CHAPTER 4.0
ENVIRONMENTAL SETTING, IMPACTS, AND MITIGATION

Sections 4.1 through 4.14 of Chapter 4.0 of this EIR contain a discussion of the potential environmental effects from implementation of the proposed 2007 LRDP, including information related to existing site conditions, analyses of the type and magnitude of individual and cumulative environmental impacts, and feasible mitigation measures that could reduce or avoid environmental impacts.

SCOPE OF THE ENVIRONMENTAL IMPACT ANALYSIS

The proposed 2007 LRDP is a general land use plan that guides the physical development of the campus. Adoption of the 2007 LRDP does not constitute a commitment to any specific project, construction schedule, or funding priority. Each project undertaken by UCI during the life of the LRDP must be reviewed and approved individually by the Chancellor, UC Office of the President, and/or Boards of Regents. Each project proposal also requires environmental review in accordance with CEQA. Therefore, the 2007 LRDP EIR is a program-level environmental assessment that evaluates the effects of implementation of the entire LRDP.

In accordance with Appendix G of the 2006 CEQA Guidelines, the potential environmental effects of the proposed 2007 LRDP are analyzed for the following environmental issue areas:

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

Based upon the analysis provided in the Initial Study for the 2007 LRDP (Appendix A), impacts to Agricultural Resources and Mineral Resources were determined to be "Effects Not Found to be

Significant" according to Section 15128 of the CEQA Guidelines. These issues are discussed further in Chapter 5 of this EIR.

FORMAT OF THE ENVIRONMENTAL ANALYSIS

Environmental Setting

According to Section 15125 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 condition" against which project-related impacts are compared. Normally, the baseline condition is the physical condition that exists when the Notice of Preparation (NOP) is published. The NOP for the 2007 LRDP EIR was published on July 6, 2006. However, the CEQA Guidelines and applicable case law recognize that the date for establishing an environmental baseline cannot be rigid. Physical environmental conditions may vary over a range of time periods; thus the use of environmental baselines that differ from the date of the NOP is reasonable and appropriate when conducting the environmental analysis. The following sections rely on a variety of data to establish an applicable baseline. In sections such as air quality, biological resources, cultural resources, population and housing, and traffic, available data was months and sometimes several years old and, therefore, assumptions in how those conditions might have changed since were incorporated. These assumptions are explained in the following sections and corresponding technical reports.

Regulatory Framework

The Regulatory Framework provides a summary of regulations, plans, policies, and laws that are relevant to each issue area at the federal, state, and local levels.

Project Impacts and Mitigation

The "Project Impacts and Mitigation" subsection describes the potential environmental impacts of the proposed 2007 LRDP and, based upon the standards of significance, concludes whether the environmental impacts would be considered significant, potentially significant, or less than significant. Each resource that is analyzed is divided into issues, based on potential impacts. Each issue is addressed in its own subsection. For each issue, applicable standards of significance are identified and potential impacts are discussed in the impact analysis section. Mitigation measures are also included and discussed when applicable.

Standards of Significance. Standards of significance are criteria used to determine whether potential environmental effects are significant. The standards of significance used in this analysis were primarily based upon Appendix G of the CEQA Guidelines. However, in some cases, standards were developed specifically for this analysis or reflect those used by UCI. This subsection defines the type, amount, and/or extent of impact that would be considered a significant adverse change in the environment. Some standards of significance, such as air quality, traffic and noise, are quantitative, while others such as aesthetics are qualitative. The standards of significance are intended to assist the reader in understanding how and why the EIR reaches a conclusion that an impact is significant or less than significant.

Impact Analysis. The analysis of environmental impacts considers both the construction and operational phases associated with implementation of the 2007 LRDP. As required by Section 15126.2(a) of the CEQA Guidelines, direct, indirect, short-term, on-campus, and/or off-campus impacts are addressed, as appropriate, for the environmental issue area being analyzed.

All impacts are considered potential because the 2007 LRDP is not a development project itself, but instead provides a framework for the development of the campus. Impacts will not occur until development occurs and because the LRDP is not a commitment to any development, potential development under the LRDP are only possibilities until they are specifically proposed by UCI. The EIR utilizes the following terms to describe the level of significance of impacts identified during the course of the environmental analysis:

- **Less than Significant**: "Less than significant" is used for referring to two conditions: 1) Impacts resulting from implementation of the 2007 LRDP that are not likely to exceed defined standards of significance; and 2) Impacts that do not exceed the defined standards of significance after the implementation of applicable mitigation measures.
- **Significant**: Impacts resulting from implementation of the 2007 LRDP that may exceed defined standards of significance before mitigation is considered.
- **Significant and Unavoidable**: Significant impacts resulting from implementation of the 2007 LRDP that cannot be eliminated or reduced to a less than significant level through implementation of mitigation measures.

A "significant effect" is defined by Section 15382 of the CEQA Guidelines as "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself shall not be considered a significant effect on the environment…[but] may be considered in determining whether the physical change is significant."

