon undergo an update, and that an increase in University population might or might not increase water demands (i.e., an increase in water demand is dependent on whether any new University population would be housed on or off campus), we recognized that the LRDP Update should be included in future General Plan updates. This approach is in concert with the flexible and phased approach of the IWP.

It is important to note that the initial increment of water supply (2.5 mgd) is not dependent on UC’s future plans. The water demand projections for the University as used in the Integrated Water Plan were based upon the 1988 LRDP. These projections are actually higher than the current actual use at the University with projected water demand for the University at approximately 400 mgd while actual use is approximately 200 mgd. As such, the water demand projections used in the IWP are not outdated. The draft Long Range Development Plan was completed in January 2005 and the draft EIR on the LRDP is currently available for public review (comment period closes on December 19, 2005).

Chapter 6 of the DEIR addresses “Growth Inducement and Secondary Effects of Growth,” recognizing that project-level environmental review will be required prior to implementation of the IWP beyond the initial phase. That project-level review will address the consistency of future stages of the proposed Program with the growth envisioned in the General Plan update. By the time such project-level analysis is conducted, the increases in UCSC population established by the updated LRDP presumably will have been subsumed in the updated General Plan, and the growth effects of the overall increases in population will have been evaluated in the updated General Plan EIR. The programmatic analysis contained in the IWP EIR does not support action that would expand population growth beyond that allowed in the current LRDP and General Plan. Detailed analysis of growth at UCSC is properly studied in the EIRs for the UCSC LRDP update and the General Plan

## 2. COMMENTS AND RESPONSES

update, not in this program-level document. Project-level analysis of future phases of the IWP will reflect growth at UCSC as it is incorporated into the General Plan.

***Soquel Creek Water District***

Please note that Soquel Creek Water District will be assessing the potential impacts of additional water supply as obtained through desalination on growth inducement and the secondary effects of growth in its draft EIR which would have to be completed prior to Soquel utilizing any water under operating scenario Alternative D-2. (DEIR, p. 6-14.)

Finally, an investigation into the other individual and commercial water users who are outside the City of Santa Cruz Water District Service Area and their potential for increased usage is too remote and speculative to be within the purview of the City's EIR on its Integrated Water Plan. At most, analysis at the cumulative level might be appropriate, but these potential increases in usage are too speculative even to be considered in the cumulative context. CEQA defines a cumulative impact as "an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts." The CEQA Guidelines (15130[b][1]) identify two basic methods for establishing the cumulative environment in which the project is to be considered: either a list of past, present, and reasonably foreseeable future projects; or the use of adopted projections from a General Plan or other regional planning document. However, in the case of the upstream water users who are outside the jurisdiction of the City of Santa Cruz, Soquel Creek Water District, and the Groundwater Management Plan for the Soquel Aptos area, there is no means by which to determine whether there are any reasonably foreseeable future projects for increased water usage. Thus, potential increases in usage by other individual and commercial users are too remote and speculative to be considered in the IWP EIR. Furthermore, any lawful increases in usage will be subject to CEQA review as part of the approval process for increased diversion.

**2.1.3 Master Response 3 (MR 3) – Alternatives**

This Master Response responds to the following comments: CCC-2, CCC-8, CCC-12, MBMNS-3, MBNMS-4, SUC-2, SC-4, SC-9, AS1-38, CORD-2, CORD-4, CORD-6, and CORD-24.

In summary, these comments addressed the alternatives that were addressed in formulating the Integrated Water Plan and in completing the CEQA analysis on the IWP.

An EIR shall describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decisionmaking and public participation. An EIR is not required to consider alternatives which are infeasible. The lead agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason.

**Response to Comment Letter LA-10**

**Response to Comment LA-10-1.** Please refer to Response to Comment LA-5-1 regarding LAFCO approval of the extension of the City's water service area and the City's obligation to provide water to the Campus. Neither the City nor LAFCO is a responsible agency under CEQA. Moreover the LRDP Draft EIR exhaustively considers the water supply impacts. Please also see Master Response UTIL-1 regarding impacts on regional water supply.

**Response to Comment LA-10-2.** The 2005 LRDP EIR is a programmatic document meant to provide disclosure of impacts that may occur as the result of long range planning and is meant to provide a framework for understanding the LRDP's impact in order to place the impact of specific projects within the cumulative context of the impact of the LRDP. Because specific projects have yet to be sited or planned, it is impossible to get specific Clean Water Act Section 404 or incidental take permits. Wetlands delineations and obtainment of project-specific permits will occur as projects are proposed and reviewed within the context of the 2005 LRDP. Such permits would only be considered after tiered project-specific CEQA documents have been prepared, including delineations of wetlands on a project-specific basis.

**Response to Comment LA-10-3.** Please refer to Master Response LU-1, which addresses the County's concern regarding consistency with the City and County general plans. Please also refer to LA-3-41 regarding phasing University growth.

**Response to Comment LA-10-3.** Please refer to Master Response LU-1, which addresses the County's concern regarding consistency with the City and County general plans. Please also refer to LA-3-41 regarding phasing University growth.

**Response to Comment LA-10-4.** Growth under the 2005 LRDP will take place over a 15-year period. Comparing the impacts of future construction to present conditions would not provide an accurate picture of the actual effects of development. The AMBAG Travel Demand Model used to estimate future traffic provides the most accurate forecasts available, and the future conditions the model predicts are likely to exist within the LRDP planning horizon. The model does not include LRDP-related growth, however, and therefore provide a useful comparison to show the effects of the LRDP on the environment, as it will exist at the time of buildout. A baseline defined by anticipated future conditions is meaningful and appropriate for analysis of the 2005 LRDP where the project under consideration has a long implementation timeline and reasonably accurate projections of future conditions are available.

Near-term analysis would be conducted for individual components of the 2005 LRDP as they are proposed. For example, project-specific analysis has been provided for the 2300 Delaware Avenue and Family Student Housing components of the 2005 LRDP. These analyses compare project-based traffic growth to near-term baselines. However, the program-level analysis addresses the entire 2005 LRDP program of development as described in the project description (Draft EIR, Volume I, Chapter 3). The Caltrans Guide to Preparation of Traffic Studies (Caltrans 2002) is focused on typical development projects, which are constructed over a short period of time and therefore generate traffic almost immediately following completion. This would not be the appropriate approach for assessing the impacts of the LRDP program.

**Response to Comment LA-10-5.** The cumulative impacts analysis and mitigation measures address full development of the campus under the 2005 LRDP. They do not defer effective mitigation to a future



project-level analysis. Since the precise timing and traffic contributions of individual components of the 2005 LRDP will not be known until specific projects are proposed, the impacts at full development of the 2005 LRDP are analyzed, and the project-specific mitigation measures identified. The purpose of the project-level analyses, which normally will be tiered from the program level 2005 LRDP EIR, will be to identify specific locational and population-driven effects of each subsequent project proposed; to identify which of the previously developed mitigation measures including those adopted pursuant to the program EIR, are applicable to the specific project; and to “fine tune” the mitigation to the specific project with respect to project footprint, population, setting, and appropriate timing for implementation. The 2005 LRDP program EIR commits the University to mitigation, even of small impacts.

Please see Master Response MIT-1 for information on fair share contributions for mitigation of off-campus impacts.

**Response to Comment LA-10-6.** The number and size of special events on campus are highly variable from year to year. The highest traffic volumes typically occur during the Shakespeare Santa Cruz Festival in July and August, student move-in day in September, and graduation and student move-out day in June. At other times, simultaneous full capacity events are otherwise infrequent, primarily because of limited demand for such events. Although there are numerous public and departmental events on campus each year, most of these events are relatively small, and they often have staggered starting times, such that the associated traffic is spread less intensely over a longer period of time. The TAPS Event Parking Manager regularly reviews the events calendar. When events are proposed that likely will be demanding of parking and will result in substantial traffic on and off campus, the Events Parking Manager advises the event planners that their traffic may be directed to more distant parking, and that shuttles may be required. In some instances, these parking limitations may result in event rescheduling. This mechanism may also serve to reduce peak event traffic to the campus.

Because of the high degree of variability in the timing, frequency and size of special events, it is impossible to determine at this time exactly how often events would result in short-term impacts at off-campus intersections. This issue will be addressed in detail if and at such time as new events facilities are proposed. If environmental analysis of the proposed facility indicates that the project would result in significant impacts at off-campus intersections, additional project-specific mitigation measures will be proposed to address these impacts. In the interim, in order to minimize parking and traffic impacts that might result should simultaneous full capacity events occur frequently, LRDP Mitigation TRA-5D has been revised in the Final EIR Volume IV, Chapter 3, Revised Table 2-1.

**Response to Comment LA-10-7.** Please see Master Response MIT-1 for information on fair share contribution. Regarding phasing of campus growth, please see Response to Comment LA-3-41.

**Response to Comment LA-10-8.** The University does not state in Draft EIR Section 4.11 that new housing constructed in the City of Santa Cruz would “more or less accommodate” the additional students under the 2005 LRDP who would live off campus. It is true that the Draft EIR would have drawn such a conclusion if only the LRDP-related demand had been compared to the projected supply (see data reported in Tables 4.11-10 and 4.11-11). But the Draft EIR does not evaluate the project’s demand for housing in isolation from the demand created by other growth. Rather the Draft EIR properly evaluates the project’s demand for housing in the cumulative context (see Table 4.11-12), and concludes that campus growth in conjunction with other employment growth in the study area would result in a demand for housing that would exceed the existing and projected housing supply in 2020.

The Draft EIR reports housing projections for the City of Santa Cruz based on two published sources: the City's General Plan Housing Element and the 2004 AMBAG Population, Housing and Employment Forecasts (See Draft EIR pages 4.11-12 and -13). The Draft EIR points out the inconsistency between the City's Housing Element, which states that it is the City's goal to support the production of 2,167 new housing units between 2000 and 2007, and the AMBAG forecasts, which forecast only 1,684 new housing units between 2005 and 2020. The Draft EIR uses the latter forecast for analysis because it is a reasonable "worst-case" forecast. The Draft EIR also acknowledges that the AMBAG forecast did not contemplate the campus's enrollment growth under the 2005 LRDP. Note that the 2004 AMBAG forecasts, which extend to year 2030 (10 years after the time frame of the 2005 LRDP), estimate that 3,256 new housing units will be built in the City between 2005 and 2030. The 2020 projection is an interim AMBAG forecast.

**Response to Comment LA-10-9.** The Draft EIR discloses all reasonably foreseeable consequences of the proposed project. It evaluates both the direct and the indirect/secondary effects ("ripple" effects) of the proposed LRDP on the City.

Direct effects are analyzed at length in Section 4.11 of the Draft EIR, which presents quantitative estimates of the direct employment and population growth that would result as a consequence of the proposed LRDP. That section shows that the cumulative demand for housing, including the demand that would result from campus growth under the 2005 LRDP, would not be met by the projected supply.<sup>1</sup> The study area communities would therefore build more housing than currently projected. In the event that additional housing is not constructed, more persons would commute into the study area from other areas where the housing supply is projected to be better (Draft EIR page 4.11-26).

Indirect/secondary effects ("ripple" effects) of the proposed LRDP are analyzed in Section 6.3, *Growth-Inducing Impacts of the 2005 LRDP*, of the Draft EIR. Quantitative estimates of indirect and induced employment and population that would result as a consequence of campus growth under the 2005 LRDP are presented in that section. That section also notes that, in light of the cumulative demand for housing, it is expected that more housing beyond that included in the City's General Plan Housing Element or AMBAG forecasts would be constructed based on evidence of demand, unless the City elects to limit growth. The Draft EIR states that because housing sites within the city would be either infill or redevelopment sites, significant impacts to resources such as agricultural land, biological resources or cultural resources from the development of additional housing would be unlikely to occur. It acknowledges that there would potentially be significant and unavoidable impacts from this additional housing related to traffic and urban services, and that campus growth would contribute to these impacts. Similar effects on Santa Cruz County are also discussed in the Draft EIR. Further quantification of these secondary effects would be speculative.

**Response to Comment LA-10-10.** The Draft EIR analyzes all of the environmental consequences of campus growth under the 2005 LRDP, including effects related to traffic, air quality, and service demands. The analysis in each section of Chapter 4 addresses both the on-campus or direct growth and the off-campus or indirect/secondary growth related to the 2005 LRDP. The traffic analysis in Draft EIR

<sup>1</sup> Note that the analysis in the Draft EIR is consistent with the directions of the court in the case of *Napa Citizens* because the Draft EIR estimates the number and types of units that LRDP-related population would require, and evaluates whether there would be an adequate number of units to accommodate this population and the consequences of the lack of adequate number of housing to serve the demand.

Section 4.14 assigns the LRDP-related population to the study area. Based on both the on-campus and off-campus population, it estimates the project's impact on the transportation system. The air quality impact assessment in Section 4.3 includes estimates of regional and localized emissions from all LRDP-related persons traveling to and from the campus. The analysis of impacts on public services and utilities in Sections 4.13 and 4.15 includes an evaluation of the effects of both the on-campus and the off-campus population on public services and utilities. The analysis in Section 4.11 concludes that the project, by adding both the direct and indirect population to the study area, would result in a significant impact related to population. That section also concludes that the project would make a cumulatively considerable contribution to a significant cumulative impact on housing.

The Draft EIR includes mitigation measures for all significant impacts of the proposed LRDP and its cumulative impacts. That includes not only the housing impact, but also all other environmental resources (traffic, air quality, public services, and utilities) that would be affected directly and indirectly by campus growth under the LRDP. Also refer to Response to Comment LA-3-25 and Master Response POP-1 (Magnitude of Enrollment Growth).

**Response to Comment LA-10-11.** The Draft EIR evaluates some of the options presented by the commenter, including provision of more housing on campus and lower enrollment growth targets in Chapter 5, *Alternatives*. See also Master Response ALT-5 (Increased On-Campus Housing Alternative) and Master Response POP-1 (Impacts of Regional Housing Supply). Note that the Campus proposes to recommend to The Regents the adoption of the Final Draft 2005 LRDP (September 2006), which revises the Draft 2005 LRDP (January 2005) to reflect the Reduced Enrollment Growth Alternative previously analyzed in the 2005 LRDP Draft EIR and identified as the Environmentally Superior Alternative. For more information regarding the Final Draft 2005 LRDP, please see Final EIR, Volume IV, Chapter 2, *Project Refinements*.

**Response to Comment LA-10-12.** Please refer to Response to Comment LA-2-115 for a discussion of impacts related to additional school closures.

**Response to Comment LA-10-13.** Please see Response to Comment LA-3-28 regarding the legal effect of the water supply agreements between the City and the University.

The Draft EIR uses two CEQA standards of significance to evaluate the proposed project's impact on water supply. The first standard reads: "Require or result in the construction or expansion of water or wastewater treatment facilities, which would cause significant environmental effects." The second standard reads: "Result in the need for new or expanded water supply entitlements due to insufficient water supplies available to serve the project from existing entitlements and resources."

As discussed under LRDP Impact UTIL-1 (Draft EIR page 4.15-19), development under the 2005 LRDP would require the expansion of on-campus and off-campus water conveyance systems; however, the Draft EIR concluded that the construction of such improvements would not cause significant environmental impacts. As indicated in Master Response UTIL-1 (Section 5.2.15.3), no additional improvements would be needed to accommodate expansion of the campus's summer programs. Please refer to Response to Comments LA-5-1 and LA-3-28 for information about the water supply agreements between the University and the City.

With respect to whether the existing supplies would be adequate to serve the campus and other growth in the service area, the Draft EIR provides a detailed analysis of the campus's demand, the demand from the

rest of the service area, and the available supply (see LRDP Impact UTIL-9). The effects of this total annual demand are analyzed for both normal water years and drought conditions. Based on this analysis, the Draft EIR concludes that a new supply source is needed initially for drought conditions, but sometime after 2015 for normal water years as well. The Draft EIR concludes that the construction of such a new supply source could result in significant and unavoidable impacts. This analysis was based on the City's data available at the time that the Draft EIR was prepared. Please see Master Response UTIL-1 for additional information about this impact analysis and the more recent conclusions made by the City that existing water supplies are adequate to serve new growth through 2020 in normal water years, including the growth under the 2005 LRDP.

The Draft EIR also identifies mitigation measures (UTIL-9A through -9I) to reduce the Campus's demand for water, and to reduce the need for a new supply source to the maximum extent feasible. The University has revised and reorganized these mitigation measures to clarify the Campus's commitment to reduce water usage on the campus. See Final EIR Volume IV, Chapter 2, *Changes to Draft EIR Text*, Table 2-1. Also refer to Master Response UTIL-2. Moreover, in compliance with Government Code 54999, as stated in the Draft EIR and further explained in Master Response MIT-1, the University will pay its fair share of the cost of developing the new water supply source if and when it is needed.

**Response to Comment LA-10-14.** Please refer to Section 5.2.15.3 in Master Response UTIL-1, which explains why a project-only impact related to water supply would not be meaningful and, therefore, was not included in the Draft EIR. That Master Response (Section 5.2.15.4) also discusses the potential environmental effects from the development of a desalination plant and explains why a detailed evaluation of this plant is not included in the LRDP EIR. The Draft EIR and Master Response UTIL-1 (Section 5.2.15.3) explain that because the volume of water for the campus that is accounted for in the City's forecasts is more than the volume that the Campus anticipates it will need, the demand associated with the proposed project is adequately addressed in the City's water planning process. As indicated in Master Response UTIL-1, the University has revised text on page 4.15-33 to clarify this point. Please also refer to Master Response UTIL-1 (Section 5.2.15.3) regarding the environmental effects of growth and development under the 2005 LRDP on the City's water supply system. Also note that the University now proposes to adopt the Final Draft 2005 LRDP, previously analyzed as the Reduced Enrollment Growth Alternative to the Draft 2005 LRDP. This alternative would result in lower water demand than analyzed for the previously proposed project.

**Response to Comment LA-10-15.** Please refer to Section 5.2.15.3 in Master Response UTIL-1 with respect to the impact of LRDP-related off-campus population on water supply.

**Response to Comment LA-10-16.** Please see Response to Comment LA-5-1 regarding the City's provision of water services outside its boundaries.

**Response to Comment LA-10-17.** The Draft EIR adequately analyzes the impacts of increased summer water usage (see LRDP Impact UTIL-9, Draft EIR page 4.15-36). Please also see Response to Comment LA-9-104. Please refer to Master Response UTIL-1 (Section 5.2.15.2) regarding the inclusion of summer session demand in the campus's water demand estimates. Section 5.2.15.3 of this response provides additional information about the campus's contribution to the need for a new water supply source under both drought and normal conditions, based on conclusions made by the City since the Draft EIR was published.

**Response to Comment LA-10-18.** The Draft EIR identifies mitigation measures to reduce the amount of water that would be needed to serve campus growth under the 2005 LRDP. Also refer to Master Response UTIL-2, which provides additional information about these water supply mitigation measures. The Draft EIR finds the impact to be significant and unavoidable because the Campus's contribution under Government Code Section 54999 and the water conservation measures identified as mitigation in this EIR would not eliminate the need for a new water supply source in the future, and it is unknown whether all potentially significant environmental impacts associated with future development of a new water supply source can be reduced to a less-than-significant level. Also refer to Master Response UTIL-1, which explains that unlike a large development project that would increase water demand immediately upon completion, campus growth under the LRDP will not instantaneously increase water demand.

**Response to Comment LA-10-19.** The reference error in the Draft EIR, which referred to LRDP Mitigation TRA-1B instead of TRA-2B, has been corrected throughout the EIR, as shown in Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*, Revised Table 2-1. Regarding emission reductions that would be achieved by the implementation of the proposed mitigation measures, please see Response to Comment RA-1-1.

Note that the Campus proposes to recommend to The Regents the adoption of the Final Draft 2005 LRDP (September 2006), which revises the Draft 2005 LRDP (January 2005) to reflect the Reduced Enrollment Growth Alternative previously analyzed in the 2005 LRDP Draft EIR and identified as the Environmentally Superior Alternative. As discussed in the Final EIR, Volume IV, Chapter 2 (*Project Refinements*), under the Final Draft 2005 LRDP, VOC emissions would be reduced below the threshold without mitigation. NO<sub>x</sub> emissions would also be reduced, but would still result in a significant impact to air quality.

**Response to Comment LA-10-20.** The discussion of LRDP Impact AIR-4 (Draft EIR pages 4.3-30 and 31) focuses on how regional air quality management plans are developed. In order for a project to be found consistent with the plan, the growth proposed under the project must have been included in the regional air quality planning efforts. The Draft EIR concludes that campus growth under the 2005 LRDP was not accounted for in the current air quality management plan for the air basin. Therefore, the University proposes to work with the local agencies that are involved in air quality planning to ensure that the emissions are accounted for in the next air quality plan that is developed. This does not mean that the University will not implement measures to reduce the air emissions associated with campus growth. The University is committed to implementing all of the mitigation measures listed in Section 4.3 of the Draft EIR, which are intended to reduce emissions of pollutants. In addition, although not listed as a mitigation measure, guidelines for sustainable transportation initiatives recently have been developed by the University of California. The Campus will implement programs with goals to reduce greenhouse gas emissions, especially through conversion of campus fleets to low or zero emission vehicles and through the use of alternate fuels. Also see Response to Comment RA-1-6 regarding LRDP Impact AIR-4.

**Response to Comment LA-10-21.** The Draft EIR includes all mitigation measures for construction activities that are recommended by the MBUAPCD. With respect to emissions from campus operations (LRDP Impact AIR-2), the analysis shows that significant sources of emissions are motor vehicles and space heating of the nonresidential space, including the new turbines that would replace the campus cogeneration plant (Draft EIR pages 4.3-25 through 28). For each of these sources, the EIR includes mitigation measures to reduce emissions. In some instances, the mitigation measures in the EIR are the

only ones that are available to address these sources. For instance, modifying the travel behavior of individuals is essential to reducing motor vehicle emissions. To modify travel behavior, the EIR includes LRDP Mitigation TRA-2B, which is a suite of TDM programs from which the Campus would select, to reduce single occupant vehicle travel to and from the campus. There is no other option available to the Campus to reduce total automobile emissions associated with commuter vehicles. With respect to space heating emissions, the Campus has included a performance standard for the new gas turbines (LRDP Mitigation AIR-2C) and is also proposing to design and construct buildings so that the dependence on natural gas heating is minimized (LRDP Mitigation AIR-2A). Note that the Campus already uses natural gas for heating purposes and also in its emergency generators. Therefore, the heating and emergency generator emissions in the Draft EIR are estimated from the combustion of this relatively clean burning fuel; a change to an even cleaner fuel is not feasible at this time. No additional mitigation measures are available.

**Response to Comment LA-10-22.** Please see Response to Comment LA-9-12 for information about the basis for the population-related cumulative impact analyses provided in the Draft EIR. Also, each section does provide the relevant geographic context for each cumulative impact described. For example, the geographic context for LRDP Impact AES-7 is defined as being “areas with views of the UC Santa Cruz campus and the lands surrounding the campus” (see Draft EIR page 4.1-22). The geographic area for most population-related cumulative impacts includes the cities of Santa Cruz, Capitola and Scotts Valley, and all of unincorporated Santa Cruz County, as relevant to each topic (see Draft EIR page 4-7). However, please refer to each specific cumulative impact discussion for the geographic area that is relevant to the impact being described.

**Response to Comment LA-10-23.** Please refer to Master Response PD-1 (Magnitude of Enrollment Growth), Master Response ALT-3 (Range of Feasible Alternatives), and Master Response ALT-5 (Increased On-Campus Housing).

**Response to Comment LA-10-24.** The Draft EIR considers a Reduced Enrollment Growth Alternative (Draft EIR pages 5-20 to 5-23). Please refer to Master Response ALT-3 (Range of Feasible Alternatives), Master Response PD-1 (Magnitude of Enrollment Growth), and Master Response ALT-5 (Increased On-Campus Housing). As discussed in Chapter 2 of the Final EIR (Volume IV), the Campus will recommend to The Regents the adoption of the Final Draft 2005 LRDP, which is the Reduced Enrollment Growth Alternative analyzed in the Draft EIR. The Final Draft 2005 LRDP has been revised to reflect the lower enrollment growth target under that alternative.

**Response to Comment LA-10-25.** Please refer to Master Response ALT-3 (Range of Feasible Alternatives), Master Response PD-1 (Magnitude of Enrollment Growth), and Master Response ALT-5 (Increased On-Campus Housing).

**Response to Comment LA-10-26.** As discussed in the Draft EIR, the University's projections for growth of water demand fall within the City's projections for the University. See Master Response UTIL-1 for more explanation on this point. Also refer to Master Response ALT-5 for further explanation of the effects on increased on-campus housing on water demand within the service area.

**Response to Comment LA-10-27.** Please refer to Master Response ALT-3 (Range of Feasible Alternatives), Master Response PD-1 (Magnitude of Enrollment Growth), and Master Response ALT-5 (Increased On-Campus Housing).

DEPT DEC 19 2005



CITY CLERK'S DEPARTMENT

809 Center Street, Room 9, Santa Cruz, CA 95060 • 831 420-5030 • Fax: 831 420-5031 • www.ci.santa-cruz.ca.us

December 14, 2005

2005 LRDP Comments

c/o

Mr. John Barnes

Physical Planning and Construction

1156 High Street

Santa Cruz, CA 95064

Dear Mr. Barnes:

At its meeting of December 13, 2005, the Santa Cruz City Council passed a motion to authorize me to transmit the enclosed correspondence regarding the UCSC Long Range Development Plan Draft Environmental Impact Report from advisory body members and the public to UCSC.

1

They are enclosed for review and consideration.

Sincerely,

  
Cynthia Mathews  
Mayor

Enclosures

city encl

**Leslie Cook**

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**From:** Diana Joy Austin [djaustin@ucsc.edu]  
**Sent:** Tuesday, December 06, 2005 2:37 PM  
**To:** City Council  
**Subject:** I support CLUE's Sentinel Editorial

Dear Council Members,

This editorial really puts my concerns about UCSC growth into a nutshell. I too can't see why the Merced campus can't expand to take the growth in undergraduates coming in California-it makes much more sense environmentally. The question is, what are we going to do about it?

Sincerely,

Diana Joy Austin  
135 Jenne St.  
Santa Cruz, CA 95060

December 4, 2005  
Sentinel  
UCSC plans would bury city

UCSC has ambitious plans for campus growth that would be by far the largest development project in local history and is simply beyond the carrying capacity of Santa Cruz. These plans call for nearly doubling the square footage of campus buildings imagine adding a "second" university and increasing student enrollment by nearly 50 percent, from 14,500 to 21,000.

In 1988, residents of the city and the county of Santa Cruz agreed by referendum that a rational, controlled growth policy was best for Santa Cruz's citizens. City Measure C, approved by a 76 percent majority, stated: "It shall be the policy of the City of Santa Cruz to insist that the University of California limit and phase its rate of growth so that all significant adverse impacts on the community, particularly in the areas of housing and traffic, are fully mitigated." UC growth since 1988 has had serious negative effects on our community including a huge increase in traffic. UCSC stated a goal of housing 70 percent of students on campus, yet only 40 percent of students now live on campus while campus dormitory space remains empty because it is simply too expensive. Storm water mitigations identified in 1988 went unfunded so now its own study says: "The UCSC campus is currently at a turning point. The ecological integrity of campus watersheds will be irrevocably altered if such erosion rates continue."

If implemented, UCSC's proposed plans will dramatically worsen the quality of life for Santa Cruzans. Unbearable traffic with an estimated 10,500 additional daily vehicle trips are predicted for Westside streets leading to gridlock and spillover effects countywide. An additional 4,000 students will be seeking to live off-campus. Most of the remaining water supply will be used up, precluding other growth and in a few short years to a probable ban on new water hookups.

Overall, any hope that Santa Cruz can productively expand its economic base and improve its fiscal



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health will be choked off. UCSC, exempt from city property and business taxes, has already greatly reduced revenues generated for the city by acquiring the former Texas Instruments properties, the Laureate Court condos at Bay and High, 50 acres near Long Marine Lab, and other downtown properties. Other UC acquisitions will no doubt follow.

Environmental degradation of campus land, most distressingly the elimination of trail networks for mountain bikers, runners, hikers, and equestrians on the pristine northern campus now linking Pogonip, Gray Whale and Wilder Ranch State parks, would rob us of one of our most treasured natural resources.

Will this development at least help improve education at UCSC?

History suggests not. The rapid, unplanned growth of recent years has served the campus poorly. Classes grow ever larger, with fewer teaching assistants and discussion sections. Meanwhile tuition increases annually. Most astonishingly, there is currently NO campuswide master plan in place that links academic and budgetary priorities.

The main argument advanced by UCSC favoring expansion is the need to educate California's youth. But unchecked growth of a comparatively inaccessible campus, that lacks adequate parking and affordable housing, is not the solution. Alternatives including the new campus in Merced and growth in areas that can sustain it must be explored.

UCSC espouses sustainability, yet doesn't seem to realize that Santa Cruz is largely built out and simply cannot absorb further growth.

#### Advertisement

Unless stopped, the proposed expansion will initiate an era in which UCSC does irreversible damage to our community and will be a drain on our natural resources, a burden to our infrastructure, a powerful force whose actions are increasingly at odds with the best interests of Santa Cruz and the people who live here.

Finally, the issue is about democracy and self-determination. The people of Santa Cruz should have a real say in our destiny. The Regents claim the legal right to ignore the needs of the local community, but that doesn't make it morally right.

Is this kind of behavior worthy of a public institution that was founded to provide educational and economic opportunities to all Californians? UC's motto is fiat lux: "let there be light." CLUE, the Coalition for Limiting University Expansion, strongly feels that if "light" is justly applied to this massive growth plan, its deficiencies will be recognized and the plan itself will be reconsidered. It is therefore incumbent that the city, county and all residents of Santa Cruz together stand up and speak out with a united voice to provide the necessary "light" to make this happen. Upon it depends nothing less than the future of the Santa Cruz that each of us loves.

Don Stevens, co-founder of CLUE [www.SantaCruzCLUE.org](http://www.SantaCruzCLUE.org), is a UCSC alumnus and a Santa Cruz resident.

Date: Thu, 17 Nov 2005 09:14:29 -0800  
Subject: eir lrdp  
From: John <scruz@scvolunteercenter.org>  
To: <lrdp-eir@ucsc.edu>

November 17, 2005

To: UCSC

Subject: Long Range Development Plan

Reference: Environmental Impact Report

From: John McGuire  
415 National Street  
Santa Cruz, CA 95060  
831-425-4744  
JohnAndCarol@att.net

Gentlemen:

During the process of developing the EIR for the planned population increase for the University several potentially significant impacts will be identified. Among them will probably be water supply, sewer capacity, traffic, housing, voting power, loss of forest lands, to name a few.

My concern is that a realistic evaluation be completed on each of the identified impacts and that a method be developed to insure that the mitigation measures are undertaken and completed.

During previous EIR's, mitigation measures were identified but for any number of reasons they were not all completed and the general population of the City was significantly impacted with no means of relief.

To insure that the general City population is not stuck again, I propose that mitigation measures identified during this EIR process be installed as a predecessor to the action that would cause the impact.

For example:        Develop a new water source before the increase in student population.

                  Increase the sewer capacity before the need arises for the capacity.

                  Solve the expected traffic problems before they are problems.

Develop on-campus housing and make it attractive before the arrival of the students and faculty.

Eliminate the present at-large voting practice for Council Seats in favor of district elections in order to reduce the impact of block voting by the University from students who are only temporary residents.

In Short:

Solve the problems the University has already created, solve the future problems before they become problems and start being a desirable, rather than an undesirable, asset for the City.

**Scott Wedge**  
852 Western Drive  
Santa Cruz, CA 95060  
(831) 425 7258

Jan 10, 2006

2005 LRDP EIR Comment  
UCSC Physical Planning and Construction  
1156 High Street, Barn G  
Santa Cruz, CA 95064

Via email to [lrdp-eir@ucsc.edu](mailto:lrdp-eir@ucsc.edu)

Re: Comments and questions on Draft EIR for UCSC Long Range Development Plan

Sirs,

I am currently serving on the City of Santa Cruz Transportation Commission, and served on the Master Transportation Study Steering Committee. However, the comments and questions in this letter do not reflect those bodies or the City, but rather my own observations and questions as a resident and citizen of Santa Cruz.

I believe that UC is a vital part of the Santa Cruz community and makes tremendous contributions to the region. The purpose of this letter is to help UC to recognize the effects it's past and continued growth have on the community so that it may plan for and take full responsibility for those effects, and so that it may contribute appropriately to the creation and maintenance of infrastructure needed to sustainably support it's mission.

Given my background, I have focused on transportation issues in the DEIR. Overall, the DEIR projects a very dire future for the city. It shows 5 of the 36 off campus intersections studied to be operating below their worst case standards today, and all of those currently failing intersections have significant UCSC traffic contributions. With the LRDP implemented, the DEIR predicts 20 intersections will be failing, a devastating picture of the future of our community.

The following issues strike me as problematic:

- "FTE" Enrollment as a Unit of Measure
- Standards of Significance
- Master Transportation Study Consistency
- High/Storey/King/Mission Route Congestion
- East Side and Other Congestion
- Highway 1 Congestion

- Neighborhood Parking
- Participation in Funding of Infrastructure and Maintenance

I will comment on each issue.

**"FTE" Enrollment as a Unit of Measure**

The LRDP and DEIR use the terms "FTE" student or enrollment throughout, which is described in the Executive Summary as meaning "full-time equivalent". While this "equivalency" might be appropriate for calculating classroom or instructor requirements, it is clearly not appropriate for estimating housing or transportation needs. Consider the case of two half-time students: they will have roughly the same classroom needs as one full time student, but will need twice as many beds, showers, meals, cars and such. Trip generation rates will also be higher than a single full-time student - how much so depends on variables such as the students' class schedules and living situations.

The DEIR analysis appears to have silently assumed that the mix of students which makes up the full-time equivalent student will remain constant. If this is the case, then it should be so stated along with details of what that mix is, so that future enrollment plans can be evaluated for consistency with the EIR. Alternatively, the planned mix should be used explicitly in the plan and analysis.

What will be the actual number of students and staff, broken down by full time, part time, graduate, undergraduate, and living on and off campus? How much error is there in trip generation rates when calculated using the "FTE" approximation? Does this error result in the DEIR having under or overestimated trip generation?

**Standards of Significance**

There are two issues here. First is that this LRDP is a continuation of UCSC development, not an independent project. Treating the impacts of the this LRDP separately from those of previous campus development amounts to dividing the total development into smaller incremental phases and thus understates the significance of UC's overall growth. Thus, traffic impacts should be evaluated by comparing LRDP levels of congestion with those which would be present without UC at all. By breaking the development of the campus up into arbitrary multi year segments, UC has avoided accounting for shortcomings in earlier LRDPs and for the total impacts it imposes.

How does UC justify this?

The second issue pertains to non-signalized city intersections. Section 4.14.2.3 chooses to consider as insignificant any level of delay increase at an unsignalized intersection if that intersection does not meet Caltrans warrants for signalization. The reasons an intersection may not meet the warrant specifications include situations where a signal would be ineffective at improving flow. Thus, the DEIR may have considered intersection congestion to be insignificant for the perverse reason that this one mitigation

method (signalization) would be ineffective. For example, intersection 41 (High/Laurent), under LRDP shows a huge increase in delay, falls from LOS D to F, and has large UC contribution (Table 4.14-15), but is deemed insignificant apparently because a stop light wouldn't fix the damage.

How does UC justify this?

**Master Transportation Study Consistency**

The joint UC - City Master Transportation Study (MTS), finished in 2003, concluded that the then current levels of congestion on city streets were unacceptable to city residents. The MTS set the goal of having no net increase in the number of peak hour vehicle trip though the year 2020. (Master Transportation Study. Executive Summary, page 7) The recommendations of the MTS would serve to accommodate increasing population and travel demand by shifting person trips into transportation modes which create fewer vehicle trips.

**"... A key outcome of the analysis is to establish target mode split goals to achieve the MTS vision with no increase in traffic congestion by year 2020."**  
(Master Transportation Study. Analysis of Future Travel, page 37)

In contrast, the LRDP DEIR states that growth in congestion to level of service D at any and all intersections would be acceptable to the City. This ignores the fact that congestion and neighborhood traffic conditions are already unacceptable to the community and UC, and that the MTS's goal was to have no net new vehicle trips generated.

There also seems to be an inconsistency in the assumptions and data between the two documents vis-à-vis peak hour trips generated by UC. For example, the MTS (based on information provided by UC) stated that there were 2,433 trips to or from UC during the peak hour in year 2000 (MTS Table 4, Page 43). The DEIR, on the other hand, asserts there are now only 2,040 such trips, based on 2003-2004 data (LRDP DEIR Table 4.14-1). This represent a discrepancy of over 20% or more, given that UC trip generation increased in the intervening years. This also suggests that different numbers of trips are generated for each person at UC under the two analyses. The MTS data works out to 0.21 peak hour trips per FTE student (2,443 trips / 11,500 students) , while the DEIR works out to 0.14 (2,040 / 14,400). The MTS trip generation rate is 42% higher. Relatively speaking, the DEIR thus understates how many trips occur now, how many will occur in the future, and consequently understates, relative to the MTS, the number of new trips which will be generated. This discrepancy should be explained.

In any event, the growth anticipated in the LRDP to 21,000 students is far above the maximum 15,000 assumed in the MTS. Since UC proposes no offsetting net decreases in trip generation rates, nor equivalent improvements in mode split, it would appear that implementation of the LRDP will cause the MTS to fail to achieve it's goals. Alternatively, a revision to the MTS will be needed. However, such a revision would

most likely (as the MTS already did) require the city and residents of Santa Cruz to invest in programs and alter their transportation behavior in order to accommodate further UC growth. These unfunded mitigations for UC growth should be acknowledged in the EIR.

The DEIR compares 2020 conditions with and without LRDP implementation. However, both of these cases use AMBAG projections which do not take the MTS into consideration. While this might seem a conservative assumption, determinations of significance and mitigation measures are targeted on maintaining less desirable conditions than if the MTS had been considered. Further, the MTS emphasizes measures which do not increase auto traffic capacity, preferring measures less hostile to alternate forms of transportation. The LRDP's proposed mitigations do not heed this approach.

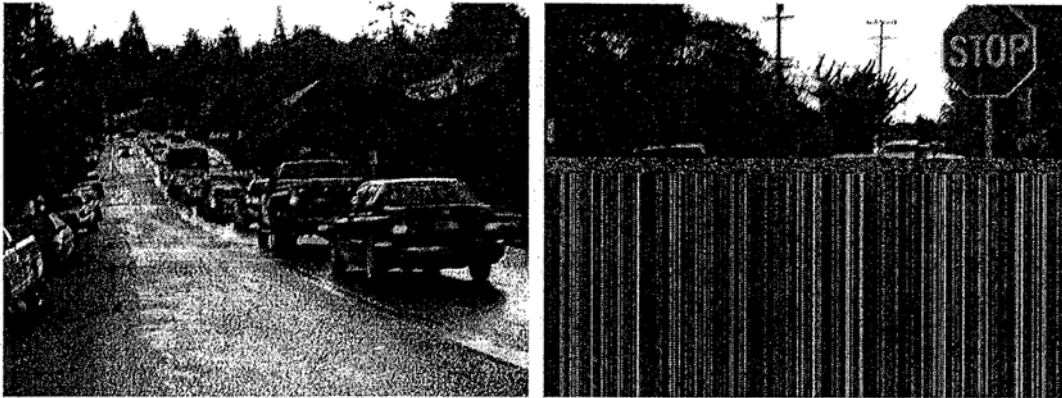
Since UC supplied the MTS with the current data and projections of its growth, and insisted that the MTS not consider the then well known and internally published, though not-yet-approved plan to grow to 21,000 students, it would be unconscionable for UC to now disavow and/or thwart the conclusions and recommendations of the MTS.

Does the University intend to maintain consistency with the Master Transportation Study and/or the principles and objectives of that study? Does UC accept the premise that traffic congestion at several locations in the City and County are currently at levels unacceptable to the residents? How does UC propose to fund the revision to the MTS called for in that document as a result of the LRDP's projections outside of the ranges in the MTS?

#### **High/Storey/King/Mission Route Congestion**

The LRDP acknowledges "peak period congestion" along the High/Storey/King/Mission corridor. (LRDP DEIR 4.14-4 ff) In fact, on many afternoons when UC is in full session, (not during the summer) traffic backs up over ½ mile from the Chestnut/Mission light along this route, creating delays of over 10 minutes. That is 600 seconds, by the way.

By way of example, here are photographs taken at 4:00 PM on Wed, 11/9/05. Traffic was backed up from Mission/Chestnut through five intersections (Mission/Chestnut, Mission/King, Storey/King, Storey/Escalona, Storey/High). Here looking down Storey from High at Storey/Escalona and Storey/King, one section of the queue can be seen at a dead stop.



The right hand photo shows that the queue continues up High Street, above Storey/High.

As UC TAPS staff and west side residents know very well, this is typical. It often starts around 3:30 and lasts past 4:30. This condition has existed for several years already. I have a similar set of photographs showing the same condition in 1997. It should be noted that during these periods, other approaches to the Mission/Chestnut intersection are not backed up, clearing completely on each light cycle, suggesting that UCSC creates this situation without significant contribution from other traffic generators.

By definition, this is a Level of Service F: 600 plus seconds of delay, multiple intersections backed up.

However, the LRDP DEIR, in table 4.14.9, Intersections 19, 20, 22, 23 (Page 4.14-25) indicates that these intersections presently function at various levels of service between B and E in the PM peak hour, with a worst case delay of 57.2 seconds. The Chestnut/Mission light, which in fact causes the entire back-up, is described as LOS C with 33 seconds of delay. These photos and common knowledge demonstrate that the DEIR has made an error - by a factor of nearly 20.

This situation pertains also to the Bay access route, which is regularly backed up past King in mid-day and afternoon hours.

Clearly, the DEIR traffic analysis methodology is defective. It fails to document or account for known, common existing conditions. Obviously, this methodology can not be trusted to forecast future conditions either.

Given the magnitude of this discrepancy, the analysis of traffic throughout the DEIR must be called into question. The methodology not only failed to predict what is readily



observable, but it also failed to warn its practitioners that it was not capable of handling this particular situation. Thus, there is no way to know if it has failed to accurately portray conditions at the other sites in this study.

Since the existing and future conditions are incorrectly documented, their significance and mitigations can not be evaluated at this time. Thus, a new draft EIR will need to be published and new comment period opened, so that data which accurately represents current and projected conditions can be evaluated.

As a potential reliever of west-side congestion, the DEIR considers and rejects an ineffective an "eastern access" to the campus. Other projects to address this congestion have been suggested, but were not mentioned in the documents. Because much of the PM congestion occurs as vehicles queue for left turns onto Mission across incoming traffic, a method to eliminate these conflicts might dramatically improve the situation. One such method would be a one-lane fly-over onto Route 1 from the bottom of High Street. An additional exit ramp from SR 1 onto High could also keep upper west-side bound traffic off of Mission. These facilities would not decrease traffic bound for the east side of Santa Cruz, but they would remove from that traffic those vehicles bound for the freeways 17 and 1, and thus possibly dramatically reduce the congestion. While this would involve changing the bottom block of High from a quiet cul-de-sac into a main thoroughfare, the improvement in conditions on Highland, Storey, Bay, King and countless other residential streets would be tremendous. Another suggested alternative would be the installation of a modern roundabout at the Mission / Chestnut / Highland / King / Union intersection.

Any such measure would require significant funding and cooperation between the City, UC and Caltrans. But the LRDP represents a tremendous capital investment by the state and will require additional investment by the state into its own transportation infrastructure to support the growth. Such cooperation is called for repeatedly in the LRDP, and these kinds of projects offer opportunities to answer that call.

Have the level of service predictions of the traffic model used been verified to be accurate for intersections considered in the DEIR? What is the historically measured accuracy of the AMBAG model for projecting future population at the level of geographic specificity used in the DEIR traffic analysis? What would be the worst case impact if similar errors occurred in an adverse direction in this plan? Does UC have the budget and authority to implement mitigations which might be necessary off-campus? If budget or authority for mitigations is not assured, can such mitigations be considered in the EIR?

### **East Side and Other Congestion**

It is clear to users of the east-side commute routes that traffic is far better there during the summer than when UC is in session. Since these routes are already saturated, worse than the DEIR's stated existing LOS's, adding more trips to these routes will severely increase delays. Because there is a bottleneck at Arana Gulch and no plans to add lanes through

the bottleneck, improving intersections and roadways elsewhere will not help. Since this LRDP looks only at the next growth increment, it does not illuminate the total impact that UC imposes.

The DIER suggests that many study intersections will be functioning poorly in 2020. This will cause predictable cut-through traffic and congestion on alternative, largely residential streets such as King, Escalona, Walnut, Seabright, and many others.. This will necessitate traffic calming and other measures to maintain the safety and quality of life in these areas. The DEIR fails to consider these impacts or suggest mitigations for these obvious and predictable consequences of the conditions it anticipates.

The following table summarizes information in the DEIR for one interesting intersection, Highland/High:

High/Highland, Intersection 30

	Existing		2020 w/o LRDP		2020 w/LRDP	
	Delay	LOS	Delay	LOS	Delay	LOS
AM	30	D	58.9	F	104.1	F
PM	110	F	183.1	F	219.4	F

Several items deserve notice. First, the upper west side served by this intersection is largely built out except for UC, making implausible the DEIR's prediction of a 15% increase in volumes without the LRDP (LRDP EIR Figure 4.14-7b [30] vs. 4.14-9a). This may be due to the use of the AMBAG model which is regional in scope, and not appropriate for individual intersection analyses. Further, AMBAG has noted very significant errors in its predictions of population at the level of individual TAZs.

"Models at the scale of the AMBAG model, a regional scale, are valuable for measuring changes in travel patterns and global or aggregate measures such as trip generation, travel delay, and relative changes in traffic on major corridors. Large-scale models have limited ability to accurately predict traffic volumes on individual streets or street segments." (MTS pg 37)

Since this assumption worsens the LOS of this intersection to F without the LRDP, it masks UC's impact. In any case, the DEIR predicts that the LRDP itself will nearly double the delay at this intersection, but states that this is insignificant.

Exactly why does UC consider doubling of this delay beyond acceptable LOS to be insignificant? Does UC consider Caltrans signalization warrants as appropriate measurement of significance of congestion? Does Caltrans consider their signalization warrants to be appropriate for use in the determination of whether congestion is significant?

Since High is one-way, this data also suggests that UC has chosen the wrong time period to measure its impacts. The PM traffic through this intersection is largely commute traffic returning to the residential upper west side neighborhoods, and occurs after 5PM. UC, on the other hand, has its peak PM outgoing traffic earlier, when afternoon classes

end. By measuring impacts during times of minimal impact from UC, the DEIR understates UC's impacts throughout. More appropriate would be to measure the LOS of each intersection leg at the worst case time for that leg. It is probably a blessing for this community that UC's hours and directions of peak traffic flow are different than for the other generators contributing to our traffic. But to measure UC's impact, we must look at data which reflects UC's contribution.

An additional peculiarity about this data is that there is seldom any PM queue here at all. In this case, the model has exaggerated the delay. Further, the traffic counts in the DEIR show a difference of only 5 vehicles per hour difference between the AM and PM hours on the busy leg, (with insignificant numbers on the other legs), but the delay is shown differing by nearly a factor of four. (LRDP DEIR Figure 4.14 7b [30]) This difference in delay from such minor traffic changes is simply not credible. Again, the method used to compute the LOS does not seem to be matching the reality, a clear indication that it is inappropriate for this study.

Another predictable reaction to the heavy congestion predicted by the DEIR will be to shift trips earlier or later. Thus, the LRDP will have an impact of lengthening the period of unacceptable congestion. This impact is not documented in the DEIR. Relying on analysis of an arbitrary one hour time to represent the impact, by design the DEIR completely fails to address the temporal spread of congestion.

What is the duration of congestion currently? What will the duration of congestion be under the LRDP? What areas will require traffic calming under the LRDP? Will UC fund traffic calming programs necessitated by the LRDP?

### **Highway 1 Congestion**

Highway 1, east (nominally south) of Santa Cruz is already far past its carrying capacity, having several hours of stop-and-go congestion every day. The SCCRTC has estimated the cost to the region of widening this highway at over \$300 million, and has also determined that even this project would not eliminate the congestion on this segment.

That UC contributes to this congestion is obvious. A circled data point, at the far right edge of Figure 4.14-8 informs us that 25% of the trips generated by this project, (and by UC as a whole) pass along Highway 1 south of Santa Cruz. This amounts to roughly 6,200 daily trips currently, with more to come under the LRDP. SCCRTC states that this highway carries 121,000 trips daily, suggesting that UC's contribution is roughly 5%. On such saturated highways, very small increases in traffic result in dramatic increases in congestion and delay. For this reason, any additional increases in load, by UC or other development, will have a profound impact on this critical segment and on the few parallel alternative roads, increasing the delays, and the duration and geographical spread of the congestion.

The DEIR does not acknowledge or document UC's contribution, existing or future to congestion on this highway. It only says that Caltrans plans to widen the highway,

essentially assuming it will be done and that this widening will eliminate any and all problems. Caltrans has described such a widening, but it has no plan to actually construct it, due to the total lack of funding. Further, increasing the capacity of the freeway would also serve to worsen the peak traffic flows on the roads which connect the freeway to traffic generators, thus worsening the existing and anticipated congestion on Mission, Bay, High and other streets, a factor missing from the DEIR traffic analysis.

My own hunch is that much of the growth in congestion on Highway 1 over the past 15 years has been due to past UC growth. Highway 17 volumes have not increased substantially, making the City of Santa Cruz the location of the traffic generation. In the city, many larger employers have left or remained similar in size: TI, Wrigley, SCO, the County, the City, Seaside and so on. The one traffic generator which has grown is UCSC, and due to high housing costs and limited housing growth in the city, much of the new employment/student housing is in Soquel, Aptos, Capitola, and Watsonville.

In any case, UC's current and future impact on this critically overloaded highway should be described in detail to ensure that the state can plan to properly fund development of it's own infrastructure as needed to serve it's growing university.

What fraction of Highway 1 traffic south of Santa Cruz is attributable to existing and future UC activity? If this UC traffic were absent, what would congestion conditions on this highway be?

### **Neighborhood Parking**

UC students and employees use neighborhood streets for parking to avoid UC parking fees and restrictions. This occurs especially the upper west side, but also beyond Mission, downtown and reportedly now near eastside bus stops as well. The DEIR acknowledges this phenomenon. (LRDP 25) (LRDP DEIR 4.14-13)

While UC has been exemplary in reducing SOV use through their transit and parking pricing programs, the unintended consequences of these programs have placed an onerous and undue burden on the residents and city. While permit parking programs are often successful in mitigating pay parking impact on adjacent neighborhoods, the ability of UC affiliates to use the bus has created a far larger and intractable problem here. In most situations, a small area of permit parking suffices to discourage park-and-walk uses, as is the case on Santa Cruz's east side near Santa Cruz Medical Clinic. But the "free" bus rides spread the impact along the entire bus route system.

As a result, the city has had to add more street segments to it's permit parking zone every year for the last seven years. Each time, the problem simply moves down to the area near the next bus stop. The program is funded through fees collected from residents, a funding mechanism which is truly poisonous to UC/community relations. Staffing, signs, enforcement, council review and fees are all impacts borne by the residents and city to cope with this problem.

The DEIR states (pg 4.14-54) that "LRDP Mitigation TRA-2B, which is aimed at reducing single-occupant vehicle use and would also address parking storage demand associated with the campus, would contribute toward diminishing parking inconvenience for neighborhood residents." In fact, UC's TDM policies are the primary force creating the residential parking problems, as UC affiliates seek to circumvent the costs and restrictions of the TDM programs.

The DEIR asserts that the city's permit parking program mitigates neighborhood parking impact to an insignificant level. This merely puts the onus of mitigation on the victims of the impacts, and is, in fact, a total failure of UC to mitigate for its impacts.

Alternatives solutions might include:

- UC funding the permit program.
- UC developing policies and enforcement methods to prevent the problem in the first place.
- Creation of legitimate park-and-ride lots and shuttles to serve those students employees who are evidently not well enough served by existing transit routes and systems.

One major objective of UC's bus pass and parking pricing program is to reduce automobile trips through the surrounding neighborhoods. Therefore, a UC affiliate driving into a neighborhood to park and then catch the bus is clearly abusing the bus pass. As such, prohibition of this behavior and enforcement of stiff penalties (through spot checking, for example) would seem not only appropriate, but a necessary component of this TDM program.

As this problem and the permit parking zone has spread, requiring residents to jump through bureaucratic hoops and then pay permit fees to park in front of their own homes, UC has earned enmity from its neighbors, block by block, year after year. This is truly regrettable, given that UC's objective all along has been to lessen its impact on these very neighborhood.

### **Participation in Funding of Infrastructure and Maintenance**

UCSC enjoys certain local tax exemptions, which means that it contributes proportionally less than other developments to the city and county governments. To the extent that UC provides its own police, fire, road maintenance and other services, this may be appropriate. But UC does impose considerable use, wear and tear on the roads used by its generated trips. The funding of the ongoing maintenance of the infrastructure is not discussed in the impacts, but over the lifetime of the planned developments, these impacts will be substantial.

Further, UCSC has been acquiring off-campus facilities, removing them from the local tax base. While UC's use of these facilities may be similar to other approved uses, those other uses did contribute to ongoing revenue stream which support services and infrastructure. The LRDP and DEIR exclude these and other future such "off campus"

sites from consideration, but they should be included. CEQA prohibits dividing a project into smaller sub-projects because doing so can obscure cumulative impacts which would be visible in a combined analysis.

Since UCSC is by far the largest remaining opportunity for future development, and since it is likely to consume and overwhelm any remaining capacity of the nearby transportation infrastructure, the "fair share" approach to funding needed improvements may be inappropriate. In a less built-out community such a scheme may indeed be fair, but this huge development dwarfs any other potential future growth, and so may be the last possible funding source. Charging the straw that breaks the camel's back at the same rate as the rest of the payload will not save the camel. Furthermore, much of the existing traffic is generated by UCSC. Looking only at this phase of growth leaves the rest of the community to pay for the unanticipated impacts of previous UC growth. UC's impacts should be considered in total, not just incrementally. Otherwise, UC has simply divided the total project into smaller, less significant phases, sidestepping it's obligation to mitigate for it's own cumulative impacts.

### **Conclusion**

I believe that UCSC is a vital part of Santa Cruz, and that it brings great benefits to this community. However, because of it's size, growth potential, tax exemptions, and exemption from local planning processes, it has great power to alter the local and regional community. With this power must come responsibility for ensuring that UCSC enhances, rather than degrades it's host community. CEQA offers one opportunity in the EIR to recognize and take responsibility for the UC future impact. I hope that UC will rise to the occasion and fully and accurately describe it's impacts and honestly plan and fund their mitigation.

Thank you for the opportunity to share my thoughts.

Sincerely,

A handwritten signature in black ink that reads "Scott Wedge". The signature is written in a cursive, flowing style.

Scott Wedge

Response to Comment Letter LA-11

**Response to Comment LA-11-1.** The three individuals who provided the written comments on the LRDP EIR to the City of Santa Cruz at a City Council meeting also submitted the same comments directly to the Campus. Responses to the comments contained in the attachments to this letter are presented in Responses to Comment Letters I-6, I-54, and I-84.

REC'D APR 07 2006

**AMBAG**

ASSOCIATION OF MONTEREY BAY AREA GOVERNMENTS

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April 4, 2006

Ms. Sally Morgan  
Senior Environmental  
UCSC Physical Planning  
& Construction  
Santa Cruz, CA 95064

**Re: MCH# 20060308 – Revised Environmental Impact Report for the  
Revised/Supplemental Environmental Impact Report for  
UCSC Delaware Av. Family Student Housing Redevelopment**

Dear Ms. Morgan:

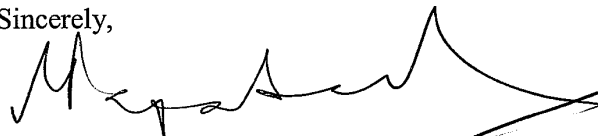
AMBAG's Regional Clearinghouse circulated a summary of notice of your environmental document to our member agencies and interested parties for review and comment.

The AMBAG Board of Directors considered the project on **April 1, 2006** and has no comments at this time.

1

Thank you for complying with the Clearinghouse process.

Sincerely,



Nicolas Papadakis  
Executive Director



Response to Comment Letter LA-12

**Response to Comment LA-12-1.** Comment noted.

**REMY, THOMAS, MOOSE and MANLEY, LLP**  
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April 25, 2006

Mr. John Barnes, Director of Campus Planning  
2005 LRDP RDEIR Volume Comment  
Physical Planning & Construction  
University of California, Santa Cruz  
1156 High Street  
Santa Cruz, CA 95064

Re: University of California, Santa Cruz 2005-2030 Long Range Development  
Plan Recirculated Draft Environmental Impact Report — Additional Traffic  
Analysis (SCH No. 2005012113)

Dear Mr. Barnes:

On behalf of the City of Santa Cruz, we offer the following comments on the Recirculated Draft Environmental Impact Report (“RDEIR”) regarding additional traffic analysis and mitigation measures proposed therein. These comments should be considered supplemental to, and not a replacement for, the January 11, 2006, letters from the City of Santa Cruz and this firm. The City stands by its previous comments and criticisms of the flaws and deficiencies in the analysis contained in the original DEIR. Those inadequacies have not been remedied by the RDEIR, with its extremely narrow focus. The City is very disappointed that the University has not seen fit to revise and recirculate the entire original DEIR.

The RDEIR perpetuates the critical analytical flaw that we noted for the DEIR — the failure to analyze *existing conditions plus the LRDP*, as required by CEQA and Caltrans. As we highlighted in our January 11, 2006 comments:

The University should have analyzed full LRDP growth on top of currently existing (2005) conditions, in addition to the cumulative year (2020) impacts

Mr. John Barnes  
 April 25, 2006  
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it did analyze. The separate obligation to assess *cumulative impacts* (see CEQA Guidelines, § 15130) does not negate the more fundamental obligation to address *project-related impacts* (see *id.*, § 15126.4). Here, the DEIR addressed cumulative effects but skipped over the obligation to assess project-related effects.

The latter approach is legally necessary under CEQA,<sup>1</sup> and would have provided the public with a much more accurate picture of the Project's actual impacts, even if full implementation of the Project would not occur until 2020. In fact, analysis of "existing conditions" plus "proposed project only" is expressly recommended by the California Department of Transportation ("Caltrans"), which is unquestionably an expert agency with respect to traffic impact analysis. (See *Caltrans Guide for the Preparation of Traffic Impact Studies* [a copy was provided with January 11, 2006 comments] p. 3.) Because of the undisputed expertise of Caltrans on this issue, the DEIR, absent a credible and legally sound basis for taking another approach, should have included an "existing conditions plus proposed project" analysis. \* \* \* Such analysis complements, but is not subsumed by, a proper cumulative impact analysis. In short, both "project-specific" and cumulative scenarios must be assessed in a legally adequate EIR.

(Remy, Thomas, Moose and Manley Comment Letter, Jan. 11, 2006, pp. 14-15.)

The RDEIR expressly states that it only presents analysis for forecast traffic conditions in 2010 and 2020 with and without the proposed project. (RDEIR, p. 2-14.) Therefore, the inadequacy we previously noted has not been corrected in this RDEIR.

The RDEIR is similarly inadequate with respect to the proposed mitigation for the significant impacts the RDEIR identifies. The RDEIR notes that Caltrans has identified

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<sup>1/</sup> For more than 20 years, CEQA case law has emphasized the danger of using hypothetical *future* scenarios – even those consistent with existing planning and zoning designations – as the basis for assessing the significance of project impacts. (See, e.g., *Environmental Planning and Information Council v. County of El Dorado* (1982) 131 Cal.App.3d 350, 352; *Christward Ministry v. Superior Court* (1986) 184 Cal.App.3d 180, 186-187; and *Save Our Peninsula Committee v. Monterey County Board of Supervisors* (2001) 87 Cal.App.4th 99, 120-121; see also CEQA Guidelines, § 15125, subd. (a).

Mr. John Barnes  
April 25, 2006  
Page 3

certain necessary improvement projects along SR 1, but then concludes that because such improvements are Caltrans's responsibility, the University cannot guarantee the implementation or feasibility of these measures. (RDEIR, p. 2-30.) The University can and must commit to doing more to effect the implementation of these measures.

The University should commit to trying to enter into agreements with Caltrans to implement the identified improvements. We urge the University to consider a mitigation measure similar to the following:

The University shall be responsible for the project's fair share of all feasible physical improvements necessary and available to reduce the severity of the project's significant transportation-related impacts. In order to facilitate the construction of improvements on transportation facilities under the partial or full control of Caltrans, the University shall pursue in good faith, on as expeditious a schedule as is reasonably possible, an agreement with Caltrans that, to the extent permitted by state law, will allow expenditures of moneys designated by the University for the elements of the LRDP project that create part of the demand for new improvements on such facilities. To the extent that the participation of the City of Santa Cruz in an agreement with Caltrans will facilitate the construction of desired improvements, the University shall use its best efforts to include the City in its agreement with Caltrans. In pursuing a single agreement or multiple agreements with the City of Santa Cruz and Caltrans, the University shall negotiate in good faith with these other jurisdictions to enter into fair and reasonable agreements with the intention of achieving, within a reasonable time period after approval of the LRDP, commitments for the provision of adequate fair share mitigation payments for the LRDP's off-campus traffic impacts and its impacts on federal and state freeways and highways.

The University is required to consider feasible means of mitigating significant impacts raised in comment letters on draft EIRs. (*Los Angeles Unified School Dist. v. City of Los Angeles* (1997) 58 Cal.App.4th 1019, 1028-1030; see also Pub. Resources Code, § 21002 ("public agencies should not approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects").) The University needs to try harder to ensure that Caltrans actually will implement the identified freeway improvements. The proposed language is stronger mitigation than what the RDEIR proposes, as it would create a duty on the part of the University to commit to taking steps to facilitate action by Caltrans. The

Mr. John Barnes

April 25, 2006

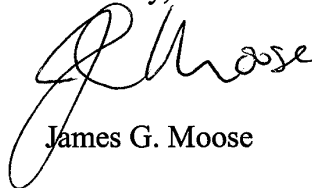
Page 4

current approach is too reactive, and does not appear calculated to accomplish actual mitigation.

2

Thank you for the opportunity to provide comments on the RDEIR. If you have questions regarding any of the issues discussed in this letter, please do not hesitate to contact me.

Sincerely,



James G. Moose

cc: Cynthia Mathews, Mayor, City of Santa Cruz  
John Barisone, City Attorney

### Response to Comment Letter LA-13

**Response to Comment LA-13-1.** Please refer to Response to Comment LA-10-4. The potential enrollment growth under the 2005 LRDP would take place over a 15-year period and would not occur immediately following project approval. Comparing the impacts of future construction with present conditions would not provide an accurate picture of the actual effects of development because it would not account for future growth and thus could understate impacts. The AMBAG forecasts used to estimate future traffic are the most accurate available and the future conditions they predict are likely to exist within the 2005 LRDP planning horizon. The AMBAG employment forecasts include the projected increase in employees under the 2005 LRDP but the population and housing forecasts do not include 2005 LRDP-related population. Therefore, the forecasts provide a useful comparison to show the effects of the 2005 LRDP on the environment, as it will exist at the time of full development.

**Response to Comment LA-13-2.** The University will negotiate with Caltrans to determine its fair share to contribute to the identified highway improvements that will mitigate the impact of the 2005 LRDP on the state highway system. Please see Master Response MIT-1 regarding the University's fair share contributions. Payment of the University's fair share can be made once Caltrans, or the applicable Regional Transportation Planning Agency (RTPA) (e.g., SCCRTC), establishes and implements a mechanism for collecting funds from any other developers and entities contributing to the identified impacts, and provided that the jurisdiction builds the identified improvements. Because of the magnitude of the costs of highway improvements, and the state requirement that highway improvements be implemented through a state and regional funding process, the State collaborates with a regional transportation authority such as SCCRTC to establish a regional traffic impact fee that equitably distributes the cost of highway improvements among entities that contribute to the traffic. As a local example, the Transportation Agency for Monterey County (TAMC) is currently working toward the adoption of a regional transportation impact fee.

Please refer to Response to Comment RA-1-22 regarding the feasibility of traffic mitigation measures identified in the Draft EIR. With respect to traffic mitigations in the RDEIR, the mitigation measures identified on page 2-25 (construction of auxiliary lanes, ramp acceleration and deceleration areas, and ramp metering) are all feasible improvements that are commonly constructed on freeways to improve traffic flow.



REC'D APR 27 2006

SANTA CRUZ COUNTY REGIONAL TRANSPORTATION COMMISSION

1523 PACIFIC AVENUE, SANTA CRUZ, CALIFORNIA 95060-3911 • 831/ 460-3200 • FAX 831/ 460-3215

SERVICE AUTHORITY FOR FREEWAY EMERGENCIES (SAFE)

2005 LRDP EIR Comment  
UCSC Physical Planning and Construction  
1156 High Street, Barn G  
Santa Cruz, CA 95064

April 25, 2006

RAIL/TRAIL AUTHORITY

RE: Comments on the Revised Draft Environmental Impact Report (RDEIR) for the University of California at Santa Cruz Long-Range Development Plan

Dear Mr. Barnes,

COMMUTE SOLUTIONS

Thank you for revising the Draft Environmental Impact Report (DEIR) for the University of California at Santa Cruz (UCSC) Long-Range Development Plan (LRDP) to include a traffic analysis of the 2005 LRDP impacts on regional transportation facilities. The Santa Cruz County Regional Transportation Commission (SCCRTC) would like to take this opportunity to comment on the results of the additional traffic analysis and proposed mitigation measures.

TRANSPORTATION POLICY WORKSHOP

RTC would like to reiterate that mitigation measure TRA-2B, referenced in the RDEIR as mitigation measure TRA-6A, is not an effective mitigation measure for traffic impacts including impact TRA-6, as written. Given that UCSC assumes a significant portion of the traffic impacts identified in the DEIR and the RDEIR will be mitigated by Transportation Demand Management programs, a mitigation measure which includes language committing UCSC to the implementation of these programs and thus funding would be appropriate.

BUDGET & ADMINISTRATION PERSONNEL COMMITTEE

Please accept the attached additional comments on the Revised Draft Environmental Impact Report (RDEIR) from the SCCRTC staff for your consideration.

INTERAGENCY TECHNICAL ADVISORY COMMITTEE

If you have any questions, please contact Grace Blakeslee of my staff at (831) 460-3219.

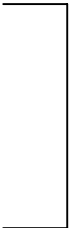
BICYCLE COMMITTEE

Sincerely,

George Dondero  
Executive Director

ELDERLY & DISABLED TRANSPORTATION ADVISORY COMMITTEE

cc: Commissioner Mardi Wormhoudt  
Commissioner Emily Reilly  
Caltrans District 5 Regional Planning and Development Review  
SCMTD  
SCCRTC  
City of Santa Cruz



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WWW.SCCRTC.ORG  
EMAIL:INFO@SCCRTC.ORG

**Santa Cruz County Regional Transportation Commission  
 Staff Comments on the University of California at Santa Cruz Long Range  
 Development Plan REVISED Draft Environmental Impact Report (RDEIR)  
 (4/06)**

1. RTC staff supports inclusion of a traffic analysis for regional transportation facilities in the LRDP RDIER. The DEIR findings reported up to 10,000 new trips would be generated to and from the campus as a result of the LRDP implementation. Some of these trips will impact the regional transportation system including the Highway 1 and Highway 17 regional transportation facilities.

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2. The RDEIR identifies five ramp junctions which will be significantly impacted by the implementation of the LRDP. Although impacted, some intersections are not considered significantly impacted as interpreted by the Standards of Significance referred to in the RDEIR. RTC staff requests that any intersections for which delay is increased due to implementation of the LRDP be considered a significant impact. This includes intersections where the LOS rating is decreased from a LOS C to a LOS D and those locations where the LOS rating is a LOS E or F and the Measure of Effectiveness is increased. For example, impacts to the northbound off-ramp at Morrissey Boulevard, the southbound ramp at Morrissey Boulevard and the northbound ramp at 41<sup>st</sup> Avenue.

The RDEIR traffic analysis indicates that three ramp intersections will operate at unacceptable levels under both the 2020 Without and With LRDP Project Scenarios (page 2-19). Under the With LRDP Project Scenario the Highway 1 Northbound Ramp at Soquel to Commercial Way would experience further delay in both the am and pm peak travel time. The RDEIR indicates that the LOS at this Intersection would decrease from a LOS E to a LOS F during the am peak travel time with LRDP implementation. RTC staff recommends that the RDEIR consider this intersection to be significantly impacted given that it will result in increased delay and a decreased LOS.

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In summary, RTC staff suggests that the RDEIR consider any new delays to already impacted ramp junctions and ramp intersections (i.e. existing LOS C or below) resulting from LRDP implementation as a significant impact. This more accurately reflects the impacts of LRDP implementation on the regional transportation system.

3. The results of the traffic analysis included in the RDEIR indicate the increase in the total number of trips to campus from mid and south county locations. Additional regional trips support the need for express bus service with mid and south county origins serving the campus. RTC staff recommends that the RDEIR add to mitigation measure TRA-6A: “identify new express transit routes from regional centers in south county, mid county, and the east side of City of Santa Cruz to the UCSC campus, fully fund new express transit services, and fully fund overhead and increased transit operations required from new ridership resulting from implementation of the LRDP”.

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4. RTC staff supports the mitigation measure TRA-6B which states that UCSC will contribute its “fair share” of the cost of the needed improvements resulting from significant transportation impacts of the LRDP implementation.

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*Santa Cruz County Regional Transportation Commission*

5. The 2005 RTP supports all forms of transportation demand management strategies for school and work trips. RTC staff would like to acknowledge UCSC for their commitment to Transportation Demand Management (TDM) Programs both currently and as part of the LRDP DEIR and RDEIR mitigation measures. The RDEIR identifies the expansion of TDM programs to increase the use of transportation alternatives to campus by 55%. The RDEIR mitigation measure TRA-6A refers to mitigation measures TRA-2B. TRA-2B references potential measures that UCSC will consider to achieve this objective. However, as written, TRA-2B is not an effective mitigation measure for impact TRA-6 and does not commit UCSC to implementation of TRA-2B which mitigates off-campus transportation impacts using TDM strategies. RTC staff recommends that the mitigation measure TRA-2B be changed to state that, "Potential Transportation Demand Management Measures indicated in Table 2-19 will be funded and implemented by UCSC" to mitigate impact TRA-6. (2005 RTP Policy 1.3.1)

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In addition, RTC staff recommends that the Potential Transportation Demand Management Measures indicated in Table 2-19 related to carpooling, vanpooling and park and ride lot facilities be revised to say, "expand and fully fund commuter vanpools, fully fund on campus carpool promotions, fully fund new park and ride lot facilities and multi-modal hubs in the west and east side of the City of Santa Cruz". (2005 RTP Policy 5.2, 2.4.9)

The RTC's Commute Solutions Program provides ridematching services and commute alternative information for commuters traveling to, from or within Santa Cruz County. RTC staff recommends that UCSC work with the RTC's Commute Solutions Program to identify and fund innovative ways to promote carpooling among campus commuters as noted in Table 2-19 and to conduct a study and fund Park & Ride facilities to serve carpoolers and transit service at major centers within Santa Cruz County. RTC staff also recommends that, "UCSC will continue to be a member of the Santa Cruz Area Transportation Management Association", be added to Table 2-19. (2005 RTP Policy 1.3.2)

6. RTC staff recommends that UCSC work with the Area for Monterey Bay Government (AMBAG) to ensure growth projections of the LRDP are included with assumptions used in AMBAG's regional growth projections and Regional Travel Demand Model.

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7. RTC staff offers the following corrections to the project descriptions:
  - 2.1.7.1 last sentence of 1<sup>st</sup> paragraph (page 2-9). There are no major modifications to the Morrissey interchange.
  - 2.1.7.1 2<sup>nd</sup> sentence of 2<sup>nd</sup> paragraph (page 2-9). The configuration of the Emeline Avenue northbound ramp will be the same, but the ramp will be lengthened to provide greater deceleration area.
  - 2.1.7.2 last sentence (page 2-10). There is \$2.9 million provided in the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A legacy for Users (SAFETEA-LU) Bill.
  - 2.1.7.3 1<sup>st</sup> sentence (page 2-10). The widening is from a point north of Morrissey Boulevard to Larkin Valley/San Andreas Road.

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## Response to Comment Letter LA-14

**Response to Comment LA-14-1.** The University will evaluate the effectiveness of the Level 1 and Level 2 TDM measures shown in the table (Draft EIR Table 4.14-19 and RDEIR Table 2-19) and implement those measures that are both effective in maintaining and improving the University's current mode share and are within the University's jurisdiction. It is premature to commit to any specific TDM measures until the University has had an opportunity to evaluate effectiveness and develop an implementation plan in light of the specific conditions that exist as various projects under the LRDP are undertaken. Such a commitment could preclude adoption of better options that have not yet been developed. The University is committed to funding and implementing those programs identified as feasible and effective in achieving and improving upon the University's goal of a 55 percent mode split for sustainable transportation modes. Please refer to Response to Comment LA-4-3.

**Response to Comment LA-14-2.** Comment noted.

**Response to Comment LA-14-3.** Please refer to Response to Comments SA-2-2 and Master Response TRAFFIC-1, which explain why the City's current standards of significance for traffic impacts were used in the Draft EIR. Also see Response to Comments LA-15-7 and SA-9-4. The RDEIR was prepared consistent with the analysis in the Draft EIR, including the use of the City standards of significance for surface street intersections.

**Response to Comment LA-14-4.** Please refer to Response to Comments LA-4-1 and LA-7-2 for discussions of the University's commitments to working collaboratively with SCMTD to improve and expand transit services. This collaboration includes the University's existing and continuing contract with SCMTD to pay for the University's share of transit costs based on the University's share of transit ridership.

**Response to Comment LA-14-5.** Comment noted.

**Response to Comment LA-14-6.** Please refer to Responses to Comments LA-14-1 and LA-4-1.

**Response to Comment LA-14-7.** AMBAG received and reviewed the Draft EIR and RDEIR. The Campus has been involved in the preparation of previous AMBAG projections. The Campus will work with AMBAG to ensure that the 2005 LRDP growth projections are included in the Regional Travel Demand Model and regional population and employment projections.

Additionally, AMBAG has indicated that it integrates adopted plans from the University and other special generators in future land use updates to the Regional Travel Demand Model (Munn, 2005). Thus, it is anticipated that the LRDP data will be incorporated into future updates of the AMBAG Regional Travel Demand Model.

**Response to Comment LA-14-8.** The text on pages 2-9 and 2-10 of the RDEIR has been revised in response to the comment. The revised text is presented in Chapter 3 in Volume IV of the Final EIR. None of these changes to the text affect the impact analysis or the conclusions in the RDEIR.



# County of Santa Cruz

## BOARD OF SUPERVISORS

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April 26, 2006

2005 LRDP RDEIR Comment  
UC Santa Cruz Physical Planning  
and Construction  
1156 High Street, Barn G  
Santa Cruz, CA 95064

RE: COMMENTS ON 2005 LRDP REVISED DRAFT EIR

To Whom It May Concern:

Following are my comments on the 2005 Revised Draft EIR:

GENERAL COMMENTS:

1. The analysis doesn't go nearly far enough. Comments from the City, the County, and others identified a number of very serious inadequacies with the original Draft EIR (DEIR). The lack of analysis of the 2005 LRDP's impacts on Highways 1 and 17 was only one of these. For example, the analysis of the 2005 LRDP's impacts on the City's water supply was clearly inadequate, as was the traffic analysis of the proposed 4,000 seat stadium. While it is a positive step for the University to admit one of the inadequacies of the Draft EIR, it is discouraging that the many other serious deficiencies are not being responded to in an appropriate fashion.
2. The analysis is never clear regarding the actual amount of campus traffic resulting from the proposed enrollment growth that will travel on Highways 1 and 17. The document contains extremely detailed information on the 2005 LRDP's impacts on various segments, ramps, and intersections but it is impossible to calculate the overall number of peak hour and daily trips that the proposed campus growth will generate that will use the highways. Table 2-10 indicates that the total LRDP growth will generate, overall, 747 am peak hour trips, 943 pm peak hour trips, and 10,590 daily trips. How many of these trips will travel on Highways 1 and 17?

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Page 2

3. Because the analysis considers the project's impacts on the merge, driving, and weaving areas of the highways, it is extremely confusing to understand. It doesn't meet the CEQA requirement of informing the public but, on the contrary, seems geared to confuse them. Most other traffic studies present a much more simplified and comprehensible presentation of the highway conditions they are measuring. For example, page 2-4 introduces the concept of a "merge/diverge point" at ramp junctions. This is never clearly defined or explained through the use of a diagram, which would have helped.

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While, on the one hand, it is laudable that the Revised DEIR contains such a detailed analysis, more information is needed explaining what the analysis actually is measuring.

4. As with the original Draft EIR, the project's impacts are not measured against existing conditions but the estimated future conditions. While it is legitimate to include this analysis, it potentially underestimates the project's impacts and could involve unstated biases. For example, the analysis assumes a one percent growth rate of highway traffic based on historical conditions. In fact, this may prove impossible to achieve given the already congested conditions on the highway. The EIR needs to include tables showing what the impact of the 2005 LRDP, by itself, would be compared to existing conditions.

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5. Further, considering the impact of the 2005 LRDP only on the estimated traffic conditions in 2020 ignores the incremental impact of campus growth on traffic congestion during the interim period. As a minimum, the EIR should evaluate the projected traffic impacts in five year increments.

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SPECIFIC COMMENTS:

- PAGE 2-12 - TRIP GENERATION RATES - The Revised DEIR states that trip generation rates were adjusted downward to reflect the higher level of on-campus student housing that is planned under the 2005 LRDP compared to what currently exists. This is unacceptable and inadequate. Under the 1988 LRDP, the University adopted a goal of housing 70% of the undergraduate students on campus. In 2004, significantly less than 50% were housed on-campus. Given the University's track record, there is no evidence that the 50% goal will ever be reached. The EIR should not reflect a future at odds with current reality. The traffic analysis should, at least, include a worst case analysis that assumes the existing situation continues. This is what was done in the EIR for the 1988 LRDP and is a much more reasonable approach.

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 Page 3

- PAGE 2-11 - THRESHOLDS OF SIGNIFICANCE - The Revised DEIR thresholds of significance for freeway segments are not adequate. The only thresholds listed are 1) if a project causes the LOS to degrade from LOS D or better to LOS E or F, or from LOS E to LOS F; and 2) if the LOS is at E or F and the project reduces the MOE by 1.0 passenger car/mile/lane. In other words, a project could degrade traffic from LOS A to LOS D and not be considered to have a significant traffic impact.

