The California Environmental Quality Act (CEQA) requires an Environmental Impact Report (EIR) to evaluate a project's effects in relationship to broader changes occurring, or that are foreseeable to occur, in the surrounding environment. Accordingly, this chapter presents discussion of CEQA-mandated analysis for cumulative impacts and irreversible impacts associated with the Theta Xi Fraternity Redevelopment Project. As described below, this section also includes an analysis of the project's growth-inducing impacts.

4.1 CUMULATIVE SETTING AND IMPACT ANALYSIS

INTRODUCTION

CEQA requires that an EIR contain an assessment of the cumulative impacts that could be associated with the proposed project. According to CEQA Guidelines Section 15130(a), "an EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable." "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 (as defined by Section 15130). As defined in CEQA Guidelines Section 15355, a cumulative impact consists of an impact that is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts. A cumulative impact occurs from:

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

In addition, Section 15130(b) identifies that the following three elements are necessary for an adequate cumulative analysis:

- 1) Either:
 - (A) 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,
 - (B) 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. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency.
- A summary of the expected environmental effects to be produced by those projects with specific reference to additional information stating where that information is available; and

3) A reasonable analysis of the cumulative impacts of the relevant projects. An EIR shall examine reasonable, feasible options for mitigating or avoiding the project's contribution to any significant cumulative effects.

Where a lead agency is examining a project with an incremental effect that is not "cumulatively considerable," a lead agency need not consider that effect significant, but shall briefly describe its basis for concluding that the incremental effect is not cumulatively considerable.

CUMULATIVE SETTING

The cumulative analysis for this EIR is based on the City of Davis General Plan (May 2001) and the Program EIR for the City of Davis General Plan Update and Project EIR for Establishment of a New Junior High School (General Plan Update EIR) (January 2000). In addition to the cumulative growth projections provided by these documents, the cumulative analysis also used the following list of probable future projects within the City of Davis to determine cumulative growth in the area:

- Paso Fino: 6 single-family units
- 2860 West Covell Boulevard Building: 8,657 square feet of retail
- Grande Subdivision: 41 single-family units
- Chiles Ranch: 96 single-family units
- Villages at Willow Creek: 35 single-family units
- Lincoln 40: 130 multi-family, student-oriented units
- Sterling Apartments: 198 multi-family units
- Cannery Park (Remainder of Buildout): 86,250 square feet of retail, 49,800 square feet of office, 22,000 square feet of medical-office, 311 single-family dwelling units, and 264 multi-family units.
- **Sutter Hospital Expansion**: Based on discussions with Sutter Davis Hospital representatives, a net increase of 100,000 square feet of medical-office space was assumed on the hospital property, which is located directly east of the project site.
- West Davis Active Adult Community: According to the December 2017 Draft EIR for the West Davis Active Adult Community Project, the project includes development of: 150 affordable, age-restricted apartments; 32 attached, age-restricted cottages; 94 attached, age-restricted units; 129 single-family detached, age-restricted units; 77 single-family detached, non-age-restricted units; an approximately three-acre continuing care retirement community, which would likely consist of 30 assisted living, age-restricted detached units; an approximately 4.3-acre mixed use area, which would likely consist of a health club, restaurant, clubhouse, and up to 48 attached, age-restricted units; dog exercise area and tot lot; associated greenways, drainage, agricultural buffers; and off-site stormwater detention facilities. Upon completion of the project, the approximately 74-acre site would provide up to 560 dwelling units and 4.5 miles of off-street biking and walking paths within the project area and an additional 0.22 miles of off-street biking and walking paths offsite.

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• UC Davis Long Range Development Plan (LRDP): According to the 2017 Notice of Preparation for the update to the LRDP (dated January 4, 2017), the UC Davis campus is assumed to have a net increase of 6,229 students and 2,000 employees between existing conditions and the 2027-2028 academic year. The LRDP NOP makes no mention of further growth beyond the 2027-2028 year.

