

This section describes and compares the proposed Phase 1 Campus project with a range of on-site and off-site alternatives. The first section presents a summary of on-site and off-site alternatives defined and evaluated for the larger UC Merced Campus, as presented and extensively analyzed in Section 5 of Volume 1, and explains how this broad range of alternatives would apply to the Phase 1 Campus.

Next, alternative locations for the Phase 1 Campus site within the proposed 910-acre Main Campus are briefly examined, followed by an evaluation of potential alternative Phase 1 Campus sizes within the proposed footprint. In addition, this section identifies and evaluates a Phase 1 Campus No Project Alternative. The No Project Alternative constitutes the existing conditions plus changes to those conditions that are likely to occur if the Phase 1 Campus project is not approved, given current plans and policies. In this case, the No Project condition would be continued use of the proposed site for golf course purposes. The last section identifies the environmentally superior alternative.

4.1 SUMMARY OF VOLUME 1 ALTERNATIVES

Section 5 of Volume 1 describes and compares the proposed Long Range Development Plan for the UC Merced Campus, which includes the Phase 1 Campus, with a range of on-site and off-site alternatives. The discussion of on-site alternatives examines six alternative configurations and five alternative locations of the campus on the Virginia Smith Trust property. The discussion of off-site alternatives examines eight potential alternative locations for the campus outside the Virginia Smith Trust property in Merced County, and provides updated information about five alternative sites previously evaluated in the *University of California San Joaquin Campus Site Selection EIR* (UC 1994) (Site Selection EIR). Each alternative was evaluated to determine the degree to which it could lessen the project's significant environmental impacts, while still achieving the basic project objectives.

4.1.1 On-Site Alternatives

Section 5.1 of Volume 1 describes and analyzes a range of alternative campus sizes and locations on the Virginia Smith Trust property, which includes the Phase 1 Campus. A summary of these alternatives is presented below.

Section 5.1.1 of Volume 1 evaluates a broad and reasonable range of on-site development alternatives. Six prototypical campus alternatives were defined by combining a variety of parameters, including: smaller and larger development footprints for the Main Campus, increases and decreases in campus population, and expansions and reductions in campus programs. The Phase 1 Campus site is part of the overall Main Campus, and therefore changes in footprint size, campus population, and number and types of programs at the Phase 1 Campus would be proportional to the changes defined for the Main Campus. It follows that the types and nature of impacts identified and evaluated for the Main Campus alternatives would have corresponding similar effects for the Phase 1 Campus.

The type and magnitude of potential environmental impacts resulting from implementation of these six on-campus alternatives when compared to the proposed project is summarized in Table 5-5 of Volume 1. These impacts range from reduced significant effects on habitat for sensitive plant and animal species due to smaller campus size and reduced operational impacts such as

fewer vehicle trips due to a smaller campus population to corresponding increased significant effects to these same resources due to physical expansion of the campus. Note, however, that a reduction in size of the Phase 1 Campus would not lead to an appreciable decrease in footprint impacts to biological resources beyond those previously described for the proposed project because the Phase 1 Campus site already avoids direct impacts to these resources.

However, each of the six on-site alternatives evaluated would fail to meet numerous LRDP project objectives, which also apply to the Phase 1 Campus. For example, while a campus of smaller size and reduced population may lessen the magnitude of certain environmental impacts, this scenario would not meet the project objective of meeting enrollment demand by developing a campus that can enable the University to meet long-term enrollment needs. A campus of smaller size but increased density would result in increased visual impacts attributable to the need to develop taller, higher-density buildings, and therefore would fail to achieve the project objective of providing a high quality campus setting. A campus of larger size would hinder attaining the project objective to provide a high quality campus setting due to increased burdens on campus infrastructure, and a corresponding increase in impacts to available resources in the community and to the quality of life in the region as a whole.

Section 5.1.2 of Volume 1 analyzes alternative Main Campus locations on the Virginia Smith Trust site, and assumes that the campus would retain the same size, population, and density as described for the proposed project. Therefore, each of the alternatives evaluated would, for the most part, satisfy the project objectives. However, development of the Main Campus, including the Phase 1 campus, at each of the alternative locations would result in environmental impacts of a greater number and severity. For example, development at the location originally identified in the Site Selection EIR, in the central, upland portion of the Virginia Smith Trust property, would result in increased downgradient impacts to aquatic resources and habitat, and could induce growth between existing development and the campus that would result in increased adverse farmland and biological resource impacts, thereby failing to meet the project objective to develop a campus that will model environmental stewardship. In addition, development at these alternative locations could ultimately affect the University's ability to obtain necessary permits and other approvals in a timely manner.