Moreover, in justifying the 1.0 car/mile/lane standard, the Revised DEIR states that this equals a 2.8% change relative to the LOS E threshold. However, when the 1.0 car/mile/lane standard is applied to LOS levels C and D, the percentage impacts increase, not insignificantly. For example, at LOS C, a 1.0 car/mile/lane increase represents about a 5% change in the level of congestion. Table 2-18, on page 2-27, indicates that four ramps at LOS C will have a change of over 1.0 car/mile/lane.

The EIR needs to include thresholds of significance for increases in traffic congestion where LOS E and F have not yet been reached.

- PAGE 2-13 - TABLE 2-10 - TRIP GENERATION RATES - The table projects an adjusted trip generation rate from the proposed growth of a total of 476 trips from the main campus during the am peak hour and 632 trips during the pm peak hour with a daily trip generation increase of 8,808. While these numbers are significant, they represent a lower trip increase than the percentage increase in enrollment. The am peak hour increase is about 33%, the pm peak hour increase is about 31%, and a daily trip increase of about 36%. Since the enrollment growth is in the mid forty percent range, what is the justification for these lower trip generation rates?

I look forward to reviewing the responses to these comments in the Final EIR, although again, I think the University is remiss and acting contrary to CEQA by not recirculating additional sections of the original DEIR.

Sincerely,



MARDI WORMHOUDT, Supervisor  
 Third District

MW:ted

cc: Planning Director  
 Santa Cruz City Council

1287H3

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## Response to Comment Letter LA-15

**Response to Comment LA-15-1.** Please see Response to Comment Letter LA-2, which shows that, with one exception (the analysis of traffic impacts on Highways 1 and 17), the impact analysis in the Draft EIR was adequate for all resource areas. Master Response UTIL-1 demonstrates that the analysis of the proposed project's impact on water supply presented in the Draft EIR is accurate and adequate. Please also refer to Response to Comments LA-2-19 and LA-2-159 regarding the accuracy and adequacy of the traffic analysis that was included in the Draft EIR for the Event Center. Because all of the impact analyses in the Draft EIR were adequate, the Campus determined that there was no need to recirculate any other portions of the Draft EIR, and only the additional traffic analysis was recirculated.

**Response to Comment LA-15-2.** The RDEIR presents the 2005 LRDP trip generation in Table 2-10 (page 2-13). The project's trip distribution is presented in Section 2.2.3.2 of the RDEIR. Trip distribution is illustrated on Figure 2.3, which indicates the percentage of the project's trips that travel on Highways 1 and 17. The table below summarizes the number of trips assigned to the state highway system in the RDEIR analysis.

Year	State Route 1				State Route 17			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	N bound	S bound	N bound	S bound	W bound	E bound	W bound	E bound
2010	39	9	11	44	31	7	8	35
2020	157	30	66	170	125	24	53	136

**Response to Comment LA-15-3.** The freeway facilities analyzed are defined in Section 2.1.5.1 starting on page 2-3 of the RDEIR. For clarification these facilities are re-defined below.

Ramp Diverge: A point on the freeway where an off-ramp exits. This is the point where vehicles exiting the freeway leave the main travel lanes.

Ramp Merge: A point on the freeway where an on-ramp enters the main freeway travel lanes requiring traffic entering the freeway to merge into the flow of traffic in the main travel lanes.

Weave: A segment of the freeway between an on-ramp and an off-ramp where the ramps are connected by an auxiliary lane. A weave requires vehicle entering the freeway at the on-ramp to change lanes to avoid exiting the downstream off-ramp. Similarly, in a weave segment, a vehicle wishing to exit the freeway must change lanes from the main travel lane to the auxiliary lane.

Ramp Intersection: A point where an on- or off-ramp intersects with a city street usually controlled by a traffic signal or a stop sign.

**Response to Comment LA-15-4.** Please refer to Response to Comments LA-10-4 and LA-13-1. The RDEIR includes an analysis of an interim condition (year 2010) that includes the 2300 Delaware Avenue Project and proportionate growth of the main campus under the 2005 LRDP. It is important to note that the RDEIR is part of a programmatic EIR and, as such, includes project-level analysis only for near-term projects. Project-level analysis will be conducted for individual components of the 2005 LRDP, as

individual projects are proposed. These analyses will assess the impacts of each proposed project relative to traffic conditions that exist at the time the project is proposed.

**Response to Comment LA-15-5.** Please refer to Response to Comment LA-15-4, above, which refers to the interim year 2010 analysis included in the RDEIR.

**Response to Comment LA-15-6.** Please refer to Response to Comments LA-9-72 and LA-9-73, which discuss the Draft EIR's trip generation methodology. CEQA requires analysis of the project as described in the Project Description, which includes a projected increase in on-campus housing for undergraduate and graduate students. The trip generation analysis is consistent with the Project Description and consistent with CEQA requirements. Also refer to Master Response POP-1 regarding the likelihood that the projected housing will be developed.

**Response to Comment LA-15-7.** Please refer to Master Response TRAFFIC-1 (Traffic Standards of Significance).

**Response to Comment LA-15-8.** Please refer to Response to Comments LA-9-72 and LA-9-73 for a detailed discussion of the derivation of trip generation rates. There is not a direct relationship between the growth in enrollment and the growth in number of trips. The trip generation rates were derived from actual counts and are based on total population (students, faculty and staff) and adjusted downward by six percent to reflect the increase in student housing, which is a component of the proposed program, as defined in the Project Description.



REC'D MAY 1 2006

MAYOR AND CITY COUNCIL

809 Center Street, Room 10, Santa Cruz, CA 95060 • (831) 420-5020 • Fax: (831) 420-5011 • citycouncil@ci.santa-cruz.ca.us

April 25, 2006

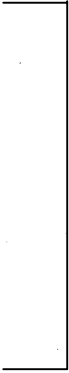
Mr. John Barnes, Director of Campus Planning  
2005 LRDP RDEIR Comment  
UCSC Physical Planning and Construction  
1156 High Street, Barn G  
Santa Cruz, CA 95064

**RE: University of California, Santa Cruz 2005–2020 Long Range Development Plan  
Environmental Impact Report (SCH No. 2005012113) March 2006, Recirculated  
Draft, Additional Traffic Analysis**

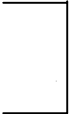
Dear Mr. Barnes:

Thank you for the opportunity to review and comment on the Recirculated Draft Environmental Impact Report (DEIR) regarding additional traffic analysis. The following comments are offered in response. These comments are in addition to the comments provided in two separate letters dated January 11, 2006 from the City of Santa Cruz and from the law firm of Remy, Thomas, Moose and Manley. Attached is an additional letter on the Recirculated DEIR from Remy, Thomas, Moose and Manley, who have been retained to assist with our review and comments on the document.

1. We question why the trip generation forecast in the original DEIR and Table 2-10 in this document remain unchanged. The trip generation rate for existing conditions at UCSC may be calculated using the figures presented in Table 4.14-10. Total daily trip generation is 24,830 for a student population of 14,050 students in 2003–04. These figures calculate to a trip generation rate of 1.77 trips per student. Using this figure for estimating the future traffic generation for a 21,000 student population would result in 37,100 trips per day. **This figure is 9% higher than the estimate made in the DEIR and would result in an increase in traffic that is 33% higher than that forecasted.** The traffic analysis assumed that trip generation would be reduced by 6% because of increased housing on campus. This assumption is not supported in any way in the document. It should be noted that students living on campus make work, recreation, and shopping trips off campus.
2. The analysis fails to include a discussion of the operations of the northbound and southbound ramps at Ocean Street on Highway 1. These intersections are operating at poor levels of service and will likely be significantly impacted.



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Mr. John Barnes  
April 25, 2006  
Page 2

- 3. The additional traffic analysis identifies several significant impacts of the project on Page 2-25. One mitigation measure suggested in the Fifth Paragraph of that page is the implementation of transportation demand management measures. These measures, however, are already incorporated into the trip generation estimate and therefore would be redundant as a mitigation option.
- 4. UCSC already has an extraordinary Traffic Development Management (TDM) program addressing the needs of the campus. It is generally agreed that marginal improvements can be made to the system. The existing program will have to expand to provide for the increment in demand anticipated with the proposed population. Maintaining existing modal splits will be challenging enough. **It is not likely that TDM measures will reduce traffic demand more than existing ratios.**
- 5. The analysis also includes a discussion of fair-share responsibilities on Page 2-29. Based on the Long Range Development Plan Mitigation TRA-6b, UCSC has agreed to negotiate a fair-share payment for mitigation measures if the responsible agency has established a mechanism for assessing all development contributing to the impacts. The City of Santa Cruz has established such a mechanism by adopting a Citywide Traffic Impact Fee. This fee establishes a fair-share responsibility for new development, including UCSC development. Based on the comments above, the new trips generated by UCSC should be corrected so that the appropriate fee can be assessed. The City notes that UCSC should also participate in discussions with the Santa Cruz County Regional Transportation Commission on the establishment of regional traffic impact fees for new development impacts on the State highway system, especially Highway 1.

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Again, thank you for the opportunity to provide comments on the Recirculated DEIR. City staff is available to provide additional background or clarification of any of the items broached in this letter. We believe that these additional traffic issues raised are significant and need further environmental analysis. The City is hopeful that UCSC will address these issues and provide either changes to the project or meaningful mitigation measures to impacts on traffic and circulation.

Sincerely,



Cynthia Mathews  
Mayor

Attachment: Letter from Remy, Thomas, Moose and Manley, Attorneys at Law

cc: City Clerk

**Response to Comment Letter LA-16**

**Response to Comment LA-16-1.** Please refer to Responses to Comments LA-9-72 and LA-9-73 for a detailed discussion of the derivation of trip generation rates. The six percent reduction for increased on-campus housing is a reasonable trip reduction estimate given that under the Draft 2005 LRDP, it was proposed that on-campus student housing would increase by 3,390 beds, and employee housing by 125 units. This would represent an increase of about 3,528 additional people residing on-campus over 2004 levels. The traffic analysis recognizes that some of these campus residents will make trips during the University’s peak periods. These trips are (1) captured in the derivation of the trip generation rates based on actual counts which includes trips made by current campus residents, and (2) the trip reduction (on a percentage basis) is less than half of the increase in campus residents, so the reduction does not represent a one-to-one reduction in trips. The lower trip reduction percentage also reflects the fact that on-campus resident freshman and sophomore student are not permitted to have cars on the campus, and thus would not contribute trips. Note that the Campus proposes to recommend to The Regents the adoption of the Final Draft 2005 LRDP (September 2006), which revises the Draft 2005 LRDP (January 2005) to reflect the Reduced Enrollment Growth Alternative previously analyzed in the 2005 LRDP Draft EIR and identified as the Environmentally Superior Alternative. For more information regarding the Final Draft 2005 LRDP, please see Final EIR, Volume IV, Chapter 2, *Project Refinements*. Under the Final Draft 2005 LRDP, since housing targets will remain at the same levels, trips will be reduced

**Response to Comment LA-16-2.** A negligible amount of campus traffic uses Ocean Street to access Highway 1 or 17. The more direct route to access Highway 17 or the highway portion of Highway 1 is via Mission Street. However, traffic accessing Highways 1 and 17 from Ocean Street would merge with project traffic using the Mission Street ramps. The primary ramp junctions where Highways 1 and 17 connect were evaluated in the Recirculated Draft EIR (March 2006). The four Ocean Street ramp junctions potentially affected by 2005 LRDP traffic are listed in the following table along with ramp junction levels of service for existing, 2010 and 2020 conditions with and without the 2005 LRDP. The ramp junctions operate at LOS A or B in existing and future conditions, and the project would not cause any ramp junction to drop below LOS B. Therefore, there would be no significant impacts.

**Ocean Street Ramp Junction Analysis**

Ramp Junction	Type of Junction	Existing Conditions			
		AM Peak Hour		PM Peak Hour	
		Density	LOS	Density	LOS
Southbound Highway 1/17 Split to Mission/Ocean	Diverge	5.5	A	7.9	A
Northbound Highway 17 On from Southbound Highway 1	Merge	5.9	A	6.2	A
Southbound Highway 1 On Ramp to Northbound Highway 17	Diverge	6.7	A	6.7	A
Southbound On Ramp from Plymouth to Southbound Highway 1	Merge	10.3	B	9.2	A
2010 Without Project					
		AM Peak Hour		PM Peak Hour	
	Type of Junction	Density	LOS	Density	LOS
Southbound Highway 1/17 Split to Mission/Ocean	Diverge	6.3	A	9.1	A

**Ocean Street Ramp Junction Analysis**

Northbound Highway 17 On from Southbound Highway 1	Merge	7.3	A	7.8	A
Southbound Highway 1 On Ramp to Northbound Highway 17	Diverge	9.7	A	7.8	A
Southbound On Ramp from Plymouth to Southbound Highway 1	Merge	11.5	B	10.2	B
<b>2010 Plus Project</b>					
			<b>AM Peak Hour</b>		<b>PM Peak Hour</b>
	<b>Type of Junction</b>	<b>Density</b>	<b>LOS</b>	<b>Density</b>	<b>LOS</b>
Southbound Highway 1/17 Split to Mission/Ocean	Diverge	6.6	A	9.2	A
Northbound Highway 17 On from Southbound Highway 1	Merge	7.3	A	7.8	A
Southbound Highway 1 On Ramp to Northbound Highway 17	Diverge	9.9	A	8.6	A
Southbound On Ramp from Plymouth to Southbound Highway 1	Merge	11.6	B	10.6	B
<b>2020 Without Project</b>					
			<b>AM Peak Hour</b>		<b>PM Peak Hour</b>
<b>Ramp Junction</b>	<b>Type of Junction</b>	<b>Density</b>	<b>LOS</b>	<b>Density</b>	<b>LOS</b>
Southbound Highway 1/17 Split to Mission/Ocean	Diverge	7.2	A	10.4	A
Northbound Highway 17 On from Southbound Highway 1	Merge	9	A	9.5	A
Southbound Highway 1 On Ramp to Northbound Highway 17	Diverge	11.3	B	9	A
Southbound On Ramp from Plymouth to Southbound Highway 1	Merge	12.9	B	11.4	B
<b>2020 Plus Project</b>					
			<b>AM Peak Hour</b>		<b>PM Peak Hour</b>
<b>Ramp Junction</b>	<b>Type of Junction</b>	<b>Density</b>	<b>LOS</b>	<b>Density</b>	<b>LOS</b>
Southbound Highway 1/17 Split to Mission/Ocean	Diverge	8.3	A	11	A
Northbound Highway 17 On from Southbound Highway 1	Merge	9	A	9.5	A
Southbound Highway 1 On Ramp to Northbound Highway 17	Diverge	11.8	B	11.9	B
Southbound On Ramp from Plymouth to Southbound Highway 1	Merge	12.9	B	11.8	B

Note:

The methodologies to develop traffic projections and to analyze ramp operations are described in the Recirculated Draft EIR, March 2006.

**Response to Comment LA-16-3.** TDM measures already in effect and that affect actual traffic counts at the campus entrances are incorporated into the trip generation rates. The University seeks to maintain and continue to improve the existing TDM program.

**Response to Comment LA-16-4.** The Campus acknowledges that increasing the current modal split, which is the product of the Campus’s existing, highly effective TDM program, will be challenging. Nonetheless, it is the campus goal, under LRDP Mitigation TRA-2B to increase the share of sustainable transportation modes above 55 percent. The University is pursuing a wide range of strategies to encourage greater use of public transit and other modes of transportation. Further, with increasing cost and environmental constraints on automobile use, new options for sustainable transportation may well be developed during the term of the LRDP, and may become more attractive to an increasingly larger segment of the population. The University will continue to pursue a wide range of flexible strategies to improve on the success of its existing TDM program.

**Response to Comment LA-16-5.** Please refer to Response to Comments LA-9-72 and LA-9-73 for a detailed discussion of the derivation of trip generation rates.

The University acknowledges its responsibility to pay a fair share contribution towards mitigating off-campus traffic impacts on the City of Santa Cruz intersections. Please also see Master Response MIT-1 regarding fair share of mitigations. As discussed in Response to Comment LA-13-2, the University also will negotiate to pay its fair share of regional mitigation measures once a regional mechanism for collecting fair share contributions has been established.

UNIVERSITY OF CALIFORNIA, SANTA CRUZ



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December 2, 2005

**Comments on the Draft Environmental Impact Report of 2005:**

The members of the UC Santa Cruz Academic Senate Committee on Planning and Budget (CPB) offer these comments on the Environmental Impact Report (EIR) prepared for the 2005 Long Range Development Plan (LRDP) of the University of California, Santa Cruz (UCSC). They are responsive to the framework of the California Environmental Quality Act (CEQA). The contact person for further consultation is Professor Paul Koch, CPB chair and member of the Department of Earth Sciences, UCSC.

1. HOUSING

1.1. Housing on campus

The housing analysis assumes that 3,390 additional student beds and 125 new employee housing units will be built. The 84 employee housing units already approved but not built are ignored in the analysis. However, the EIR makes no commitment to actually building the student beds or employee housing units.<sup>1</sup> For instance; page 4.11-15 only states that "Based on the land designated for housing, approximately 3390 additional student beds could be built."

1

<sup>1</sup> In fact, it is a reasonable possibility that the university will be unable to build affordable housing either for its students or employees. The undergraduate student rent for a small triple room (excluding meal plan costs) is approximately \$1870 per month per three students. With prevailing construction costs and projected trends, these rents will increase if more student housing is built. For comparison, the median rent of a house (shared by three students) in Santa Cruz is \$1176-\$1425, and the median affordability level for students is \$1426-\$1675 per household, according to the university consultants' report. Moreover, the difficulties the campus has faced in providing affordable employee housing are well known, as seen in UCSC Senate Resolution AS/SCP/1462 and from its recent history of trying to construct the 84 approved units of housing in Ranch View Terrace.

The impact on the housing market outside the university, Impact POP-3, is already found by the EIR to be "significant", and this impact would obviously be worse if the on-campus housing were not to be built. Therefore the on-campus housing should be treated as a mitigation measure, even though it is currently not listed as such.

CEQA guideline §15126.4(a) (2) states that "Mitigation measures must be fully enforceable through permit conditions, agreements, or other legally binding instruments. In the case of a plan, policy, regulation or other public project, mitigation measures can be incorporated into the plan, policy, regulation or project design." Accordingly, we ask that the EIR make definite commitments to building a specified amount of employee and student housing. It should specify not just the endpoint in 2020, but also how this housing will be phased in as the growth takes place. Since city and county housing projections are uncertain, these commitments could be accompanied by criteria to decide when they could be suspended because of overabundant off-campus housing.<sup>2</sup>

1

1.2 Impact on off-campus housing market

The analysis by the university's consultants,<sup>3</sup> which forms the basis for the calculations in the Housing section of the EIR, assumes that rents and for-sale prices in the city and county will be unchanged from their 2005 values. More precisely, it assumes that the distribution of rents and sale prices will stay constant relative to affordability levels for students and employees. This is a highly unrealistic assumption, and significantly underestimates the impact on the housing market of growth under the 2005 LRDP. For instance, in Table 4.11-12, the EIR projects that 1,146 extra housing units will be needed by university students and employees in Santa Cruz city under the 2005 LRDP, 1,220 will be needed by non-university personnel based on population growth, but only 1,684 housing units will be built. Even ignoring the additional housing demand based on regional employment growth, this will inevitably lead to an increase in housing prices. We ask that the impact on the housing market be estimated including price escalation because of population growth. One simple and reasonable way to do this is to consider the total population growth from university and non-university sources and assume that the housing stock will be taken by those in the highest affordability categories until all the housing stock is exhausted. This is based on the assumption that, faced with a shortage of housing, higher income households will drive up prices to the level they can afford in order to outbid lower income households.<sup>4</sup> Although the total number of people unable to afford housing in the county will not be affected by this change, they will all be in the lowest affordability categories. This changes the nature of the impact.

2

<sup>2</sup> Low occupancy of on-campus housing cannot suffice as a criterion, since this could occur because the housing is overpriced instead of because of a genuine lack of demand. (See previous footnote.)

<sup>3</sup> Bay Area Economics (BAE) 2005 LRDP Housing Impact Analysis. Memorandum prepared for UC Santa Cruz.

<sup>4</sup> This analysis neglects the fact that some households will prefer to move out of the county instead of bidding higher for housing. On the other hand, it also neglects the impact of the much higher growth in employment in the county, which will inevitably contribute to housing demand (and therefore prices).

1.3. Minor errors in arithmetic in BAE 2005

There are apparent minor errors in arithmetic in the consultants' report that is the basis for the housing analysis in the EIR. In Appendix C-2, the third table estimates residual demand after the ownership market in the city of Santa Cruz. With the last assumption in Appendix A: Faculty and Staff Housing Demand, the expressed demand should be the lesser of the number of new housing units and new employees. This is not always the case in the table. Similar errors exist in other sections of Appendix C, and should be corrected.

3

1.4. Weakness of Scenario 2 in the housing analysis

The housing analysis is performed using two scenarios. The first assumes that all employees hired by the university will look for housing. The second assumes that 69% of the employees will already be living in the county when they are hired, based on past hiring data. This is less reasonable than it seems. As explained in the consultants' report on which this section is based, even if an employee is hired from within the county, their joining the university opens up a vacancy (unless they were unemployed) that has to be filled by someone from outside the county (or will have to be after several iterations of this process). This weakness of Scenario 2 should be mentioned in the EIR instead of being relegated to the consultants' report. Otherwise, this scenario creates a misleadingly optimistic impression about the impact on housing.

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2. TRAFFIC

2.1. AMBAG model used incorrectly

The core of the traffic analysis for growth under the 2005 LRDP consists of two parts: a traffic model to predict the amount of traffic on various roads and at various intersections, and a level of service (LOS) calculation at the intersections. We consider these issues in sequence.

The traffic model used is the latest Association of Monterey Bay Area Governments (AMBAG) model, released in late 2004. Although AMBAG has a history of developing traffic models, there are no data to assess the validity of the latest version of the model, or to ascertain that the university has run the model correctly. Therefore, we have used various consistency checks to verify the results obtained from the model.

5

Figures 4.14-9 and 4.14-10 show the traffic counts at various intersections during the AM and PM peak hours. For each intersection, the total number of vehicles during the peak hours in each of the twelve traffic streams (coming from all four directions and turning left, right, or going straight) is shown. From Figure 4.14-9-1, one can see that the model predicts that 701 vehicles come towards intersection 1 from intersection 10 during the PM peak hour. However, from Figure 4.14-9-10, one can see that the model predicts 357 vehicles going from intersection 10 towards intersection 1. There is only a bus stop in the short distance between these intersections, which cannot explain the huge discrepancy

between these numbers.<sup>5</sup> Similar inconsistencies are also seen at some other pairs of intersections.

Such large discrepancies make the subsequent conclusions based on these projections suspect. Furthermore, with such errors, it is impossible to run more subtle checks on the internal consistency of the traffic projections. This limits the ability for meaningful public review and comment. We ask that this section of the EIR be withdrawn, corrected, and recirculated, under provisions of CEQA guideline §15088.5(4).

5

## 2.2. Inaccurate LOS calculations

We now turn to the second core element of the traffic analysis in the EIR and demonstrate that it, too, has serious flaws. LOS calculations are given in Appendix E of the EIR. Because of the difficulty in understanding the notation in the appendix (which will be discussed further in the next comment), we concentrate on the calculations for PM peak hour traffic at Intersection 19, King-Union with Mission Street-SR1, with and without the project.

If we first consider southbound traffic (coming off King Street to Mission Street) with the project, the analysis proceeds in several stages. In the first stage, the saturated flow in both lanes is calculated as per the Highway Capacity Manual. Starting from a reference value of 1,900 vehicles/hour, various adjustments for lane utilization and turning vehicles are made, yielding a saturated flow of 1,681 and 1,683 vehicles/hour in the two lanes. This is the estimate for the maximum number of vehicles that could flow in the two lanes if the traffic light had been permanently green. Since the green light stays on for 29% of the time during an actuated cycle of traffic lights, the lane capacities are reduced to 490 and 491. The calculation then takes the total projected southbound traffic at this intersection, divides it between the two lanes, and estimates that 661 and 604 vehicles would arrive in the two lanes during the PM peak hour. This yields a flow/capacity of 1.35 and 1.23 respectively.

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Clearly, with traffic arriving at a rate higher than the capacity of the lanes, serious delays are expected. Yet, the LOS calculation predicts a delay of 223.5 and 173.8 seconds for the two lanes. Although this is a level of service F, the delay is less than one would expect. We believe that this is because the LOS calculation incorrectly uses Equation 16-12 from the Highway Capacity Manual to calculate the incremental delay  $d_2$  (in addition to the uniform control delay  $d_1$ ), with  $T = 0.25$  hours (the standard unit for highway traffic analysis),  $k = 0.5$  (appropriate for saturated flow, as shown in Exhibit 16-13 of the Manual), and  $I = 1.0$  in accordance with the discussion on page 16-22 of the manual. Substituting these values in Equation 16-12, we obtain the following numbers for  $d_2$  in the various lanes:

<sup>5</sup> By contrast, the corresponding numbers for the 2003-04 traffic counts are 701 and 719. The difference is small.



Lane	c(veh/hr)	X	d <sub>2</sub> (Appendix E)	d <sub>2</sub> (Equation 16-12)
1	1420	1.34	159.8	157.8
2	38	0.92	114.3	123.2
3	1789	1.10	54.2	54.2
4	193	0.06	0.6	0.6
5	490	1.35	170.1	170.6
6	491	1.23	120.4	120.4

Apart from lane 2, there is very good agreement between d<sub>2</sub> reported in Appendix E and d<sub>2</sub> calculated from Equation 16-12 with the parameters chosen above, confirming that this is how the analysis was done. (The last two lanes are the southbound traffic.)

Shorn of the algebra, the analysis amounts to the following: assume that there is no traffic backed up at the traffic light when the analysis starts. For the next fifteen minutes, the traffic arriving at the intersection is greater than its maximum capacity, leading to steadily increasing backups. However, since the analysis time period is only 15 minutes, the average backup (and hence the d<sub>2</sub> delay) is only a few minutes. Obviously, this calculation severely underestimates the impact of the growth: if the time period for which the analysis is performed were increased, delays would get progressively worse. This would continue until such time as the vehicles start to arrive at a rate less than the lane capacity and the backup can be cleared. For instance, if the congestion lasts for an hour,<sup>6</sup> the d<sub>2</sub> delay at the end of this interval in lane 5 would be more than 20 minutes. This is easily understood: with a 35% load in excess of capacity, at the end of an hour, ignoring fluctuations in input traffic (which would make matters worse), there would be a delay of 0.35 X 60 minutes = 21 minutes. (Even for a fifteen minute interval, with the maximum delay for X > 1 occurs at the end of the interval, whereas the EIR reports the average delay.)

6

Not only does the LOS calculation violate common sense; it is also contrary to the Highway Capacity Manual's instructions. Page 16-23 states that if v/c=X is greater than 1, this "is an indication of actual or potential breakdown. In such cases, multi-period analyses are advised." Page 16-4 also says, "If v/c exceeds 1.0 during the analysis period, the length of the analysis period should be extended to cover the period of over saturation in the same fashion, as long as the average flow during that period is relatively constant. If the resulting analysis period is longer than 15 min. and different flow rates can be identified during equal-length sub-periods within the longer analysis period, a multiple-period analysis using the procedures in Appendix F should be performed."

We ask that the traffic section of the EIR be withdrawn, corrected, and recirculated, in accordance with CEQA Guideline §15088.5(2). All intersections which are oversaturated should be reanalyzed, consistent with the Highway Capacity Manual and Comment 2.6 in this document. In addition, the d<sub>3</sub> delay of the Highway Capacity Manual should be included for all oversaturated and near saturation intersections, since traffic builds up

<sup>6</sup> The peak hour factor is 0.98, i.e., the average traffic flow rate during the peak hour is only 2% less than during the 15 minute period analyzed, so this is a conservative assumption.

gradually to peak hour and a substantial backlog is expected even at the beginning of the hour.

6

2.3. Inadequate information in the EIR

CEQA guideline §15140 states that "EIRs shall be written in plain language so that decision-makers and the public can rapidly understand the documents." The traffic section of the EIR lacks important details that make it impossible to properly check the correctness of the analysis performed. Most notably, the LOS calculations in Appendix E have no explanation for the symbols used. As university faculty in disciplines that include the natural sciences and engineering, if we are unable to decipher the analysis (except for intersection 19, discussed earlier), we believe that it is not accessible to the general public. In order to allow the public to fulfill its role as envisioned in CEQA,<sup>7</sup> we ask that when the traffic section of the EIR is recirculated, it should provide the following extra information:

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- i) LOS calculations in Appendix E should use standard symbols and nomenclature and provide a key that cites appropriate pages and equations of the Highway Capacity Manual for the terms in each line of the calculation. If the pages in Appendix E are in more than one format, as they are at present, such a key should be provided for each format.
- ii) All the assumptions and input parameters that were chosen when running the AMBAG model should be specified. For instance, although 2020 Without LRDP assumes no change in the campus population, does it assume any change in the buildings, and if so where? The distribution of where university employees and students live in the 2020 With LRDP scenario is also an input to the model, and should be specified.<sup>8</sup>

2.4. Financial estimates and guarantees

In TRA-3B, the EIR proposes building several new parking lots as needed, with up to 5,600 new parking spaces. Of these, up to 2,500 spaces would replace parking lost to infill. There is good reason to expect that this will be impossible, because all costs for construction of parking spaces are paid by parking permit fees, and such extensive construction could make permits unaffordable.<sup>9</sup>

8

<sup>7</sup> "An agency's opinion concerning matters within its expertise is of obvious value, but the public and decision-makers, for whom the EIR is prepared, should also have before them the basis for that opinion so as to enable them to make an independent, reasoned judgment." (*Santiago County Water Dist. v. County of Orange (1981) 118 Cal.App.3d 818, 173 Cal. Rptr, 602.*)

<sup>8</sup> The distribution of population and employment is hand coded into the land use file used in the regional travel demand model. (Todd Muck, AMBAG Senior Planner Transportation, personal communication.) We assume that this was done by the university for the extra population (students and employees) associated with the 2005 LRDP.

<sup>9</sup> At present, all costs for the construction of parking spaces (including the cost of replacing spaces lost to infill) are paid for from parking permits. The number of commuter parking spaces in 2003-04 is approximately 3500. We estimate conservatively that the campus will have to build 1500 new parking spaces to accommodate the increase in student population by nearly 50% and of employee population by approximately 30%, and that an additional 1000 spaces will be needed to compensate for infill. Most recently, the campus is preparing plans to increase the number of spaces in the East Remote parking lot by 500, at a cost of \$15 million. For 2400 spaces, this extrapolates to a cost of

Two factors will aggravate this problem. First, the campus transit network will have to expand by an amount disproportionate to the population increase, because it will also have to cover a wider geographical area. The cost of this is borne by parking and student fees. Second, the EIR proposes various transportation demand measures (TDM) in mitigation TRA-2B if campus growth causes unacceptable levels of service at off-campus intersections (which the EIR predicts will occur), and signalization of two on-campus intersections in TRA-1. Many TDM measures are implemented by the university at present with financial incentives, paid for by parking fees. Signalization, to the extent not paid by external grants, has also been paid by parking fees.

8

As discussed in comment 1.1, CEQA guideline §15126.4(a) (2) requires that mitigation measures should be fully enforceable and legally binding. In order for TRA-3B to qualify as a mitigation measure, we ask that the EIR provide criteria to determine the need for TRA-3B (for instance the impact of university vehicles on neighborhood parking) and that the university undertake to implement this measure when these criteria are met. Similar specificity is needed for TRA-2B: at present, none of the measures in Table 4.14-19 has to be implemented, and no target has to be met by TRA-2B.

The remaining comments point out places in the EIR where the magnitude of various impacts of growth is not adequately characterized. The basic purpose of CEQA is to "inform governmental decision-makers and the public about the potential, significant environmental effects of proposed activities" (CEQA guideline §15002(a) (1), also guideline §15121(a)). Clearly, this information should represent the environmental effects adequately, which is why we believe these comments are appropriate.

#### 2.5. Pedestrian crossings on campus

Table 4.14-3 presents data on the LOS at various key pedestrian crossings on campus. As far as we can ascertain, this LOS refers to pedestrians. The text below the table also says that vehicular delays were less than 60 seconds at most intersections, except at College Eight/Porter where the delay was an average of a minute and a half.

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We consider this discussion to be inadequate for the following reasons: (a) No analysis is presented for the expected delay for vehicles and the LOS for pedestrians in 2020. Only present conditions are given. In view of the fact that delays at College Eight/Porter are already 1.5 minutes, and the LRDP proposes increasing campus population by approximately a factor of 1.5, this is a serious concern. Without traffic lights, and with the consequent nearly continuous stream of pedestrians, the vehicular delays at these

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\$72 million (assuming that construction costs stay constant in today's dollars through the duration of the 2005 LRDP). With a 5% interest loan, compounded monthly, paid over 30 years, this requires an annual payment of \$8.65 million.

In 2003-04, the annual parking budget was approximately \$3.5 million, with \$1 million deposited in a parking reserve. Thus with the construction projects in the 2005 LRDP, without saving money for parking reserves, the annual parking budget would be approximately  $\$8.65 + \$2.5 = \$11.15$  million, i.e., an increase by more than a factor of 3. With a 40% to 50% increase in the number of permit holders, average annual parking fees would more than double, even though most close-in parking lots would be lost and people would have to park further from the campus core.

crossings could rise dramatically.<sup>10</sup> We note that even a delay of 60 seconds is an F LOS for vehicles at an unsignalized intersection. (b) Table 4.14-3 does not state whether the data presented is a peak hour analysis, even though the text on the preceding page states that data were collected from 9AM to 5PM.

9

In view of the variability of vehicular traffic, and the strong variability of pedestrian traffic associated with the change of classes, a peak 15 minute analysis using Method A of the Highway Capacity Manual page 16-8 (modified appropriately for unsignalized pedestrian crossings) should be done. A similar analysis should be performed with projections for 2020 with and without the project.<sup>11</sup>

2.6. Fluctuations in traffic

The EIR projects unacceptable levels of service at 11 off-campus intersections with the 2005 LRDP. This is based on an analysis that takes the projected average traffic during AM and PM peak hours in 2020. As is well known, and verifiable from the May 2004 traffic counts reported in Appendix E, traffic is highly variable. In order to estimate the impact of the 2005 LRDP on critically affected intersections, we ask that the EIR estimate the LOS at these 11 intersections, or at a minimum at the King-Union/Mission and Bay/Mission intersections, with a) typical fluctuations from one 15 minute interval to another included. These could be based on the 2003-04 measurements. Thereafter, Method C of the Highway Capacity Manual page 16-8 should be used. b) the assumption that the total traffic during peak hour is slightly higher than the average measured over several days. This excess traffic can be estimated from the day to day variations in the 2003-04 counts, and measuring the typical excess traffic on a busier than average day.<sup>12</sup> If such measurements are not available, fluctuations in the counts at the campus Main Entrance can be used to estimate traffic variability. This comment should be considered in conjunction with Comment 2.2.

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2.7. Impact of mitigation measures

Table 4.14-18 lists various potential improvements that could improve traffic conditions. Some of these are crucial, such as at Intersection 8 (Empire Grade Road/Western Drive) and Intersection 9 (Empire Grade Road/Heller Drive). We ask that the EIR verify and confirm that making these improvements would not degrade the LOS at other intersections, either by restricting flow at upstream intersections or providing an increased volume at downstream intersections. CEQA guideline §15126.4(a)(1)(D)

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<sup>10</sup> These intersections already operate at near capacity during peak load. In such a situation, it is well known in traffic analysis that small increases in load can substantially increase delays. For vehicles, the situation is worse because they have lower priority at the intersections than pedestrians.

<sup>11</sup> Page 4.14-30 suggests that pedestrian conflicts under the 2005 LRDP on McLaughlin Drive could be reduced through a combination of traffic calming, pedestrian safety improvements and, potentially, grade separated pedestrian crossings. This is speculative and not sufficiently defined to count as a mitigation as per CEQA guideline §15126.4(a)(2). Therefore we ignore this statement.

<sup>12</sup> For instance, one standard deviation above the mean peak hour traffic. This excess traffic would have to be prorated for 2020.

requires that if a mitigation causes significant effects in addition to those caused by the project, these effects should be discussed; by extension, this should also apply to an existing significant effect being worsened by the mitigation. While the EIR cannot consider all possible subsets of Table 4.14-18, we ask that it should perform this analysis if all the improvements at Intersections 8, 9, 19 and 23 are made.

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**2.8. End to end delays**

The EIR estimates the LOS at various key intersections, and projects that at several of them, the LRDP will cause unacceptable delays for vehicular traffic. However, several other intersections with two way or four way stop signs (e.g. on Heller Drive or High Street) are not considered. In order to properly measure the impact of campus growth on traffic and inform the public about this, we ask that the EIR estimate the cumulative delay experienced by a vehicle traveling to the campus during AM peak hour and from the campus during PM peak hour when going from a) Baskin Engineering through the West Entrance, then down Bay Street through the Highway 1/River Street signal light b) College 9 through the Main Entrance, then down High Street to Mission Street and through the Highway 1/River Street signal light with and without the 2005 LRDP, neglecting all accidental delays in free flowing traffic between intersections.

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**SUMMARY OF REQUESTS:**

(This summary is provided to help the reader. The full text of the comments, as given in the previous sections, should be responded to individually.)

1.1: Acknowledge that on-campus housing is a mitigation for growth, and provide commitments to build a specified amount of housing, with information on how housing will be phased relative to growth, and with criteria to indicate when on-campus housing construction would be suspended because of surplus housing in the off-campus market.

1.2: Estimate how growth under the LRDP would impact housing prices.

1.3: Fix errors in arithmetic in the housing analysis.

1.4: Include the counterargument to Scenario 2 in the housing analysis, which is provided in the university consultants' report, in the text of the EIR.

2: Problems with the AMBAG model and LOS calculations raise such serious concerns about Section 4 of the EIR that we do not consider it a reliable analysis of traffic impacts due to growth. We request that the traffic section be withdrawn, that the issues listed below be addressed, and that the revised traffic section be resubmitted for public comment.

2.1: Rerun the AMBAG model to resolve the large discrepancies for traffic flow to and from pairs of intersections.

Committee on Planning and Budget-10  
EIR Response

- 2.2: Redo the LOS calculations for all intersections that are oversaturated in a manner consistent with the Highway Capacity Manual and Comment 2.6 in this document.
- 2.3: Use standard symbols and nomenclature in Appendix E or supply a key, and clearly state all assumptions and input parameters used in the AMBAG model.
- 2.4: Provide criteria to determine when mitigation measures TRA-2B and TRA-3B will be implemented and commit to implementation if these criteria are met.
- 2.5: Redo the LOS calculations for pedestrian traffic to include current 15-minute peak traffic and projected traffic in 2020 with and without growth projected under the 2005 LRDP.
- 2.6: Provide LOS estimates at key, impacted intersections that consider reasonable levels of variability in traffic flow.
- 2.7: Evaluate the impacts of essential mitigation projects on LOS at other intersections.
- 2.8: Estimate the cumulative delay experienced by a vehicle traveling to the campus during AM peak hour and from the campus during PM peak hour along two routes.

THE COMMITTEE ON PLANNING AND BUDGET

Faye Crosby  
Ray Gibbs  
Emily Honig  
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Wentai Liu  
Onuttom Narayan  
Ravi Rajan  
Don Rothman  
Quentin Williams  
Paul Koch, Chair

SANTA CRUZ: OFFICE OF THE ACADEMIC SENATE

July 14, 2006

David Kliger, Campus Provost and Executive Vice Chancellor  
Charlotte Moreno, Assistant Provost

Dear Dave and Charlotte:

We write, as promised, concerning the LRDP process. The Senate Executive Committee (SEC) is gratified at the progress that is being made. We trust that further progress will be made so that we can approve the transmittal of the EIR/LRDP to the Regents as early as September. To meet the particulars of the resolution, SEC (or its delegates) would need to receive the appropriate materials two months in advance of consideration by the Regents. Thus, if you are still thinking of submission for the September 20 -21 Regents meeting, we would need your answers by July 20<sup>th</sup> or by the 26th if you note that July 26 is eight weeks before the meeting. In the particular case of housing, we recognize that the current process may be unlikely to generate all of the information we seek by July 26<sup>th</sup>. Thus, we are willing to evaluate information generated by the employee housing planning process that is produced within a time-window sufficient for the Senate to evaluate these materials, but prior to the submission of the LRDP.

**Process**

We two are the delegates of SEC. We will be calling on the expert help of Onuttom Narayan and Ted Holman. May I remind you that I leave for Europe on July 30? I hope that we can proceed as far as possible in this process before I leave. Please transmit all final materials to the two of us along and to Ted and Onuttom, making sure to copy the Senate office.

**Traffic**

Concerning traffic, we thank you for working with us and find that a few points still need to be clarified.

1. We need either a commitment from you that parking fees will not be used to fund traffic mitigations and infrastructure, or a clear statement about the types and magnitudes of projects that might be funded using this approach.

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2. The response to comment OPA-1-9 notes that vehicular delays on campus due to increased pedestrian traffic might be mitigated in a variety of ways (LRDP Impact TRA-4), but it offers no analysis of the estimated length of such delays and no commitments to mitigate. We need the response to include either an analysis of expected delays to vehicles, or to include a commitment to mitigate once cumulative delays cross some threshold value. We note that such triggers are built in to other parts of the draft EIR, for example in the section on campus water use.

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3. The response to comment OP-1-6 (about saturated intersections) should include an analysis of a few key impacted intersections (King and Mission and a few others) using Method B, a slightly more sophisticated approach than the one currently used that calculates delays over the entire period of over-saturation. We recognize that such an analysis is not legally required, but we believe that such an analysis would acknowledge what is intuitively obvious and would thus avoid any appearance that the campus is trying to underestimate the impact of growth. These results could be discussed in narrative fashion in the response to CPB's comment, they need not be incorporated into the body of the final EIR.

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**Employee Housing**

Concerning the employee housing issues, we are cautiously optimistic about the particular consultants you have employed, but are anxious to ensure that the consultants' results make progress towards the Senate's concerns about employee housing. We understand that they will not have a final report ready until October 1, 2006, although a draft is likely to be available sooner. In order to sign off on the LRDP, we need to know some specifics, and see some products of the employee housing planning process.

SANTA CRUZ: OFFICE OF THE ACADEMIC SENATE

1) We need a plan for how the Brailsford and Dunleavy Report, which we understand will involve strategic recommendations on employee housing, will be translated into an actual Action Plan on employee housing. We would like to understand how the space requirements for on-campus housing will be meaningfully assessed and an action plan produced for generating an adequate number of units. In particular, we need to know how *and when* different constituencies (and particularly the Senate) will have input into the process.

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2) We need to know what sites the consultants are considering for possible employee housing development.

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3) We need the administration's written commitment that, should the best opportunities for campus development of employee housing involve different sites than those laid out in the proposed LRDP, amendments to the LRDP will be pursued that would permit development of the most feasible employee housing opportunities.

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4) We need the administration's written commitment that at least a preliminary analysis of different proposed sites and price-points associated with different proposed sites (and housing options) for faculty-housing (and/or financing techniques) will be available a reasonable amount of time before submission of the LRDP, which the SEC will then be able to evaluate. This timeframe appears to be in accord with that of the draft consultant's report. What do we mean by a preliminary analysis? We mean that you will provide at least two solutions of the form "we could build at site X, constructing Y units of A square feet, which we estimate would cost \$B in today's dollars," where X, Y, A and B are realistic values.

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Please let us know at your earliest convenience how you would like to proceed. Thank you.

Sincerely

Faye J. Crosby  
Chair

and Quentin Williams  
Vice Chair

Xc: Acting Chancellor George Blumenthal  
Senate Executive Committee members  
Mary-Beth Harhen, Director  
Professor Ted Holman  
Professor Onuttom Narayan



Attachment to Comment  
Letter OPA-1

>>Date: Thu, 12 Jan 2006 10:52:56 -0800 (PST)  
>>From: narayan@physics.ucsc.edu  
>>X-Sender: narayan@wagner.ucsc.edu  
>>Reply-To: narayan@physics.ucsc.edu  
>>To: Sally Morgan <morgans@ucsc.edu>  
>>cc: tvani@ucsc.edu  
>>Subject: EIR comments  
>>X-UCSC-CATS-Information: This message was scanned by the ITS MailScanner  
>>X-UCSC-CATS-MailScanner: Found to be clean  
>>X-UCSC-CATS-MailScanner-SpamCheck: not spam, spamassassin (score=1.57,  
>> required 8, autolearn=disabled, MISSING\_SUBJECT 1.57)  
>>X-UCSC-CATS-MailScanner-SpamScore: s  
>>X-UCSC-CATS-MailScanner-From: narayan@physics.ucsc.edu  
>>  
>>

>>Dear Sally,

>>  
>>In the comments from members of the Committee on Planning  
>>and Budget on the draft EIR, there is a misprint in  
>>comment 2.1. "Interesection 10" should read "Intersection 2".  
>>The comparison is between CampusFacilities/Coolidge and  
>>Hagar/Coolidge.

>>Best wishes,

>>Onuttom

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>> Onuttom Narayan  
>> Dept of Physics tel: (831)-459-4123  
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## Response to Comment Letter OPA-1

**Response to Comment OPA-1-1.** In developing the estimate of additional faculty and staff housing that would be needed by 2020 in order to meet the on-campus housing targets, the 84 housing units approved under the Ranch View Terrace Project were included in the existing employee housing inventory; that is, because the project has been approved and is scheduled to begin construction, these units are assumed in the analysis to have been constructed. Construction on this project is slated to begin in fall 2006. The purpose of the EIR is to provide environmental review of the full number of units that are provided for in the LRDP so that they can be built as warranted by demand, and as allowed by funding and other considerations. On-campus housing is developed in response to demand and there is demonstrated demand for housing, especially by faculty and staff.

The University acknowledges that the relative cost of student housing on the campus is higher than the cost of housing in the City of Santa Cruz (for more information on the cost of on-campus housing, please also refer to Master Response ALT-5). However, because very limited housing growth (1,684 housing units according to AMBAG estimates) is projected in the City between 2005 and 2020, the availability of housing in the City will be extremely limited in the future. In light of the limited supply off-campus, students will be willing to pay higher rents for on-campus housing, and there would be a demand for at least the number of student beds provided for in the 2005 LRDP. Because there will be ample demand, it is reasonable to expect that the on-campus student housing projected in the LRDP EIR will be built during the next 15 years.

With respect to employee housing, new on-campus housing has always been offered to faculty and staff at below market rates. This practice would continue in the future, and will make the on-campus housing relatively more affordable compared to similar new housing in the City of Santa Cruz, especially in the City's west side. Because of below market prices, and other factors including desire to live close to work, it is expected that on-campus employee housing will continue to be in high demand in the future. In light of the demand, it is reasonable to expect that the on-campus employee housing projected in the LRDP EIR will be built during the next 15 years.

Housing is a component of the proposed project, not a mitigation measure. For a discussion of various alternatives to the proposed project, including more on-campus housing, please see Chapter 5 of the Draft EIR and Master Response ALT-5 (Increased On-Campus Housing Alternative).

New housing on campus will be developed in response to demand, based on on-going monitoring of the housing market (as described in LRDP Mitigations POP-3A and POP-3C) and consistent with the housing targets included in the 2005 LRDP. Please see Response to Comment LA-3-41 with regard to the timing of development of on-campus housing.

**Response to Comment OPA-1-2.** The housing analysis in the EIR is based on the housing impact analysis conducted by Bay Area Economics (BAE). The analysis is presented in a memorandum dated September 30, 2005, which is included in Appendix C in Volume VI of the Final EIR.

It is impossible to predict with certainty future incomes and housing prices, and such forecasting is not a CEQA requirement. However, as a reasonable means of estimating future housing affordability levels, the BAE analysis utilizes 2005 for-sale and rental housing market data, UC Santa Cruz employee household

income levels, and actual rents paid by UC Santa Cruz students. The sources of these data are documented in the BAE memorandum. The BAE analysis assumes that the distribution of rents and home prices will remain constant over time relative to income levels for students and employees. This approach provides a reasonable estimate of affordability because it is distributional and relies on relationships between incomes (which rise over time) and housing prices (which rise, flatten, and can fall over time).

The assumptions used by BAE regarding affordability, and the terms of mortgages underlying those assumptions, are very conservative, leading to a possible over-estimation of affordability impacts. To translate UC Santa Cruz employee household incomes into housing affordability levels, BAE assumed a maximum down payment of five percent and maximum total housing costs, including mortgage, tax, and insurance payments, of no more than 35 percent of income. If the analysis made more aggressive assumptions (which more closely reflect current market trends), “affordability” levels could be shifted upwards and the residual demand number would shift downwards. For these reasons, the housing analysis in the Draft EIR is also very conservative. See also Response to Comment OPA-1-3 below.

The University, in response to the Academic Senate’s request, instructed BAE to evaluate the number of total new households in 2020 (LRDP-related households and non-University new households) that would be able to find affordable housing within the study area. BAE found that such an analysis could not be conducted using AMBAG residential population forecasts. This is because the residential population and housing forecasts in AMBAG forecasts are related such that one variable was likely used by AMBAG to forecast the other variable. Thus, because BAE used AMBAG 2020 housing data to estimate the future supply of housing, AMBAG residential population could not be used to derive non-University new households. BAE also considered using AMBAG 2020 employment forecasts for the City and the County to derive the number of non-University new households. AMBAG 2004 forecasts include substantial employment growth between 2005 and 2020 (about 12,185 new jobs in the City of Santa Cruz and about 37,968 new jobs countywide) but not a commensurate growth in housing stock (about 1,684 new housing units in the City of Santa Cruz and about 9,831 housing units countywide). Therefore the forecasts appear to assume a significant amount of commuting from outside the county. If the employment forecasts were used to estimate non-University new households, the analysis would show an artificially high housing demand. Therefore, such an analysis was not completed.

**Response to Comment OPA-1-3.** BAE has examined Appendix C in the BAE memorandum and has not found any arithmetic errors. Below is a further explanation of the methodology used in the appendix, which may be helpful in elucidating assumptions on which the calculations were based.

Calculations of expressed demand in Appendix C-2 of the BAE memorandum are based on the assumption that, when a UC Santa Cruz employee household finds an affordable house in the Primary Market Area, it purchases this house. As an example, based on the current distribution of household incomes among UC Santa Cruz employee households, Appendix C-2 reports there will be 21 new UC Santa Cruz households able to afford housing costing \$785,000 or less. Based on current housing market data and AMBAG forecasts, Appendix C-2 presents an estimate that only 286 of a total of 842 new housing units in the Primary Market Area will not be affordable to this cohort of households. The remainder, 556 housing units (842 total units minus 286 unaffordable units), will be affordable to this cohort. Consequently, all 21 new UC Santa Cruz households in this cohort will be able to purchase a house; expressed demand for this cohort is shown in Appendix C-2 as 21 households. Looking at another

cohort, 63 new UC Santa Cruz households are estimated to be able to afford a house costing \$550,000 or less. According to Appendix C-2, 177 new units will be built that are affordable to members of this cohort as shown below:

Housing Price Range (Constant 2005 \$) <sup>1</sup>	Estimated Unit Production 2005-2020
\$115,001 to \$155,000	8
\$155,001 to \$195,000	8
\$195,001 to \$235,000	8
\$235,001 to \$275,000	17
\$275,001 to \$315,000	17
\$315,001 to \$395,000	17
\$395,001 to \$470,000	51
\$470,001 to \$550,000	51
<b>Units Produced Costing \$550,000 or Less</b>	<b>177</b>

<sup>1</sup> The housing price distribution in this table is not intended to be a projection of actual housing prices in the future. Please see Response to Comment OPA-1-2, which explains why BAE held both the cost of housing and incomes constant at 2005 levels.

With 177 new houses available, all 63 households in this cohort will be able to purchase a house, and expressed demand for this cohort is shown as 63 households. According to the methodology used in Appendix C-2, houses purchased by this cohort include all 51 houses within the \$470,001 to \$550,000 price range, and 12 houses within the \$395,001 to \$470,000 price range. As a consequence, 114 houses (177 minus 63) are available to the next cohort, which is comprised of households able to afford houses costing \$470,000 or less. This process ripples downward through the housing market. As a consequence, Appendix C-2 shows that 115 new UC Santa Cruz households will be able to afford a housing unit costing \$155,000 or less. Members of this cohort will be unable to find a home for purchase, because higher income households will have purchased all the available units.

**Response to Comment OPA-1-4.** Scenarios 1 and 2 in the Draft EIR present the range of likely population and housing impacts that would occur as a result of the 2005 LRDP. The Draft EIR (page 4.11-16) explains how Scenario 2 differs from Scenario 1, and why Scenario 1 is the worst-case scenario. Text has been added page 4.11-16 explaining that Scenario 2 is not conservative, as it does not take into account the backfilling of jobs. See Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*.

**Response to Comment OPA-1-5.** The discrepancy in traffic volumes between the two successive intersections identified in the comment is not related to how the AMBAG model was used. The model was used to derive an annual growth rate to reflect non-campus related growth in Santa Cruz. This growth rate was then applied to the existing traffic counts in order to project future conditions. If there are discrepancies between successive intersections, they would be due to discrepancies in existing traffic counts. Since the year 2020 projections are derived by applying a growth factor to existing traffic counts, discrepancies in the traffic counts can be carried into the future projections.

With respect to the discrepancy pointed out by the commenter between Intersections # 1 and 2, a review of the traffic volumes found that the volumes shown at intersection #2 (Glenn Coolidge Drive/Hagar

Drive) are incorrect. Both the 2020 Without Project and 2020 Plus Project volumes at intersection #2 portray an earlier option developed for the 2020 Plus Project scenario.<sup>1</sup> The volumes for both scenarios have been corrected (including the discrepancies between the two adjacent intersections), and the intersections have been re-evaluated with the following results:

### Revisions to Intersection Levels of Service for On-Campus Intersections

Intersection	AM Peak Hour		PM Peak Hour	
	Average Controlled Delay (sec/veh)	Level of Service	Average Controlled Delay (sec/veh)	Level of Service
<b>Year 2020 Without Project Conditions</b>				
#1 Glenn Coolidge/Campus Facilities	9.4	A	8.8	A
#2 Glenn Coolidge/Hagar	13.9	B	23.6	C
#3 Hagar/East Remote Lot	9.6	A	11.5	B
<b>Year 2020 With Project Conditions</b>				
#1 Glenn Coolidge/Campus Facilities	19.3	B	14.0	B
#2 Glenn Coolidge/Hagar	15.5	B	27.1	C
#3 Hagar/East Remote Lot	18.1	C	30.8	D
#4 Glenn Coolidge/East Remote Lot	13.7	B	17.2	C

The re-evaluation shows that the study intersections, with one exception, would operate at a LOS C or better in all periods under with and without project conditions. The intersection of Hagar/East Remote Lot would operate at LOS D for the stop controlled side street (the worst case movement at this intersection). Therefore, the changes in traffic volumes under both scenarios do not change the conclusions of the Draft EIR—the impacts at the on-campus intersections remain less than significant. The intersection level of service worksheets showing the correct traffic volumes are presented in Appendix D in Volume VI of the Final EIR.

In addition to the two intersections discussed above, traffic volumes at other study intersections were reviewed to determine if there were any significant discrepancies between adjacent intersections. Traffic typically fluctuates from day to day, and because traffic counts are conducted over a series of days, variations between intersections are expected. As a general rule, a variation of plus or minus 10 percent in

<sup>1</sup> Two options for the Hagar Drive-Glenn Coolidge Drive connector were studied for the 2020 Plus Project scenario. One option was to restrict the connector as a one-way connection from Hagar to Glenn Coolidge, creating a one-way circulation pattern on Hagar and Glenn Coolidge Drives. The second option was to permit two-way travel on the connector allowing in and out access from both Hagar and Glenn Coolidge Drives. The first option was not explored further and was not included in the EIR.

the traffic at an intersection is considered normal. The review examined traffic volumes at successive intersections in cases where there are no traffic generators such as minor streets or driveways between the intersections. This was done for the 2020 Plus Project scenario. Discrepancies greater than 10 percent were identified at the following intersections:

- #7 Mission Street / Western Drive (AM peak hour discrepancy of 19%)
- #9 Empire Grade Road / Heller Drive (AM peak hour discrepancy of 13%, PM peak hour discrepancy of 23%)
- #11 Bay Street / Iowa Drive / Nobel Drive (AM peak hour discrepancy of 25%)
- #12 Bay Street / Escalona Drive (PM peak hour discrepancy of 11%)
- #21 State Route 1 / River Street (PM peak hour discrepancy of 12%)

Where there was a discrepancy of greater than 10 percent, the volumes between the successive intersections were adjusted to eliminate any discrepancy (i.e., if the traffic departing an upstream intersection was higher than the traffic approaching a downstream intersection, the lower approach volume was adjusted upward to match the higher departure volume) and the levels of service recalculated. The table below shows the recalculated intersection levels of service.

#### Revisions to Off-Campus Intersection Levels of Service

Intersection	AM Peak Hour		PM Peak Hour	
	Average Controlled Delay (sec/veh)	Level of Service	Average Controlled Delay (sec/veh)	Level of Service
<b>Year 2020 Plus Project Conditions (before mitigation)</b>				
#7 Mission Street / Western Drive	29.9	C	NC	NC
#9 Empire Grade Road / Heller Drive	32.5 (worst movement)	D	232.4 (worst movement)	F
#11 Bay Street / Iowa Drive / Nobel Drive	11.3	B	NC	NC
#12 Bay Street / Escalona Drive	NC	NC	12.8	B
#21 State Route 1 / River Street	NC	NC	153.0	F

NC = No change from Draft EIR

While the balancing of traffic volumes results in an increase in average controlled delay ranging from 1.7 to 61.1 seconds, the revised levels of service are the same levels of service presented in the Draft EIR. Therefore the changes in traffic volumes do not change the conclusions of the Draft EIR. The intersection level of service worksheets showing the rebalanced traffic volumes are presented in Appendix D in Volume VI of the Final EIR.

**Response to Comment OPA-1-6 and OPA-1A-15.** Because the 2005 LRDP is a 15-year long-range development plan, similar to a city or county general plan, the analysis in this EIR is at a programmatic

level. The traffic thresholds of significance (Draft EIR Section 4.14.23 and RDEIR Section 2.2.2) require a determination of intersection levels of service and the project's contribution to total traffic volumes. Thus, in analyzing a land use plan rather than a development project, the 2000 Highway Capacity Manual (HCM) provides that (HCM page 16-26): "Planning analysis is intended for use in sizing the overall geometrics of the intersection or in identifying the general sufficiency of the capacity of an intersection.....the level of precision inherent in the operational analysis exceeds the accuracy of the data available in a planning context." Further, The HCM goes on to state "...the concept of planning analysis is to apply the required approximations to the input data and not to the computational procedures. For planning purposes, the only site-specific data that should be needed are the traffic volumes and number of lanes together with a minimal description of the signal design and related operating parameters." (HCM page 16-26).

As discussed below, the Draft EIR fully identifies the significant effects of the 2005 LRDP on study area intersections, and identifies mitigation measures that would reduce these impacts to a less-than-significant level if implemented by the responsible agencies. The comment refers to the need to conduct an operational analysis using Equation 16-12 of the HCM, which is found in methods outlined in HCM Appendix F. Appendix F provides a detailed operations analysis method that evaluates the effects of an initial queue of vehicles remaining in the period of time prior to the analysis period and breaks up the analysis of intersections into several 15-minute periods. This method is used to prepare detailed signal timing plans or intersection geometric design for development projects, and requires collection of vehicle queuing data. This method is not used for long-range planning; therefore the Draft EIR analysis does not use HCM Appendix F methodology but instead uses a nationally accepted method used in long-range planning applications. It is unclear what function a detailed analysis that includes multiple 15-minute analyses would serve in the EIR's program-level analysis of the LRDP's 15-year plan for campus growth. The analysis in the EIR serves its intended function—to identify the impacts of the LRDP compared to conditions without the LRDP growth. The level of analysis included in the Draft EIR is sufficient to (1) identify whether the project causes a significant impact, and (2) identify the type of mitigation measure required. A more detailed level of intersection analysis will be conducted as part of the design of the mitigation measures that involve roadway improvements, and would be used to refine the geometric parameters of the improvements (e.g., length of turn bays, etc.), and develop initial signal timing or synchronization plans.

The purpose of calculating average controlled delay and level of service in environmental impact reports is to determine whether a project would potentially cause a significant impact by exceeding a pre-established threshold. The conventional HCM method (HCM Alternative A method) – based on the highest 15-minute traffic volume period of the peak hour rather than the average volume over the peak hour – is an established and nationally accepted method of determining level of service, especially in planning level documents such as the UC Santa Cruz LRDP EIR where its main function is to identify project impacts "relative" to conditions without the project. In fact, as identified in the Draft EIR (page 4.14-44), traffic analysis based on Method A identifies the intersection in question (Intersection 19 - Mission/King/Union), as well as 10 other intersections, as being significantly affected by the project, which is one indication that the model that was used appropriately identifies impacts. The HCM Alternative Method C suggested by the commenter (Appendix F of the 2000 Highway Capacity Manual, Chapter 16) is typically not used to determine the level of service of the peak hour, but to provide more

detailed operational data for determining queue lengths for turn bay design and signal timing parameters, information that is not relevant to the thresholds of significance used in the EIR. Using HCM Alternative Method C might result in a different average controlled delay, but in over-saturated conditions the significance conclusion (LOS F) would not be changed. Because the threshold of significance is based on level of service and a percent contribution of project traffic, and because the subject intersection was found to be at LOS F and significantly adversely affected by the project, the use of HCM Alternative Method C would not provide any further information for purposes of the EIR (i.e., 2020 with Project compared to 2020 without Project). Further, the comment that Equation 16-12 from HCM Alternative Method A was misapplied in the EIR analysis is incorrect; it was applied in the manner specified in the HCM.

HCM Alternative Method B, suggested by the commenter in Comment OPA-1A-15, evaluates a 60-minute period of time rather than the standard highest 15-minute period evaluated by the conventional HCM Alternative Method A used in the Draft EIR. The length of time in the analysis period affects the reported delay. For example, if intersection volume to capacity ratio ( $v/c$ ) is greater than 1.0 (i.e., operating over capacity at LOS F), HCM Method B will estimate a longer delay than Method A because it measures the additive effects of traffic over an hour. Conversely, if the intersection volume to capacity ratio is less than 1.0 (i.e., operating at LOS D or better), HCM Method B will estimate a lower delay than Method A because it does not reflect the worst 15-minute period of the peak hour. Accordingly, by using HCM Alternative Method A, the Draft EIR conservatively analyzed the impacts of the 2005 LRDP on intersection levels of service.

The table below summarizes the LOS results for three intersections, including King/Mission, as requested by the commenter based on HCM Alternative Method B. While this alternative analysis requested by the commenter is provided for informational purposes, it does not change the conclusions of the EIR. The intersection level of service worksheets using HCM Alternative Method B are presented in Appendix D in Volume VI of the Final EIR.

**Estimation of Peak Hour Delay Using HCM Method B with a  
60-Minute Analysis Period**

<b>Intersection</b>	<b>Method B (Seconds of delay/Level of service)</b>	
	<b>AM</b>	<b>PM</b>
<b>Mission/King</b>		
Existing	189/F	108/F
2020 No Project	464/F	279/F
2020 + Project	578/F	464/F
<b>Mission/Bay</b>		
Existing	35/D	56/E
2020 No Project	58/E	161/F
2020 + Project	99/F	354/F



Mission/Chestnut		
Existing	29/C	34/C
2020 No Project	97/F	89/F
2020 + Project	228/F	166/F

**Response to Comment OPA-1-7.** Section 4.14 of the Draft EIR includes extensive explanation of traffic assessment methodology and of the standards of significance used in assessing impacts. All of the information in the Draft EIR is presented in layperson terms. The level of service calculations in Appendix E of the Draft EIR are provided as documentation of the analysis, and for the use of traffic analysts who might wish to review the Draft EIR. The information that is provided uses symbols and nomenclature as defined in the HCM that are standard in the traffic engineering industry. Presenting detailed technical information in appendices, rather than in the body of the EIR, is in accordance with the CEQA Guidelines (Section 15147). The nomenclature used in the Draft EIR is defined in each section of Chapter 16 (signalized intersections) of the HCM. A copy of the HCM is available for public review at the offices of Physical Planning and Construction on the campus.

With respect to the comments regarding the AMBAG travel demand model (AMBAG model), please note that the AMBAG model uses population, households and employment to represent land use and allocates these variables to Traffic Analysis Zones (TAZs). TAZs are geographic areas. The model does not provide specific information regarding buildings, etc., within these zones. The 2020 Without LRDP scenario assumed no change in the campus from existing conditions, meaning that the model did not include any growth in population, housing, or employment between 2020 and the model's base year of 2000 for the campus TAZs. This scenario maintains the campus at existing traffic levels, while projecting growth elsewhere in Santa Cruz.

The AMBAG model was not used to assign traffic generated by campus growth, nor was the additional population associated with the 2005 LRDP "hand coded" into the AMBAG model because such a step was not necessary for the impact analysis. Traffic that would result from 2005 LRDP population and development was manually assigned to the street network based on a distribution pattern that was determined based in part on the student/employment distribution as included in the AMBAG model (which reflects changes in population and employment centers and its effect on student distribution), and in part on a campus database of current student/employee residences. It is important to note that traffic does not always travel between campus and home. In fact, 60 to 70 percent of the trips to and from the campus are to and from other destinations (e.g., from school to grocery store, from home to daycare center to school, etc.). The AMBAG model captures these trip linkages.

The AMBAG model distribution of existing campus trips was partly based on data provided to AMBAG by the Campus in the development of the baseline model. However, future forecasts use the model's "gravity" function to distribute trips. The gravity model function in the AMBAG model estimates the distribution of trips proportional to the number of trip ends and inversely proportional to the distance between the origin and destination zones. The gravity model has achieved universal acceptance because of its simplicity, its accuracy, and its support from the Federal Highway Administration.

In the development of the model, the distribution patterns are calibrated. This process identifies the appropriate "friction factor" that represents the reluctance or propensity of persons to travel various

distances. The adjustments are made incrementally with successive iterations of the model until the trip length frequency distribution produced by the model closely matches the frequency distribution from any travel data provided to AMBAG by the Campus.

**Response to Comment OPA-1-8.** The cost of parking is not an issue under CEQA, which is focused on the question as to whether the project would result in inadequate parking. To the extent that closer-in parking is removed and the students and employees have to park at locations that are more distant from the campus core, that also does not represent an environmental impact and is therefore not addressed in the EIR. With respect to more persons parking off-campus in nearby neighborhoods, the Draft EIR addresses that impact (see LRDP Impact TRA-3, pages 4.14-53 and -54 of the Draft EIR).

Mitigation TRA-3B does contain a criterion for determining when implementation is required. That criterion is the utilization rate of campus parking facilities as determined annually as part of the monitoring requirement of LRDP Mitigation TRA-3B. Thus, the Campus must consider constructing new parking facilities when the average utilization rate in a particular zone is projected to exceed 90 percent of average daytime utilization. Also note that the LRDP Mitigation Monitoring Program (MMP) will provide details on how parking capacity will be monitored and the provisions of Mitigation TRA-3B will be implemented; for example:

- The Campus will redefine parking zones on campus for consistency with the goal of concentrating parking in the perimeter of the core.
- The Campus will conduct annual parking utilization surveys on the main campus and at 2300 Delaware Avenue.
- For each specific proposed development project, the Campus will identify potential impacts on parking and demonstrate that impacts will be mitigated through parking allocation strategies or construction of new spaces.
- The Campus will construct additional parking when demand is projected to approach 90 percent.

LRDP Mitigation TRA-2B also includes a measurable criterion, which is to maintain a single-occupant vehicle mode share of 55 percent or lower. The MMP (in Chapter 4, Volume IV of the Final EIR) includes additional detail regarding the implementation of LRDP Mitigation TRA-2B as follows:

- The Campus will assess the effectiveness of TDM measures for main campus annually, using an effectiveness matrix that tracks the TDM programs in place, number of users, and program growth.
- The Campus will conduct a modal mix study for the main campus every two years to monitor the SOV share.
- The Campus will conduct hose counts at campus intersections twice a year.
- The Campus will conduct a transportation survey of employees at 2300 Delaware Avenue every two years to assess modal mix and commute origins.

LRDP Mitigation TRA-2B has been modified to clarify that implementation of this mitigation measure represents continuation and expansion of existing TDM practices: the mitigation measure is to be implemented immediately. Note that some measures included in LRDP Mitigation TRA-2B are already in

place. The Campus will commit to continue to monitor the effectiveness of TDM and seek ways to improve them. Note also that the Draft EIR includes other measures that are designed to monitor and improve transit times, pedestrian safety and movement, and campus circulation. All of these elements are expected to work together to improve traffic conditions over time. The Campus has an excellent track record of implementing effective TDM measures, and has been in the forefront of identifying ways of reducing automobile traffic.

In conjunction with the approval of the 2005 LRDP, The Regents will adopt the MMP. The adoption of the MMP represents the University's commitment to implementing the mitigation measures included in the 2005 LRDP EIR.

**Response to Comment OPA-1-9 and OPA-1A-14.** The existing conditions evaluation in the Draft EIR identifies those on-campus areas and intersections that have a significant potential for conflict among pedestrians, bicyclists and vehicles and will be affected by the proposed project. Table 4.14-3 presents existing estimated crosswalk LOSs for pedestrians at these locations. The time periods to the pedestrian LOSs relate are also presented in the Table 4.14-3 under the heading "Time." There is no threshold of significance applicable to pedestrian movement as it relates to vehicle traffic delay or pedestrian movement delay. However, the Draft EIR acknowledges on page 4.14-57 under LRDP Impact TRA-4 that the pedestrian/bicycle/motor vehicle conflicts are expected to increase at locations on campus where there are already high levels of pedestrian and bicycle movements.

Vehicle LOSs for Hagar Drive/McLaughlin Drive and Heller Drive/McLaughlin Drive intersections were evaluated in the Draft EIR during AM and PM peak hours. See Draft EIR, pages 4.14-38 and -39. Relative to vehicle delay due to pedestrian movement, LRDP Impact TRA-4 identifies this potential impact and recommends mitigation measures for adoption by the University to reduce this impact to a less-than-significant level. LRDP Mitigations TRA-4A through -4F provide a number of measures that the Campus could implement as growth increases the potential for conflicts between motorized and un-motorized traffic. Precise solutions will be determined as part of the design of any future planned projects in required project-specific CEQA environmental documentation. However, the following potential measures are presented in the discussion of LRDP Impact TRA-4 as possible solutions:

- Grade-separated pedestrian crossings could be developed in conjunction with construction of new facilities adjoining roadways in the central campus, such as new academic buildings along McLaughlin Drive, new Student Life facilities along Hagar Drive, and new parking facilities and other buildings near the Performing Arts area.
- A major pedestrian corridor could be extended through a large existing culvert beneath McLaughlin Drive immediately west of Chiquapin Drive, in conjunction with new development in the vicinity of Quarry Plaza, Colleges Nine and Ten, and the north campus lands.
- Where grade-separated pedestrian crossings are impractical, installation of channelized, signal-controlled pedestrian crossings could be considered in conjunction with development in the vicinity of transit stops at Porter/College Eight, Science Hill, Colleges Nine/Ten and the Health Center, and Cowell College/Quarry Plaza.
- Additional or other pedestrian measures could be identified and implemented over the course of time to meet changing conditions on campus and to incorporate new technologies as they are developed."

The text of LRDP Mitigation TRA-4C has been revised to require implementation of solutions identified in the Draft EIR if the transit travel time between the two most widely separated colleges exceeds the time interval between class periods. See revision to 2005 LRDP EIR mitigation measures in Final EIR Volume IV, Chapter 3, Revised Table 2-1.

It is the intention of UC Santa Cruz to provide a balanced transportation system, but along streets with very high volumes of pedestrians, such as along McLaughlin Drive, pedestrian safety is paramount. Furthermore, the transportation improvements in the 2005 LRDP are intended to discourage automobile traffic through the core. Therefore, some of the measures that could be implemented prioritize pedestrian mobility and safety, along with transit efficiency, over automobile mobility. Where feasible, grade-separated pedestrian bridges may be implemented. In addition to the measures listed in the EIR, discussion during development of the LRDP identified a number of additional measures that include pedestrian channelization, traffic calming, and signalization concepts. This menu of solutions provides a high level of flexibility for the Campus to provide the appropriate solutions.

The discussion of LRDP Impact TRA-1 in the Draft EIR acknowledges that if the transportation improvements included in the 2005 LRDP to discourage automobile traffic through the core are not implemented, the congestion in the campus core will increase. To address this, pursuant to LRDP Mitigation TRA-1, the Campus will monitor two key intersections including the intersection of Hagar and McLaughlin Drive and Heller and Meyer Drive, and when signal warrants<sup>2</sup> are met, the Campus will install traffic signals at these intersections. These traffic signals would address the concern of vehicular delays as a result of pedestrian crossings in large numbers at these intersections. In addition, the Campus is has revised LRDP Mitigation TRA-4C to improve monitoring and mitigation of vehicular delay due to pedestrian movement at other key locations identified in the Draft EIR. Please see Final EIR, Volume IV, Chapter 3, Revised Table 2-1, for changes to the text of the mitigation measures.

Stop sign controlled intersections in the campus core cannot be studied using Chapter 16 methods, which are for signalized intersections. The Draft EIR used the appropriate methodology to evaluate the levels of service at the unsignalized intersections.

**Response to Comment OPA-1-10.** Please refer to Response to Comment OPA-1-7 and OPA-1-6.

**Response to Comment OPA-1-11.** Mitigation measures such as installing a traffic signal or adding a turn lane are capacity-related, and are intended to increase traffic flow through an intersection. While the mitigation measure improves traffic flow in small increments of time (e.g., a 60-second signal cycle length), it does not change the traffic volume projected to use the intersection over the duration of an hour, which is the study period for the EIR. Mitigated delays were calculated by running the analysis with

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<sup>2</sup> The State of California Department of Transportation and the Federal Highway Administration have established eleven warrants for the installation of traffic signals. Nearly every jurisdiction in the country adheres to these standards. The warrants are based on a combination of traffic volumes, delay, pedestrian volumes, and accident rates. Most public agencies will not install a traffic signal unless it meets one or more of the established warrants. The warrants are described in the California Manual of Uniform Traffic Control Devices for Streets and Highways (FHWA's MUTCD 2003 Edition as amended for use in California, January 27, 2006).

the intersection improvements in place. No adjustments were made for TDM measures listed in Table 4.14-19 of the Draft EIR, although these would improve intersection operations by reducing traffic volumes. In addition, intersections are studied with full theoretical traffic demands unrestricted by effects of adjacent intersections. The practice of evaluating “full demand” is a conservative, worst-case approach, and represents conditions without any restrictions in flow from adjacent intersections. Where intersections are spaced close enough to be potentially affected by extended queuing, traffic analysts review the effects of vehicle queuing on upstream intersection operations and adjust planning level signal timing parameters accordingly. Additionally, a more detailed operational analysis is conducted during the design stages of the improvements; particularly in the development of signal timing plans and signal interconnection, which accounts for conditions at adjacent intersections. In a program-level EIR such as the 2005 LRDP EIR, performance standards may be identified as a means of ensuring that appropriate measures are incorporated into future projects to reduce the impacts of future development consistent with the approved LRDP.

LRDP Mitigation TRA-2A uses the City’s level of service standards as the performance standard for traffic generated by development and growth under the LRDP as it affects off-campus intersections. LRDP Mitigation TRA-2A, as revised in the Final EIR, requires the Campus to conduct traffic counts at the identified intersections at three year intervals or 1,000 student increments of enrollment growth, as well as in conjunction with specific projects as warranted, to determine whether campus growth or future projects proposed under the 2005 LRDP would cause the LOS at off-campus intersections to degrade to the City’s identified unacceptable level (i.e., below LOS D). When such impacts are triggered, the Campus will contribute its “fair share” towards the cost of an identified traffic improvement to reduce the impact as explained in the Draft EIR. The EIR identifies the measures in Table 4.14-18 of the Draft EIR as possible solutions to which the Campus would make a fair share contribution. It is premature at this time to conduct the analysis requested by the commenter, as LOS conditions at the identified intersections will not be known until future projects under the LRDP are proposed. For this reason, the additional analysis requested by the commenter would be speculative. However, when future development under the 2005 LRDP is proposed, additional CEQA environmental documentation will be prepared that identifies, if necessary, the specific improvements that would reduce traffic impacts to a level that meets the performance standard identified in LRDP Mitigation TRA-2A. That analysis will include the potential for the identified improvements to affect other intersections or roadways.

**Response to Comment OPA-1-12.** While changes in travel times due to the proposed project can be estimated, there is no standard by which the significance of the change in travel time can be evaluated. The EIR relies on the traffic impact thresholds of significance established by the City of Santa Cruz and historically used in environmental reviews. These standards, which do not include corridor travel times, are used by the City and the Campus to design traffic improvements, traffic demand management programs, and other measures to improve movement and reduce time spent traveling through intersections.

However, in response to the comment, a travel time assessment was performed to estimate the amount of delay encountered when traveling in the inbound AM peak hour along Mission Street and Bay Street to the campus and in the outbound PM peak hour along the same route. The path assessed starts/ends at the Baskin Engineering Building on campus (intersection #5) and ends/starts at the Highway 1 / River Street

intersection (#21). The estimate of travel time is the sum of (1) the running time between each intersection based on a 25 mph speed (40 mph on the segment of Empire Grade Road between Heller Drive and Bay Street), and (2) the average delay experienced by the traveler in the direction of travel (from level of service calculations). The travel times were converted to average travel speeds for each route. Travel time and average speed estimates were prepared for Existing, 2020 No Project, 2020 Plus Project, and 2020 Plus Project (Mitigated) conditions.

The total time it would take for a vehicle to traverse the route in each peak hour is presented in Table 1 (at the end of OPA-1 responses). The 2000 Highway Capacity Manual Urban Streets Methodology was used to determine the Level of Service (LOS) for the route (which is based on an average speed, see Chapter 15 of the 2000 Highway Capacity Manual, Exhibit 15-2).

Based on corridor-wide average speeds, Table 1 shows that under existing conditions, the travel route using the Bay/Mission corridor operates at LOS B in the AM and PM peak hours, respectively. In the year 2020 without the Project, the corridor would operate at LOS C during both peak hours. With the project, the LOS would remain at LOS C during the AM peak hour but would degrade to LOS D in the PM peak hour. With the mitigation measures proposed in the Draft EIR, the LOS would improve to LOS B in the AM and remain at LOS D in the PM peak hours.

