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7.0 OTHER CEQA CONSIDERATIONS

Section 15126 of the California Environmental Quality Act (CEQA) Guidelines requires that all aspects of a project be considered when evaluating its impact on the environment, including planning, acquisition, development and operation. As part of this analysis the EIR must identify the following three components:

- Significant environmental effects that cannot be avoided if the proposed project is implemented;
- Significant irreversible environmental effects that would be involved in the proposed project should it be implemented; and
- Growth-inducing impacts of the proposed project.

The following is a discussion of each of these components.

7.1 SIGNIFICANT AND UNAVOIDABLE ENVIRONMENTAL IMPACTS

This section identifies significant impacts that could not be eliminated or reduced to a less-than-significant level by mitigation measures imposed by the University. The final determination of significance of impacts and of the feasibility of mitigation measures will be made by The Regents of the University of California as part of their certification action for the EIR.

A summary of the Environmental Impacts and Mitigation Measures is contained in Section 2 of this EIR. Sections 4.1 through 4.15 provide a comprehensive identification of the proposed project's environmental effects, including the level of significance both before and after mitigation.

The following significant and unavoidable impacts would result from development proposed under the 2003 LRDP:

Aesthetics

- 4.1-1:** Development under the 2003 LRDP could have an adverse effect on scenic vistas west across agricultural lands to the Coast Range.
- 4.1-4:** Development under the 2003 LRDP together with other cumulative development in the region could affect local scenic vistas west across agricultural lands to the Coast Range.
- 4.1-5:** Development allowed under the 2003 LRDP, in conjunction with other cumulative development in the region, could substantially degrade the existing visual character or quality in the region.
- 4.1-6:** Implementation of the 2003 LRDP together with cumulative development in the region would create new sources of light and glare that could adversely affect daytime or nighttime views in the region.

Agricultural Resources

- 4.2-1:** Growth under the 2003 LRDP would convert approximately 745 acres of prime farmland (as defined by the State Farmland Mapping and Monitoring Program) on campus to nonagricultural uses.
- 4.2-3:** Cumulative development would result in the conversion of prime farmland, unique farmland, and/or farmland of statewide importance to nonagricultural use.

Air Quality

- 4.3-1:** Implementation of the 2003 LRDP would result in daily operational emissions above the YSAQMD thresholds that may contribute substantially to a violation of air quality standards or hinder attainment of the regional air quality plan.
- 4.3-3:** Emissions from construction activities associated with the 2003 LRDP would exceed YSAQMD thresholds.
- 4.3-6:** Implementation of the 2003 LRDP, in conjunction with other regional development, would result in a cumulatively considerable increase of non-attainment pollutants.

Biological Resources

- 4.4-12:** Development allowed under the 2003 LRDP would contribute 550 acres of the cumulative loss in the region of over 1,500 acres of Agricultural Land and Ruderal/Annual Grassland habitat for resident and migratory wildlife species, including Swainson's hawk and burrowing owls.
- 4.4-13:** Development allowed under the 2003 LRDP could contribute to the cumulative loss in the region of wetland and riparian habitat for resident and migratory wildlife species and special status plant species.
- 4.4-14:** Development allowed under the 2003 LRDP could contribute to the cumulative loss of valley elderberry longhorn beetle habitat.

Cultural Resources

- 4.5-3:** Implementation of the LRDP could cause a substantial adverse change in the significance of a historical resource or unique archaeological resource, as defined in CEQA guidelines 15064.5, and the values that contribute to the significance of the resource cannot be preserved through documentation and data recovery.
- 4.5-5:** Development under the 2003 LRDP would contribute to cumulative damage to and loss of the resource base of unique archaeological resources and historical resources (including archaeological sites and historic buildings and structures) in Yolo and Solano counties.

Hydrology and Water Quality

- 4.8-4:** Campus growth under the 2003 LRDP would increase the amount of water extracted from the deep aquifer and would increase impervious surfaces. This could result in a net deficit in the deep aquifer volume or lowering of the local groundwater table but would not interfere substantially with recharge of the deep aquifer.