CUMULATIVE EFFECTS OF THE PROJECT

Method of Analysis

Although the environmental effects of an individual project may not be significant when that project is considered separately, the combined effects of several projects may be significant when considered collectively. State CEQA Guidelines 15130 requires a reasonable analysis of a project's cumulative impacts, which are defined as "two or more individual effects which, when considered together are considerable or which compound or increase other environmental impacts." The cumulative impact that results from several closely related 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 (State CEQA Guidelines 15355[b]). Consistent with state CEQA Guidelines §15130(a), the discussion of cumulative impacts in this Draft EIR focuses on significant and potentially significant cumulative impacts. According to §15130(b) of the State CEQA Guidelines, in part, "The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as is provided for the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact."

The goal of analysis of cumulative impacts is twofold: first, to determine whether the overall longterm impacts of all such projects would be cumulatively significant; and second, to determine whether the proposed project itself would cause a "cumulatively considerable" (and thus significant) incremental contribution to any such cumulatively significant impacts. (See state CEQA Guidelines §§15130[a]-[b], §15355[b], §15064[h], §15065[c]; Communities for a Better Environment v. California Resources Agency [2002] 103 Cal.App.4th 98, 120.) In other words, the required analysis first creates a broad context in which to assess the project's incremental contribution to anticipated cumulative impacts, viewed on a geographic scale well beyond the project site itself, and then determines whether the proposed project's incremental contribution to any significant cumulative impacts from all projects is itself significant (i.e., "cumulatively considerable").

There are two approaches to identifying cumulative projects and the associated impacts. The list approach identifies individual projects known to be occurring or proposed in the surrounding area in order to potential cumulative impacts. The projection approach uses a summary of projections

in adopted General Plans or related planning documents to identify potential cumulative impacts. This EIR uses a combination of the list approach and the projection approach for the cumulative analysis and considers the development anticipated to occur upon buildout of the Davis General Plan in addition to the aforementioned planning projects (Paso Fino, 2860 West Covell Boulevard Building, Grande Subdivision, Chiles Ranch, Villages at Willow Creek, Lincoln 40, Sterling Apartments, Cannery [remainder of buildout], Sutter Hospital Expansion, West Davis Active Adult Community, and UC Davis LRDP) that are presumed not to have been included within the projections provided by the Davis General Plan.

Project Assumptions

The project's contribution to environmental impacts under cumulative conditions is based on full buildout of the proposed project. See Chapter 2.0, Project Description, for a complete description of the proposed project.

Cumulative Impacts

Cumulative impacts for Cultural and Tribal Resources and Land Use are not quantifiable and are therefore discussed in qualitative terms as they pertain to development patterns in the surrounding region. In consideration of the cumulative scenario described above, the proposed project may result in the following cumulative impacts.

CULTURAL AND TRIBAL RESOURCES

Impact 4.1: Project implementation would not contribute to cumulative impacts on known and undiscovered cultural and tribal cultural resources (Less than Cumulatively Considerable)

The cumulative setting for cultural resources includes the City of Davis Planning Area and the surrounding areas of Yolo County. Cumulative development anticipated in Davis and the greater Yolo County area, including growth projected by adopted general plans, may result in the discovery and removal of cultural resources, including archaeological, paleontological, historical, and Native American resources and human remains. As discussed in Section 3.1, Cultural and Tribal Resources, three locally-historic resources are located on the project site: the Jackson House (503 First Street), the Bryson House (509 First Street), and the Theta Xi (TX) Main House (515 First Street). Because the Jackson House (503 First Street) and Bryson House (509 First Street) buildings are significant resources or historic properties, demolition of the buildings is a significant impact under CEQA.