Mitigation Measures. Section 15126.4 of the CEQA Guidelines requires an EIR to "describe feasible measures which could minimize significant adverse impacts." The CEQA guidelines define feasibility as capable of being accomplished in a successful manner within a reasonable period of time taking into account economic, legal, social, technological, or other considerations. The Mitigation Measures subsection discusses mitigation measures that could reduce the severity of impacts identified in the Impact Analysis section.

Cumulative Impacts and Mitigation

CEQA requires that EIRs discuss cumulative impacts, in addition to project impacts. In accordance with CEQA, the discussion of cumulative impacts must reflect the severity of the impacts and the likelihood of their occurrence; however, the discussion need not be as detailed as the discussion of environmental impacts attributable to the project alone. Further, the discussion is guided by the standards of practicality and reasonableness. According to Section 15355 of the CEQA Guidelines:

> "Cumulative impacts" refers 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 changed 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 probably future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

Section 15130(a) of the CEQA Guidelines further states that a "cumulative impact consists of 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."

Section 15130(a) of the CEQA Guidelines requires that EIRs discuss the cumulative impacts of a project when the project's incremental effect is cumulatively considerable. Therefore, the discussion of cumulative impacts in an EIR evaluates whether the impacts of the project will be significant when considered in combination with past, present and future reasonably foreseeable projects, and whether the project would make a cumulatively considerable contribution to those impacts. CEQA recognizes that the analysis of cumulative impacts need not be as detailed as the analysis of project-related impacts, but instead should "be guided by the standards of practicality and reasonableness." CEQA Guidelines indicate that where a lead agency is examining a project with an incremental effect that is not cumulatively considerable, it need not consider the effect significant but shall briefly describe the basis for its conclusion. As further clarified by Section 15065 of the CEQA Guidelines, "cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects. The CEQA guidelines allow for the proposed project's contribution to be rendered less than cumulatively considerable with implementation of mitigation.

The geographic scope of the cumulative impact analysis varies depending upon the specific environmental issue area being analyzed. Table 4.0-1 summarizes the geographic scope of the analyses for the major cumulative issues analyzed in the following sections. The geographic scope defines the geographic area within which projects may contribute to a specific cumulative impact. Therefore, past, present, and future reasonably foreseeable projects within the defined geographic area for a given cumulative issue must be considered.

CEQA Guidelines Section 15130(b) presents two possible approaches for considering past, present, and future reasonably foreseeable projects. It indicates that either of the following could be used:

- 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.

This EIR uses the general plan method. Consideration of projects that could be implemented to fully execute adopted community plans, such as the City of Irvine General Plan and the City of Newport Beach General Plan, is typically sufficient to account for cumulative impacts from future reasonably foreseeable projects; therefore, this is the approach taken in the technical analyses. The geographic scope of the impact analyses is identified in Table 4.0-1, and is further described in each section.

CEQA Checklist Items Adequately Addressed in the Initial Study

Certain environmental impacts were determined to be "CEQA Checklist Items Adequately Addressed in the Initial Study" based upon the analysis provided in the Initial Study for the 2007 LRDP. These impacts are summarized in this subsection based upon the analysis provided in the Initial Study dated July 6, 2006 for the 2007 LRDP and are included as Appendix A of this EIR.

Table 4.0-1. Geographic Scope of Cumulative Impact Analyses

Environmental Issue	Geographic Scope of Cumulative Impact Analyses
Aesthetics	Immediate vicinity of view corridor or viewshed.
Air Quality Criteria Pollutants	Area included within the same plan as the proposed project.
Air Quality Health Risk	UCI and surrounding vicinity.
Biological Resources	Varies depending on species or habitat. Geographic scope can be the entire area that the species or habitat is known to occur or the Irvine region.
Cultural Resources	Varies depending on type of resource with potential to be impacted. Geographic scope can be the entire area that the resource has potential to occur.
Geology and Soils	Limited to the immediate area of the geologic constraint with the exception of some geologic impacts that are regional, such as regional earthquake risk.
Hazards	Limited to the immediate area of the hazard.
Hazardous Materials	Immediately surrounding area to Irvine region, depending where the hazardous materials are transported and disposed of.
Hydrology and Water Quality	Drainage basin, watershed, or waterbody, depending on where the potential impact is located and its tributary area.
Land Use and Planning	City of Irvine General Plan and City of Newport Beach General Plan
Noise	UCI, adjacent uses, and affected roadways.
Population and Housing	Extent of general population and housing market affected. For the LRDP, the scope has been defined as Orange County.
Public Services	Extent of area served by public services affected. Public services in the UCI area are provided by the City of Irvine; therefore, the geographic scope is the City of Irvine.
Transportation, Traffic, and Parking	UCI, City of Irvine, City of Newport Beach, and affected roadways.
Utilities, Service Systems, and Energy	Extent of local area unit served by utility, service system, or energy provider.

References

This section identifies sources relied upon for each environmental topic area analyzed in this document (Sections 4.1 through 4.14).

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