A similar travel time analysis was performed for the route that uses High Street and Mission Street to travel to and from the campus. The path assessed starts/ends at the intersection of College 9 access road and McLaughlin Drive and ends/starts at the Highway 1 / River Street intersection (#21). The path includes Hagar Drive on the campus. The total time taken for a vehicle to traverse the High Street route in each peak hour is presented in Table 2 (at the end of OPA-1 responses). Based on corridor-wide average speeds, Table 2 shows that the travel route using the High/Mission corridor in existing conditions operates at LOS B in the AM and PM peak hours. In the year 2020 without the Project, the corridor operates at LOS B in the AM peak hour and at LOS C in the PM peak hour. With the project, the LOS would decline to LOS C during the AM peak hour and to LOS D during the PM peak hour. With the mitigation measures proposed in the Draft EIR, the LOS with project would operate at LOS C in both peak hours.

**Response to Comment OPA-1A-13.** An evaluation of economic impacts of a proposed project is not required in CEQA documents. According to the CEQA Guidelines, social and economic impacts resulting from a project shall not be treated as significant impacts on the environment. However, the Transportation and Parking Services budget projection does include services such as: on-campus transit, transportation demand management measures, construction of new parking, parking management, and traffic/parking monitoring. The Campus would continue to seek extramural funding to help offset the costs of certain improvements such as intersection signalization.

**Response to Comment OPA-1A-16.**<sup>3</sup> The following represents a preliminary process timeline for translating the recommendations of the Employee Housing Administrative Plan (EHAP) report to the development of an Employee Housing Master Plan:

Planning Process:

1. Summer 2006 SEC review of development of draft EHAP
2. September 19-20, 2006 2005 LRDP to Regents
3. October 1, 2006 EHAP submitted with recommendations to EVC
4. Fall 2006 EHAP consultation and review with SEC;  
  
SEC to provide final input on EHAP; EVC to accept/reject SEC recommendations; EVC finalizes response to recommendations within 2 months of receiving SEC input on EHAP
5. 6-9 months after (4) EHAP process complete

**Response to Comment OPA-1A-17.** The 2005 LRDP designates 73 acres as “Employee Housing” area as the potential future location of employee housing development. In addition, lands designated “Campus Resource Land” in the 2005 LRDP are also available for employee housing development with additional environmental review. See Draft EIR, Figure 3-5. At this time, there are no specific plans for the development of additional employee housing, and a specific analysis of particular sites for employee housing is therefore not possible. If and when the Campus proposes to develop additional employee housing, such proposal(s) will be analyzed in site-specific CEQA documentation. As part of the EHAP process, preliminary rough comparisons of three areas identified for employee housing in the Draft 2005 LRDP will be performed.

**Response to Comment OPA-1A-18.** The process for evaluating potential locations for future employee housing will be performed as part of the EHAP process for purposes of developing a campus Employee Housing Master Plan. Should this process identify sites for employee housing not identified for this purpose in the 2005 LRDP, the Campus has the option of seeking approval of an amendment to the LRDP to accommodate other potential housing sites.

**Response to Comment OPA-1A-19.** See Response to Comment OPA-1A-16.

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<sup>3</sup> Response to Comments OPA-1A-14 and –15 are combined with Response to Comments OPA-1-9 and OPA-1-6 respectively.

**Table 1**  
**Comparison of Travel Times – Existing and 2020 Conditions (Bay/Mission Corridor)**

Location	Distance (miles)	Travel Time (sec)	Existing Conditions Delay (sec)		2020 No Project Delay (sec)		2020 Plus Project Delay (sec)		2020 Plus Project (Mitigated) Delay (sec)	
			AM	PM	AM	PM	AM	PM	AM	PM
Heller Dr. (Campus Building to McLaughlin Dr.)	0.10	14.40	-	-	-	-	-	-	-	-
<b>#5: Heller Dr. and McLaughlin Dr.</b>	-	-	9.6	16.9	8.1	10.6	8.4	11.4	8.4	11.4
Heller Dr. (McLaughlin Dr. to Meyer Dr.)	0.38	54.72	-	-	-	-	-	-	-	-
<b>#6: Heller Dr. and Meyer Dr.</b>	-	-	16.8	28.5	9.7	11.2	11.0	12.9	11.0	12.9
Heller Dr. (Meyer Dr. to Empire Grade Rd.)	0.99	141.98	-	-	-	-	-	-	-	-
<b>#9: Heller Dr. and Empire Grade Rd.</b>	-	-	0.0	36.6	0.0	48.6	0.0	241.3	0.0	178.2
Heller Dr. (Empire Grade Rd. to Western Dr.)	0.87	78.30	-	-	-	-	-	-	-	-
<b>#8: Empire Grade Rd. and Western Drive</b>			0.0	0.0	0.0	0.0	0.0	0.0	9.7	7.7
Empire Grade Rd. (Western to Bay St.)	0.27	24.30	-	-	-	-	-	-	-	-
<b>#10: Bay St. and High St./Glenn Coolidge Dr.</b>	-	-	15.8	18.1	17.1	18.0	21.4	27.0	23.8	33.6
Bay St. (High St./Glenn Coolidge Dr. to Nobel Dr./Iowa Dr.)	0.31	44.64	-	-	-	-	-	-	-	-
<b>#11: Bay St. and Nobel Dr./Iowa Dr.</b>	-	-	5.8	7.4	7.4	8.4	6.7	8.8	5.7	8.8
Bay St. (Nobel Dr./Iowa Dr. to Escalona Dr.)	0.40	57.60	-	-	-	-	-	-	-	-



**Table 1**  
**Comparison of Travel Times – Existing and 2020 Conditions (Bay/Mission Corridor)**

Location	Distance (miles)	Travel Time (sec)	Existing Conditions Delay (sec)		2020 No Project Delay (sec)		2020 Plus Project Delay (sec)		2020 Plus Project (Mitigated) Delay (sec)	
			AM	PM	AM	PM	AM	PM	AM	PM
<b>#12: Bay St. and Escalona Dr.</b>	-	-	0.0	0.0	12.2	3.8	21.9	6.5	4.7	5.7
Bay St. (Escalona Dr. to King St.)	0.20	28.80	-	-	-	-	-	-	-	-
<b>#13: Bay St. and King St.</b>	-	-	5.3	7.6	9.0	12.0	11.5	32.6	7.5	32.6
Bay St. (King St. Mission St.)	0.19	27.36	-	-	-	-	-	-	-	-
<b>#14: Bay St. and Mission St.</b>	-	-	26.6	31.5	31.6	129.8	84.8	191.8	59.9	167.7
Mission St. (Bay St. to Laurel St.)	0.28	40.32	-	-	-	-	-	-	-	-
<b>#17: Mission St. and Laurel St.</b>	-	-	19.3	31.1	24.0	97.5	34.8	148.0	35.0	57.9
Mission St. (Laurel St. to Walnut Ave.)	0.23	33.12	-	-	-	-	-	-	-	-
<b>#18: Mission St. and Walnut Ave.</b>	-	-	14.2	13.0	13.0	16.0	14.5	18.2	17.1	18.2
Mission St. (Walnut Ave. to King St./Union St.)	0.28	40.32	-	-	-	-	-	-	-	-
<b>#19: Mission St. and King St./Union St.</b>	-	-	11.7	84.4	187.0	131.8	229.0	199.9	12.0	110.2
Mission St. (King St./Union St. to Highway 1/Chestnut St.)	0.11	15.84	-	-	-	-	-	-	-	-
<b>#20: Mission St. and Highway 1/Chestnut St.</b>	-	-	15.6	25.6	73.3	76.0	123.0	146.0	54.2	95.3

**Table 1**  
**Comparison of Travel Times – Existing and 2020 Conditions (Bay/Mission Corridor)**

Location	Distance (miles)	Travel Time (sec)	Existing Conditions Delay (sec)		2020 No Project Delay (sec)		2020 Plus Project Delay (sec)		2020 Plus Project (Mitigated) Delay (sec)	
			AM	PM	AM	PM	AM	PM	AM	PM
Highway 1 (Mission St. to River St.)	0.59	84.96	-	-	-	-	-	-	-	-
<b>#21: Highway 1 and River St.</b>	-	-	21.3	43.6	29.3	85.3	39.2	128.0	41.0	108.0
<i>Total</i>	<i>5.20</i>	<i>686.66</i>	<i>162.00</i>	<i>344.30</i>	<i>421.70</i>	<i>649.00</i>	<i>606.20</i>	<i>1172.40</i>	<i>290.00</i>	<i>848.20</i>
<b>Total Travel Time (seconds)</b>		687	<b>849</b>	<b>1031</b>	<b>1108</b>	<b>1336</b>	<b>1293</b>	<b>1859</b>	<b>977</b>	<b>1535</b>
<b>Total Travel Time (minutes)</b>		11.4	<b>14.1</b>	<b>17.2</b>	<b>18.5</b>	<b>22.3</b>	<b>21.5</b>	<b>31.0</b>	<b>16.3</b>	<b>25.6</b>
<b>Average Speed (miles per hour)</b>		13.6312	<b>22.1</b>	<b>18.2</b>	<b>16.9</b>	<b>14.0</b>	<b>14.5</b>	<b>10.1</b>	<b>19.2</b>	<b>12.2</b>
<b>Level of Service (LOS)*</b>		N/A	<b>B</b>	<b>C</b>	<b>C</b>	<b>C</b>	<b>C</b>	<b>D</b>	<b>B</b>	<b>D</b>

\*Highway Capacity Manual Urban Streets Methodology

**Table 2  
Comparison of Travel Times – Existing and 2020 Conditions (High/Mission Corridor)**

Location	Distance (miles)	Outbound Travel Time (sec) bet Intersections	Inbound Travel Time (sec) bet Intersections	Existing Conditions Delay (sec)		2020 No Project Delay (sec)		2020 Plus Project Delay (sec)		2020 Plus Project (Mitigated) Delay (sec)	
				AM	PM	AM	PM	AM	PM	AM	PM
McLaughlin Dr. (College 9 Access to chinquapin Rd.)	0.12	17.28	17.28	-	-	-	-	-	-	-	-
<b>#44: McLaughlin Dr. and Chinquapin Rd.</b>	-	-	-	14.0	12.9	8.8	10.2	9.5	11.4	9.5	11.4
McLaughlin Dr. (Chinquapin Rd. to Hagar Dr.)	0.11	15.84	15.84	-	-	-	-	-	-	-	-
<b>#4: McLaughlin Dr. and Hagar Dr.</b>	-	-	-	16.1	41.9	12.2	14.8	14.4	19.6	14.4	19.6
Glenn Coolidge Dr. North to Glenn Coolidge Dr. South	1.63	146.70	146.70	-	-	-	-	-	-	-	-
<b>#2: Glenn Coolidge Dr. and Hagar Dr.</b>				6.3	34.1	6.5	30.2	5.2	36.1	5.2	36.1
Glenn Coolidge Dr. (Hagar Dr. to Campus Facilities)	0.25	36.00	36.00	-	-	-	-	-	-	-	-
<b>#1: Glenn Coolidge Dr. and Campus Facilities</b>				6.1	4.9	6.2	5.7	16.6	12.9	16.6	12.9
Glenn Coolidge Dr. (Campus Facilities to Bay St.)	0.17	24.48	24.48	-	-	-	-	-	-	-	-
<b>#10: Bay St. and High St./Glenn Coolidge Dr.</b>	-	-	-	16.1	18.3	15.5	19.9	18.7	25.4	18.7	25.4
High St. (Bay St. to Laurent St.)	0.63	90.72	90.72	-	-	-	-	-	-	-	-
<b>#41: High St. and Laurent St.</b>	-	-	-	55.1	21.8	39.3	32.1	80.8	70.7	80.8	70.7
High St. (Laurent St. to Storey St.)	0.50	72.00	72.00	-	-	-	-	-	-	-	-

**Table 2**  
**Comparison of Travel Times – Existing and 2020 Conditions (High/Mission Corridor)**

Location	Distance (miles)	Outbound Travel Time (sec) bet Intersections	Inbound Travel Time (sec) bet Intersections	Existing Conditions Delay (sec)		2020 No Project Delay (sec)		2020 Plus Project Delay (sec)		2020 Plus Project (Mitigated) Delay (sec)	
				AM	PM	AM	PM	AM	PM	AM	PM
<b>#22: High St. and Storey St. **</b>	-	-	-	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Storey St. (High Street to King St.) OUTBOUND	0.16	23.04		-	-	-	-	-	-	-	-
High St. (Highland to Storey) INBOUND	0.12		17.28								
<b>#23: King St. and Storey St. OUTBOUND</b>					51.0		104.2		206.3		9.4
King St. (Storey St. to Mission St.) OUTBOUND	0.10	14.40									
<b>#19: King St. and Mission St. OUTBOUND</b>					92.8		164.4		223.5		110.2
Mission St. (King St. to Chestnut St.) OUTBOUND	0.09	12.96									
<b>#30: High St. and Highland Ave. INBOUND</b>	-	-	-	33.3		66.4		116.7		116.7	
Highland St. (Mission St. to High St.) INBOUND	0.14		20.16	-	-	-	-	-	-	-	-
<b>#20: Mission St. and Highway 1/Chestnut St.</b>	-	-	-	15.0	25.6	73.3	76.0	123.0	108.4	54.2	95.3
Highway 1 (Mission St. to River St.)	0.59	84.96	84.96	-	-	-	-	-	-	-	-
<b>#21: Highway 1 and River St.</b>	-	-	-	21.3	42.5	29.3	85.3	39.2	146.0	41.0	108.0
Total	4.61	538.38	525.42	183.30	345.80	257.40	542.80	424.10	860.30	357.10	499.00

**Table 2  
Comparison of Travel Times – Existing and 2020 Conditions (High/Mission Corridor)**

Location	Distance (miles)	Outbound Travel Time (sec) bet Intersections	Inbound Travel Time (sec) bet Intersections	Existing Conditions Delay (sec)		2020 No Project Delay (sec)		2020 Plus Project Delay (sec)		2020 Plus Project (Mitigated) Delay (sec)	
				AM	PM	AM	PM	AM	PM	AM	PM
<b>Total Travel Time (seconds)</b>		536	525	709	884	783	1081	950	1399	883	1037
<b>Total Travel Time (minutes)</b>		9.0	8.8	11.8	14.7	13.0	18.0	15.8	23.3	14.7	17.3
<b>Average Speed (miles per hour)</b>		15.4	15.6	23.0	18.8	20.9	15.3	17.2	11.9	18.5	16.0
<b>Level of Service (LOS)*</b>		N/A	N/A	<b>B</b>	<b>C</b>	<b>B</b>	<b>C</b>	<b>C</b>	<b>D</b>	<b>C</b>	<b>C</b>

\*Highway Capacity Manual Urban Streets Methodology

\*\* Note: no delay is shown for the intersection of High Street and Storey Street because it is only stop controlled in the northbound direction.

January 11, 2006

**Committee on Faculty Welfare (CFW) Comments on the 2005 LRDP Draft EIR:**

The members of the UC Santa Cruz Academic Senate Committee on Faculty Welfare (CFW) offer these comments on the Draft Environmental Impact Report (EIR) prepared for the 2005 Long Range Development Plan (LRDP) of the University of California, Santa Cruz (UCSC). The contact person for further consultation is Professor Paul Ortiz, CFW chair and member of the Community Studies Department, UCSC.

**GENERAL OVERVIEW**

The Committee on Faculty Welfare concurs with the concerns and analysis of the EIR offered by the UC Santa Cruz Academic Senate Committee on Planning and Budget in its December 2, 2005 report titled "Comments on the Draft Environmental Impact Report of 2005."

CFW wants to especially amplify one of CPB's concluding points: UCSC must "Acknowledge that on-campus housing is a mitigation for growth, and provide commitments to build a specified amount of housing, with information on how housing will be phased relative to growth, and with criteria to indicate when on-campus housing construction would be suspended because of surplus housing in the off-campus market."

In common with CPB, the Committee on Faculty Welfare has serious concerns (and doubts) over the administration's current analyses of future potential traffic flows on campus. We believe that Section 4 of the EIR does not provide a remotely realistic appraisal of what the traffic flows on this campus will be like with proposed growth.

In the past several years, issues that are germane to the EIR such as housing, childcare, and transportation have been the subject of intense communication between CFW and the administration of UCSC. Our continuing inability to formulate a viable faculty and staff housing plan—and deliver adequate childcare facilities for children of UCSC faculty and staff—is a serious impediment to the future prospect of growth at UCSC.

If history serves as even a partial guide, the growth levels proposed by the administration will do nothing to help our campus "grow out" of the current quality of life problems faced by UCSC faculty members—especially junior faculty members. Simply put, growth without adequate planning has not benefited faculty in the past; nor will it help faculty recruitment or the campus in the future. It is critical that the current administration reformulate its growth plan in a manner that makes adequate provision for housing, childcare as well as transportation infrastructure.

CFW's comments on the EIR pertain to three major issues:

**1. HOUSING**

**1.1 Housing on campus**

The LRDP calls for 21,000 students by 2020, which is approximately 7,000 more than today or a 50% increase over what we have today (not counting a roughly 5-fold increase in summer session students). As stated in the LRDP and EIR, 50% of these additional students, along with 25% of graduate students and 25% of faculty, are expected to be housed on campus. The housing analysis assumes that 125 new employee units will be built in addition to the 84 units already approved but not yet built in the Ranch View Terrace Development. However, the plan offers no guarantee that the houses will be built or that they will be offered to faculty at a price that faculty can afford. As noted in the University's November 23, 2005, Employee Housing Report, the housing market in Santa Cruz is one of the least affordable in the nation and as a result many employees, including almost all new faculty members, "face significant economic challenges to purchasing a home in this market." UCSC's Housing Access Policy (HAP) allocates 80% of units to faculty. If 125 new employee units are built on campus, the actual number available to faculty would be reduced to 100 or 80%. Hence, should the EIR plan for more than 125 additional employee units? If they are made available at an affordable price, faculty will choose to live in them. If they are not affordable, then faculty will not live in them, and the campus will be unable to attract and retain new faculty, unless there is adequate off-campus housing available.

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While the EIR proposes to house 25% of the faculty on campus it makes no firm commitment to build this housing or to provide this housing at a cost that new faculty members can afford on their salaries. If on-campus housing is viewed as an environmental mitigation, then it is imperative that the EIR include a commitment to provide on-campus housing for 25% of the faculty at a cost that faculty members can afford. According to the U.S. Department of Housing and Urban Development, "The generally accepted definition of affordability is for a household to pay no more than 30 percent of its annual income on housing. Families who pay more than 30 percent of their income for housing are considered cost burdened and may have difficulty affording necessities such as food, clothing, transportation and medical care" (U.S. Department of Housing and Urban Development <http://www.hud.gov/offices/hsg/omhar/index.cfm>). Since most of the new faculty will be hired at the Assistant Professor level, this means that for housing to be affordable, it should cost no more than 30% of an assistant professor's gross salary. The EIR needs to specify whether faculty housing will be built and will be affordable to new faculty hired at the assistant professor level. It also needs to specify when this housing will be available. What is the time schedule for building the new faculty housing? Will the new employee housing be dependent upon the building of the North Loop Road? When will this be built? Will new faculty housing be phased in, with some new units available each year, to accommodate the growth in faculty? If the University is not able to build affordable housing on campus that is available when new faculty members are recruited, then where will the new faculty live?

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1.2 Housing off-campus.

Even assuming that 25% of the new and replacement faculty will in fact be housed on campus, then 75% of the new and replacement will need to find housing off-campus, either in Santa Cruz County or elsewhere. What is the total number of new and replacement faculty who will need housing each year from now until 2020? How many of them are expected to live in the City of Santa Cruz? How many in the County? And how many will need to commute from outside of the county due to a lack of affordable housing within the County? Most importantly, given the lack of availability and affordability of housing in Santa Cruz County, is it realistic to assume that they will in fact find housing in Santa Cruz City or County? If not, where is it expected that they will live?

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**2. TRANSPORTATION AND TRAFFIC**

To reiterate: The LRDP calls for 21,000 students by 2020, which is approximately 7,000 more than today or a 50% increase over what we have today (not counting a roughly 5-fold increase in summer session students). The LRDP calls for 21,000 students by 2020, which is approximately 7,000 more or nearly a 50% increase over what we have today (not counting a roughly 5-fold increase in summer session students). Fifty percent of these additional students, along with 25% of graduate students and 25% of faculty, are expected to be housed on campus. While the LRDP proposes that this growth occur gradually over the years, there is no way around the fact that it will require constant construction and disruption that will fundamentally change the campus as we know it, and the community of Santa Cruz as well. Moreover, this will be on top of the growth we have already had in the past decade, which we are still far from catching up with in terms of housing, classrooms, faculty hiring, etc.

With specific regard to traffic issues, the EIR analyzes the new roads, stop lights, bike lanes, bus runs, and 3,100 net new parking spaces proposed to mitigate the impact of the increased traffic expected (p. 4-28). The EIR analysis of current traffic counts (2003-04 data) indicates that existing levels of service (LOS) on streets and at intersections on and around campus are already marked by unacceptable congestion and delays. More to the point, the EIR concludes that even with the LRDP accommodations, the proposed growth will cause significant impacts at roughly half the key intersections leading to and from campus (e.g., p. 4-24, 4-40). Indeed, even if all the proposed improvements by the City of Santa Cruz were to be completed on time, the EIR estimates that levels of service at the four most crucial intersections leading on and off campus would still be unacceptable (E or F on their A-F scale; p. 4-47). With reduced funding coming from Sacramento to local governments, there is reason to doubt that the City will be able to put in place the many improvements called for (p. 4-14 -- 4-19) in a timely manner.

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2.1. Commute time to campus.

The campus's ability to recruit and retain new faculty members depends not only on the availability of affordable and adequate housing but also on the time it will take faculty members to commute from their homes to campus. Although the EIR predicts that traffic will be slowed at many off-campus intersections, it offers no information on the overall increase in commute time

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for those living in the county, or the commute time for those who must live outside the county due to lack of affordable housing. For example, how much longer will it take to commute to and from campus at peak and off-peak hours as a result of the growth and increased congestion? The EIR could address this by providing overall commute times between two given points, for example, from (1) the intersection at Soquel and Ocean Street to the East Remote parking lot on campus and back, or from (2) Aptos Village to the East Remote parking lot and back, or (3) from downtown Watsonville to East Remote parking and back. Will a trip that now takes 30 minutes increase to 45 minutes? Or an hour?

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2.2. Commute time on campus.

The LRDP calls for replacing close-in faculty and staff parking lots on campus with remote faculty and staff parking. Once faculty members reach campus, how much additional time will it take them to reach their offices from the remote parking lots? How frequently will there be shuttles? Will there be space on the shuttles in peak hours for faculty to reach their offices without delay? How much will parking fees increase to pay for the new parking lots and additional shuttles? In other words, will the on-campus parking be affordable? And will it be efficient in the sense that faculty members are not greatly delayed in reaching their offices once they arrive on campus? Moreover, what provisions will be made for faculty to park close to their offices when they need to transport instructional and research materials to their offices, as many faculty members do on a regular (often daily) basis? Again, faculty well being is directly affected by these issues.

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Using the most optimistic projections in the LRDP as evaluated by the EIR, it is difficult to avoid the conclusion that there will be substantially longer delays at most key intersections within two or more miles of campus for extended periods during both morning and afternoon peaks. Leaving aside the impact on neighbors, adding up the delays estimated by the EIR for the intersections along typical routes to campus indicates that commute times from within the City of Santa Cruz will increase dramatically and could easily double -- even with proposed mitigations.

Therefore, the Committee on Faculty Welfare is deeply concerned that the proposed growth will strain the community's carrying capacity to the breaking point, amplifying the resentments so many of UCSC's neighbors already feel. Faculty are members of the community as well as of the campus, and for all its very thoughtful and creative analyses, the EIR offers scant assurance that the impacts of the proposed growth will not be deeply deleterious.

3.3. CHILDCARE

The large majority of new and replacement faculty will be young and it is reasonable to assume that many if not most will have children. Yet the EIR makes no mention of expanded child care facilities on campus for faculty and staff. If faculty and staff members living on campus must leave campus to transport children to and from child care, this will increase the traffic congestion and needs to be calculated in the traffic models. More importantly, we view the availability of on-campus childcare facilities to be essential to the campus's ability to recruit and retain new faculty. The EIR needs to address what provisions will be made to provide adequate and

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affordable childcare facilities and services for faculty and staff, as well as students. Although the University has stated that childcare is a high campus priority, the EIR does not provide adequate details about the specific number of additional childcare spaces that will be provided through on-campus childcare to faculty and staff.

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### HISTORY AS A GUIDEPOST

At the time the 1988 LRDP was adopted, the University committed to attempting to reach a goal of housing 70 percent of its students on campus. While the 1988 LRDP did not deal with faculty and/or staff housing, it was also widely recognized at that time that the campus was confronting a crisis in faculty housing since housing prices were already beginning to reach unaffordable levels for assistant and associate professors and that future recruitment of junior faculty would be jeopardized as a result.

Since that time, the campus has not only never approached the 70 percent promise, it has never achieved 50 percent. Faculty and staff housing on campus has languished and market-priced housing is currently accessible only to full professors or junior faculty members who have substantial private resources. Student enrollments under the draft LRDP and EIR provide no guarantee that the campus has begun to confront what is already a genuine crisis. Not only will the experience of the past -- throwing more housing into the community with a concomitant pressure for housing price increases -- not resolve the student problem, it will continue to exacerbate the cost of housing, rental or purchase, for potential faculty. If the problems that were acknowledged in the 1988 LRDP are not finally confronted, then the current EIR and LRDP under review is headed for failure.

### CONCLUSION

The Committee on Faculty Welfare looks forward to working with the administration in dealing candidly with these formidable issues. Our letter has raised serious concerns with the EIR. However, we believe that the current review process provides our community with an invaluable opportunity to address systemic problems that have hampered faculty and campus welfare in the past. The time to seriously address housing, childcare, and transportation is now. We would be remiss if we did not seize upon this opportunity to create a better campus for faculty, staff, and students as well as the larger Santa Cruz and Central Coast communities that we are all a part of.

Respectfully Submitted,

### COMMITTEE ON FACULTY WELFARE

Greta Gibson  
Ted Holman  
Margo Hendricks  
David Marriott  
Craig Reinerman  
Hongyun Wang  
Paul Ortiz, Chair

**Response to Comment Letter OPA-2**

**Response to Comment OPA-2-1.** Please refer to Responses to Comments OPA-1-1, OPA-2-2, OPA-2-3, OPA-2-5, and OPA-2-8 below for information about on-campus housing, traffic conditions, and provision of childcare services.

**Response to Comment OPA-2-2.** Please refer to Master Response POP-1 with respect to the cost of housing. The Draft 2005 LRDP includes a target of housing 25 percent of all faculty and three percent of all staff. A total of 103 new housing units would be needed to meet the Draft 2005 LRDP goals. The Draft 2005 LRDP includes 125 new employee units. Note that the Campus will recommend to The Regents the adoptions of the Final Draft 2005 LRDP (September 2006), which reflects the Reduced Enrollment Growth Alternative previously analyzed in the Draft EIR. With the reduced enrollment and employment growth under the project as thus refined, fewer housing units would be needed to meet the stated targets. However, the Final Draft LRDP retains the same number of new employee housing units as envisioned in the Draft 2005 LRDP EIR, and allocates sufficient land for housing to accommodate up to 250 units.

The University's Housing Access Policy requires that 80 percent of all employee housing units built after 2003 be offered to faculty. For discussion of housing affordability, see Response to Comment OPA-2-3.

**Response to Comment OPA-2-3.** Please refer to the discussion of employee housing in Master Response POP-1, which explains why it is anticipated that the 125 employee housing units will be built by 2020. That master response also discusses the cost of housing, and the fact that employee housing will continue to be offered to the employees at below market rates. With respect to housing affordability, the Campus will consider a range of types of development consistent with employee demand. Options to increase the affordability of employee housing may include multi-family and other increased-density development, or smaller single-family homes with fewer bedrooms. It is anticipated that these options could make on-campus housing affordable for those who are interested in purchasing it. With respect to the timing of housing development, it is not financially practicable to build housing at the rate of a few units a year, or to build housing and then hold it vacant in anticipation of new faculty hires. It is likely that housing will be built in one or more development projects, beginning some time after full occupancy of Ranch View Terrace (the employee on-campus housing development slated for construction in fall 2006). It is anticipated that the growth in faculty will take place in concert with the growth in other types of development on campus, such that the pace of housing development would be expected to be generally consistent with the growth in faculty demand for such housing. The new area designated for employee housing under the 2005 LRDP is located on the envisioned new north loop road, but could be accessed from the north end of Heller Drive prior to completion of the north loop road. In addition, the 2005 LRDP identified some areas of the campus as Campus Reserve Land, which could be redesignated for employee housing if needed. Also see Master Response POP-1 for a discussion of expanded and revised mitigation measures to address the housing impact of the proposed project. Please refer to Final EIR, Volume IV, Chapter 3, *Changes to the Text*, Revised Table 2-1, for full text of the revised mitigation measures.

**Response to Comment OPA-2-4.** The Draft EIR (page 4.11-17) analyzes and reports the number of new employees (faculty and staff) who would live on campus (138 employees) and the number who would live off campus (about 1,382) under Scenario 1 under the Draft 2005 LRDP. In the analysis of the Draft

LRDP, of these employees that would live off-campus, about 228 were expected to continue to live outside the county, whereas the remainder would move to the study area. Based on an analysis conducted by Bay Area Economics, it was estimated that approximately 434 employees would live in the city of Santa Cruz and about 563 would live in other communities within the county. About 157 employees would not be able to find housing within their price range and would either elect to live outside the county or pay more than 30 percent of their household income for housing in order to live within the study area. Note that the numbers reported above are based on Scenario 1, which assumes that all new hires are hired from outside the county. Under Scenario 2, which assumes that 68.6 percent of the employees hired by the University would already be living in the study area when they are hired, about 40 employees would not be able to find housing within their price range in the study area. See Draft EIR Section 4.11.2 for more details.

The Campus proposes to recommend to The Regents the adoption of the Final Draft 2005 LRDP (September 2006). The Final Draft 2005 LRDP revises the Draft 2005 LRDP (January 2005) to reflect the Reduced Enrollment Growth Alternative previously analyzed in the 2005 LRDP Draft EIR and identified as the Environmentally Superior Alternative. For more information regarding the Final Draft 2005 LRDP, please see Final EIR, Volume IV, Chapter 2. Under the Final Draft 2005 LRDP, the magnitude of the housing impact would be reduced relative to the impact analyzed in the Draft EIR. Also see Response to Comments OPA-2-2 and OPA-1-4.

**Response to Comment OPA-2-5.** Please refer to Master Response MIT-1 for discussion on the Campus' contribution to off-campus intersection improvements. The Draft EIR acknowledges that the University cannot guarantee that the City will implement the proposed improvements. For this reason, the EIR determines that development under the 2005 LRDP would have significant and unavoidable impacts at eleven intersections where the unmitigated impact would be significant, even though proposed improvements would reduce impacts at most of them to a less-than-significant level (Draft EIR pages 4.14-46 through -48).

The precise timing of the City's plans to implement the Bay Street improvements identified in the Capital Improvement Program (CIP) is unknown, but the CIP indicates the Bay/Escalona intersection improvement would occur in Fiscal Year 2007 and the Mission/Bay intersection improvement in Fiscal Year 2008.

**Response to Comment OPA-2-6.** Please refer to Response to Comment OPA-1-12.

**Response to Comment OPA-2-7.** While the 2005 LRDP indicates that there will be a reduction in close-in parking, it does not indicate that all faculty and staff parking lots will be replaced with remote parking. The precise number of faculty and staff parking spaces lost to new construction can only be identified as specific projects are proposed. In most cases, limited metered parking and other close-in parking would continue to be available for staff loading and unloading and other short terms uses. It is recognized that the cost of parking and restrictions in campus parking are a burden to many commuters. The Campus continues to work to develop alternative modes for accessing the campus that will be both convenient and less costly both monetarily and with respect to environmental impacts.

Should faculty and staff parking be re-located to remote lots such as the East Collector Facility, trips would become longer due to the use of shuttles between the remote lot and the campus core. The added increment of time would vary depending on when a person arrives on campus and his or her destination.

An example of such travel time can be estimated assuming the Day Perimeter loop route between the East Remote Lot and the Jack Baskin Engineering Building. According to the *UCSC Comprehensive Transit Study* (Urbitrans Associates 2004b), the recommended headway for the Day Perimeter route would be nine minutes, meaning a person would wait no longer than nine minutes to catch the shuttle. The running time between the East Remote Lot and the Jack Baskin Engineering Building (using Hagar to McLaughlin – 1.35 miles) at a speed of 20 mph is about four minutes. Potential delays experienced at bus stops, intersections, and pedestrian crossings would be added to this time to determine the full travel time. Travel time delay surveys presented in the *UCSC Pedestrian Data Collection and Analysis Report* (Urbitrans Associates 2004a) indicate an average delay during class change periods of 1.9 minutes on the route between the East Remote Lot and the intersection of McLaughlin and Heller. Therefore, if a person caught the shuttle immediately upon parking it would take, on average, about six minutes to travel from the East Remote Lot to the Jack Baskin Engineering Building during class change time, and less during periods without class change. If the person just missed the shuttle, the added time would include the nine-minute headway for a total of 15 minutes. On average, though, the person would have to wait half of the time for the bus (4.5 minutes) for a total added travel time of 10.5 minutes.

It is recognized that transit may be less efficient in terms of time than travel by SOV and close-in parking. However, the Campus has a commitment to continue to improve transit and other alternative forms of transportation, since these are key to minimizing the environmental challenges the Campus faces with respect to traffic.

The University is committed to improving the efficiency and the capacity of the on-campus transit system in coordination with the concept of periphery parking and transit hubs. One of the first steps in defining transit and related parking needs was to prepare a comprehensive transit needs assessment. The *UCSC Comprehensive Transit Study* (Urbitrans Associates 2004b) present existing and projected on-campus transit needs and presented short-term and long-term recommendations to both service changes and capital needs. LRDP Mitigations TRA-4A through -4E provide a programmatic strategy of mitigation measures to monitor and improve on-campus transit operations as each phase of the 2005 LRDP is implemented. As stated on page 4.14-56 of the Draft EIR:

- The Campus would monitor transit travel times, and would monitor and collect data on cycle times, overall ridership trends, pass-by statistics, on-time performance and other factors that affect transit efficiency (LRDP Mitigation TRA-4A).
- If monitoring conducted under LRDP Mitigation TRA-4A indicates that transit delays are increasing, under LRDP Mitigation TRA-4B, the Campus would institute measures to improve the character and operations of the Campus transit system as needed to improve capacity and efficiency. These may include measures recommended in the Urbitrans report with respect to transit vehicle size and frequency (Urbitrans Associates 2004b).

The Campus will continue to coordinate and collaborate with SCMTD, the transit agency whose routes serve the campus, in order to maintain and improve efficiency and capacity of the transit systems serving the campus, in support of TDM programs both on- and off-campus.

Please refer to Response to Comment OPA-1-12 for an analysis of travel times between the campus and Highways 1 and 17 via the Bay/Mission Street and High Street corridors.

**Response to Comment OPA-2-8.** Childcare facilities envisioned under the 2005 LRDP, including the 300 projected spaces, are described on page 3-38 of the Draft EIR. As explained on pages 4.14-32 to -33 of the Draft EIR, the trip generation rates for the main campus that were used in the traffic analysis are derived from current traffic counts on the campus, and therefore take into account all types of trips by students and employees, including transport to childcare.

UNIVERSITY OF CALIFORNIA, SANTA CRUZ

DEPARTMENT OF ANTHROPOLOGY

Diane Gifford-Gonzalez

Social Sciences 1

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8 January, 2006

TO: 2005 LRDP EIR Comment  
UC Physical Plant and Construction, Barn G

FROM: Diane Gifford-Gonzalez, Professor, Anthropology and Curator, UC Santa Cruz  
Monterey Bay Archaeology Archives (MBAA)  
Social Sciences Faculty Services

re: Comments on Draft Environmental Impact Report of the UC Santa Cruz LRDP

I am commenting of the Draft Environmental Impact Report of the UC Santa Cruz Long Range Development Plan as Curator of the UC Santa Cruz Monterey Bay Archaeology Archives (MBAA), which I have overseen since arriving at the campus in 1976. The MBAA is currently housed in Social Sciences 1 on the main UCSC campus. It maintains records on campus sites, including at least three of those cited in the DEIR. It also archives materials excavated from them as well as records and materials for other sites affiliated with UC Santa Cruz (e.g. the Landels-Hills Big Creek Reserve). The MBAA also serves as a major curation facility for archaeological assemblages recovered during development in the greater Monterey Bay area. There are currently over 100 accessioned collections of artifacts, animal bones, shells, and plant remains from prehistoric sites and some historic materials in the MBAA.

I offer the opinion that the archaeological resource survey undertaken for the purposes of this document is generally adequate and comprehensive, but some emendations and additions are necessary.

(1) In section 4.5.1.7 Identified Cultural Resources, I suggest a fuller description of records available on campus sites in the MBAA. In fact, all excavation records, field maps, reports, artifacts, and biological remains recovered from CA-SCR-003, CA-SCR-004, and CA-SCR-160 between 1969 and 1988 are stored in the MBAA and are available for scientific study and examination by researchers and descendant groups. The logical place for this information would be 4.5-15, under Prehistoric Archaeological Sites, after the first paragraph.

1

(2) It should be noted that the MBAA Curator strongly endorses CRHR evaluations and nominations for main campus sites, and that this is the appropriate time to do so as the campus seeks to build collaboratively for the future. The Curator and staff will be happy to supply relevant data from the MBAA records for this process and look forward to working with campus planners on this initiative.

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(3) re: Table 4.5.1 (page 4.5-12), CA-SCR-004 is, from surface inspection and excavated shell volumetrics,, as much a “shell midden” in its matrix as is SCR-003, which is described as a “shell midden” in while SCR-004 is listed simply as “lithic scatters.” The description of CA-SCR-004 should be emended to note that it is of similar composition and that is somewhat more extensive in area than SCR-003.

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(4) re: Human Remains (4.5-15), it should be noted in the EIR that the burials referenced were reported to the National Parks Service, Department of Interior, in compliance with the Native American Graves Protection and Repatriation Act (NAGPRA) in 1995. Moreover, with regard to compliance with California NAGPRA, (passed in 2001), the MBAA and UCSC are kept in touch with University of California policies and procedures via an appointed representative to the UC Office of the President’s NAGPRA Advisory Group. The balance of the text of this section can stand as written.

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(5) On page 4.5-23 of the Cultural Resources section, there is what seems to be a typographic error of some consequence. In the first full paragraph on the page, the report refers to sites that may meet CRHR eligibility requirements. Given the descriptions in the preceding pages, and my knowledge of campus archaeological resources, the sentence, “These include CA-SCR-004, a previously disturbed lithic scatter located in an areas designated for employee housing,” should probably be emended to read, “These include CA-SCR-094, a previously disturbed lithic scatter located in an areas designated for employee housing,” (emphasis mine).

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CA-SCR-004, as noted on Table 4.5.1 (page 4.5-12), formerly SCR-42B, is on Campus Reserve Lands in Marshall Field and is known to contain human burials. SCR-094, as noted on the same page, is a “sparse lithic scatter in an Employee Housing zone. No plans for developing Marshall Field for employee housing are currently listed in the LRDP, thus, this sentence does appear to be a typo. It is important to emend this error, since a local weekly newspaper has already cited UCSC development as involving potential disturbance of human burials, and it is entirely possible that this statement was based on a reading of this typographical error.

(6) **Section 4.5.2.3 2005 LRDP Impacts and Mitigation Measures** could better serve the campus planning process if attention were directed to the additional records and reports on file at MBAA as well as the CHRIS Northwest Information Center (which contact information should be attached somewhere in this document). These include the records and Edwards et al.’s mitigation report on CA-SCR-160 before the building of Colleges IX and X, a report not cited in the DEIR (Edwards, Rob and Charlotte Simpson-Smith w/ David R. Huelsbeck and Michael E. Macko 1991 “Archaeological Excavations at CA-SCR-160, University of California Santa Cruz, California.” Report submitted to UCSC Planning and on file at UCSC Monterey Bay Archaeology Archives).

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I may be contacted at (831) 459-2633 or dianegg@ucsc.edu.



### Response to Comment Letter OPA-3

**Response to Comment OPA-3-1.** The text of Section 4.5.1.7 has been revised as suggested. Please refer to Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*.

**Response to Comment OPA-3-2.** As discussed in the Draft EIR (pages 4.5-15 and -16), under a grant from the Getty Foundation, the Campus and a consultant recently evaluated, and prepared a nomination to the National Register of Historic Places (NRHP) and the California Register of Historical Resources (CRHR) for, the Cowell Ranch and Lime Industry Historic District. Future projects may include the formal nomination of additional sites, such as prehistoric sites CA-SCR-003, -004 and -160. In addition, a preliminary evaluation has been made of each identified resource on campus relative to CRHR significance criteria (Draft EIR, Table 4.5-1). Comprehensive evaluation of a cultural resource typically requires archaeological test excavation or additional historic documentation. This additional work will be undertaken, as needed for management decisions, for any site that may be subject to impacts from a specific project, as described in LRDP Mitigation CULT-1D). In the interim, it is assumed that all recorded cultural resources, with the exception of isolate artifacts, roads and fences outside the Cowell Ranch and Lime Industry Historic District, are considered eligible to the CRHR and they will be treated as such per a default management strategy. Any resource evaluated as meeting the criteria of eligibility to the NRHP or CRHR will be treated as if it were listed on these registers.

**Response to Comment OPA-3-3.** Table 4.5.1 of the Draft EIR has been amended as suggested. See *Changes to Draft EIR Text*, Volume IV, Chapter 3, Table 4.5.1

**Response to Comment OPA-3-4.** The text has been revised as recommended. See Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*.

**Response to Comment OPA-3-5.** The citation of CA-SCR-004 in the text following LRDP Impact CULT-1 in the Draft EIR is a typographic error, and the text has been corrected in the Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*. The 2005 LRDP does not include development that has any potential to disturb CA-SCR-004 or any known human remains.

**Response to Comment OPA-3-6.** The information on reports on file at the MBAA, and contact information for the CHRIS Northwest Information Center, will be added to procedural manual that will be prepared as part of the mitigation monitoring program for cultural resources. The citation to Edwards et al. 1991 has also been added to text and references in the Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*.

REC'D JAN 10 2006

UNIVERSITY OF CALIFORNIA, SANTA CRUZ

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ENVIRONMENTAL STUDIES DEPARTMENT

SANTA CRUZ, CALIFORNIA 95064

January 6, 2006

UCSC Physical Planning and Construction  
1156 High Street, Barn G  
Santa Cruz, CA 95064

Re: 2005 LRDP EIR Comment

For the record I am the Director of the UCSC Natural Reserves including the Campus Natural Reserve (CNR). I am also a lecturer with Environmental Studies and Biology and have worked at UCSC since January 1980. I use the CNR and the rest of the UCSC campus natural lands for teaching, as do many of my colleagues. I have extensive knowledge of its ecology and I expect to work with UCSC planners in the future to assure the best possible design of future development projects from the point of view of protecting the natural systems of our campus and the specific research and teaching role of the CNR in support of UCSC academic programs.

Dr Karen Holl, the faculty advisor for the CNR has submitted a detailed analysis of issues that will arise as campus development proceeds and I need not repeat them all here. I endorse her comments. My primary concern is about how our campus will act to protect our natural systems, serve the public as part of the greater Santa Cruz community, and live up to its reputation as an environmentally conscious campus.

I have one minor correction. On page 4.4-49 the document refers to: "Arboretum lands north of the currently enclosed Arboretum". Some of these lands are also part of the CNR and are a joint use area with the Arboretum. It should be clearly specified which parcel, Arboretum or CNR joint use area is referenced here and elsewhere in the document.

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I have been told by one of the biologists who had worked on the campus surveys that the western pond turtle has been observed in the large Arboretum pond.

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Although the paedomorphic *Dicamptodon* of the Wilder gulch cave system are not yet officially listed UCSC is clearly aware of their presence and in my personal opinion should take aggressive steps to assure that their habitat is not damaged by drainage changes due to construction or operation of additional facilities in the north campus. As noted Dr. Barry Sinervo's lab is working to document the status of these animals, yet because the work is incomplete the EIR does not propose any efforts to protect them, saying instead that paedomorphosis (the correct term; neoteny is just a bit different in implication) occurs frequently in *Dicamptodon*. This is true but does not lead to any conclusion, direct or inferred, against the importance of the evolution of new salamander species nor to a conclusion that UCSC does not need to take measures to protect these unique populations which are biologically deserving and a research resource to the campus even if CEQA does not technically demand such action.

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My observations over the years agree with the statement that the only known breeding pond on campus for the Red-Legged frog is the large Arboretum pond. However a large pond used to exist up stream of that pond, beyond the east dam until the collapse of a large sinkhole just above that dam drained the area known as “frog heaven” in the stormy winter of 1982. A senior project constructed 4 small ponds on the banks of Moore Creek in the Campus Natural Reserve in 1986. This project could be reconstructed to improve the water flows through such a pond system and render the area as important breeding habitat, thus expanding the breeding opportunities for RLF in the UCSC Campus Natural Reserve – Arboretum area. I believe this project could positively and inexpensively mitigate against downstream damages to RLF breeding habitat in Moore Creek due to changes in drainage and erosion patterns brought about by even more impermeable surface in the north campus Moore Creek watershed.

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Figure 4.4 of the EIR depicts the current knowledge of UCSC vegetation communities. A project in underway in the ENVS GIS lab to further refine our understanding of the UCSC vegetation using the new rapid assessment process endorsed by CDFG. This work should be well along by the time project planning has to take place for the north campus and the additional knowledge of the vegetation should be used for project planning. Documentation of the chaparral vegetation, especially the manzanita species, should include interpretation of the past influences of the fuel breaks in chaparral vegetation recovery as they have had profound influences of the current composition of the species along them.

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I am concerned with impacts to biological and hydrological resources from the expansion of campus facilities into the north campus. Although several issues have been identified (preservation of some maritime chaparral, the status of the San Francisco woodrat as a state species of special concern, and changes to the drainages into Moore Creek and into the cave ecosystem) I do not believe the mitigations for losses and damages are adequate. I believe that a commitment to absolutely minimize losses of and damage to habitat needs to be made because no degree of protection of remaining habitat can mitigate for habitat loss. Good project planning that prioritizes these elements would do much to protect our natural systems and their species.

Our maritime chaparral is an isolated patch that is part of a metapopulation of chaparral species in southern Santa Cruz County. The UCSC chaparral areas need aggressive and progressive planning to minimize losses. UCSC should assure the development and execution of the fire-vegetation management plan as mentioned in the EIR as this will be needed both for conservation of the chaparral community and for fire safety for any structures built in the north campus. Furthermore protection and monitoring of remaining chaparral patches cannot reduce a potentially significant loss to less than significant. UCSC could commit to implementing a fire-vegetation management plan that would protect the remaining chaparral from conversion to a Douglas fir dominated community and hence offset the losses. Protection alone, without management, does nothing to assure that habitat conversion due to a reduced burn cycle will not occur producing further losses over and above those of the projects themselves. In this case neglect is not benign.

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The problem that led to listing of the San Francisco woodrat as a California species of special concern is habitat loss. Woodrats are plentiful and breed rapidly and successfully in good habitat, often leading to dispersing animals taking up residence in homes and vehicles. The procedures

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under impact BIO-14 for the woodrat are irrelevant to the problem of habitat loss and I am unaware of any documented successful relocation of individuals or nests, probably because good habitat is already full and the relocated animals simply become prey for other species because they have no safe haven of their own. A field survey done by one of our students has extrapolated a calculation from field data based on clearly defined habitat types to the conclusion that between 200-300 existing woodrat houses would be destroyed by the proposed developments on the north campus. This study strongly supports a conclusion that chaparral and Douglas fir habitats have many woodrat nests while redwood forest has few. (The survey, a student senior thesis has been made available previously to Campus Planning.) Protecting nests during construction or attempting to relocate woodrats are ineffective measures and would not reduce a potentially significant impact to less than significant because the significant loss is to habitat. It would be best to commission a trapping study to confirm by direct identification of individuals, the taxonomic status of the UCSC woodrats. It would be unfortunate if the lack of such a study led to a conclusion that our woodrats or some of our woodrats were not the listed species of special concern when they most probably are.

7

The section on Wildlife Movement is not comprehensive. It seems to focus on the definition of migratory species, ignoring any analysis of the loss of connection for ALL species between the east and west sides of UCSC. This loss of connection and loss of habitat would degrade the natural ecosystems of southern Santa Cruz County unless aggressive steps are taken to build with a minimum loss of important habitat, with a carefully designed vegetation/fire management plan in the chaparral areas, and with a minimum loss of habitat connection across the campus for all native species, large and small, warm and fuzzy or cool and scaly, animal or plant or fungus. I was appalled at one meeting when one of the biological consultants told me that they did not have time to read recent research on the design and effectiveness of corridors. I believe that UCSC should use all relevant information available to support the best possible designs for projects in the north campus, giving UCSC the program it needs and giving our native species what they need for a sustainable future.

8

I believe that transportation alternatives to absorb the increased uses of the non-built north and upper campus and the Moore Creek drainage by bicycles need to be identified. The use of trails by bicycles in Moore Creek has been identified in the recent hydrological report as a threat to the campus drainage system. The use of bicycles on the upper and north campus is rapidly increasing and cyclists are constructing new trails in the woods. Mountain Bikers of Santa Cruz (MBOSC) has offered to work with UCSC to develop a plan for the maintenance of recreational bicycle trails on campus. (I want to mention here that MBOSC has been supportive of the CNR and its role in teaching and research and has asked bicycle riders to stay off the interpretive trails inside the CNR.) The campus is being heavily impacted by bicycle riding, the CNR has a hard time keeping bicycles off its interpretive trails and this type of use will increase as the population of the campus rises. UCSC needs an overall bicycle transportation plan to deal with bicycle riding off of the established road and trail system. The EIR identifies the problem but doesn't provide a meaningful or comprehensive response.

9

I am concerned that some of the solutions proposed, although common in CEQA documents, are not the best possible in the interests of the species and natural communities and do not take full advantage of what biologists, ecologists, geologists and hydrologists know about how to protect

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natural systems. I suggest that the EIR needs to make better and fuller use of the available data and the expertise of UCSC faculty and allow the preparation of up-to-date solutions to impacts on plant communities, species at risk, and other identified environmental elements.

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Finally the LRDP and its EIR do not specifically propose any mechanisms or processes for determination of what is feasible for solving the many problems that are discussed. The word "feasible" appears 29 times in the EIR summary alone. Vague statements such as "to the greatest extent feasible", "where feasible", and "when physically and financially feasible" give no performance standards for determining what is feasible and to what lengths UCSC will go to execute projects with minimum impacts on the natural and social systems of the campus and of the city and county of Santa Cruz. This comment applies equally well to the problems of campus natural systems and to problems of housing, traffic, infrastructure, and the general problems of the Santa Cruz economy pointed out by many during this comment period.

11

I hope that UCSC will define more clearly what it considers to be feasible and the performance standards and processes they will use to make that determination in the future. That said I continue to support UCSC in its efforts to provide an outstanding university program for its people and for the state of California.

Thank you for your consideration of these comments.

Sincerely yours,



Dr. Margaret H. Fusari

**Response to Comment Letter OPA-4**

**Response to Comment OPA-4-1.** The lands being referenced include both the SRS (Site Research and Support) zone directly north of the Arboretum and the jointly managed CNR (Campus Natural Reserve) immediately northwest of the Arboretum. This context has been clarified in the LRDP Mitigation BIO-7B. See Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*, Revised Table 2-1.

**Response to Comment OPA-4-2.** Southwestern pond turtle, which is a subspecies of western pond turtle, is included in Draft EIR Table 4.4-2 Special Status Wildlife Species Potentially Occurring in the Area. However, no development is proposed within the Arboretum Pond that could result in potential impacts to the species.

**Response to Comment OPA-4-3.** The pacific giant salamander was not recognized as having special status due to the genetics of the species. As discussed in the Draft EIR, neoteny is common within every species of the giant salamander family (*Dicamptadon*). The neoteny seen in *Dicamptadon* is seen in all populations without speciation occurring in any of those populations. Thus, it seems unlikely that the neotenic forms observed in Empire Cave are a distinct new species that might deserve protected status. For this reason, the neotenic form of pacific giant salamander found in Empire Cave was not evaluated as a special status species. If subsequent studies determine that the neotenic form of pacific giant salamander found in Empire Cave is a unique species, then potential impacts would be considered in subsequent project-level CEQA documentation.

**Response to Comment OPA-4-4.** LRDP Mitigation BIO-9 provides a general structure for the protection of California red-legged frog during construction activities. No further mitigation is necessary to prevent significant impacts to the frog. Consultation with the U.S. Fish & Wildlife Service and California Department of Fish and Game will occur on a project-specific basis and detailed mitigation measures will be outlined on a site- or reach-specific basis as appropriate. Projects that will improve the breeding habitat for California red-legged frogs may be designed and implemented on a project-specific basis.

**Response to Comment OPA-4-5.** All vegetation assessments done by campus faculty, staff, and students will be used as a resource in project-level CEQA documents. Mitigation measures to address impacts to biological resources and impacts related to hydrological changes and water quality have been clarified and enhanced in the Final EIR. The revised mitigation measures are presented in Final EIR, Volume IV, Chapter 3, Revised Table 2-1.

**Response to Comment OPA-4-6.** Please refer to Master Response BIO-1 (Northern Maritime Chaparral and Santa Cruz Manzanita).

**Response to Comment OPA-4-7.** On page 4.4-61, the Draft EIR acknowledges the difficulty in distinguishing the San Francisco dusky footed woodrat subspecies from the more common dusky footed woodrat that also occurs in the area. All woodrat nests will be considered to house the San Francisco dusky footed woodrat to account for the difficulty in distinguishing the subspecies. Studies by Bankie (2005) describe the species' small home range and the densities of the species within the specific habitats that would be affected by development proposed under the 2005 LRDP. The analysis in the Draft EIR, based on Bankie's calculations, found that roughly three quarters of all woodrat nests on campus would

be unaffected by the proposed development and the overall potential for impact was found to be less than significant. Thus, only direct impacts to active nest sites were found to be significant.

**Response to Comment OPA-4-8.** Please refer to Master Response BIO-5 (Wildlife Movement).

**Response to Comment OPA-4-9.** Please see LRDP Impact REC-2 in Section 4.13, *Recreation* (Draft EIR page 4.13-10) for a discussion of the increased use of on-campus recreational facilities, including trails. Recreational use of trails is expected to increase as a result of the 2005 LRDP, but the amount of this increase cannot be determined. An informal survey of cyclists conducted for the Draft EIR, however, indicated that of 23 bike riders observed, only one was a UC Santa Cruz affiliate, who resided nearby and was commuting to class. All others were not affiliated with the campus, although two said that they were alumni and one held a campus recreation card (Draft EIR, page 4.4-50). Although some portion of the future recreational use of these trails will continue to be by off-campus residents, and would occur regardless of whether the 2005 LRDP is implemented, it is reasonable to expect that use of the trails would increase in proportion to the increase in campus population under the 2005 LRDP (Draft EIR, page 4.4-50).

The impacts of bicycle use of north campus lands, including those lands in the Moore Creek drainage, are addressed in Section 4.4, *Biological Resources*, and Section 4.8, *Hydrology and Water Quality*. LRDP Impact BIO-7 addresses the impact on Ohlone tiger beetle populations on the campus from increased bicycle use. LRDP Mitigation BIO-7A would reduce this impact to a less-than-significant level. This mitigation requires that bicycles not be allowed on trails in Marshall Field or West Marshall Field that support Ohlone tiger beetles during periods of adult beetle activity or larval development (January to June). In addition, this measure also requires the Campus to prevent illegal bicycle use by: (1) the installation of temporary fencing and signs at trail entry points, and (2) the patrolling of these areas by UC Santa Cruz Police and monitoring by Grounds Services staff.

LRDP Impact HYD-3 addresses the potential for the 2005 LRDP to alter drainage patterns and increase the rate or amount of surface runoff, including as it relates to erosion along undesignated trails as a result of use by pedestrian and bicyclists. The Campus would implement LRDP Mitigation HYD-3A to inform and educate the campus population on storm water impacts from increased erosion associated with unauthorized trail use. LRDP Mitigation HYD-3B requires the Campus to implement control measures to reduce erosion along new and existing unpaved roads, which are used as trails, including but not limited to water bars to redirect flow off the road and flow dispersion of runoff from roads. Additionally, as indicated in Response to Comment I-37-8, a new mitigation measure (LRDP Mitigation HYD-3E) was developed to address LRDP Impact HYD-3. This measure requires that design and planning for new pathways and bikeways include fencing, signage and/or other design features to direct pedestrian/bicycle circulation and minimize the potential for shortcuts that could contribute to erosion. The mitigation also requires that bridges will be provided where new pathways cross drainages that become inundated during the rainy season, as another means of avoiding erosion and sedimentation. Please see Volume IV, Chapter 3, Revised Table 2-1, of the Final EIR for the full text of this new mitigation measure.

The comment indicates that an overall bicycle transportation plan is needed to address bicycle riding off of the established trail system. A 2006 Draft Bike Plan for the Campus was released in May 2006 in a version for discussion purposes only. This plan includes a possible framework for a comprehensive off-road bicycle program for the campus, which could ultimately provide for: (1) a plan for ongoing trail

construction and maintenance, (2) a trail designation approval process whereby new trails could become part of the designated trail system, (3) seasonal or permanent closure of trails where necessary to prevent ecological harm, (4) removal and concealment of old ad-hoc trails, and (5) education, outreach, and enforcement. While, the 2005 LRDP EIR mitigation measures noted above would reduce biological and hydrological impacts related to designated and undesignated trail use to a less-than-significant level under CEQA, the 2006 Draft Bike Plan for the Campus could ultimately further reduce these impacts if fully implemented. However, as this plan is in draft form with a final plan scheduled for release in academic year 2006-07, it is unclear what provisions and programs it will ultimately contain. Moreover, portions of this plan may not be feasible to implement due to funding limitations. Therefore, this plan was not included in the suite of mitigation measures identified to address LRDP Impact HYD-3.

Additionally, members of Mountain Bikers of Santa Cruz (MBOSC) have met with Grounds Services staff and discussions regarding maintenance of campus roads and trails will continue with this group, including the possibility of participating in volunteer opportunities in the Site Stewardship program trail workdays.<sup>1</sup> Furthermore, the 2006 Draft Bike Plan has incorporated the opinions of MBOSC representatives and other active bicycle organizations and recommends that UCSC staff associated with bicycle planning continue to work with these groups to promote safe and responsible bicycle ridership.

**Response to Comment OPA-4-10.** Many experts were consulted during the preparation of this EIR (see, Draft EIR Chapters 7 and 8, as well as the References sections at the end of each impacts analysis section in Chapter 4), and the mitigation measures identified in the EIR are designed to be feasible and effective. The Campus's planners will continue to use information that is provided to them, including the expertise of and data prepared by the faculty.

**Response to Comment OPA-4-11.** All of the mitigations proposed, including those for the dusky footed woodrat, are methods approved by CDFG, USFWS, and other appropriate agencies, which are considered effective in avoiding, minimizing, or compensating appropriately for potential impacts to species.

Please see Response to Comment LA-3-9 regarding revisions to 2005 LRDP EIR mitigation measures and Final EIR Volume IV, Chapter 3, *Changes to Draft EIR Text*, Revised Table 2-1, for the full text of revised measures.

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<sup>1</sup> Dean Raven, UCSC Grounds Services, personal communication, July 5, 2006.





**SIERRA CLUB**  
FOUNDED 1892

REC'D JAN 10 2006  
Santa Cruz County Group of the Ventana Chapter  
P.O. Box 604, Santa Cruz, California 95061 phone: (831) 426-4453  
FAX (831) 426-5323 web: www.ventana.org e-mail: scscrg@cruzio.com

January 9, 2006

John Barnes  
2005 LRDP-DEIR Comments  
UCSC Physical Planning  
1156 High Street, Barn G  
Santa Cruz, CA 96064

Re: UCSC Draft EIR of LRDP 2005-2020

Dear Mr. Barnes:

The following are the Sierra Club-Santa Cruz Group's comments on the Draft EIR.

In general we find that the combined growth planned at the UCSC main campus and Marine Science campus will overwhelm the infrastructure and the population carrying capacity of Santa Cruz County. Our first objection is that the DEIR for the two campuses have been prepared as separate documents. Nowhere is there a comprehensive assessment of the impact of the combined growth of the two campuses, even though they are parts of the same institution and they have essentially the same timetable. This appears to be an attempt to segment the issue to minimize the overall impact. We request that the individual DEIRs be withdrawn and a combined DEIR be prepared instead of the two separate ones.

1

Addressing the EIR for the main campus, we find that the list of significant and unavoidable impacts (Sec. 6-1) is startling for the extent and depth of damage to the environment that will be created. Bad as that is, we find that the summary list is grossly incomplete. Significant and unavoidable impacts have been recognized in the areas of:

Air quality; Historic resources; Soil erosion; Noise; Population and housing; Off-campus traffic; Water use; and Water infrastructure.

The magnitude of the problems identified in this list should give anyone the clear message that the proposed plan (the LRDP) is untenable. But the list of problems recognized in the EIR is quite incomplete, and we direct your attention to the following significant impacts which have been overlooked or minimized particularly in the areas of Aesthetics; Biological resources; and major loss of natural habitat.

*"...to explore, enjoy and protect the wild places of the earth."*

A number of these impacts have been diminished or minimized by virtue of certain mitigations which have been proposed, but these mitigations are to be carried out "to the extent feasible". It is entirely inappropriate to place such discretionary and vague limitation on needed mitigation. In fact it makes the proposed mitigation nothing but a sham. When mitigation measures are needed, the EIR must provide a precise mitigation for each significant impact and such mitigation measures must directly address the significant impact. The mitigation "to the extent feasible" is not a mitigation at all, but rather a suggestion without any weight or structure. Therefore we request that where this kind of subterfuge has occurred, as in the impacts listed below, the impact be reclassified as significant and unavoidable.

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4.1.15; AES-3B For development in meadow area, the campus shall limit the removal of natural vegetation and cluster development at meadow edges, to the extent feasible. Since this mitigation is meaningless due to its vagueness, this impact must be reclassified as significant an unmitigated.

3

4.1.18; AES-5B For projects in redwood forest area, building height will be below the height of the surrounding trees, to the extent feasible. Same comment as above.

4

4.4.40; Table 4.4.4 shows that 56% of the high density stands of Manzanita will be lost to development. This is recognized as a "substantial and adverse" impact (4.4.41) but it is then minimized by promises to replace the Manzanita elsewhere. Promises such as these are meaningless, as demonstrated by the many failures to implement the mitigations promised in the previous (1998) LRDP.

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4.4.48; The impacts of bicycle ruts on trails in sensitive biological habitats is recognized as significant, but it is then minimized by a mitigation (BIO-7A) which calls for signs to be posted prohibiting bicycles on certain trails. This mitigation is meaningless because the damage is already occurring and is all too evident, and it is equally evident that the sign posting is useless. This impact must be upgraded as being of major significance.

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4.4.61; The impact that the fragmentation of the wildlife habitat will have on wildlife corridors is grossly underrated as potentially significant. (BIO-15). We ask that it be recognized as significant because chopping up the habitat in sections which are separated by development makes it extremely difficult for wildlife to find their way around. Like campus bicyclists, they can't read the signs. The analysis considers only the physical development impact; it does not account for the impact created by the added on-campus human population. Obviously, a denser population count will have an impact on wildlife.

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4.6.17; The DEIR recognizes that development on the widespread karst features on campus might lead to the collapse of structures built on it. The proposed mitigation is to require adequate engineering, which is like saying "to the extent feasible." Presumably there will be adequate engineering for all structures, everywhere. So the proposed mitigation is meaningless and attempts to minimize a significant problem which needs to be upgraded to severe and unmitigated.

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6.3; The DEIR identifies that “Campus growth under the 2005 LRDP would result in the loss of approximately 50.2 acres of sensitive habitat for plants and wildlife and about 124 acres of redwood and mixed forest.” This is a huge loss of natural habitat, regardless of how much forested land there is in the rest of the region, and should be enumerated in the cumulative list of significant impacts without solution.

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In addition to items listed above that need reclassification and inclusion in the list of significant impacts, there are a number of other impacts which have been minimized or obfuscated, and should be given prominence in the cumulative list of significant impacts for which no solution can be found. These include the following:

The analysis of the water supply available to support the campus growth is grossly incorrect and misleading, as follows:

The northern part of the campus is outside of the City of Santa Cruz Water District. The DEIR does not explain how the campus can obtain water to supply development in that area. Recent court decisions as well as state law make it clear that large developments cannot claim to have adequate water supply if the water is not actually available to the development now. Water supply that cannot be identified as being actually available now is called “paper water” and cannot be used to justify a development. The DEIR does not present tangible evidence of adequate water supply being available to sustain the LRDP.

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It would seem that such a large expansion as proposed by the LRDP will require significant infrastructure improvements on the part of the Water District to supply the water, if such water is available at all. No evidence has been provided to verify that the Water District will, in fact, provide the needed infrastructure.

The DEIR considers only the water consumption increase on campus, without accounting for the increased consumption arising from the over 50% of students, staff and faculty who will reside off-campus. Taking into account the on campus and off campus population, the LRDP will consume nearly three-quarters of the Water District’s remaining water supply. This is an impact that the rest of the community will not tolerate.

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On p. 6.2 the DEIR recognizes that “Growth of the campus under the 2005 LRDP, in conjunction with other regional growth, would create a cumulative demand for housing that would exceed the supply.” This statement fails to recognize that the County’s population growth rate, except for UCSC, is minimal. UCSC’s growth is the problem. Yet, the DEIR analysis fails to provide an adequate explanation of why the campus cannot construct student and faculty housing on campus, at a cost lower than private development off campus. UCSC would have no land cost since it already owns the land, it pays no real estate and school taxes, it pays no City building permit fees, and it can finance the construction with state bonds which carry rates of interest which are lower than the market rate for conventional mortgage financing. The cumulative result of all these advantageous conditions has a value of at least 30% versus comparable off campus private developments. These enviable advantages should place UCSC in the position to produce on-campus housing costing appreciably less than comparable student and faculty housing

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off-campus, thereby lessening one of the most significant, adverse impacts of the LRDP. We request a detailed explanation of the persistent failure by the University in this area.

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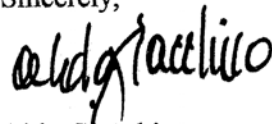
In the Alternatives section, the DEIR presents a scant evaluation of the alternative of locating the projected growth at the UCSC satellite campus in Silicon Valley. Expanding the satellite campus would meet the needs of many students who could commute to the Silicon Valley campus from their homes (saving housing costs) and would place the planned professional schools (that UCSC wants to develop) in the middle of a large economic region. That is where the jobs and the population density are. This alternative requires a much more serious analysis than that presented in the DEIR.

13

We request that the list of the significant, unavoidable, and unmitigated impacts be revised to include those outlined above and that a more intensive consideration of alternatives be prepared in light of the enormous cumulative impact that the LRDP would cause to the residents of this area and to their environment. As a result of such revisions, we request that DEIR be withdrawn and that the LRDP reconsidered.

Thank you for the opportunity to submit these comments.

Sincerely,



Aldo Giacchino  
Chair, Executive Committee  
Sierra Club-Santa Cruz Group

**Response to Comment Letter ORG-1**

**Response to Comment ORG-1-1.** The Coastal LRDP for the Marine Science Campus was approved in 2004, during the early stages of planning for the LRDP for the main campus. At the time that the Coastal LRDP was being prepared, the details and characteristics of the 2005 LRDP were not yet known and were not foreseeable; and therefore, they could not be addressed within one combined document. Approval and implementation of the Coastal LRDP does not commit the University to ultimately approving and implementing the 2005 LRDP for the main campus. Likewise, the 2005 LRDP for the main campus would not necessarily result in or commit the University to development at the Marine Science Campus. As a result, a combined document addressing growth at both campuses is not required under Section 15165 of the CEQA Guidelines. The 2005 LRDP EIR considers growth at the Marine Science Campus in the cumulative analysis (see Table 4.0-1, Pending and Approved Reasonably Foreseeable Projects). Likewise, the Coastal LRDP EIR for the Marine Science Campus also considered possible future growth on the main campus, to the extent that it could be estimated at the time without a proposed new LRDP for the main campus.

**Response to Comment ORG-1-2.** Please refer to Response to Comment LA-3-9 regarding revisions to 2005 LRDP EIR mitigation measures and Volume IV, Chapter 3, Revised Table 2-1 of the Final EIR for the full text of revised measures.

**Response to Comment ORG-1-3.** Please refer to Response to Comment LA-3-9 regarding revisions to 2005 LRDP EIR mitigation measures and Volume IV, Chapter 3, Revised Table 2-1 of the Final EIR for the full text of revised measures.

**Response to Comment ORG-1-4.** Please refer to Response to Comment LA-3-9 regarding revisions to 2005 LRDP EIR mitigation measures and Volume IV, Chapter 3, Revised Table 2-1 of the Final EIR for the full text of revised measures.

**Response to Comment ORG-1-5.** Please refer to Master Response BIO-1 and Response to Comment SA-4-2. LRDP Mitigations BIO-1A through -1D have been revised to increase their clarity and efficacy. Also, please see Final EIR, Volume IV, Chapter 3, Revised Table 2-1 for the full text of the revised mitigation measures.

**Response to Comment ORG-1-6.** As described on pages 4.4-48 and 4.4-49 of the Draft EIR, besides signage, the proposed mitigation (BIO-7A) consists of temporary fencing and patrols. UC Santa Cruz is committed to policing the trails during critical periods (January through June) when Ohlone tiger beetles are near the surface and can be crushed by bicycles.

**Response to Comment ORG-1-7.** Please refer to Master Response BIO-5 (Wildlife Movement).

**Response to Comment ORG-1-8.** In the context being discussed, the phrase “adequate engineering” refers to engineering specifically designed to address the potential hazards from karst features. Please also refer to Response to Comment LA-2-78.

**Response to Comment ORG-1-9.** The Draft EIR finds that impacts to sensitive biological communities and habitat for special status species due to development under the LRDP are potentially significant (Section 4.4 of the Draft EIR). Mitigation involving restoration, preservation, and management of sensitive communities has been identified to reduce these impacts to a less than significant level. The

Draft EIR states on page 4.4-42 and 4.4-43 that if impacts to coastal prairie cannot be avoided, they will be mitigated by restoration of this habitat at a 3:1 ratio. Please also refer to Response to Comment LA-2-67.

**Response to Comment ORG-1-10.** Please refer to Response to Comment LA-3-28 regarding the assurance of an adequate water supply to serve the project, and Section 5.2.15.4 in Master Response UTIL-1 regarding off-campus infrastructure improvements that would be necessary to serve the campus under the 2005 LRDP.

**Response to Comment ORG-1-11.** Please refer to Section 5.2.15.3.2 in Master Response UTIL-1 regarding the impact of LRDP-related off-campus population on water supply.

**Response to Comment ORG-1-12.** Please refer to Master Response ALT-5 (Increased On-Campus Housing Alternative).

**Response to Comment ORG-1-13.** Please refer to Master Response ALT-4 (Moffett Field Satellite Campus/Silicon Valley Center Issues) and Response to Comment I-26-8.

From: "Metro Riders Union - General" <info@tidepool.metroridersunion.org>  
 Subject: UCSC LRDP Comments from Metro Riders Union  
 Date: Wed, 11 Jan 2006 11:03:05 -0800  
 To: <lrp-eir@ucsc.edu>  
 Cc: <lwhite@scmttd.com>, <wesscott@ucsc.edu>, <gbookwalter@santacruzsentinel.com>



The Metro Riders Union submits the following comments on the Draft Environmental Impact Report for the Long-Range Development Plan of the University of California, Santa Cruz:

1. Public transit usage is exaggerated. The University's claim that average daily ridership exceeds "9,200 students" [DEIR p. 4.14-8] is false. Metro's electronic farebox system counts boardings, not unique passengers. Most passengers register two boardings per day -- one in either direction. The University's 9,200 figure represents boardings, not unique passengers. To arrive at an approximation of the number of unique passengers, the University must divide by 2. The result, 4,600, can then be assessed in light of the student population of 14,000 to 15,000. [To bolster your figures in a fair manner, we recommend focusing on farebox returns from the 48 to 49 instructional days that make up each academic quarter and quoting scheduled daily attendance (by off-campus residents?) as well as total student population.]

1

2. Maintenance and improvement of public transit are offered as mitigation measures [TRA-4B, DEIR p. 4.14-54] even though: (1) the University claims that it is barred from funding public transit; (2) funding comes from a Student Transit Fee and is subject to a vote of the students; (3) several past attempts to raise the Student Transit Fee failed at the ballot box; (4) the Director of Parking and Transportation Services recently told Metro's Board of Directors that the student transit account has a deficit; (5) the financial burden will rise with the number of rides and with inflation, per the University's contract with Metro; and (6) allocation of public transit service is subject to the whims of the political process, except in the one case (late-night "Owl" service) where the University has agreed to underwrite Metro's direct operating costs.

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Background: The Metro Riders Union is an independent group of concerned bus riders in Santa Cruz County. We recognize that the University drives the economy of the City of Santa Cruz, and so we strongly support the growth of the University. As to the University's public transit needs, we have conducted advanced analyses of Metro's ridership and revenue data over the years and used the results to help convince board members that the University "pays its way" and is important to Metro's success. In fact, the "30 per cent of rides, 30 per cent of passenger revenue" claim is one that we presented several years ago to a very skeptical board, and that has since found acceptance. We do perceive certain strains in the relationship between Metro and the University. For example, the University abused the relationship by not paying Metro during University labor disruptions even though Metro incurred essentially normal operating costs on those days, and by not following through on a plan to reduce crowding by funding increased Metro service to the University's new facilities on the West Side. The University has much work to do if it expects to use public transit as a growth enabler.

3

Thank you for considering these comments.

Mr. R. Paul Marcelin-Sampson  
 Founder,  
 The Metro Riders Union

www.iridethebus.org

info@metroridersunion.org

Post Office Box 1402  
Santa Cruz California 95061

(831) 421-9031

"The Metro Riders Union is not affiliated with the Santa Cruz Metropolitan Transit District or any other transportation provider."



## Response to Comment Letter ORG-2

**Response to Comment ORG-2-1.** The commenter is correct. The text has been revised to indicate that daily ridership exceeds 9,950 trips by student, staff and faculty. See Final EIR, Volume IV, Chapter 3, *Changes to the Text*.

**Response to Comment ORG-2-2.** The University pays for SCMTD transit services by contract, with rates based on routes served and ridership by University affiliates. The Campus's contribution to funding for SCMTD transit services comes from two sources: a mandatory quarterly Student Transit Fee paid by every registered student funds billable student ridership, and Parking and TDM fees fund billable faculty and staff ridership. In Spring 2006, a ballot measure was approved by UC Santa Cruz students to increase the Student Transit Fee thereby providing revenues adequate to balance the existing deficit in the Campus Transit operation budget and accommodate anticipated increases in SCMTD billings.

**Response to Comment ORG-2-3.** Comment noted. The University will continue to work with SCMTD to improve transit service that services campus facilities, including those on the Westside of Santa Cruz, and to improve the mechanisms and arrangements through which the University pays for its share of METRO service.

REC'D JAN 11 2006

REC'D JAN 11 2006

H. Reed Searle  
114 Swift Street  
Santa Cruz, CA 95060  
Phone and Fax 831-425-8721  
9 January 2006

2005 LRDP EIR Comment  
UCSC Physical Planning and Construction  
1156 High Street, Barn G  
Santa Cruz, Ca. 95064

SCRIP comment on Draft EIR

I write this as a member of and on behalf of Santa Cruzans for Responsible Planning. SCRIP is a group of City residents who are active in matters related to planning, growth and development. We believe that growth and development should be consistent with the ambiance of the City; development should help and not hurt.

The expansion proposed in the LRDP is the antithesis of sound and responsible planning. The City is unable to handle the traffic, parking and housing problems attendant upon past University growth. The load is simply too much for the City to absorb. The University cannot mitigate even the existing adverse effects on the City. The proposed expansion will substantially exacerbate these effects without providing any positive effect upon the City.

The draft EIR contains numerous inadequacies and inaccuracies. Without repeating them here, we join in the many objections to the EIR made by numerous local residents, groups and officials.

When and if the inadequacies are remedied, the final EIR undoubtedly will show that a series of undesirable impacts cannot be mitigated. Any further growth will create an impossible burden for the City and an accurate EIR will reflect that.

The ultimate decision about the proposed development may be a political one. The University may choose to determine that there are overriding circumstances. If it does that and permits further UCSC expansion as presently contemplated, the City of Santa Cruz will be degraded irremediably. There is

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much that is precious in our City.

Expansion of the Silicon Valley Campus offers a possible solution. It could reduce student and staff commuting to Santa Cruz County and place the planned professional schools in the middle of a very large economic region. We urge the Regents seriously to consider this option.

UCSC expansion would be an education in how to destroy our City. We hope the Regents will not authorize it. The State does not have a constitutional right severely to harm and impair one of its subdivisions and its residents. Given the grave cumulative impact of the proposed expansion, the Regents should consider whether it would not be wiser to find alternatives. If the University chooses to proceed as planned, then the City should and must do whatever it can to protect itself.

1

Sincerely,



H Reed Searle  
for SCRP

### Response to Comment Letter ORG-3

**Response to Comment ORG-3-1.** The comments are noted for the record. The suggestion that the University consider expanding at the Silicon Valley Campus was considered in Chapter 5, *Alternatives* (Draft EIR page 5-9). Please also see Master Response ALT-4 (Moffett Field Satellite Campus/Silicon Valley Center), and Response to Comment I-26-8.

January 10, 2006

2005 LRDP EIR Comment  
UCSC Physical Planning and Construction  
1156 High St., Barn G  
University of California, Santa Cruz  
Santa Cruz, CA 95064

To Whom It May Concern:

We are submitting comments to you on behalf of the Cave Gulch Neighborhood Association (CGNA) about the LRDP 2005-2020 Draft EIR and also specifically to the impacts in the greater Cave Gulch area.

Our concerns focus primarily on the construction of the proposed eight acre corporation yard in Cave Gulch, the construction of the 500 foot bridge over Cave Gulch, traffic safety on Empire Grade, emergency evacuation plans, fire safety, construction noise, traffic noise, land use compatibility, degradation of habitats for species of concern, erosion and negative impacts to the Cave Gulch watershed.

