

T A B L E O F C O N T E N T S

Chapter 4	Environmental Setting, Impacts, and Mitigation	4-1
-----------	--	-----

T A B L E S

Table 4.0-1	Pending or Approved Reasonably Foreseeable Projects
Table 4.0-2	Estimated Residential Distribution of New Population Associated with the 2005 LRDP
Table 4.0-3	Estimated Distribution of LRDP-Related Population by Residence Location

F I G U R E S

Figure 4.0-1	Development Areas within the 2005 LRDP Land Use Plan
--------------	--

CHAPTER 4

Environmental Setting, Impacts, and Mitigation

This section of the EIR presents potential environmental impacts of the proposed 2005 LRDP. The scope of the analysis and key attributes of the analytical approach are presented below to assist readers in understanding the manner in which the impact analyses have been conducted in this EIR.

SCOPE OF THE ENVIRONMENTAL IMPACT ANALYSIS

The proposed 2005 LRDP is a land use plan that will guide the physical development of the campus. Adoption of the 2005 LRDP does not constitute a commitment to any specific project, construction schedule, or funding priority. Each project embarked on by UC Santa Cruz during the life span of the 2005 LRDP will be individually reviewed and approved by the Board of Regents of the University of California, the UC President, and/or the UC Santa Cruz Chancellor. This 2005 LRDP EIR is a program-level environmental assessment which evaluates the effects of adoption of the LRDP and focuses on full development of the campus under the proposed LRDP, at a programmatic rather than project-specific level.

In accordance with Appendix G of the CEQA Guidelines, the potential environmental effects of the proposed 2005 LRDP are analyzed for the following resource areas:

- Aesthetics
- Agricultural Resources
- Air Quality
- Biological Resources
- Cultural Resources
- Geology, Soils, and Seismicity
- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use and Planning
- Noise
- Population and Housing
- Public Services
- Recreation
- Traffic, Circulation, and Parking
- Utilities

The preparation of this EIR was preceded by an Initial Study for the 2005 LRDP (Appendix A). The Initial Study determined that no impacts to Mineral Resources would occur under the 2005 LRDP. Accordingly, Mineral Resources are not discussed further in this EIR.

Definition of Baseline or Existing Conditions

According to Section 15125 (Environmental Setting) of the CEQA Guidelines, an EIR must include a description of the existing physical environmental conditions in the vicinity of the project to provide the “baseline physical conditions” against which project-related changes can be compared. Normally, the

baseline condition is the physical condition that exists when the Notice of Preparation (NOP) is published. The NOP for the 2005 LRD^P EIR was published on January 27, 2005. For purposes of the impact analysis in this EIR, academic year 2003-04, the most recent academic year for which complete population and housing data for the campus are available, is the baseline year. For all population-related analyses, conditions existing in that year are considered to be the baseline against which changes that would result from the LRD^P are measured. With respect to other resource areas, such as biological resources, the conditions that existed in January 2005 are the baseline conditions for the impact analyses in this EIR.

Definition of Study Area

The extent of the study area varies among resources, depending on the extent of the area in which impacts could be expected. For example, for traffic impacts the study area includes not just the campus but also numerous roadways and intersections in the city and county of Santa Cruz, whereas cultural resource impacts are assessed only for the main campus and the 2300 Delaware Avenue property, which are the only areas in which cultural resources would be directly affected by the project. The study area for each resource area is defined in the pertinent resource sections.

Basis of Impact Analysis

The analyses of impacts in this EIR are based primarily upon one of two factors, depending on the primary cause of the impact. Impacts related to geologic, hydrological, cultural, agricultural, and biological resources are analyzed primarily on the basis of the location and acreage of ground disturbance (the footprint of development) that is projected to occur as a result of the adoption of the 2005 LRD^P. Impacts related to traffic, air quality, noise, utilities, and public services, on the other hand, are analyzed primarily on the basis of the total population increase associated with full development under the 2005 LRD^P.

To assist in the evaluation of “footprint” impacts, the areas of the campus where new development under the 2005 LRD^P would occur, and those areas where no development would occur, were identified. *Figure 4.0-1, Development Areas within the 2005 LRD^P Land Use Plan*, shows the development areas. This map was superimposed on the campus maps showing the distribution of environmental resources to determine the nature and magnitude of the footprint impacts. This map was also used to estimate the acreages of habitat that would be converted to campus uses and the increase in impervious surfaces and runoff.