Implementation of Mitigation Measure 3.1-1 would require preparation of a Historic Documentation Report which includes current photographs of each building displaying each elevation, architectural details or features, and overview of the buildings, together with a textual description of the building along with additional history of the building, its principal architect or architects, and its original occupants to the extent that information about those occupants can be obtained. The Report would be deposited with the City of Davis Community Development and Sustainability Department, the Hattie Weber Museum, the State Office of Historic Preservation,

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and other appropriate organizations and agencies as identified by the Planning Department. Mitigation Measure 3.1-1 also requires that a publicly-accessible memorial or interpretive plaque/display, which identifies the former location of the building, its original owner, and its historic significance, be maintained on the project site.

Additionally, the project site is located in an area known to have cultural and tribal cultural resources. The project site is not expected to contain subsurface paleontological resources, although it is possible. Mitigation measures provided in Section 3.1 would require the proposed project to evaluate any resources discovered during construction activities. Any significant finds would be required to be preserved, either through relocation or documentation and the project is not anticipated to considerably contribute to a significant reduction in cultural resources. Therefore, the project would have a *less than cumulatively considerable* contribution to impacts to cultural resources and no further mitigation is required.

LAND USE

Impact 4.2: Project implementation would not to cumulative impacts on local land uses (Less than Cumulatively Considerable)

The cumulative setting for land use and planning impacts includes the City of Davis and the Davis Planning Area, as well the aforementioned planning projects (Paso Fino, 2860 West Covell Boulevard Building, Grande Subdivision, Chiles Ranch, Villages at Willow Creek, Lincoln 40, Sterling Apartments, Cannery [remainder of buildout], Sutter Hospital Expansion, West Davis Active Adult Community, and UC Davis LRDP). Cumulative land use and planning impacts, such as consistency with adopted plans and regulations, are typically site- and project-specific. Subsequent projects allowed by the Davis General Plan may result in site specific land use conflicts; however, these effects are not anticipated to be cumulatively considerable.

Prior to project construction, the City of Davis would review the proposed improvement plans for compliance with the Tier III Design Review process. As part of the project approval process, the project would need approval of a Conditional Use Permit (CUP) for the proposed new fraternity house.

The proposed project has been designed to be consistent with applicable aspects of the City's General Plan, Central Area Specific Plan, and Municipal Code. The project's contribution to cumulative land use impacts is *less than cumulatively considerable*, and no further mitigation is required.

4.2 GROWTH-INDUCING EFFECTS

INTRODUCTION

Section 15126.2(d) of the CEQA Guidelines requires that an EIR evaluate the growth-inducing impacts of a proposed action. A growth-inducing impact is defined by the CEQA Guidelines as:

The way in which a proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth...It is not assumed that growth in an area is necessarily beneficial, detrimental, or of little significance to the environment.

Section 15126 of the CEQA Guidelines identifies criteria for evaluating the extent to which growth could be induced, accelerated, intensified, or shifted as a result of the proposed project. Subsection (d) provides the framework for a discussion of these potential growth-inducing impacts, as follows:

- Would the project foster economic or population growth or the construction of additional housing?
- Would the project remove obstacles to population growth?
- Would the project tax existing community facilities?
- Would the project encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively?

The proposed project would result in the construction of additional housing within the City of Davis. As discussed in Section XIV, Population and Housing, of the Initial Study for the project (see Appendix A of this EIR), the proposed project would result in the construction of replacement residential housing on a site that currently contains residential uses. The proposed three-story fraternity building would provide 35 total beds and nine total bathrooms. This would result in three fewer beds and four additional bathrooms compared to the existing houses. The project is consistent with the existing fraternity operations and would not increase the capacity of the project site. Therefore, the project would not foster population growth.

By providing replacement fraternity housing within the City of Davis, the project would provide an area for the Theta Xi Fraternity members to live. The project would not remove obstacles to population growth.