Traffic-

Concerning traffic analysis, the DEIR did not discuss the analysis requested in scoping to evaluate the impacts and suitability of Empire Grade Road to accommodate additional traffic including the impacts of campus support vehicles and construction vehicles. Analysis of traffic at Empire Grade and the new Campus Access is flawed, contradictory, and inadequate. There was no actual study and analysis to determine whether Empire Grade could accommodate the increased traffic load from capacity, safety or structural standpoints.

1. Has an analysis been performed by UCSC of the traffic safety record on Empire Grade between the Campus west entrance and Cave Gulch? If not, why not?
2. If UCSC has not performed a traffic safety analysis of Empire Grade, then how can impacts of future additional UCSC traffic be adequately evaluated?

Table 4.14-14 on page 4.14-39 has no baseline data for Empire Grade Road/New Campus Entrance. 2020 With LRDP Project lists LOS A for AM & PM peak delays with 9.3 second and 9.8 second delays respectively. Yet Table 4.14-15 lists the same intersection with a LOS B and AM & PM peak delays of 11.4 and 10.5 seconds respectively. In each case, it is stated that there is no significant impact.

3. How can UCSC judge whether there is significant impact without any baseline data?
4. How were these contradictory assessments made?
5. What methodology was used?

6. How many vehicles are predicted for this intersection?
7. What portion of the predicted traffic will be construction and what portion maintenance vehicles?
8. How will the additional traffic on Empire Grade impact traffic safety on the dangerous 2-lane road between Cave Gulch and the current West entrance?
9. How much noise will be generated by this traffic?
10. What is the justification for asserting that there will be no significant impact when there is currently no intersection, no baseline data, and no delay?

1

Land use-

Cave Gulch is currently zoned as a Residential Agricultural District in the County. On page 4.9-12 the DEIR states that development of physical plant facilities at this site would not result in a land use conflict with the adjacent Waldorf School or rural residences and that the impact would be less than significant. These statements are completely untrue. The land use that UCSC proposes clearly violates current zoning. The proposed facilities are clearly incompatible.

11. What is the significance threshold used by UCSC to determine when land use would be significant or less than significant?
12. It is stated on 4.9-12 that adequate vegetated buffers would be arranged to further screen views of the campus support development from Empire Grade, if necessary, and that this buffer could help reduce noise. What criteria will the campus use to determine if screening views is necessary?
13. Will the facilities need screening and will they be completely screened or not?
14. How much noise will there be generated by the facilities and traffic? Please be specific about each component and express in decibels.
15. How much noise reduction is expected from the buffers?
16. How much of the campus generated traffic would travel through the Cave Gulch neighborhood?
17. How will the storm water generated from these facilities be managed?
18. How will the storm water from the new road and bridge be managed?
19. How much noise will be generated by campus construction traffic and actual construction of North Campus facilities on the east side of Cave Gulch?

2

The analysis on land use pertaining to the Cave Gulch neighborhood is erroneous and inadequate. Cave Gulch will be qualitatively transformed from a quiet rural neighborhood to a bustling noisy hub on new urbanization. To suggest that impacts to the neighborhood would be less than significant is completely untrue, fraudulent, and deceiving to the public.

Hazards-

On page 4.7-11, there are no specific, detailed plans for campus evacuation.

3

- 20. Has any analysis been done concerning how much traffic from the North Campus would need to cross the bridge over Cave Gulch in the event of evacuation?
- 21. Does the capacity exist on Empire Grade to accommodate evacuation traffic from Bonny Doon, Cave Gulch, and the North Campus development?
- 22. What study or analysis has been done to justify any conclusions in this area?

3

Additional General Comments-

23. Does the 2005 LRDP adhere to the guidelines for future projects stated in the 1988 LRDP? If not, please explain which guidelines have changed and why.

23. If the guidelines have changes, what will be the resulting negative impacts from this change in guidelines policy?

24. Will any such impacts be mitigated?

The 1988 guidelines include:

\*avoid disturbing known sinkholes, but, if development over sinkholes is necessary, allow sinkholes to continue to function as natural drainages;

25. Has UCSC adhered to this guideline?

26. Have any sinkholes been disturbed or filled with concrete since 1988?

27. Have any sinkholes, either through disturbance or filling, ceased to function as natural drainages?

28. How does UCSC quantify adequate functioning of sinkholes?

\*avoid direct and indirect alterations of the solution cavities;

29. Has UCSC directly or indirectly altered solution cavities? If so, how many and at what locations?

29. What was the purpose of any alterations?

\*protect subterranean solution cavities from alterations of storage capacity;

30. Has storage capacity of solution cavities been altered? Please be specific as to what projects might have altered solution cavities.

31. Is there any quantitative data about how storage capacity may have been lost?

UCSC adopted Guiding Principles in the Implementation Program for the 1988 LRDP.

32. Does UCSC intend to follow these principals in the 2005 LRDP? If not, please explain why.

Guiding Principle 1 stated: Maintain, enhance and restore the biological diversity of the campus flora and fauna (plants and plants);

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33. Has UCSC done what was stated in the Guiding Principle 1?
34. Why did UCSC discontinue grazing activity in Inclusion area D when there were sensitive species such as wetland plants in the area?

Guiding Principle 4 stated: "The campus should only grow to the north after infill potential is complete within the central campus."

5

35. Will development in the north campus occur only after infill is complete in the campus core?
36. If UCSC does not intend to follow this principal, what is the rationale and what is the public supposed to believe about "principles" adopted by UCSC?

On behalf of the Cave Gulch Neighborhood Association and the officers of the Board, I would like to thank you for your attention. We look forward to your responses.

Sincerely,  
Don Stevens  
Board Member  
Cave Gulch Neighborhood Association



**Response to Comment ORG-4**

**Response to Comment ORG-4-1.** The comment contains ten separate questions, each of which is answered below. Corrections to the EIR text in response to these comments are incorporated in the Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*.

Questions 1 through 3. Please refer to Master Response TRAFFIC-2 (Impacts to Empire Grade Road).

Question 4. Table 4.14-14 erroneously lists intersection #45 as Empire Grade Road/New Campus Access, when in fact intersection #45 is an on-campus intersection (Cave Gulch/Heller-North Loop #45). Table 4.14-14 has been corrected in the Final EIR. Table 4.14-15 correctly identifies intersection #42 as Empire Grade Road/Cave Gulch and shows the correct levels of service for this intersection.

Question 5. Please refer to Master Response TRAFFIC-2.

Question 6. The number of vehicles predicted for the proposed new campus intersection on Empire Grade Road is shown in Figure 4.14-10c of the Draft EIR. The number of 2005 LRDP vehicles projected to use the new campus access in the year 2020 is 60 vehicles in the AM peak hour and 80 vehicles in the PM peak hour.

Questions 7 through 10. Please refer to Master Response TRAFFIC-2.

**Response to Comment ORG-4-2.** Development of physical plant facilities on UC Santa Cruz land designated Campus Support would not violate zoning. The Campus is not subject to City or County land use plans and zoning codes, as explained in Master Response LU-1. Development of physical plant facilities, such as facility and corporation yard functions, would also be consistent with the LRDP's Campus Support land use designation. Moreover, development of the physical plant facilities and other facilities in the north campus is consistent with the County General Plan land use designation (Public Facilities) assigned to campus lands in the County that are outside of the Coastal Zone. The standard of significance used to evaluate whether these uses would be incompatible with adjacent off-site uses is whether or not the 2005 LRDP would result in development of land uses that are substantially incompatible with existing adjacent land uses or with planned uses (Draft EIR page 4.9-9, Standards of Significance). The Draft EIR includes LRDP Mitigation AES-5E to ensure that development in the Campus Support area is not visually obtrusive. This measure indicates that buildings and vegetation would be arranged on the site to screen views of on-site activities from Empire Grade Road and the Santa Cruz Waldorf School. With the implementation of this mitigation measure campus facilities would be almost completely screened from Empire Grade Road and the Santa Cruz Waldorf School, although the road will create an opening through which a portion of the facilities may be visible. With respect to design characteristics and specifics of the facility, when a specific project is proposed for the site, consistent with the description in the Draft EIR, the noise and visual characteristics of the proposed facility design will be assessed, and the facility will be designed, screened and buffered to ensure that noise and visual impacts do not occur.

The Campus Support area development and the new access road into the North Campus would occur south of the Cave Gulch neighborhood. Campus construction traffic and any new campus-generated traffic, therefore, generally would not travel through the Cave Gulch neighborhood, except for the students and employees who travel north on Empire Grade Road to homes in Bonny Doon. Please refer to

Master Response TRAFFIC-2 for additional information about traffic on Empire Grade Road. See Draft EIR page 4.9-12. Draft EIR Table 4.10-5 (page 4.10-18) indicates that traffic noise levels at the Santa Cruz Waldorf School along Empire Grade Road, with development anticipated under the 2005 LRDP, would result in noise levels well below standards (about 52 dBA CNEL). Campus construction activities could expose nearby sensitive receptors to excessive noise. However, all projects would be required to implement LRDP Mitigation NOIS-1, which would require a range of actions to limit noise during construction. While excessive construction noise could nonetheless be generated, this impact would be temporary and, therefore, would not result in a substantial incompatibility with existing adjacent land uses.

Please refer to Draft EIR page 4.8-32 for a discussion of storm water drainage impacts on the Cave Gulch watershed from development anticipated in the 2005 LRDP.

**Response to Comment ORG-4-3.** The Draft EIR presents a summary description of the Campus Emergency Response Plan (ERP) on page 4.7-11. The Campus evacuation plan is one of the components of the ERP. Information on the manner in which the campus would be evacuated in an emergency is also provided on page 4.7-11. Additional details are not provided in the Draft EIR as they are not necessary for the evaluation of environmental impacts.

Please see LRDP Impact HAZ-9, at pages 4.7-26 to 28 of the Draft EIR, which presents information regarding the effect of the envisioned north campus development on Empire Grade Road during an emergency requiring evacuation. In the case of most emergencies involving evacuation, the north loop road to Empire Grade Road would not be the primary evacuation route because it is not the most direct way to exit from most parts of the campus. The north entrance and connector road to Empire Grade Road would be needed mainly to provide an evacuation route for the residents of the envisioned north campus development in the event that there is a fire that would prevent travel between the north campus and the west entrance. Because only those persons who would live in the northwestern portion of the campus would likely exit via the north entrance, the traffic associated with this population would not interfere substantially with evacuation of Cave Gulch and Bonny Doon residents. In other types of emergencies, should evacuation of the Campus be required, north campus residents would most likely be instructed to use campus roads to exit campus via the west entrance. It is unlikely that both the entire Campus and Cave Gulch/Bonny Doon would all be subject to any single emergency evacuation. Also, the north loop road would provide an alternate evacuation route for Cave Gulch and Bonny Doon residents in the event of closure of Empire Grade Road between the north and west entrances to campus. The north loop road would also facilitate emergency response to Cave Gulch and Bonny Doon in such cases. No quantitative study of the traffic capacity of Empire Grade Road as an emergency evacuation route has been performed. The number of vehicles from north campus development that would use a Cave Gulch bridge and Empire Grade Road as an evacuation route would depend on the specific location of the fire or other emergency situation. However, it is very unlikely that a situation would arise in which substantial amounts of traffic from the north campus development would evacuate via Empire Grade Road at the same time that traffic from Bonny Doon and Cave Gulch neighborhoods would also be using this route. One major reason that the north loop road is planned as a loop was explicitly to provide one or more alternative routes should one route be blocked, and to allow traffic to disperse via multiple routes.

**Response to Comment ORG-4-4.** The Campus has avoided sinkholes whenever possible in the design and construction of campus facilities, and will continue to do so under the 2005 LRDP. The Campus

conducts intensive geotechnical investigations of proposed building sites to minimize the potential that solution cavities will be encountered unexpectedly during construction. As discussed on pages 4.8-14 to -16 and 4.8-39 to -40 of the Draft EIR, the Campus uses pressure grouting to densify and stabilize soft soils that may be present in doline fill under a building site. As explained in the Draft EIR (LRDP Impact HYD-5C), the methods used for pressure grouting minimize the amount of grout that is pumped into voids or crevices (fractures and/or solution cavities).

**Response to Comment ORG-4-5.** Please see LRDP Section 4, which presents the planning principles and guidelines of the 2005 LRDP. This section includes principles for the protection of natural and cultural resources on the campus, principles related to sustainability, and principles to guide land use patterns. Future campus growth will be guided by the 2005 LRDP. Note that once the new LRDP is adopted, it will replace the 1988 LRDP and the previous LRDP will no longer apply. The comments that relate to the 1988 LRDP are not relevant to this LRDP or this EIR.

# The Campaign for Sensible Transportation

P.O. Box 604, Santa Cruz, CA 95061 — 831 · 425 · 0665 — www.sensibletransportation.org

January 11, 2006

John Barnes  
Director of Campus Planning  
University of California Santa Cruz  
Physical Planning and Construction  
Barn G  
1156 High Street  
Santa Cruz, CA 95064

Re: Comments on the LRDP DEIR

Dear Mr. Barnes:

Since the Campaign for Sensible Transportation is primarily interested in transportation-related issues, our comments are limited to Section 4.14 of the DEIR (Traffic, Circulation and Parking).

We note first of all that this section of the DEIR, although some 82 pages long, is not well organized and hence very difficult to read, with no comprehensive index, and rambling text so that issues related to any particular topic (cars, transit, bicycles, pedestrians, TDM measures, impacts, mitigation measures) are scattered, seemingly at random, throughout the document. Such lack of organization means that the reader is discouraged from commenting on any particular issue. This is clearly contrary to CEQA guidelines, and should be corrected.

1

We nevertheless submit a few comments, which appear below.

While we understand that this is a programmatic EIR, many assertions and words of analysis are so vague and inadequate as to be worthless, and so we urge that more detailed and careful analysis be undertaken and that the EIR be rewritten and recirculated.

2

In our letter submitted February 28, 2005, we requested the analysis of an alternative that would give serious attention to reducing rather than encouraging the use of single-occupant automobiles as a means of accessing the campus.

We recommended that the reduction of SOVs be taken as a serious policy guideline.

Indeed, it is stated, on page 4.14-1 of Section 4.14, that comments regarding the scope of the transportation analysis did include what was part of our request, namely to "evaluate an alternative, which does not include building more on-campus parking." It is also asserted on this page that "all of these scoping comments are addressed in this section."

3

However, we were unable to find, on any page of Section 4.14, any consideration of such an alternative.

We maintain that such an alternative should be analyzed, *i.e.*, one that (a) eliminates additional access roads to the campus, (b) reduces significantly the number of new parking spaces on campus (ideally to zero), (c) expands public transit significantly, (d) seriously considers the bicycle as an important transportation mode, and (e) considers a variety of transportation demand strategies.

4

If the above actions (a) through (e) are insufficient to provide reasonable access to the campus, consider reducing the campus population below the envisioned student increase of 6000. At some lower level of growth, the non-auto transportation mode alternative will work.

Here are our specific comments on Section 4.14 of the DEIR:

**PUBLIC TRANSIT (SCMTD):**

In general, there appears to be no analysis as to how mode-switching from private vehicle to public transit is to be accomplished for those traveling to and from campus, in spite of the assertion that such is a desirable goal.

On page 4.14-8 it is noted that UCSC accounts for more than one-third of the total SCMTD ridership countywide.

Hence an increase of 45 percent in the student population of the UCSC campus would require a significant increase in SCMTD investment to both enlarge its fleet and to increase its operating costs in order to maintain even the existing mode split between cars and public transit.

There seems to be no analysis of what such an expansion of the SCMTD would involve in terms of capital investment and needed facilities or any estimate as to when such expansion might occur even if appropriate funding were available.

A vague reference is made (page 4.14-55) to recently adopted UC guidelines for sustainable transportation, but no specifics are offered about how such guidelines might be implemented.

Another vague reference is made to the Urbitran transit study (page 4.14-55) projecting "a potential to increase on-campus transit ridership 43 percent to 73 percent by 2020". Aside from the fact that the meaning of this statement is unclear (does this mean that on-campus ridership can be increased by somewhere between 43 and 73 percent or does it mean that it is currently 43 percent but could be increased to 73 percent?), no specifics are provided about how on-campus transit ridership may be increased.

It is asserted on page 4.14-30 that "the 2005 LRDP considers strategic implementation of bus queue-jump lanes ... and transit priority signal systems...", and that "these improvements would occur primarily on lower campus roadways ... but could also be implemented at key intersections on McLaughlin Drive." However the McLaughlin Drive road would presumably need to be widened significantly to accommodate queue-jump lanes, which would seem unlikely and costly.

On page 4.14-20 reference is also made to the Urbitran study in which it is suggested that "SCMTD consider potential new services between the main campus and Aptos, Watsonville, and San Jose", but no estimate is made for the likelihood of such an expansion happening. Are such service extensions now included in SCMTD projections? When would they occur?

In Table 4.14-19 (page 4.14-48) there is only one "Potential Transportation Demand Management Measure" related to SCMTD, namely to "encourage SCMTD to ... provide real-time vehicle location and time-to-arrival information at major bus stops...". "Encourage" is an insufficient word; it needs to be *accomplished*. How?

Additional TDM measures to encourage mode-switching to public transit should be described and analyzed.

**BICYCLES:**

Section 4.14.7 describes current amenities designed to facilitate the use of bicycles on campus, including lanes and routes, parking, the bike shuttle, bus bike racks and a number of campus bicycle programs.

However, under "Planned Transportation System Improvements" (beginning on page 4.14-18) we find no list of improvements devoted specifically to bicycles. On page 4.14-27 there is a heading entitled "Transportation Improvements Proposed Under 2005 LRDP", and on page 4.14-30 a sub-heading entitled "Pedestrian and Bicycle Circulation", consisting of a very few sentences of poorly thought-out measures relating to both pedestrians and bicyclists.

In the above mentioned sub-section it is asserted (page 4.14-30) that "the 2005 LRDP includes the provision of Class II bike lanes . . . in the uphill direction of Heller Drive from Empire Grade Road to McLaughlin Drive, and on Hagar Drive from the East Collector Facility entrance to McLaughlin Drive." However these roads are currently too narrow to accommodate bike lanes, and so would need to be widened. Given the cost and obvious environmental impact of such widening, how likely is the construction of these proposed bike lanes? An analysis of this improvement is needed here.

Bicycle storage and parking is clearly an issue that merits attention. Currently bicyclists are discouraged through the implementation of poorly designed, inadequate and insecure bicycle parking facilities on campus. The currently preferred "coat-hanger" bike racks that are installed at various locations on the campus are a bad design and should be replaced by "inverted U" style racks in use elsewhere. A policy should be put in place that encourages staff and faculty to store bicycles in their offices (bike hooks on walls should be a standard amenity), or in other secure interior locations.

Electric bicycles should be encouraged through a subsidy program.

The bike shuttle program should be expanded and marketed.

A comprehensive bicycle plan for bicycle circulation and parking on the campus should be prepared and followed. An extensive bicycle plan for the campus was prepared in 1988 at the request of the administration but was never put in place.

**CARS, ROADS AND PARKING:**

Section 4.14 deals extensively with cars and how to accommodate their use. The addition of new roads and extensive parking facilities (a 60 percent increase in parking for only a 40 percent increase in student enrollment) will clearly *encourage* (rather than discourage) the use of the single-occupant vehicle for those traveling to and from the campus.

The result, even as noted in this inadequate section of the DEIR, implies significant degrading of traffic conditions on city streets, with impacts judged, even in the superficial analysis undertaken, to be significant and unavoidable.

Overall, the discussion implies a continued and growing adherence to the private automobile as the primary transportation mode for the campus population.

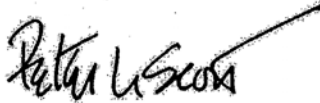
This is unfortunate, particularly since other communities (*e.g.*, Portland, Oregon) have been successful in curbing SOV use and increasing the use of transit, walking and bicycling.

We will not make other specific comment on the topic of cars, roads and parking, except we did notice apparent evidence of incorrect analysis when comparing Fig. 4.14-7a (Existing Conditions) with Fig. 4.14-9a (No Project conditions): Intersection 1 traffic counts are shown as identical in both figures,

even though the No Project alternative specifies and increase of 1830 in the campus population over the current population.

7

Sincerely,



Peter Scott, for  
The Campaign for Sensible Transportation

**Response to Comment Letter ORG-5**

**Response to Comment ORG-5-1.** Comment noted.

**Response to Comment ORG-5-2.** Comment noted.

**Response to Comment ORG-5-3.** Please refer to Response to Comment LA-6-76 and Response to Comment ORG-5-4 below.

**Response to Comment ORG-5-4.** The purpose of the proposed LRDP is to guide the orderly growth of the campus over the next 15 years (Draft EIR, page 2-2). An alternative that included the projected enrollment and building space growth but that did not include additional parking was not analyzed because no feasible means could be identified of reducing vehicle trips to such an extent that new parking would not be needed on the campus. Please refer to Response to Comment LA-6-76, which shows how low the current and future parking ratios at the campus are compared to other large employers and the City's parking ratio standards. Parking capacity is closely monitored on campus, and parking is only built upon evidence of demand. Charges for parking are a deliberate disincentive to using single occupant vehicles for access to campus. These and other TDM measures have been effective in controlling demand for new parking.

An alternative that did not include additional access roads to the campus was considered during formulation of the Draft LRDP, but was rejected as infeasible, as discussed in the Draft EIR, Volume II, Chapter 5. Option A – Loop Road Option retained campus support facilities at their current location and did not propose an access road to Empire Grade Road. This alternative was rejected for the reasons identified on page 5-6 of Volume II of the Draft EIR. The 2005 LRDP emphasizes the importance of alternative transportation. Further, significant expansion of transit is considered as a mitigation measure for reducing the impacts of growth in campus traffic (see Draft EIR Table 4.14-19, p. 4.14-18, and LRDP Mitigations TRA-2B and TRA-3A, pp. 4.14-43 and 4.14-51; see also *UCSC Comprehensive Transit Study*, Urbitran Associates, March 2004 and the *Bay Corridor Preliminary Feasibility Analysis Bus Rapid Transit*, Urbitran Associates, March 2006). The Campus already employs many TDM strategies, has a very effective TDM program, and is committed to continuing to refine its TDM program. LRDP Mitigation TRA-2B affirms the Campus's commitment to effective TDM.

The 2005 LRDP and the Draft EIR consider bicycling to be a very important mode of travel, and identify policies and program-level mitigation measures to support bicycle travel, including automobile-restricted roadways to improve bicycle travel, and bicycle lanes on all major campus roads. As a first step in implementing the bicycle plan identified in the 2005 LRDP, the Campus has drafted a new Bike Plan, which is available for review at <http://www2.ucsc.edu/taps/pages/bikeplan.html>.

The Draft EIR, Volume II, Chapter 5, analyzed a Reduced Enrollment Growth Alternative that would accommodate a three-quarter average enrollment of 19,500 FTE. The Final Draft LRDP (September 2006) has been revised to reflect the Reduced Enrollment Growth Alternative, with its smaller enrollment growth, as described in Final EIR Volume IV, Chapter 2, *Project Refinements*. The Campus will recommend to The Regents the adoption of the Final Draft 2005 LRDP as the new LRDP for the campus.

**Response to Comment ORG-5-5.** In March of 2004, Urbitran Associates completed a comprehensive transit needs assessment, *UCSC Comprehensive Transit Study*. The Draft EIR incorporated the findings of this study by reference (see page 4.14-55). Now also incorporated by reference (see page 4.14-56) is



another transit study that was being prepared by Urbitran Associates at the time the Draft EIR was completed, *Bay Corridor Preliminary Feasibility Analysis Bus Rapid Transit* (Urbitran Associates, March 2006) This study evaluated the potential for implementing Bus Rapid Transit on off-campus and on-campus roadways. These studies identify the capital investment and facilities needed to ensure that transit services and facilities keep pace with campus growth. The actual and anticipated types of recommendations of both of these studies, with respect to improving transit efficiency and capacity, are identified in the Draft EIR as part of LRDP Mitigations TRA-4A and -4B as stated on page 4.14-56.

Many of the proposed mitigation measures will facilitate on-campus transit ridership. For example, on-campus roadway and intersection improvements (LRDP Mitigation TRA-1) will improve transit service by improving traffic flow. TDM measures (LRDP Mitigation 2B) and implementation of parking management measures (LRDP Mitigation TRA-3B and -3C) will encourage transit use.

The ridership projections cited in the Draft EIR came from a study prepared for the University during the preparation of the 2005 LRDP (*UCSC Comprehensive Transit Study*, Urbitran Associates, March 2004). The ridership projections are presented as a range in that study (from 43 to 73 percent), which is why the percent increases identified in the Draft EIR also are presented as a range of anticipated growth in ridership above existing ridership levels.

Bus queue jump lanes is one strategy that the Campus may consider for improving transit travel times on campus roadways. Queue jump lanes are typically installed at signalized intersections and utilize an existing or new right-turn lane or exclusive bus lane, so that buses gain an advantage realized by priority control of signal phasing. One location being considered at this time is the intersection of Hagar/Glenn Coolidge Drives. Intersections on McLaughlin Drive are potential locations for queue jump lanes because this road is the cause of some of the highest transit delays on campus due to vehicular traffic and pedestrian crossings. However, most intersections on McLaughlin Drive are not signalized and have only a single travel lane in each direction. The *Bay Corridor Preliminary Feasibility Analysis Bus Rapid Transit* does not specifically identify McLaughlin Drive as having the potential for queue-jump lanes, but acknowledges that any potential roadway would need to have a detailed engineering study to determine the feasibility of width and signalization. While McLaughlin Drive may be a desirable corridor for queue-jump lanes it may not be feasible to implement them depending on the findings of a detailed study.

The *UCSC Comprehensive Transit Study* identifies an unmet need to provide express METRO service between the main campus and the communities of Aptos and Capitola. The study suggests potential ways this service may be structured. However, initiation of this service is outside of the control of the University. Therefore, implementation of this potential service would be through an agreement between the University and METRO similar to other funding agreements currently in place. However, the viability of the service would need to be confirmed as the study referenced above identified about 300 UCSC affiliates that reside in Aptos and Capitola, or which some fraction would use the service. Further study is required to determine the cost-effectiveness of providing this new service.

Although there is a potential demand for METRO service between Watsonville and the main campus, the *UCSC Comprehensive Transit Study* did not conclude it would be a cost-effective measure since the University is currently expanding its vanpool program serving Watsonville. The expanded vanpool program is anticipated to meet the current and foreseeable demand for this connection.

Since the University does not control the service decisions made by METRO, it can only “encourage” new and expanded services through assistance in planning, provision of on-campus facilities for METRO, and funding agreements for services that benefit the University.

**Response to Comment ORG-5-6.** The 2005 LRDP circulation plan calls for the creation of Class II bicycle lanes on both existing and new major campus roadways (see page 84 of the 2005 LRDP). For new roadways, bike lanes would be included in the roadway design and funded as an integral part of the cost of the roadway project. The LRDP recognizes the need to widen roads to implement bike lanes and recognizes that in very constrained locations, such as portions of Heller Drive, bicycle lanes may only be achieved in the uphill direction of the roadway. In addition to the provision of bicycle lanes, Hagar Drive is planned as a restricted roadway from the Meyer Drive extension to McLaughlin Drive to better serve transit, pedestrians, and bicyclists. Construction of bicycle lanes will go through a project-specific evaluation and determination of impacts at the time each specific project is proposed, and mitigation measures will be identified and implemented for any significant environmental impacts. The Heller Bike Lane project is currently in the preliminary planning stages. The University is seeking grant funding to assist in the construction of this project. Details regarding bicycle parking facilities, such as type of bicycle racks, will be addressed, as is appropriate, at the project-specific level of facility design, not in programmatic EIR.

The Campus also supports bicycle use as an alternative means of access to campus, as discussed in Response to Comments LA-8-3. UC Santa Cruz faculty and staff are eligible to participate in the Santa Cruz Area Transportation Management Association’s Zero Percent Interest Bike Loan Program, which provides loans that may be used for the purchase of electric bicycles.

The Transportation Demand Management measures in Table 4.14-19 on page 4.14-48 of the LRDP Draft EIR, Volume II, include a measure to expand bike shuttle hours of operation and increase frequency of service, as needed. As a first step in implementing the bicycle plan identified in the 2005 LRDP, the Campus has drafted a new Bike Plan, which presently is available for review and comment at <http://www2.ucsc.edu/taps/pages/bikeplan.html>.

**Response to Comment ORG-5-7.** Existing and future parking ratios are calculated by dividing the number of parking spaces by the total population on-campus (including students, faculty and staff), so a direct comparison between the growth in students and the growth in parking spaces is not applicable. The goal of the 2005 LRDP is to provide an adequate parking supply to meet projected needs based on current parking demand ratios. The current parking ratio (spaces per total campus population) is 0.297 (5,222 spaces divided by 17,582 population). The future parking ratio, if all of the parking proposed under the 2005 LRDP is built, would be about 0.30 (that is, about three parking spaces for every 10 persons in the population). It is important to note that new parking will be constructed only when annual monitoring shows that supply in a given parking zone has reached or is approaching 90 percent of its capacity. The University, supported by the mitigation measures in the Draft EIR, continues to be committed to supporting alternative transportation and discouraging single-occupant vehicle (SOV) automobile travel. Parking fees, controlled allocation of parking permits and limiting the number of parking spaces are all TDM measures that are directed toward discouraging SOV use. Through its TDM programs, the Campus has achieved a very low mode split for SOV trips to campus of 38 percent. This figure does not include motorcycles and service vehicles, but focuses on vehicles that reasonably could have more than one passenger. The Spring 2004 Modal Share Study conducted by the Campus indicates that 55 percent of

trips to campus are by alternative modes of transportation. These data clearly show that the SOV is not the primary mode of access to the campus.

For purposes of providing a comparative analysis, the “without LRDP project” conditions shown in Figure 4.14-9a, in Section 4.14 of the Draft EIR, represent conditions with no growth in campus population (Note that this is different from the “No Project” Alternative that is evaluated in Chapter 5 of the EIR, which includes some growth in faculty and staff populations although no growth in student population). Therefore traffic volumes at on-campus intersections under the “Without LRDP Project” will equal existing traffic volumes. In the year 2020 With Project conditions, traffic volumes increase, reflecting the project’s growth in traffic at on-campus intersections. (See Response to Comment OPA-1-5 for corrections to 2020 With Project traffic volumes at intersection #1 - Campus Facilities/Glenn Coolidge Drive).

COPY

January 10, 2006

To: Santa Cruz City Mayor Cynthia Matthews and the City Council

From: The Coalition for Limiting University Expansion (CLUE)

Re: City comments on the UCSC Draft Environmental Impact Report

Dear Mayor Matthews and Council members,

On behalf of the Coalition for Limiting University Expansion, I would like to bring to your attention certain important wetland issues that we have become aware of recently. We want to be sure that they are adequately addressed in the City's DEIR comments directed to UCSC and present some draft comments now for your consideration.

1

Thank you so much for your outstanding work on behalf of the Santa Cruz community and for this opportunity to address you.

Sincerely,  
Don Stevens  
CLUE Executive Committee

2005 LRDP EIR Comment  
UC Santa Cruz Physical Planning and Construction  
1156 High Street, Barn G  
Santa Cruz, CA 95064

RE: COMMENTS ON 2005 LRDP DRAFT EIR

To Whom It May Concern:

A major concern with the DEIR is the 120 acres of new development slated for the undeveloped North Campus above the main campus core.

It is peppered with springs, seeps, and shallow groundwater that feed the lower campus watersheds and are recharged by annual rains percolating through the soil over most of the 450 acres. Large areas around the springs and seeps in the North Campus are statutory wetlands and the DEIR does not adequately discuss or analyze these wetlands.

Since UCSC is aware that there are statutory wetlands, why hasn't a wetlands delineation been done for the North Campus area?

2

The DEIR does state that areas of wetlands and wetland indicator plants exist on the northern campus in section 4.4 on bioresources, but there is no detailed analysis in the hydrology section. Why not?

In order for the public and UCSC to accurately assess environmental impacts from development, a wetlands delineation must be done and therefore the DEIR analysis is inadequate.

Development plans around wetland areas will also require involvement and approvals of other appropriate government agencies such as the Army Corps of Engineers, US Fish & Wildlife Service, US Fish & Game, the Central Coast Regional Water Quality Control Board, and the County of Santa Cruz. Has UCSC consulted with these agencies about wetland delineation on campus?

Furthermore, before designing proposed development and the footprint of such development in wetland areas, UCSC should have done a hydrologic sufficiency of wetlands support study. Otherwise, it is impossible to accurately assess the environmental impacts.

Why hasn't UCSC done such a study?

Will such a study be performed if UCSC completes a wetland delineation in the future?

What criteria will be used to determine whether such a study should be done?

What will be the impacts of alteration of the wetlands hydrology in the North Campus to the watersheds fed by these wetlands? Please be specific about the effects to the San Lorenzo River, Jordan Gulch, Moore Creek, Cave Gulch and Wilder Creeks.

What will be the effects of wetland alteration to species of concern?

What does UCSC propose for mitigations for impacts to wetlands?

An analysis based on the wetlands delineation and hydrologic sufficiency study must be included in a revised DEIR. It will then be necessary for a revised DEIR to be re-circulated to the public for study and comment.

Response to Comment Letter ORG-6

**Response to Comments ORG-6-1 and 2.** Please refer to Master Response BIO-2 (Wetland Impacts).

Jonathan Wittwer  
William P. Parkin  
Shandra D. Handley

**WITTWER & PARKIN, LLP**

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PARALEGAL  
Miriam Celia Gordon

January 11, 2006

REC'D JAN 11 2006

**HAND DELIVERED**

Mr. John Barnes  
University of California, Santa Cruz  
Physical Planning and Construction  
1156 High Street, Barn G  
Santa Cruz, CA 95064

**RE: Comments on Draft EIR for UCSC 2005 Long Range Development Plan**

Dear Mr. Barnes:

This office represents Coalition Limiting University Expansion ("CLUE") with respect to the above referenced Draft Environmental Impact Report ("DEIR"). Attached hereto are numerous comments made by members or consultants to CLUE. These comments are in addition to the comments contained in this letter and it is specifically requested that a response to these comments also be made.

As a preliminary matter, CLUE finds that the DEIR is wholly deficient for a number of reasons, and that the DEIR does not adequately assess the environmental impacts of the proposed Long Range Development Plan ("LRDP"). For these reasons, CLUE request that the DEIR be corrected, refined, expanded to include all necessary analysis and recirculated for public comment.

CLUE also makes the following specific comments:

1) The DEIR bases its analysis on the attendance of 21,000 full-time equivalent (FTE) students. As the DEIR repeatedly states (see for example page 1-1 (footnote), 2-2 (footnote), and 3-11), "not all students take full course loads, the number of FTE students is generally somewhat lower than actual total number of students enrolled. However, for UC Santa Cruz, the number of FTE students is very close to the headcount, which is the actual total number of students enrolled." This is misleading. Environmental impacts, particularly impacts associated with transportation, air, noise, public services and utilities, must be measured by the number of students attending the University. As the DEIR admits on page 4-2, "[i]mpacts related to traffic, air quality, noise, utilities, and public services ... are analyzed primarily on the basis of the total population increase

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associated with full development under the 2005 LRDP.” Therefore, without knowing headcount, the environmental impacts could be understated. The DEIR states that at USCS, that FTE is “very close” to the headcount. However, there is no basis for this statement because the public cannot tell “how close” is “very close.” Moreover, it appears that the 1988 LRDP used “headcount” as the basis for discussing environmental impacts. There is no reason that headcount cannot be used as the basis for the 2005 LRDP.

Further confusing the issue, the DEIR stated on page 4-2 that

This EIR assumes that FTE is equal to student headcount during the three primary academic quarters. The impact analysis in this EIR uses headcount numbers for population increases projected on campus, because these would more accurately reflect the number of persons contributing to traffic and other population-related impacts. Historically, during the three primary academic quarters, FTE and headcount at UC Santa Cruz have been nearly equivalent.

1

However, if the University is assuming that headcount is equal to FTE, then really the EIR is using FTE, not headcount. The University must actually use headcount to claim that it is using headcount for impact analysis, not assume that headcount is the same as FTE.

2) Please explain what “very close” means in the statement on page 1-1, footnote 1, when it is stated that “for UC Santa Cruz, the number of FTE students is very close to the headcount, which is the actual total number of students enrolled.”

3) What is the exact headcount, or actual total number of students enrolled, for the most current three primary academic quarters?

4) What is the anticipated and exact headcount, or actual total number of students enrolled, for the three primary academic quarters under the full enrollment of 21,000 FTE students envisioned in the LRDP?

5) Are FTE students and student headcount anticipated to be “very close” in 2020-21, or will demographics change in a way where more part-time students attend UCSC in 2020-21?

6) On page 1-2, the DEIR states that

“As described in CEQA and the CEQA Guidelines, public agencies are charged with the duty to avoid or substantially lessen significant environmental effects, where feasible. In discharging this duty, a public agency has an obligation to balance the project’s

2



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significant effects on the environment with its benefits, including economic, social, technological, legal, and other benefits.”

What authority is the University relying on for the proposition that it has an “obligation to balance the project’s significant effects on the environment with its benefits?”

2

7) CLUE believes that the second sentence in the statement recited in comment number 6 above, overstates the mandates of CEQA and the CEQA Guidelines. CEQA Guideline Section 15021(d) states that

“CEQA recognizes that in determining whether and how a project should be approved, a public agency has an obligation to balance a variety of public objectives, including economic, environmental, and social factors and in particular the goal of providing a decent home and satisfying living environment for every Californian. An agency shall prepare a statement of overriding considerations as described in Section 15093 to reflect the ultimate balancing of competing public objectives when the agency decides to approve a project that will cause one or more significant effects on the environment.”

3

However, this language clearly refers to an agency’s ability to approve a project despite environmental impacts. However, the agency does not have an obligation to approve such a project if it chooses not to. The statement in the DEIR as recited above sounds as if the University must override environmental considerations in discharging its duties. Again, this is an overstatement, unless the University can cite to other authority to support its position on the fundamental purpose of CEQA.

8) Page 1-3 of the DEIR states that “employees at the UC Santa Cruz’ Marine Science Campus in the west side are not” included in the faculty/staff population assumptions. Why not?

9) Do faculty, staff and students at UC Santa Cruz’ Marine Science Campus ever visit the main campus?

4

10) Do faculty, staff and students at UC Santa Cruz’ Marine Science Campus ever use facilities, such as storage, libraries, technology on the main campus?

11) Do faculty, staff and students at UC Santa Cruz’ Marine Science Campus ever have offices or laboratories on the main campus?

12) Do faculty and staff at UC Santa Cruz’ Marine Science Campus ever teach classes at the

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main campus?

13) If the answer to comments 9 through 12 are yes, what percentage of these faculty, staff and students use automobiles, and what percentage use public transit, shuttles or bicycles, to travel between the UC Santa Cruz' Marine Science Campus and the main campus?

4

14) The 1988 LRDP included the Marine Science Campus. *See* DEIR page 3-6, footnote 7. Why has the University now pursued the Marine Science Campus separately from the main campus' LRDP?

5

15) Pages 1-4, and 2-2, of the DEIR cites the "Regents 2000" for growth projections from 1998 through 2010. It is estimated that enrollment will grow by 63,000 FTE statewide in the UC system. From this, the DEIR then states that the enrollment in 2020-21 will increase by 6,950 students over enrollment in 2003-04. However, the DEIR does not explain what part of the increase in enrollment is due to the 2010 demand projections. Obviously, the LRDP projects growth through 2020-21.

6

16) What are the current UC-wide growth projections through 2020-21?

17) Of the 63,000 additional students anticipated statewide through 2010, how much of that demand has already been accommodated at UCSC?

18) Of the 63,000 additional students anticipated statewide through 2010, how many of those students are expected to be accommodated at UCSC by 2010?

19) Will growth of the student population at UCSC grow more rapidly or more slowly after 2010?

7

20) Does UCSC expect most of the additional 6,950 students anticipated under the LRDP to be enrolled prior to 2010, or after 2010?

21) After 2010, will UCSC have any additional capacity for growth in the student population?

22) Is there any mechanism that prevents enrollment beyond 21,000 FTE students in 2020-21 academic year?

23) Are assumptions concerning the number of faculty and staff based on FTE, or does this number include all full-time as well as part-time faculty and staff?

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24) If numbers concerning the growth in faculty and staff does not include part-time staff, how many part-time faculty and staff persons are anticipated under the LRDP?

8

25) Page 3-9, the DEIR refers to "affiliates" with respect to campus population. Please define what an affiliate is and how many people this actually accounts for?

9

26) Page 3-12 of the DEIR is completely disingenuous. It states that "[f]or the purpose of this EIR, under the proposed 2005 LRDP, the three-quarter average student headcount is assumed to increase by 6,950 students through 2020-21." Of course all along, the DEIR has been asserting FTE students while never really giving the real headcount because it is stated that it is "very close." Then the DEIR states

10

This assumption is conservative because, in fact, the current (2005-06) enrollment on campus has already increased somewhat over the 2003-04 baseline level. Therefore, the total increase under the 2005 LRDP would be somewhat smaller than the increase analyzed in this EIR.

The DEIR cannot claim that the environmental analysis is based on conservative assumptions simply because the baseline numbers have been exceeded. The fact is that in 2020 there will be 6,950 more students compared to the 2003-04 academic year.

27) Page 3-19, states that the Ranch View Terrace Project is scheduled to begin in 2005 on 84 additional units. This project has now been phased and only approximately half of the units will be constructed in the first phase, while the start of the second phase is uncertain at this time. Please revise the DEIR accordingly.

11

28) Page 3- 40 of the DEIR states that "UC Santa Cruz proposes to implement a series of improvement to the utilities and infrastructure on campus, primarily to address problems and deficiencies in the existing systems." Are any of these "problems or deficiencies" due to the failure to complete or implement mitigations formulated for the 1988 LRDP?

12

29) Are there any mitigations formulated or devised in the EIR for the 1988 LRDP that have not yet been completed or implemented?

30) If there are any mitigations formulated or devised in the EIR for the 1988 LRDP that have not been completed or implemented, please state why they have not been completed or implemented.

13

31) If the mitigation from the EIR for the 1988 LRDP have not been completed or implemented,

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does the University plan to complete or implement mitigations that were formulated or devised in the EIR for the 1988 LRDP?

13

32) If the answer to 31 above is "yes," please state if these plans are incorporated into the 2005 LRDP.

33) The DEIR at page 4-1.9 states that one of three primary issues considered in analyzing visual impacts is "the number of viewers who would be affected by [visual] change." Using the number of viewers affected as a measure of impact is inappropriate given caselaw on the subject of aesthetics. See *Ocean View Estates Homeowners Association, Inc. v. Montecito Water District* (2004) 116 Cal.App.4th 396. Accordingly, the Aesthetics section must be revised by using a proper analytical method and the DEIR must be recirculated for public comment.

14

34) Page 4.1-20, LRDP Mitigation AES-6D states that field lights will be turned off at 10:00 p.m. to minimize night lighting "except when special events are scheduled." This is illusory because the mitigation does not define what constitutes a "special event." By its very nature, anything after 10:00 p.m. could be considered "special." Please define what constitutes a "special event."

15

35) Given the amount of development and growth that is projected under the LRDP, the conclusions of the DEIR vis-a-vis impacts and mitigations concerning aesthetics are wholly lacking. There are a number of views of the campus from the City of Santa Cruz as well as from the County of Santa Cruz. Yet, the DEIR pretends that the impacts of development will somehow be mitigated to an insignificant level. For instance, Figure 4.1-13 shows a view of the campus from Morrisey bridge at Highway 1. This same view can be seen as far away as Aptos. Trees and other obstructions which the DEIR at page 4.1-14 says will screen views from the Morrisey Bridge will not screen the Event Center and East Collector Parking Facility from viewpoints further away. During the Metro Bus Strike, the glare from the sun bouncing off cars parked on roads on campus were highly visible as far away as Aptos. So any large development in this area of campus will impact views for miles (including at night when the campus lights illuminate the hillside).

16

36) Page 4.4-22 of the DEIR states that "Extensive surveys for CRLF on campus have documented the species only within the lower campus and in the Moore Creek drainage (Ecosystems West 2000; Jones & Stokes 2002)." Since the time of the surveys is critical to the determination of whether the species is present, how many individual surveys were conducted and what time of year were they conducted?

17

37) Page 4.4-38 discusses mitigation measures for northern maritime chaparral and Santa Cruz

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manzanita which occurs within northern maritime chaparral. These mitigations are wholly inadequate. The mitigation states that large areas are to be avoided, but then allows the University to remove the habitat if avoidance is not feasible. In the event that avoidance is not possible, the DEIR states that the University shall preserve and manage the habitat elsewhere. This does little good because the habitat abundance overall has been reduced. Moreover, all the University is really promising to do is if it removes the habitat, it will preserve what is leftover.

38) The mitigations on page 4.4-38 put a priority on patches of northern maritime chaparral that are 10 acres in size or more. This mitigation appears illusory since there are apparently 19 patches of the Santa Cruz manzanita on campus (see p.4.4-40) over a relatively small number of acres. How many patches of northern maritime chaparral of 10 acres or greater actually exist on the UCSC campus?

17

39) The mitigation measures call for avoidance of large patches of northern maritime chaparral. Yet, on page 4.4-40, it is clear that 14.7 acres of the Santa Cruz manzanita will be lost. Since Santa Cruz manzanita is located within northern maritime chaparral, at least 14.7 acres or more of northern maritime chaparral will be lost. Therefore, the avoidance mitigation is not a mitigation at all because the LRDP already calls for removal of the habitat. The EIR must be revised to reflect that there will be a loss of the habitat and specific mitigation for the loss must be developed.

40) Page 4.4-43, LRDP Mitigation BIO-3A states that "At the time that a specific development project is proposed, the campus shall conduct a site reconnaissance to determine whether wetlands are present on the site." This is improper deferral of environmental impacts. The University knows where approximately the development under the LRDP will occur (and based on the summary on page 4.4-44 has a general idea of where the wetlands occur). Just as the University has supposedly conducted reconnaissance surveys for other habitats on the campus, so too the University must determine the extent of wetlands onsite. Otherwise, environmental considerations pertaining to wetlands are not incorporated into the decision to approve the LRDP. Moreover, a blanket determination that the impacts would be "Less than significant", as is made on 4.4-44, is impossible to make since the University has no idea the extent of the wetlands that will be impacted by development.

18

41) What is the basis for the threshold for restoration of riparian vegetation for only loss of more than 0.2 acre or 600 linear feet of riparian vegetation? Several patches of riparian vegetation loss less than 0.2 acres can also cause a significant impact. Moreover, cumulative loss of riparian vegetation is a great problem in Santa Cruz County. Accordingly, all riparian vegetation should either be compensated or restored to compensate for the cumulative loss of riparian habitat.

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42) On page 4.4-47, the DEIR states that the threshold of significance for determining when there is a significant impact is when permanent loss of riparian vegetation removal of more than 0.1 acre or 300 linear feet) is derived from the ACOE Nationwide Permit Program, because ACOE reviews all projects over 0.1 acres. However, whether the ACOE reviews a project is not determinative as to its environmental impacts for purposes of CEQA. In fact, the approach followed in the DEIR is similar to the “de minimus” exceptions that courts have held is improper. See *Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal. App. 4th 98. Accordingly, the DEIR must be revised so that a proper threshold of significance is used.

19

43) On page 4.4-61, the DEIR only addresses the impact of fencing at the Arboretum on wildlife corridors. However, given the large expanse of open space that surrounds the University, development in north campus will likely impact wildlife corridors and movements. The DEIR fails to address these impacts. Therefore, it is deficient.

20

44) The DEIR assumes that removal of up to 61 acres of second growth redwood forest and up to 63 acres of mixed evergreen forest is not a significant environmental impact under CEQA. This is a significant removal of trees that any development project reviewed under CEQA would normally require tree replanting and mitigations. It is pure folly for the University to assert that such a loss in acreage of trees is insignificant. The University’s bald assertion is not supported by any standard or evidence, and is the DEIR fails to explain why there is no biological impact. Accordingly, this section of the DEIR must be revised and the impacts of the loss of these forest communities must be analyzed.

21

45) LRDP Mitigation POP-3 states that “The Campus shall work with the City of Santa Cruz to identify means of providing additional housing in the city, including affordable housing, particularly in areas with good access to public transit.” Then on page 4.11-22 the DEIR concludes that LRDP Impact POP-3 is significant and unavoidable. The mitigation proposed is a feeble attempt at best. The University has stated its intention to house up to 50% of the undergraduate population. However, because the impact of the University’s growth directly and indirectly impacts housing availability, the University should incorporate its intentions as mitigation measures. To simply state that the Campus will work with the City is not a mitigation at all, or an attempt at a mitigation, since there is no standard on which to judge such a promise.

22

46) Why has the University not incorporated its commitment to providing housing on-campus as a mitigation measure?

47) Page 4.14-31 states that the Significance Threshold is LOS D for intersection in the lower campus and LOS E for intersections in the central and north campus. This is a completely

23

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arbitrary. What is the basis for these varying Standards of Significance?

23

48) Page 4.14-43 of the DEIR proposes mitigations as if the traffic impacts associated with University growth are unknown. The DEIR concludes that "Campus growth under the 2005 LRDP *would* cause unacceptable levels of service at 121 off-campus intersections." [Emphasis added]. Then LRDP Mitigation TRA-2A states that the University shall review capital project proposed and determine whether "additional traffic generated by the proposed projects would trigger the need for the specific intersection improvements." Then the University is to inform the City if the University determines there is an impact and contribute its "fair share" of costs of the needed improvements. There are many problems with the approach. First, the approach assumes that there will be money from other sources to mitigate for the impacts if the University only pays its "fair share." Second, and perhaps most important, it is clear that population growth on Campus, no matter what capital facilities are constructed, will cause significant traffic impacts. The mitigation measures must be based on student and faculty population, not individual capital projects. Indeed, while the 1988 LRDP population numbers have become a reality, many of the capital projects have not been constructed. Accordingly, any mitigations solely tied to capital projects fails to mitigate for population growth on campus that happens as a result of increased enrollment. Third, the approach proposed by the University would piecemeal contributions to infrastructure designed to solve traffic problems. The capital projects would not all be built at once. So while each project may only contribute a small amount of traffic, together, the University projects contribute a great deal of traffic. So the approach proposed is unworkable rendering the mitigation illusory. Accordingly, the DEIR must simply state there are impacts associated with the 2005 LRDP and the anticipated population growth (even without all the capital projects), and the University must propose mitigations to lessen significant traffic impacts based on campus population rather than separately reviewing each capital project's contribution to overall UCSC traffic.

24

49) LRDP Mitigation TRA-2B states that "UC Santa Cruz shall expand its existing Transportation Demand Management Programs with the objectives of increasing sustainable transportation modes ... above 55 percent... ." The mitigation calls for expansion with no imposed standard. It simply states that there is an "objective." Such a mitigation is illusory because the University is not committing to any standard. If anyone later challenged the program as being ineffective because the University has not met the objective, the University will simply say it is just "objective," not a specific standard. Will the University commit to a specific standard?

25

50) Page 4.15-2, the DEIR states that "under the terms of a 1962 Water Services Agreement between the City of Santa Cruz and the University, the City agreed to provide sufficient water to meet University growth." What provision in that Water Services Agreement states that the City

26

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is obligated to accommodate University growth?

26

51) Page 4.15-2, the DEIR states that "The University does not believe LAFCO approval is necessary for the campus to receive increased service for the development of those portions of the campus that lie in unincorporated County." There appears to be no legal basis for the conclusion that a boundary change for a water service would not need LAFCO approval. What legal authority does the University rely on for its position?

27

52) The DEIR at page 4.15-18 concludes that the increase in water demand is a cumulative impact because "campus growth on its own would not require the City to develop a new water supply source." That is not the standard for determining whether there is a significant use of water by a project that causes a significant environmental impact. CLUE contends that given that the University's growth will account for a sizeable chunk of the future demand within the water district (see Table 4.15-3), the water demand created by the University is actually a project impact, not simply a cumulative impact.

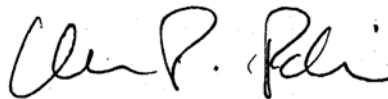
28

53) In light of the fact that the DEIR concludes that the campus growth would not cause the City to develop a new water supply, how can the DEIR then conclude on page 4.15-35 that "based on the data currently available, it is concluded that the City would need to secure a new supply source to meet the increased demand for water." Based on Table 4.15-3, the estimates in the IWP show that over 38% of the anticipated future need for water will be from demand created by the University. Therefore, the University's demand is directly related to the need for a new water supply and the University should be responsible for finding a solution (i.e., mitigation) for the demand it is creating through the 2005 LRDP. Such a mitigation would include funding augmentation of the City's water supply so that the water supply for existing residents is not in threatened with shortages.

29

Thank you for your consideration of these comments. I look forward to receiving your response to these comments and the comments attached hereto.

Very truly yours,  
WITTWER & PARKIN, LLP



William P. Parkin

Encl.



**Response to Comment Letter ORG-7**

**Response to Comment ORG-7-1.** As stated in the first sentence on page 3-11 of the Draft EIR, the Campus uses FTE for enrollment planning. The projected enrollment for the 2005 Draft LRDP is framed in terms of FTE because it reports the academic planning conducted by the Strategic Futures Committee. Because population-related impacts are dependent on headcount rather than FTE, the Draft EIR uses an estimate of the headcount population that would be associated with the 21,000 FTE enrollment proposed in the Draft 2005 LRDP, and compares that projected headcount with the baseline headcount population. It should also be noted that the 2003-04 enrollment numbers cited, which are used as the baseline for the environmental analysis, are headcount, not FTE. The “Notes” to Table 3-1 on page 3-10 indicate that all numbers in that table are headcounts. Undergraduates are only permitted to enroll as part-time students if they can document that they cannot carry a full course load due to employment, family responsibilities or health. As a consequence, between 1990-91 and 2004-05 the ratio of three-quarter average headcount enrollment to three-quarter average student FTE at UC Santa Cruz ranged between 0.99 and 1.02. Therefore, the EIR’s use of the FTE figure, 21,000, as the projected 2020 three-quarter average headcount enrollment in the Draft 2005 LRDP was reasonable. Note that the Campus has revised the proposed LRDP (January 2006) to reflect the Reduced Enrollment Growth Alternative analyzed in the Draft EIR, which includes a projected total student enrollment by 2020-21 of 19,500. The same reasoning applies to the 19,500 student enrollment projections under the Final Draft 2005 LRDP as to the 21,000 enrollment originally projected for the project. Because the EIR analysis is based on headcount, if enrollment would reach 19,500 headcount before 2020, either because of an increase in the proportion of part-time students or because the rate of growth is higher than anticipated, the University would update the environmental analysis in the LRDP EIR at that time. For the summer session, when headcount and FTE are significantly different, the Draft EIR clearly differentiates between the two accounting methods, and uses headcount for the environmental analysis (see the last paragraph on page 3-11 of the Draft EIR).

**Response to Comment ORG-7-2.** The public agency obligations described in the referenced text on Draft EIR page 1-2 are based on Public Resources Code Section 21081 and Sections 15021 and 15091 through 15093 of the CEQA Guidelines. Specifically, under Public Resources Code Section 21081, no public agency shall approve or carry out a project for which an EIR identifies one or more significant effects on the environment that cannot feasibly be mitigated to a less than significant level unless it finds “that specific overriding economic, legal, social, technological, or other benefits of the project outweigh the significant effects on the environment” (See also CEQA Guidelines Section 15093). CEQA does not require an agency to approve a project, however (See, e.g., CEQA Guidelines Section 15092).

**Response to Comment ORG-7-3.** Please refer to Response to Comment ORG-7-2 for information related to agency obligations to make findings under CEQA.

**Response to Comment ORG-7-4.** Please refer to Response to Comment ORG-1-1 for information the Marine Science Campus.

**Response to Comment ORG-7-5.** Please refer to Response to Comment ORG-1-1 for information the Marine Science Campus.

**Response to Comment ORG-7-6.** As stated in the Draft EIR on page 1-4, the enrollment increases that would occur under the proposed 2005 LRDP are in response to both the request from the Office of the

President to consider implementing enrollment increases and the Campus's on-going planning process. As explained in Master Response PD-1, the University of California has not apportioned supplemental enrollment growth in advance for each campus. Rather, the plans for enrollment growth at each campus have been developed through the long range development planning process, subject to environmental review under CEQA.

**Response to Comment ORG-7-7:** Please refer to Master Response PD-1 (Magnitude of Enrollment Growth). Each project proposed under the 2005 LRDP will be subject to project-level CEQA analysis, including a determination of whether any enrollment increase accommodated by the proposed project is within the range of population analyzed in the 2005 LRDP EIR. Additional environmental analysis of the impacts of the increased campus population would be required for any project that would result in enrollment over the planning target of the 2005 LRDP, and an LRDP amendment also would be needed.

**Response to Comment ORG-7-8.** As stated in the "Notes" to Table 3-1 on page 3-10 of the Draft EIR, all population categories are reported as three-quarter average headcount. Therefore, the employee numbers provided on Draft EIR page 3-12 include part-time faculty and staff as well as full-time employees.

**Response to Comment ORG-7-9.** In the last paragraph on page 3-9 of the Draft EIR, "affiliates" refers to people working on or visiting campus who are not students, faculty or staff. This is the category entitled "Other Daily Population" in Table 3-1 (page 3-10 of the Draft EIR). This group numbered an estimated 450 on an average day in 2003-04 and is projected to increase to approximately 700 by 2020.

**Response to Comment ORG-7-10.** Please see Response to Comment ORG-7-1. The referenced text on Draft EIR page 3-12 is not claiming that the environmental analysis is based on conservative assumptions about student population increases through 2020-21. Rather, the text is simply stating that the assumed increase in students through 2020-21 (6,950 students) is conservative, because enrollments have already increased somewhat over the 2003-04 baseline year. As indicated on Draft EIR page 4-2, the conditions in the 2003-04 academic year constitute the baseline against which changes that would result from the LRDP are measured for population-related topics.

**Response to Comment ORG-7-11.** Construction of the first phase of the Ranch View Terrace project (45 houses) is currently scheduled to begin in Fall 2006. The entire project (a total of 84 houses) was approved in 2003. On the basis of current projections of faculty and staff housing demand, it is presently anticipated that construction of the remaining houses will follow shortly on the completion of the first phase of development.

**Response to Comment ORG-7-12.** Some of the storm water drainage improvements included in the Infrastructure Improvements Project Phase 1 and Phase 2 project are planned to correct erosion conditions identified in the 1989 Campus Drainage Plan, which was the basis for two 1988 LRDP EIR mitigation measures that have not yet been fully implemented. Generally, the erosion conditions addressed by the Infrastructure Improvements project cannot be traced to a specific campus action. Projects developed under the 1988 LRDP have complied with campus standards requiring detention of storm water runoff. However, runoff from roads and buildings constructed before these standards were adopted contribute substantially to the problems that are addressed by the proposed improvements.

**Response to Comment ORG-7-13.** Please refer to Response to Comment SA-4-2 regarding the status of implementation of the 1988 LRDP EIR mitigation measures. Please also see Response to Comment

LA-6-7, which explains that if the 2005 LRDP is approved by The Regents, the 1988 LRDP EIR mitigations will be superceded by the 2005 LRDP EIR mitigations, except in cases where the University has separately agreed to carry out a previously approved mitigation measure.

**Response to Comment ORG-7-14.** The EIR has been revised to clarify the method of analysis for aesthetic impacts described on page 4.1-9. Please see Volume IV, Chapter 3, *Changes to Draft EIR Text*, of the Final EIR for text revisions.

**Response to Comment ORG-7-15.** Please refer to Response to Comment LA-2-44 for information about special events related to LRDP Impact AES-6D.

**Response to Comment ORG-7-16.** The impact conclusion related to views from Highway 1, as seen from the Morrissey Bridge (Draft EIR page 4.1-14), does not rely on trees in the foreground obscuring views of the campus in the future, as the trees grow taller. The analysis merely states that this is a possibility. Please refer to Response to Comment LA-9-17 for a discussion of the impact conclusions related to views from Highway 1.

As indicated on Draft EIR page 4.1-13, the off-campus vantage points for visual simulations were selected to provide off-campus viewers a sense of the nature and of the magnitude of the visual change that would result from campus development under the 2005 LRDP. The view from Highway 1 at the Morrissey Bridge is also identified in the City's General Plan as a viewpoint (Map CD-3). The rolling hills of the campus as viewed from this location provide a distant backdrop to fore- and middle-ground views of the Highway 1 corridor. The view from the Morrissey Bridge represents the clearest view of 2005 LRDP-related development from the Highway 1 corridor. Views of the campus from locations east of this vantage point, such as Aptos, would consist of occasional intermittent distant views of the ridgeline near UC Santa Cruz. Please refer to Response to Comment LA-2-38 for a discussion of how the vantage points for the visual simulations were selected.

LRDP Impact AES-6 acknowledges that nighttime lighting would be visible from some off-campus locations. However, LRDP Mitigations 6A through 6E require: (1) the use of non-reflective exterior surfaces in project designs to avoid new sources of reflected light, (2) the use of directional lighting shielded to minimize light spillage, (3) that project designs limit light and glare to the extent allowed by code, and (4) that field lighting be turned off after closing time to minimize night lighting. The Draft EIR concludes that implementation of these mitigation measures would reduce the impact associated with development under the 2005 LRDP related to light and glare on campus and light and glare visible from off-campus locations to a less-than-significant level (Draft EIR page 4.1-21).

It should be noted that the text of LRDP Mitigation AES-6D has been revised in the Final EIR to reflect the existing closing time of the sports and recreation fields, which is 11 PM, not 10 PM as indicated in the measure as presented in the Draft EIR. This change does not affect the overall impact conclusion of less than significant with mitigation, which is based on the full suite of mitigation measures provided in the Draft EIR (LRDP Mitigations AES-6A through AES-6E). Moreover, while the lighted field area may extend over a larger area in and around the East Field complex than currently exists, the 11 PM closing time would be a continuation of existing conditions. Overall, growth and development under the 2005 LRDP, including expanded recreation fields, would not create a new source of substantial light that would adversely affect nighttime views of the area. Please see Volume IV, Chapter 3, *Changes to Draft EIR Text*, Revised Table 2-1 for the full text of revised mitigation measures.

**Response to Comment ORG-7-17.** A number of biological documents have been generated between 2000 and 2005 for the UC Santa Cruz campus. Surveys for special status species were conducted to support each of these documents. Those surveys range from protocol level site-specific surveys to campus wide visual assessments. All available information was considered in drafting the discussion of the California red-legged frog in the LRDP Draft EIR. Specific methodologies can be found in Ecosystems West 2000, Jones & Stokes 2002, Jones & Stokes 2003, Jones & Stokes 2004, and Jones & Stokes 2005.

The Draft EIR acknowledges that some areas of northern maritime chaparral and Santa Cruz manzanita will be removed. LRDP mitigations for impacts to chaparral (LRDP Mitigation BIO-1A, -1B and -1C) have been revised to increase their clarity and efficacy. Please refer to Master Response BIO-1 (Northern Maritime Chaparral and Santa Cruz Manzanita) and Final EIR, Volume IV, Chapter 3, Revised Table 2-1 for the full text of the revised mitigation measures.

**Response to Comment ORG-7-18.** The threshold of significance for temporary riparian impacts is based on the fact that small, disturbed areas in riparian corridors are often rapidly re-colonized by riparian vegetation. Riparian vegetation is generally adapted to chronic disturbance from flooding, and many species can effectively and quickly re-colonize disturbed areas. For example, California hazel and California blackberry, which are common in riparian vegetation on campus, can regenerate through root sprouting after a temporary disturbance (Tirmenstein 1989, Zimmerman 1991). However, a larger area, exceeding the threshold of 0.2 acre or 600 linear stream feet, may require more time for re-colonization, as adjacent undisturbed riparian vegetation would be farther from the center of the disturbed area. Page 4.4-47 of the EIR has been revised to clarify the basis for this significance threshold. Please see Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*. In addition, please see Master Response BIO-2 (Wetland Impacts).

**Response to Comment ORG-7-19.** Page 4.4-47 of the EIR has been revised to clarify the basis for this significance threshold. Please see Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*.

**Response to Comment ORG-7-20.** Please refer to Master Response BIO-5 (Wildlife Movement).

**Response to Comment ORG-7-21.** Please refer to Response to Comment LA-2-67.

**Response to Comment ORG-7-22.** Please refer to Master Responses POP-1 describing housing mitigation measures that have been added to the Final EIR to more explicitly state the University's commitments on addressing housing impacts, and Master Response ALT-5, regarding on-campus housing. The University will continue to work with the City of Santa Cruz in the area of housing development. Where appropriate, the Campus will provide matching funds to support planning. Joint partnership projects will be considered where the financial pro-forma and the market demand matches the requirements of the University housing program. Where appropriate, the University will team with the City to pursue housing grant funds to enhance the development of affordable units that would in part serve the demand of the University on local housing.

**Response to Comment ORG-7-23.** Please refer to Master Response TRAFFIC-1 with regard to campus intersection LOS.

**Response to Comment ORG-7-24.** Please refer to Master Response MIT-1 regarding the University's fair share contributions.

**Response to Comment ORG-7-25.** The current TDM program is already very successful, and as the number of single occupant vehicle trips is reduced, further reduction of these trips becomes more challenging. Because the program's effectiveness is dependent on its acceptance by private individuals, the University has adopted a percentage, rather than an absolute number of trips, as a performance standard.

Moreover, it should be noted that the Draft EIR primarily relies on infrastructure improvements to mitigate traffic impacts, although these improvements are not sufficient to reduce the impacts to less-than-significant levels. The Draft EIR thus concludes that traffic impacts are significant and unavoidable. Through continuing improvement of the ongoing TDM program, the Campus will attempt to limit the rate of growth in traffic. However, the Draft EIR does not conclude that it can eliminate all significant adverse effects.

**Response to Comment ORG-7-26.** Please refer to Response to Comment LA-3-28 regarding the water supply agreements between the University and the City.

**Response to Comment ORG-7-27.** Please refer to Response to Comment LA-5-1.

**Response to Comment ORG-7-28.** Please refer to Section 5.2.15.3 in Master Response UTIL-1, which explains why the analysis of a project-only impact would not be meaningful.

**Response to Comment ORG-7-29.** Please refer to Master Response UTIL-1, Section 5.2.15.3, and LA-3-28 regarding the Draft EIR's conclusions about the effects of growth under the 2005 LRDP on the City's water supply. As stated in the Draft EIR, the University will comply with its fair share fee obligation for public utility upgrades that serve the campus, under Government Code 54999, as discussed in Master Response MIT-1.

LAWYERS FOR  
CLEAN WATER

2005 LRDP EIR Comment  
UC Santa Cruz Physical Planning and Construction  
1156 High Street, Barn G  
Santa Cruz, CA 95064

January 11, 2006

RE: COMMENTS ON 2005 LRDP DRAFT EIR

To Whom It May Concern:

I am writing this letter on behalf of the Coalition to Limit University Expansion ("CLUE") to comment on the Draft Environmental Impact Report ("DEIR") regarding the University of Santa Cruz's ("UCSC") 2005 Long Range Development Plan ("LRDP"). Pursuant to the California Environmental Quality Act ("CEQA"), Public Resources Code §§ 21100, the DEIR must identify and focus on the possible significant adverse environmental impacts of the proposed LRDP. Further, CEQA requires a public agency to adopt feasible mitigation measures in order to reduce or eliminate otherwise significant adverse environmental impacts of the project. *See* Cal. Pub. Res. Code §§ 21002 & 21081(a). This letter focuses on failure of the DEIR to properly address the water quality impacts of the proposed LRDP. Specifically, the DEIR fails to correctly identify who must seek coverage under California's General Construction Permit; it misstates the impact of small construction sites; it improperly assumes that the continued use of existing storm water controls will adequately manage the discharge of pollution to area waters; it incorrectly states the standard for compliance with existing environmental laws; and finally the DEIR fails to account for the environmental devastation caused by urbanization of the UCSC campus.

**I. LRDP Impact HYD-2 – Impact of Construction Storm Water Runoff**

**A. Construction Sites Under One Acre**

The DEIR is incorrect that only construction sites that are one acre or more are subject to the requirements of California's General Construction Permit, National Pollution Discharge Elimination System ("NPDES") General Permit No. CAS000002, State Water Resources Control Board Order No. 99-08-DWQ (hereinafter "Construction Permit"). If a construction site of less than one acre is part of a larger plan of development then that site must obtain Construction Permit coverage or be in violation of the Federal Water Pollution Control Act, 33 U.S.C. § 1251 *et seq.* (hereinafter the "Clean Water Act"). SWRCB Order No. 99-08-DWQ; 40 C.F.R. 122.26(b)(15). All

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construction activity on the UCSC campus associated with the LRDP is part of a common plan of development and must therefore be included in the evaluation of potential water quality impacts in the DEIR.

1

Further, the DEIR explains that for projects under one acre contractors will be required to implement control measures as set forth in the Campus Storm Water Management Plan ("SWMP")<sup>1</sup> and the Campus Standards Handbook. See LRDP Mitigation HYD-2A. As explained more fully below, the existing storm water controls fail to prevent the discharge of pollutants in violation of the Construction Permit. Thus, the adoption of existing controls is an improper mitigation measure because the existing controls do not comply with applicable state and federal environmental laws. To allow the status quo to continue will perpetuate the problem and ensures the further degradation of area waters. Therefore, the DEIR must contain mitigation measures that do not include reliance on a failed storm water control program; instead, the DEIR should evaluate the current program and suggest mitigation or improvements to ensure future impact on water quality is low.

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Finally, the assertion that individual small construction sites by themselves would not result in a significant impact is simply incorrect. For example, in issuing its final regulations in 1990, EPA noted "[e]ven a small amount of construction may have a significant negative impact on water quality in localized areas. Over a short period of time, construction sites can contribute more sediment to streams than previously deposited over several decades." 55 Fed. Reg. 477992 (1990). Therefore, the DEIR must be modified to analyze the potential for significant damage to water quality from all construction sites, including small construction sites.

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**B. The DEIR Must Reflect that Current Construction Activity Impacts on Water Quality are High**

The DEIR incorrectly asserts that because the campus has implemented a Storm Water Pollution Prevention Plan ("SWPPP") for all sites over one acre the potential for construction activity causing water quality impacts or erosion impacts is low. See LRDP DEIR, p. 4.8-29. Without supporting the conclusion, the DEIR asserts that because a SWPPP is required to control erosion at construction sites, construction sites that adopt a SWPPP have a low probability of negatively effecting water quality. *Id.* However, merely preparing and implementing a SWPPP does not ensure water quality impacts will be low if the SWPPP is not adequately drafted and/or implemented. The Construction Permit requires all dischargers to implement Best Available Technology Economically Achievable ("BAT") and Best Conventional Pollutant Control Technology ("BCT") to

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<sup>1</sup> The Regional Water Quality Control Board ("Regional Board") rejected UCSC's SWMP as unacceptable, and therefore the DEIR should not rely upon this document as a meaningful method of controlling storm water pollution.

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eliminate or reduce the discharge of pollutants in storm water. See Construction Permit, Findings #1. Further, the Construction Permit requires the discharger to implement a SWPPP that ensures that storm water discharges do not cause or contribute to the exceedance of any applicable Water Quality Standard (“WQS”). See Construction Permit, Receiving Water Limitations, B(2).

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The reasoning in the DEIR that SWPPP adoption will ensure low water quality impacts is predicated on the assumption that the SWPPP is adequately drafted and implemented. This is not the case at the UCSC campus at this time. Visual observations and storm water samples taken by representatives of CLUE indicate that storm water controls or Best Management Practices (“BMPs”) on campus are not adequately controlling the discharge of pollutants, and water quality is being negatively impacted by construction activity right now. Representatives of CLUE observed failed BMPs, BMPs not present at locations that require storm water controls, and BMPs that were improperly implemented. The result is that sediment and pollutants from construction activity are not reduced or eliminated as required by the Construction Permit and the Clean Water Act. Storm water samples taken by CLUE in December 2005, further demonstrate the failure of the UCSC storm water control measures. CLUE took storm water samples at several locations on the UCSC campus during different rain events to gauge the effectiveness of the BMPs implemented on campus. The results are as follows:

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Date	Location	Pollutant	Sample Result	Benchmark Level <sup>2</sup>
12/1/05	East Humanities	TSS <sup>3</sup>	960 mg/L	100 mg/L
12/1/05	East Humanities	Total Phosphorus	2.1 mg/L	2.0 mg/L
12/1/05	West Humanities	TSS	370 mg/L	100 mg/L
12/1/05	North Humanities	TSS	190 mg/L	100 mg/L
12/1/05	East Field	TSS	280 mg/L	100 mg/L
12/30/05	West Humanities	TSS	150 mg/L	100 mg/L
12/30/05	McHenry Library	TSS	220 mg/L	100 mg/L
12/31/05	West Playground	TSS	200 mg/L	100 mg/L

<sup>2</sup> The Federal Multi-Sector Permit establishes Benchmark Levels that represent pollutant levels that the Environmental Protection Agency (“EPA”) has found to be protective of water quality, 65 Fed. Reg. 64767, Table 3 (October 30, 2000). The Multi-Sector Permit requires a discharger to assess the adequacy of the BMPs by comparing discharge-sampling results to the Benchmark Levels. *Id.* EPA determined that sample results with pollutant concentrations above Benchmark Levels represent a level of concern. The “level of concern” is a concentration at which storm water discharges could potentially impair, or contribute to impairing water quality....” *Id.* As set forth in the Multi-Sector Permit, if a discharge is above the objective Benchmark Levels than the “level of concern” for the permittee is that the current BMPs are inadequately developed an/or implemented.

<sup>3</sup> TSS stands for Total Suspended Solids – a key indicator of the effectiveness of BMPs in controlling the discharge of silt and/or sediment to area waters.



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As the storm water sample results demonstrate, the current storm water control scheme is a failure, and additional construction activities as set forth in the LRDP will exacerbate the problem and continue to degrade water quality. Each of the observations and corresponding storm water samples indicates that UCSC is in violation of the Construction Permit. CLUE intends to send UCSC a 60-day notice of intent to file suit in federal Court, pursuant to the Clean Water Act to address these violations. In the interim, the DEIR must consider the problems that are present now on the UCSC campus, and cannot rely on future SWPPP compliance that is not presently controlling pollution.

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Therefore, the potential impact to water quality is not low, as asserted in LRDP Impact HYD-2, but is in fact high and will continue to be high so long as storm water controls on campus do not reduce or eliminate the discharge of pollutants to area waters as required by the Construction Permit. Thus, the DEIR does not adequately consider the impacts that will occur on campus from future construction activity. The DEIR must be modified to evaluate alternatives and provide mitigation measures that do not rely upon a faulty storm water control program.

**II. LRDP Impact HYD-3 – Impact of the Increase in Pollutants Due to the Increase in Impervious Surfaces**

The LRDP calls for the urbanization of the UCSC campus by significantly increasing the impervious surface areas on campus and removing vegetation that stabilizes erosion. The DEIR asserts that the residual significance of this urbanization is significant and unavoidable. CLUE disagrees both with the standard set forth in mitigation measure LRDP Mitigation HYD-3C and the DEIR's conclusion that the impact of urbanization is unavoidable.

**A. Mitigation HYD-3C Must be Changed to Reflect the Correct Standard of Compliance**

LRDP Mitigation HYD-3C asserts that each new capital project will reduce the volume of runoff to the "maximum extent feasible." This is the incorrect standard for compliance with any of the applicable environmental laws that may govern the discharge of runoff from a capital improvement project. For example, as previously noted in section 1B, the Construction Permit requires the permittee to implement control measures that meet the BAT/BCT standard in eliminating or reducing the discharge of pollutants in storm water. *See* Construction Permit, Findings #1. Further, the SWPPP must ensure that storm water discharges do not cause or contribute to the exceedance of any applicable Water Quality Standard ("WQS"). *See* Construction Permit, Receiving Water Limitations, B(2). California's General Industrial Permit,<sup>4</sup> which governs the discharge

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<sup>4</sup> NPDES General Permit No. CAS000001, State Water Resources Control Board Water Quality Order No. 97-03-DWQ (hereinafter "Industrial Permit").

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of pollutants from all industrial activity except construction and municipal activity, likewise requires strict compliance with WQS. *See* Industrial Permit, Receiving Water Limitations, C(2).

Contrary to the DEIR's assertions, all future capital improvement projects will not reduce the volume of runoff – and thus the amount of pollutants discharged to area waters – to the maximum extent feasible, but rather to the level required by the applicable law regulating that discharge. As noted above, neither the Construction Permit nor the Industrial Permit allows a discharger to reduce the discharge to the maximum extent feasible. Therefore, to comply with either the Construction Permit or the Industrial Permit, all of the future capital improvement projects must ensure that the discharge of pollutants do not cause or contribute to the exceedance of water quality standards, regardless of whether it is “feasible.” *See Defenders of Wildlife v. Browner*, 191 F.3d 1159, 1163 (9th Cir. 1999) (Noting that the EPA must require that States adopt NPDES permits with the level of pollution control “which is needed to implement existing water quality standards without regard to the limits of practicability”). Thus, the DEIR must be changed to reflect that compliance with BAT/BCT and/or water quality standards is mandatory, and the DEIR must evaluate the impact of urbanization using the strict compliance standard.

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**B. The Impact of Urbanization is Not Unavoidable if All Alternatives Are Evaluated**

CLUE agrees that the effects of urbanization is significant but disagrees that it is unavoidable. The impacts of urbanization resulting from large-scale development such as that proposed in the LRDP are devastating. Turning natural vegetated areas into impervious surfaces such as houses, driveways, sidewalks, storm drains, and roads will generate increased storm water and urban runoff. Studies and research conducted by “[r]egional agencies, academic institutions, and universities have identified storm water and urban runoff as significant sources of pollutants to surface waters in Southern California... Development and urbanization increase pollutant load, volume, and discharge velocity” by converting natural pervious ground, which has the ability to absorb rainwater runoff and remove pollutants, to impervious surfaces such as roadways, which act as pollution highways. *See* California Regional Water Quality Control Board, Los Angeles Region, Order No. 01-182, NPDES Permit No. CAS004001, Waste Discharge Requirements for Municipal Storm Water and Urban Runoff Discharges Within the County of Los Angeles, December 13, 2001 (“LA County MSWP”), p. 4. Furthermore, the “increased volume, increased velocity, and discharge duration of storm water runoff from developed areas has the potential to greatly accelerate downstream erosion and impair stream habitat in natural drainages. Studies have demonstrated a direct correlation between the degree of imperviousness of an area and the degradation of its receiving waters. Significant declines in the biological integrity and physical habitat

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of streams and other receiving waters have been found to occur with as little as 10 percent conversion from natural to impervious surfaces. Percentage impervious cover is a reliable indicator and predictor of potential water quality degradation expected from new development.” LA County MSWP, p.5.