With respect to those impacts that are population-related, it should be noted that total on-campus population is determined in large part by student enrollment. As explained in Section 3.0 *Project Description*, UC Santa Cruz uses a three-quarter average FTE count of students for purposes of fiscal planning and development. The 2005 LRD^P includes a land use-plan that would accommodate a three-quarter average 21,000 FTE students on campus. 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. The EIR addresses an enrollment increase of 6,950 students and a related increase of 1,520 faculty and staff to analyze all of the population-related impacts.

As noted in Chapter 3.0, *Project Description*, the Campus also projects that summer quarter enrollment would increase above existing levels, but the average level of enrollment for summer would still be substantially lower than the three-quarter average headcount of 21,000 students. For most environmental topics, impacts are analyzed based on the campus's maximum population-driven demands (which are highest during the three primary academic quarters) and would not change as a result of increased summer student enrollment. However, because the campus is located in an area that attracts tourists during the summer months, to ensure that environmental impacts from the increased enrollment during the summer sessions are not underestimated, the specific effects of the increase in the campus's summer population are addressed in the relevant sections of this EIR. Because background traffic and water usage within the project area may be higher during the summer months on account of visitors to the region, the EIR examines the effect of the increased summer session campus population under the 2005 LRDP on traffic and water usage during the summer months.

YEAR OF IMPACT ANALYSIS

For most resource areas, impacts are evaluated in terms of changes due to the proposed 2005 LRDP as compared to existing conditions (see Definition of Baseline above). For each resource area, the conditions that would result at the end of the planning horizon of the LRDP, i.e., in 2020-21,¹ are compared to baseline conditions, to characterize the anticipated change in conditions. With respect to traffic impacts, traffic from full development under the 2005 LRDP is added to the background traffic under projected 2020 conditions to determine the magnitude of impacts.

CUMULATIVE IMPACTS

CEQA requires that in addition to project impacts, an EIR must discuss cumulative impacts. According to Section 15355 of the CEQA Guidelines,

'Cumulative impacts' refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.

- (a) *The individual effects may be changes resulting from a single project or a number of separate projects.*
- (b) *The cumulative impact from several projects is the change in the environment, which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time."*

¹ For simplicity, this EIR uses "2020" throughout this EIR to refer to the 2020-21 academic year.

Section 15130(a) of the CEQA Guidelines clarifies a number of issues with respect to cumulative impacts, as follows.

- An EIR should not discuss cumulative impacts to which the project would not contribute.
- If the combined cumulative impact (impacts from other projects combined with the impact from the proposed project) is not significant, then the EIR should briefly indicate why the impact is not significant, and no further evaluation is necessary.
- If the combined cumulative impact is significant, the EIR discussion must reflect the severity of the impact and the likelihood of its occurrence.
- If the combined cumulative impact is significant, the EIR also must indicate whether the project's contribution to that significant cumulative impact will or will not be cumulatively considerable.
- An EIR may determine that the project's contribution is rendered less than cumulatively considerable if the project is required to implement or fund its fair share of a mitigation measure or measures designed to alleviate the cumulative impact.

Section 15130(b) of the CEQA Guidelines provides additional guidance with respect to how an adequate cumulative impact analysis might be completed and notes that this may be based on:

"A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or

A summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area-wide conditions contributing to the cumulative impact."

To evaluate the cumulative impacts of the 2005 LRDP development program, the analysis in this EIR uses a summary of projections. These are the *2004 AMBAG Population, Housing Unit & Employment Forecasts* published by the Association of Monterey Bay Area Governments (AMBAG) in April 2004. These forecasts provide projections of population, housing, employment, and traffic growth that is expected to occur in Santa Cruz County through 2030. The forecasts also report projections for 2020, which is the year used for the analysis of the cumulative impacts of the 2005 LRDP. Although these projections have not been included in the existing County or City General Plans, which date back to 1994 and have not yet been updated, these AMBAG forecasts are the adopted projections of growth for the project area.

According to AMBAG, the growth in campus population projected under the 2005 LRDP is not accounted for in its current planning forecasts. In its letter to the campus evaluating the consistency of the 2005 LRDP with AMBAG growth projections and regional planning, AMBAG stated that housing provided under the 2005 LRDP is not included in AMBAG's housing forecasts for the City of Santa Cruz; therefore, the population growth under the 2005 LRDP has not been accounted for in the regional population forecasts and planning. However, an examination of the AMBAG regional travel demand model shows that in the three Traffic Analysis Zones (TAZ) that make up the campus, approximately 4,179 residents, 12,144 students, and 6,175 employees are included in the travel demand model for the year 2020. While AMBAG's 2020 estimates in the regional travel demand model for on-campus

residential population and students are lower than the totals projected by the Campus for 2020, the total 2020 employee population of 6,175 employees is in fact greater than the 5,594 total employees in 2020 projected by the Campus. To avoid undercounting of residential and student populations and the over-counting of employee population, for the traffic impact assessment, the campus-related residential, student and employee populations included in the AMBAG travel demand model were not used in the analysis. Instead, this EIR analyses impacts based on the numbers of students and employees included in the 2005 LRDP.