In summary, the nature and type of environmental impacts identified in Volume 1 attributable to developing alternative on-site campus configurations or developing at alternative locations on the Virginia Smith Trust property would also be applicable to the Phase 1 Campus, and each of these alternatives would fail to meet numerous project objectives.

4.1.2 Off-Site Alternatives

Section 5.2 in Volume 1 describes and analyzes a range of off-site alternatives to the proposed project site, which includes the Phase 1 Campus. Section 5.2.1 evaluates alternative sites in Merced County and Section 5.2.2 addresses sites previously evaluated in the Site Selection EIR. The analysis identifies several key differences between the proposed campus site and the various alternative sites for the campus outside of the Virginia Smith Trust property. For example, alternative locations for the campus (including the Phase 1 Campus) in Merced County would result in either substantially more significant cumulative impacts to farmland or substantially more significant impacts to biological resources; these alternative locations also lack a general aesthetic appeal compared to the proposed site. In comparison, the proposed project (including

the Phase 1 Campus) has been sited and designed to minimize potential impacts to wetland habitat and special status species, would have no significant impacts on agricultural resources, and would preserve scenic views to the Lake Yosemite to the west and rolling grasslands and the Sierra foothills to the east. In particular, the Phase 1 Campus has been sited to avoid all direct impacts to sensitive biological habitat and associated species, which may or may not be able to be achieved at locations outside the Virginia Smith Trust property.

Development at these various locations would increase the distance between the campus site and existing urban areas, resulting in the needs for more extensive and substantial infrastructure improvements, such as roadways, water and wastewater pipelines, and electrical transmission lines. By contrast, the proposed campus, including the Phase 1 Campus site, is located near existing infrastructure, and any necessary off-site improvements can be located in existing roadways, avoiding impacts to biological and farmland resources.

Furthermore, campus development at these alternative locations would fail to fulfill at least one or more of the LRDP's project objectives, which also apply to the Phase 1 Campus. These objectives range from failure to provide a high quality campus setting (e.g., less desirable environmental conditions such as increased noise and air pollutant emissions from nearby sources) to failure to avoid unnecessary costs (e.g., costs to provide extensive infrastructure).

In summary, the nature and type of environmental impacts identified in Volume 1 attributable to developing the Main Campus at alternative locations off the Virginia Smith Trust property would also be applicable to the Phase 1 Campus, and each of these alternatives would fail to meet numerous project objectives.

4.2 ALTERNATIVE PHASE 1 CAMPUS LOCATIONS ON THE MAIN CAMPUS

This section describes and analyzes alternative locations for the Phase 1 Campus within the proposed 910-acre Main Campus footprint to evaluate whether locating it elsewhere on the property could accomplish the project objectives while reducing the project's significant environmental impacts. This analysis assumes that the Phase 1 Campus would retain the same size, population, and density as proposed, and would similarly require approximately 96 acres for development.

As described in Section 4.4 of Volume 1, the 910-acre Main Campus has been sited to avoid and minimize impacts to wetlands and special status species to the greatest extent practicable. Five habitat types occur on the Main Campus site: (1) grazed annual grassland, (2) alkaline clay plays, (3) vernal pool and swale complexes, (4) seasonal freshwater marshes, and (5) developed lands. As illustrated on Figure 4.4-1 through 4.4-4 in Volume 1, the occurrence of wetlands and associated habitat species increases as one moves north and east from the Phase 1 Campus site into other portions of the Main Campus.

As described in Section 3.4 of this document, the proposed Phase 1 Campus avoids direct impacts to wetlands, as well as impacts to habitat for special status species such as vernal pool fairy shrimp and California tiger salamander. In addition, the Phase 1 Campus design includes a 250-foot buffer between the southern and southwestern boundary of the site to preclude indirect impacts to downgradient wetlands. Furthermore, developing the Phase 1 Campus at an alternative location within the Main Campus would not be able to avoid impacts to sensitive biological resources, since there are no alternative sites of similar size that are free of these

resources. Therefore, there are no alternative locations that would reduce these impacts further than as described for the proposed Phase 1 Campus.

Siting the Phase 1 Campus elsewhere on the Main Campus could also result in more severe impacts in the near term caused by its greater distance from existing development, which in turn could adversely affect the University's long-term ability to develop the campus in a compact and efficient manner, and would fail to achieve the Phase 1 Campus objective to develop facilities in a manner that promotes a logical development pattern and that would place overall campus development on a sound planning trajectory. For example, because an alternative location would likely be more remote from existing infrastructure and amenities such as Lake Yosemite Regional Park, it would result in additional footprint impacts from extending required utilities and other infrastructure such as roads. Such a scenario would fail to fulfill the project objectives of avoiding unnecessary costs and undertaking activities within the practical constraints of available funding sources, as the increased financial and environmental costs of extending roads, utilities, and other infrastructure to sites located farther away would render development more costly than of the proposed Phase 1 Campus. Although development into farther portions of the Main Campus would inevitably need to occur as the campus expands, such an approach at the first stage of planning would not accommodate the most efficient, cost effective, or logical development phasing plan, and could also hinder attainment of the Phase 1 Campus objective to develop facilities in a manner that facilitates obtaining necessary permits and other approvals in a timely manner.