7.0 OTHER CEQA CONSIDERATIONS

- 4.8-5:** Campus growth under the 2003 LRDP would increase the amount of water extracted from the shallow/intermediate aquifer and would increase impervious surfaces. Extraction from the shallow/intermediate aquifer could deplete groundwater and contribute to local subsidence.
- 4.8-10:** Development under the 2003 LRDP, in conjunction with construction activities, increased impervious surfaces, and alterations to drainage patterns associated with other development in the region that would cumulatively increase impervious surface coverage in the watershed, could increase storm water runoff, and could provide substantial sources of polluted runoff, which could affect receiving water quality.
- 4.8-13:** Growth under the 2003 LRDP and other cumulative development in the region would increase the amount of water extracted from the deep aquifer and increase impervious surfaces. This could result in a net deficit in the deep aquifer volume or a lowering of the local groundwater table but would not interfere substantially with recharge of the deep aquifer.
- 4.8-14:** Growth under the 2003 LRDP and other cumulative development in the region would increase the amount of water extracted from shallow/ intermediate aquifers and increase impervious surfaces. This could contribute to local subsidence, substantially deplete groundwater supplies and could interfere substantially with recharge of the shallow/intermediate depth aquifer, resulting in a net deficit in the shallow/intermediate aquifer volume or a lowering of the local groundwater table.

Noise

- 4.10-2:** Implementation of the 2003 LRDP would result in increased vehicular traffic on the regional road network, which would substantially increase ambient noise levels at some locations.
- 4.10-5:** The 2003 LRDP in combination with other cumulative regional development would increase ambient noise levels.

Population and Housing

- 4.11-1:** Implementation of the 2003 LRDP would directly induce substantial population growth in the area by proposing increased enrollment and additional employment.

Public Services

- 4.12-3:** If the City of Davis Fire Department provides services to the proposed Neighborhood, implementation of the 2003 LRDP could result in significant environmental impacts to agricultural prime farmland and habitat associated with the provision of new or altered facilities in order to maintain the department's preferred response standard.
- 4.12-6:** Implementation of the 2003 LRDP, in conjunction with regional growth, could generate a cumulative demand for new or expanded police and fire service facilities in the region, the construction of which could result in significant adverse environmental impacts to prime farmland and habitat.
- 4.12-7:** Implementation of the 2003 LRDP, in conjunction with regional growth, would increase the number of school-age children living in the area. This could generate a

cumulative demand for new school facilities, the construction of which could result in significant environmental impacts to agricultural prime farmland and habitat.

Recreation

4.13-2: Implementation of the 2003 LRDP, together with the cumulative impacts of other regional development, could increase the use of off-campus recreation facilities, the development of which could result in significant environmental impacts.

Traffic and Circulation

4.14-2: Implementation of the 2003 LRDP would cause unacceptable intersection and freeway LOS operations at off-campus facilities, including facilities contained in the Yolo County and Solano County Congestion Management Plans.

Utilities

4.15-7: Implementation of the 2003 LRDP would require the expansion of natural gas transmission systems, which would result in environmental impacts.

4.15-10: Implementation of the 2003 LRDP together with other regional development could generate a cumulative demand for wastewater treatment facilities in the region, the construction of which could result in significant environmental impacts on habitat.

7.2 SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL EFFECTS

Section 15126.2(c) of the CEQA Guidelines requires a discussion of any significant irreversible environmental changes that would be caused by the proposed project. Specifically, Section 15126.2(c) states:

Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible, since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

Generally, a project would result in significant irreversible environmental changes if

- The primary and secondary impacts would generally commit future generations to similar uses
- The project would involve a large commitment of nonrenewable resources
- The project involves uses in which irreversible damage could result from any potential environmental accidents associated with the project
- The proposed consumption of resources is not justified (e.g., the project involves the wasteful use of energy)

7.0 OTHER CEQA CONSIDERATIONS

Development under the 2003 LRDP would result in the continued commitment of the UC Davis campus to institutional uses, thereby precluding any other uses for the lifespan of the campus. UC Davis's ownership of the campus represents a long-term commitment of the campus to an institutional use. Restoration of the campus to pre-developed conditions would not be feasible given the degree of disturbance, the urbanization of the area, and the level of capital investment.

Additional irreversible commitments to future uses include those related to new housing development on the west campus and research park development on the I-80 parcels. Development of lands currently used for agricultural uses would constitute an irreversible use of these lands because once buildings or pavement are constructed, underlying soils would no longer be available or viable for agricultural production. Most of the proposed sites for future development are on prime agricultural lands. The implementation of the 2003 LRDP would result in the loss of 745 acres of agricultural lands. For biological resources, development under the 2003 LRDP would result in the loss of approximately 30 acres of ruderal annual/grassland habitat in addition to the loss of agricultural lands used by wildlife species for foraging. As discussed in Section 4.4, the University would implement mitigation measures to reduce impacts to these sensitive biological communities, as well as provide appropriate habitat elsewhere within the campus lands.