To evaluate the regional cumulative impacts of the three specific development projects described and evaluated in Volume III, this EIR uses AMBAG forecasts of population and traffic for 2010. In addition, a list of projects obtained from the City of Santa Cruz was reviewed to identify any projects proposed by others, in the vicinity of 2300 Delaware Avenue that could have localized cumulative impacts, especially impacts from construction concurrent with construction of the 2300 Delaware Avenue project. That list is presented in Table 4.0-1. Projects in the upper west side are marked with an asterisk. Projects near 2300 Delaware Avenue (i.e., on the west side south of Mission) are marked with two asterisks.

Table 4.0-1
Pending or Approved Reasonably Foreseeable Projects

Project	Land Use	Size (gross square feet / units)
1010 Pacific	Apartments/Commercial/Retail	113 units/7,100 square feet
106 Younger	Townhomes	4 units
1111A River	Live/Work	7 units
119/125 Blaine Apartments	Multi-Family	13 units
121 Market	Single-Family	4 units
1226 Soquel	Town homes	9 units
1375 Pacific	Commercial/Retail	90,442 square feet
1430 N Branciforte Avenue	Single Family	5 units
1463 High St.*	Single-Family	26 units
170 West Cliff Drive*	Bed and Breakfast Remodel/Construction of Townhomes	Unknown number of units/9 Townhomes
175 Belvedere Terrace	Multi-Family	6 units
195 Harvey West	Commercial/Apartments	8,750 square feet/14 units
2027 N Pacific	Commercial/Office	3,720 square feet
211 Gault Street	Multi-Family Senior Apartments	37 units
215 Beach La Bahia Redevelopment	Hotel/Apartments	118 rooms
2222 East Cliff Harbor Redevelopment	Commercial/Retail Expansion/ Restaurant Expansion	3,725 square feet
225 Button Street	Single-Family	9 units
230 Grandview**	Condominiums	22 units
251 High*	Multi-Family	10 units
269 Goss Avenue	Single-Family	8 units
2931 Mission Street**	Office	not available
340 Highland Avenue*	Apartments to Condominiums	25 Townhomes
350 Coral	Indoor Soccer Field (Existing Building)	21,300 square feet
550 Second Street	Hotel	13 rooms

Table 4.0-1
Pending or Approved Reasonably Foreseeable Projects

Project	Land Use	Size (gross square feet / units)
555 Pacific	Hotel	77 rooms
605-635 Pacific	Hotel/Apartments	15 rooms/2 units
708-716 Frederick	Condominiums/Commercial Office Space	22 units/1,600 square feet
716 Seabright Avenue	Residential	12 Condo units
Almar Center Expansion**	Commercial	25,210 square feet
Branciforte Commons 630 Water St @ Reed	Apartments/SRO Units/Commercial Office Space	5 units/48 units/1,000 square feet
Cardiff/High Development* 250 Cardiff Place	SRO Units/Apartments/Commercial/Retail	33 units/11 apartments/1,987 square feet commercial
Chestnut Street Apartments	Commercial/Retail	7,000 square feet
Coral Street Homeless Center	Office/Housing	11,000 square feet/ 16 units –27 to 30 families
Costco Expansion & Gas Station	Retail	12,775 sq ft
Depot Park	Public Recreation	not available
Grandview Court	Townhomes	20 units
Marine Sanctuary Exploration Center	Interpretive Center	10,000 sq ft
Mike Fox Park	Skate Park	15,000 sq ft
N. Pacific/Cedar St.	Residential/Commercial	60 units/6,000 square feet
Old Sash Mill Expansion	Light Industrial	17,600 sq ft
Reed Street Cottages Water and Reed	Single-Family	18 units
River/N. Pacific Development	Commercial/Residential	6,500 square feet/70 units
River/N. Pacific Development 125 River Street	Townhomes	70 units/5,522 sq. ft.
Salz Tannery Art Center River St @ Encinal St.	Commercial/Office/Performance/Multi-Family	12,500 sq. ft./ 34,155 sq. ft./7,500 sq. ft.-250 seats/100 units
Santa Cruz City School. Bus Depot Relocation	Bus Depot Relocation	unknown
SCMTD	“Metro Base” Facilities	unknown
Swenson Site/Shaffer Rd.**	Single-Family	80 units
Village Oaks Subdivision	Townhomes/Single-Family	27 sf units/9 townhomes
UCSC Marine Science Campus LRDP	Education and Research housing	273,500 sq. ft. / 80 units
Wrigley Building**	Vacant	140,000 square feet