4.3 ALTERNATIVE PHASE 1 CAMPUS SIZES

This section evaluates two alternative Phase 1 Campus sizes: a smaller footprint alternative with increased density and a smaller footprint alternative with a reduced number of on-site campus programs.

4.3.1 Smaller Phase 1 Campus/Increased Density Alternative

This alternative assumes that the proposed academic program for the Phase 1 Campus would be developed on a site smaller than the proposed 96-acres while maintaining the proposed Phase 1 Campus project's projected 2008 population of 3,612 full-time equivalent students, 241 faculty, and about 940 staff. A smaller Phase 1 Campus at the proposed site would not result in any appreciable decrease in effects on wetlands and sensitive species because the proposed site already avoids all direct effects to sensitive habitats and associated species. However, depending upon the exact site configuration, there may be a slight decrease in the potential for indirect effects due to the reduced distance from adjacent vernal pools located along the northern boundary of the proposed site as well as corresponding indirect impacts to downgradient resources. In addition, a smaller Phase 1 Campus would reduce the amount of impervious surfaces created by campus development, which would result in reduced effects on water quality resulting from runoff compared to the proposed project. This alternative would not change the degree or magnitude of Phase 1 Campus operational impacts, such as traffic, air quality, and noise, would, because the overall campus population would remain the same as proposed.

This alternative would delay the trajectory of the overall campus development, postponing the point at which moving onto wetlands and other habitat in the area outside the Phase 1 Campus footprint would be required. However, this alternative would not preclude ultimate development

on sensitive habitat areas; these areas would be unavoidable given overall project needs and would ultimately be affected during later phases of development.

Accommodating the proposed academic program within a smaller campus footprint would result in increased densities for most Phase 1 Campus facilities. The academic and housing structures would be taller than proposed, and the placement of the various Phase 1 Campus components within the overall site plan would be affected. Impacts to visual quality would be substantially more severe with a smaller Phase 1 Campus with increased density compared to the proposed project because the resulting scale of development would be out of character with its surroundings. Clusters of building higher than four stories would fail to complement the natural features of the surrounding area, and would also necessitate increased grading, resulting in topography changes.

Similar to the rationale discussed in Section 5.1.1 of Volume 1 for the Smaller Main Campus/Increased Density Alternative, a higher density campus on a smaller footprint would fail to satisfy several project objectives. For example, development of a higher density Phase 1 Campus would fail to meet the project objective of avoiding unnecessary costs in constructing the first suite of buildings. There is an inherent surcharge associated with constructing closely spaced building more than three or four stories resulting from increasingly stringent seismic and safety codes and accompanying materials requirements, and increased difficulty in staging construction. In addition, developing a high-density Phase 1 Campus would fail to achieve the project objective of providing a high quality campus setting because development of high rise buildings in this setting would not be aesthetically pleasing and would block views, which in turn, could hinder the University's ability to attract high-caliber students and faculty, thus also failing to meet the project objectives of attracting high quality faculty and maximizing academic distinction.

4.3.2 Smaller Phase 1 Campus/Fewer On-Site Programs Alternative

Similar to the Smaller Phase 1 Campus/Increased Density Alternative described above, this alternative reduces the acreage for the Phase 1 Campus. The campus population and density would remain the same as for the proposed Phase 1 Campus, but specific programmatic components of the Phase 1 Campus would be eliminated or moved off-campus.

This alternative would reduce footprint impacts to the same degree as described above for the Smaller Phase 1 Campus/Increased Density Alternative. However, depending on the degree to which specific programs are eliminated or reduced, this alternative could increase traffic effects as compared to the proposed Phase 1 Campus. For example, if more students were required to live off campus, this would increase the number vehicle trips to and from campus. Increased vehicle trips, in turn, would lead to increased emissions of criteria pollutants and increased traffic noise. The specific quantitative increase in these types of impacts would depend upon the precise programs to be eliminated or moved off-site.

Similar to the rationale discussed in Section 5.1.2 of Volume 1 for the Smaller Main Campus/Fewer On-Site Programs Alternative, eliminating any component of the proposed Phase 1 Campus would hinder attainment of several project objectives. For example, moving research facilities away from campus has been showed to be detrimental to recruiting faculty and student/faculty interaction, which would hinder attaining project objectives of attracting high quality faculty and maximizing academic distinction. In addition, eliminating student housing

would fail to meet the project objective of accommodating student-housing needs. The provision of on-campus undergraduate student housing enhances research opportunities, leads to a strong intellectual and social community, and provides technological opportunities.