Resources that will be permanently and continually consumed by project implementation include water, electricity, natural gas, and fossil fuels; however, the amount and rate of consumption of these resources would not result in significant environmental impacts or the unnecessary, inefficient, or wasteful use of resources. In fact, the growth in student enrollment, and the associated growth in the campus population, is responsive to growth that has already occurred in the state as the children of the "baby boom" generation mature to college age. Therefore, natural resources are currently being consumed by this demographic group and would continue to be consumed by this group at some location. Nonetheless, construction activities related to the 2003 LRDP, though previously analyzed, would result in the irretrievable commitment of nonrenewable energy resources, primarily in the form of fossil fuels (including fuel oil), natural gas, and gasoline for automobiles and construction equipment.

With respect to operational activities on campus, compliance with all applicable building codes, as well as 2003 LRDP mitigation measures, 2003 LRDP objectives, and standard campus conservation features, would ensure that all natural resources are conserved to the maximum extent feasible. It is also possible that new technologies or systems will emerge, or will become more cost-effective or user-friendly, to further reduce the campus reliance upon nonrenewable energy resources. Overall, the consumption of natural resources would increase at a lesser rate than the projected population increase due to the variety of energy conservation measures that the campus has and will continue to provide.

The CEQA Guidelines also require a discussion of the potential for irreversible environmental damage caused by an accident associated with the project. While the campus uses, transports, stores, and disposes of hazardous wastes, as described in Section 4.7 Hazards and Hazardous Materials, the campus complies with all applicable State and federal laws and existing campus programs, practices, and procedures related to hazardous materials, which reduces the likelihood and severity of accidents that could result in irreversible environmental damage. In fact, over the campus history, there has never been an accident that resulted in irreversible environmental damage, indicating that current practices with respect to hazardous materials handling are

adequate, and thus the potential for the 2003 LRDP to cause irreversible environmental damage from an accident or upset of hazardous materials is less than significant.

As previously discussed, the campus has instituted lighting and other energy conservation measures and has been replacing in-building lighting systems with up-to-date energy-saving equipment. Lighting conservation efforts in new construction include installation of occupancy sensors to automatically turn off lights when not in use, lighting reflectors, electronic ballasts, and energy-efficient lamps. The campus is nearing completion of the conversion of all exterior lighting to high-pressure sodium fixtures. In addition, many in-building lighting systems are being replaced over time with up-to-date energy-saving equipment such as automatic photosensitive switching equipment. Conservation efforts are also expected to involve improved HVAC systems with microprocessor-controlled energy management systems. In addition, the campus shall continue to implement all new development under the 2003 LRDP in accordance with specifications contained in Title 24 of the CCR.

Through the efficient use of electricity on campus, the use of natural gas on the campus would also occur in an efficient manner, as the cogeneration facility on campus is fired predominantly by natural gas. Improvements to the efficiency of HVAC units will also allow more efficient use of natural gas for heating.

7.3 GROWTH-INDUCING IMPACTS

As required by the CEQA Guidelines, an EIR must include a discussion of the ways in which the proposed project could directly or indirectly foster economic development or population growth, or the construction of additional housing and how that growth would, in turn, affect the surrounding environment (CEQA Guidelines Section 15126.2(d)). Growth can be induced in a number of ways, including the elimination of obstacles to growth, or through the stimulation of economic activity within the region. The discussion of removal of obstacles to growth relates directly to the removal of infrastructure limitations or regulatory constraints that could result in growth unforeseen at the time of project approval. Under CEQA, induced growth is not considered necessarily beneficial, detrimental, or of little significance to the environment.

In general, a project may foster spatial, economic, or population growth in a geographic area if it meets any one of the criteria identified below:

- The project removes an impediment to growth (e.g., the establishment of an essential public service, or the provision of new access to an area)
- The project results in the urbanization of land in a remote location (leapfrog development)
- Economic expansion or growth occurs in an area in response to the project (e.g., changes in revenue base, employment expansion, etc.), and
- The project establishes a precedent-setting action (e.g., a change in zoning or general plan amendment approval)

If a project meets any one of these criteria, it may be considered growth inducing. The potential growth-inducing impacts from implementation of the 2003 LRDP are discussed at length in Section 6 (Volume II) of this EIR.