The LRDP proposes to convert a significant amount of natural vegetation to impervious surfaces. In Cave Gulch watershed for example, 54 acre of impervious surfaces would be added, 50 acres in the Moore Creek watershed, 54 acres in the Jordan Gulch watershed, and 58 acres added in the San Lorenzo-Pogonip watershed. The DEIR asserts that each new capital improvement project will not increase the peak flow above pre-development levels. However, the current system of dispersing storm water – using a system of culverts, ditches, earthen dams, and the intricate karst drainage system present on campus – is already overwhelmed by the amount of sediment discharged from the current impervious surfaces. *See* DEIR, § 4.8-10-11 (The Stormwater and Drainage Master Plan (Kennedy/Jenks Consultants 2004) explains that current sedimentation from channel incision and other sources has overwhelmed campus sinkholes and that erosion control measures “have not been adequate to stop on-going channel erosion and the spilling over of sinkholes.”). Rather than analyze alternatives to the problem of erosion and sediment control, the DEIR merely acknowledges the problem and then asserts that the problem is unavoidable. The DEIR’s mitigation measure assuring that future peak flows will not be above current peak flows does not ensure that erosion will be controlled because erosion is not currently being controlled.

The DEIR must be modified to first evaluate the extent of the problem and then explore options other than building at the proposed levels. The Regional Board provided comments that call for the DEIR to explore the possibility for low impact development in the LRDP. CLUE seconds this recommendation, and requests that UCSC explore additional alternatives to construction that will reduce or eliminate the environmental impact of the development. The DEIR must require mitigation measures that will not exacerbate the acknowledged problem of increased erosion and sediment discharge on the UCSC campus. Further, additional mitigation measures must be proposed to ensure that the current erosion and sediment problems are not exacerbated by additional construction. The DEIR proposal to meet current standards when the current standards already negatively impact water quality is unacceptable.

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### III. Conclusion

UCSC is located within an extremely sensitive ecosystem that must be protected. As a university with a reputation as an environmentally conscious institution, CLUE calls on UCSC to back up that reputation and adopt a Long Range Development Plan that is eco-friendly. UCSC must cease treating environmental regulations as obstacles that must be overcome to accomplish the goal of expansion, and instead truly evaluate and adopt an Environmental Impact Report that fully evaluates and then mitigates the impact of all proposed construction. CLUE looks forward to working with UCSC to accomplish this goal.

Please call my office with questions about any of the above.

Sincerely yours,

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Michael J. Chappell  
Attorney for Coalition to Limit  
University Expansion

**Response to Comment Letter ORG-8**

**Response to Comment ORG-8-1.** Please refer to Response to Comment SA-3-1.

**Response to Comment ORG-8-2.** Since 1990, in conformity with MS4 Phase I regulations, the Campus has been implementing SWPPPs at all construction sites 5 acres and larger. Since 2003, in conformity with MS4 Phase II requirements, the Campus has implemented erosion control measures at construction sites 1 acre or more in area. Under the 2005 LRDP, the Campus has proposed to voluntarily extend the requirement that erosion control measures be implemented at all construction sites, even those that are smaller than 1 acre (LRDP Mitigation HYD-2A). Furthermore, LRDP Mitigation HYD-2B would prohibit grading on all hillsides with slopes greater than 10 percent during the wet season unless specific controls that prevent sediment from leaving the site are implemented. Also see Response to Comments ORG-8-4 and ORG-8-5.

**Response to Comment ORG-8-3.** Although it is true (as noted in the federal regulations) that even small construction sites can result in discharge of pollutants into storm water runoff, because of their small scale and limited area of disturbance (less than 1 acre) releases from any one such site would likely not result in a significant impact on water quality. However, as noted in the Draft EIR (page 4.8-29) the combined releases from several such sites could significantly and adversely affect water quality. For that reason, the Draft EIR includes mitigation measures that impose controls on all construction sites regardless of size. Please refer to Response to Comment ORG-8-2.

**Response to Comment ORG-8-4.** The analysis in the Draft EIR, assumes that a SWPPP will be implemented properly. It would not be correct to assume that proposed mitigation measures will not be implemented or that the University will not comply with applicable laws and regulations. Moreover, the Campus is in compliance with its NPDES Construction Permits (see UC Santa Cruz communication with the Central Coast Regional Water Quality Control Board (CCRWQCB), April 13, 2006; CCRWQCB communication with UC Santa Cruz, May 26, 2006). The Campus will implement structural controls as needed, as part of its construction BMPs. Implementation of these BMPs will ensure compliance with BAT/BCT under the construction general permit. See also Response to Comment ORG-8-2.

**Response to Comment ORG-8-5.** This EIR analyzes the impacts of development under the 2005 LRDP from 2005 to 2020. The EIR compares the proposed development to existing environmental conditions at the time the notice of preparation was issued. The benchmark levels provided in the tables in the commenter's letter are for storm water discharges from industrial sites, and are not relevant to the construction sites. Also see Response to Comment ORG-8-4.

**Response to Comment ORG-8-6.** The BAT/BCT requirements of the Construction Permit do not apply in the context of LRDP Mitigation HYD-3C. Impact HYD-3 addresses the potential water quality impact from the activities on the campus as expanded under the 2005 LRDP. As a MS4 Phase II non-traditional storm water operator, ongoing activities on the campus as a whole are regulated by a NPDES general municipal permit. Therefore, the University has prepared a Storm Water Management Program (SWMP), which is currently under review by Regional Water Control Quality Board. It is the intent of the University that its SWMP will comply with the California general municipal permit. The SWMP, in conjunction with the mitigation measures identified for LRDP Impact HYD-3, will control pollution of urban runoff currently generated on the campus and additional runoff that would be generated by campus

growth under the 2005 LRDP. With respect to municipal urban runoff, Phase II communities are required to control urban runoff pollution “to the maximum extent practicable,” and are not required to meet any numeric water quality standards.

The fleet service facility on the campus falls under relevant Standard Industrial Classification (SIC) codes, and is regulated under California's General Industrial Permit. The Campus may construct additional facilities under the 2005 LRDP that would also fall under listed SIC classifications, and runoff from such facilities would conform with the requirements of the General Industrial Permit.

**Response to Comment ORG-8-7.** Please refer to Master Response HYDRO-1, which explains why the Draft EIR concludes that LRDP Impact HYD-3 would be significant and unavoidable. The observation that erosion is an existing problem does not imply that no future controls will work. The Campus is proposing to implement storm drainage improvements as part of the Infrastructure Improvements Project (see Volume III of Draft EIR) to repair existing problems. In addition, the proposed controls included in revised LRDP Mitigations HYD-3C and HYD-3D will be designed to control not only peak flows but also the volume of runoff. (Please see Final EIR, Volume IV, Chapter 3, Revised Table 2-1, for revisions to the mitigation measures). Controlling these parameters will limit the duration of flows. Therefore, it is anticipated that implementation of the storm drainage improvement projects and the new controls will be more effective at controlling erosion than the previous control measures.

Reply-To: johnaird@earthlink.net  
From: "John Aird" <johnaird@earthlink.net>  
To: lrdp-eir@ucsc.edu  
Subject: Comments on Draft EIR  
Date: Wed, 11 Jan 2006 13:39:43 -0800

To: John Barnes  
To: Whom It May Concern

Please find attached my comments formally submitted on the Draft EIR.  
Should there be any questions or need to reach me, this can be done by  
calling me at (831) 429-1361 or email at the below address.

Thank you.

John Aird  
<mailto:johnaird@earthlink.net>johnaird@earthlink.net

SUBMITTED DRAFT EIR COMMENTSComments on Noise – Section 4.10**General Introductory Comment:**

I live at 304 High Street, virtually at what UCSC has essentially turned into the “loading ramp” to the University. The unacceptable 65-70 dbl noise currently created by UCSC traffic that is now being experienced by those living in this single-family residential neighborhood along this expropriated UCSC traffic corridor is roughly similar to having to endure a lawn mower engine’s noise at 100 feet...all day long! According to the LRDP (and anyone unlucky enough to live along this corridor), this is also akin to listening to a vacuum cleaner at 10 feet...all day long! Regular out-door conversations are virtually impossible, as is the kind of relaxation a home setting should afford, and often much sleep is lost when the rumble of large trucks rev and climb to the “City on the Hill”. To achieve some level of mitigated relief, I have had, at a personal cost of in excess of \$30,000, to install double-pane windows throughout my house. The fact that a resident living on one of the University’s proclaimed “access routes” would **need** to do this in order to reduce, although certainly not resolve, this unwarranted intrusive noise is an outrage and is factual documentation of the failure of any effort on the part of UCSC to mitigate its last cycle of growth (the 1988 LRDP).

The city and state standards for such low density single family neighborhoods is not supposed to exceed 60 dbl, and yet due to UCSC growth over the past 15 years, the noise due to traffic along the *quietest portion* of High Street currently exceeds this limit 16 out of every 24 hours (from 6 am to 10 PM), with periods in which noise reaches levels in excess of 65 dbl (Figures 4.10-1 and 4.10-2). Two reference examples: (1) seated on my front porch (over 40 feet from High Street) one afternoon some months ago, Council Member Ed Porter and I took sound readings which regularly exceeded 70 dbl.; (2) it is virtually impossible to have a regular conversation at my neighbor’s house, living at 917 High Street, without retreating to a back room and shutting all the doors in between that face High.

Obviously increasing the present amount of UCSC traffic by a projected 37% over the next 20 years cannot but have a significant impact on these already unacceptable ambient noise levels in these residential neighborhoods, and yet, the conclusion of this severely flawed EIR is that cumulative noise impacts on off-campus areas (“NOIS-2”) will be “*insignificant*”! The assertion that only a 0.8 % increase in traffic noise will result in areas like High Street is laughably ingenuous and is a result of a severely flawed analysis.



Specific Comments

**Impact "NOIS-1"**

At least one additional mitigation measure will be necessary to reduce short-term and long-term traffic-induced noise impacts due to construction and maintenance of the expanded UCSC to off-campus neighborhoods. **A specific clause should be included in every UCSC service, delivery, building and maintenance contract (and sub-contract) that states that "All trucks over 2 tons driven to or from UCSC by contracted or subcontracted firms MUST use the designated truck route (Mission to Bay Street) to the University. Such trucks should specifically be prohibited from using cut-through routes through residential neighborhoods like King, High, Escalona, etc. Repeated violations of such prohibitions will result in fines and eventually the prohibition of applying for future UCSC contracts."** The respective monitoring, enforcement, and jurisdictional responsibilities and roles of the City of Santa Cruz Police and UCSC traffic enforcement should be clearly negotiated and outlined in the LRDP, identifying who can ticket such violating vehicle, etc. Monitoring for violations could be done using traffic cameras installed by UCSC and made available to the city police and neighborhood watch-dog groups on a daily basis via the internet to identify specific violators.

1

**Impact "NOIS-2"**

1. The four noise measurement locations in the surrounding off-campus neighborhoods were not selected so as to detect the "reasonable worst-case noise increases", as asserted on page 4.10-18. In particular, the only monitoring location along the High Street corridor, (one of the noisiest campus routes) is LT-3 at 955 High Street, which is on a level stretch of road near the campus entrance where engine noise is predictably much lower when compared to other blocks along High Street. **There should be at least one long-term noise monitoring location located along the most historic and unfortunately the noisiest portion of High Street: the 1-mile stretch of up-hill grade from the 300 block to the 700 block.** In this area, the revving of vehicles engines creates the loudest traffic noise in the study area, with current levels often above 70 dbl as previously cited, and where proposed future development noise impacts are likely to be greatest. This stretch of roadway has borne the brunt of the noise impacts due to past UCSC growth and yet there have never been any permanent noise monitoring locations set up in this historic residential area. Such monitoring was warranted 20 years ago; it is absolutely essential now! **Specifically, a noise monitoring location should be established in the 300-700 block in early 2006 and the corresponding baseline results and the anticipated impacts to this area should be incorporated into the final draft of the UCSC LRDP EIR.**

2

2. **There is a flaw in the TNM noise prediction model if it predicts that the projected 37% increase in vehicle traffic over the next 20 years due to the LRDP growth will “not result in a noticeable increase in ambient noise levels” at modeled off-campus neighborhood locations.** To go from the current ~25,000 daily UCSC vehicle trips through the west-side of the city to over 34,173 trips per day in 2020 cannot help but result in a “noticeable” amount of traffic noise! The flaw is likely that the TNM model incorrectly predicts a very large increase in traffic in the campus area *even without the campus expansion*, based on AMBAGs **County-wide** population and employment projections for the next 20 years. While the number of people and jobs in the *COUNTY* will undoubtedly go up in the next 20 years, it does not follow that that growth and traffic will beat a path to the UCSC door and increase the amount of vehicle trips and noise in the *west-side neighborhoods* by this amount. While portions of Highway 1 and Highway 17 are bound to be adversely affected by south-county growth in jobs and homes and population, it does not follow that UCSC entrance traffic will go up in proportion to the south-county growth projected by AMBAG. By grossly overestimating the amount of increase in traffic noise in the Westside due to non-LRDP growth, the EIR presents the amount of LRDP-induced noise impacts as relatively insignificant and unnoticeable in comparison, when in fact they will be neither. **Table 4.10-5 on page 4.10-18 predicts that the amount of noise increase to upper High Street (at LT-3) as result of traffic due to the LRDP growth will be less than 1% in 20 years! (0.8% to be exact).** Yet **this same document predicts that the number of vehicles trips to/from the university due to campus growth will go up 37%, from the current 25,000 trips/day by at least 9,343 trips per day! Any model which predicts a 37% increase in UCSC traffic with a less than 1% increase in traffic noise is just simply not credible.** The reasonably predictable noise impacts of UCSC growth are not accurately derived nor clearly disclosed in the EIR, and this must be remedied by adding some more sophistication to the models. Again, this entire section should be viewed as incomplete. It should be redone and circulated again for public review and comment.

3

#### Comments on Traffic – Section 4.14 and Appendix e, Traffic

The current massive and unacceptable UCSC-related traffic impacts on the Westside residential neighborhoods are as a direct result of the failure by the University to implement any significant mitigations identified in its 1988 LRDP and related EIR. Specifically, the one identified mitigation which could and would have done the most to dramatically reduce traffic load levels on these neighborhoods, **an Eastern Access**, was not pursued at all. Further the Joint City-University Master Transportation study of two years ago identified this issue as one that would not be addressed in that study, implying that it would more appropriately be part of the University’s future updated LRDP. Yet, the now updated proposed 2005 LRDP and this related DEIR fail to seriously address this issue.

4

I would strongly submit that any list of identified mitigations for the significant and unacceptable traffic impacts on the entire Westside residential community that fails to include a time-certain commitment to the implementation of an eastern access route of some type should be viewed by definition from the outset as unacceptable. *An eastern access route has been identified as a need since the founding of the University, has repeatedly been cited as a necessary mitigation in past LRDPs, and must be addressed now.* Therefore, this entire section should be withdrawn until a major section addressing this needed and feasible mitigation is included.

4

**Comments on Project Alternatives – Section 5.0**

This component part of the DEIR is woefully deficient. The identified alternatives are superficially analyzed and other alternatives that could and should be included are not considered. One example would be a student-population growth plan which is limited (+/-1000 students) to “round out” existing academic offerings, but expressly not adding any new ones either at an undergraduate or graduate level which might just as well (and probably better) be accommodated at another campus elsewhere. Therefore, this section should be seen as incomplete.

5

Given the extent of the identified negative impacts of the proposed LRDP on the Santa Cruz community and environment as a whole **and the inability for these impacts to be credibly mitigated** (by UCSC’s own admission even in this deficient DEIR), it is absolutely necessary that this “alternatives” section be completely redone so that a credible comparison might be drawn between the proposed plan and other viable options. **This is arguably the most critical component of the entire DEIR and should receive the most serious and exhaustive analysis as a result. Clearly, this DEIR fall very, very far short of meeting that standard and therefore must be redone.**

**Final Comment relative to “baseline” used in DEIR**

Given the acknowledged failure of the University to implement many of the previous identified mitigations approved and committed to as part of the 1988 LRDP, the University should **now in this DEIR, in each and every instance where such a specific circumstance so exists, use as its baseline for impact and mitigation not a 2005 level, but the unaddressed or “underaddressed” baseline level as it existed in 1988.** Failure to do this would have the effect of *effectively accepting* past levels of negative impact where mitigations were identified, approved, but not implemented. This, I believe does not meet the specific requirements of CIQUA **and certainly not its broad purpose or spirit.**

6

**John C. Aird  
304 High Street  
Santa Cruz, Calif. 95060**

**Response to Comment Letter I-1**

**Response to Comment I-1-0.** The Draft EIR page 4.10-9 characterizes the ambient noise levels along High Street. Based on measurements conducted in conjunction with the preparation of the Draft and the Final EIR, existing ambient noise levels in the 900 block of High Street are calculated to be 69 dBA  $L_{dn}$  or 70 dBA CNEL. Near the eastern end of High Street close to its intersection with Highland Avenue, the ambient noise levels are calculated to be 66 dBA  $L_{dn}$  or 67 dBA CNEL (see Response to Comment I-1-2 below; definitions of the noise descriptors dBA,  $L_{dn}$  and CNEL are provided in the Draft EIR, pages 4.10-2 to 3). These noise levels exceed 60 dBA CNEL, which is the standard that is applied to single-family residential areas.

The Draft EIR Figure 4.10-3 shows that noise levels along High Street exceed 60 decibels during a substantial portion of a day, and during some hours approach 70 decibels. Noise levels over 70 decibels could occur on occasions depending on the specific traffic and other conditions at the time that the measurement is conducted. Note that noise levels associated with the operation of a vacuum cleaner or a lawn mower shown on Draft EIR Figure 4.10-1 are expressed as a short-term energy average sound level ( $L_{eq}$ ). If the vacuum cleaner or lawn mower were to operate continuously for one hour, the  $L_{eq}$  would represent the hourly  $L_{eq}$ . Thus, only the occasional periods when traffic noise is over 70 dBA would the traffic noise be comparable to the lawn mower or vacuum cleaner. Averaged over a 24-hour period (with the  $L_{dn}$  or CNEL penalties added) the noise levels for the noisy devices would be equal to about 77 dBA CNEL. Therefore, daily exterior noise levels along High Street due to traffic are not comparable to the noise from a vacuum cleaner or a lawn mower.

The incremental traffic that would be added to High Street as a result of the implementation of the 2005 LRDP would increase the noise levels by 0.8 decibel (not 8 percent, as suggested by the commenter) in the 900 block and about 0.2 decibel near the High Street/Highland Avenue intersection. Because the increase would be less than 3 decibels, and thereby would not ordinarily be noticeable against the existing ambient noise, the impact would be less than significant. Please also refer to Response to Comment I-1-3 below regarding the relationship between traffic volumes and decibel increase in noise levels.

**Response to Comment I-1-1.** LRDP Mitigation NOIS-2 has been added to the Final EIR that states that campus design standards and contract specifications will be amended to require that UC contractors use only truck routes for truck traffic accessing the campus. Truck routes are designated by the City and violators would be subject to enforcement and penalties by the City.

**Response to Comment I-1-2.** It is not possible to monitor or model noise levels at every residential receptor. As explained on page 4.10-8, noise monitoring locations for measurement and modeling were selected at existing residential receptors along major roadways that are used to access the campus. The noise monitoring location at 955 High Street was selected because this is closer to the campus entrance and almost all of the traffic that travels to and from the campus via High Street passes by this location. Because traffic volume is highest at this location, the traffic noise levels under existing and future conditions would be expected to be greater at this location than at the eastern end of High Street along the 300 to 700 blocks.

In response to the commenter's concern about potentially higher noise levels along the 300 to 700 blocks on High Street from vehicles accelerating on the up-hill grade along that portion of High Street, a 24-hour

noise measurement was conducted at the northeast corner of the intersection of High Street and Highland Avenue (within the 300 block on High Street). There is a stop sign on Highland Avenue at this intersection, and all vehicles bound for High Street must come to a halt and then execute a left turn on to High Street. All vehicles therefore are accelerating up High Street not only due to the grade of the roadway but also in starting up from the stop sign. Therefore, this location potentially could experience higher levels of traffic noise than locations along the flatter sections of High Street. The long-term noise measurement, conducted on April 18 and April 19, 2006, shows that the 24-hour  $L_{eq}$  is about 63.8 dBA and the CNEL is 66.5 dBA. This is lower than the measured noise level at 955 High Street, which as shown in the Draft EIR Table 4.10-2, is about 66 dBA  $L_{eq}$  and 70 dBA CNEL. Therefore, the analysis in the Draft EIR that uses the 955 High Street location as representative of all locations on High Street is adequate, in that the baseline noise measurement encompasses the upper range of traffic noise on High Street.

**Response to Comment I-1-3.** Please refer to Responses to Comments LA-6-88 and LA-2-149 regarding the traffic projections used in the Draft EIR traffic analysis. The traffic analysis does not assign a substantial amount of traffic from other employment growth in the region to streets such as High Street and therefore the project's noise impact is not diluted. This can be seen from the noise increase estimated for High Street. As shown in Table 4.10-5 in the Draft EIR, noise levels at LT-3 (High Street receptor) would increase by 1 decibel over existing noise levels, with 0.8 decibel out of 1 decibel as a result of LRDP-related traffic. Outside of a controlled laboratory environment, sound level changes of one decibel are rarely perceptible. If the traffic model had assigned a substantial amount of traffic from other employment growth to High Street, the proportion of noise increase due to the LRDP-related traffic would have been much lower.

The relationship between traffic volumes and noise levels is not linear. Therefore, a 37 percent increase in traffic volume does not necessarily increase noise levels by 37 percent. As stated in the Draft EIR (page 4.10-3), generally, it takes a doubling of traffic to result in a 3 decibel increase in noise from traffic. The proposed project would not double the traffic along High Street or any other residential street leading to the campus and therefore there would be no increases by as much as 3 decibels. A specific traffic volume increase of 37 percent would result in a less than 1.4 dBA increase in traffic noise. Also, note that Table 4.10-5 indicates that traffic noise at monitored location LT-3 would increase by 1 dBA as a result of 2005 LRDP traffic--not 1 percent as indicated by the commenter.

**Response to Comment I-1-4.** Please refer to Master Response TRAFFIC-3 (Traffic Standards of Significance).

**Response to Comment I-1-5.** See Master Response ALT-3 for discussion of the adequacy of range of alternatives considered, and the capability of the alternatives analyzed to reduce significant impacts of the proposed project. Additional discussion of enrollment targets and alternative enrollment numbers is provided in Master Responses PD-1 (Magnitude of Enrollment Growth) and Master Response ALT-1 (Appropriate Enrollment Level for Reduced Enrollment Growth Alternative). Master Response ALT-2 (Proposed Program Growth at Another UC Campus or New Site) addresses issues related to accommodating projected growth at other campuses. Additional discussion of the Silicon Valley Center alternative is presented in Master Response ALT-4 (Moffett Field Satellite Campus/ Silicon Valley Center Issues) and Responses to Comments I-26-2 through -4, -7 and -8, below. Responses to Comments LA 9-136 through -139 and I-26-2 through -4 also provide more information on the Fort Ord Alternative.

**Response to Comment I-1-6.** On the campus’s history of implementing mitigations from the 1988 LRDP EIR, please see Response to Comment SA-4-2 and LA-6-7. As discussed on page 4-2 of the Draft EIR, the CEQA Guidelines (Section 15125) state that the “baseline physical conditions” against which project-related changes can be compared normally are the physical conditions that exist at the time the Notice of Preparation is published. Using 1988 as the baseline for impact analysis and mitigation would not be consistent with this guideline.

To: University of California, Santa Cruz Long-Range Development Plan Committee

From: Holly Alpert, Graduate Student, Environmental Studies Department

Date: January 11, 2006

Re: Draft EIR Comments

Listed below are my comments and questions regarding the draft environmental impact report for the campus LRDP.

- LRDP Impact BIO-1: “The Campus shall also avoid Santa Cruz manzanita occurrences that are large (greater than patch size of 2 acres) or of high or moderate density, when possible.” There are two issues here. It may be important to leave intact patches of Santa Cruz manzanita that are smaller than 2 acres, particularly if they provide corridor access between or among larger patches. Also, I was not able to find any quantitative definition of high or moderate density. This is important to define *a priori*, before any field surveys begin, so that there is agreement on how to quantify density. 1
  
- LRDP Impact BIO-3: Impacts on wetlands. I appreciate the commitment in the mitigation measures to retain a qualified biologist, particularly because there are clearly many unknown aspects of this habitat. 2
  
- LRDP Impact BIO-6: Spread of noxious weeds. While the draft EIR accurately characterizes both the current status and potential threat of invasive species in the future, I would like to reiterate the crucial nature of this issue. Invasive plant species have altered the composition and structure of many native plant communities. Coastal prairie, which is the first community to greet visitors to the campus, is already highly impacted by invasive species and likely maintains a substantial seed bank of invasives. It is known that soil disturbance and habitat degradation promote the establishment of invasive species, and increased vehicular and foot traffic will increase the probability of seed dispersal. The mitigation measures outlined in this section should be augmented by ongoing monitoring of invasive species presence and abundance. Furthermore, it would be useful to see a more comprehensive list of best management practices planned or anticipated for new development 3
  
- LRDP Impact BIO-7: Ohlone tiger beetle habitat. The mitigation measure for this section includes increased patrolling by UC Santa Cruz Police and Campus Maintenance Staff, but it does not specify how the patrolling will be prioritized. More specifically, both the police staff and campus maintenance staff operate with limited resources. Will additional staff be hired just for patrols? Will existing staff members be utilized? If so, who will perform their other current job duties? In addition, these patrol agents must be responsible for all beetle habitat on campus, regardless of the land designation (e.g. Campus Natural Reserves, Campus Habitat Reserve, etc.). For instance, my experience with the Campus Natural Reserve office is that they are sorely understaffed and would not be able to take on the additional responsibility of patrolling beetle habitat for illegal 4

mountain biking without additional staffing and financial resources. To say that there will be increased patrolling is a step toward mitigation, but to ensure that the campus has the resources to see such increases through is even more important.

4

- Biological Impacts, general: What is clear after reading through these impacts and proposed mitigation measures is that much is still unknown about the ecology of the campus, its habitats, and its species. Baseline data are lacking for many of the special-status species and species of interest. It seems that this would be an opportune time to implement a comprehensive data-gathering and monitoring program that would commence concurrent with new development and continue in perpetuity. This would provide ample teaching and research opportunities for faculty and students while providing campus officials with much-needed data. The contributions to the research literature could be substantial. Such research would also be useful in future long-range development plans. Funding for research and monitoring projects could come from the money earmarked for mitigation of biological impacts.

5

- LRDP Impact UTIL-5: Electricity supply. While it is evident that campus planners have thought carefully about energy efficiency and conservation, it is inevitable that overall demand for electricity will increase. Page 4.15-19 states: "...it was assumed that 100 percent of power would come from the standard grid, powered by fossil fuel-generated power." Chapter 4.15 does not address greenhouse gas emissions attributed to such additional power generation. Even if this electricity (and natural gas) is produced somewhere else, these emissions can be attached to UCSC's demand for power and thus they should be listed among environmental impacts. Furthermore, increased emissions need to be viewed in light of California's state-wide commitment to control emissions.

6

- LRDP Impact UTIL-9: Water availability. The EIR recognizes the "significant and unavoidable" impacts of campus growth on the city's water supply. I agree with the conclusion that while conservation measures can reduce reliance on potable water, particularly in drought years, additional water supply will be necessary, both for the city and for the University. I would urge campus planners, in conjunction with city water planners, to consider the various impacts of climate change that could be imminent in the next 15-20 years. Changes in the magnitude and timing of precipitation may cause the most significant impacts. Such changes would introduce more variability into water planning and reduce reliance upon current surface supplies.

7

Thank you for your consideration of these issues.

Holly Alpert  
 Environmental Studies Department  
 halpert@ucsc.edu



## Response to Comment Letter I-2

**Response to Comment I-2-1.** While small patches of Santa Cruz manzanita may indeed be used for movement by some wildlife species, a substantial corridor of chaparral, chaparral-forest transition, and mixed evergreen forest will remain undeveloped in the north campus area. Therefore, wildlife movement between patches is not expected to be significantly affected by the development areas proposed in the north campus. For information on Santa Cruz Manzanita density ranges and mitigation of impacts, please refer to Master Response BIO-1.

**Response to Comment I-2-2.** Comment noted.

**Response to Comment I-2-3.** The University acknowledges that increases in the relative and absolute cover of invasive plant species could have a substantial adverse effect on common and sensitive biological resources, as discussed on page 4.4-48. In addition to LRDP Mitigation BIO-6 (see pages 4.447 and -48), which requires the use of weed-free materials and other best management practices (BMPs), two other mitigation measures will be effective in reducing the impacts of non-native invasive species on sensitive biological communities. LRDP Mitigation-BIO 2A (see page 4.4-42) requires that a buffer be maintained between development and coastal prairie to reduce increases in non-native species. Landscaping within that buffer must not use plant species that are invasive in coastal prairie. LRDP Mitigation BIO-1B (see Draft EIR page 4.4-39) stipulates that management of protected northern maritime chaparral must prevent increases in the relative cover of non-native species.

Best Management Practices (BMPs) are typically site specific, depending to a large degree on the activities entailed in individual projects. Due to the programmatic nature of this document, it is not appropriate to specify additional BMPs in the EIR. Relevant BMPs will be identified for specific projects and activities as they are proposed.

**Response to Comment I-2-4.** LRDP Mitigation BIO-7A will adequately protect Ohlone tiger beetle populations by closing trails during critical period of the year, raising awareness, providing protective fencing, and utilization of patrols during critical periods. The intent of LRDP Mitigation BIO-7A was to limit bicycle use only between January and June. LRDP Mitigation BIO-7A has been revised for clarification. Please see Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*, Revised Table 2-1, for text of the revised measure.

**Response to Comment I-2-5.** The comment is noted. However, no such data collection and monitoring program is anticipated at this time.

**Response to Comment I-2-6.** The Draft EIR acknowledges that increased demand for electricity on the campus under the 2005 LRDP could, in conjunction with other regional demand, result in the need for more generation capacity. Please see Draft EIR pages 4.15-27 and 4.15-41. However, as discussed under LRDP Impact UTIL-10, it would be speculative to predict where the regional generation facilities would be located or what the impacts from their operation and construction (including air quality impacts) would be. If these facilities were to be built within California, such facilities would be required to undergo separate environmental review under CEQA.

**Response to Comment I-2-7.** Comment noted.

UC Santa Cruz 2005 Long Range Development Plan  
Draft Environmental Impact Report

NAME: Eitan Atshuler DATE: 11/16

ADDRESS: 510 Lincoln St. #2  
Santa Cruz, CA 95060

PHONE: 757-375-6975 EMAIL: mog025@yahoo.com

AFFILIATION: UCSC Student

COMMENT:

Those trees are sacred - Taking  
away the natural beauty will destroy  
Santa Cruz intellectual culture. Let's not  
make it just another UC

1

- The new buildings are hideous &  
embarrassing.

2

- Don't Touch Tree 9

3

- Save the Trasher Park at UCSC

4

- More aesthetically pleasing buildings

5

Place your comment in the box provided at the back of the room, or  
mail written comments regarding the Draft EIR addressed to:

2005 LRDP EIR Comment  
UC Santa Cruz Physical Planning and Construction  
1156 High Street, Barn G  
Santa Cruz, California, 95064

### Response to Comment Letter I-3

**Response to Comment I-3-1.** The comment indicating that the trees are sacred is noted for the record. Tree removal to allow for development proposed in the 2005 LRDP would be minimized with implementation of LRDP Mitigations AES-5A through -5D. Please also refer to Response to Comment LA-3-9 for revisions to proposed LRDP aesthetic mitigations and Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*, Revised Table 2-1.

**Response to Comment I-3-2.** As indicated on Draft EIR page 4.1-10, the visual simulations were based on general building massing and height information, as project-specific design information was not available for envisioned development. The simulations are not intended to represent a full and precise illustration of individual buildings' aesthetic and architectural details, such as exterior colors, construction materials, window placement, etc. Also, please see Response to Comment LA-9-17.

**Response to Comment I-3-3.** Please refer to Response to Comment I-8-1.

**Response to Comment I-3-4.** Please refer to Response to Comment LA-2-92 regarding the Campus Trailer Park.

**Response to Comment I-3-5.** Please refer to Response to Comment I-3-2.

UC Santa Cruz 2005 Long Range Development Plan  
Draft Environmental Impact Report

NAME: Jeff Arnett DATE: 11/30/05

ADDRESS: Porter College

PHONE: 459-3640 EMAIL: jarnett@ucsc.edu

AFFILIATION: UCSC Faculty

COMMENT:

It's difficult to determine where the major road (from the Crown/Memill apartments to Empire Grade) will run. Your maps seem to show it following much of the existing Fuel Break Road or along the existing Chinquapin Road or somewhere between the two. Which is it?

1

Place your comment in the box provided at the back of the room, or mail written comments regarding the Draft EIR addressed to:

2005 LRDP EIR Comment  
UC Santa Cruz Physical Planning and Construction  
1156 High Street, Barn G  
Santa Cruz, California, 95064

#### Response to Comment Letter I-4

**Response to Comment I-4-1.** The precise alignment of the new north loop road has not been determined. However, while it is anticipated that portions of the road would follow existing fire roads, the road would be in currently undeveloped land along most of its length.

Date: Mon, 2 Jan 2006 18:34:44 -0800  
To: lrdp-eir@ucsc.edu  
From: Jeff Arnett <jarnett@ucsc.edu>  
Subject: EIR Concerns

To Whom It May Concern:

I have several concerns about the University's Long Range Development Plan, particularly in Chapter 2, "Summary of Environmental Impacts and Mitigation Measures." I have listed these concerns and questions below and trust you will respond to each one seriously.

1) I find no mention in your report of the endangered San Francisco Popcorn flower, which reportedly grows in Marshall Field and would be further endangered by any development of that area. In fact, in BIO-5, you state that development "would not result in an adverse impact, directly and indirectly, to special-status plant species." Have you overlooked this species entirely? If so, why?

1

2) You do not mention, specifically, the native American burial grounds that reportedly exist in the Marshall Field area. Have you overlooked this important historical/cultural resource? Is it outside the development areas? In fact, in Section 2-23, in CULT-1, you state that the development "could damage or destroy an archaeological resource" but other than trying to find out what might be permanently destroyed or disturbed, you cite no mitigating measures. Why not?

2

3) I find no mention in your report of the stand of Chinquapin trees near Chinquapin Road. As one of the few remaining stands of the road's namesake, has this important botanical resource been overlooked? If so, why?

3

4) In Section 2-12 of your summary (AIR-6), you mention that construction activities "could potentially result in a substantial health risk to campus occupants at certain on-campus locations from short-term exposures to TAC's." What on-campus locations have you identified? Your mitigation measures include, "Require construction contractors to minimize the simultaneous operation of multiple pieces of equipment at a construction site." Who would enforce this mitigation measure?

4

5) In Section 2-12 (BIO-1), you mention the LRDP "could result in a substantial adverse effect . . . on northern maritime chaparral." Your mitigation measures (BIO-1A) indicate they would be employed "when possible." Given this is such a vague term, who determines when it is possible to avoid this "substantial adverse effect"?

5

6) In BIO-2, you cite "substantial adverse impact to coastal prairie, a sensitive natural community." Your mitigation measures (BIO-2B) mention "unavoidable losses" being mitigated by "restoring the coastal prairie at a 3:1 ratio." Where will you restore such potentially large areas of coastal prairie?

6

7) In BIO-4, you speculate that the construction of bridge crossings "and other improvements . . . could result in a substantial temporary and permanent adverse impact on riparian vegetation." How can the impact be temporary and permanent? Isn't it one or the other? Are these "bridge crossings" indicated on the LRDP plans as presented on your web site?

7

8) In BIO-7, you state that development "could result in a substantial adverse impact on Ohlone tiger beetle populations . . . from increased bicycle use on trails and obstruction of potential movement corridors by trees planted in the Arboretum." In BIO-7A, you mention mitigation measures that include prohibiting bicycles on trails in Marshall Field. You go on to state the UCSC police or campus maintenance staff "shall also patrol these areas during this period (larval development?). Can you really assure us that campus staff, already stretched thin, will be available to effectively patrol these areas during the many hours of daylight that mountain bikers traverse Marshall Field?

8

9) In BIO-9, you state that development "could result in a substantial adverse effect on breeding or important movement habitat for California red-legged frog." Your BIO-9 mitigation measures indicate that "initial ground-disturbing activities in the effected area "will not occur during the period when CRLF are most likely to be in or near" these areas." What exactly does "initial" mean in this context? Do you mean that after this "initial" period, "ground-disturbing activities" could then begin? You state that "construction in CRLF habitat shall be restricted to the period after May 1 and before October 15." Will this mean all construction in these areas will be strictly confined to this time period?

9

10) In BIO-11, you state that development "could result in the loss or abandonment of active nests for special-status raptors." In your mitigation measures, you state that "clearing and construction within fenced areas (to protect these nesting sites) shall be postponed until juveniles have fledged and there is no evidence of a second nesting attempt as determined by the the biologist." Does this mean the nesting sites will be permanently destroyed following this determination?

10

11) In BIO-12, you state that development "could potentially result in a substantial adverse impact on western burrowing owl" populations. Your mitigation measures in BIO-12B state that the "Campus will avoid all burrowing owl nest sites to the extent feasible." Who determines

11

feasibility? A certified wildlife biologist or a construction supervisor?

11

12) In BIO-14, you cite "a substantial adverse impact associated with the loss of potential San Francisco dusky-footed woodrat nests." Your mitigation measures state that a "biologist shall serve as a construction monitor during these periods when construction activities will occur near active nests to ensure that no inadvertent impacts on these nests will occur." Does this mean that a biologist will be on-site or that somehow a construction supervisor will know when (and where) these nests are in danger of being disturbed?

12

13) In BIO-18, you state that development "would not result in a substantial adverse cumulative impact on other special-status wildlife species or wildlife movement" and thus no mitigation measures are required. Have you actually studied all the "special-status wildlife species or wildlife movement" adequately enough to make such a sweeping claim? Given the frequent mention in your own EIR of substantial adverse impacts on both wildlife and plant species, this seems a particularly self-serving conclusion.

13

I hope you will take these concerns seriously and answer all these questions adequately. Thank you for your consideration.

Sincerely,

Jeff Arnett

Lecturer in Writing

UC Santa Cruz



**RESPONSE TO COMMENT LETTER I-5**

**Response to Comment I-5-1.** As discussed on page 4.4-47 under LRDP Impact BIO-5, no development is planned under the 2005 LRDP for Marshall Field. Therefore, no impacts are anticipated to San Francisco popcornflower. Please also refer to page 4.14-18 of the Draft EIR, which discusses popcornflower.

**Response to Comment I-5-2.** The site referenced by the commenter is CA-SCR-004. The site is listed in Table 4.5-1 of the Draft EIR. This site would not be affected by development proposed under the 2005 LRDP. The Draft EIR includes a suite of mitigation measures, LRDP Mitigations CULT-1A through -1H, which address potential impacts to archaeological resources.

**Response to Comment I-5-3.** Chinquapin is not a special-status species. The species is widespread in its distribution and is not facing significant threats (McMurray 1989, Calflora 2006). The removal of a small stand of chinquapin is considered a less-than-significant effect. In the Draft EIR, effects to chinquapin are assumed in the discussion of the removal of mixed evergreen forests in which this species is found.

**Response to Comment I-5-4.** Please see the full discussion of LRDP Impact AIR-6 on pages 4.3-37 through -39 of the Draft EIR. Unlike stationary sources that emit toxic air contaminants from fixed locations, construction activity under the 2005 LRDP would not remain at any location for the entire length of time that is modeled for exposure. Construction at any one site would be of relatively short duration. Furthermore, there is a high degree of uncertainty regarding the emissions of acrolein, one of the pollutants emitted from combustion engines, including mobile combustion engines such as those used during construction. Despite these problems in accurately estimating potential health risk from construction emissions, the University conducted a risk assessment based on a reasonable worst-case hypothetical construction scenario that assumed three ongoing construction projects on the central campus. That analysis showed that the risk from short-term exposure to toxic air contaminants from construction would be in the vicinity of Baskin Engineering. The actual locations where the risk indices would be highest would depend on the actual distribution of construction sites, which would change over time. The Campus would ensure, through construction contract requirements, that LRDP Mitigation AIR-6 is implemented by the construction contractor.

**Response to Comment I-5-5.** LRDP Mitigations BIO-1A-through -1C (for impacts to northern maritime chaparral and Santa Cruz Manzanita) have been revised to increase their clarity and efficacy. Please refer to Master Response BIO-1. Also, please see Final EIR, Volume IV, Chapter 3, Revised Table 2-1 for the full text of the revised mitigation measures.

**Response to Comment I-5-6.** As stated on Draft EIR page 4.4-43, “Coastal prairie restoration may be accomplished within the Campus Habitat Reserve located near the campus entrance (between High Street and Ranch View Terrace). Restoration shall occur on the portion of the site not designated as an Ohlone Tiger Beetle Management Area.” An adequate area is available at this site for coastal prairie restoration.

**Response to Comment I-5-7.** Impacts to riparian vegetation due to bridge construction may be temporary or permanent. Temporary impacts could result from construction activity adjacent to the channel during bridge construction. Permanent impacts could result from shading by the bridge upon project completion. Text on page 4.4-45 of the Draft EIR has been revised to clarify that both types of impacts may occur. Please see Volume IV, Chapter 3, *Changes to Draft EIR Text*.

The locations of the envisioned bridges are shown in Figure 25, on page 80 of the 2005 LRDP.

**Response to Comment I-5-8.** Please refer to Response to Comment I-2-4.

**Response to Comment I-5-9.** Initial ground disturbing activities include to all leveling and grading that take place prior to the actual construction of structures. This process could have an adverse impact on any California red-legged frogs using burrows or other underground burrow in the specific project area for aestivation sites. LRDP Mitigation Measure BIO-9, which was designed to address this and other potential impacts to CRLF from construction activity, has been revised for clarification. For the text of the revised mitigation, please see Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*.

**Response to Comment I-5-10.** Mitigations associated with LRDP Impact BIO-11 will be implemented to protect all species protected under the Migratory Bird Treaty Act (MBTA). Once confirmation is made by a qualified biologist that no raptor nesting activity is occurring in the fenced area, construction can proceed. Because raptors are known to use the same nest site in consecutive years every effort will be made to keep established raptor nests in suitable nesting condition. The commenter correctly concludes that nest could be destroyed after juveniles have fledged. However, removal of an inactive nest is not a significant impact because the Migratory Bird Treaty Act is interpreted as to protect active nesting and recognizes that blanket protection of nests is not feasible and/or reasonable as migratory birds create potentially millions of nests each year with no guarantee that those nests may ever be used again.

**Response to Comment I-5-11.** The Draft EIR text has been revised to clarify that the USFWS has officially recognized that no burrowing owl breeding occurs in Santa Cruz County. No western burrowing owl breeding pairs have been documented on campus since the early 1980s. While individuals and nest sites are protected under the MBTA, wintering habitat is not. However, since breeding owl pairs were present on the campus historically, LRDP Mitigations BIO-12A and BIO-12B have been retained in the Final EIR.

**Response to Comment I-5-12.** Before construction occurs all woodrat nests in the area will be identified and the Campus representative will be made aware of their locations. The biologist will be on site for the pre-construction survey to determine whether nests are active or not. No active nests will be disturbed as stated in the Draft EIR. Any handling of individuals during the non-breeding season will be done by the biologist monitoring the site and not by construction staff.

**Response to Comment I-5-13.** Please refer to Master Response BIO-5. The analysis looked at special status species and wildlife movement to a sufficient degree in order to make a clear determination of significance, as required by CEQA.

city encl

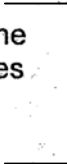
**Leslie Cook**

---

**From:** Diana Joy Austin [djaustin@ucsc.edu]  
**Sent:** Tuesday, December 06, 2005 2:37 PM  
**To:** City Council  
**Subject:** I support CLUE's Sentinel Editorial

Dear Council Members,

This editorial really puts my concerns about UCSC growth into a nutshell. I too can't see why the Merced campus can't expand to take the growth in undergraduates coming in California-it makes much more sense environmentally. The question is, what are we going to do about it?



1

Sincerely,

Diana Joy Austin  
135 Jenne St.  
Santa Cruz, CA 95060

December 4, 2005  
Sentinel  
UCSC plans would bury city

UCSC has ambitious plans for campus growth that would be by far the largest development project in local history and is simply beyond the carrying capacity of Santa Cruz. These plans call for nearly doubling the square footage of campus buildings imagine adding a "second" university and increasing student enrollment by nearly 50 percent, from 14,500 to 21,000.

In 1988, residents of the city and the county of Santa Cruz agreed by referendum that a rational, controlled growth policy was best for Santa Cruz's citizens. City Measure C, approved by a 76 percent majority, stated: "It shall be the policy of the City of Santa Cruz to insist that the University of California limit and phase its rate of growth so that all significant adverse impacts on the community, particularly in the areas of housing and traffic, are fully mitigated." UC growth since 1988 has had serious negative effects on our community including a huge increase in traffic. UCSC stated a goal of housing 70 percent of students on campus, yet only 40 percent of students now live on campus while campus dormitory space remains empty because it is simply too expensive. Storm water mitigations identified in 1988 went unfunded so now its own study says: "The UCSC campus is currently at a turning point. The ecological integrity of campus watersheds will be irrevocably altered if such erosion rates continue."

If implemented, UCSC's proposed plans will dramatically worsen the quality of life for Santa Cruzans. Unbearable traffic with an estimated 10,500 additional daily vehicle trips are predicted for Westside streets leading to gridlock and spillover effects countywide. An additional 4,000 students will be seeking to live off-campus. Most of the remaining water supply will be used up, precluding other growth and in a few short years to a probable ban on new water hookups.

Overall, any hope that Santa Cruz can productively expand its economic base and improve its fiscal

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health will be choked off. UCSC, exempt from city property and business taxes, has already greatly reduced revenues generated for the city by acquiring the former Texas Instruments properties, the Laureate Court condos at Bay and High, 50 acres near Long Marine Lab, and other downtown properties. Other UC acquisitions will no doubt follow.

Environmental degradation of campus land, most distressingly the elimination of trail networks for mountain bikers, runners, hikers, and equestrians on the pristine northern campus now linking Pogonip, Gray Whale and Wilder Ranch State parks, would rob us of one of our most treasured natural resources.

Will this development at least help improve education at UCSC?

History suggests not. The rapid, unplanned growth of recent years has served the campus poorly. Classes grow ever larger, with fewer teaching assistants and discussion sections. Meanwhile tuition increases annually. Most astonishingly, there is currently NO campuswide master plan in place that links academic and budgetary priorities.

The main argument advanced by UCSC favoring expansion is the need to educate California's youth. But unchecked growth of a comparatively inaccessible campus, that lacks adequate parking and affordable housing, is not the solution. Alternatives including the new campus in Merced and growth in areas that can sustain it must be explored.

UCSC espouses sustainability, yet doesn't seem to realize that Santa Cruz is largely built out and simply cannot absorb further growth.

#### Advertisement

Unless stopped, the proposed expansion will initiate an era in which UCSC does irreversible damage to our community and will be a drain on our natural resources, a burden to our infrastructure, a powerful force whose actions are increasingly at odds with the best interests of Santa Cruz and the people who live here.

Finally, the issue is about democracy and self-determination. The people of Santa Cruz should have a real say in our destiny. The Regents claim the legal right to ignore the needs of the local community, but that doesn't make it morally right.

Is this kind of behavior worthy of a public institution that was founded to provide educational and economic opportunities to all Californians? UC's motto is fiat lux: "let there be light." CLUE, the Coalition for Limiting University Expansion, strongly feels that if "light" is justly applied to this massive growth plan, its deficiencies will be recognized and the plan itself will be reconsidered. It is therefore incumbent that the city, county and all residents of Santa Cruz together stand up and speak out with a united voice to provide the necessary "light" to make this happen. Upon it depends nothing less than the future of the Santa Cruz that each of us loves.

Don Stevens, co-founder of CLUE [www.SantaCruzCLUE.org](http://www.SantaCruzCLUE.org), is a UCSC alumnus and a Santa Cruz resident.

Response to Comment Letter I-6

**Response to Comment I-6-1.** See Master Response ALT-2 regarding the potential to accommodate the proposed program and enrollment growth at UC Merced.

REC'D DECEMBER 15 2005



ALBION ENVIRONMENTAL, INC.  
NATURAL AND CULTURAL RESOURCES CONSULTANTS

1414 SOQUEL AVENUE, SUITE 205  
SANTA CRUZ, CALIFORNIA 95062

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FACSIMILE (831) 469-9137

November 30, 2005

2005 LRDP DEIR Comment  
UCSC Physical Planning and Construction  
1156 High Street, Barn G  
Santa Cruz, CA 95064

Subject: Comments on the wildlife resources section of the UCSC Long Range Development Plan (LRDP) Draft Environmental Impact Report (DEIR).

I am writing to comment on the wildlife resources section in the 2005 LRDP DEIR and especially the section about western burrowing owls (*Athene cunicularia hypugaea*). I have worked professionally for 29 years as an ornithologist with an emphasis on research, management and conservation of birds or prey. I have been researching burrowing owls for 16 years. I have observed burrowing owls on the UCSC campus during the fall and winter since the early 1990s, most often in the grasslands below the east remote parking lot. I advised and assisted L. Beyer (2001) with her study of burrowing owls on the campus in 2001. Migratory, wintering burrowing owls are typically present on campus from mid-October until mid-March. Recoveries in California of burrowing owls banded in Idaho (2), Washington (1) and British Columbia (1) suggest burrowing owls over-wintering in California come from the Great Basin.

**Factual Corrections about Special-Status Bird Species on the UCSC Campus**

Before I discuss the burrowing owl impact section I want to point out one error and one omission in the discussion about special-status birds of prey. The western burrowing owl is no longer a federal species of concern (which is an abandoned designation), as stated in Table 4.4-2. It is designated as a National Bird of Conservation Concern by the U.S. Fish and Wildlife Service (USFWS 2002) and a Bird of Conservation Concern in USFWS Region 1, which includes California.

1

Section 4.4.1.8 - Identification of Special-Status Species and Table 4.4-2 Special-Status Wildlife Species Occurring or Potentially Occurring in the Study Area, should include Cooper's hawk (*Accipiter cooperii*), which is a California Species of Special Concern (CDFG 2005) and is given the same status codes, including breeding in Santa Cruz County, as the sharp-shinned hawk (*Accipiter striatus*) in the Checklist of the birds of Santa Cruz County (Suddjian 2004).

2

**Assessment of Impacts to Special-Status Birds**

The statement in the first paragraph on page 4.4-57 that says several special-status bird species (5 raptors) may use campus grasslands as foraging habitat should include burrowing owl and Cooper's hawk. The last sentence in this paragraph, which states that the loss of foraging habitat potentially used by special-status birds would be less-than-significant, is contradictory because it was established in the previous sentence that these special-status birds "have been observed foraging" in the approximately 98 acres of grassland proposed for development. Furthermore, the conclusion that this impact is less-than-significant because there are other undeveloped expanses of grassland on the campus such as the Great Meadow (roughly 90 acres) and the East Meadow (roughly 80 acres) which would remain largely undisturbed is without merit. The 98 acres of grassland that would be developed and/or disturbed is 37% of the total given. Furthermore, the portion of the East Meadow proposed for development in Figure 4.4-5 is regularly used by over-wintering burrowing owls (Beyer 2001). I saw a burrowing owl in this very area on November 5, 2005.

3

The statement in the second paragraph on page 4.4-57 that says five species of special-status raptors listed above could nest in forested areas on the central campus should include Cooper's hawk.

4

**Burrowing Owl Occurrence, Impacts and Mitigation**

The mitigation measures in the LRDP Mitigation BIO-12A and BIO-12B (for burrowing owls, page 4.4-57-58) are inconsistent and poorly conceived. It says a qualified biologist will conduct preconstruction surveys for burrowing owls but it does not define what a qualified biologist is or what constitutes a preconstruction survey. It goes on to say burrowing owl use of the project area will be evaluated in accordance with current California Department of Fish and Game (CDFG 1995) survey guidelines. The CDFG Staff Report on Burrowing Owl Mitigation (CDFG 1995) only describes general survey recommendations and is hardly a rigorous methodology to evaluate burrowing owl use of an area. A preconstruction survey for burrowing owls should be done following the California Burrowing Owl Consortium's Survey Protocol and Mitigation Guidelines (1993 and 1997), which is a four-survey protocol that yields more confident results about the presence/absence of burrowing owls.

5

In the first paragraph of Mitigation BIO-12B it says the Campus will avoid all burrowing owl nest sites to the extent feasible. It is unlikely LRDP development would encounter nesting burrowing owls, and therefore a nest site, because there have been no nesting owls recorded on the campus since the 1980s. This measure should be absolute and the phrase "to the extent feasible" removed because burrowing owl nests are explicitly protected by the Migratory Bird Treaty Act of 1918 (as amended) and California Fish and Game Code 3503.5. The mitigation measures should be revised to clearly provide protection for burrowing owls and their nests, eggs and young, which are the entities protected by regulation, and not only their nest sites. Use of the term nest site in this case is inappropriate and leads to confusion.

6

In the second paragraph it says if burrowing owl nest sites cannot be avoided the Campus will conduct passive relocation by installing one-way doors before February 1, but there is no previous date given after which this activity would begin. It also says suitable artificial burrows will be created nearby. Given the number of California ground squirrel (*Spermophilus beecheyi*) burrows nearby this mitigation measure is unnecessary.

7

The first paragraph on page 4.4-59 says development is proposed on approximately 98 acres of suitable grassland habitat, that in previous text was acknowledged to be used (i.e., occupied) by burrowing owls. The next sentence saying "removal of this unoccupied suitable habitat is considered a less-than-significant impact because of the abundance of suitable habitat elsewhere on campus" is contradictory. It was not established that the 98 acres of grassland habitat proposed for development is unoccupied by burrowing owls. The text acknowledges that burrowing owls occur in the grasslands in the East Meadow. Furthermore, the portion of this grassland proposed for development in Figure 4.4-5 is regularly occupied by burrowing owls during the fall and winter (Beyer 2001). Therefore, justifying the conclusion of a less-than-significant impact because the habitat is unoccupied is unsupported by fact. Justifying a finding of a less-than-significant impact because there is an abundance of suitable habitat elsewhere is spurious and evasive because it avoids the question of the impacts of the proposed action to this species where it occurs on campus.

8

**Burrowing Owl Occurrence in an Area Proposed for Development**

Migratory over-wintering burrowing owls no longer occur in all of the campus grasslands, but they are regular annual visitors in the grasslands in the East Meadow, a portion of which is proposed for development according to Figure 4.4-5. The map of burrowing owl distribution prepared by L. Beyer (2001, Figure 3. Burrowing Owl Distribution at the UCSC Campus, Santa Cruz, California) shows that all but one active burrow she recorded in 2001 was in the East Meadow below the east remote parking lot. This portion of the campus grasslands possesses important ecological values for this species. To say that the loss of these grasslands is less-than-significant and imply that these owls will go elsewhere is arbitrary and dismissive.

9

The loss of grassland habitat on the campus occupied by burrowing owls meets the definition of a significant effect in the CEQA Guidelines (15380) which say that a significant effect on the environment means an adverse change in the physical conditions including flora and fauna. The CEQA Guidelines (15065) call for a mandatory finding of significance if a project has the potential to substantially reduce the habitat of a wildlife species or reduce the number or range of a rare animal (the burrowing owl meets the definition of rare in CEQA). For these reasons the loss of burrowing owl habitat on the campus is a significant impact according to the standards of CEQA.

9

The impact of the loss of occupied burrowing owl habitat could be mitigated to a less-than-significant level according to the definitions of mitigation in the CEQA Guidelines (Section 15370) by avoiding (Section 15370 (a)) development of the grassland below the east remote parking lot or by rectifying the impact (Section 15370 (c)), which could be done by preparing and implementing a burrowing owl habitat management plan for all campus grasslands that would ensure the maintenance of suitable habitat conditions (burrows and vegetation height and density) for burrowing owls.

10

I cannot come to any other conclusion except the burrowing owl section of the LRDP DEIR is inadequate because has been prepared without presenting all the available information about this species' occurrence on the UCSC campus, without recognizing the significant ecological value of the campus grasslands where burrowing owls occur, and without following the standards of significance in CEQA. I argue that development of habitat occupied by one special-status species and used as foraging habitat by at least five other special-status species is clearly a significant impact according to the standards of significance listed in section 4.4.2.1 and in CEQA. Finally, the burrowing owl section of the DEIR is inconsistent with the University's commitment to maintaining the campus's strong traditions of environmental stewardship described in the LRDP Executive Summary.

Thank you for the opportunity to comment on the LRDP DEIR.

Sincerely,



Jack Barclay  
Ornithologist

Beyer, L. 2001. The Western Burrowing Owl, Status and Distribution UCSC Campus, Santa Cruz, California. Unpublished report. 18 pp.

California Department of Fish and Game (CDFG). 1995. Staff Report on Burrowing Owl Mitigation. Unpublished report. 8 pp.

California Department of Fish and Game (CDFG). 2005. Special Animals List.

California Burrowing Owl Consortium. 1997. Burrowing Owl Survey Protocol and Mitigation Guidelines. Appendix B. Pp. 171-177 in Lincer, J.L. and K. Steenhoff. [EDS.]. 1997. The Burrowing Owl, Its Biology and Management: Including the Proceedings of the First International Burrowing Owl Symposium. Raptor Research Report Number 9.

Suddjian, D. L. 2004. Checklist of the birds of Santa Cruz County, California. Santa Cruz Bird Club.



## Response to Comment Letter I-7

**Response to Comment I-7-1.** The change in Federal status of the burrowing owl has been incorporated into the Final EIR. Please see Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*.

**Response to Comment I-7-2.** The omission of Cooper's hawk from Table 4.4.2 has been corrected in the Final EIR. Please see Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*.

**Response to Comment I-7-3.** The statement in the first paragraph on page 4.4-57 of the Draft EIR has been revised to include the western burrowing owl and Cooper's hawk as species that utilize the campus grasslands for foraging. Please see Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*. Because 170 acres of grassland will remain undeveloped, this revision will not result in any change to the conclusions of the document with respect to potential impacts to western burrowing owl and Cooper's hawk.

**Response to Comment I-7-4.** Cooper's hawk has been added to the list of raptors assessed in the Draft EIR. Please see Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*. Potential impacts to Cooper's hawk could occur as the result of development proposed under the 2005 LRDP. Cooper's hawk is known to nest in second-growth conifer stands or in deciduous riparian areas. While some redwoods will be removed as the result of development in the north campus, mitigations associated with LRDP Impact BIO-11 will apply to all bird species covered under the Migratory Bird Treaty Act, including this species, and would reduce any potential impacts to a less-than-significant level.

The Draft EIR has been revised to note that burrowing owls occasionally have been observed overwintering in the East Meadow over the last 20 years, and that less than 10 owls have been documented every winter since 2002. The Draft EIR has also been revised to clarify that the East Meadow individuals are the only overwintering burrowing owls presently documented in Santa Cruz County. Please see Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*.

**Response to Comment I-7-5.** Please refer to Response to Comment I-5-11.

**Response to Comment I-7-6.** Please refer to discussion on burrowing owl in Response to Comments I-5-11 and I-7-4.

**Response to Comment I-7-7.** Please refer to discussion on burrowing owl in Response to Comments I-5-11 and I-7-4.

**Response to Comment I-7-8.** All grasslands on campus provide foraging and overwintering habitat for the western burrowing owl, although the species may show preference for the higher quality habitat in the East Meadow. There is potential habitat, albeit lesser quality and with fewer maintained burrows, in the remaining grasslands on campus.

**Response to Comment I-7-9.** Please refer to Response to Comment I-5-11.

**Response to Comment I-7-10.** Please refer to Response to Comment I-5-11.

From: "Kristen Nicole Barrett" <knbarret@ucsc.edu>  
Subject: LRDP comment  
To: lrdp-eir@ucsc.edu  
Date: Tue, 22 Nov 2005 09:33:42 -0800

Hi,

I was wondering with the expansion of building up into the northern end of campus if during the process Tree 9 will have to be cut down? If so, there will be many unhappy students. This tree is very important to the students of UCSC and it would be a shame if new students down the line aren't able to experience it.

1

Thanks,  
~Kristen Barrett

### Response to Comment Letter I-8

**Response to Comment I-8-1.** The development areas of the 2005 LRDP were specifically delineated to avoid crossing the Campus Natural Reserve Seep Zone Interpretive Trail, where the tree located at stop #9 of the walk is located. The 2005 LRDP does not include development that would entail removal of this tree. However, the Campus is responsible for trimming trees to maintain tree health and for removing trees as needed for public safety on campus. At present, there are no plans to trim or remove Tree 9.

Date: Tue, 10 Jan 2006 14:34:38 -0800 (GMT-08:00)  
From: valbengal@earthlink.net  
Reply-To: valbengal@earthlink.net  
To: lrdp-eir@ucsc.edu  
Subject: Draft EIR

Dear LRDP Committee,

I have read the Long Range Development Plan and am very concerned on several levels. As a resident of Santa Cruz I am concerned for the environmental impacts that cannot be mitigated especially concerning air and water quality, land use, and ecological balance. Many of the comments I read address this issue. I hope the University realizes that it is not the only inhabitant of Santa Cruz County. We also house and support thousands of commuters to the Silicon Valley and Monterey County, whose needs compete with those of the University. The carrying capacity of this county is limited and must be respected. As a physician at the Cowell Student Health Center, I am concerned about the health of the students. There is increasing utilization of services at our health center as the number of students with chronic ailments increases in the university population. There was no explicit plan to address this and other health problems, especially relating to overcrowding. As a graduate of the University of California (Davis, Berkeley, UCSF/Natividad for residency in Family Medicine) I am grateful for the education I received. My sister and many friends over the last thirty years were also very happy with their experience at UCSC. It is a special place which is already losing many of its unique programs, such as journalism, because of the trend to imitate universities which are primarily oriented to biotech and computer science. I think that enlarging the university would diminish the opportunities which have been developed over three decades based on a human scale of organization. It is like the difference between a city built for people and a city built for automobiles. Each one should reflect the nature of the terrain and the local culture. I hope that this LRDP can be scaled down to a manageable level, reflecting the possibilities and priorities of the university. It would be better to enlarge other institutions of higher education instead, and improve the education of California pupils who do not have the option of private school or a wealthy suburban school.

Thank you,

Valerie Bengal, MD FAAFP

Associate Clinical Professor of Family and Community Medicine, UCSF/  
Natividad Medical Center

Family Medicine Residency Program

## Response to Comment Letter I-9

**Response to Comment I-9-1.** The general comments regarding environmental impacts of the LRDP on the health of the students, and the preference for enlarging other institutions, are noted for the record. Please refer to Draft EIR Chapter 5, *Alternatives*, regarding other growth scenarios evaluated in the EIR. Please also refer to Response to Comment PH-42-3 for additional information about determining carrying capacity of the area.

Note that, as explained in Chapter 1 of the Final EIR, the Campus proposes to recommend to The Regents the adoption of the Final Draft 2005 LRDP (September 2006), which revises the Draft 2005 LRDP (January 2005) to reflect the Reduced Enrollment Growth Alternative previously analyzed in the 2005 LRDP Draft EIR and identified as the Environmentally Superior Alternative. For more information regarding the Final Draft 2005 LRDP, please see Final EIR, Volume IV, Chapter 2, *Project Refinements*.

Date: Wed, 11 Jan 2006 16:47:04 -0800  
Subject: Comments on DEIR  
From: Ted Benhari <tbenhari@sbcglobal.net>  
To: <lrdp-eir@ucsc.edu>

Re the Draft EIR for the 2020 LRDP  
From: Ted Benhari, chairman, Rural Bonny Doon Association

Others have made very pointed and detailed comments regarding the many inadequacies and errors in the DEIR. so I will just summarize a few of our objections.

First, the mitigations in the Environmental section that were qualified with words like "if feasible" and "if possible" are totally unacceptable. Who determines that? Your own experts? In order to comply with CEQA, those determinations should be made by independent experts. What good are suggesting mitigations if you can simply say you won't do them because it's not feasible.

1

Regarding traffic in the Cave Gulch section of Empire Grade:  
That road is already very dangerous for the many bicyclists who use it, particularly in the uphill direction. There is no bike lane and not very much shoulder, and very steep dropoffs. Nowhere in the DEIR do you propose measures that would make it safe for bicyclists, given your plans for much greater traffic, including large vehicles accessing your proposed new corporate yard location. The revised EIR needs to address this.

2

You claim that the developments take into account the County General Plan. In reality, it contradicts that plan with its extension of urban development into a rural area (the Cave Gulch neighborhood of Bonny Doon). Additionally, the planned mitigations for the noise, light, vehicular traffic, etc. are totally inadequate.

3

Further, section 2.7. Impact of mitigation measures  
Table 4.14-18 lists various potential improvements for traffic conditions at intersections with Empire Grade. These improvements are based on inadequate data. The commute times from Bonny Doon along Empire Grade will be greatly expanded as LOS declines at those intersections, to totally unacceptable levels (LEVEL F). While the EIR cannot consider all possible subsets of Table 4.14-18, you should perform this analysis if all the improvements at Intersections 8, 9, 19 and 23 are made.

4

The DEIR doesn't address the impact of increased numbers of students,

5

faculty and staff on housing in Bonny Doon. Large numbers of those groups live in Bonny Doon because of its close proximity and relatively easy access to campus. Where is your analysis of increased traffic on Bonny Doon roads and the impact on Bonny Doon housing and rental prices.

5

Thank you for considering our comments.

## Response to Comment Letter I-10

**Response to Comment I-10-1.** Please refer to Response to Comment LA-3-9 regarding revisions to 2005 LRDP EIR mitigation measures and Volume IV, Chapter 3, Revised Table 2-1 of the Final EIR for the full text of revised measures.

**Response to Comment I-10-2.** Please refer to Master Response TRAFFIC-2 (Impacts on Empire Grade Road).

**Response to Comment I-10-3.** The portion of the comment regarding mitigation is not sufficiently specific to allow a response. Please see Response to Comment ORG-4-2.

**Response to Comment I-10-4.** The improvements listed in Table 4.14-18 indicate that traffic conditions at the intersections of Empire Grade Road with Heller Drive and Western Drive can be fully mitigated with the installation of traffic signals. Traffic signals are warranted for installation at these two locations based on existing conditions. The installation of traffic signals will add some delay for travelers on Empire Grade Road who currently travel unrestricted through these intersections. The added delay at Western Drive in the year 2020 would be less than six seconds (LOS A) for the Empire Grade Road approaches in both peak hours. At Heller Drive, the year 2020 delay for Empire Grade Road traffic would be less than five seconds in the AM peak hour and about 20 seconds (LOS C) in the PM peak hour. In addition to providing more overall capacity at these two intersections, the installation of traffic signals would improve safety for drivers and pedestrians. The cumulative effects of the proposed mitigation measures for intersections are addressed in Response to Comment OPA-1-12, which compares unmitigated and mitigated travel times between the campus and Highway 1. The tables in Response to Comment OPA-1-12 show that the mitigation measures improve the overall travel times on both the Empire Grade Road/High Street/Mission Street and the Empire Grade Road/Bay Street/Mission Street routes.

**Response to Comment I-10-5.** Please refer to Master Response TRAFFIC-2. An analysis of economic impacts, such as impacts to for sale housing and rental prices, is not required under CEQA, as these are not environmental impacts.



Date: Mon, 9 Jan 2006 14:32:46 -0800  
To: lrdp-eir@ucsc.edu  
From: Dario Caloss <djcaloss@ucsc.edu>  
Subject: Comments on the LRDP

My wife and I live in Santa Cruz and work for UCSC. We have lived in Santa Cruz since 1989 when we relocated from Santa Barbara to accept employment at UCSC. We own a house and currently reside on the westside.

My wife and I are generally in favor of the proposed LRDP and EIR. The impacts of campus growth on the community, while real and pronounced, are for the most part attributable to failure by the city and county to invest in and provide the services necessary to support campus growth. The county's property tax base has been greatly enhanced by the investment in real estate made by UC employees and students. UC employees have also contributed to the city sales tax and other taxes (e.g. franchise tax, utility tax and transient occupancy tax). The various city and county revenues attributable to UCSC, direct and indirect, have been sufficient to fund the necessary investment in infrastructure (roads, water, police and fire) required to serve the campus and community.

1

While we can appreciate the rake-off of taxes by the state and the limiting effects of Proposition 13, the political leadership of the city and county have for two plus decades under invested in the creation of an economic base and not targeted sufficient investment in the infrastructure needed to offset the impacts of campus growth. Through a series of flawed and often contradictory policies, city and county leaders have failed the public trust. The consequences of these accumulated failures have come home to put the city and, to a similar although lessor degree, the county in a position where there is seemingly no way to accommodate campus growth without exacerbating the consequences.

The answer is not to limit the growth if UCSC. The answer is for the city and county to adopt policies that will generate greater revenue while directing the lion's share to investment into the infrastructure necessary to support campus growth. The focus should be on stimulating economic activity combined with a modest increase in tax rates with the proceeds of both directed into investments in infrastructure.

UCSC is a wonderful asset for Santa Cruz. It generates between \$300 and \$400 million a year in economic activity. City and county government and leaders need to stand behind the promises and obligations they agreed to as published in the December 1960 prospectus prepared for the Regents of the University and by the city, county and community of Santa Cruz. That is to say, to embrace UCSC and make the investments necessary to support and sustain the campus.

California needs UCSC to grow -- to educate California's youth and to produce the research that will contribute to maintaining the health and vitality of California and the nation. By the same token, Santa Cruz needs UCSC to grow -- to serve as the economic engine to bring greater prosperity to the region and a better way of life to the citizens. UCSC contributes to the community in myriad beneficial ways. We support the expansion of UCSC and we urge city and county leaders to do the same.

--

Dario Caloss  
110 Ortalon Circle  
Santa Cruz, California 95060  
831.426.6879  
djcaloss@ucsc.edu

Response to Comment Letter I-11

**Response to Comment I-11-1.** Comment noted.

Date: Wed, 11 Jan 2006 00:12:49 -0800 (PST)  
 From: Sophie Carrillo <gorgonianakbc@yahoo.com>  
 Subject: comment  
 To: lrdp-eir@ucsc.edu

Under the Land Use and Planning section of the draft EIR the term "open space" is used six times to refer to undeveloped and undesignated area in and around the campus. The term "open space" is a misnomer implying a blank canvas, when in fact the space surrounding campus is either forest or grasslands, and it would be appropriate to refer to them as such. As a student of linguistics I am aware of the power of words on peoples' opinions, and "open space" is misleading.

1

Under the Policies: Environmental Quality Element section on page 4.9-7, I applaud Policy 5.2.2 and encourage the University to use the US Green Building Council's LEED planning system as a guide if not a full-fledged policy.

2

Under the Community Design Element of the Policies section, in Policy 3.4 I do not understand what "maintaining and developing visual ... connections between the campus and the downtown" would entail.

3

Under 4.9.1.6 Habitat Conservation Plan, what does it mean to "protect two areas as habitat for the California red-legged frog and the Oglone tiger beetle"? Does that mean that the area will not be built upon, or will be forbidden to pedestrians or more? or less? And for how long will this "protection" continue?

4

In 4.9.2.3 Analytical Method how old are the "previous studies prepared for UC Santa Cruz..."? It would be appreciated if the publication information were provided for these studies.

5

Under section 4.9.2.4 in the third paragraph of page 4.9-10 states "No new uses are proposed on the campus that would require a redesignation of the campus in either the City or County land use plans." I don't understand how a campus preparing for such a large number of new personnel, and therefore such an extreme inflation in vehicle traffic, could not affect the city enough to require some kind of redesignation, especially since there are only two or three main streets to the school which are through residential neighborhoods. If I am misunderstanding the use of the word "redesignation" then perhaps that could be clarified.

6

In the first sentence of the last paragraph of the section mentioned above, the wrong tense of the word "compliance" is used.

7

Thank you for all of your time and effort put into the project, I am pleased to see so much concern for the irreplaceable natural resources around campus.

Sincerely,  
Sophie Carrillo-Mandel

## Response to Comment Letter I-12

**Response to Comment I-12-1.** Open space is a general term that is used throughout the EIR to refer to lands that are either currently undeveloped, or those that will remain undeveloped under the 2005 LRDP under various open space land use categories. The specific characteristics of the open space on campus are described throughout the document on a topic-by-topic basis, as relevant.

**Response to Comment I-12-2.** Comment noted.

**Response to Comment I-12-3.** The Community Design policy referred to is extracted from the City's General Plan, so the University cannot interpret what the full intent of this policy might be. However, it is likely that the City is seeking to maintain views towards the campus that have scenic qualities and also to maintain the physical connections (e.g. roadways, bus connection, etc.) between the Campus and the City. As indicated in Section 4.9, *Land Use and Planning* (Draft EIR page 4.9-10) and Master Response LU-1, proposed development under the 2005 LRDP is not expected to conflict with local land use plans, which include the Community Design policy referred to in the comment.

**Response to Comment I-12-4.** The two areas referred to in the comment will be protected from development under the Habitat Conservation Plan and Implementing Agreement (see Draft EIR pages 4.4-35, 4.9-8). The 2005 LRDP designates these areas as Campus Habitat Reserve. The 13 acres of Campus Habitat Reserve lands west of Empire Grade Road will be maintained indefinitely in a natural state with no development other than that permitted by the terms of the Implementing Agreement. The remaining 12.5 acres of Campus Habitat Reserve lands will be maintained in a natural state for the life of the Incidental Take Permit, which is 60 years. Pedestrian access in the Campus Habitat Reserve is not prohibited. However, the Campus will manage the reserve pursuant to the Habitat Conservation Plan.

**Response to Comment I-12-5.** The EIR preparers reviewed previous environmental documents prepared for campus projects, and obtained general land use related information from them that was used to characterize existing conditions on the campus. Because the information was general, no specific documents need to be cited.

**Response to Comment I-12-6.** The word "redesignation" refers to the need to change the land use designations on the City or County land use plans. A land use designation typically defines allowable land uses (e.g., residential, commercial, public facility, etc.) and development densities. Redesignation of campus lands would be necessary if proposed 2005 LRDP development would be inconsistent with City or County land use designations for the campus. Such a redesignation is not required for the 2005 LRDP, as indicated on Draft EIR page 4.9-10. Traffic impacts do not require changes in land use designations, as they do not relate to such designations. Traffic impacts of the 2005 LRDP are analyzed in Section 4.14, *Traffic, Circulation, and Parking*.

**Response to Comment I-12-7.** Comment noted.

Date: Wed, 11 Jan 2006 08:17:24 -0800 (PST)  
From: Dan Chen <fatchancenow@yahoo.com>  
Subject: UCSC Draft 2005 LRDP Environmental Impact Report  
To: lrdp-eir@ucsc.edu

Dear UCSC:

I am writing to comment on the Draft 2005 LRDP Environmental Impact Report.

This draft EIR did a very poor job of addressing the environmental impacts to the city and its residents. Specifically, it contains vague or non-existent mitigations for impact on increased traffic, water use, and parking in nearby neighborhoods.

1

In my opinion this is because UCSC has no intention of mitigating any environmental impacts. UCSC has still not met many, if not all, of the goals stated in the previous Long Range Development Plan of 1988 for mitigating impacts on the city of Santa Cruz. Working with city government to address and fix these problems has not been high on your priority list either.

2

I feel UCSC should spend its considerable resources to work with city and county representatives to fix the problems outlined in the 1988 LRDP first - that is what the 2005 LRDP should contain. Planning to expand student, staff and faculty population and construct new facilities is poor policy when it will simply exacerbate these already known problems. UCSC must fix the current traffic, housing, and water problems before considering further expansion.

I fully support the city's efforts to protest and litigate as necessary to stop or delay this plan so it can be fixed.

Sincerely,  
Dan Chen  
240 Walk Circle  
Santa Cruz, CA 95060

### Response to Comment Letter I-13

**Response to Comment I-13-1.** Please see Response to Comment LA-3-9 for a description of revisions to Draft EIR mitigation measures. See also Final EIR Volume IV, Chapter 3, *Changes to Draft EIR Text* for the full text of revised measures. Also see Response to Comment I-17-1 regarding parking in the neighborhoods.

**Response to Comment I-13-2.** Please see Response to SA-4-2 for a detailed description of the implementation status of the 1988 LRDP EIR mitigation measures.



To: lrdp-eir@ucsc.edu  
Subject: further growth with no regard to impacts  
Reply-To: cygnetures@excite.com  
From: "June" <cygnetures@excite.com>  
Date: Tue, 10 Jan 2006 20:20:53 -0500 (EST)

January 10, 2006

To whom it concerns,

At this point, I think everything I would say has already been said. I am hoping, beyond hope, that there will be some significance in sheer numbers of complaints.

The students are back from Winter Break and I am trying to learn to sleep with earplugs.... the alternative is not to sleep. I live in the upper west side off of Western drive and my neighborhood had become one of the many "off-campus dorm" areas. It's not just the parties, it's the fact that so many young adults, who have no vested interest in the neighborhood, keep unneighborhood-like hours....24/7.

I am appalled that you would even consider adding more students to this mess. If the people who originally relinquished that property to the University system could see the MANY harmful effects on the surrounding communities, they might have reconsidered. I think it is a mighty shame that all the wonderful things UCSC has done, and will continue to do, are being overshadowed by the damage inflicted upon the neighborhoods.

The total population of the City of Santa Cruz is about 56,000 people and you propose to raise the impact of the transient students population to almost half of that number. Chancellor Denton refers to our city as "hosting" the university.... It appears to be turning into the University holding our poor,abused town hostage.

Please consider a position of "no" or "very limited" growth until you can mitigate the intolerable conditions which are forcing long time home owners to sell and move away in order to regain a sense of peace and quiet in their own neighborhoods.

Sincerely,

June Coha

## Response to Comment Letter I-14

**Response to Comment I-14-1.** The Draft EIR, Chapter 5 includes an evaluation of a Reduced Enrollment Growth Alternative and a No Project Alternative, both of which would limit the increase in enrollment. The environmental impacts of these alternatives and their ability to meet project objectives are discussed in Chapter 5. As explained in Chapter 1 of the Final EIR, the Campus proposes to recommend to The Regents the adoption of the Final Draft 2005 LRDP (September 2006), which revises the Draft 2005 LRDP (January 2005) to reflect the Reduced Enrollment Growth Alternative previously analyzed in the 2005 LRDP Draft EIR and identified as the Environmentally Superior Alternative. For more information regarding the Final Draft 2005 LRDP, please see Final EIR, Volume IV, Chapter 2, *Project Refinements*.