4.4 PHASE 1 CAMPUS NO PROJECT ALTERNATIVE

CEQA requires a discussion of the “No Project Alternative,” to enable decision makers to compare the impacts of approving the proposed project with the impacts of not approving it. The No Project Alternative describes the environmental conditions existing at the time of publication of the Notice of Preparation, along with a discussion of what would be reasonably expected to occur at the site in the foreseeable future, based on current plans and consistent with available infrastructure and community services.

For a detailed discussion of the environmental conditions existing at the time of publication of the Notice of Preparation, please refer to the Environmental Setting sections for each resource examined in this Phase 1 Campus Impact Analysis.

If the Phase 1 Campus were not constructed on the proposed site, the land would remain as a golf course into the foreseeable future. The No Project Alternative is a “no build” scenario wherein the existing environmental setting is maintained.

Under the No Project Alternative, the impacts of the Phase 1 Campus would not occur at this site, but the University would need to develop a campus elsewhere to meet anticipated substantial increases in UC enrollment over the next 30 years. Because it is unknown which alternative location the University would select to develop the campus, the particular environmental effects of such development are impossible to assess or quantify. It is also unknown which, if any, alternative solutions the University would pursue to meet enrollment increases outside the context of a new campus. The potential physical environmental effects attributable to either alternative campus locations or alternative solutions to meet enrollment increases would be of unknown magnitude, and evaluation of potential impacts would be speculative.

The No-Project Alternative would fail to achieve any of the basic objectives of the proposed Phase 1 Campus. In particular, the University would not be able to meet short-term enrollment projections for the University of California system, and the University would not be able to serve historically underrepresented populations in the San Joaquin valley.

4.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Each of the project alternatives is listed on Table 5-5 and 5-6 of Volume 1. This table summarizes the potential for the alternatives to result in reduced, similar, or greater environmental impacts when compared to the impacts of the proposed project, which includes the Phase 1 Campus.

The No Project Alternative would not result in any of the impacts of developing the Phase 1 Campus. Therefore, in the short term, the No Project Alternative is the environmentally superior alternative. However, this alternative would not accomplish any of the projects’ objectives. Furthermore, even if the University does not develop a campus at this location, it likely would

develop a new campus somewhere in the State, which would result in impacts that cannot be known at this time.

Comparing the LRDP on-site alternatives, the Smaller Campus/Decreased Population alternative, which would proportionately include a smaller Phase 1 Campus with a decreased population, would not reduce cumulative loss of farmland of statewide significance nor would it reduce loss of wetlands as much as some of the LRDP off-site alternatives identified in Volume 1. The Smaller Campus/Decreased Population alternative would proportionately reduce most project impacts associated with the campus population. However, a smaller Phase 1 Campus would not lead to an appreciable decrease in footprint impacts to biological resources beyond those described for the proposed project because the proposed Phase 1 Campus site already avoids direct impacts to these resources.

Comparing the LRDP off-site alternatives, no alternative is clearly environmentally superior to the other alternatives. As described in detail in Section 5 of Volume 1, superiority in this case largely is a value judgment between impacts to farmland of statewide significance and impacts to wetlands. For example, one of the LRDP off-site alternatives would avoid direct and cumulative loss of farmland of statewide significance, but would result in substantially greater cumulative impacts to wetlands and vernal pool habitat than the proposed project. Another off-site alternative would result in the least amount of direct impacts to wetlands, but would result in substantially greater direct and cumulative loss of farmland of statewide significance than the proposed project.

Alternatives that involve siting the Phase 1 Campus elsewhere within the proposed 910-acre Main Campus would not be environmentally superior to the other alternatives. Because there are no alternative locations of similar size within the Main Campus that are free of sensitive resources and due to their greater distance from existing infrastructure, these alternatives would be expected to result in greater impacts to wetlands and sensitive biological habitats compared to a Phase 1 Campus of reduced size.

Alternatives that involve a smaller Phase 1 Campus footprint with either increased development density or a reduced number of on-site programs would also not be environmentally superior to the other alternatives. The Smaller Phase 1 Campus/Increased Density Alternative would result in similar footprint impacts compared to LRDP alternatives that involve a smaller campus size, but would have substantially greater significant impacts to visual quality than other alternatives because the increased density would adversely affect the development scale. The Smaller Phase 1 Campus/Fewer On-Site Programs Alternative would increase the magnitude of operational impacts such as traffic, emissions, and noise, compared to other alternatives that would not separate programs from the campus.

The extent to which each of these alternatives accomplishes the project objectives is explained in the discussions of each alternative.