

# TABLE OF CONTENTS

---

4.0	Environmental Setting, Impacts, and Mitigation.....	4-1
-----	---	-----

## **4.0 ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION**

This section of the EIR presents potential environmental impacts of the proposed 2003 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 analysis has been conducted in this EIR.

Fifteen resource areas identified in the CEQA Environmental Checklist are examined in the sections that follow. (Mineral resources were addressed in the Initial Study.) For each resource area of concern, the EIR describes the existing and future setting, the potential for the proposed project to significantly impact the resources, and recommended mitigation measures that could reduce or avoid potentially significant impacts. The preparation of this EIR was preceded by an Initial Study (included in Appendix A), which determined that the 2003 LRDP (and the five specific development projects) would not result in certain identified impacts. Each of the resource sections that follows, clearly identifies those impacts that were adequately addressed in the Initial Study and are therefore not evaluated further in this EIR.

### **Definition of Baseline**

The environmental setting sections describe the baseline physical environmental conditions. For purposes of the analyses in this EIR, academic year 2001-02 (the most recently completed academic year), is the timeframe to assess the baseline, or existing conditions.

### **Definition of Study Area**

The extent of the environmental setting area evaluated (the study area) differs among resources depending on the locations where impacts would be expected. For example, traffic impacts due to the proposed LRDP are assessed for the regional roadway network, whereas cultural resource impacts from the 2003 LRDP are assessed for the campus only. The setting sections describe both local resources and regional resources that occur throughout the broader geographic area.

### **Basis of Impact Analysis**

Campus population is the metric used to estimate the development under the LRDP, including the areas and acreages that would be needed to build the necessary facilities. The analyses of impacts in this EIR are based primarily upon one of two factors, depending on the primary cause of the impact. For example, impacts related to geologic, hydrological, cultural, agricultural, and biological resources are analyzed primarily on the basis of the location and acreage of ground disturbance that is projected to occur as a result of the implementation of the 2003 LRDP. 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 associated with full development under the 2003 LRDP.

With respect to those impacts that are population-driven, 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 Davis uses a three-quarter average headcount of students for purposes of planning and development. The campus projects that by 2015-16, the three-quarter average headcount will be 30,000 on-campus students. As noted in Section 3.0, the campus also projects that summer quarter enrollment would increase above existing levels, but the average level of

enrollment for that quarter will still be substantially lower than the three-quarter average headcount of 30,000 students. The impact analysis in this EIR uses student enrollment level of 30,000 students to analyze all of the population-driven impacts. However, to ensure that environmental impacts from the increased enrollment during the summer sessions are not overlooked, the increase in the campus' summer population is covered throughout this EIR's resource analyses. For most environmental topics, the increase in the campus population over the summer term would not change the magnitude of the impacts evaluated. Total development on campus is based on the campus' maximum demands (which are highest during the three primary academic quarters) and would not change as a result of increased summer student enrollment. In addition, fewer classrooms may be needed if use of teaching facilities throughout the year becomes more efficient. Impacts associated with development, such as those relating to aesthetics, agricultural resources, biological resources, cultural resources, geology and soils, land use and planning, recreation, and infrastructure would not change with increased summer enrollment. In addition, this EIR assesses most population- and operation-based environmental impacts (such as those associated with air quality, hazards, noise, housing, public services, and traffic) in terms of the maximum on-campus population (which occurs during the primary three quarters), rather than the varying population over the full year.

The summer sessions population is specifically addressed for those environmental effects that might be sensitive to an increased population during the summer season, such as wastewater discharge and effects associated with meeting summer cooling needs. For other effects associated with annual utility demand (such as solid waste generation and water use), this EIR considers the increase in the summer population a minor factor that is generally captured in conservative demand projections (that tend to overestimate). In addition, the increment of the increased rate of students attending summer sessions would be marginal relative to the overall future campus population growth under the 2003 LRDP. Furthermore, the student population generates only a minor share of the overall campus utility demand. The primary sources of demand are the campus' generally year-round research activities and the continuous operation of campus buildings.

### **Year of Impact Analysis**

Impacts are evaluated in terms of changes due to the 2003 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 2015-16, are compared to baseline conditions to characterize the change.

### **Cumulative Impacts**

In addition to the impacts of the 2003 LRDP, the sections that follow also discuss cumulative impacts of development under the LRDP considered together with other development that may cause related impacts. The geographic area considered for each cumulative impact depends upon the impact that is being analyzed. For example, in assessing aesthetic impacts, only development within the vicinity of the project would contribute to a cumulative visual effect. In assessing air quality impacts, on the other hand, all development within the air basin contributes to regional emissions of criteria pollutants, and basinwide projections of emissions is the best tool for determining the cumulative effect. Similarly, cumulative traffic impacts are based upon

## 4.0 ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION

---

projections in the Regional Transportation Plan, as well as the general plans of relevant jurisdictions. For most resource areas, the cumulative context for the 2003 LRDP is the cities of Davis, Dixon, Winters, and Woodland, and Yolo and Solano counties, where appropriate.

### **Degree of Specificity in the EIR**

The subject matter of the 2003 LRDP EIR is the campus long range development, which is based on projections of enrollment growth from 2001-02 to 2015-16. This plan is similar to a General Plan, because, based on forecast growth in campus population, it presents a land use diagram and framework for the orderly development of the campus to accommodate this growth. Because the LRDP is not an implementation plan, analysis contained in Volumes I and II of this EIR is necessarily less detailed than would be an EIR on a specific development project. Volume III, on the other hand, addresses five proposed projects and therefore provides a more detailed analysis of potential impacts of those projects.