Additionally, as discussed in Section XV, Public Services, and Section XVI, Recreation, the proposed project would not include additional residential units, or people to the City of Davis. The proposed project will not result in intensification of land use, or the addition of structures or uses that would differ from the current General Plan. No additional demand for fire protection, police protection, schools, parks, or other public facilities will be created by the project. The proposed project does not trigger the need for new facilities associated with other public services.

As demonstrated throughout this Draft EIR, the proposed project would not encourage or facilitate other activities that could significantly affect the environment, either individually or cumulatively. Any significant or potentially significant impacts discussed throughout this Draft EIR would occur within the proposed project site only.

4.3 SIGNIFICANT IRREVERSIBLE EFFECTS

Legal Considerations

CEQA Section 15126.2(c) and Public Resources Code Sections 21100(b)(2) and 21100.1(a), requires that the EIR include a discussion of significant irreversible environmental changes which would be involved in the proposed action should it be implemented. Irreversible environmental effects are described as:

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

Determining whether the proposed project would result in significant irreversible effects requires a determination of whether key resources would be degraded or destroyed such that there would be little possibility of restoring them. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

Analysis

Implementation of the proposed project would result in demolition of two of the three existing buildings, merging the three lots, re-subdividing the property into two lots, and redevelopment of one parcel with a consolidated 35-bed, three-story fraternity building. The project site is currently developed with three two-story adjacent Theta Xi fraternity houses, totaling 19,800 square feet (sf). The three lots are owned by the Beta Epsilon Association of Theta Xi, a non-profit California corporation, and occupied by the fraternity. The site has provided student housing dating from 1950 when Theta Xi acquired the first of the three lots. Development of the proposed project would constitute a continued, long-term commitment to residential uses.

A variety of resources, including land, energy, water, construction materials, and human resources would be irretrievably committed for the project's initial construction, infrastructure installation, and its continued maintenance. Construction of the project would require the commitment of a variety of other non-renewable or slowly renewable natural resources such as lumber and other forest products, sand and gravel, asphalt, petrochemicals, and metals.

The demolition of the two residences and subsequent development of the proposed three-story fraternity residence would result in three fewer beds (i.e., three fewer residents) compared to the existing condition.

Additionally, a variety of resources would be committed to the continued, ongoing operation and life of the proposed fraternity uses. As discussed in Section XVII, Transportation, of the Initial Study

4.0 OTHER CEQA-REQUIRED TOPICS

for the project, the demolition of the two residences and subsequent development of the proposed three-story fraternity residence would result in three fewer beds (i.e., three fewer residents) compared to the existing condition. Therefore, as noted above, the number of operational trips would be comparable to the existing baseline. The increase of 3.56 daily trips would be spread out throughout the day, meaning that the number of peak hour trips would be negligible. No other uses or visitor serving areas are included in the project. Therefore, the project is not expected to result in an overall increase in vehicle trips within the area. Fossil fuels are the principal source of energy and the project will negligibly increase consumption of available supplies, including gasoline and diesel fuel, and natural gas. These energy resource demands relate to initial project construction, project operation, and site maintenance and the transport of people and goods to and from the project site.

The proposed project would not result in any significant adverse impacts related to project energy requirements, energy use inefficiencies, and/or the energy intensiveness of materials by amount and fuel type for each stage of the project including construction, operations, maintenance, and/or removal. Additional information the estimated energy usage of the proposed project can be found in Section VI, Energy, of the Initial Study for the project. This impact concluded that project implementation would not result in the inefficient, wasteful, or unnecessary use of energy resources.

4.4 SIGNIFICANT AND UNAVOIDABLE IMPACT

CEQA Guidelines Section 15126.2(b) requires an EIR to discuss unavoidable significant environmental effects, including those that can be mitigated but not reduced to a level of insignificance. The following significant and unavoidable impact of the Theta Xi Fraternity Redevelopment Project is discussed in Section 3.1:

• Impact 3.1-1: Project implementation has the potential to cause a substantial adverse change to a significant historical resource, as defined in CEQA Guidelines §15064.5.