Notes:

*Indicates project in upper west side

**Indicates project near 2300 Delaware Avenue

To evaluate cumulative impacts from campus growth, the numbers of LRDP-related persons who would live off campus was estimated. The methodology used to estimate the distribution of the students and employees among the campus, City of Santa Cruz, and “the Rest of the County” is discussed in Section 4.11.2.3. The distribution is shown in Table 4.0-2 below.

Table 4.0-2
Estimated Residential Distribution of New Population Associated with the 2005 LRD^P

Residence Location	Students	Employees	Student Dependents	Employee Dependents	Total
On Campus	3,390	138	320	180	4,028
City of Santa Cruz	2,253	434	203	624	3,514
Rest of the County	555	563	50	812	1,980
<i>Total in Study Area</i>	<i>6,198</i>	<i>1,135</i>	<i>573</i>	<i>1,616</i>	<i>9,522</i>
Out-of-County	417	228	-	-	645
Residual Demand	335	157	-	-	492
Total New Population	6,950	1,520	573	1,616	10,659

To assist in understanding the cumulative impacts on communities other than Santa Cruz, the “Rest of the County” population was assigned to the other communities in the study area based on the proportion of campus employees and students who currently live in each of the communities other than Santa Cruz. The proportions were derived from Table 4.11-4, which shows the historic and current residence patterns of students and employees. Table 4.0-3, below, presents the estimated number of students, employees and dependents projected to live in each of the study area communities and the proportion this population would make of the total 2020 population of each community. Because the LRD^P-related population would comprise only a very small percentage of the total population of Watsonville, this community was not considered in the cumulative analysis of this EIR. Cumulative impacts are evaluated in this EIR for the cities of Santa Cruz, Capitola and Scotts Valley, and all of unincorporated Santa Cruz County. Disaggregated population projections and other data are not available for the various communities in the unincorporated portions of the County, however, and this population is accordingly addressed as a group in the cumulative analysis. Induced population growth is considered under Growth Inducement in Chapter 6.0, *Other CEQA Considerations*, (Volume II).

Table 4.0-3
Estimated Distribution of LRD^P-Related Population by Residence Location

City/Community	No. of Students	No. of Student Dependents	No. of Employees	No. of Employee Dependents	Total Number of Persons	Total 2020 Population	LRDP Population as Percent of Total Population
On Campus	3,390	320	138	180	4,028		
Outside of County	417		228				
City of Santa Cruz	2,253	203	434	624	3,514	59,924	5.9
Capitola	54	5	43	62	164	11,104	1.5
Scotts Valley	34	3	46	66	149	14,062	1.1
Watsonville	36	3	106	152	297	65,473	0.5
Felton	29	3	37	53	122	NA	
Live Oak	244	22	124	179	569	NA	
Soquel	39	4	50	72	165	NA	
Aptos	65	6	93	134	298	NA	

Table 4.0-3
Estimated Distribution of LRD^P-Related Population by Residence Location

City/Community	No. of Students	No. of Student Dependents	No. of Employees	No. of Employee Dependents	Total Number of Persons	Total 2020 Population	LRDP Population as Percent of Total Population
Other Unincorporated Communities	54	4	64	94	216	NA	
Residual Demand	335		157				
Total	6,950	573	1,520	1,616	9,522		

DEGREE OF SPECIFICITY IN THE EIR

The subject matter of the 2005 LRD^P EIR is the proposed long range development of the UC Santa Cruz campus. The long range development plan is based on projections of enrollment growth from 2003-04 to 2020-21. The LRD^P is similar to a General Plan because it presents a land use diagram and framework for the orderly development of the campus to accommodate forecast growth in campus population. Therefore, the analysis contained in Volumes I and II of this EIR is at a programmatic level and is necessarily less detailed than the analysis represented in an EIR on a specific development project would be. Volume III, which addresses three proposed projects, provides more detailed, project-level analyses of potential impacts of those specific proposed projects.