UC Santa Cruz 2005 Long Range Development Plan  
Draft Environmental Impact Report

NAME: JOHN CREMIN DATE: 11.16.05

ADDRESS: 119 Rinconada Ave.

PHONE: 650 291 3261 EMAIL: johncremin@hotmail.com

AFFILIATION: \_\_\_\_\_

COMMENT:

I do not think the EIR adequately addresses locating further growth either in the San Jose area or Merced. Re-locating the growth would prevent the environmental impacts.

1

I think that the EIR does not adequately address the problem of water availability and grossly underestimates the increased water consumption of the growth.

2

I do not think the EIR adequately addresses locating buildings in currently impacted areas as a means of mitigating environmental impact.

3

I think the EIR cannot be effectively reviewed by the Regents of the University of California because they are the

Place your comment in the box provided at the back of the room, or mail written comments regarding the Draft EIR addressed to:

initiators of the project and therefore this is a conflict of interest.

4

## Response to Comment Letter I-15

**Response to Comment I-15-1.** See Master Response ALT-2 regarding the potential to accommodate the proposed program and enrollment growth at UC Merced. The potential to accommodate growth at the Silicon Valley Center in the Bay Area is discussed in Master Response ALT-4.

**Response to Comment I-15-2.** Please refer to Section 5.2.15.2 in Master Response UTIL-1, which explains how the demand forecasts for the campus were developed. Section 5.2.15.1 in the same master response presents more information regarding the City's water supply.

**Response to Comment I-15-3.** See Master Response ALT-6 (Increased Infill Development).

**Response to Comment I-15-4.** As indicated in Draft EIR Chapter 1, *Introduction*, The Regents will consider the 2005 LRDP for approval and will consider the EIR for certification if it is determined to be in compliance with CEQA. This type of approval is similar to approvals for other projects proposed by public agencies (see, for example, Public Resources Code Section 21080(a)). For example, a local agency general plan would also be reviewed and approved by the same local agency that proposed the plan. The reviews by the various local agency commissions and councils and involvement of the public at public meetings and during public reviews of documents, is intended to make the approval of such a plan as sound and objective as possible. In a similar fashion, the 2005 LRDP and EIR were subject to public review and will be reviewed and considered by The Regents in a public meeting.

n.d.

I have some questions about the LRDP traffic analysis.

I compared the LRDP traffic analysis with the Terrace Point traffic analysis in the CLRDP, and the comparison raises serious questions about your analysis:

As a reminder, the Terrace Point traffic analysis assumed 19,000 students in 2020, half of the increase assumed by your analysis.

(1) Why are the predicted delay times assuming 21,000 students, less than the delays assuming 19,000 students? In other words, the increase in student population is 2 times that of the Terrace Point analysis, yet your delay times are less. This happens at least at the following intersections:

- a. Empire Grade/Western
- b. Mission Street/Bay Street
- c. Mission Street/Chestnut Street

1

(2) Why is your predicted delay at Delaware and Swift (127 and 77 seconds) 5 to 10 times larger than the Terrace Point analysis that predicted delays of 15 seconds? This is a significant difference in level of service.

- a. Because of this, your analysis says there is no significant project impact because the intersection is in bad shape to begin with.
- b. This is in major conflict with the Terrace Point analysis and needs resolution.

2

(3) The Terrace Point analysis included a table of development projects that were included in their trip generation. Your report is not clear which projects are included and which are not. Please clarify.

3

In summary, I have pointed out several questions when your traffic analysis is compared to the Terrace Point traffic analysis. These questions need an answer because they lead to different conclusions.

Renwick E. Curry, PhD  
Santa Cruz, CA

## Response to Comment Letter I-16

**Response to Comment I-16-1.** The traffic analysis presented in the Marine Science Campus Coastal LRDP (CLRDP) EIR and the 2005 LRDP Draft EIR are based on different traffic projection methodologies. The different methodologies resulted in different future traffic projections.

The preparers of the 2005 LRDP EIR were requested by the City of Santa Cruz and the University to use the updated travel demand model which was updated in 2004 to ensure consistency with other regional planning projects. The 2005 LRDP EIR used the 2004 AMBAG travel demand model to develop growth rates for streets under study. The 2004 AMBAG travel demand model, based on forecasts of population and employment countywide, reflects growth within Santa Cruz and outside of Santa Cruz. The growth rates derived from the model were applied to existing traffic counts conducted in 2003-04. In addition, traffic from the Marine Science Campus CLRDP Project (Terrace Point) and the proposed Home Depot development were added to the future projections. Because it is difficult to forecast individual development projects to the year 2020, economic forecasts of population and employment are considered appropriate for long-range traffic projections.

The traffic projections used in the CLRDP EIR, on the other hand, were based on a list of planned and proposed development projects and a 1.2 percent growth rate that was derived from the previous AMBAG travel demand model. Furthermore, the projected traffic was manually assigned to the study intersections. This method typically is used to prepare short-range traffic projections, but also can be used to develop long-range projections if a reasonable assumption can be made regarding future development. Both methods described above are acceptable under CEQA, but on occasion may result in different traffic projections at individual intersections.

**Response to Comment I-16-2.** Please refer to Response to Comment I-16-1 above. Based on recent traffic counts, the intersection of Delaware and Swift operates at LOS B in both peak hours. This finding is supported by the City's analysis of the intersection (City of Santa Cruz undated). Although the Draft EIRs for the 2005 LRDP and the Marine Science Campus CLRDP determined varying delays at this intersection in a cumulative context, both conclude that this intersection will operate at LOS F in the future. The difference in predicted delay is due to the difference in traffic projection methodologies described in Response to Comment I-16-1. In any case, the 2300 Delaware Avenue Project would contribute less than 2 percent of the traffic in the intersection. Therefore, the impact would be less than significant based on the Draft EIR standards of significance.

**Response to Comment I-16-3.** Please refer to Response to Comment I-16-1.

From: KatTsoup@aol.com  
Date: Wed, 11 Jan 2006 10:41:28 EST  
Subject: Increased enrollment impact  
To: lrdp-eir@ucsc.edu

As a homeowner on the upper Westside with 7 rentals on my street, my family is quite nervous about what will entail if the University continues to grow with little consideration for the surrounding neighborhood. My husband and I have three children who are often subjected to a lack of consideration for their welfare by many of the UCSC students and their visiting friends. How? Here are just a few of the many negative influences students have had during the 10 years we have lived here:

1. Speeding cars entering and leaving our cul-de-sac
2. Beer cans and garbage left in the streets the morning after the many parties that occur
3. Students urinating on the lawns as they leave our neighborhoods at 2:00 in the morning
4. Drunken students wandering through the neighborhood, yelling at each other or the homeowners who are asking students to leave the area so their families may sleep
5. Having to petition the city for parking restriction due to the number of students who park up and down the streets in front of our homes
6. Having to act as property management or student police every time a party gets out of control
7. Good neighbors selling their homes to move away from the Westside due to their difficulties with landlords who don't manage their student rentals.

We have tried to determine what, if any, positive impact these student rentals have had on our neighborhood. We can't think of any. We're not talking about the economy or diversity or events that might positively affect our community, We're talking about the neighborhoods. After dealing with drunken students and their friends at 1:00 in the morning for the umpteenth time, even the most patient, tolerant person becomes frustrated and angry at the lack of response by the University to insist their students uphold a certain standard of behavior while temporarily living in this community as a student.

We have tried to understand why the University won't curtail this type of impact. Why not require all freshman live on campus without a vehicle? Other colleges and Universities insist upon this. The traffic floc from our home to Mission is becoming unbearable.

We believe the city should have more influence with regard to CSC growth,

especially with regard to water supply and traffic flow. It is time for the city to structure rental regulations which include restrictions on the number of cars or unrelated people at one residence. It is thoroughly depressing to listen to members of the community talk about the degradation of their neighborhoods; the landscaping, the buildings themselves, their property values or potential property values, due to the student rentals on the upper Westside.

We have dealt with many rental property owners during our years here. They know they can rent a room for the same amount the University charges for a double. A four bedroom house in our neighborhood can generate \$3500 each month. You would think the property owners would use some of the money to update or landscape their property. Drive through our neighborhood. They don't.

How can the University, in good faith, with concern and commitment to the people of Santa Cruz, mitigate some of these problems? Listen to the people you are trying to convince. The feeling in the community, quite frankly, is leadership personnel at the University don't really have to concern themselves with the people of Santa Cruz or their concerns, so they don't. They go through the motions, but in the end, regardless of the negative impacts, University officials feel growth should continue with few if any concessions to the concerns of the local community members.

If the University continues to grow, which from our standpoint, seems to be a given, please do so with honest attempts to control the traffic flow, the number of students who live off campus, the penalties to students who have multiple violations of your good neighbor policy, the water issues, the increased traffic congestion and pollution.

Robert and Kathleen De Hart



## Response to Comment Letter I-17

**Response to Comment I-17-1.** The Campus has attempted to limit the impact of the UC Santa Cruz-related population in adjacent neighborhoods and in the community in general by: (1) building and/or providing on-campus and off-campus housing; (2) striving to attain on-campus housing goals; (3) prohibiting freshmen and sophomores living in on-campus housing from parking on campus, which discourages car ownership; (4) implementing a comprehensive Transportation Demand Management (TDM) program to minimize the use of single occupant vehicles; and (5) developing a Good Neighbor Initiative (see further discussion below). Undergraduates are not required to live on campus, but it is UC Santa Cruz Housing policy to offer every student the opportunity to live in UC housing, and all undergraduates are encouraged to live on campus (through text on the web site that describes the academic and social benefits). In fact, more than 95 percent of freshmen live on campus; however, the percentage of upper classmen living on campus is much smaller. Please also refer to Master Response ALT-5 for information about other on-campus housing issues. The University has developed a Good Neighbor Initiative to facilitate communication between neighbors, students, and the City. As part of this initiative, the University has established guidelines that encourage students living off-campus to function in a mature and responsible manner as residents of the community. The University has developed a brochure to promote these guidelines. Interns have been distributing the brochure widely through displays at high traffic areas such as the bookstore, health center and colleges. The University is working on other ways to promote these guidelines.

Additionally, the UC Santa Cruz Student Health Outreach and Promotion Program (SHOP) has received grant funding as part of the Safer California University project, which it is using to focus on preventing the problems associated with large student parties in off-campus neighborhoods. As part of this program, SHOP is working with members of the community, the Santa Cruz County Department of Health, and Campus and City law enforcement agencies to carry out an awareness program for students regarding their responsibilities as good neighbors. SHOP will also be carrying out enforcement activities with law enforcement personnel that will include DUI checks and party patrols.

Date: Tue, 10 Jan 2006 16:16:24 -0800 (PST)  
From: Mykell Discipulo <sipohana@sbcglobal.net>  
Subject: comments  
To: lrdp-eir@ucsc.edu

I am responding to the request for comment on the LRDP EIR.

I was disappointed and frustrated by this document as both a UCSC staff member and westside resident. This EIR inadequately explains mitigations especially in the areas of Noise, Population and Housing and Public Services. The mitigations related to traffic were very limited in scope and didn't include many recommendations which were suggested in the transportation study (2004), including the Campus to Bay/Mission Loop bus (either Metro or campus run). There was also no mention, that I could find, of an off campus parking facility with TAPS transportation to campus to limit the number of vehicles driving up High or Mission, and provide off-campus parking to campus residents.

1

Through this document, we are telling the community that we (UCSC) are going to take very little responsibility for the impacts to the community from the proposed growth. In the mitigation sections it states repeatedly that "the campus" will decide when mitigations are required, what mitigations will be done and only to the "extent feasible", whatever that means. There is no accountability. I urge the University to take more responsibility for its' impacts in the final EIR.

2

Mykell Discipulo

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## Response to Comment Letter I-18

**Response to Comment I-18-1.** Transit-related mitigation measures in the Draft EIR referred to an extensive set of measures recommended in two studies prepared for the University - *UCSC Comprehensive Transit Study* (Urbitran Associates, March 2004) and *Bay Corridor Preliminary Feasibility Analysis Bus Rapid Transit* (Urbitran Associates, March 2006). The Comprehensive Transit Study includes recommendations to improve SCMTD's Route #15/16 (Bay/Mission corridor and downtown). There are several options recommended:

Option 1 – Supplement route #15/16 service with trippers<sup>1</sup> at times of peak demand.

Option 2 – Create frequent and even headways on Route #15/16.

Option 3 – Implement “reverse short turn” trippers<sup>2</sup> on Route #15/16.

The University is considering these and other recommendations of the Comprehensive Transit Study, and is working with SCMTD to determine the best options for implementation. With regard to the provision of off-campus parking, LRDP Mitigation TRA-2B identifies several measures that would create off-campus parking accessible to transit (see Table 4.14-19). These measures include a potential Westside Intermodal Hub with automobile parking, and working with appropriate agencies to implement Eastside and/or Westside park and ride facilities. These measures will be implemented if determined to provide adequate traffic reduction.

**Response to Comment I-18-2.** Please refer to page 4.15-14 of the Draft EIR regarding the Campus's green building policy.

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<sup>1</sup> Trippers are additional buses put into service during peak demand times to supplement normal service and provide extra capacity.

<sup>2</sup> Reverse short turn trippers are additional buses added to normal service, but only on the most heavily loaded segments of the existing routes (e.g., between the campus and Mission/Bay intersection) and returning to campus via a shorter route than the existing service takes.

From: "Helen Dowling" <hdowling@sbcglobal.net>  
To: <lrdp-eir@ucsc.edu>  
Subject: Ineffectuality of DEIR  
Date: Thu, 17 Nov 2005 14:17:04 -0800

My name is Helen Dowling. My family first settled in this area in 1851 and obviously has seen change over the decades. No other change, however, has the potential to economically, ecologically and culturally devastate Santa Cruz to the extent that your expansion proposal has.

1

Don't underestimate the resolve of those of us who have years of experience as tax-paying, law-abiding citizens to rise up to defeat you. We believe the future of our community is at stake and that is a powerful motivator. John Paul Jones's, "We have just begun to fight," comes to mind.

Response to Comment Letter I-19

**Response to Comment I-19-1.** Comment noted.

To: lrdp-eir@ucsc.edu  
Subject: Concerns about the mitigation efforts in the proposed lrdp-eir.  
From: Andre Dunkell <dunkell@pacbell.net>  
Date: Mon, 19 Dec 2005 15:00:16 -0800

After viewing the Draft EIR, I am appalled at the enormity of the project and the lack of concern in the wording to contain the adverse impact on the plant and animal populations of campus. The chosen zone for development could not have been worse, affecting populations that are both cherished and rare.

1

As a former member of the campus community and a resident of the Westside, I demand a better planned LRDP and a more truthful draft-EIR with community input.

Sincerely,

Andre Dunkell

## Response to Comment Letter I-20

**Response to Comment I-20-1.** The University acknowledges that development under the 2005 LRDP would have potentially significant impacts on biological resources. However, LRDP Mitigations BIO-1 through -19, described on Draft EIR pages 4.4-38 through 4.4-68 (as revised in the Final EIR, Volume IV, Chapter 3, Revised Table 2-1) would reduce these impacts to a less-than-significant level.

REC'D JAN 10 2006

2005 LRDP EIR Comment  
UC Santa Cruz Physical Planning and Construction  
1156 High Street, Barn G  
Santa Cruz, CA 95064

January 9, 2006

Dear Mr Barnes:

Thank you for the opportunity to respond to the Draft Environmental Impact Report on the proposed 2005 Long Range Development Plan (LRDP). I do not profess to be an expert in any specific field of the Draft EIR but I do feel that I am an expert neighbor on the effects of the University on my life as I live just three blocks away from the entrance. I also lived here before the University came to my neighborhood so I feel I can see the way my environment has changed only due to the University. I no longer want to feel like the "everlasting ping pong ball" between the city and the university. They both have been pointing fingers at each other for too long. I would like issues to be discussed, possibilities studied and plans set into place that are both beneficial to the Neighbors, City and University.

The last time there was a long range development report in 1988, there were mitigations made and they were NEVER followed through on due to other reasons beyond the University's control.....finances, communication, or lack of the city efforts. Many of the mitigations were not met and therefore were just words to get through the paper process.

**The University SHOULD NOT move forward without readdressing those mitigations that have not been met in the past and bring them forward AGAIN to be addressed and met before the growth and expansion can take place.**

**Impact TRAF - These mitigations need to be looked at as a whole (the big picture) and not as individual projects.** Example: Look at TRAFFIC as a whole project with planned timeline projects all streets and intersections. Looking at each individual intersection is great to do the studies but how does it fit into the bigger picture.....when you fix one "F" intersection (11 mentioned in TRA-2) you may be creating another "F" intersection that was only at "C" or "D" previously.

**This time with ANY mitigation that is written, there MUST be actual plans, specifics, budgets and statements about how these mitigations WILL be met.** These improvements must be made in order for the expansion to take place.

A comment on "Less than significant" is a seriously flawed term. It looks at projects individually, whether traffic or housing...less than significant has to be looked at in total and cumulative effect. For instance, if you have 4 projects within small area they cannot be looked at as each will have a less than 1% significant effect. They all add up at least to 4% or maybe something even higher depending on the projects. There for if effects currently are at unacceptable levels is doesn't make it okay if it raises something just a small percentage. When you add the effects of all they years of growth (i.e. housing and buildings) from the past that may be 1% + 1% + 1% + 1% + 1% etc and before you know it you are at 25%. How did you get there - It was by stating that 1% each individual time or a small percentage was okay to pass the project through. At some point you need to ask the question...."When is the cake done and it's time to stop?" Example: in Noise 2 Table 4.10-5 and comments below. Although High Street.....currently exceed the "normally acceptable" levels for residences, because the increase in noise levels at both the locations with the project would be less than 3bDA ...the increase is not considered a

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substantial increase and the impact would be less than significant. **This is NOT acceptable for an explanation and standards need to be set that are acceptable or ideas need to be looked at to reduce the noise levels at this time.** This is address in statement below.

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Another scenario besides baking a cake: The approach that UCSC uses to assess the assumed noise and traffic impacts of UCSC growth is akin to that of the clever chef who, after watching the live frog leap out when put into a pan of boiling water, instead lets the frog sit relaxed a luke-warm pot of water on the stove, and then subtly turns up the temperature slowly, one or two degrees at a time, until the water is boiling and the frog is cooked.

This same approach has been used in the EIR's assessment of traffic and noise impacts due to UCSC growth on the off-campus areas of UCSC in the city of Santa Cruz. Each individual project construction project during the next 20 years will undoubtedly, by itself, have an insignificantly small impact on the total traffic and noise in the City's surrounding residential neighborhoods. Each project's individual impacts will go undisclosed, largely unmeasured, incrementally unnoticed and wholly unmitigated. And yet, over time, the cumulative impact of these projects, when taken together, will have an extremely significant impact on the traffic, noise and general quality of life for those neighborhoods unlucky enough to be along the UCSC corridors, collector streets and arteries on the west side of Santa Cruz.

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Therefore, the only legal forum during the next 20 years for the city and county's residents to adequately assess, fully describe and properly mitigate the cumulative noise and traffic impacts of the projected UCSC growth is now, in the form of this LRDP EIR. This is a very small and closing window to comment and fix the flaws in the document. The UCSC, EIR consultants and residents must not miss this unique opportunity to plan properly for a well-designed University, a smoothly run road system and a livable city.

I challenge this whole LRDP every time it stated that a small percentage is acceptable and nothing can be done to mitigate.....Less-than-significant impact. Look at the whole picture.

Since this EIR is as long as it is I am only going to address a few sections. From what I have read this report is incomplete and very deficient in areas with levels of significance being written off as "significant and unavoidable". That to me is unacceptable. **Unavoidable means to me that you cannot move forward until you fix what is broken therefore you don't grow in numbers or buildings till those items are fixed.**

Just a general statement, about "NOISE" before I start this first part. An interesting phenomenon happened when the bus strike recently took place in the city of Santa Cruz. It was significantly noticeable to our neighborhood that it was quieter without the buses running up to the University on High and Bay Streets. While I'm in favor of mass transit the noise of the buses does make a difference. It is no secret that the Metro system is subsidized by the University and increasing the population at the university would increase the bus system therefore creating even more noise in the area. This CANNOT be less than significant therefore no mitigation measures are required. **I know there are other ideas that can be discussed other than adding more buses to accommodate the increase at the University. Just looking at quieter buses, another mass transit system, alternate access before going through the neighborhood just to name a few!** There would be a NOTICEABLE increase in ambient noise levels with growth, this was proven to me with the bus strike. The University needs to

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own this point, not the city. **I request this point “Impact NOISE-2” needs to be reviewed again with different mitigation measures and a change in significance.** Below I have additional statements regarding “NOIS-2”.

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**LRDP Impact “NOIS-2”**

It is a huge failure of logic that this EIR attempts to persuade the reader that the long-term cumulative noise impacts due to the LRDP growth in traffic over the next 20 years will be less than significant and will not require mitigation. This basic flaw ignores the impacts from the reader. The following specifics illustrate this point:

A. The baseline used for assessing noise impacts in the study area are the current (2005) ambient noise levels, yet the current noise levels (which are often unacceptable in many areas by city, state and federal standards) are largely due to the unmitigated traffic noise from the last 20 years of UCSC growth and the **“last flawed LRDP”**. Three of the four off-campus noise monitoring locations exceeded the city’s (and state’s) standards for single-family and multi-family residential areas of 60 and 65 dbl, respectively. It is not mentioned in the LRDP or EIR that the current noise levels are already at or well beyond unacceptable in many off-campus single family and multi-family residential areas largely due to the unmitigated significant noise impacts from the last 20 years of UCSC growth and the last flawed LRDP. **It should be mentioned in the EIR that the reason the existing noise and traffic levels are beyond acceptable levels NOW is that the last flawed LRDP failed to propose any implementable or successful mitigation measures to combat the noise and traffic that was easily predicted by the LRDP, and set no quantifiable trigger-points for implementing any specific remedial actions. Nor did the last LRDP and EIR designate any lead responsible agency or authority to monitor and implement the corrective measures.** As a result, failure thresholds were reached and exceeded (and never mitigated) for both noise and traffic in the city during the past 20 years, while the city and the University ignored the simmering issue. Now, 20 years later, the current LRDP and EIR is doing the same thing, offering only vague ideas, while proposing no specifics, no mandates, no thresholds and no responsible authority when it comes to actually mitigating the traffic and traffic-related noise. This is, as they say, “Where the rubber meets the road”... and yet the LRDP and EIR floats obliviously above such tough but practical realities and decisions. **The ambient noise levels that should be used a baseline should instead be those city and state acceptable noise level standards that were set and mentioned in the last LRDP, when it was stated that those levels would not be exceeded due to all of the mitigation “proposed”.** Without such a perspective, we are simply lowering the bar to enable the continued poor performance by the city and state government traffic planners and contractors. **While accepting this as the baseline is not expected, it is not unreasonable to expect that noise and traffic mitigation measures be added that are practical, specific, measurable, triggered by exceeding quantifiable thresholds, and with lead agencies held responsible.**

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B. It is a fatal flaw for this public disclosure document to fail to disclose why the noise and traffic impacts as a result of the last 20 years of UCSC growth were never mitigated. **It should be disclosed in this EIR that the last noise and traffic mitigation measures suggested in the last LRDP were either never implemented or were never successfully implemented during the**

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past 20 years, which resulted in significant noise impacts to residential areas of the city. It should be assessed and analyzed why the prior mitigation measures were not effectively implemented, and what leads the current creators of the new LRDP to believe that the similar measures proposed this time will stand any greater chance of being even marginally successful at mitigating traffic noise impacts to off-campus area to levels below significance.

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C. Largely the same unimplemented noise and traffic mitigation measures suggested in the last failed LRDP are again suggested 20 years later in this current LRDP without any reasonable rationale to suggest why these same measures have any greater chance of being implemented in the next 20 years then during the past 20 years. This can has been kicked along the road for 20 years and is now being pushed out of sight by this document. The standards of significance for noise and traffic impacts appear to be pushed up each time to establish the new current condition as acceptable and to accommodate the proposed UCSC growth.

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**PUB-1: Impacts**

*On-campus development and on-campus population under the 2005 LRDP would not result in significant environmental impacts associated with the provision of new or altered facilities for the UC Santa Cruz Police Department or the City of Santa Cruz’s Police Department in order to maintain each department’s applicable service objectives.*

Why would the Santa Cruz Police Department need a new facility...they moved into the new building which was stated on page 4.12-12 in 1999. No new facilities would be required. Of course not, they built the building to be able to grow, however due to funds they have not been able to increase police coverage. Instead our police department has been managed on a shoe string and working small and efficiently. This section misses the mark completely. **UC needs to address the employees needed with the increase on and off campus.**

**What should be addressed here is the police service calls and staffing that needs to be addressed in this EIR and the LRDP.** Making a statement that, “Because the SCPD does not provide regular service to the UC Santa Cruz main campus, it would not be affected by the campus’ growth projected under the 2005 LRDP.” Why then did the neighbors need to work for two years to put through an “Unruly Gatherings Ordinance”? This was just recently put into place in August but has been long needed for years. **These student gatherings/parties have increased the police calls specifically in our neighborhood and have caused a direct impact to our neighbor’s lives.** This is just one of the examples that the Santa Cruz does need help with calls. I do know that the UC Police do assist on Westside calls if necessary. I do know that these types of calls have increased over the years. I also know that there are many more calls due to the University’s presence simply due to the amount of sirens that increased over the years. I believe that to be a direction relationship of University growth to the growth of students in the past years and this would only continue to grow with the need for more officers. **This section needs to be studied looking at the increases over that past years, when UC Police needed to start coming in for aid and what is necessary to address for coverage on the additional growth of the University. I would add in the amount of calls that the Fire Department also has had to respond to. PUB-2. Again these are not less-than-significant impacts.**

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**TRA-2: Traffic Impacts**

The University does not operate in a vacuum, it is not self sufficient and it's borders do not stop at High Street. Everything you do affects your neighbors. The University creates traffic of its own and by their location; UC uses neighborhood streets that were never meant to be open thoroughfares. The University relies on the city streets and therefore should be contributing to the streets the University most uses.

**Further information needs to be studying comparing Construction of further North Entrance compared to Eastern Alternate access. This must be addressed at this time!** Even if the city/UC decides a tram, PRT or other rapid transit would be the preference for the future in the meantime there needs a road put in to accomplish those efforts so why not look at a one-lane (with turnouts) for bus, bike and Vanpool. I imagine that those alternative transportations would love not to be stuck in traffic through the neighborhoods. It would get them to the freeway faster... much more so than the Northern access.

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While much of the deficiencies in the traffic analysis of the EIR were mentioned in the previous traffic-related noise comments, the following comments are specific to the traffic portion of the EIR (Section 4.14).

- A. **While the EIR at least correctly assesses the off-campus impacts to the traffic flow in the campus and city neighborhood from the LRDP will be significant, it does so while simultaneously asserting the impacts are unavoidable and cannot be mitigated below a level of significance, an assertion that cannot be supported if alternative and practical mitigation measures are whole-heartedly implemented.** The document gives only a brief mention of an eastern access alternative even while admitting that it could result in reducing traffic in the western portion of Santa Cruz (the Mission-Bay and High Street areas) by up to 25-40%! I even heard 50% at one time. It then incomprehensively and inconsistently states that an eastern access alternative would not appreciably reduce the amount of traffic affecting this half of the city! The rationale for this conclusion is not at all apparent. Any additional congestion that a new entrance alternative might cause in the River St./ Highway 1 area could be avoided by redesigning this already poorly functioning intersection. Any unmitigated impacts in the River Street area and would be more than made up for by relieving the entire west side residential neighborhood of almost half of the current traffic volumes and delays. Our neighbors were petitioned on this very topic of Alternate Access and 95% of the households signed to have this topic brought forth. There were about 1300 signatures because we started to take the petition to the commuters. But out of approx. 1000 homes near the University 950 of them signed to push this topic as a priority!

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**A more thorough description and analysis of an eastern access alternative should be added to the EIR, one that hopefully shows how it and other measures could likely reduce overall traffic impacts to the city below levels of significance. This CANNOT be overlooked anymore!**

- B. Additionally, the traffic analysis uses a flawed method in assessing current baselines and proposed UCSC impacts by repeatedly using only two hours of data in comparisons and

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assessments (two “peak” hours; one AM and one PM). While there is often a swelling of traffic and delays in many parts of the city during these peak “rush” hours, the traffic engineers and the unfortunate residents of the west-side neighborhoods know all too well that the UCSC traffic is not one that simply peaks twice a day and goes away the rest of the day... it is a constant day-long 18-hour traffic problem that lasts from 5 am to bar-time everyday. Measuring and comparing only changes to peak rush hour flows and delays in the LRDP does not sufficiently disclose the nature and extent of the impacts. They are brief misleading photo snapshots of the impacts when a full 24-hour impact of the LRDP traffic should be provided. **An additional traffic analysis should be conducted which clearly presents what the hourly number of vehicle trips are now and what they will be with the project along each major artery and collector street in the UCSC neighborhood throughout the entire 24-hour period.**

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**C. Realistic and implementable mitigation measures must be designed and described. These measures should go above and beyond the vague and ineffective measures presented here, as they were 20 years ago, and they should have a reasonable chance of reducing the impacts to below significance. Unambiguous, quantifiable and measurable thresholds should be designated in the LRDP as to when specific failures of traffic service and noise levels will trigger which specific mitigation measures. Additionally, the LRDP should state what remedial (or punitive) measures will be automatically implemented by which responsible authority or agency (city or state) if the proposed mitigation measures are not successful in reducing the noise and traffic impacts to the predetermined levels within a specific and finite period of time.**

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**D. TRA-2B will expand existing Transportation Demand Management programs with the objectives of increasing sustainable transportation modes above 55%. The University may keep this percentage of 55% but you are playing with a percentage that means nothing. If you are increasing the population on campus then you will be increasing the numbers on the roads whether they are in buses or cars. No matter there will be an increase. We are already at neighborhood capacity now! A partnership between the neighbors, city and the University must happen in order to resolve that issues we already have. This should be incorporated into this issue. UC has stated another “Significant and Unavoidable” level following the mitigation. What were those mitigations worth if they can’t even fix the problems as they stand now? Get realistic! Again let’s fix the current issues before moving on. Here’s a thought - “You wouldn’t give a 16 year old a permanent license if he already was in several accidents. You would hold off and fix the problems and issues before giving him the license.” The University needs to work with the partnership before moving on!**

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**TRA-3 Impacts:**

*If the development of planned parking does not keep pace with the other growth on campus, or if parking supply is reduced as a result of development on existing parking lots, campus growth under the 2005 LRDP could generate demand for parking in excess of on-campus parking capacity.*

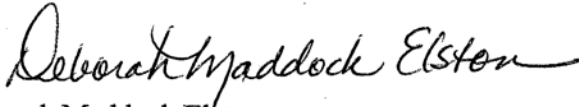
What I have seen is that the University in the past couple of years, has taken away much of it's parking with new buildings. The parking spaces may have stayed the same but the student population has increased in the same past couple of years. It never has gotten up to capacity in the past, of what was needed. Otherwise the neighbors would have never had to deal with putting parking programs in our neighborhood in front of our own homes. Let me put this another way..... **WE HAVE TO PAY TO PARK IN FRONT OF OUR OWN HOMES. The only reason we have to do this is because of the University.** Whether it was because of the parking fees on the University or not even spaces or Frosh and Soph can't bring cars to school, your students chose not to park on campus and used our streets. However, it came about.....the neighbors have to pay. There is something wrong with the scenario.

**Parking is a serious issue and needs to be addressed just at it's current state. Maybe the University should put out a neighborly hand and supplement the plan so neighbors could at least get one free parking pass as an owner.** While this may a less-than-significant to the university the neighbors do not view it this way. We were forced into this position of paying to park our cars on the street! **That is significant.** I guarantee it has personally affected every neighbor in some way.

In closing I believe this Draft EIR is seriously flawed in many many ways. It's time for UC to go back and reconsider this whole Long Range Development Plan. Partner with the neighbors and city before moving forward and be realistic as to the situation in which we all live. This University has to consider that it's cake may be finished and it's just time to do the decorating and the final touches. This city does not want to be overwhelmed any longer.

Thank you again for the opportunity to comment.

Sincerely,



Deborah Maddock Elston  
 323 Majors St (Your Neighbor)  
 Santa Cruz, CA 95060  
 Westlake Neighbors Association – President  
 Public Work Commissioner

### **Response to Comment Letter I-21**

**Response to Comment I-21-1.** Please refer to Responses to Comments SA-4-2 and LA-6-7 for information about the previously approved 1988 LRDP EIR mitigation measures and the currently proposed 2005 LRDP EIR mitigation measures.

**Response to Comment I-21-2.** The intent of the 2005 LRDP Draft EIR, which is programmatic EIR, is to analyze the significant effects on the environment from full implementation of the proposed 2005 LRDP. Because the precise timing of student growth and campus development is unknown at this time, phasing of improvements cannot be included in the Draft EIR. However, as individual projects under the 2005 LRDP are proposed for implementation, the University will undertake project-level environmental review that will identify the timing for implementing mitigation measures as part of the project. Some of these may be new project-specific mitigation measures; others would be mitigation measures that were adopted previously as part of the 2005 LRDP and apply to all projects, consistent with the overall program evaluated in the programmatic Draft EIR. The development of mitigation measures in the programmatic Draft EIR takes into account whether the measures themselves would create additional impacts (e.g., traffic operations at downstream or upstream intersections). No such indirect impacts were identified.

**Response to Comments I-21-3 and I-21-4.** The 2005 LRDP EIR considers the environmental effects of development under the 2005 LRDP as a whole. Please see Response to Comment ORG-7-24 for an explanation of the Campus will review and mitigate the impacts of individual LRDP component projects in the future.

As explained on page 4.10-11, the Draft EIR's noise analysis uses standards of significance that are based on state standards, the CEQA Guidelines, and the City of Santa Cruz General Plan. At locations where the existing noise levels already exceed the City and state standards, the Draft EIR does not find the increase in noise due to the project to be a significant impact because the increases would be small (less than 3 decibels, and less than 1 decibel at most locations; see Table 4.10-5 on page 4.10-18 of the Draft EIR) and therefore would not be perceptible. Please refer to Response to Comment I-21-2.

**Response to Comment I-21-5.** An increase in bus traffic due to increased transit service to the campus was included in the noise model while estimating the noise levels under 2020 With Project conditions. Therefore, no changes to the analysis and conclusions of LRDP Impact NOIS-2 are necessary. With respect to quieter buses, note that the Santa Cruz Metropolitan Transit District plans to convert its entire bus fleet to compressed natural gas (CNG) by or before 2020. Although noise levels from new buses cannot be determined until the specification of the new CNG buses are examined, preliminary information on CNG buses indicates that CNG fueled buses may be up to 14 decibels quieter than standard diesel buses (TIAX LLC 2003). The Draft EIR evaluated the development of an Eastern Access as a traffic mitigation measure and found it to be infeasible. For more information on the Eastern Access, please see Master Response TRAFFIC-3. With respect to another mass transit system, please refer to Response to Comment LA-6-101.

**Response to Comment I-21-6.** CEQA normally requires that EIRs describe the baseline as those conditions that exist at the time that the Notice of Preparation for the EIR is issued. The LRDP EIR

therefore describes the existing noise environment based on ambient noise levels in 2005. The EIR's impact analysis calculates the noise that the 2005 LRDP will add above that baseline level.

The EIR's standards of significance include city and state noise standards (see page 4.10-11, first bullet), which are described in detail on pages 4.10-4 and 4.10-5. Where the ambient noise levels at the 2005 baseline were already above the state/city standard but the 2005 LRDP adds only imperceptible amounts of noise (3 dB or less) to the cumulative noise levels, the LRDP's contribution is considered less than significant.

As shown in Table 4.10-5, at the two modeled locations where the ambient noise levels are below city and state noise standards (ST-1 and ST-8), the traffic associated with the proposed LRDP would not cause noise levels to increase such that the city/state standard would be exceeded. At locations where the noise levels are already above the city/state noise standards, the project would cause an imperceptible increase in noise, and would therefore result in a less-than-significant noise impact.

**Response to Comment I-21-7.** Please refer to Response to Comment SA-4-2. No noise impacts were identified in the 1988 LRDP EIR for residential neighborhoods around the campus and no mitigation measures were proposed. The 1988 LRDP EIR did include mitigation to address traffic impacts at affected intersections, and in compliance with LRDP EIR mitigation measures and pursuant to University Assistance Measures, the University has paid its fair share for traffic improvements that have been made by the City along roadways leading to the campus. The Campus has also been implementing an aggressive Transportation Demand Management (TDM) program to reduce the number of vehicle trips to the campus, which has helped avoid traffic-related increases in noise levels along major roadways that serve the campus. The 2005 LRDP Draft EIR includes LRDP Mitigation TRA-2B, which commits the University to expanding its TDM program. The program will aim to at least maintain and if possible raise the proportion of person trips to and from campus using alternate transportation modes (such as transit, multi-occupant autos, vanpools, and bicycles) above the current 55 percent of trips made by transit, carpool, bicycling, or walking.

**Response to Comment I-21-8.** Please refer to Response to Comment SA-4-2. No noise impacts were identified in the 1988 LRDP EIR for residential neighborhoods around the campus and no mitigation measures were proposed. On-campus noise impacts and mitigation measures are similar in the 1988 and 2005 LRDP EIRs, and these have been and continue to be implemented on campus as part of campus standards for construction. With respect to the appropriate baseline conditions against which the impacts of the 2005 LRDP are evaluated, please see Response to Comment I-21-6 above.

**Response to Comment I-21-9.** Please refer to Response to Comment LA-9-52 for information related to 2005 LRDP impacts on police services.

**Response to Comment I-21-10.** Please refer to Master Response TRAFFIC-3 (Eastern Access).

**Response to Comment I-21-11.** Please refer to Master Response TRAFFIC-3.

**Response to Comment I-21-12.** The Draft EIR analyzes the PM peak hour that occurs between 5:00 PM and 6:00 PM. This period was selected because it represents the worst-case period of all traffic combined in Santa Cruz, not just the University. Additionally, based on counts conducted at the University entrances, in the PM peak period the University traffic peaks between 4:30 and 5:30 PM. This peak falls directly within the peak period analyzed. Since the University's peak traffic generation was captured in



the intersection counts and was used to derive the future trip generation of the project, the analysis evaluated a reasonable worst-case scenario. The Draft EIR analyzes the worst-case level of service for the two highest traffic hours of the day and identifies feasible mitigation measures for this scenario. Measures that mitigate traffic impacts during the highest peak hours will also mitigate impacts for the periods of time with less traffic, throughout the day.

**Response to Comment I-21-13.** Please refer to Response to Comment I-21-2. All of the intersection improvements identified for off-campus intersections in the Draft EIR are feasible improvements that the City will be able to implement when the traffic at these intersections increases to the point at which the improvements are warranted. At the time that the City proposes these improvements, the Campus will pay its fair share of the cost of those improvements as described in Master Response MIT-1. Note that the Campus has contributed to the cost of off-campus traffic improvements in the past (see Response to Comments SA-4-2 and LA-6-7). The Draft EIR does not include mitigation measures that would be infeasible to implement. Please also see Response to Comments LA-9-80 and RA-1-22. The Draft EIR does not include mitigation measures for off-campus noise impacts because the noise impacts were determined to be less than significant (see pages 4.10-17 through -19 of the Draft EIR).

**Response to Comment I-21-14.** The University has been very successful in reducing traffic by developing and monitoring a series of Transportation Demand Management (TDM) programs and transit services. LRDP Mitigation TRA-2B ensures that the current success is maintained (at a minimum) and improved upon as the campus grows. This measure, and its proven success in reducing University traffic, may be one of the most effective mitigation measures. It is important to note that in calculating traffic impacts to off-campus and on-campus intersections, the analysis did not assume any traffic reduction due to the implementation of LRDP Mitigation TRA-2B. TDM measures are only part of a suite of measures identified in the Draft EIR, which also includes specific intersection improvements. The purpose of the mitigation measures is both to slow the growth of traffic and consolidate it into fewer vehicles, and also to participate in street improvements that will reduce delays. At the time that intersection improvements are proposed by the City, the University will negotiate with the City to determine and pay its fair share of the cost of the improvements. Please refer to Master Response MIT-1 regarding fair share contributions. Please also see Draft EIR page 4.14-47 and Response to Comment SA-9-1 as to why the Draft EIR concludes that off-campus traffic impacts would be significant and unavoidable. In addition, under the Final Draft 2005 LRDP (analyzed in the Draft EIR as the Reduced Enrollment Growth Alternative), the number of new peak-hour trips would be smaller than that analyzed in the Draft EIR (see Volume IV, Chapter 2 in the Final EIR).

**Response to Comment I-21-15.** Please refer to Responses to Comments LA-4-6, LA-2-142, and LA-2-143 regarding off-campus parking.

**David G. Eselius**  
 1312 Laurel Street  
 Santa Cruz CA 95060

October 24, 2005

- To: 2005-2020 LRDP/EIR Comment  
 UC Santa Cruz Physical Planning and Construction  
 1156 High Street, Barn G  
 Santa Cruz, California 95060
- cc: Chancellor Denice D. Denton, Ph.D., UCSC Chancellor  
 Sam Farr, Member of Congress, 17<sup>th</sup> District California  
 Joe Simitian, 11th Senate District  
 Sean Walsh, Director, Governor's Office of Planning and Research (OPR)  
 Mike Chrisman, California Secretary for Resources  
 Milford Wayne Donaldson, State Historic Preservation Officer (SHPO)  
 Santa Cruz County Grand Jury  
 Santa Cruz County Supervisors, members  
 Santa Cruz City Council, members  
 MAH Board of Directors, Santa Cruz Museum of Art and History (MAH)  
 Santa Cruz *Sentinel*
- Sub: UCSC 2005-2020 LRDP/EIR public comment period: sighting of historic Cowell Home Ranch and the LRDP community cumulative impacts.

Dear Interested UCSC Physical Planning and Construction:

This letter provides two (2) public comments concerning the University of California Santa Cruz (UCSC) 2005-2020 Long Range Development Plan (LRDP) and the 2005-2020 LRDP's Environmental Impact Report (EIR). The comments are provided within the 60-day public review window, which started October 19, 2005.

Cowell Home Ranch Reporting: Over the last four (4) years, and on many occasions, the University of California (UC) and the UCSC have been presented compendiums of information identifying the existence of Cowell Home Ranch's significant cultural resources. On frequent occasions, I have requested that Cowell Home Ranch cultural information be identified within UCSC's EIRs and within the UCSC 2005-2020 LRDP.

Acknowledgment of Cowell Home Ranch's extensive cultural resources has not occurred. This letter repeats the request to identify properly UCSC's portion of campus cultural resources of Cowell Home Ranch within UCSC's EIRs, the 2005-2020 LRDP, and the 2005-2020 LRDP-EIR.

The extent of UCSC's identification of Cowell Home Ranch's cultural resources is inadequate. The sited cultural resources are only a small portion of Cowell Home Ranch cultural resources. UCSC's identifies cultural resource content only in an area located at the campus's East entrance --

"The Cowell Ranch Historic District (CRHD) is an overlay district that encompasses cultural resources of particular significance from the original Cowell Ranch. The Cowell Ranch constitutes a landmark that helps define a strong and unique "sense of place" for UC Santa Cruz. The overlay (31 +/- acre) district is in a Campus Support land-use area. The CRHD is eligible for listing on the National and State Registers of Historic Places. A CRHD Management Plan governs development and protection of structures and landscape in and around the CRHD."

UCSC LRDP 2005-2020, Section 5, Page 16, Draft Oct 2005

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UCSC campus 2,000+/- acres are situated within the 12,000+/- acre historic Cowell Home Ranch. The cultural resources within Cowell Home Ranch are associated with the development of the West Coast lime industry, commerce, ranching, and the people who have contributed to the development of California. The historically active periods within Santa Cruz County are from 1791 to 1961. Additional Cowell Home Ranch historic information is available within the "*Cultural Landscape Report of Historical Cowell Home Ranch*," found at [http://home.earthlink.net/~cowell\\_home\\_ranch/](http://home.earthlink.net/~cowell_home_ranch/). Some ranch/lime-production photographs are also provided.

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It is my understanding that the autonomous UC, which claims to be not subject to local land-use regulation, is in fact subject to the regulations of NHPA, NEPA-Section 106, CEQA, and the California Public Resources Code 5024. Additionally, some actions of the UC are subject to the rulings of OHP, SHPO, and SHRC.

An OHP and SHRC Mission Statement is a combined statement and follows --

"The Mission of the Office of Historic Preservation (OHP) and the State Historical Resources Commission (SHRC), in partnership with the people of California and governmental agencies, is to preserve and enhance California's irreplaceable historic heritage as a matter of public interest so that its vital legacy of cultural, educational, recreational, aesthetic, economic, social, and environmental benefits will be maintained and enriched for present and future generations."

Regarding NHPA-Section 106 compliance, four OHP project review statements are identified within OHP's website --

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"Federal, state, and local laws require federal state and local agencies to consider the impact of proposed projects and certain activates or decisions upon historical resources. The Office of Historic Preservation (OHP) has responsibilities' mandated by state and federal laws and regulations. OHP's Project Review Unit performs project reviews in compliance with Section 106."

"Section 106 of the National Historic Preservation Act (NHPA), as amended, requires federal agencies to consider the effects of proposed federal undertakings on historic properties. NHPA's implementing regulations found in 36 CFR Part 800 require federal agencies (and their designees, permittees, licensees, or grantees) to initiate consultation with the State Historic Preservation Officer (SHPO) as part of the Section 106 review process."

"The California Environmental Quality Act (CEQA) requires that public agencies consider the effects of their actions on historical resources eligible for listing in the California Register of Historical Resources. Additionally, California Public Resources Code 5024 requires consultation with OHP when a project may impact historical resources located on State-owned land."

"Many local governments throughout California have ordinances that require the review of projects at the local level that may adversely impact historical resources. For information on these types of programs, contact the local government with jurisdiction over the resource in question."

Unless the UC adjusts its procedures for identification and proper care of public resources, important cultural fabrics within its possession will continue to be destroyed.

Community Cumulative Impacts: There is a need to understand better the relationship of an increasingly higher-density Santa Cruz County land-use vs. necessary maintenance of their high-quality ecological systems and community infrastructures.

3

Under existing CEQA law, public agencies must consider cumulative impacts of their projects. The manor in which this topic is applied has been the subject of ongoing discussions by government administrators.

3

However, an argument may be made that the analysis of UCSC's growth impact upon the surrounding community is an analogy to a federal military base, with personnel of 19,077, increasing 40% over 15 years. Under both circumstances, State and Federal funding impact surrounding community water resources, transportation, circulation, housing, economy, tax structure, schools, ecological systems, culture, grants, etc. These circumstances indicate that State, Federal, and Local Governments have an obligation to assure there is an appropriate identification and technical evaluation of growth impacts upon the community.

Such an analysis would consist of combining existing county infrastructure capacity and projected needs with UCSC projected 2005-2020 growth needs, and making a determination of the cumulative environmental consequences of UCSC's proposed 2005-2020 LRDP. (Note: An EIR appears to be the proper vehicle for technical analysis of a project's cumulative impacts.)

Santa Cruz County and cities remain the responsible authority for providing and developing the necessary common community infrastructures. If there are current inadequacies within the county infrastructure, the county will need to make the proper infrastructure improvements.

UCSC plans to grow from 15,000 to 21,000 students and from 4,077 to 5,600 faculty and staff over the next 15 years. The resulting cumulative impacts warrant further analysis.

Summary: An informed LRDP/EIR public review cannot occur until UCSC provides cultural resource identification and resulting necessary mitigations. It is requested that UCSC properly identify the historic Cowell Home Ranch cultural resources within UCSC's EIRs, 2005-2020 LRDP-EIR, and the 2005-2020 LRDP.

The cumulative impact upon Santa Cruz County's high-quality ecological systems and community infrastructures requires further public review. It is necessary that the UC contact the Governor's Office of Planning and Research (OPR) to request an administrative ruling concerning the 2005-2020 LRDP-EIR reporting of examining and weighing the projected community cumulative environmental consequences of UCSC's proposed 2005-2020 LRDP.

UCSC is required to respond to these requests, well before the LRDP public comment period ends December 19, 2005. A timely response to the proposed concerns will assure that public needs are being adequately represented within UCSC's long term planning.

Sincerely,

David G. Eselius

## Response to Comment Letter I-22

**Response to Comment I-22-1.** Under a grant from the Getty Foundation, the Campus and a consultant have recently evaluated and prepared a nomination to the National Register of Historic Places and the California Register of Historical Resources for the Cowell Ranch and Lime Industry Historic District, which has been recorded as site CA-SCR-198H. This site consists of the cluster of buildings, structures and archaeological features in the vicinity of the corporation yard near the main entrance to the campus. The University recognizes that the property referenced by the commenter as the historic Cowell Home Ranch was much more extensive than this small historic district, and included most of the land now occupied by the UC Santa Cruz campus. In a recent archaeological inventory, a consultant to the Campus recorded numerous additional historic features associated with the Cowell Ranch and earlier operations, including a tramway complex in Jordan Gulch and several kilns, quarries and structural remains in the central and north campus. These individually recorded features and sites, which are widely distributed and discontinuous, will be managed as historic cultural resources as described under LRDP Mitigations CULT-1A through -1H, -2A through -2F, and -3A and -3B. The Campus has downloaded the referenced Cultural Landscape Report and will keep it on file for future reference.

**Response to Comment I-22-2.** The University recognizes its obligations under CEQA and NEPA to inventory, assess and mitigate impacts to significant cultural resources on the campus. The University's proposed procedures for identification and management of significant cultural resources, which comply with CEQA Guidelines, are set forth in Section 4.5.2.3 of the 2005 LRDP EIR. The University regularly consults with the State Historic Preservation Officer (SHPO) with respect to impacts to significant cultural resources. For those campus projects that are federally funded or are subject to federal permitting, the University assists federal agencies in their compliance with Section 106 by providing consultant-prepared technical data and compliance document drafting as requested. The University believes that the procedures set forth in Section 4.5.2.3 of the Draft EIR will preserve the significant historic data and protect the significant cultural resources on the UC Santa Cruz campus.

**Response to Comment I-22-3.** The Draft EIR and Recirculated Draft EIR fully evaluated the cumulative impacts of development under the 2005 LRDP and other regional growth in the City and County of Santa Cruz. Please refer to each section in Chapter 4 of the Draft EIR for the cumulative impact analysis for each topic. Please also refer to Responses to Comments LA-9-12 and LA-10-22 for additional information about the basis for the cumulative impact analyses.

REC'D DEC 05 2005

John Barnes  
Director of Campus Planning  
A ttn. LRDP Comment  
Dear Sir:

December 4,2005

This letter is in response to notice of the 2005 Long Range Development Plan and Environmental Impact Report for UCSC. I have examined the LRDP and the EIR at the library and have compared this version of the LRDP with the 1988 version. The 2005 LRDP was prepared prior to the large increase in gasoline price. The 2005 LRDP continues to utilize the automobile to get students faculty and staff to and around the campus. UCSC having been the newest campus in the U.C. system, prior to the Merced campus, is the most auto oriented campus. Most people in Santa Cruz have been critical of UCSC for not providing better transportation to the campus and forcing students to park on city streets.

1

In the city of Davis the University operates the bus system. Students pay only \$28.50 per quarter for bus service which runs, on some lines, every 15 minutes from living units in the city. UCSC students pay \$69.00 per quarter for much poorer service. In Davis, 75% of the students walk, bicycle, or take the bus to campus. The Davis campus core was closed to automobiles in the 1960s.

The 1988 LRDP called for eventually closing McLaughlin Drive to auto traffic. The new LRDP does not mention this. It will be very difficult, in the future, to do this without, first, redoing the LRDP and the EIR.

2

The new LRDP gives lip service to the idea of reducing traffic to and from the campus. However, the only proposed external change is to open a third access from Empire Grade. No mitigation is proposed to reduce traffic on city streets and highways. Traffic will be greatly increased by faculty and staff, as well as students, when the student population grows to 21,000.

3

The campus core should be closed to auto traffic. Closing the core sends a clear message that people must walk, bicycle or take a bus. It would assure people in Santa Cruz that UCSC really wishes to be a part of the community. Closing the core will provide a quiet environment for academic activities. The campus should be the most beautiful in the world with our redwood trees, landscaping and favorable climate. It will also make it easier for the campus police to control terrorism. If there is no mention of future closing of the core in the LRDP it will be very difficult to do so.

4

Yours Truly:



Wilson H. Fieberling

249 Third Ave.

Santa Cruz Ca. 95062

### Response to Comment Letter I-23

**Response to Comment I-23-1.** In 2004 the University had a single-occupant mode share of less than 40 percent, compared to an average single-occupant mode share of greater than 60 percent for the rest of Santa Cruz. The University has been successful in transitioning students, faculty and staff to alternative modes of transportation, including transit, shuttles, vanpools, carpools, bicycles, and walking.

**Response to Comment I-23-2.** The 2005 LRDP does not propose the closure of McLaughlin Drive to autos – a change from the 1988 LRDP. This campus core street will remain a primary transit corridor and provides important vehicular access to existing buildings. The 2005 LRDP envisions McLaughlin Drive as a pedestrian-priority street with implementation of measures to safely accommodate pedestrian travel.

**Response to Comment I-23-3.** The Draft EIR contains mitigation measures intended to further reduce vehicular travel to and from the campus on City streets. These measures are a combination of Transportation Demand Management (LRDP Mitigation TRA-2B), parking (LRDP Mitigations TRA-3A through -3C), and transit, pedestrian, and bicycle improvements (LRDP Mitigations TRA-4A through -4E).

**Response to Comment I-23-4.** Comment noted. Please refer to Response to Comment I-23-2.

Subject: Official Comments on UC Santa Cruz LRDP Draft EIR  
To: lrdp-eir@ucsc.edu  
Cc: andygere@earthlink.net  
From: Andy\_Gere@sjwater.com  
Date: Fri, 6 Jan 2006 15:05:05 -0800

My official comments on the UC Santa Cruz LRDP Draft EIR are in the attached document.

(See attached file: Official Comments on UC Santa Cruz LRDP Draft EIR.doc)

Andrew R. Gere, P.E.  
222 Chico Avenue  
Santa Cruz, CA 95060

Attachment converted: Untitled:Official Comments on #485A5.doc (WDBN/«IC»)  
(000485A5)



**Official Comments on UC Santa Cruz LRDP Draft EIR  
Submitted by Andrew R. Gere  
January 6, 2006**

My name is Andrew R. Gere, and I reside and own a home at 222 Chico Avenue in Santa Cruz, California. The comments I am submitting are my own as a private citizen, however to provide the appropriate context for my comments, I have provided the following brief qualifications statement.

I am the Director of Operations and Water Quality for San Jose Water Company, an investor owned water utility that serves a population of approximately 1 million people in Santa Clara County. In this capacity I am currently responsible for planning and directing comprehensive programs related to water resources, water quality control and water production, storage and distribution. These include long term planning for source of supply, storage and distribution; compliance planning for state and federal Safe Drinking Water Act mandates and direction of specific program activities such as water treatment operations, water quality monitoring, and distribution system flushing and backflow prevention operations. I also direct the Company's environmental compliance programs and I am the Company's representative on matters related to public health, reporting to the State Department of Health Services, Santa Clara County Environmental Resources Agency, Regional Water Quality Control Board and other regulatory agencies. I have over 15 years of experience in the public water supply and utility operations, and am recognized locally and nationally as an expert in the field. My other qualifications are as follows:

**Education**

Bachelor of Science in Civil Engineering, concentration in environmental engineering, University of Connecticut, Storrs, Connecticut, May 1992.

Master's of Business Administration, Santa Clara University, Santa Clara, California, June 2002.

**Licenses**

Professional Engineer, Civil, State of California, License No. C 54958  
California Water Treatment Operator - Grade 4, Operator No. 18267

**Professional Service**

- Chair, Treated Water Committee, Santa Clara Valley Water District Retailer's Association
- Member, Association of California Water Agencies Safe Drinking Water Subcommittee
- Member, Silicon Valley Leadership Group Environmental Committee
- Member, American Water Works Association

The above information demonstrates that I have the qualifications necessary to provide expert testimony and comment on the Water Supply section of the Draft EIR for the 2005 Long Range Development Plan (LRDP) for UC Santa Cruz.

**Comments on Section 4.15.1.2 Water Supply**

- 1) The City of Santa Cruz 2000 Urban Water Management Plan projects water demand by UC Santa Cruz (UCSC) to be 408 million gallons per year from 2010 to 2050. The LRDP Draft EIR predicts the total demand (including 2300 Delaware Ave.) to be only 379.6 million gallons per year in 2020, with assumptions made for the amount of water that will be saved through conservation efforts. **Provide the quantitative analysis that demonstrates how the water usage predicted by the LRDP Draft EIR will be 28.4 million gallons lower than that predicted by the 2000 Urban Water Management Plan.**
  
- 2) In March 2004, the City of Santa Cruz Water Department published a study titled *Adequacy of Municipal Water Supplies to Support Future Development in the City of Santa Cruz Water Service Area* (Goddard 2004). This report states that based on the existing hydrological record, the system is expected to meet 100 percent of the *current* water demand in only 7 out of 10 years, with a significant shortage occurring in 1 year out of 10. Extended shortages may result in a supply deficit of 45 percent or greater. These shortages will occur with the existing demand on the system, and will become more significant with additional demand on the system that will result from an additional 6,500 students at UCSC. The City is currently considering construction of a desalination plant to provide 2.5 million gallons per day during droughts, but will not have capacity to serve the additional demand created by the UCSC expansion. According to Goddard 2004, "Over the next five to ten years, however, while the recommended dealination procte is in the process of being designed, reviewed, approved, financed, and constructed, the City and its customers remain subject to the ever present risk of water shortage." **The LRDP Draft EIR does not address how the additional demand will be met during droughts, nor does it address the additional cost to ratepayers for the construction and operation of the desalination plant that will be necessary on a more frequent basis, and for longer duration, due to the increased demands on the existing water supply.**
  
- 3) Water use in a municipal water supply system varies widely during any 24 hour period, with large peak hourly demands typically occurring during morning and early evening periods. Similarly, additional buildings and other development will create additional peak fire flow demand, which must be met by increased storage or additional pumping and transmission capacity. Goddard 2004 states that "Underlying the problems of seasonal and drought related water shortages is one other challenge in allowing future expansion of the water system. This other challenge is in providing adequate water treatment capacity on peak days at the Graham Hill Water Treatment Plant." **The LRDP Draft EIR does not provide any analysis on the water treatment, storage and distribution capacity needed to provide adequate treatment, supply, and pressure to serve the peak demands created by increasing the city's population by 11.5 percent. In addition, the LRDP Draft EIR does not account for the additional fire flow demand created by the new development and by increasing campus population.**
  
- 4) New drinking water regulations promulgated by US EPA will make it increasingly difficult for existing water treatment plants to meet the new standards while

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simultaneously meeting water use demands. Specifically, In December 2005, USEPA adopted the Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR) which will require surface water treatment plants using conventional technology to monitor source water for cryptosporidium for 24 consecutive months. On the basis of this monitoring, treatment plants will be assigned to a bin, or set of treatment provisions, that will require additional removal of cryptosporidium. Graham Hill Water Treatment Plant (GHWTP) will be subject to this new regulation. Depending on the occurrence of cryptosporidium during the monitoring period, GHWTP may be required to achieve an additional 1-log, 2-log or 2.5-log inactivation of cryptosporidium by employing one or more specified treatment technologies from the approved list (USEPA's LT2SWTR Microbial Toolbox). These technologies include presedimentation, ozone, UV disinfection, membranes, chlorine dioxide and others. Addition of any of these technologies would require significant capital improvements to the existing treatment trains, and are likely to reduce the current peak capacity of the plant. **The LRDP Draft EIR does not account for possible losses in current water treatment capacity that may result from future drinking water regulations. As a result, existing water supply capacity that was anticipated in the development of the LRDP Draft EIR may in fact not be available.**

## Response to Comment Letter I-24

**Response to Comment I-24-1.** Please refer to Section 5.2.15.2 in Master Response UTIL-1, which provides additional information as to how the campus's 2020 water demand was calculated, and why it is lower than the forecast prepared by Maddaus in 1998 and used in the City's 2000 Urban Water Management Plan and the Integrated Water Plan. Since the Draft EIR was published, the City has prepared revised estimates of system-wide demand in conjunction with the preparation of the Draft 2005 Urban Water Management Plan. These new estimates are discussed in Sections 5.2.15.2 and 5.2.15.3 in Master Response UTIL-1.

**Response to Comment I-24-2.** The project's impact under drought conditions is discussed on pages 4.15-35 and -36 of the Draft EIR. The Draft EIR acknowledges that the campus growth would contribute to an increased demand for water under drought conditions, and would contribute to the need for a new source that would supply water under drought conditions. As noted in the Draft EIR, the University will comply with Government Code 54999 fair share fee obligations with respect to a new water supply source at the time it is constructed to serve the community and the campus during drought conditions. Please refer to Master Response MIT-1 for information on Government Code 54999.

**Response to Comment I-24-3.** Please refer to Response to Comment LA-9-93 regarding the impact of the 2005 LRDP on the water treatment and distribution system. Refer to Section 5.2.15.3 in Master Response UTIL-1, which also discusses the project's impact on the treatment and distribution system.

**Response to Comment I-24-4.** Please refer to Section 5.2.15.1 in Master Response UTIL-1, which lists various factors, including the new drinking water regulations that could affect the available supply. The EIR takes these variables into account in concluding that the 2005 LRDP would contribute to a cumulative impact on water supply during the planning horizon of the 2005 LRDP. Please see Section 5.2.15.3 for Master Response UTIL-1 for additional information about this conclusion.

December 19, 2005

2005 LRDP EIR Comment  
 UCSC Physical Planning and Construction  
 1156 High Street, Barn G  
 Santa Cruz, CA 95064

DEC 21 2005

Comment #2 of the Draft EIR by University of California for the UCSC 2005 LRDP by James Gill  
 111 John St, Santa Cruz  
 Contact information: 831-425-3817 or [Gill111@sbcglobal.net](mailto:Gill111@sbcglobal.net)

**Improved analysis of the project at 2300 Delaware recommended**

The project-level analysis of development at 2300 Delaware should be improved in two areas in the FEIR. Both areas affect plans for the Santa Cruz Advanced Technology Incubator which would be permitted to occupy up to 30% of the non-storage portion of Building C (20,000 of 67,000 asf), renovation of which triggers this CEQA analysis. The two areas are related to (1) the allowed use of production and manufacturing versus research and development activities, and (2) the effects of third-party use of university property in general. These areas may not have significant impacts but the deficiencies might demonstrate lack of a good faith effort at full disclosure. They should be remedied in the FEIR because that provides the final CEQA review for this Project.

Item (1) is the allowed use of production and light manufacturing by new businesses (DEIR v.III, p. 4-14). This use differs substantially from those permitted on the main campus. Production and light manufacturing are likely to use hazardous materials differently and to have different waste streams. However, academic use patterns are the basis for analysis of Air Quality and Hazardous Materials. A more appropriate basis for analysis would be commercial R&D and production facilities in the neighboring area (e.g., Santa Cruz Biotechnology) or elsewhere in Santa Cruz. Although effects related to production are likely to be less than during prior use of this site by Texas Instruments, the baseline for this CEQA analysis is the date of the University's acquisition of the property, not its maximum prior use.

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Item (2) has two components. First, the DEIR says that non-UC tenants will be "*generally* responsible for their own permits and regulatory compliances" (p. 4-35). This raises several questions. First, what land use authority should be Lead Agency for this Project? The University can be Lead Agency for projects of its own use. However, in this case non-University tenants will be permitted to use almost a third of the area being evaluated for active (non-storage) use of Building C. Were the 20,000 gsf Santa Cruz Advanced Technology Incubator not bundled together with other uses, presumably the City of Santa Cruz would be the Lead Agency for review of its development. What rationale was followed in the decision to have UC as Lead Agency – e.g., >50% university use? Second, what does "*generally*" mean as italicized above, and what precedent shows that the university will subordinate its own permitting authority for uses

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of its own property? This is essential to several of the proposed mitigation measures, yet such subordination has been resisted by the University elsewhere. The FEIR should cite the policy or enabling agreements that will allow the relevant mitigation measures to be implemented, monitored, and enforced. Third, how will the University implement the requirement that third party users comply with the mitigations, and what is the University's liability if they do not? The DEIR says (p. 4-36) that non-UC tenants will "be required, through contracts and agreements, to implement programs and controls." Does this mean that prior acquisition of the relevant permits will be a condition of a lease? The FEIR and Findings should describe these matters in sufficient detail to be credible, monitorable, and enforceable (CEQA Guideline 15126.4(a)(2)) -- similar to, but no more than, what is required of other local commercial real estate lessors.

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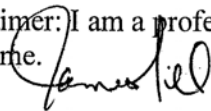
4

The second component relates to payment for public services and off-site mitigations. Will third party users of space at 2300 Delaware pay a possessory interest tax to the City or County of Santa Cruz? Will the University pay a development fee to the City or County of Santa Cruz for the area of the building in which third party use is approved? If the City or County does not require such tax or fee, what is the rationale for excepting for-profit tenants?

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In summary, perhaps because third-party use of university property is atypical, it has not been effectively analyzed in the DEIR. In the interest of a good faith disclosure and because this is the final review of this project, the topics identified here should be addressed before certification.

Disclaimer: I am a professor of Earth Science at UCSC. I prepared this comment on my own time.



## Response to Comment Letter I-25

**Response to Comment I-25-1.** As stated in the Draft EIR (page 4-14), between 15,000 and 20,000 square feet of space would be allocated to an Advanced Incubator Project. This space would be used for a variety of uses that include office, research, design, and, potentially, light manufacturing. The potential light manufacturing use would be a component of the 15,000 to 20,000 square feet of space for this facility and would not provide for large scale manufacturing like other commercial R&D and production in the Santa Cruz area. Any laboratory space would be within the total research space for Building C listed in Table 4-2. Therefore, the volume of air emissions from Building C would be similar to those from campus wet laboratories, rather than those emitted from high tech industrial operations that are involved in large-scale production. The same would be true of the use of hazardous materials or the generation of hazardous wastes.

**Response to Comments I-25-2 and -3.** 2300 Delaware Avenue is a University-owned property. Therefore the land use authority and the CEQA lead agency for the site is the University of California. All land use permits and approvals that are necessary for the occupancy and use of the site will be obtained by the University and not by the non-UC tenants that would lease portions of the property. At this time, the only land use approval that is needed is from The Regents of the University of California.

The University has the authority to sublet any portion of the property as it sees fit. Non-UC tenants leasing portions of the property from the University will be required to comply with the terms and conditions of the lease agreements. The lease agreements will stipulate that the lessee obtain and comply with any other permits and approvals that are needed to operate at the site, such as air permits, and/or permits and approvals for storage, handling and disposal of hazardous materials (compliance with hazardous materials business plan requirements and small or large quantity hazardous materials generator requirements). The word “generally” has been deleted from the text on page 4-35. See Final EIR, Volume IV, Chapter 3, *Changes to Draft EIR Text*. As noted above, the University will not be subordinating its land use authority for the use of its own property to others.

The EIR includes LRDP Mitigation HAZ-11 in the Draft 2005 LRDP EIR, pursuant to which the Campus will require, through contracts and agreements, which all non-UC tenants at 2300 Delaware Avenue implement controls that provide the same level of protection required of campus facilities. The agreements between the University and the non-UC tenants will be completed before the occupancy of the facilities by the non-UC tenants. As part of the Mitigation Monitoring Program (MMP) for the 2300 Delaware Avenue Project, the Campus will monitor compliance with LRDP Mitigation HAZ-11. Please see the MMP for more information about mitigation monitoring and reporting.

**Response to Comment I-25-4.** As part of the lease agreement, the non-UC tenants would be required to obtain all relevant permits and provide evidence of that to the University prior to occupancy of leased space at the site. They would also be required to periodically report to the University regarding their compliance with the permits. Responsibility for and timing of mitigations are specified in the Mitigation Monitoring Program, which is included as Chapter 4 of the Final EIR. If lease conditions were violated, the tenant would be asked to leave the property.

**Response to Comment I-25-5.** Non-UC tenants would be responsible for paying to the City the taxes and fees they are required to pay by law. Details of the business arrangements will be negotiated as part of the real estate transactions and are not relevant to the CEQA process.



December 20, 2005

2005 LRDP EIR Comment  
 UCSC Physical Planning and Construction  
 1156 High Street, Barn G  
 Santa Cruz, CA 95064

DEC 21 2005

Comment #1 on the Draft EIR by University of California for the UCSC 2005 LRDP by James Gill  
 111 John St, Santa Cruz  
 Contact information: 831-425-3817 or [Gill111@sbcglobal.net](mailto:Gill111@sbcglobal.net)

**Inadequate analysis of alternatives**

The DEIR prematurely dismisses two alternatives to the proposed project. Either, or a combination of the two, can achieve most or all of the project objectives, and both are environmentally superior to the proposed project. Therefore, at minimum the FEIR should fully consider both alternatives, and one of them (or a combination) should become the "environmentally superior alternative" (apart from the No Project alternative). At maximum, either might replace the proposed project because of environmental superiority.

Both involve the use of satellite campuses for professional programs or schools, an LRDP objective. Both involve sites that the developer (UC) owns or has the ability to lease, a CEQA standard of feasibility. Both would reduce development on the main campus by about one third and thereby make it unnecessary to develop the north campus (the North Road loop and adjacent development sites). By making that development unnecessary, both will reduce and might eliminate the significant and unavoidable effect on hydrology and erosion (HYD-3), and would reduce potentially significant effects on biological resources (especially maritime chaparral: BIO-1), vulnerability to wildland fires (HAZ-10), recreational trails (REC 2,3), and parking (TRA-3). Both would also reduce significant and unavoidable off-site impacts on air quality (AIR-2,4), population and housing (POP-1,3), traffic (TRA-2), and water consumption (UTIL-9).

CEQA Guidelines (Section 15126.6(a) and (e)(2)) require that an EIR's analysis of alternatives identify the "environmentally superior alternative" among all of those considered that would feasibly attain most of the basic objectives of the project, and that would avoid or substantially lessen any of the project's significant effects. I contend below that the two satellite campus alternatives are environmentally superior to the proposed project and the DEIR's preferred alternative (Reduced Enrollment Growth), and can accomplish most of the project's objectives. Even Table 2-2 shows that a satellite campus has fewer significant effects than the preferred alternative. Therefore, neither satellite alternative should be dismissed.

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A. Moffett Field alternative

The first alternative, 5.3.4. is to educate 2000 students at Moffett Field in Mountain View, thereby accommodating 1/3 of the planned growth elsewhere than the main campus. This was considered infeasible and, therefore, was not analyzed in detail. Such rejection is implausible because UCSC has planned, and continues to plan, for just such an alternative. The DEIR says (p. 5-10) that UCSC has signed a letter of intent with NASA to master-lease 25 acres at Moffett Field that could accommodate 2000 students. Preliminary land use plans and cost estimates have been prepared. As of December 2005, UCSC has a Silicon Valley Initiative whose website ([www.ucsc.edu/about/SiliconValleyInitiative](http://www.ucsc.edu/about/SiliconValleyInitiative)) says that "UCSC offers world-class education, training, and career-path development opportunities in Silicon Valley through graduate and, eventually, undergraduate programs in information technology, management, engineering, and international business." Even if this statement over-states reality in 2005, it illustrates administrative intent to do what the DEIR dismisses as infeasible.

The DEIR uses only one paragraph to conclude that this alternative is not feasible. It gives four reasons that can be paraphrased as follows: (1) new infrastructure would need to be developed; (2) the site is not readily available to most public transportation; (3) there is very limited capacity at the site for collaborative research; and (4) the site cannot share in the educational community development of the main campus. Feasibility under CEQA means that the project could be accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors (Guidelines sect. 15364) and if the proponent has access to the site (Guideline 15126.6(f)(1)). By that standard, the DEIR's conclusion is faulty for the following reasons.

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Reason (1) applies equally to the proposed project. The comparison is between the new infrastructure required at Moffett Field versus the new infrastructure required to develop the north campus. No such comparison is provided. However, the Moffett Field site is more compact and urban, so the environmental effects of extending infrastructure there should be less. Regarding reason (2), UCSC chose the Moffett Field site for its Silicon Valley Center partly because of its location at the intersection of Highways 101 and 85, and plans for a light-rail terminal at the site. One objective of the LRDP is to provide access to professional educational opportunities for the diverse California population. The Moffett Field site is closer to the target population than is the main campus. Because professional school students are more likely than others to commute from urban centers, their impact on off-site and on-site transportation and traffic should be less at Moffett Field.

Reason (3) seems especially disingenuous. UC's 2005-2006 Budget for Capital Improvements says (p. 165) that UCSC "is planning the development of the Silicon Valley Center (SVC). The Center is an important element in the University's long-range planning efforts..." The document includes plans for a new \$20,400,000 building at

Moffett Field. In contrast, it includes no building for the north campus. In addition, the website cited above extols the Moffett Field site for research, especially the existing University Affiliated Research Center (UARC) which is already there, and the Bio-Info-Nano Research Development Institute (BIN-RDI) for which \$2,000,000 of ear-marked funds was recently approved by the federal House Appropriations Committee. The latter was UCSC's highest priority for federal funding. Almost all UARC funding is spent at the Moffett Field site, not on the main campus, and the same may be true for BIN-RDI. Consequently, this alternative cannot reasonably be considered infeasible when there is so much evidence of planning for it (CEQA Guideline 15126.6(f)). Therefore, the FEIR should treat it as feasible and should discuss the potential consequences of the Silicon Valley Center for growth of the main campus.

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The principal reason why a court might agree with the University that this alternative is infeasible is #4, the challenge to maintain educational continuity and synergy between the main campus and a satellite campus. Because this also applies to the second alternative below, I will return to it later.

B. UC MBEST alternative

The second satellite alternative was judged feasible and, therefore, was analyzed in detail (Section 5.4.1). It would educate the 2000 students at the UC MBEST Center at the former Fort Ord. This site is slightly more accessible to the main campus than is Moffett Field, is already owned by UC, and most infrastructure is already in place. It is comparably distant from the San Jose area as the main campus and, therefore, comparably suitable for professional education. Its Master Plan and applicable CEQA documents were approved by the UC Regents in 1997. Education is one of the permitted uses under that Master Plan; indeed, it is what the "E" in MBEST stands for.

The DEIR rejects this Alternative for four reasons that can be paraphrased as follows: (1) it would be necessary to revise the UC MBEST Master Plan; (2) some duplication of services would be required (e.g., library, health center); (3) traffic between the two sites would increase; and (4) the site cannot share in the educational community development of the main campus. The DEIR's analysis is faulty for the following reasons.

Reason #1 is, indeed, a conflict of land use planning and would require revision of the Master Plan because, even though education is a permitted use, the balance of uses would change. However, the entire 2005 LRDP/EIR exercise is an equally significant revision of a Master Plan -- the UCSC 1988 LRDP/EIR. Furthermore, the campus has contended internally that additional CEQA analysis of the UC MBEST Master Plan will be required before further development there in any case. UCSC's own Business Plan for the UC MBEST Center concluded (p. 3-39) that locating a UC professional school or research institute at the MBEST Center would accelerate meeting the objectives of the Master Plan. It would also help to meet objectives of other regional land use plans (FORA, City of Marina, County of Monterey, etc). Consequently, because the Master Plan probably can be amended without contest to expand educational activities at UC MBEST, this is not an effective argument to reject the alternative.

2

Reason #2 is asserted, not analyzed. Both library and health services are available at the adjacent CSUMB campus and might be provided to UC students on a contract basis. Although DEIR readers may be comforted to read (p. 5-20) that “An important goal of the University is to provide good stewardship of public monies”, this assertion rings slightly hollow in late 2005 amidst many newspaper articles about misuses of public monies by the University. In addition, many universities have used satellite campuses as an effective stewardship of public monies. It may even be that some duplication of services at UC MBEST would be cheaper than the University Assistance Measures to pay a fair share of mitigation costs in Santa Cruz.

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Reason #3 uses a traffic analysis in the CEQA documents that accompanied certification of the UC MBEST Master Plan in 1997 to claim a significant impact because cumulative LOS might drop to E and F on parts of Highway 1 by 2015. However, the University considers this traffic analysis to be stale, the level of development considered in this cumulative analysis has not occurred, and the impact on traffic, although potentially significant, is no worse and arguably is better than the DEIR’s proposed project.

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The University might also raise the argument listed as #3 about Moffett Field, namely that there is limited capacity for collaborative research or professional education at the MBEST site. However, in 2005 the federal Base Realignment and Closure Commission re-affirmed that the Monterey area is its preferred location for professional education in priority areas for the University – engineering, management, and international studies. Hence, there is independent evidence that these LRDP objectives could be achieved at this satellite campus.

C. Can any satellite meet the project objectives?

BOTH Alternatives noted above (2000 students at Moffett Field or UC MBEST) are feasible and appear to be environmentally superior to the proposed project. Therefore, the remaining reason for their rejection might be Reason #4 – unwanted fragmentation of the teaching and research objectives of the LRDP. Although this is a significant matter, it affects only some of, not most of, the project’s objectives which also include accommodation of enrollment growth, support of professional degree programs, expansion of research programs, and expansion of the university’s contribution to the region (LRDP p. 9). These objectives *can* be met at satellite sites. None of the University’s documents (not the Strategic Futures Committee Report, the LRDP, the DEIR, or other publicly available planning documents) address what academic programs might be located where, although all discuss plans for generic professional programs schools. Consequently, it is unreasonable to assert that un-selected programs cannot work at satellite sites. Some UCSC documents list fields such as business, management, and education in addition to engineering. Arguably, each of these schools or programs might be developed as effectively, or even more effectively, in Silicon Valley or near Monterey. UCSC itself has made this case as part of its reason to develop a Silicon Valley Center at Moffett Field, and to acquire property at the former Fort Ord. UCSC recently inaugurated a joint PhD in Education with San Jose State and CSUMB, an activity that might be well-

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suiting to either satellite site. UC has explored management or even acquisition of the Monterey Institute of International Studies and the Naval Postgraduate School in Monterey. Although no action has been taken, ostensibly for fiscal reasons, the interest demonstrates potential synergy for professional programs located at UC MBEST. Finally, no evidence is provided from other universities demonstrating the effect of distance on different kinds of academic programs. Sometimes it is argued that even the distance between the central campus and sites planned for Academic Core development along the North Road, or at 2300 Delaware, significantly degrades the “close-knit educational community” on which UCSC says it prides itself (p. 5-20). Arguably, there is little difference in this respect between 2300 Delaware or the Marine Science Campus versus Moffett Field or MBEST for professional programs or schools. Broadband communication has profoundly reduced the need for close proximity. Therefore, the current level of planning by UCSC does not make the case that its objective of professional programs cannot be met satisfactorily at a satellite campus. Instead, UCSC’s own documents suggest that this objective might be met better at Moffett Field or UC-MBEST or a combination of the two.

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Can the LRDP objectives be achieved without professional schools that could flourish independently elsewhere? Probably not, for two reasons. First, the LRDP explicitly calls for 15% of UCSC students being graduate students. Few if any universities achieve this without professional schools. Second, an explicit objective of the LRDP is to develop professional schools in new and emerging disciplines. Thus, although some of the LRDP’s educational objectives (e.g., growth in Letters, Sciences, and some areas of engineering) might be adversely affected by accommodating some of the growth at a satellite campus, the University has not demonstrated that this applies to most of its objectives. On the contrary, its plans for a Silicon Valley Center/Initiative and UC-MBEST indicate the opposite.

D. Concluding remarks

The exact environmental benefits of not developing the north campus are difficult to tell from the DEIR. It may reduce the significant and unavoidable effect on surface water run-off and erosion (HYD-3) to less than significant status. Effects of north campus development on biological resources (BIO-1), recreational trails (REC2,3), wildland fires (HAZ-10), and the Campus Natural Reserve are considered less than significant after proposed mitigations. However, the adverse effects of mitigated development in the north campus must exceed no development. The off-campus effects of the satellite alternatives result from one third less enrollment in Santa Cruz. Reduced enrollment may not bring effects on air quality (AIR 2.4), population and housing (POP-2,3), traffic (TRA-2), and water consumption (UTIL-9) down to less than significant levels, but it will reduce them by spreading them out geographically.

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Because of the analysis above, the University’s major relevant environmental, academic, capital, and economic planning documents for both the Silicon Valley Center/Initiative and UC-MBEST (and NASA-Ames’ equivalent documents for the former) should be included in the administrative record for the FEIR, and these documents should be

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publicly available during review of the DEIR if it is re-circulated. If the alternatives can indeed meet most project objectives and are environmentally superior, then perhaps the proposed project should be changed accordingly, or at least the DEIR should be revised and re-circulated to enable more complete public assessment of the alternatives.

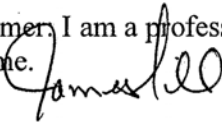
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The university could, of course, choose to instruct 2000 students at Moffett Field or MBEST even if the proposed project is certified through the FEIR. The issue under CEQA now is whether the university should have the flexibility of this choice if a feasible alternative is environmentally superior.

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In summary, the DEIR does not meet the CEQA standard for selecting its Preferred Alternative. Alternative 5.3.4 (Moffett Field) is feasible under the "rule of reason" and should be analyzed. Both satellite campus alternatives remove the need to develop the North Road on the main campus, thereby reducing several significant on-campus effects, and transferring significant and unavoidable off-campus effects to communities where they are less so. They accomplish more of the project's objectives than does the DEIR's Preferred Alternative ("Reduced Enrollment Growth"). Consequently, both alternatives appear to be feasible, consistent with project objectives, and environmentally superior to the DEIR's preferred alternative and proposed project.

Disclaimer: I am a professor of Earth Science at UCSC. I prepared this comment on my own time.



**Response to Comment Letter I-26**

**Response to Comment I-26-0.** Please see Master Response ALT-3 regarding analysis of a range of feasible alternatives and Master Response ALT-4 (Moffett Field Satellite Campus/ Silicon Valley Center).

**Response to Comment I-26-1.** See Master Response ALT-4 (Moffett Field Satellite Campus/ Silicon Valley Center).

**Response to Comment I-26-2.** Regarding the feasibility of a satellite campus at the Silicon Valley Center, please see Master Response ALT-4. Please see Response to Comment LA-9-137 regarding the amount of development that could be accommodated at the UC MBEST Center. As that response explains, the water allocation would limit the amount of academic and administrative space that could be accommodated at that site. Additionally, it probably would not be possible to meet 2005 LRDP housing goals at the satellite campus. Also, because undergraduates must take a broad range of courses, undergraduates probably would have to commute between the two campuses in order to complete a full program of study.

**Response to Comment I-26-3.** The possibility that a UC Santa Cruz satellite campus and California State University Monterey Bay (CSUMB) could share some facilities was recognized in a 1993 Memorandum of Agreement between UC and CSU. It is also possible, as the commenter notes, that the cost of duplication of some main campus services (such as a library or health center) at a satellite campus might in fact be less than the University's cost of mitigating off-campus impacts of development at the main campus. The actual costs to the University of the mitigations in the Draft EIR cannot be determined until specific improvements are planned by the appropriate jurisdictions; therefore, the extent to which the cost of these mitigations would be reduced by relocating a portion of the development to another site cannot be determined at this time. In addition to the potential costs for duplicate facilities at the satellite campus, it is likely that development of a satellite campus at the UC MBEST Center also would involve substantial costs and/or Government Code 54999 fair share fees for improvements to regional transportation facilities, improvements to the Ord Community road system, augmentation of the Ord Community's water supply, and construction of wastewater collection and water distribution systems. Dividing the 2005 LRDP development between the main campus and the satellite campus could result in mitigation obligations at both sites. Please refer to Master Response MIT-1 with respect to the University's Government Code 54999 obligations and fair share contributions.

**Response to Comment I-26-4.** Two recent traffic analyses conducted for projects in the region provide updated traffic projections for intersections and freeway facilities in the vicinity of the UC MBEST Center. The traffic analyses for both the CSUMB Master Plan Update (Denise Duffy & Associates 2004) and the East Garrison Specific Plan (Michael Brandman & Associates 2004) project that under 2020 conditions, a number of intersections, two freeway segments and several freeway ramps would operate at unacceptable levels of service. These two recent analyses support the statement in the Draft EIR that the satellite campus would likely have significant traffic impacts.

Development at the former Fort Ord has proceeded more slowly than anticipated several years ago. However, the Marina Coast Water District 2005 Urban Water Management Plan, which is based on land-use forecasts provided by all jurisdictions within the former Fort Ord, projects water demand beyond the

current limits now imposed by the Base Reuse Plan. It is appropriate for the 2005 LRDP EIR to assume the level of development projected by the Urban Water Management Plan, since this is the most current water planning document available for this region.

**Response to Comment I-26-5.** See Master Response ALT-4 (Moffett Field Satellite Campus/ Silicon Valley Center Issues).

**Response to Comment I-26-6.** See Master Response ALT-4 (Moffett Field Satellite Campus/ Silicon Valley Center Issues) and Response to Comment I-26-2.

**Response to Comment I-26-7.** The key UC Santa Cruz documents related to the Silicon Valley Center/Initiative (Studios Architecture 2001) and UC MBEST Center (Sedway Cooke Associates 1995) will be included in the Final EIR administrative record as requested. See also Response to Comment I-26-6, above.

**Response to Comment I-26-8.** The commenter implies that both the Silicon Valley Center (SVC) at Moffett Field and the Monterey Bay Education, Science and Technology Center (MBEST) alternative locations discussed in the 2005 LRDP EIR are feasible and environmentally superior alternatives to the proposed project and meet most of the project objectives; therefore the University should not be permitted the flexibility to continue the development of these sites as previously approved under other plans, but should adopt an alternative location as the preferred alternative for the 2005 LRDP.

CEQA Guidelines 15126.6(f)(1) lists factors to be taken into account in determining whether an alternative is feasible. These include site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and whether the proponent can reasonably acquire, control or otherwise have access to the proposed site. Both sites are presently being developed under previously approved land use plans, and adoption of either site as an alternative location for implementation of the 2005 LRDP would entail abandonment of the existing plans. Neither site is suitable to accommodate the entire program of development and enrollment growth proposed under the 2005 LRDP, although each could accommodate about one-third of that growth. Regarding the feasibility of a satellite campus at the SVC site, please see Master Response ALT-4. (Moffett Field Satellite Campus/ Silicon Valley Center).

MBEST at Fort Ord has marginally more capacity than the SVC site to accommodate development and the University has greater control over development of the site, as it is University-owned. The Fort Ord Campus Alternative therefore was considered to be more feasible than the Moffett Field Alternative for a satellite campus, and was analyzed in more detail as an alternative to the proposed 2005 LRDP.

As discussed in the Draft EIR and in Master Response ALT-4, development at either of the alternative locations would reduce some significant and potentially significant impacts of the proposed project with respect to traffic, air quality, housing and water consumption in the main campus area, and also could reduce some of the physical impacts of the proposed project with respect to biological resources, aesthetics, and cultural resources in the areas of the main campus that would not be developed under the alternative. However, impact reductions at the main campus site would be offset to at least some extent by new impacts at the alternative location. For example, water availability is constrained at the Fort Ord site, and traffic is a significant concern at both alternative locations. Further, placing LRDP development at either of these locations would substantially limit the program growth that is critical to the objectives of



the 2005 LRDP, and would require that the existing program either be abandoned or be relocated to another site.

One of the key goals of the proposed 2005 LRDP is to “retain flexibility that will allow continuing evolution of the campus over time in response to changing demographics, societal needs, technological developments and new external challenges.” Providing flexibility of this kind, through development of programs that offer opportunities for University engagement in key technological areas in the public and private sector, have been important factors in UC Santa Cruz planning for development of ancillary sites at Moffett Field and Fort Ord. UC Santa Cruz has been engaged in substantial planning for envisioned development of the SVC at Moffett Field since 2001, and the UC MBEST Center at Fort Ord since 1995. The goals and objectives for each of these envisioned programs overlap with those of the 2005 LRDP, but are distinct and site-specific. The development of these sites as presently planned is envisioned as augmenting UC Santa Cruz main campus programs and opportunities, expanding enrollment opportunities for students who reside near the ancillary sites or who have specific technological interests that could be served at these sites, and providing new opportunities for the University to collaborate with regional and local businesses and technological endeavors in areas such as engineering, management and international studies. These sites provide opportunities for the development of specific programs. As presently planned, each of these sites ultimately will accommodate a complement of UC Santa Cruz population. This will include some students, faculty and staff who are affiliated primarily with the main campus, as well as students whose primary affiliation is with the ancillary site or even with other academic institutions. Adoption of either or both of the ancillary sites for implementation of a portion of the proposed 2005 LRDP—and corollary abandonment of new development plans for the main campus site—would require either that the years of planning for the ancillary sites be discarded, or that the 2005 LRDP be modified to such an extent that virtually none of its goals and objectives would be met. Neither ancillary site has the capacity to accommodate or to support a full-scale, full-breadth University program.

Selection of either site as an alternative for implementation of the 2005 LRDP would impose substantial constraints on the overall program development for UC Santa Cruz. Although new development on the ancillary sites would provide new opportunities there, neither can provide the foundation of existing programs to support the envisioned expansion of academic and professional program breadth and depth. Development of the ancillary sites in conjunction with the proposed development on the main campus, as would occur with the adoption of the proposed 2005 LRDP and under the current plans for MBEST and SVC, would offer many opportunities for evolution of the campus over time that would be absent were new development confined only or primarily to the ancillary sites. Also refer to Master Responses ALT-3 (Range of Feasible Alternatives) and ALT-4 (Moffett Field Satellite Campus/Silicon Valley Center) for more discussion of these points.

Note that the Campus proposes to recommend to The Regents the adoption of the Final Draft 2005 LRDP (September 2006), which revises the Draft 2005 LRDP (January 2005) to reflect the Reduced Enrollment Growth Alternative previously analyzed in the 2005 LRDP Draft EIR and identified as the Environmentally Superior Alternative. For more information regarding the Final Draft 2005 LRDP, please see Final EIR, Volume IV, Chapter 2, *Project Refinements*.

The Draft EIR states that UCSC will need a Timberland Conversion Permit and individual Timber Harvest Permits. It neglects to mention, however, the need for other Exemption Permits for commercial tree removal that might occur outside the TCP areas.

As far as the EIR covering as the environmental document for future timber harvests, I think that is seriously in doubt. Any surveys done for the EIR will be totally out of date for future logging. These are several significant pieces I would like to comment on.

1. The EIR should discuss the need for CDF Exemptions (these are instead of THPs for small projects, but not conversions!) for commercial harvesting trees outside of a conversion area.

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2. All surveys conducted for the EIR would be out of date for any future timber harvest plans and, therefore, the LRDP-EIR would be considered insufficient to satisfy the requirements of a THP. I'm not sure this needs to be in the LRDP-EIR, but it would need to be dealt with when the individual THPs are reviewed.

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3. The Hydrological implications of logging and its impacts have not been adequately addressed. In addition the Regional Water Quality Board is requiring a Wetlands Delineation Study. Since this study has not yet been done, the analysis necessary for the TCP and THPs cannot possibly be adequate.

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Eric Grodberg  
208 Tréscony St.  
Santa Cruz, CA

## Response to Comment Letter I-27

**Response to Comment I-27-1.** The University acknowledges that, as provided for under the California Forest Practice Act, the Campus may be eligible for exemptions from the requirement to obtain a timberland conversion permit for certain types of projects.

**Response to Comment I-27-2.** The Timber Harvest Plan (THP) program is certified regulatory program under CEQA; the California Department of Forestry and Fire Protection (CDF) is the CEQA lead agency for the THP program. Although CDF may draw on portions of the analysis or mitigation measures included in the 2005 LRDP EIR and/or the University's project-specific CEQA document, the THP process is separate from the University's CEQA process. At the time that the University submits a Timber Harvest Plan, CDF will determine whether additional analysis will be required.

**Response to Comment I-27-3.** Please refer to Master Response BIO-2 (Wetland Impacts) and to Response to Comment I-27-2.

From: Aquafit@aol.com  
Date: Fri, 6 Jan 2006 11:50:19 EST  
Subject: re: no plan for growth  
To: lrdp-eir@ucsc.edu

We are long-time Westside residents of Santa Cruz, and we are very concerned about the negative impact the University seems to be having on the quality of life for SC citizens. We urge UCSC to be more responsive in coming up with solutions to mitigate these big problems. We used to support the University, but now it is like having King Kong in our midst. Help! The increasing negative attitude the residents are adopting is going to hurt you in the long run.

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Norma and George Hadland  
Santa Cruz, CA

## Response to Comment Letter I-28

**Response to Comment I-28-1.** Comment noted. Please also refer to Response to Comment LA-3-9 regarding revisions to 2005 LRDP EIR mitigation measures and Revised Table 2-1 in Volume IV, Chapter 3, of the Final EIR for the full text of revised measures.

REC'D JAN 12 2006

10 January 2006

To: 2005 LRDP EIR Comment  
 UCSC Physical Planning and Construction  
 1156 High Street, Barn G  
 Santa Cruz, CA 95064

From: Tonya M. Haff  
 Curator  
 UCSC Museum of Natural History Collections  
 Environmental Studies  
 1156 High Street  
 Santa Cruz, CA 95064  
 (831) 459-4763  
[thaff@ucsc.edu](mailto:thaff@ucsc.edu)

Re: UCSC 2005 LRDP draft EIR

I am writing to comment on the Biological Resources section (section 4.4) of the Campus draft EIR. I currently work for UCSC as a Senior Museum Scientist, where I curate the Environmental Studies' Museum of Natural History Collections. I have worked in this capacity for five years. I am a trained field biologist and ornithologist, with over five years of experience as a staff biologist for PRBO Conservation Science. I hold a M.S. in Resource Ecology and Management from the School of Natural Resources and Environment at the University of Michigan.

I have broken my comments into two sections that address either general or specific items in the draft EIR.

**GENERAL COMMENTS:**

I found the draft fraught with error, from misapplied species names to misidentified animals and weak habitat associations. I believe that this undermines the basic integrity of the report. To the best of my knowledge, the primary source of these errors was the 2004 Jones and Stokes report, which I read last year (mistakes that I alerted the Planning Office to last year, and which have unfortunately been reiterated in the draft EIR). Many of these mistakes can only have been made from cookbook-like, cut-and-paste report writing, or from use of exceedingly poorly trained biologists. Unfortunately, I believe that these mistakes make all management/mitigation suggestions suspect, as the conclusions decision-makers come to can only be as sound as the science these conclusions are based upon. Most specific mistakes and corrections are itemized in the "Specific Comments" section below.

For example, the unsilvered fritillary butterfly (*Speyeria adiastrum adiastrum*) was omitted from the Biological Impacts section of the report. The tone of the report leads one to believe that this omission is due to the fact that the species is a "species with low potential to occur" within the study area. Unlike other species treated in the Biological

Impacts section that have a low potential to occur on Campus (such as the coast horned lizard, a species with significantly more restricted motility than a butterfly), the report does not bother to detail why its authors believe that unsilvered fritillary butterflies have a low potential to occur here, especially given that its larval host food, Johnny jump-ups (*Viola pedunculata*), occur in the grasslands on campus in abundance and there is a nearby population of the butterfly in Big Basin State Park. I believe that the omission of this species from the draft EIR is likely due to a glaring error in the 2004 Jones & Stokes report, which reported that Johnny jump-ups do not occur on upper, central or lower Campus, a statement that is categorically untrue. Mitigation for take of Johnny jump-ups should be addressed in the final EIR.

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At times the inclusion or exclusion of species covered in the EIR seemed ill thought-out. For example, the movement patterns of raccoons (*Procyon lotor*) are covered (ostensibly because they have large home ranges). Raccoons are commensal with humans, however, and can be expected maintain or increase their populations with human expansion into the undeveloped areas of campus, especially as predators such as coyote and mountain lion are pushed from the increasingly urbanized central Campus. Further, raccoons are predatory omnivores known to depredate bird nests, and their expansion and potential population increase is likely to have an adverse affect on other wildlife on campus.

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The omission of badgers (*Taxidea taxus*) or long-tailed weasels (*Mustela frenata*) from the Wildlife Movement section of the draft EIR is egregious, if the Campus is truly concerned with the movement patterns of terrestrial mammals with large home ranges. For example, badgers, which are known to occur/have occurred on campus recently (see comments on section 4.4.1.5 below) and are a CDFG species of special concern, are not covered in the movement section, though this species is known to have declined throughout the state do to urbanization of grassland, and both badgers and long-tailed weasels have large home ranges.

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Perhaps of most concern in the Biological Impacts section is the extremely vague wording used when describing potential mitigation measures for sensitive species and habitats. I believe that the language is so vague in these sections as to often be beyond practical application. For example, language used in conjunction with mitigation measures include phrases such as "to the extent possible", "financially viable", and "avoidance measures". While I appreciate the fact that the future is speculative by nature, vague wording also allows room for interpretation by developers and non-biologists whose main intent is not the welfare or maintenance of sensitive species, but rather to see construction projects carried out in a timely and economical manner. Almost all of the mitigation measures proposed in section 4.4.2.4 need to be refined in the final EIR so that they offer SPECIFIC, DETAILED plans for how mitigation will be carried out.

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**SPECIFIC COMMENTS:**

**Section 4.4.1.4**

- States that Bald Eagle and Golden Eagle Protection Act is part of the regulatory setting in which the EIR and the 2005 LRDP will take place. This Act includes molestation or disturbance under "take". Development of the upper East Meadow

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will have a HIGH PROBABILITY of disturbing the Golden Eagles (*Aquila chrysaetos*) that regularly use the meadow. There is extensive documentation by the Santa Cruz Bird Club that Golden Eagles rely on this meadow as foraging habitat.

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**Section 4.4.1.5**

- Grassland section

- o Includes a poor characterization of the Great Meadow/East Meadow plant community, downplaying the importance and abundance of *Nasella pulchra* and *Danthonia californica*.
- o Black-tailed hare (*Lepus californicus*) do not occur anywhere on campus.
- o The Pennsylvania meadow vole (*Microtus pennsylvanicus*) does not occur on campus; the California meadow vole (*Microtus californicus*) is abundant, however.
- o The species list of animals found in grasslands is cursory. Species also indicative of grasslands on Campus include Burrowing Owl (*Athene cunicularia hypugaea*), Golden Eagle, White-tailed Kite (*Elanus leucurus*), Northern Harrier (*Circus cyaneus*), long-tailed weasel (*Mustela frenata*), badger (*Taxidea taxus*) (this is a California Department of Fish and Game Species of Special Concern), coyote (*Canis latrans*), gray fox (*Urocyon cinereoargenteus*), gopher snake (*Pituophis melanoleucus*), and racer (*Coluber constrictor*). I have observed all of these species in the Great Meadow or the East Meadow between 2000 and 2005, with the exception of badger, a fresh skull and neck (skin still attached) of which was found by Kim Glinka of Ecosystems West in the spring of 2004 (specimen is deposited in the UCSC MNHC, accession #UCSC-M-726).

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- Redwood forest section

- o Listing Douglas squirrel (*Tamiasciurus douglasii*) as common in the redwood forest is absolutely egregious. Douglas squirrel occur nowhere in the Coast Range south of Sonoma County; this is a Sierran and northern species. Western gray squirrel (*Sciurus griseus*) can be found in the redwood forest. As a note to this, I phoned the Planning Office in the spring of 2005 to let them know of this glaring mistake in the Jones and Stokes report (August 2004), and I am appalled that this information made it into the draft EIR.
- o Downy Woodpecker (*Picoides pubescens*) are NOT common in redwood habitat. Hairy Woodpeckers (*Picoides villosus*) are common in redwood habitat, however, and the two species may be confused by poorly trained biologists.

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- Mixed evergreen forest section

- o Interior live oak (*Quercus wislezeni*) only occurs at higher elevations on the west side of the Santa Cruz Mountains in Santa Cruz County (Morgan 2005). Shreve oak (*Quercus parvula* var *shrevei*) is the "interior" oak of campus, and grows both in tree and scrub form.
- o Ponderosa pine (*Pinus ponderosa*) is scattered throughout the mixed evergreen of the upper campus, but knobcone pine (*Pinus attenuata*) is not

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scattered. Instead, knobcone occupies more or less discrete patches on Campus.

- The species name for Western Scrub-jay is wrong: *Aphelocoma insularis* is Island Scrub-jay. Western Scrub-jay is *A. californica*.
  - Other important (indicative) species in mixed evergreen forest that are neglected in this section are western gray squirrel (rare throughout developed campus because of competitive exclusion by fox squirrel (*Sciurus niger*) and eastern gray squirrels (*Sciurus carolinensis*)), bobcat (*Lynx rufus*), gray fox, and Downy Woodpecker.
- Coyote Bush scrub section
- No black-tailed hare occur here (or anywhere else on campus).

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**Section 4.4.1.6**

- Coastal Prairie section
- Golden Eagles do not spend much if any time foraging in the designated coastal prairie habitat on Campus. This is likely due to the fact that their primary prey, ground squirrels (*Spermophilus beecheyi*) do not occur or occur only in low abundance in the “coastal prairie” of Campus; this habitat is too mesic to support dense populations of ground squirrels. Instead, the EAST MEADOW is the primary habitat for Golden Eagle on campus.
  - Black-tailed hare do not occur in the coastal prairie of campus (nor anywhere else on campus); brush rabbit do not occur in campus coastal prairie, either, except perhaps along the ecotone with chaparral or mixed evergreen forest.
  - Ground squirrel populations are low to zero in the coastal prairie areas designated in the draft EIR. The EAST MEADOW is the most important ground squirrel habitat on campus.
  - Botta’s pocket gophers (*Thomomys bottae*) are common in the coastal prairie on Campus (and indeed in all Campus grasslands).
  - While Common Raven (*Corvus corax*) may fly over coastal prairie on campus, they are in no way associated with this habitat. The inclusion of this common (and human-commensal) species in this species list functionally devalues the species-habitat associations of this section.
- Riparian section
- Cave Creek gulch has the best redwood riparian habitat on campus, not Jordan gulch. Cave Creek gulch is significantly more diverse in terms of plants, and is habitat to many plant species not found elsewhere on campus.
  - No mention of the riparian habitat (dominated by cottonwoods) in the arboretum is mentioned, which also houses a population of endangered red-legged frogs (*Rana aurora draytonii*).
  - Animal species list for riparian habitat is lacking, and seems characteristic only of habitat around bottom of the Moore Creek drainage. For example, birds species on campus associated with riparian habitat include Song Sparrow (*Melospiza melodia gouldii*) and Warbling Vireo (*Vireo gilvus*).

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Riparian habitat on campus is also important to a variety of Neotropical migrants that pass through during the spring and fall months.

- The mammal list for this section is lacking, as almost all mammal species found on Campus will use (and at times rely on) riparian habitat found here.

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**Section 4.4.1.9**

- The University takes the position that the undescribed Sedge warrants no protection under the EIR because there is not enough information is currently available as to whether or not this is a new species. This position is biologically ludicrous: protection should be mandatory for a species that may be so rare as to have escaped description in an area as richly studied as Santa Cruz County until further study has proved protection unnecessary.

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**Section 4.4.1.10**

- The EIR states that Burrowing Owl were not observed in the East Meadow in 2002 or 2005 (this type of observation seems to lend itself to a statement that this habitat is not critical for overwintering Burrowing Owl); however observers have counted Burrowing Owl in the East Meadow every year for the past 20 years during annual Christmas Bird Counts (Santa Cruz Bird Club records). In fact, the East Meadow is the only location in Santa Cruz County where Burrowing Owl regularly occur; this has been the case for the past 10 years (David Suddjian, Santa Cruz Bird Club records keeper, *personal comment*).
- I observed a pair of Cooper's Hawk (*Accipiter cooperi*) nesting along the Seep Interpretive Trail during March of 2001. Cooper's Hawk should be included in the list of raptors covered in this report.
- Golden Eagle are regularly observed YEAR ROUND in the East Meadow, and a juvenile was observed this fall (Wally Goldfrank, Bill Henry, *personal observations*). I believe it is possible that Golden Eagles could nest on campus in some of the less disturbed areas of campus, such as along the eastern edge of campus on the San Lorenzo River drainage.
- Northern Harrier do not breed on campus, but are found in low abundance EVERY WINTER throughout the campus grasslands (contact Santa Cruz Bird Club for further information).
- Vaux's Swift (*Chaetura vauxi*) are regularly observed foraging over Campus in the spring and summer, indicating nearby breeding sites (contact Santa Cruz Bird Club for further information).
- Section dedicated to dusky-footed woodrat (*Neotoma fuscipes*) is woefully inadequate, and seems to indicate that activity and densities are low on Campus, when many areas, particularly the area of Moore Creek drainage, upper campus, and north campus are densely populated by woodrat (*personal observations*).

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**Section 4.4.1.11**

- This section on wildlife movement states that that no terrestrial species use campus for migration. For this we must assume that by "terrestrial" the authors

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intend to mean non-volant species, as both migratory birds and bats occupy a wide variety of habitats on campus.

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- Further, this section neglects the rough-skinned newt (*Taricha granulosa*) and the California newt (*Taricha tarosa*), both of which occur on campus, and both of which undergo seasonal migratory movements on Campus between breeding grounds and feeding/aestivating grounds. Breeding grounds for *Taricha* include the pond at the Arboretum, as well as slower-moving water in Moore Creek and Cave Creek. Feeding and aestivating grounds may include all of the forested habitat on campus; I have certainly observed *T. granulosa* throughout lower and central campus. The Great Meadow in particular seems to be important in their migratory movements.

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- I have observed nursing female Coyote and pups in the Great Meadow (spring 2002), and assume that a den was nearby; would this constitute a “nursery”? The term is ill-defined.

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- Why does this section not include sections on long-tailed weasel and badger (a CDFG Species of Special Concern), both of which are known to occur on campus, and both of which occupy relatively large territories and require corridors for movement between habitat? The CDFG website ([http://www.dfg.ca.gov/hcpb/cgi-bin/read\\_one.asp?specy=mammals&idNum=74](http://www.dfg.ca.gov/hcpb/cgi-bin/read_one.asp?specy=mammals&idNum=74)) lists development as one of the primary reasons for the decline of badger in California.

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**Section 4.4.2.4**

- LRDP Impact Bio-1 Northern maritime chaparral/Santa Cruz manzanita (*Arctostaphylos andersonii*)

- o EIR states that Campus will avoid removal of any stands of Northern Maritime Chaparral larger than 10 acres, but stands on campus are generally much smaller and are relatively patchy, so this assurance means little in terms of habitat preservation.
- o The management plan calls for removal of trees and invasive weeds in Northern Maritime Chaparral, but not for use of fire in management, even though EIR states that the continued existence of chaparral and Santa Cruz manzanita on campus depends on fire as a management tool. This species will eventually senesce and disappear from campus without fire.
- o Removal of 40% of the Santa Cruz manzanita on Campus, may in fact jepordize the species in the long term; the extent to which this species is protected at other sites is not discussed.
- o Mitigation measures for chaparral and Santa Cruz manzanita are too vague to be of value; how exactly would a 1:1 mitigation take place, and what would the details involve? Where would the University acquire chaparral habitat outside of the campus? Details need to be provided in order for the mitigation plan to be properly evaluated.

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- LRDP Impact Bio-2: Coastal prairie

- o Crown Meadow cannot be replicated elsewhere, as is suggested in mitigation proposals. This meadow is strongly affected by local

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- hydrology (especially in its location next to the Seep Zone), which strongly affects the species diversity and richness at this site. 23
- LRDP Impact Bio-3: Wetlands (areas of underdrained depressions) 24

  - It is highly unlikely that the wetland mitigation measures outlined in the EIR will work (grading and planting to simulate underdrained depressions), not only because of the specific hydrology of the area they are found in, but also because these communities are unique in that they occur under redwood and mixed evergreen forest. How could these areas be simulated? Further, the areas of underdrained depressions contain a high concentration of plants of special interest (plants rare in the Santa Cruz Mountains of plants uncommon in Santa Cruz County), a fact that the EIR ignores. The EIR is too vague in its plans for how these plants might be propagated or transferred between sites, or even which species would be managed for. This section is FAR TOO VAGUE to have any biological meaning.
- LRDP Impact Bio-4: Riparian 25

  - Restoration/mitigation plan is too vague to be of value. For example, what does monitoring for a “minimum period of time” entail?
- LRDP Impact Bio-6: Noxious Weeds 26

  - Weedy animals, such as introduced species and species that are commensal with human activity are completely overlooked in this section. Introduced and human-commensal animals associated with the campus expansion are likely to have a negative impact on both plants and animals, however. For example, opossum (*Didelphis virginiana*), eastern gray and fox squirrels, black (*Rattus rattus*) and Norway rats (*Rattus norvegicus*) are all predators of small bird nests. Other native nest predators that are commensal with human development such as raccoon, Common Raven, and Western Scrub-jay and Steller’s Jay can also be expected to increase in abundance and density with campus development.
  - Further, eastern and fox squirrels compete with and appear to competitively exclude native western gray squirrels in areas around human development. A negative impact on the campus population of western gray squirrel can be expected with campus expansion.
  - Other introduced animal species that may negatively affect native wildlife on campus with expansion include argentine ants, House Sparrows, European Starlings, and house mice.
  - To rectify this problem, the section should address animal species as well as weedy plants.
- LRDP Impact Bio-7: Ohlone tiger beetle (*Cicindella ohlone*) 27

  - Mitigation plan looks good on paper, but the EIR needs detailed plans as to what enforcement of bike-free trails will entail, and how such expenses will be funded. Current enforcement is woefully inadequate.
- LRDP Impact Bio-8: Cave invertebrates 28

  - The draft EIR states that indirect impact on Campus cave invertebrates is expected to be less than significant. However, alteration to water flow within karst cave system due to increased runoff (as well as due to

direction of storm surges into the karst system) is unknown and poorly studied. While mitigation might ensure that peak storm runoff flow does not exceed 25-year storm levels, no attention has been given to what the effects of increasing the relative frequency of high water events (i.e. from once every 25 years to several times a year). This could potentially have significant effects of cave fauna.

- The EIR states that Campus will “continue” to limit visitation to caves, when there is currently NO limitation on student visitation to Empire Cave. Signs are regularly cut down and destroyed, leaflets are not available at the cave entrance, and no enforcement by campus police on weekend evenings is attempted (to the best of my knowledge).
- It is absolutely incorrect to state that overlap between humans and cave invertebrates is minimal because human activity is limited to the cave entrance. This is wrong for two reasons: 1) several species, including the Species of Special Concern *Meta dolloff* (Dolloff’s cave spider) are found only near the cave entrance. This is because their invertebrate prey is most abundant in these twilight areas. 2) Students regularly spelunk into further reaches of the cave, where they can come into contact with troglobite cave species.
- Stating that damage has already occurred and so that no further protection is needed is categorically untrue. The need for protection of this cave is critical and ongoing, especially for species such as Dolloff’s cave spider. The EIR does not consider the biological gravity of the cave invertebrates fully enough; although these species may be listed “only” as Species of Special Concern, they are found NOWHERE else outside of UCSC and Wilder Ranch, and probably warrant federal status and protection because of their limited range.

- LRDP Impact Bio-11: Raptors

- Fencing raptor nests is an inadequate way to protect them from disturbance, in what instance would a distance of less than 200 feet be appropriate? Most raptors would flush from a further distance than this. This plan would almost certainly result in the loss by abandonment or depredation.
- According to CDFG code section 3503, as well as the Migratory Bird Treaty Act, all nesting birds and active bird nests merit protection. The EIR does not outline how songbird nests will be found, monitored and protected during construction. This may be in violation of state and federal law.
- The report states here that the loss of grassland will not be significant. However, loss of grassland habitat at the top of the East Meadow has a HIGH PROBABILITY of disturbing and altering the habits of the Golden Eagle and Burrowing Owl that rely on this area. These two species in particular WILL NOT simply use other grasslands on campus because other Campus grasslands lack proper foraging/overwintering habitat (i.e. ground squirrels and ground squirrel burrows). An appropriate mitigation measure that is not discussed in the EIR would be to manage the Great

Meadow as habitat for Golden Eagle and Burrowing Owl through the implementation of cattle grazing (which would, in turn, attract ground squirrels as well as help in the maintenance of native plant diversity in that meadow).

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- LRDP Impact Bio-12: Burrowing Owl

- o Establishment of a 160 foot buffer zone around overwintering Burrowing Owls is inadequate protection from construction disturbance; burrows may not be damaged, but disturbance from construction itself may be enough for owls to abandon the site. Further, this buffer zone will only be honored "when feasible". When is this? When is this not feasible? These important details are neglected.
- o This section lists the Great Meadow as suitable habitat. This is untrue, however; no burrowing owls have been known to use the Great Meadow in recent years. See comments on Impact Bio-11.

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In summary, I hope to see the mistakes and omissions addressed in the final draft of the LRDP EIR, and sincerely hope that mitigation measures are appropriately altered.

Sincerely,

  
Tonya Haff

UCSC Plant list current Jan 2006

Common Name Bryophytes:	Scientific Name	Family	New Family	Abund	Habitat	Source
<b>Pteridophytes: Lycophytes</b>						
Nuttall's quillwort	<i>Isoetes nuttallii</i>	Isoetaceae		6	CP	
<b>Pteridophytes: Sphenophytes</b>						
Common horsetail	<i>Equisetum arvense</i>	Equisetaceae		4	RI, SE	
Common scouring rush	<i>Equisetum hymale ssp. affine</i>	Equisetaceae		4	SP	
Giant horsetail	<i>Equisetum telmateia</i>	Equisetaceae		4	RI	
<b>Pteridophytes: Pteridophytes</b>						
Duckweed-fern	<i>Azolla filiculoides</i>	Azollaceae			WA	
Deer fern	<i>Blechnum spicant</i>	Blechnaceae		6	RW	
Giant chain fern	<i>Woodwardia fimbriata</i>	Blechnaceae		2	RI	
Bracken	<i>Pteridium aquilinum var. pubescens</i>	Dennstaedtiaceae		1	ALL	
Wood fern	<i>Dryopteris arguta</i>	Dryopteridaceae		1	RW, ME	
California shield fern	<i>Polystichum californicum</i>	Dryopteridaceae		4	ME, RW	
Dudley's shield fern	<i>Polystichum dudleyi</i>	Dryopteridaceae		6	RW	
Sword fern	<i>Polystichum munitum</i>	Dryopteridaceae		1	RW	
Grape fern	<i>Botrychium multifidum ssp. silaifolium</i>	Ophioglossaceae		5	WET	
California polypody fern	<i>Polypodium californicum/calirhiza</i>	Polyodiaceae		2	RW, ME	
Licorice fern	<i>Polypodium glycyrrhiza</i>	Polyodiaceae		6	ME, RW	
Five-finger fern	<i>Adiantum aleuticum</i>	Pteridaceae		4	ME, RW, RI	
California maidenhair fern	<i>Adiantum jordanii</i>	Pteridaceae		4	ME, RW, RI	
Goldenback fern	<i>Pentagramma triangularis ssp. triangularis</i>	Pteridaceae		2	ME	
Lady fern	<i>Athyrium filix-femina var. cyclosorum</i>	Dryopteridaceae		3	RI	
<b>Gymnosperms:</b>						
Knobcone pine	<i>Pinus attenuata</i>	Pinaceae		3	KN	
Ponderosa pine	<i>Pinus ponderosa</i>	Pinaceae		3	ME	
Douglas-fir	<i>Pseudotsuga menziesii</i>	Pinaceae		1	ME, RW	
Coast redwood	<i>Sequoia sempervirens</i>	Taxodiaceae		1	RW	
<b>Angiosperms: Dicots</b>						
Big-leaf maple	<i>Acer macrophyllum</i>	Aceraceae	Sapindaceae	3	RI, ME	
Box elder	<i>Acer negundo var. californicum</i>	Aceraceae	Sapindaceae	4	RI	
<b>Low amaranth</b>	<i>Amaranthus deflexus</i>	Amaranthaceae			DI	
Poison-oak	<i>Rhus (Toxicodendron) diversilobum</i>	Anacardiaceae		1	ME, CH	
Bur-chervil	<i>Anthriscus caucalis</i>	Apiaceae		2	DI, RW	
Water-hemlock	<i>Cicuta douglasii</i>	Apiaceae			RI	
<b>Poison-hemlock</b>	<i>Conium maculatum</i>	Apiaceae		3	RI	
American wild carrot	<i>Daucus pusillus</i>	Apiaceae			GR	
Prickly coyote-thistle	<i>Eryngium armatum</i>	Apiaceae		4	CP, GR	
Fennel	<i>Foeniculum vulgare</i>	Apiaceae		2	GR	
Sweet cicely	<i>Osmorhiza chilensis</i>	Apiaceae		2	ME, RW	
Yampah	<i>Perideridia gairdneri</i>	Apiaceae		4	CP	
Dobie spindleroot	<i>Perideridia kelloggii</i>	Apiaceae		4	CH, GR, CP	
Footsteps-of-Spring	<i>Sanicula arctopoides</i>	Apiaceae		3	CP	
Purple sanicle	<i>Sanicula bipinnatifida</i>	Apiaceae		3	CP	
Gambleweed	<i>Sanicula crassicaulis</i>	Apiaceae		1	ME	

Lady's comb	<i>Scandix pectin-veneris</i>	3 GR, CP
Field hedge-parsley	<i>Torilis arvensis</i>	GR, ME
Knotted hedge-parsley	<i>Torilis nodosa</i>	GR
Periwinkle	<i>Vinca major</i>	8 ME
English holly	<i>Ilex aquifolium</i>	8 ME
California spikenard	<i>Aralia californica</i>	3 RW, RI
English ivy	<i>Hedera helix</i>	8 ME
Wild-ginger	<i>Asarum canadense</i>	5 RW
Yarrow	<i>Achillea millefolium</i>	3 GR
Trail plant	<i>Adenocaulon bicolor</i>	3 RW
<b>Eupatorium</b>	<i>Ageratina adenophorum</i>	8 WET
Annual agoseris	<i>Agoseris grandiflora</i>	4 GR, ME
Pearly everlasting	<i>Anaphalis margaritacea</i>	6 CH, ME
Woodland madia	<i>Anisocarpus (Madia) maditoides</i>	2 ME, RW
<b>Mayweed chamomile</b>	<i>Anthemis cotula</i>	3 DI
Rayless arnica	<i>Arnica discoides</i>	2 ME, RW
California mugwort	<i>Artemisia douglasiana</i>	3 ME, GR
California aster	<i>Aster chilensis</i>	4 CP
Seep-willow	<i>Baccharis douglasii</i>	4 WET
Coyote brush	<i>Baccharis pilularis</i>	1 GR, CH
English daisy	<i>Bellis perennis</i>	2 DI
Italian thistle	<i>Carduus pycnocephalus</i>	8 GR, ME, DI
Purple star-thistle	<i>Centaurea calcitrapa</i>	DI
Maltese star-thistle	<i>Centaurea melitensis</i>	3 DI, WET
Indian thistle	<i>Cirsium brevistylum</i>	2 GR, DI
Bull thistle	<i>Cirsium vulgare</i>	GR
South American conyza	<i>Conyza bonariensis</i>	4 GR
Horseweed	<i>Conyza canadensis</i>	3 DI
Asthma-weed	<i>Conyza floribunda</i>	4 CP, GR
California-aster	<i>Corethrogyne (Lessingia) flaginifolia</i>	
<b>Weedy hawkbeard</b>	<i>Crepis vesicaria</i>	GR
Stinkwort	<i>Dittrichia (Inula) graveolens</i>	ME
Cut-leaved coast fireweed	<i>Erechtites glomerata</i>	
Australian fireweed	<i>Erechtites minima</i>	
Golden fleece	<i>Ericameria arborescens</i>	4 ME
Golden-yarrow	<i>Eriophyllum confertiflorum</i> var. <i>confertiflorum</i>	4 DI
Western goldenrod	<i>Euthamia occidentalis</i>	GR
<b>Narrow-leaved filago</b>	<i>Filago gallica</i>	3 GR, CH
Green everlasting	<i>Gnaphalium californicum</i>	2 CH, DI
Fragrant everlasting	<i>Gnaphalium canescens</i> ssp. <i>beneolens</i>	WET
Lowland cudweed	<i>Gnaphalium palustre</i>	CP
Purple everlasting	<i>Gnaphalium purpureum</i>	3 CR, CP
Great Valley gumplant	<i>Grindelia camporum</i> var. <i>camporum</i>	2 WET
Sneezeweed	<i>Helenium puberulum</i>	
Tarweed	<i>Hemizonia corymbosa</i>	DI
Telegraph weed	<i>Heterotheca grandiflora</i>	3 ME
White-flowered hawkweed	<i>Hieracium albiflorum</i>	2 GR, CP
Smooth cat's ear	<i>Hypochoeris glabra</i>	1 CH, GR, CP, DI
Hairy cat's ear	<i>Hypochoeris radicata</i>	3 DI
Willow lettuce	<i>Lactuca saligna</i>	



Prickly lettuce	<i>Lactuca serriola</i>	Asteraceae	3 DI
Goldfields	<i>Lasthenia californica</i>	Asteraceae	6 CP
Hairy hawkbit	<i>Leontodon taraxacoides</i>	Asteraceae	2 CP
Ox-eye daisy	<i>Leucanthemum vulgare</i>	Asteraceae	3 ME
Common madia	<i>Madia elegans</i>	Asteraceae	CH
Threadstem tarweed	<i>Madia exigua</i>	Asteraceae	2 ME
Slender Tarweed	<i>Madia gracilis</i>	Asteraceae	3 CP
Coast Tarweed	<i>Madia sativa</i>	Asteraceae	1 DI
Pineapple Weed	<i>Matricaria matricarioides</i>	Asteraceae	5 CP
Slender cottonweed	<i>Micropus californicus</i>	Asteraceae	4 CP
Marsh spryzonella	<i>Microseris paludosa</i>	Asteraceae	4 ME
Western coltsfoot	<i>Petasites frigidus</i> var. <i>palmatus</i>	Asteraceae	3 WET
Bristly ox-tongue	<i>Picris echioides</i>	Asteraceae	4 CP
Round woolly marbles	<i>Psilocarphus tenellus</i> var. <i>globiferus</i>	Asteraceae	3 CH
Slender woollyheads	<i>Psilocarphus tenellus</i> var. <i>tenellus</i>	Asteraceae	GR
Common groundsel	<i>Senecio vulgaris</i>	Asteraceae	CP
Milk thistle	<i>Silybum marianum</i>	Asteraceae	DI
California goldenrod	<i>Solidago californica</i>	Asteraceae	GR
Coast goldenrod	<i>Solidago spathulata</i>	Asteraceae	DI
Lawn burweed	<i>Soliva sessilis</i>	Asteraceae	DI
Sow-thistle	<i>Sonchus asper</i>	Asteraceae	2 ME, RW
Prickly sow-thistle	<i>Sonchus oleraceus</i>	Asteraceae	4 GR
Tall stephanomeria	<i>Stephanomeria virgata</i>	Asteraceae	4 CH
Salsify	<i>Tragopogon porrifolius</i>	Asteraceae	5 CH, GR, ME
Silver puffs	<i>Uropappus lindleyi</i>	Asteraceae	1 ME, RW
Spiny cocklebur	<i>Xanthium spinosum</i>	Asteraceae	1 ME, RI
Common cocklebur	<i>Xanthium strumarium</i>	Asteraceae	5 CP
California hazlenut	<i>Corylus cornuta</i> var. <i>californica</i>	Betulaceae	5 CP
Common fiddleneck	<i>Amsinckia menziesii</i> var. <i>intermedia</i>	Boraginaceae	6 CP
Common borage	<i>Borago officinalis</i>	Boraginaceae	4 WET
Cleveland cryptantha	<i>Cryptantha clevelandii</i>	Brassicaceae	WET
Crypthantha	<i>Cryptantha micromeres</i>	Brassicaceae	DI, GR
Torrey's cryptantha	<i>Cryptantha torreyana</i>	Brassicaceae	DI, GR
Hound's tongue	<i>Cynoglossum grande</i>	Brassicaceae	DI, GR
Forget-me-not	<i>Myosotis latifolia</i>	Brassicaceae	2 ME, WET
Bracted allocarya	<i>Plagiobothrys bracteatus</i>	Brassicaceae	1 RW, ME
Hickman's popcornflower	<i>Plagiobothrys choristanus</i> var. <i>hickmanii</i>	Brassicaceae	GR
San Francisco popcornflower	<i>Plagiobothrys torreyi</i> var. <i>diffusus</i>	Brassicaceae	GR
Comfrey	<i>Symphytum asperum</i>	Brassicaceae	DI
American winter-ress	<i>Barbarea orthoceras</i>	Brassicaceae	GR
Field mustard	<i>Brassica rapa</i>	Brassicaceae	DI
Black mustard	<i>Brassica nigra</i>	Brassicaceae	DI
Shepherd's-purse	<i>Capsella bursa-pastoris</i>	Brassicaceae	DI
Few-seeded wintercress	<i>Cardamine oligosperma</i>	Brassicaceae	DI
Milkmaids	<i>Cardamine californica</i>	Brassicaceae	RI
Mediterranean mustard	<i>Hirschfeldia incana</i>	Brassicaceae	
Shining peppergrass	<i>Lepidium nitidum</i>	Brassicaceae	
Wayside peppergrass	<i>Lepidium strictum</i>	Brassicaceae	
Sweet alyssum	<i>Lobularia maritima</i>	Brassicaceae	
Watercress	<i>Nasturtium officinale</i>	Brassicaceae	

Wild radish	<i>Raphanus sativus</i>	Brassicaceae	DI, GR
Western yellow-cress	<i>Rorippa curvisiliqua</i>	Brassicaceae	5 WET
Charlock mustard	<i>Sinapis arvensis</i>	Brassicaceae	GR
Hairy fringe-pod	<i>Thysanocarpus curvipes</i>	Brassicaceae	5 CH, ME
California water-starwort	<i>Callitriche marginata</i>	Callitricheaceae	4 WET
Vernal water-starwort	<i>Callitriche verna</i>	Callitricheaceae	5 WET
California harebell	<i>Campanula prenanthoides</i>	Campanulaceae	3 ME, RW
Heterocodon	<i>Heterocodon variflorum</i>	Campanulaceae	6 WET
Hairy honeysuckle	<i>Lonicera hispidula</i> var. <i>vacillans</i>	Caprifoliaceae	2 ME
Blue elderberry	<i>Sambucus mexicana</i>	Caprifoliaceae	4 GR
White snowberry	<i>Symphoricarpos albus</i> var. <i>laevigatus</i>	Caprifoliaceae	1 ME, RW
Trailing snowberry	<i>Symphoricarpos mollis</i>	Caprifoliaceae	2 ME, RW
Mouse-eared chickweed	<i>Cerastium glomeratum</i>	Caprifoliaceae	2 ME
Wilding pink	<i>Petrorhagia dubia</i>	Caryophyllaceae	4 CP
Four-leaved allseed	<i>Polycarpon tetraphyllum</i>	Caryophyllaceae	DI
Sticky pearlwort	<i>Sagina apetala</i>	Caryophyllaceae	3 GR
Common catchfly	<i>Silene gallica</i>	Caryophyllaceae	2 CP, GR, DI
Corn cockle	<i>Spergularia arvensis</i>	Caryophyllaceae	2 DI
Purple sand-spurry	<i>Spergularia rubra</i>	Caryophyllaceae	1 GR
Common chickweed	<i>Stellaria media</i>	Caryophyllaceae	4 RW
Western burning bush	<i>Euonymus occidentalis</i> var. <i>occidentalis</i>	Celastraceae	DI
Lamb's-quarters	<i>Chenopodium album</i>	Chenopodiaceae	DI
Mexican-tea	<i>Chenopodium ambrosioides</i>	Chenopodiaceae	CP
Goosefoot	<i>Chenopodium chenopodioides</i>	Chenopodiaceae	CP
Peak rush-rose	<i>Helianthemum scoparium</i>	Cistaceae	2 CH
Western morning glory	<i>Calystegia occidentalis</i>	Convolvulaceae	3 SC
Field bindweed	<i>Convolvulus arvensis</i>	Convolvulaceae	2 GR
Dichondra	<i>Dichondra donnelliana</i>	Convolvulaceae	5 GR
Pygmyweed	<i>Crassula connata</i>	Crassulaceae	4 CH
Wild- cucumber	<i>Marah fabaceus</i>	Cucurbitaceae	3 ME, SC
Madrone	<i>Arbutus menziesii</i>	Ericaceae	1 ME
Santa Cruz Mtn manzanita	<i>Arctostaphylos andersonii</i>	Ericaceae	3 CH, ME
Sensitive manzanita	<i>Arctostaphylos nummularia</i>	Ericaceae	4 CH
Brittleleaf manzanita	<i>Arctostaphylos tomentosa</i> ssp. <i>crinita</i>	Ericaceae	2 CH
Manzanita hybrid	<i>Arctostaphylos</i> hybrid	Ericaceae	4 CH
Salal	<i>Gaultheria shallon</i>	Ericaceae	4 ME
Wintergreen	<i>Pyrola picta</i> forma <i>aphylla</i>	Ericaceae	7 ME, RW
Western azalea	<i>Rhododendron occidentale</i>	Ericaceae	3 SP
Huckleberry	<i>Vaccinium ovatum</i>	Ericaceae	1 CH, ME, RW
Red huckleberry	<i>Vaccinium parvifolium</i>	Ericaceae	7
Turkey mullien	<i>Croton setigerus</i>	Euphorbiaceae	3 GR
Egg-leaf spurge	<i>Euphorbia oblongata</i>	Euphorbiaceae	GR
Petty spurge	<i>Euphorbia pepilus</i>	Euphorbiaceae	DI
Silver wattle	<i>Acacia dealbata</i>	Fabaceae	8 ME, CP
Blackwood acacia	<i>Acacia melanoxylon</i>	Fabaceae	8 CP
French broom	<i>Genista monspessulana</i>	Fabaceae	8 CP, GR
Common Pacific pea	<i>Lathyrus vestitus</i>	Fabaceae	ME
Coast trefoil	<i>Lotus formosissimus</i>	Fabaceae	3 CP
Rush trefoil	<i>Lotus junceus</i>	Fabaceae	5 CH
Small-flowered trefoil	<i>Lotus micranthus</i>	Fabaceae	ME
Torrey's trefoil	<i>Lotus oblongifolius</i>	Fabaceae	6 SP, RW

Spanish lotus	<i>Lotus purshianus</i>	Fabaceae	3 CP
Deerweed	<i>Lotus scoparius</i>	Fabaceae	2 CH, ME
Strigose trefoil	<i>Lotus strigosus</i>	Fabaceae	
Chile trefoil	<i>Lotus wrangelianus</i>	Fabaceae	
Dwarf lupine	<i>Lupinus bicolor</i>	Fabaceae	ME
Broad-leaved lupine	<i>Lupinus latifolius</i>	Fabaceae	3 CP
Douglas's annual lupine	<i>Lupinus nanus</i>	Fabaceae	7
Large-leaved lupine	<i>Lupinus polyphyllus</i>	Fabaceae	2 CP, GR
Spotted bur-clover	<i>Medicago arabica</i>	Fabaceae	2 CP, GR, DI
Spiny bur-clover	<i>Medicago polymorpha</i>	Fabaceae	DI
White sweet-clover	<i>Melilotus alba</i>	Fabaceae	DI
Indian-clover	<i>Melilotus indica</i>	Fabaceae	4 CH
Chapparal pea	<i>Pickeringia montana</i>	Fabaceae	ME, RW
California tea	<i>Rupertia physodes</i>	Fabaceae	4 CP
Golden pea	<i>Thermopsis californica (macrophylla)</i>	Fabaceae	1 GR, CP, DI
Narrow-leaved clover	<i>Trifolium angustifolium</i>	Fabaceae	5 CP
Bearded clover	<i>Trifolium barbigerum</i>	Fabaceae	CP
Hop clover	<i>Trifolium campestre</i>	Fabaceae	3 CP, GR
Purple sack clover	<i>Trifolium depauperatum</i> var. <i>Truncatum</i>	Fabaceae	2 GR
Shamrock clover	<i>Trifolium dubium</i>	Fabaceae	GR
Rose clover	<i>Trifolium hirtum</i>	Fabaceae	GR
Crimson clover	<i>Trifolium incarnatum</i>	Fabaceae	3 DI
Small-headed clover	<i>Trifolium microcephalum</i>	Fabaceae	GR
Creek clover	<i>Trifolium obtusiflorum</i>	Fabaceae	5 WET
Pacific Grove clover	<i>Trifolium polyodon</i>	Fabaceae	5 CP
White clover	<i>Trifolium repens</i>	Fabaceae	GR
White-tipped clover	<i>Trifolium variegatum</i>	Fabaceae	CP
Subterranean clover	<i>Trifolium subterraneum</i>	Fabaceae	GR
Tomcat clover	<i>Trifolium wildenovii</i>	Fabaceae	GR
Coast clover	<i>Trifolium wormskoldii</i>	Fabaceae	5 CP
American vetch	<i>Vicia americana</i> var. <i>americana</i>	Fabaceae	GR
Purple vetch	<i>Vicia benghalensis</i>	Fabaceae	GR
Giant vetch	<i>Vicia gigantea</i>	Fabaceae	
Smaller common vetch	<i>Vicia sativa</i> ssp. <i>nigra</i>	Fabaceae	2 GR
Common vetch	<i>Vicia sativa</i> ssp. <i>sativa</i>	Fabaceae	GR
Hairy vetch	<i>Viscia villosa</i> ssp. <i>varia</i>	Fabaceae	2 GR
Giant chinquapin	<i>Chrysolepis chrysophylla</i> var. <i>chrysophylla</i>	Fabaceae	4 ME
Chinquapin	<i>Chrysolepis chrysophylla</i> var. <i>minor</i>	Fabaceae	4 ME
Tanoak	<i>Lithocarpus densiflora</i>	Fabaceae	2 ME, RW
Coast live oak	<i>Quercus agrifolia</i>	Fabaceae	1 ME
Canyon live oak	<i>Quercus chrysolepis</i>	Fabaceae	6 CH
Oracle oak	<i>Quercus x morehus</i>	Fabaceae	5 ME
Shreve oak	<i>Quercus parvula</i> var. <i>shrevei</i>	Fabaceae	1 ME
Davy's Centaury	<i>Centaureum davyi</i>	Gentianaceae	4 CH, CP, GR, ME
Timwort	<i>Cicendia quadrangularis</i>	Gentianaceae	5 CP, GR
Storksbill	<i>Erodium botrys</i>	Geraniaceae	1 CP, GR
Red-stemmed filaree	<i>Erodium cicutarium</i>	Geraniaceae	2 GR, CP, Dist
White-stemmed filaree	<i>Erodium moschatum</i>	Geraniaceae	3 DI
Cut-leaved geranium	<i>Geranium dissectum</i>	Geraniaceae	2 GR, CP
Cranesbill	<i>Geranium molle</i>	Geraniaceae	2 ME



Mexican plantain	<i>Plantago subnuda</i>	7 CP, WET
Varied-leaved collomia	<i>Collomia heterophylla</i>	3 ME
Small-flowered linanthus	<i>Linanthus parviflorus</i>	CP, ME
Holly-leaved navarretia	<i>Navarretia atracyloides</i>	GR
California milkwort	<i>Polygala californica</i>	2 CH, ME, RW
Diffuse spine-flower	<i>Chorizanthe diffusa</i>	5 CH
<b>Common knotweed</b>	<b><i>Polygonum arenastrum</i></b>	<b>WET</b>
Willow weed	<i>Polygonum lapathifolium</i>	WET
Water smartweed	<i>Polygonum punctatum</i>	3 SP
Sheep- sorrel	<i>Rumex acetosella</i>	2 GR, CP
Curly dock	<i>Rumex crispus</i>	<b>DI</b>
Fiddle dock	<i>Rumex pulcher</i>	
Willow-leaved dock	<i>Rumex salicifolius</i> var. <i>crassus</i>	4 DIT
Willow-leaved dock	<i>Rumex salicifolius</i> var. <i>salicifolius</i>	4 DIT
Red maids	<i>Calandrinia ciliata</i>	3 CH, CP
Miner's-lettuce	<i>Claytonia perfoliata</i>	2 ME
<b>Scarlet pimpernel</b>	<b><i>Anagallis arvensis</i></b>	<b>1 GR, CP, DI</b>
Chaffweed	<i>Anagallis (Centunculus) minimus</i>	4 CP
Lowland shooting-star	<i>Dodecatheon clevelandii</i> ssp. <i>patulum</i>	6 CP
Pacific star-flower	<i>Trientalis latifolia</i>	2 RW
<b>Rosemary grevillea</b>	<b><i>Grevillea</i> sp.</b>	<b>8 GR</b>
Western baneberry	<i>Actaea rubra</i>	3 RW
Western wind flower	<i>Anemone oregana</i>	3 RW
Northwest crimson columbine	<i>Aquilegia formosa</i> var. <i>truncata</i>	5 RW
Water buttercup	<i>Ranunculus aquatilis</i> var. <i>capillaceus</i>	6 WET
California buttercup	<i>Ranunculus californicus</i>	2 CP, GR
<b>Prickle-fruited buttercup</b>	<b><i>Ranunculus muricatus</i></b>	<b>CP</b>
Meadow-rue	<i>Thalictrum fendleri</i> var. <i>polycarpum</i>	6 ME
Warty-leaved ceanothus	<i>Ceanothus papillosus</i> var. <i>roweanus</i>	2 CH
Blue blossom	<i>Ceanothus thyrsiflorus</i>	2 CH, SC
Regal blue blossom	<i>Ceanothus x regius</i>	4 CH
Coffeeberry	<i>Rhamnus californica</i>	3 CH, ME, SC
California acaena	<i>Acaena pinnatifida</i>	4 CP, GR
Chamise	<i>Adenostoma fasciculatum</i>	2 CH
<b>Cotoneaster</b>	<b><i>Cotoneaster franchetii</i></b>	<b>8 CP, GR</b>
<b>Cotoneaster</b>	<b><i>Cotoneaster pannosa</i></b>	<b>8 DI, GR</b>
California strawberry	<i>Fragaria vesca</i>	2 ME
Toyon	<i>Photinia (Heteromeles) arbutifolia</i>	2 ME
Ocean spray	<i>Holodiscus discolor</i>	Rosaceae
Wedge-leaved horkelia	<i>Horkelia cuneata</i> ssp. <i>cuneata</i>	4 ME, RW
Point Reyes horkelia	<i>Horkelia marinensis</i>	3 CP, GR
Common cinquefoil	<i>Potentilla glandulosa</i> ssp. <i>glandulosa</i>	4 CP
<b>Firethorn</b>	<b><i>Pyracantha angustifolia</i></b>	GR
California rose	<i>Rosa californica</i>	<b>8 CP, GR</b>
Wood rose	<i>Rosa gymnocarpa</i>	4 DI
Ground rose	<i>Rosa spithamea</i>	2 RW, ME
<b>Himalaya blackberry</b>	<b><i>Rubus discolor</i></b>	5 CH, ME
Western raspberry	<i>Rubus leucodermis</i>	<b>3 DI</b>
Thimbleberry	<i>Rubus parviflorus</i>	4 RW
California blackberry	<i>Rubus ursinus</i>	4 ME
Cleavers	<i>Galium aparine</i>	1 ME, RW, SC
		GR

California bedstraw	<i>Galium californicum</i> ssp. <i>californicum</i>	Rubiaceae	3 ME
Climbing bedstraw	<i>Galium porrigens</i>	Rubiaceae	CH
Wall bedstraw	<i>Galium paritense</i>	Rubiaceae	GR
Sweet-scented bedstraw	<i>Galium triflorum</i>	Rubiaceae	3 ME
Field madder	<i>Sherardia arvensis</i>	Rubiaceae	CP
Black cottonwood	<i>Populus balsamifera</i> ssp. <i>trichocarpa</i>	Salicaceae	3 RI
Red willow	<i>Salix laevigata</i>	Salicaceae	3 RI
Arroyo willow	<i>Salix lasiolepis</i>	Salicaceae	2 RI
Yellow willow	<i>Salix lucida</i> ssp. <i>lasianдра</i>	Salicaceae	3
Scouler's willow	<i>Salix scouleriana</i>	Salicaceae	3 WET
Sitka willow	<i>Salix sitchensis</i>	Salicaceae	RI
Brook foam	<i>Boykina occidentalis</i>	Saxifragaceae	3 RW
Crevice alumnroot	<i>Heuchera micrantha</i>	Saxifragaceae	ME
Fringe cups	<i>Tellima grandiflora</i>	Saxifragaceae	5 RW
Sugar scoop	<i>Tiarella trifoliata</i> var. <i>unifoliata</i>	Saxifragaceae	3 GR
Bellardia	<i>Coccocypselum (Bellardia) trixago</i>	Scrophulariaceae	7 CP
Johnny-nip	<i>Castilleja ambigua</i> ssp. <i>ambigua</i>	Scrophulariaceae	3 CP
Owl's clover	<i>Castilleja densiflora</i> ssp. <i>densiflora</i>	Scrophulariaceae	4 CP
Purple owl's-clover	<i>Castilleja exserta</i>	Scrophulariaceae	4 RW
Kenilworth Ivy	<i>Cymbalaria muralis</i>	Scrophulariaceae	2 ME, CH, SC
Sticky monkeyflower	<i>Mimulus aurantiacus</i>	Scrophulariaceae	6 WET
Floriferous monkeyflower	<i>Mimulus floribundus</i>	Scrophulariaceae	WET
Spring-seep monkeyflower	<i>Mimulus guttatus</i>	Scrophulariaceae	4 SE
Musk monkeyflower	<i>Mimulus moschatus</i>	Scrophulariaceae	ME
California Figwort, beoplant	<i>Scrophularia californica</i>	Scrophulariaceae	5 CP
False owl's-clover hybrid	<i>Triphysaria hybrid</i>	Scrophulariaceae	5 CP
Rosy Johnny-tuck	<i>Triphysaria eriantha</i> ssp. <i>rosea</i>	Scrophulariaceae	3 CP, GR
Dwarf owl's clover	<i>Triphysaria pusilla</i>	Scrophulariaceae	4 CP, GR
Smooth owl's-clover	<i>Triphysaria versicolor</i> ssp. <i>versicolor</i>	Scrophulariaceae	3 RI
American brooklime	<i>Veronica americana</i>	Scrophulariaceae	WET
Purselane speedwell	<i>Veronica peregrina</i> ssp. <i>xalapensis</i>	Scrophulariaceae	DI
Persian speedwell	<i>Veronica persica</i>	Solanaceae	3 SC
Douglas's nightshade	<i>Solanum douglasii</i>	Solanaceae	3 RW, SE
Blue witch	<i>Solanum umbelliferum</i>	Solanaceae	5 ME, RW
Baby's tears	<i>Soletrolia solertioli</i>	Urticaceae	4 RI
American stinging nettle	<i>Urtica dioica</i> ssp. <i>gracilis</i>	Urticaceae	3 DI
Hoary nettle	<i>Urtica dioica</i> ssp. <i>holosericea</i>	Urticaceae	ME, GR
Red valerian	<i>Centranthus ruber</i>	Valerianaceae	4 RW
Sea bluish	<i>Plectritis congesta</i>	Valerianaceae	2 ME, RW
Western vervain	<i>Verbena lasiostachys</i>	Verbenaceae	3 CP
Smooth yellow violet	<i>Viola glabella</i>	Violaceae	3 CH, ME
Two-eyed violet	<i>Viola ocellata</i>	Violaceae	3 RW, CP, WET
Johnny-jump-up	<i>Viola pedunculata</i>	Violaceae	
Redwood violet	<i>Viola sempervirens</i>	Violaceae	
Angiosperms: Monocots			
Ample-leaved sedge	<i>Carex amplifolia</i>	Cyperaceae	4 RW, RI
Short-stemmed sedge	<i>Carex brevicaulis</i>	Cyperaceae	5 CP
Dense sedge	<i>Carex densa</i>	Cyperaceae	3 CP
Round-fruited sedge	<i>Carex globosa</i>	Cyperaceae	3 CH, ME
Olney's hairy sedge	<i>Carex gynodynamis</i>	Cyperaceae	3 RW, CP, WET

Hartford's sedge	<i>Carex harfordii</i>	Cyperaceae	ME
Slough sedge	<i>Carex obnupta</i>	Cyperaceae	3 SP
Small-bracted sedge	<i>Carex subbracteata</i>	Cyperaceae	ME
Slender sedge	<i>Carex tumulicola</i>	Cyperaceae	ME
Unidentified sedge	<i>Cyperus eragrostis</i>	Cyperaceae	5 WET
Umbrella-sedge	<i>Eleocharis acicularis</i>	Cyperaceae	2 RI, DI
Needle spike-rush	<i>Eleocharis macrostachya</i>	Cyperaceae	4 CP
Creeping spike-rush	<i>Eleocharis montevidensis</i>	Cyperaceae	DI
Dombey's spikerush	<i>Eleocharis carinata (Scirpus koitolepis)</i>	Cyperaceae	6 WET
Keel'd club-rush	<i>Isolepis carinata (Scirpus koitolepis)</i>	Cyperaceae	3 CP, WET
Low bulrush	<i>Isolepis (Scirpus) cernua</i>	Cyperaceae	WET
Panicle'd bulrush	<i>Scirpus microcarpus</i>	Cyperaceae	4 SP
Hardstem bullrush	<i>Schoenoplectus acutus</i>	Cyperaceae	7 CP
Douglas's iris	<i>Iris douglasiana</i>	Iridaceae	3 RW
Mountain iris	<i>Iris fernaldii</i>	Iridaceae	3 ME, RW
Blue-eyed grass	<i>Sisyrinchium bellum</i>	Iridaceae	2 CP, GR
Yellow-eyed grass	<i>Sisyrinchium californicum</i>	Iridaceae	7 SP, CP
Toad rush	<i>Juncus bifonius</i>	Juncaceae	3 CP
Capitate rush	<i>Juncus capitatus</i>	Juncaceae	CP
Common bog rush	<i>Juncus effusus var. brumeus</i>	Juncaceae	3 WET
Pacific bog rush	<i>Juncus effusus var. pacificus</i>	Juncaceae	3 RI
Sickle-leaved rush	<i>Juncus falcatus</i>	Juncaceae	5 CP
Western rush	<i>Juncus occidentalis</i>	Juncaceae	3 CP
Common rush	<i>Juncus patens</i>	Juncaceae	3 WET
Brown-headed rush	<i>Juncus phaeocephalus var. paniculatus</i>	Juncaceae	CP
Brown-headed rush	<i>Juncus phaeocephalus var. phaeocephalus</i>	Juncaceae	3 CP
Iris-leaved rush	<i>Juncus xiphioides</i>	Juncaceae	RI
Rush hybrid	<i>Juncus hybrid</i>	Juncaceae	4 CH
Common wood rush	<i>Luzula comosa</i>	Juncaceae	CP
Flowering quillwort	<i>Lilaea scilloides</i>	Juncaceae	4 CP, WET
Duckweed	<i>Lemna minor</i>	Lemnaceae	WA
One-leaved onion	<i>Allium unifolium</i>	Liliaceae	7 CP
Elegant brodiaea	<i>Brodiaea elegans ssp. elegans</i>	Liliaceae	4 CP
Dwarf brodiaea	<i>Brodiaea terrestris ssp. terrestris</i>	Liliaceae	3 CP
White fairy-lantern, globe lilly	<i>Calochortus albus</i>	Liliaceae	3 ME
Yellow mariposa lily	<i>Calochortus luteus</i>	Liliaceae	3 CP, GR
Pussy ears	<i>Calochortus tolmiei</i>	Liliaceae	4 ME, RW
Large-flowered star-tulip	<i>Calochortus uniflorus</i>	Liliaceae	4 CP
Soap plant	<i>Chlorogalum pomeridianum var. pomeridianum</i>	Liliaceae	2 CP, GR, SC
Red clintonia	<i>Clintonia andrewsiana</i>	Liliaceae	6 RW
Blue dicks	<i>Dichelostemma capitatum</i>	Liliaceae	4 GR
Hooker's Fairy Bells	<i>Disporum hookeri</i>	Liliaceae	3 RW
Checker lily	<i>Fritillaria affinis</i>	Liliaceae	3 RW
Leopard lily	<i>Lilium pardalinum</i>	Liliaceae	6 RI
Sea muilla	<i>Muilla maritima</i>	Liliaceae	7 CP
Western false Solomon's seal	<i>Smilacina racemosa</i>	Liliaceae	2 RW
Slim false Solomon's seal	<i>Smilacina stellata</i>	Liliaceae	3 RW
California fetid adder's tongue	<i>Scelopopus bigelovii</i>	Liliaceae	4 RW
Giant wake-robin	<i>Trillium chloropetalum</i>	Liliaceae	6 ME, RW
Wake-robin	<i>Trillium ovatum ssp. ovatum</i>	Liliaceae	3 ME, RW
White hyacinth	<i>Triteleia hyacinthina</i>	Liliaceae	3 CP

Golden brodiaea, pretty faces	<i>Triteleia ixioides</i> ssp. <i>ixioides</i>	Liliaceae	3 CP, GR
Ithuriel's spear	<i>Triteleia laxa</i>	Liliaceae	6 GR
Fremont's star lily	<i>Zigadenus fremontii</i> var. <i>fremontii</i>	Liliaceae	1 ME
Dwarf Fremont's star lily	<i>Zigadenus fremontii</i> var. <i>minor</i>	Melanthiaceae	2 CP, GR
Calypso orchid	<i>Calypso bulbosa</i>	Melanthiaceae	5 RW
Spotted coral foot	<i>Corallorhiza maculata</i>	Orchidaceae	4 ME, RW
Unspotted spotted coral root	<i>Corallorhiza maculata</i> var. <i>immaculata</i>	Orchidaceae	4 ME, RW
Striped coral root	<i>Corallorhiza striata</i>	Orchidaceae	5 ME, RW
Helleborine	<i>Epipactis helleborine</i>	Orchidaceae	2 RW
Rattlesnake-plantain	<i>Goodyera oblongifolia</i>	Orchidaceae	5 RW
Mountain piperia	<i>Piperia transversa</i>	Orchidaceae	4 RW
Ladies' tresses orchid	<i>Spiranthes romanzoffiana</i>	Orchidaceae	6 CP
Barb goatgrass	<i>Aegilops triuncialis</i>	Orchidaceae	4 GR
European hairgrass	<i>Aira caryophylla</i>	Poaceae	1 ALL
Spike bent-grass	<i>Agrostis exarata</i>	Poaceae	4 WET, ME
Redtop	<i>Agrostis gigantea</i>	Poaceae	4 ME
Hall's bentgrass	<i>Agrostis hallii</i>	Poaceae	4 ME
Bentgrass	<i>Agrostis pallens</i>	Poaceae	4 GR
Sweet vernalgrass	<i>Anthoxanthum odoratum</i>	Poaceae	3 ME
Tall oatgrass	<i>Arrhenatherum elatius</i>	Poaceae	3 ME
Slender wild oat	<i>Avena barbata</i>	Poaceae	1 GR
Wild oat	<i>Avena fatua</i> var. <i>fatua</i>	Poaceae	3 GR
Cultivated oat	<i>Avena sativa</i>	Poaceae	6 DI
Purple falsebrome	<i>Brachypodium distachyon</i>	Poaceae	2 GR
Rattlesnake grass	<i>Briza maxima</i>	Poaceae	1 GR, CP
Little rattlesnake grass	<i>Briza minor</i>	Poaceae	2 GR, CP
California bromegrass	<i>Bromus carinatus</i>	Poaceae	3 ME, GR, CP
Rescue grass	<i>Bromus catharticus</i>	Poaceae	4 DI
Ripgut brome	<i>Bromus diandrus</i>	Poaceae	2 GR
Soft brome, soft chess	<i>Bromus hordeaceus</i>	Poaceae	1 GR
Foxtail chess	<i>Bromus madritensis</i> ssp. <i>madritensis</i>	Poaceae	4 DI
Bald brome	<i>Bromus racemosus</i>	Poaceae	5 CP
Narrow-flowered bromegrass	<i>Bromus vulgaris</i>	Poaceae	4 ME
Tufted pine grass	<i>Calamagrostis koelerioides</i>	Poaceae	6 GR, ME, RW
Pine grass	<i>Calamagrostis rubescens</i>	Poaceae	4 ME
Jubata grass	<i>Cortaderia jubata</i>	Poaceae	8 ME, DI
Bermuda grass	<i>Cynodon dactylon</i>	Poaceae	3 GR
Hedgehog dogtail	<i>Cynosurus echinatus</i>	Poaceae	2 GR, DI
Orchard grass	<i>Dactylis glomerata</i>	Poaceae	2 GR
California oatgrass	<i>Danthonia californica</i>	Poaceae	2 GR, CP
Pacific hairgrass	<i>Deschampsia holciformis</i>	Poaceae	4 CP
Annual hairgrass	<i>Deschampsia danthonioides</i>	Poaceae	5 CP
Slender hairgrass	<i>Deschampsia elongata</i>	Poaceae	3 CP, WET
Hairy crabgrass	<i>Digitaria sanguinalis</i>	Poaceae	4 DI
Barnyardgrass	<i>Echinochloa crus-galli</i>	Poaceae	4 DI
Panic veldt grass	<i>Ehrharta erecta</i>	Poaceae	8 ME
California bottlebrush grass	<i>Elymus californicus</i>	Poaceae	6 ME, RW
Blue wildrye	<i>Elymus glaucus</i> ssp. <i>jepsonii</i>	Poaceae	3 ME, CP
Slender wheatgrass	<i>Elymus trachycaulus</i> ssp. <i>trachycaulus</i>	Poaceae	6 GR
Turf grass	<i>Festuca arundinacea</i>	Poaceae	8 DI



Elmet's fescue	<i>Festuca elmeri</i>	Poaceae	6 ME, RW
Western fescue	<i>Festuca occidentalis</i>	Poaceae	3 ME
Red fescue	<i>Festuca rubra</i>	Poaceae	4 WET
Nitgrass	<i>Gastridium ventricosum</i>	Poaceae	2 GR
Barbgrass	<i>Hainardia cylindrica</i>	Poaceae	4 DI
Velvet grass	<i>Holcus lanatus</i>	Poaceae	8 GR, CP, ME
Meadow barley	<i>Hordeum brachyantherum</i>	Poaceae	3 GR
Mediterranean barley	<i>Hordeum marinum ssp. gussoneanum</i>	Poaceae	3 DI
Foxtail barley	<i>Hordeum murinum ssp. leporinum</i>	Poaceae	2 GR
Prairie Junegrass	<i>Koeleria macrantha</i>	Poaceae	4 CP
Italian ryegrass	<i>Lolium multiflorum</i>	Poaceae	3 CP, GR
Perennial ryegrass	<i>Lolium perenne</i>	Poaceae	3 DI, WET
Meadow ryegrass	<i>Lolium pratense</i>	Poaceae	3 GR, CP, ME
Creeping wildrye	<i>Leymus triticoides</i>	Poaceae	4 GR
California oniongrass	<i>Melica californica</i>	Poaceae	4 GR, ME
Small-flowered melica	<i>Melica imperfecta</i>	Poaceae	5 ME
Alaska oniongrass	<i>Melica subulata</i>	Poaceae	3 RW
Torrey's melicgrass	<i>Melica torreyana</i>	Poaceae	3 RW, ME
Small-flowered needlegrass	<i>Nassella lepida</i>	Poaceae	3 ME, CP
Purple needlegrass	<i>Nassella pulchra</i>	Poaceae	2 CP, GR
Pacific panicgrass	<i>Panicum pacificum var. acuminatum</i>	Poaceae	4 CP
Dallis grass	<i>Paspalum dilatatum</i>	Poaceae	3 DI, WET
Harding grass	<i>Phalaris aquatica</i>	Poaceae	8 DI, GR
California canarygrass	<i>Phalaris californica</i>	Poaceae	5 ME, WET
Annual bluegrass	<i>Poa annua</i>	Poaceae	4 DI
Canada bluegrass	<i>Poa compressa</i>	Poaceae	4 DI
Kellogg bluegrass	<i>Poa kelloggii</i>	Poaceae	4 ME
Kentucky bluegrass	<i>Poa pratensis</i>	Poaceae	3 CP
Beardless rabbitsfoot grass	<i>Polypogon viridis</i>	Poaceae	3 DI
Rabbitsfoot polypogon	<i>Polypogon monspeliensis</i>	Poaceae	3 DI, GR
Green bristlegrass	<i>Setaria viridis</i>	Poaceae	4 DI
Medusa head	<i>Taeniatherum caput-medusae</i>	Poaceae	3 GR
Tall trisetum	<i>Trisetum canescens</i>	Poaceae	3 ME
Wheat	<i>Triticum aestivum</i>	Poaceae	3 DI
Six-week fescue	<i>Vulpia bromoides</i>	Poaceae	2 GR
Few-flowered fescue	<i>Vulpia microstachys var. pauciflora</i>	Poaceae	5 GR
Rat-tail fescue	<i>Vulpia myuros</i>	Poaceae	2 GR
Eight-flowered fescue	<i>Vulpia octoflora</i>	Poaceae	2 GR

1= abundant (abundant throughout or dominant in select habitats)

2= common (abundant in select habitats or commonly found)

3= fairly common (found regularly but usually not in dense concentrations)

4= uncommon (habitat very restricted, or found only sporadically)

5= rare (known only from one or a few small populations)

6= unknown (known occurrence in past, not seen within past 20 years, status uncertain)

7= extirpated

8= invasive

**Bold = non-native**

CH = chaparral

GR = grassland

CP = coastal prairie

RW = redwood  
ME = mixed evergreen forest  
SE = seep  
WET = poorly drained areas, seeps, springs, riparian  
RI = riparian  
DI = disturbed  
DIT = ditch  
SP = spring  
ALL = potential in all habitats

USC Campus Mammals Jan 2000 current

	Common Name	Latin Name	Notes	Abundance
<b>Mammals</b>				
<b>Marsupials</b>	Virginia Opossum	<i>Didelphis marsupialis</i>	confirmed	Common
<b>Bats</b>	Pallid Bat	<i>Antrozous pallidus</i>	not confirmed	
	Big Brown Bat	<i>Eptesicus fuscus</i>	conf NC (EW, JS)	
	Western red Bat	<i>Lasiurus blossevillii</i>	conf NC (EW, JS)	
	Hoary Bat	<i>Lasiurus cinereus</i>	conf NC (EW, JS)	
	California Myotis	<i>Myotis californicus</i>	conf NC (EW, JS)	
	Long-eared Myotis	<i>Myotis evotis</i>	conf NC (EW, JS)	
	Little Brown Myotis	<i>Myotis lucifugus</i>	?	
	Fringed Myotis	<i>Myotis thysanodes</i>	conf NC (EW, JS)	
	Long-legged Myotis	<i>Myotis volans</i>	conf NC (EW, JS)	
	Yuma myotis	<i>Myotis yumanensis</i>	?	
	Western Pipistrel	<i>Pipistrellus hesperus</i>		
	Townsend's big-eared bat	<i>Corynorhinus townsendii townsendii</i>	conf NC (EW, JS)	Uncommon
	Mexican free-tailed bat	<i>Tadarida brasiliensis</i>	conf NC (EW)	Uncommon
<b>Insectivores</b>	Shrew-mole	<i>Neurotrichus gibbsii</i>	conf	Common
	Broad-Handed Mole	<i>Scapanus latimanus</i>	conf	Common
	Trowbridge Shrew	<i>Sorex trowbridgei</i>	conf	Rare?
	Audubon Cottontail	<i>Sylvilagus auduboni</i>	unconfirmed	Common
	Brush Rabbit	<i>Sylvilagus bachmani</i>	conf (j&s)	
<b>Lagomorphs</b>	Santa Cruz Kangaroo Rat	<i>Dipodomys venustus</i>	not confirmed	Uncommon
	Merriam Chipmunk	<i>Eutamias merriami</i>	conf	Common
<b>Rodents</b>	California Meadow Mouse	<i>Microtus californicus</i>	conf	Common
	House Mouse	<i>Mus musculus</i>	conf	common
	Dusky-footed Woodrat	<i>Neotoma fuscipes annectens</i>	conf	
	California Pocket Mouse	<i>Perognathus californicus</i>	?	
	Brush Mouse	<i>Peromyscus boyleyi</i>	??	
	California Mouse	<i>Peromyscus californicus</i>	Conf (MF)	
	Deer Mouse	<i>Peromyscus maniculatus</i>	Conf (MF)	
	Pinyon Mouse	<i>Peromyscus truei</i>	Conf (MF)	
	Norway Rat	<i>Rattus norvegicus</i>	not confirmed	
	Black Rat	<i>Rattus rattus</i>	conf	Uncommon
	Eastern Gray Squirrel	<i>Sciurus carolinensis</i>	conf	Common
	Western Gray Squirrel	<i>Sciurus griseus</i>	conf	Uncommon
	Eastern Fox Squirrel	<i>Sciurus niger</i>	conf	lower campus
	Ground Squirrel	<i>Spermophilus beecheyi</i>	conf	Abundant
	Pocket Gopher	<i>Thomomys bottae</i>	conf	Abundant
<b>Carnivores</b>	Ringtail	<i>Bassariscus astutus</i>	conf upper quarry (MF)	Uncommon

Coyote	<i>Canis latrans</i>	conf	Common
Mountain Lion	<i>Felis concolor</i>	conf	Uncommon
Bobcat	<i>Felis rufus</i>	conf	Common
Striped Skunk	<i>Mephitis mephitis</i>	conf	Common
Long-Tailed Weasel	<i>Mustela frenata</i>	conf (TH)	Uncommon
Raccoon	<i>Procyon lotor</i>	conf	Abundant
Spotted Skunk	<i>Spilogale putorius</i>	conf (EW)	rare
Badger	<i>Taxidea taxus</i>	conf (EW)	Rare
Gray Fox	<i>Urocyon cinereoargenteus</i>	conf	somewhat common
Red Fox	<i>Vulpes vulpes</i>	conf (SA)	
Black-Tailed Deer	<i>Odocoileus hemionus spp. columbianus</i>	conf	Abundant
Wild Boar	<i>Sus scrofa</i>		

Artiodactyls

MD=meadow  
ME=mixed evergreen forest

RW=redwood forest

CV=cave

RJ=riparian or streamside

PD=Pond

RO=Rocky outcroppings

C=common

U=uncommon - so rare

Restricted=common in very restricted areas on campus

EW = ecosystems west

JS = Jones and Stokes

MF = Maggie Fusari

SA= Susi Alterman

TH = Tonya Haff

**Response to Comment Letter I-29**

**Response to Comment I-29-1.** The unsilvered fritillary butterfly is currently listed by the U.S. Fish and Wildlife Service (USFWS) as a Federal species of concern. While this species is listed in Draft EIR Table 4.4-2, Special Status Wildlife Species Occurring or Potentially Occurring in the Study Area, it was not discussed in the Impacts and Mitigations section because there have been no documented occurrences on the UC Santa Cruz Campus. The nearest known record of this species is from 1992 in Big Basin Redwood State Park, 25 miles northwest of the campus. Johnny jump-ups, the larval host plant for the unsilvered fritillary butterfly, may occur within the study area. However, the presence of a host species does not guarantee the presence of the butterfly.

Johnny jump-ups are a member of the violet family and are common throughout California and the western U.S. Additionally, Johnny jump-ups are not protected by any state or federal agencies and do not meet the definition of a special-status species, and therefore are not subject to protection under CEQA.

**Response to Comment I-29-2.** Raccoons are considered only in terms of impacts to wildlife movement. Please refer to Master Response BIO-5 for a discussion of the choice of species discussed.

**Response to Comment I-29-3.** Please refer to Master Response BIO-5 for a discussion of impacts to the movement of the American badger. Please also refer to Response to Comment LA-6-24.

The EIR did not evaluate impacts on the long-tailed weasel because this species does not meet the definition of a special-status species under CEQA. The long-tailed weasel is not considered to have any special status by the State of California or the federal government. Therefore, occurrences are not tracked by the California Natural Diversity Database (CNDDB). The long-tailed weasel utilizes a large home range during most of the year and moves among a variety of habitats including grasslands and low-density woodlands. Because data on the prevalence and range of this species at UC Santa Cruz are limited, it is difficult to determine whether long-tailed weasels will frequently come into contact with new development or would be a good candidate for assessing impacts to wildlife movement under the 2005 LRDP.

**Response to Comment I-29-4.** Because the LRDP is a programmatic document, the mitigation measures in the EIR must also be programmatic in nature. Highly specific mitigation measures do not allow for the wide range of situations that may occur during the development of the campus during the LRDP period. Mitigation will become more specific and detailed within the context of the specific project-level EIRs or other CEQA documents that will tier off of the LRDP EIR in the coming years. As specific projects are developed these project-level CEQA documents will be able to assess the specific impacts of proposed project and will impose project-specific mitigation measures that refine the mitigation measures set out in the LRDP EIR. Additionally, each subsequent project would be subject to CEQA review, which will include a thorough evaluation of the project's impacts on the special-status species expected to be present in the specific project area. Please see Response to Comment LA-3-9 for additional information about the Biological Resources mitigation measures. Please also see Response to Comment SA-4-2, which indicates that the Campus has identified only feasible mitigation measures as required by CEQA.

**Response to Comment I-29-5.** The Bald Eagle and Golden Eagle Protection Act prohibits the taking or possession of and commerce in bald and golden eagles, with limited exceptions. Under the Act, it is a violation to “...take, possess, sell, purchase, barter, offer to sell, transport, export or import, at any time

*or in any manner, any bald eagle commonly known as the American eagle, or golden eagle, alive or dead, or any part, nest, or egg, thereof...*”

Take is defined to include pursuing, shooting, shooting at, poisoning, wounding, killing, capturing, trapping, collecting, molesting, and disturbing. The definition of take does not include habitat removal or degradation. Therefore, removal of foraging habitat on campus that supports golden eagle is not a violation of the Act. Furthermore 170 acres of grassland habitat will remain available for foraging.

As discussed in the Draft EIR, golden eagles maintain large home ranges and do not exclusively rely on ground squirrels and other primary residents of the meadow as prey. For these reasons, loss of grasslands under the 2005 LRDP would not result in significant impacts to golden eagles under CEQA. Golden eagles are expected to continue to use the abundant remaining grasslands in the East Meadow and the Great Meadow as foraging habitat. These areas will retain large open areas of grassland that will continue to provide habitat for a large variety of prey species upon which golden eagles can feed.

**Response to Comment I-29-6.** On page 4.4-6, the EIR describes large stands of purple needlegrass, California oatgrass, California melic (*Melica californica*), and associated native forbs in the Great Meadow and the East Meadow. Revisions to Section 4.4 of the Draft EIR make clear the importance of this community. Revisions to the wildlife discussion on page 4.4-7 remove any inconsistencies and expand the list of wildlife associated with grassland communities. These changes do not change the EIR’s analysis of or conclusions regarding impacts to special-status species. Please refer to Final EIR Volume IV, Chapter 3, *Changes to Draft EIR Text*.

**Response to Comment I-29-7.** Revisions to the discussion of wildlife in redwood forest communities (Draft EIR pages 4.4-7 and 4.4-8) further describe the wildlife communities as presented in the Draft EIR. This description enhances the discussion of common wildlife species found within these habitats. These changes do not alter the EIR’s analysis of or conclusions regarding impacts to special-status species. Please refer to Final EIR Volume IV, Chapter 3, *Changes to Draft EIR Text*.

**Response to Comment I-29-8.** The scientific name for the Western Scrub Jay has been changed to *Aphelocoma californica*. *Aphelocoma insularis* is the scientific name of the island scrub jay. Revisions to the discussion of wildlife in mixed evergreen forest communities on page 4.4-9 expand the list of wildlife associated with mixed evergreen forest communities and clarify the discussion. This description enhances the discussion of common wildlife species found within these habitats. These changes do not change the EIR’s analysis of or conclusions regarding impacts to special-status species. Also, please see Master Response BIO-3. Please refer to Final EIR Volume IV, Chapter 3, *Changes to Draft EIR Text*.

**Response to Comment I-29-9.** All of the grasslands on campus and their associated small mammal populations provide foraging habitat for the golden eagle. While golden eagles may show preference for the ground squirrels that are dominant in the East Meadow, they also prey on a wide range of rodents and other small mammals, reptiles, and birds available throughout campus grasslands. The habitat and prey of golden eagles are not, as suggested, limited to the East Meadow and ground squirrels, respectively.

Revisions have been made to the discussion of wildlife on Draft EIR page 4.4-12 in order to expand the list of wildlife associated with coastal prairie communities and clarify the discussion. This description will enhance the discussion of common wildlife species found within these habitats. These changes do not result in any changes to the analysis of and conclusions with respect to impacts to special-status species. Please refer to Final EIR Volume IV, Chapter 3, *Changes to Draft EIR Text*.

**Response to Comment I-29-10.** On page 4.4-13, the Draft EIR describes the willows, cottonwoods, and bamboo present in the Arboretum pond, as well as the associated population of California red-legged frogs. On the same page, the Draft EIR notes the presence of riparian vegetation along Cave Gulch. The Draft EIR has been revised to clarify that the vegetation in the Arboretum pond is considered riparian forest. In addition, the Draft EIR has been revised to recognize the high-quality redwood riparian habitat in Cave Gulch.

Revisions and additions have been made to the discussion of wildlife in riparian communities, as suggested by the commenter, and the list of wildlife associated with riparian communities has been expanded and focused, as appropriate. This description enhances the discussion of common wildlife species found within these habitats. These changes do not result in any changes to the analysis of or conclusions regarding impacts on special-status species. Please refer to Final EIR Volume IV, Chapter 3, *Changes to Draft EIR Text*.

**Response to Comment I-29-11.** The question of whether impacts to this taxon will be significant cannot be answered until its taxonomic status is resolved (i.e., it is determined to be a new species or subspecies, or determined not to be unique). As stated in the Draft EIR (page 4.4-19), if the taxon proves in the future to merit special status, potential impacts to the species will be analyzed in project-level EIRs as appropriate.

**Response to Comment I-29-12.** Please refer to Response to Comment I-7-4 and I-5-11.

**Response to Comment I-29-13.** Please refer to Response to Comment I-7-4.

**Response to Comment I-29-14.** The Draft EIR recognizes that golden eagles forage at UC Santa Cruz year round. An observation of juveniles on campus, similar to the one the commenter mentions, is described in the Draft EIR. Based on the observations of campus staff, members of the Santa Cruz Predatory Bird Research Group, Jones & Stokes staff, and Ecosystems West staff, no golden eagles have been observed nesting on campus. If, however, golden eagle were found to be nesting on campus in the future, LRDP Mitigation BIO-11 would be applied to protect such a nest.

**Response to Comment I-29-15.** The Draft EIR has been revised to confirm the presence of overwintering northern harriers. Because 170 acres of grassland will remain undeveloped, this revision will not result in any change to the conclusions of the document with respect to potential impacts to northern harriers. Please refer to Final EIR Volume IV, Chapter 3, *Changes to Draft EIR Text*.

**Response to Comment I-29-16.** The Draft EIR has been revised to confirm the presence of Vaux's swift, a California Department of Fish and Game species of special concern, during the spring and summer. The Draft EIR currently addresses this species under LRDP Impact BIO-11 on page 4.4-56. Mitigation for protecting nesting raptors (LRDP Mitigation BIO-11) specifically protects all bird species protected under the California Fish and Game Code and the Migrating Bird Treaty Act, and thus would protect Vaux's swift nests, if present on campus. The mitigation has been revised to note this special status species specifically. Please refer to Final EIR Volume IV, Chapter 3, *Changes to Draft EIR Text*.

**Response to Comment I-29-17.** On pages 4.4-31 and 4.4-32, the Draft EIR presented recent primary data on the spatial distribution of woodrats at UC Santa Cruz as collected by UC Santa Cruz students Bankie and Moskal in 2005. This study represents the most accurate and up to date spatial information

available on the subspecies. The data shows a density of about three inhabited nests per acre in mixed evergreen habitat.

**Response to Comment I-29-18.** The interpretation is correct that the definition of “terrestrial” species, in the context of discussion of migratory species, refers to non-volant (not flying) species. As noted in the Wildlife Movement Section of the Draft EIR, the movement of special-status species, such as bats and migratory birds, are specifically discussed within the sections relevant to those species (see pages 4.4-56 through 4.4-60).

**Response to Comment I-29-19.** Please refer to Master Response BIO-5 for the discussion of comments on the “Wildlife Movement” Section of the Draft EIR.

Neither the rough-skinned newt (*Taricha granulosa*) nor the California newt (*Taricha tarosa*) is considered to have special status by any state or federal agencies and neither meets the definition of a special-status species under CEQA. Furthermore, development is not proposed in the riparian corridors or the areas of the Great Meadow that the commenter lists as habitat for the species. It is thus highly unlikely that these species will be impacted by development under the LRDP.

**Response to Comment I-29-20.** A nursery can be generally defined as a key location where members of a species gives birth to and care for young during the early stages of growth (i.e., before the young can walk or feed on their own). In the case of coyotes this would apply to dens during the six weeks between the birth and the weaning of the coyote pup. Dens are usually co-opted from the existing habitats of other animals and vary from year to year. Dens are commonly found in steep bank rock crevices, and occasionally in sinkholes. Such areas on the campus are located within riparian areas in Campus Natural Reserve and Campus Resource Land that will not be developed under the 2005 LRDP. Given the temporary nature of dens and the avoidance of habitats in which dens are most likely to occur, it is highly unlikely that dens would be affected by development proposed under the 2005 LRDP.

**Response to Comment I-29-21.** Please refer to Response to Comments I-29-2 and I-29-3.

**Response to Comment I-29-22.** LRDP mitigations for LRDP Impact BIO-1 have been revised to increase their clarity and efficacy. Please refer to Master Response BIO-1 (Northern Maritime Chaparral and Santa Cruz Manzanita). Also, please see Final EIR, Volume IV, Chapter 3, Revised Table 2-1 for the full text of the revised mitigation measures.

**Response to Comment I-29-23.** The principal site proposed for coastal prairie restoration is located within the Campus Habitat Reserve located near the campus entrance (between High Street and the planned Ranch View Terrace housing development). As noted in the Draft EIR, seeps are present in this area (page 4.4-14). While coastal prairie could not be restored directly adjacent to these seeps, locating the restored prairie near the seeps should make it possible to restore a community with similar hydrology.

**Response to Comment I-29-24.** Please refer to Master Response BIO-2 for concerns regarding the analysis of impacts to wetlands. Impacts to special interest plants are not discussed in the Draft EIR because these species do not meet the criteria to be designated special-status species requiring evaluation under CEQA, as described in detail in Appendix C of the Draft EIR.

**Response to Comment I-29-25.** The commenter asks for a clarification of the phrase “over a minimum period of time” used in the Draft EIR in reference to the time frame for riparian restoration, enhancement



and monitoring. The term will be determined after discussion with CDFG at the time project-level analyses determine an impact, but UC Santa Cruz is committed to a period no shorter than 3 years.

**Response to Comment I-29-26.** The movement and introduction of invasive, non-native animal species is not a direct result of development. These introduced species have expanded in their range since introduction into habitats and areas that are not developed. The most expansive and ecologically damaging invasive species in the western United States, the feral cat, has expanded well beyond the limits of human development and cannot be directly linked with development of new areas. Additionally, species whose expansion in range is associated directly with human development, such as the Norway rat, do not tend to overlap in habitat and prey utilization with native species in adjacent habitat areas. Thus, development that is proposed under the 2005 UC Santa Cruz LRDP will not directly lead to expansion of non-native species, or impacts resulting from the presence of those species and cannot be considered as an impact under CEQA.

**Response to Comment I-29-27.** Please refer to Response to Comment I-2-4.

**Response to Comment I-29-28.** The Campus acknowledges the difficulty in preventing access to caves. In light of this difficulty, LRDP Mitigation BIO-8B has been added, committing the Campus to work with state and federal agencies to develop a barrier at Empire Cave.

Please refer to Master Response BIO-6 for additional information concerning the potential for flooding impacts to special-status species in karst areas.

**Response to Comment I-29-29.** Instances where the distance of buffering could be less than 200 feet may include situations where topography screens the nest from the construction site or when existing structures block the nest from the construction site. Two hundred feet will provide an adequate buffer. Given the population and development state of the campus, it is common for nesting birds to be in close contact with anthropogenic noise and disturbance. No construction activities are expected to occur (such as pile driving activities) that would result in noise levels high enough to justify increased buffering between proposed development activities and active nests.

LRDP Mitigation BIO-11 addresses all nesting and migratory bird species, including songbirds, which are protected under the California Fish and Game Code and the Migratory Bird Treaty Act. The mitigation measure states “If active nests of any sharp-shinned hawk, golden eagle, northern harrier, long-eared owl, and white-tailed kite (or other species protected under the Migratory Bird Treaty Act or California Fish and Game Code) are present in the construction zone or within 200 feet of the construction zone, a temporary fence shall be erected at a distance of 200 feet around the nest.” This mitigation protects active nests until chicks have fledged and there is no evidence of a second nesting attempt. Nests will be identified and monitored by a qualified biologist, as determined by UC Santa Cruz, at the time that the survey is required, as outlined in LRDP Mitigation BIO-11. A “qualified biologist” is expected to be a sufficiently qualified ornithologist, who can perform surveys appropriate for determining the location of nests at any given site, without disturbing those nests.

Golden eagles maintain large home ranges and do not exclusively rely on the ground squirrels that inhabit grasslands as prey. Furthermore, the eagles will use remaining grasslands in the East Meadow and the Great Meadow. Both areas will retain large open areas of grassland that will continue to provide habitat for a large variety of prey species upon which golden eagles can feed. For these reasons, loss of grasslands will not result in significant impacts to eagles.

A large amount of burrowing owls habitat would remain in the East Meadow even with the potential loss of habitat in the north portion of the meadow due to development under the 2005 LRDP. Christmas surveys between 1995 and 2004 have observed no more than nine owls during any given survey and in 2005 there were only four confirmed owl sightings in the East Meadow. Thus, it is likely that burrowing owls are not residing in the East Meadow at densities near its carrying capacity. The remaining habitat will likely be sufficient for this population. Additionally, the Great Meadow provides suitable habitat for burrowing owls although it is not currently utilized and is of lower quality due to the lack of ground squirrel activity and resulting lack of burrows. Given the remaining high quality habitat in the East Meadow and potential habitat in the Great Meadow, significant impacts to burrowing owls are not expected. The suggested mitigation, implementing cattle grazing on the Great Meadow, is thus unnecessary.

**Response to Comment I-29-30.** Please refer to discussion on burrowing owl in Responses to Comments I-5-11 and I-7-4.

lrdp\_archive\_admin@ucsc.edu InBox Message

<https://cruzmail.ucsc.edu/Session/198006-G90K9I45MvpXpVmuuP...>

**From:** Tonya Haff <thaff@ucsc.edu>  
**Subject:** species lists  
**Date:** Tue, 10 Jan 2006 16:16:56 -0800  
**To:** lrdp-elr@ucsc.edu



I thought you might also be interested in the species lists that I compile and hold for the campus - to the best of my knowledge they are the best (most up-to-date) and most complete species lists available (more current, more accurate, and more complete than the species lists provided to you by Jones and Stokes or Ecosystems West). Attached is the plant and mammal lists for the campus - I found errors in both plants and mammals covered in the draft EIR and in the consultant reports the EIR is based upon.

1

Tonya  
-- Tonya M. Haff  
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**Attached file:** PlantListSept05.xls (163 Kbytes)

**Attached file:** MammalListJan2006.xls (23 Kbytes)

UCX Plant List current Jan 2006

Common Name Bryophytes:	Scientific Name	Family	New Family	Abund	Habitat	Source
<b>Pteridophytes: Lycophytes</b>						
Nuttall's quillwort	<i>Isoetes nuttallii</i>	Isoetaceae		6 CP		
<b>Pteridophytes: Sphenophytes</b>						
Common horsetail	<i>Equisetum arvense</i>	Equisetaceae		4 RI, SE		
Common scouring rush	<i>Equisetum hymale ssp. affine</i>	Equisetaceae		4 SP		
Giant horsetail	<i>Equisetum telmateia</i>	Equisetaceae		4 RI		
<b>Pteridophytes: Pteridophytes</b>						
Duckweed-fern	<i>Azolla filiculoides</i>	Azollaceae		WA		
Deer fern	<i>Blechnum spicant</i>	Blechnaceae		6 RW		
Giant chain fern	<i>Woodwardia fimbriata</i>	Blechnaceae		2 RI		
Bracken	<i>Pteridium aquilinum var. pubescens</i>	Demstaedtiaceae		1 ALL		
Wood fern	<i>Dryopteris arguta</i>	Dryopteridaceae		1 RW, ME		
California shield fern	<i>Polystichum californicum</i>	Dryopteridaceae		4 ME, RW		
Dudley's shield fern	<i>Polystichum dudleyi</i>	Dryopteridaceae		6 RW		
Sword fern	<i>Polystichum munitum</i>	Dryopteridaceae		1 RW		
Grape fern	<i>Botrychium multifidum ssp. silaifolium</i>	Ophioglossaceae		5 WET		
California polypody fern	<i>Polypodium californicum/calirhiza</i>	Polypodiaceae		2 RW, ME		
Licorice fern	<i>Polypodium glycyrrhiza</i>	Polypodiaceae		6 ME, RW		
Five-finger fern	<i>Adiantum aleuticum</i>	Pteridaceae		4 ME, RW, RI		
California maidenhair fern	<i>Adiantum jordanii</i>	Pteridaceae		4 ME, RW, RI		
Goldenback fern	<i>Pentagramma triangularis ssp. triangularis</i>	Pteridaceae		2 ME		
Lady fern	<i>Athyrium filix-femina var. cyclosorum</i>	Dryopteridaceae		3 RI		
<b>Gymnosperms:</b>						
Knobcone pine	<i>Pinus attenuata</i>	Pinaceae		3 KN		
Ponderosa pine	<i>Pinus ponderosa</i>	Pinaceae		3 ME		
Douglas-fir	<i>Pseudotsuga menziesii</i>	Pinaceae		1 ME, RW		
Coast redwood	<i>Sequoia sempervirens</i>	Taxodiaceae		1 RW		
<b>Angiosperms: Dicots</b>						
Big-leaf maple	<i>Acer macrophyllum</i>	Aceraceae	Sapindaceae	3 RI, ME		
Box elder	<i>Acer negundo var. californicum</i>	Aceraceae	Sapindaceae	4 RI		
Low amaranth	<i>Amaranthus deflexus</i>	Amaranthaceae		DI		
Poison-oak	<i>Rhus (Toxicodendron) diversilobum</i>	Anacardiaceae		1 ME, CH		
Bur-chervil	<i>Anthriscus caucalis</i>	Apiaceae		2 DI, RW		
Water-hemlock	<i>Cicuta douglasii</i>	Apiaceae		RI		
Poison-hemlock	<i>Conium maculatum</i>	Apiaceae		3 RI		
American wild carrot	<i>Daucus pusillus</i>	Apiaceae		GR		
Prickly coyote-thistle	<i>Eryngium armatum</i>	Apiaceae		4 CP, GR		
Fennel	<i>Foeniculum vulgare</i>	Apiaceae		2 GR		
Sweet cicely	<i>Osmorhiza chilensis</i>	Apiaceae		2 ME, RW		
Yarnpah	<i>Perideridia gairdneri</i>	Apiaceae		4 CP		
Dobie spindleroot	<i>Perideridia kelloggii</i>	Apiaceae		4 CH, GR, CP		
Footsteps-of-Spring	<i>Sanicula arctopoides</i>	Apiaceae		3 CP		
Purple samicle	<i>Sanicula bipinnatifida</i>	Apiaceae		3 CP		
Gambleweed	<i>Sanicula crassicaulis</i>	Apiaceae		1 ME		

Lady's comb	<i>Scandix pectin-veneris</i>	3 GR, CP
Field hedge-parsley	<i>Torilis arvensis</i>	GR, ME
Knotted hedge-parsley	<i>Torilis nodosa</i>	GR
Periwinkle	<i>Vinca major</i>	8 ME
English holly	<i>Ilex aquifolium</i>	8 ME
California spikenard	<i>Aralia californica</i>	3 RW, RI
English ivy	<i>Hedera helix</i>	8 ME
Wild-ginger	<i>Asarum caudatum</i>	5 RW
Yarrow	<i>Achillea millefolium</i>	3 GR
Trail plant	<i>Adenocaulon bicolor</i>	3 RW
<b>Eupatorium</b>	<b><i>Ageratina adenophorum</i></b>	<b>8 WET</b>
Annual agoseris	<i>Agoseris grandiflora</i>	4 GR, ME
Perilly everlasting	<i>Anaphalis margaritacea</i>	6 CH, ME
Woodland madia	<i>Anisocarpus (Madia) madioides</i>	2 ME, RW
Mayweed chamomile	<i>Anthemis cotula</i>	3 DI
Rayless amica	<i>Arnica discoidea</i>	2 ME, RW
California mugwort	<i>Artemisia douglasiana</i>	3 ME, GR
California aster	<i>Aster chilensis</i>	4 CP
Seep-willow	<i>Baccharis douglasii</i>	4 WET
Coyote brush	<i>Baccharis pilularis</i>	1 GR, CH
English daisy	<i>Bellis perennis</i>	2 DI
Italian thistle	<i>Carduus pycnocephalus</i>	8 GR, ME, DI
Purple star-thistle	<i>Centaurea calcitrapa</i>	DI
Maltese star-thistle	<i>Centaurea melitensis</i>	
Indian thistle	<i>Cirsium brevistylum</i>	3 DI, WET
<b>Bull thistle</b>	<b><i>Cirsium vulgare</i></b>	<b>2 GR, DI</b>
South American conyza	<i>Coryza bonariensis</i>	GR
Horseweed	<i>Coryza canadensis</i>	4 GR
Asthmaweed	<i>Coryza floribunda</i>	3 DI
California-aster	<i>Corethrogyne (Lessingia) filaginifolia</i>	4 CP, GR
<b>Weedy hawksbeard</b>	<b><i>Crepis vesicaria</i></b>	<b>GR</b>
Stinkwort	<i>Diurichia (Inula) graveolens</i>	ME
Cut-leaved coast fireweed	<i>Erechtites glomerata</i>	
Australian fireweed	<i>Erechtites minima</i>	
Golden fleece	<i>Ericameria arborescens</i>	4 ME
Golden-yarrow	<i>Eriophyllum confertiflorum</i> var. <i>confertiflorum</i>	4 DI
Western goldenrod	<i>Euthamia occidentalis</i>	GR
<b>Narrow-leaved filago</b>	<b><i>Filago gallica</i></b>	<b>3 GR, CH</b>
Green everlasting	<i>Gnaphalium californicum</i>	2 CH, DI
Fragrant everlasting	<i>Gnaphalium canescens</i> ssp. <i>beneolens</i>	WET
Lowland cudweed	<i>Gnaphalium palustre</i>	CP
Purple everlasting	<i>Gnaphalium purpureum</i>	3 CR, CP
Great Valley gumplant	<i>Grindelia camporum</i> var. <i>camporum</i>	2 WET
Sneezeweed	<i>Helienium puberulum</i>	
Tarweed	<i>Hemizonia corymbosa</i>	DI
Telegraph weed	<i>Heterotheca grandiflora</i>	3 ME
White-flowered hawkweed	<i>Hieracium albiflorum</i>	2 GR, CP
Smooth cat's ear	<i>Hypochoeris glabra</i>	1 CH, GR, CP, DI
Hairy cat's ear	<i>Hypochoeris radicata</i>	3 DI
Willow lettuce	<i>Lactuca saligna</i>	

Prickly lettuce	<i>Lactuca serriola</i>	Asteraceae	3 DI
Goldfields	<i>Lasthenia californica</i>	Asteraceae	6 CP
Hairy hawkbit	<i>Leontodon taraxacoides</i>	Asteraceae	2 CP
Ox-eye daisy	<i>Leucanthemum vulgare</i>	Asteraceae	3 ME
Common mardia	<i>Madia elegans</i>	Asteraceae	CH
Threadstem tarweed	<i>Madia exigua</i>	Asteraceae	2 ME
Slender Tarweed	<i>Madia gracilis</i>	Asteraceae	3 CP
Coast Tarweed	<i>Madia sativa</i>	Asteraceae	1 DI
Pincapple Weed	<i>Matricaria matricarioides</i>	Asteraceae	5 CP
Slender cottonweed	<i>Micropus californicus</i>	Asteraceae	4 CP
Marsh spryzonella	<i>Microseris paludosa</i>	Asteraceae	4 ME
Western coltsfoot	<i>Petasites frigidus</i> var. <i>palmatus</i>	Asteraceae	3 WET
Bristly ox-tongue	<i>Picris echinoides</i>	Asteraceae	4 CP
Round wooly marbles	<i>Psilocarphus tenellus</i> var. <i>globiferus</i>	Asteraceae	3 CH
Slender woollyheads	<i>Psilocarphus tenellus</i> var. <i>tenellus</i>	Asteraceae	GR
Common groundsel	<i>Senecio vulgaris</i>	Asteraceae	CP
Milk thistle	<i>Silybum marianum</i>	Asteraceae	DI
California goldenrod	<i>Solidago californica</i>	Asteraceae	GR
Coast goldenrod	<i>Solidago spathulata</i>	Asteraceae	GR
Lawn burweed	<i>Soliva sessilis</i>	Asteraceae	DI
Sow-thistle	<i>Sonchus asper</i>	Asteraceae	DI
Prickly sow-thistle	<i>Sonchus oleraceus</i>	Asteraceae	DI
Tall stephanomeria	<i>Stephanomeria virgata</i>	Asteraceae	DI
Salsify	<i>Tragopogon porrifolius</i>	Asteraceae	GR
Silver puffs	<i>Uropappus lindleyi</i>	Asteraceae	GR
Spiny cocklebur	<i>Xanthium spinosum</i>	Asteraceae	DI
Common cocklebur	<i>Xanthium strumarium</i>	Asteraceae	DI
California hazlenut	<i>Corylus cornuta</i> var. <i>californica</i>	Betulaceae	2 ME, RW
Common fiddleneck	<i>Ansinckia menziesii</i> var. <i>intermedia</i>	Boraginaceae	4 GR
Common borage	<i>Borago officinalis</i>	Boraginaceae	4 GR
Cleveland cryptantha	<i>Cryptantha clevelandii</i>	Boraginaceae	4 CH
Cryphantha	<i>Cryptantha micromeres</i>	Boraginaceae	4 CH, ME
Torrey's cryptantha	<i>Cryptantha torreyana</i>	Boraginaceae	5 CH, GR, ME
Hound's tongue	<i>Cynoglossum grande</i>	Boraginaceae	1 ME, RW
Forget-me-not	<i>Myosotis latifolia</i>	Boraginaceae	1 ME, RI
Bracted allocarya	<i>Plagiobothrys bracteatus</i>	Boraginaceae	5 CP
Hickman's popcornflower	<i>Plagiobothrys chorisianus</i> var. <i>hickmanii</i>	Boraginaceae	5 CP
San Francisco popcornflower	<i>Plagiobothrys torreyi</i> var. <i>diffusus</i>	Boraginaceae	6 CP
Comfrey	<i>Symphytium asperum</i>	Boraginaceae	4 WET
American winter-cress	<i>Barbarea orthoceras</i>	Brassicaceae	WET
Field mustard	<i>Brassica rapa</i>	Brassicaceae	DI, GR
Black mustard	<i>Brassica nigra</i>	Brassicaceae	DI, GR
Sheperd's-purse	<i>Capsella bursa-pastoris</i>	Brassicaceae	DI, GR
Few-seeded wintercress	<i>Cardamine oligosperma</i>	Brassicaceae	2 ME, WET
Milkmaids	<i>Cardamine californica</i>	Brassicaceae	1 RW, ME
Mediterranean mustard	<i>Hirschfeldia incana</i>	Brassicaceae	GR
Shining peppergrass	<i>Lepidium nitidum</i>	Brassicaceae	GR
Wayside peppergrass	<i>Lepidium strictum</i>	Brassicaceae	DI
Sweet alyssum	<i>Lobularia maritima</i>	Brassicaceae	DI
Watercress	<i>Nasturtium officinale</i>	Brassicaceae	RI

Wild radish	<i>Raphanus sativus</i>	Brassicaceae	DI, GR
Western yellow-cress	<i>Rorippa curvisiliqua</i>	Brassicaceae	5 WET
Charlock mustard	<i>Sinapis arvensis</i>	Brassicaceae	GR
Hairy fringe-pod	<i>Thysanocarpus curvipes</i>	Brassicaceae	5 CH, ME
California water-starwort	<i>Callitriche marginata</i>	Callitrichaceae	4 WET
Vernal water-starwort	<i>Callitriche verna</i>	Callitrichaceae	5 WET
California harebell	<i>Campanula prenanthoides</i>	Campanulaceae	3 ME, RW
Heterocodon	<i>Heterocodon variflorum</i>	Campanulaceae	6 WET
Hairy honeysuckle	<i>Lonicera hispidula</i> var. <i>vacillans</i>	Caprifoliaceae	2 ME
Blue elderberry	<i>Sambucus mexicana</i>	Caprifoliaceae	4 GR
White snowberry	<i>Symphoricarpos albus</i> var. <i>laevigatus</i>	Caprifoliaceae	1 ME, RW
Trailing snowberry	<i>Symphoricarpos mollis</i>	Caprifoliaceae	2 ME, RW
Mouse-eared chickweed	<i>Cerastium glomeratum</i>	Caryophyllaceae	2 ME
Wilding pink	<i>Petrohragia dubia</i>	Caryophyllaceae	4 CP
Four-leaved allseed	<i>Polycarpon tetraphyllum</i>	Caryophyllaceae	DI
Sticky pearlwort	<i>Sagina apetala</i>	Caryophyllaceae	3 GR
Common catchfly	<i>Silene gallica</i>	Caryophyllaceae	2 CP, GR, DI
Corn cockle	<i>Spergularia arvensis</i>	Caryophyllaceae	2 DI
Purple sand-spurrey	<i>Spergularia rubra</i>	Caryophyllaceae	1 GR
Common chickweed	<i>Stellaria media</i>	Caryophyllaceae	4 RW
Western burning bush	<i>Euonymus occidentalis</i> var. <i>occidentalis</i>	Celastraceae	DI
Lamb's-quarters	<i>Chenopodium album</i>	Chenopodiaceae	DI
Mexican-tea	<i>Chenopodium ambrosioides</i>	Chenopodiaceae	DI
Goosefoot	<i>Chenopodium chenopoides</i>	Chenopodiaceae	CP
Peak rush-rose	<i>Helianthemum scoparium</i>	Cistaceae	2 CH
Western morning glory	<i>Calysetegia occidentalis</i>	Convolvulaceae	3 SC
Field bindweed	<i>Convolvulus arvensis</i>	Convolvulaceae	2 GR
Dichondra	<i>Dichondra domelliana</i>	Convolvulaceae	5 GR
Pygmyweed	<i>Crassula connata</i>	Crassulaceae	4 CH
Wild- cucumber	<i>Marah fabaceus</i>	Cucurbitaceae	3 ME, SC
Madrone	<i>Arbutus menziesii</i>	Ericaceae	1 ME
Santa Cruz Mtn manzanita	<i>Arctostaphylos andersonii</i>	Ericaceae	3 CH, ME
Sensitive manzanita	<i>Arctostaphylos nummularia</i>	Ericaceae	4 CH
Brittleleaf manzanita	<i>Arctostaphylos tomentosa</i> ssp. <i>crinita</i>	Ericaceae	2 CH
Manzanita hybrid	<i>Arctostaphylos</i> hybrid	Ericaceae	4 CH
Salal	<i>Gaultheria shallon</i>	Ericaceae	4 ME
Wintergreen	<i>Pyrola picta</i> forma <i>aphylla</i>	Ericaceae	7 ME, RW
Western azalea	<i>Rhododendron occidentale</i>	Ericaceae	3 SP
Huckleberry	<i>Vaccinium ovatum</i>	Ericaceae	1 CH, ME, RW
Red huckleberry	<i>Vaccinium parvifolium</i>	Ericaceae	7
Turkey mullein	<i>Croton setigerus</i>	Euphorbiaceae	3 GR
Egg-leaf spurge	<i>Euphorbia oblongata</i>	Euphorbiaceae	GR
Petty spurge	<i>Euphorbia peplus</i>	Euphorbiaceae	DI
Silver wattle	<i>Acacia dealbata</i>	Fabaceae	8 ME, CP
Blackwood acacia	<i>Acacia melanoxylon</i>	Fabaceae	8 CP
French broom	<i>Genista monspessulana</i>	Fabaceae	8 CP, GR
Common Pacific pea	<i>Lathyrus vestitus</i>	Fabaceae	ME
Coast trefoil	<i>Lotus formosissimus</i>	Fabaceae	3 CP
Rush trefoil	<i>Lotus junceus</i>	Fabaceae	5 CH
Small-flowered trefoil	<i>Lotus micranthus</i>	Fabaceae	ME
Torrey's trefoil	<i>Lotus oblongifolius</i>	Fabaceae	6 SP, RW

Spanish lotus	<i>Lotus purshianus</i>	Fabaceae	3 CP
Deerweed	<i>Lotus scoparius</i>	Fabaceae	2 CH, ME
Strigose trefoil	<i>Lotus strigosus</i>	Fabaceae	
Chile trefoil	<i>Lotus wrangelianus</i>	Fabaceae	ME
Dwarf lupine	<i>Lupinus bicolor</i>	Fabaceae	3 CP
Broad-leaved lupine	<i>Lupinus latifolius</i>	Fabaceae	7
Douglas's annual lupine	<i>Lupinus nanus</i>	Fabaceae	
Large-leaved lupine	<i>Lupinus polyphyllus</i>	Fabaceae	2 CP, GR
Spotted bur-clover	<i>Medicago arabica</i>	Fabaceae	2 CP, GR, DI
Spiny bur-clover	<i>Medicago polymorpha</i>	Fabaceae	DI
White sweet-clover	<i>Melilotus alba</i>	Fabaceae	DI
Indian-clover	<i>Melilotus indica</i>	Fabaceae	4 CH
Chaparral pea	<i>Pickeringia montana</i>	Fabaceae	ME, RW
California tea	<i>Rupertia physodes</i>	Fabaceae	4 CP
Golden pea	<i>Thermopsis californica (macrophylla)</i>	Fabaceae	1 GR, CP, DI
Narrow-leaved clover	<i>Trifolium angustifolium</i>	Fabaceae	5 CP
Bearded clover	<i>Trifolium barbigerum</i>	Fabaceae	CP
Hop clover	<i>Trifolium campestre</i>	Fabaceae	3 CP, GR
Purple sack clover	<i>Trifolium depauperatum</i> var. <i>Truncatum</i>	Fabaceae	2 GR
Shamrock clover	<i>Trifolium dubium</i>	Fabaceae	GR
Rose clover	<i>Trifolium hirtum</i>	Fabaceae	3 DI
Crimson clover	<i>Trifolium incarnatum</i>	Fabaceae	GR
Small-headed clover	<i>Trifolium microcephalum</i>	Fabaceae	5 WET
Creek clover	<i>Trifolium obtusiflorum</i>	Fabaceae	5 CP
Pacific Grove clover	<i>Trifolium polyodon</i>	Fabaceae	GR
White clover	<i>Trifolium repens</i>	Fabaceae	CP
White-tipped clover	<i>Trifolium variegatum</i>	Fabaceae	GR
Subterranean clover	<i>Trifolium subterraneum</i>	Fabaceae	GR
Tomcat clover	<i>Trifolium wildenovii</i>	Fabaceae	GR
Coast clover	<i>Trifolium wormskoldii</i>	Fabaceae	5 CP
American vetch	<i>Vicia americana</i> var. <i>americana</i>	Fabaceae	GR
Purple vetch	<i>Vicia benghalensis</i>	Fabaceae	
Giant vetch	<i>Vicia gigantea</i>	Fabaceae	
Smaller common vetch	<i>Vicia sativa</i> ssp. <i>nigra</i>	Fabaceae	2 GR
Common vetch	<i>Vicia sativa</i> ssp. <i>sativa</i>	Fabaceae	GR
Hairy vetch	<i>Vicia villosa</i> ssp. <i>varia</i>	Fabaceae	2 GR
Giant chinquapin	<i>Chrysolepis chrysophylla</i> var. <i>chrysophylla</i>	Fagaceae	4 ME
Chinquapin	<i>Chrysolepis chrysophylla</i> var. <i>minor</i>	Fagaceae	4 ME
Tanoak	<i>Lithocarpus densiflora</i>	Fagaceae	2 ME, RW
Coast live oak	<i>Quercus agrifolia</i>	Fagaceae	1 ME
Canyon live oak	<i>Quercus chrysolepis</i>	Fagaceae	6 CH
Oracle oak	<i>Quercus x morehus</i>	Fagaceae	5 ME
Shreve oak	<i>Quercus parvula</i> var. <i>shrevei</i>	Fagaceae	1 ME
Davy's Centaury	<i>Centaureum davyi</i>	Gentianaceae	4 CH, CP, GR, ME
Timwort	<i>Cicendia quadrangularis</i>	Gentianaceae	5 CP, GR
Storksbill	<i>Erodium botrys</i>	Geraniaceae	1 CP, GR
Red-stemmed filaree	<i>Erodium cicutarium</i>	Geraniaceae	2 GR, CP, Dist
White-stemmed filaree	<i>Erodium moschatum</i>	Geraniaceae	3 DI
Cut-leaved geranium	<i>Geranium dissectum</i>	Geraniaceae	2 GR, CP
Cranesbill	<i>Geranium molle</i>	Geraniaceae	2 ME



Herb Robert	<i>Geranium robertianum</i>	Geraniaceae	3 DI
Stragly gooseberry	<i>Ribes divaricatum</i>	Grossulariaceae	4 ME, RI
Canyon gooseberry	<i>Ribes menziesii</i>	Grossulariaceae	6 ME, RW
Red-flowering currant	<i>Ribes sanguineum</i> var. <i>glutinatum</i>	Grossulariaceae	4 ME, RW
California buckeye	<i>Aesculus californica</i>	Sapindaceae	3 ME
Modesty	<i>Whipplea modesta</i>	Phyllanthaceae	MR, RW
Yerba santa	<i>Eriodictyon californicum</i>	Hydrophyllaceae	3 CH
Baby blue-eyes	<i>Nemophila menziesii</i> ssp. <i>atomaria</i>	Boraginaceae	6 GR, ME, RW
Woodland nemophila	<i>Nemophila parviflora</i> var. <i>parviflora</i>	Boraginaceae	4 ME
Shade phacelia	<i>Phacelia nemoralis</i> ssp. <i>nemoralis</i>	Boraginaceae	4 ME
Tinker's penny	<i>Hypericum anagalloides</i>	Chusiaceae	5 WET, SE
Clasping henbit	<i>Lamium amplexicaule</i>	Lamiaceae	2 DI, GR
Horehound	<i>Marrubium vulgare</i>	Lamiaceae	WET
Peppermint	<i>Mentha x piperita</i>	Lamiaceae	WET, CP
Pennyroyal	<i>Mentha pulegium</i>	Lamiaceae	2 WET
Lemonbalm	<i>Melissa officinalis</i>	Lamiaceae	4 GR
Coyote Mint	<i>Monardella villosa</i>	Lamiaceae	5 WET
Thyme-leaved mint	<i>Pogogyne serpylloides</i>	Lamiaceae	3 CP, WET
Selfheal	<i>Prunella vulgaris</i> ssp. <i>lanceolata</i>	Lamiaceae	4 WET
Selfheal	<i>Prunella vulgaris</i> ssp. <i>vulgaris</i>	Lamiaceae	4 DI
Verbain sage	<i>Salvia verbenacea</i>	Lamiaceae	1 ME
Yerba buena	<i>Satureja douglasii</i>	Lamiaceae	6 ME, CH
Danny's skullcap	<i>Scutellaria tuberosa</i>	Lamiaceae	3 ME, CH, SC
Rigid hedge nettle	<i>Stachys ajugoides</i> var. <i>rigida</i>	Lamiaceae	1 ME, RW, SC
California hedge nettle	<i>Stachys bullata</i>	Lauraceae	1 ME, RW
California bay	<i>Umbellularia californica</i>	Linaceae	2 CP, GR
Narrow-leaved flax	<i>Linum bienne</i>	Lythraceae	3 CP, WET
Hyssop loosestrife	<i>Lythrum hyssopifolium</i>	Malvaceae	3 DI
Bull mallow	<i>Malva nicaeensis</i>	Malvaceae	CP
Cheeseweed	<i>Malva parviflora</i>	Malvaceae	3 WET
Checker mallow	<i>Sidalcea malviflora</i> ssp. <i>lacinata</i>	Myricaceae	8 CP
Wax-myrtle	<i>Myrica californica</i>	Onagraceae	2 CP, GR, WET
Blue-gum eucalyptus	<i>Eucalyptus globulus</i>	Onagraceae	4
Sun cups	<i>Camissonia ovata</i>	Onagraceae	DIT, CP
Elegant clarkia	<i>Clarkia unguiculata</i>	Onagraceae	4 DIT, CP
Panicled willow-herb	<i>Epilobium brachycarpum</i>	Onagraceae	3 RI
California fuchsia	<i>Epilobium canum</i> ssp. <i>canum</i>	Onagraceae	3 RI
Hairy willow-herb	<i>Epilobium ciliatum</i> ssp. <i>ciliatum</i>	Onagraceae	
Watson's willow-herb	<i>Epilobium ciliatum</i> ssp. <i>watsoni</i>	Onagraceae	
Hooker's evening-primrose	<i>Oenothera elata</i> ssp. <i>hookeri</i>	Orobanchaceae	4 CH, ME
Clustered broomrape	<i>Orobanche fasciculata</i>	Oxalidaceae	3 GR
Hairy wood sorrel	<i>Oxalis albicans</i> ssp. <i>pilosa</i>	Oxalidaceae	RI
Creeping wood sorrel	<i>Oxalis corniculata</i>	Oxalidaceae	1 RW
Redwood sorrel	<i>Oxalis oregana</i>	Oxalidaceae	8 DI
Sourgrass, Bermuda buttercup	<i>Oxalis pes-caprae</i>	Papaveraceae	2 GR, CP
California Poppy	<i>Eschscholzia californica</i>	Papaveraceae	6 CP
Cream cups	<i>Platystemon californicus</i>	Plantaginaceae	2 GR, DI
Cut-leaved plantain	<i>Plantago coronopus</i>	Plantaginaceae	1 GR, CP
Dwarf plantain	<i>Plantago erecta</i>	Plantaginaceae	3 DI
English plantain	<i>Plantago lanceolata</i>	Plantaginaceae	
Common plantain	<i>Plantago major</i>	Plantaginaceae	

Mexican plantain	<i>Plantago subnuda</i>	Plantaginaceae	7 CP, WET
Varied-leaved collomia	<i>Collomia heterophylla</i>	Polemoniaceae	3 ME
Small-flowered linanthus	<i>Linanthus parviflorus</i>	Polemoniaceae	CP, ME
Holly-leaved navarretia	<i>Navarretia atractylodes</i>	Polemoniaceae	GR
California milkwort	<i>Polygala californica</i>	Polygalaceae	2 CH, ME, RW
Diffuse spine-flower	<i>Chorizanthe diffusa</i>	Polygonaceae	5 CH
Common knotweed	<i>Polygonum arenastrum</i>	Polygonaceae	WET
Willow weed	<i>Polygonum lapathifolium</i>	Polygonaceae	WET
Water smartweed	<i>Polygonum punctatum</i>	Polygonaceae	3 SP
Sheep-sorrel	<i>Rumex acetosella</i>	Polygonaceae	2 GR, CP
Curly dock	<i>Rumex crispus</i>	Polygonaceae	DI
Fiddle dock	<i>Rumex pulcher</i>	Polygonaceae	
Willow-leaved dock	<i>Rumex salicifolius</i> var. <i>crassus</i>	Polygonaceae	4 DIT
Willow-leaved dock	<i>Rumex salicifolius</i> var. <i>salicifolius</i>	Polygonaceae	4 DIT
Red maids	<i>Calandrinia ciliata</i>	Portulacaceae	3 CH, CP
Mimer's-lettuce	<i>Claytonia perfoliata</i>	Portulacaceae	2 ME
Scarlet pimpernel	<i>Anagallis arvensis</i>	Primulaceae	1 GR, CP, DI
Chaffweed	<i>Anagallis (Centunculus) minimus</i>	Primulaceae	4 CP
Lowland shooting-star	<i>Dodecatheon clevelandii</i> ssp. <i>patulum</i>	Primulaceae	6 CP
Pacific star-flower	<i>Trientalis latifolia</i>	Primulaceae	2 RW
Rosemary grevillea	<i>Grevillea</i> sp.	Proteaceae	8 GR
Western baneberry	<i>Actaea rubra</i>	Ranunculaceae	3 RW
Western wind flower	<i>Anemone oregana</i>	Ranunculaceae	3 RW
Northwest crimson columbine	<i>Aquilegia formosa</i> var. <i>truncata</i>	Ranunculaceae	5 RW
Water buttercup	<i>Ranunculus aquatilis</i> var. <i>capillaceus</i>	Ranunculaceae	6 WET
California buttercup	<i>Ranunculus californicus</i>	Ranunculaceae	2 CP, GR
Prickle-fruited buttercup	<i>Ranunculus muricatus</i>	Ranunculaceae	CP
Meadow-rue	<i>Thalictrum fendleri</i> var. <i>polycarpum</i>	Ranunculaceae	6 ME
Warty-leaved ceanothus	<i>Ceanothus papillosus</i> var. <i>roweanus</i>	Rhamnaceae	2 CH
Blue blossom	<i>Ceanothus thyrsiflorus</i>	Rhamnaceae	2 CH, SC
Regal blue blossom	<i>Ceanothus x regius</i>	Rhamnaceae	4 CH
Coffeeberry	<i>Rhamnus californica</i>	Rhamnaceae	3 CH, ME, SC
California acaena	<i>Acaena pinnatifida</i>	Rosaceae	4 CP, GR
Chamise	<i>Adenostoma fasciculatum</i>	Rosaceae	2 CH
Cotoneaster	<i>Cotoneaster franchetii</i>	Rosaceae	8 CP, GR
Cotoneaster	<i>Cotoneaster pannosa</i>	Rosaceae	8 DI, GR
California strawberry	<i>Fragaria vesca</i>	Rosaceae	2 ME
Toyon	<i>Photinia (Heteromeles) arbutifolia</i>	Rosaceae	2 ME
Ocean spray	<i>Holodiscus discolor</i>	Rosaceae	4 ME, RW
Wedge-leaved horkelia	<i>Horkelia cuneata</i> ssp. <i>cuneata</i>	Rosaceae	3 CP, GR
Point Reyes horkelia	<i>Horkelia marinensis</i>	Rosaceae	4 CP
Common cinquefoil	<i>Potentilla glandulosa</i> ssp. <i>glandulosa</i>	Rosaceae	GR
Firethorn	<i>Pyracantha angustifolia</i>	Rosaceae	8 CP, GR
California rose	<i>Rosa californica</i>	Rosaceae	4 DI
Wood rose	<i>Rosa gymnocarpa</i>	Rosaceae	2 RW, ME
Ground rose	<i>Rosa spithamea</i>	Rosaceae	5 CH, ME
Himalaya blackberry	<i>Rubus discolor</i>	Rosaceae	3 DI
Western raspberry	<i>Rubus leucodermis</i>	Rosaceae	4 RW
Thimbleberry	<i>Rubus parviflorus</i>	Rosaceae	4 ME
California blackberry	<i>Rubus ursinus</i>	Rosaceae	1 ME, RW, SC
Cleavers	<i>Galium aparine</i>	Rubiaceae	GR

California bedstraw	<i>Galium californicum</i> ssp. <i>californicum</i>	Rubiaceae	3 ME
Climbing bedstraw	<i>Galium porrigens</i>	Rubiaceae	CH
Wall bedstraw	<i>Galium parisiense</i>	Rubiaceae	GR
Sweet-scented bedstraw	<i>Galium triflorum</i>	Rubiaceae	3 ME
Field madder	<i>Sherardia arvensis</i>	Rubiaceae	CP
Black cottonwood	<i>Populus balsamifera</i> ssp. <i>trichocarpa</i>	Salicaceae	3 RI
Red willow	<i>Salix laevigata</i>	Salicaceae	3 RI
Arroyo willow	<i>Salix lasiolepis</i>	Salicaceae	3 RI
Yellow willow	<i>Salix lucida</i> ssp. <i>lasianдра</i>	Salicaceae	2 RI
Scouler's willow	<i>Salix scouleriana</i>	Salicaceae	3
Sitka willow	<i>Salix stichensis</i>	Salicaceae	3 WET
Brook foam	<i>Boykinia occidentalis</i>	Salicaceae	RI
Crevice alumroot	<i>Heuchera micrantha</i>	Saxifragaceae	3 RW
Fringe cups	<i>Tellima grandiflora</i>	Saxifragaceae	ME
Sugar scoop	<i>Tiarella trifoliata</i> var. <i>unifoliata</i>	Saxifragaceae	5 RW
Bellardia	<i>Coccylopselum (Bellardia) trixago</i>	Scrophulariaceae	3 GR
Johnny-nip	<i>Castilleja ambigua</i> ssp. <i>ambigua</i>	Scrophulariaceae	7 CP
Owl's clover	<i>Castilleja densiflora</i> ssp. <i>densiflora</i>	Scrophulariaceae	3 CP
Purple owl's-clover	<i>Castilleja exserta</i>	Scrophulariaceae	4 CP
Kenilworth Ivy	<i>Cymbalaria muralis</i>	Scrophulariaceae	4 RW
Sticky monkeyflower	<i>Mimulus aurantiacus</i>	Scrophulariaceae	2 ME, CH, SC
Floriferous monkeyflower	<i>Mimulus floribundus</i>	Scrophulariaceae	6 WET
Spring-seep monkeyflower	<i>Mimulus guttatus</i>	Scrophulariaceae	WET
Musk monkeyflower	<i>Mimulus moschatus</i>	Scrophulariaceae	4 SE
California Figwort, beelant	<i>Scrophularia californica</i>	Scrophulariaceae	ME
False owl's-clover hybrid	<i>Triphysaria hybrid</i>	Scrophulariaceae	5 CP
Rosy Johnny-tuck	<i>Triphysaria eriantha</i> ssp. <i>rosea</i>	Scrophulariaceae	5 CP
Dwarf owl's clover	<i>Triphysaria pusilla</i>	Scrophulariaceae	3 CP, GR
Smooth owl's-clover	<i>Triphysaria versicolor</i> ssp. <i>versicolor</i>	Scrophulariaceae	4 CP, GR
American brooklime	<i>Veronica americana</i>	Scrophulariaceae	3 RI
Purslane speedwell	<i>Veronica peregrina</i> ssp. <i>xalapensis</i>	Scrophulariaceae	WET
Persian speedwell	<i>Veronica persica</i>	Scrophulariaceae	DI
Douglas's nightshade	<i>Solanum douglasii</i>	Solanaceae	3 SC
Blue witch	<i>Solanum umbelliferum</i>	Solanaceae	3 RW, SE
Baby's tears	<i>Soleirolia soleritoli</i>	Urticaceae	5 ME, RW
American stinging nettle	<i>Urtica dioica</i> ssp. <i>gracilis</i>	Urticaceae	4 RI
Hoary nettle	<i>Urtica dioica</i> ssp. <i>holosericea</i>	Urticaceae	3 DI
Red valerian	<i>Centranthus ruber</i>	Valerianaceae	ME, GR
Sea blush	<i>Plectritis congesta</i>	Valerianaceae	4 RW
Western vervain	<i>Verbena lasiostachys</i>	Verbenaceae	2 ME, RW
Smooth yellow violet	<i>Viola glabella</i>	Violaceae	3 CP
Two-eyed violet	<i>Viola ocellata</i>	Violaceae	3 CH, ME
Johnny-jump-up	<i>Viola pedunculata</i>	Violaceae	3 RW, CP, WET
Redwood violet	<i>Viola sempervirens</i>	Violaceae	
<b>Angiosperms: Monocots</b>			
Ample-leaved sedge	<i>Carex amplifolia</i>	Cyperaceae	4 RW, RI
Short-stemmed sedge	<i>Carex brevicaulis</i>	Cyperaceae	5 CP
Dense sedge	<i>Carex densa</i>	Cyperaceae	3 CP
Round-fruited sedge	<i>Carex globosa</i>	Cyperaceae	3 CH, ME
Olney's hairy sedge	<i>Carex gynodynamis</i>	Cyperaceae	3 RW, CP, WET

Hartford's sedge	<i>Carex harfordii</i>	Cyperaceae	ME
Slough sedge	<i>Carex obnuptia</i>	Cyperaceae	3 SP
Small-bracted sedge	<i>Carex subbracteata</i>	Cyperaceae	ME
Slender sedge	<i>Carex tumulicola</i>	Cyperaceae	ME
Unidentified sedge	<i>Carex</i> sp	Cyperaceae	5 WET
Umbrella-sedge	<i>Cyperus eragrostis</i>	Cyperaceae	2 RI, DI
Needle spike-rush	<i>Eleocharis acicularis</i>	Cyperaceae	4 CP
Creeping spike-rush	<i>Eleocharis macrostachya</i>	Cyperaceae	DI
Dombey's spikerush	<i>Eleocharis montevidensis</i>	Cyperaceae	6 WET
Keeled club-rush	<i>Isolepis carinata (Scirpus kotolepis)</i>	Cyperaceae	3 CP, WET
Low bulrush	<i>Isolepis (Scirpus) cernua</i>	Cyperaceae	WET
Panicled bulrush	<i>Scirpus microcarpus</i>	Cyperaceae	4 SP
Hardstem bulrush	<i>Schoenoplectus acutus</i>	Cyperaceae	7 CP
Douglas's iris	<i>Iris douglasiana</i>	Iridaceae	3 RW
Mountain iris	<i>Iris fernaldii</i>	Iridaceae	3 ME, RW
Blue-eyed grass	<i>Sisyrinchium bellum</i>	Iridaceae	2 CP, GR
Yellow-eyed grass	<i>Sisyrinchium californicum</i>	Iridaceae	7 SP, CP
Toad rush	<i>Juncus bufonius</i>	Juncaceae	3 CP
Capitate rush	<i>Juncus capitatus</i>	Juncaceae	CP
Common bog rush	<i>Juncus effusus</i> var. <i>brunneus</i>	Juncaceae	3 WET
Pacific bog rush	<i>Juncus effusus</i> var. <i>pacificus</i>	Juncaceae	3 RI
Sickle-leaved rush	<i>Juncus falcatus</i>	Juncaceae	5 CP
Western rush	<i>Juncus occidentalis</i>	Juncaceae	3 CP
Common rush	<i>Juncus patens</i>	Juncaceae	3 WET
Brown-headed rush	<i>Juncus phaeocephalus</i> var. <i>paniculatus</i>	Juncaceae	CP
Brown-headed rush	<i>Juncus phaeocephalus</i> var. <i>phaeocephalus</i>	Juncaceae	3 CP
Iris-leaved rush	<i>Juncus xiphioides</i>	Juncaceae	RI
Rush hybrid	<i>Juncus</i> hybrid	Juncaceae	4 CH
Common wood rush	<i>Luzula comosa</i>	Juncaceae	CP
Flowering quillwort	<i>Lilaea scilloides</i>	Juncaginaceae	4 CP, WET
Duckweed	<i>Lemna minor</i>	Lemnaceae	WA
One-leaved onion	<i>Allium unifolium</i>	Liliaceae	7 CP
Elegant brodiaea	<i>Brodiaea elegans</i> ssp. <i>elegans</i>	Liliaceae	4 CP
Dwarf brodiaea	<i>Brodiaea terrestris</i> ssp. <i>terrestris</i>	Liliaceae	3 CP
White fairy-lantern, globe lilly	<i>Calochortus albus</i>	Liliaceae	3 ME
Yellow mariposa lily	<i>Calochortus luteus</i>	Liliaceae	3 CP, GR
Pussy ears	<i>Calochortus tolmiei</i>	Liliaceae	4 ME, RW
Large-flowered star-tulip	<i>Calochortus uniflorus</i>	Liliaceae	4 CP
Soap plant	<i>Chlorogalum pomeridianum</i> var. <i>pomeridianum</i>	Liliaceae	2 CP, GR, SC
Red clintonia	<i>Clintonia andrewsiana</i>	Liliaceae	6 RW
Blue dicks	<i>Dichelostemma capitatum</i>	Liliaceae	4 GR
Hooker's Fairy Bells	<i>Disporum hookeri</i>	Liliaceae	3 RW
Checker lily	<i>Fritillaria affinis</i>	Liliaceae	3 RW
Leopard lily	<i>Lilium pardalinum</i>	Liliaceae	6 RI
Sea muilla	<i>Muilla maritima</i>	Liliaceae	7 CP
Western false Solomon's seal	<i>Smilacina racemosa</i>	Liliaceae	2 RW
Slim false Solomon's seal	<i>Smilacina stellata</i>	Liliaceae	3 RW
California fetid adder's tongue	<i>Scolopus bigelovii</i>	Liliaceae	4 RW
Giant wake-robin	<i>Trillium chloropetalum</i>	Liliaceae	6 ME, RW
Wake-robin	<i>Trillium ovatum</i> ssp. <i>ovatum</i>	Liliaceae	3 ME, RW
White hyacinth	<i>Triteleta hyacinthina</i>	Liliaceae	3 CP

Golden brodiaea, pretty faces	<i>Triteleia ixioides</i> ssp. <i>ixioides</i>	Liliaceae	3 CP, GR
Ithuriel's spear	<i>Triteleia laxa</i>	Liliaceae	6 GR
Fremont's star lily	<i>Zigadenus fremontii</i> var. <i>fremontii</i>	Liliaceae	1 ME
Dwarf Fremont's star lily	<i>Zigadenus fremontii</i> var. <i>minor</i>	Liliaceae	2 CP, GR
Calypto orchid	<i>Calypto bulbosa</i>	Orchidaceae	5 RW
Spotted coral foot	<i>Corallorhiza maculata</i>	Orchidaceae	4 ME, RW
Unspotted spotted coral root	<i>Corallorhiza maculata</i> var. <i>immaculata</i>	Orchidaceae	4 ME, RW
Striped coral root	<i>Corallorhiza striata</i>	Orchidaceae	5 ME, RW
<b>Helleborine</b>	<i>Epipactis helleborine</i>	Orchidaceae	2 RW
Rattlesnake-plantain	<i>Goodyera oblongifolia</i>	Orchidaceae	5 RW
Mountain piperia	<i>Piperia transversa</i>	Orchidaceae	4 RW
Ladies' tresses orchid	<i>Spiranthes romanzoffiana</i>	Orchidaceae	6 CP
Barb goatgrass	<i>Aegilops triuncialis</i>	Poaceae	4 GR
European hairgrass	<i>Aira caryophylla</i>	Poaceae	1 ALL
Spike bent-grass	<i>Agrostis exarata</i>	Poaceae	4 WET, ME
<b>Redtop</b>	<i>Agrostis gigantea</i>	Poaceae	4 ME
Hall's bentgrass	<i>Agrostis hallii</i>	Poaceae	4 ME
Bentgrass	<i>Agrostis pallens</i>	Poaceae	4 GR
Sweet vernalgrass	<i>Anthoxanthum odoratum</i>	Poaceae	3 ME
Tall oatgrass	<i>Arrhenatherum elatius</i>	Poaceae	3 ME
Slender wild oat	<i>Avena barbata</i>	Poaceae	1 GR
Wild oat	<i>Avena fatua</i> var. <i>fatua</i>	Poaceae	3 GR
Cultivated oat	<i>Avena sativa</i>	Poaceae	6 DI
Purple falsebrome	<i>Brachypodium distachyon</i>	Poaceae	2 GR
Rattlesnake grass	<i>Briza maxima</i>	Poaceae	1 GR, CP
Little rattlesnake grass	<i>Briza minor</i>	Poaceae	2 GR, CP
California bromegrass	<i>Bromus carinatus</i>	Poaceae	3 ME, GR, CP
Rescue grass	<i>Bromus catharticus</i>	Poaceae	4 DI
Ripgut brome	<i>Bromus diandrus</i>	Poaceae	2 GR
Soft brome, soft chess	<i>Bromus hordeaceus</i>	Poaceae	1 GR
Foxtail chess	<i>Bromus madritensis</i> ssp. <i>madritensis</i>	Poaceae	4 DI
Bald brome	<i>Bromus racemosus</i>	Poaceae	5 CP
Narrow-flowered bromegrass	<i>Bromus vulgaris</i>	Poaceae	4 ME
Tufted pine grass	<i>Calamagrostis koelerioides</i>	Poaceae	6 GR, ME, RW
Pine grass	<i>Calamagrostis rubescens</i>	Poaceae	4 ME
Jubata grass	<i>Cortaderia jubata</i>	Poaceae	8 ME, DI
Bermuda grass	<i>Cynodon dactylon</i>	Poaceae	3 GR
Hedgehog dogtail	<i>Cynosurus echinatus</i>	Poaceae	2 GR, DI
Orchard grass	<i>Dactylis glomerata</i>	Poaceae	2 GR
California oatgrass	<i>Danthonia californica</i>	Poaceae	2 GR, CP
Pacific hairgrass	<i>Deschampsia holciformis</i>	Poaceae	4 CP
Annual hairgrass	<i>Deschampsia danthonioides</i>	Poaceae	5 CP
Slender hairgrass	<i>Deschampsia elongata</i>	Poaceae	3 CP, WET
Hairy crabgrass	<i>Digitaria sanguinalis</i>	Poaceae	4 DI
Barnyardgrass	<i>Echinochloa crus-galli</i>	Poaceae	4 DI
Panic veldt grass	<i>Ehrharta erecta</i>	Poaceae	8 ME
California bottlebrush grass	<i>Elymus californicus</i>	Poaceae	6 ME, RW
Blue wildrye	<i>Elymus glaucus</i> ssp. <i>jepsonii</i>	Poaceae	3 ME, CP
Slender wheatgrass	<i>Elymus trachycaulus</i> ssp. <i>trachycaulus</i>	Poaceae	6 GR
Turf grass	<i>Festuca arundinacea</i>	Poaceae	8 DI

Elmer's fescue	<i>Festuca elmeri</i>	Poaceae	6 ME, RW
Western fescue	<i>Festuca occidentalis</i>	Poaceae	3 ME
Red fescue	<i>Festuca rubra</i>	Poaceae	4 WET
Nitgrass	<i>Gastridium ventricosum</i>	Poaceae	2 GR
Barbgrass	<i>Hainardia cylindrica</i>	Poaceae	4 DI
Velvet grass	<i>Holcus lanatus</i>	Poaceae	8 GR, CP, ME
Meadow barley	<i>Hordeum brachyantherum</i>	Poaceae	3 GR
Mediterranean barley	<i>Hordeum marinum ssp. gussoneanum</i>	Poaceae	3 DI
Foxtail barley	<i>Hordeum murinum ssp. leporinum</i>	Poaceae	2 GR
Prairie Junegrass	<i>Koeleria macrantha</i>	Poaceae	4 CP
Italian ryegrass	<i>Lolium multiflorum</i>	Poaceae	3 CP, GR
Perennial ryegrass	<i>Lolium perenne</i>	Poaceae	3 DI, WET
Meadow ryegrass	<i>Lolium pratense</i>	Poaceae	3 GR, CP, ME
Creeping wildrye	<i>Leymus triticoides</i>	Poaceae	4 GR
California oniongrass	<i>Melica californica</i>	Poaceae	4 GR, ME
Small-flowered melica	<i>Melica imperfecta</i>	Poaceae	5 ME
Alaska oniongrass	<i>Melica subulata</i>	Poaceae	3 RW
Torrey's melicgrass	<i>Melica torreyana</i>	Poaceae	3 RW, ME
Small-flowered needlegrass	<i>Nassella lepida</i>	Poaceae	3 ME, CP
Purple needlegrass	<i>Nassella pulchra</i>	Poaceae	2 CP, GR
Pacific panicgrass	<i>Panicum pacificum var. acuminatum</i>	Poaceae	4 CP
Dallis grass	<i>Paspalum dilatatum</i>	Poaceae	3 DI, WET
Harding grass	<i>Phalaris aquatica</i>	Poaceae	8 DI, GR
California canarygrass	<i>Phalaris californica</i>	Poaceae	5 ME, WET
Annual bluegrass	<i>Poa annua</i>	Poaceae	4 DI
Canada bluegrass	<i>Poa compressa</i>	Poaceae	4 DI
Kellogg bluegrass	<i>Poa kelloggii</i>	Poaceae	4 ME
Kentucky bluegrass	<i>Poa pratensis</i>	Poaceae	3 CP
Beardless rabbitsfoot grass	<i>Polypogon viridis</i>	Poaceae	3 DI
Rabbitsfoot polypogon	<i>Polypogon monspeliensis</i>	Poaceae	3 DI, GR
Green bristlegrass	<i>Setaria viridis</i>	Poaceae	4 DI
Medusa head	<i>Taeniatherum caput-medusae</i>	Poaceae	3 GR
Tall trisetum	<i>Trisetum canescens</i>	Poaceae	3 ME
Wheat	<i>Triticum aestivum</i>	Poaceae	3 DI
Six-week fescue	<i>Vulpia bromoides</i>	Poaceae	2 GR
Few-flowered fescue	<i>Vulpia microstachys var. pauciflora</i>	Poaceae	5 GR
Rat-tail fescue	<i>Vulpia myuros</i>	Poaceae	2 GR
Eight-flowered fescue	<i>Vulpia octoflora</i>	Poaceae	

- 1= abundant (abundant throughout or dominant in select habitats)
- 2= common (abundant in select habitats or commonly found)
- 3= fairly common (found regularly but usually not in dense concentrations)
- 4= uncommon (habitat very restricted, or found only sporadically)
- 5= rare (known only from one or a few small populations)
- 6= unknown (known occurrence in past, not seen within past 20 years, status uncertain)
- 7= extirpated
- 8= invasive
- Bold = non-native**
- CH = chaparral
- GR = grassland
- CP = coastal prairie

RW = redwood  
ME = mixed evergreen forest  
SE = seep  
WET = poorly drained areas, seeps, springs, riparian  
RI = riparian  
DI = disturbed  
DIT = ditch  
SP = spring  
ALL = potential in all habitats

UCSC Campus Mammals Jan 2000 current

	Common Name	Latin Name	Notes	Abundance
<b>Mammals</b>				
<b>Marsupials</b>	Virginia Opossum	<i>Didelphis marsupialis</i>	confirmed	Common
<b>Bats</b>	Pallid Bat	<i>Antrozous pallidus</i>	not confirmed	
	Big Brown Bat	<i>Eptesicus fuscus</i>	conf NC (EW, JS)	
	Western red Bat	<i>Lasiurus blossevilli</i>	conf NC (EW, JS)	
	Hoary Bat	<i>Lasiurus cinereus</i>	conf NC (EW, JS)	
	California Myotis	<i>Myotis californicus</i>	conf NC (EW, JS)	
	Long-eared Myotis	<i>Myotis evotis</i>	conf NC (EW, JS)	
	Little Brown Myotis	<i>Myotis lucifugus</i>	?	
	Fringed Myotis	<i>Myotis thysanodes</i>	conf NC (EW, JS)	
	Long-legged Myotis	<i>Myotis volans</i>	conf NC (EW, JS)	
	Yuma myotis	<i>Myotis yumanensis</i>	?	
	Western Pipistrel	<i>Pipistrellus hesperus</i>		
	Townsend's big-eared bat	<i>Corynorhinus townsendii townsendii</i>	conf NC (EW, JS)	
	Mexican free-tailed bat	<i>Tadarida brasiliensis</i>	conf NC (EW)	Uncommon
<b>Insectivores</b>	Shrew-mole	<i>Neurotrichus gibbsii</i>	conf	Uncommon
	Broad-Handed Mole	<i>Scapanus latimanus</i>	conf	Common
	Trowbridge Shrew	<i>Sorex trowbridgei</i>	conf	Common
<b>Lagomorphs</b>	Audubon Cottontail	<i>Sylvilagus auduboni</i>	unconfirmed	Rare?
	Brush Rabbit	<i>Sylvilagus bachmani</i>	conf (j&S)	Common
<b>Rodents</b>	Santa Cruz Kangaroo Rat	<i>Dipodomys venustus</i>	not confirmed	Uncommon
	Merriam Chipmunk	<i>Eutamias merriami</i>	conf	Common
	California Meadow Mouse	<i>Microtus californicus</i>	conf	common
	House Mouse	<i>Mus musculus</i>	conf	
	Dusky-footed Woodrat	<i>Neotoma fuscipes annectens</i>	?	
	California Pocket Mouse	<i>Perognathus californicus</i>	??	
	Brush Mouse	<i>Peromyscus boylei</i>	Conf (MF)	
	California Mouse	<i>Peromyscus californicus</i>	Conf (MF)	
	Deer Mouse	<i>Peromyscus maniculatus</i>	Conf (MF)	
	Pinyon Mouse	<i>Peromyscus truei</i>	not confirmed	
	Norway Rat	<i>Rattus norvegicus</i>	conf	Uncommon
	Black Rat	<i>Rattus rattus</i>	conf	Common
	Eastern Gray Squirrel	<i>Sciurus carolinensis</i>	conf	Uncommon
	Western Gray Squirrel	<i>Sciurus griseus</i>	conf	lower campus
	Eastern Fox Squirrel	<i>Sciurus niger</i>	conf	Abundant
	Ground Squirrel	<i>Spermophilus beecheyi</i>	conf	Abundant
	Pocket Gopher	<i>Thomomys bottae</i>	conf	Uncommon
<b>Carnivores</b>	Ringtail	<i>Bassariscus astutus</i>	conf upper quarry (MF)	



Coyote	<i>Canis latrans</i>	conf	Common
Mountain Lion	<i>Felis concolor</i>	conf	Uncommon
Bobcat	<i>Felis rufus</i>	conf	Common
Striped Skunk	<i>Mephitis mephitis</i>	conf	Common
Long-Tailed Weasel	<i>Mustela frenata</i>	conf (TH)	Uncommon
Raccoon	<i>Procyon lotor</i>	conf	Abundant
Spotted Skunk	<i>Spilogale putorius</i>	conf (EW)	rare
Badger	<i>Taxidea taxus</i>	conf (EW)	Rare
Gray Fox	<i>Urocyon cinereoargenteus</i>	conf	somewhat common
Red Fox	<i>Vulpes vulpes</i>	conf (SA)	
Black-Tailed Deer	<i>Odocoileus hemionus spp. columbianus</i>	conf	Abundant
Wild Boar	<i>Sus scrofa</i>		

MD=meadow

ME=mixed evergreen forest

RW=redwood forest

CV=cave

RI=riparian or streamside

PD=Pond

RO=Rocky outcroppings

C=common

U=uncommon - so rare

Restricted=common in very restricted areas on campus

EW = ecosystems west

JS = Jones and Stokes

MF = Maggie Fusari

SA = Susi Alterman

TH = Tonya Haff

### Response to Comment Letter I-30

**Response to Comment I-30-1.** The species list in the Draft EIR identifies special-status species that could be affected by the proposed LRDP and is not meant to be a comprehensive list of all plants and animals found at UC Santa Cruz. Criteria for selecting special-status species are discussed in Sections 4.4.1.8, 4.4.1.9, and 4.4.1.10 of the Draft EIR.