

4.21 ALTERNATIVES

4.21.A Appropriateness of the Size of the Campus

This response addresses comments I34-1, I33-19, I35-3, O22-3a, O23-4, O23-5, O23-6, O23-7, O23-9, O24-4, O28-49, O28-65, O28-66, O28-73, O31-12, O31-22, I40-3, and I40-7, as well as other similar comments. These comments address the size of the proposed project (a 2,000-acre campus), and the Draft EIR's analysis of the degree to which alternatives that cannot accommodate a 2,000-acre campus or a campus with an adjacent Campus Natural Reserve and a community would hinder the University's ability to achieve its project objectives.

The Draft EIR analyzes a range of both on-site and off-site alternatives, and does not restrict the range of alternatives by using the site's ability to accommodate a 2,000-acre campus as the only factor in deciding whether an alternative should be eliminated as infeasible or studied in the EIR. Three smaller Main Campus alternatives are studied at the proposed site. At two of the offsite locations, the Draft EIR evaluates both a 910-acre Main Campus and smaller Main Campus: North Merced/Bellevue Ranch and Castle Airport. The Draft EIR describes each alternative's ability to achieve the project objectives in order to provide an assessment of the alternatives' relative strengths and weaknesses. Site size is one factor that is relevant to the ability to achieve several of the project objectives, and in each case the Draft EIR explains why size is a relevant factor. If a site could also accommodate a Campus Land Reserve and/or a Campus Natural Reserve, it was better able to meet project objectives. However, the Draft EIR does not find an alternative infeasible solely on the basis of availability of land. All of the information on the alternatives is presented in the Draft EIR to assist the decision-makers in their process. None of the alternatives studied in the Draft EIR have been eliminated from consideration or rejected.

The basis for the proposed size and composition of the campus is provided in Sections 4.4.A and 4.4.B of this Final EIR. Section 4.4.C explains the methods and reasoning used in developing estimates of acreage needed for campus programs. Section 4.4.C also explains why the proposed density of development for the campus best achieves the project objectives. As can be seen from those responses, the proposed configuration, composition (in terms of LRDP elements), and size of the campus are designed to achieve the objectives of the proposed project.

At each alternative location, there could be a range of campus sizes, and a smaller campus could be placed in several locations within each alternative site. At some of the more remote sites, the campus may need to include more acreage for parking, especially if the University Community is not planned adjacent to the campus at those alternative sites. It is not possible to study every variant of each alternative. If an alternative site were chosen for the campus, it is impossible to predict what size campus the University would approve on that alternative site, and where the campus footprint would be within that site. Instead, the University has attempted to evaluate a range of alternatives, and to use that range of alternatives to understand the degree to which an alternative could both accomplish the project objectives and reduce environmental effects. Smaller campus sizes on the alternative sites identified in the Draft EIR are not substantially different alternatives from the alternatives studied in the EIR. However, some general conclusions can be drawn about the general effects of reducing the size of the campus on each of the alternative sites. At sites located on agricultural land, a smaller campus would proportionately reduce the direct impacts from loss of agricultural land. Although the level of

impacts to biological resources is resource- and site-specific and does not necessarily directly correlate to footprint size, in general a smaller campus footprint would reduce the direct impacts from loss of that habitat. At some of the alternative sites, it may be possible to avoid some of the most sensitive biological and agricultural resources but because detailed campus planning has not been performed at those sites it is not possible to ascertain whether all such resources could be avoided. Even with detailed planning, it may be impossible to design the Campus in order to completely avoid sensitive biological impacts because of edge effects or isolation of a resource which can reduce the viability of the resource. A smaller campus would not reduce indirect effects caused by leapfrog development where an alternative site is not near well-developed areas.

As with campus size, the Draft EIR does not use the availability of land for an adjacent Campus Natural Reserve as the only criterion for evaluation of the alternative sites. Seven alternatives were analyzed that would not include an adjacent Campus Natural Reserve: Castle Airport (458 acres), Castle Airport (910 acres), South Merced City Infill, Southern Highway 99, Highway 140, East Livingston, and Delhi Area. These alternatives were evaluated based on whether their potential environmental impacts were more or less significant than the proposed project as well as their ability to meet the stated project objectives.

The location of a Campus Natural Reserve adjacent to the core of the proposed UC Merced campus is relevant because it aids in the achievement of project objectives. As discussed in Section 4.4.A, the proximity of the Campus Natural Reserve would support the achievement of academic objectives such as maximizing academic distinction, creating an efficient and vital teaching and learning environment, attracting high quality faculty, and modeling environmental stewardship.

4.21.B Criteria Used in Evaluating Alternatives

This response addresses comments I33-14, I35-1, I35-4, I35-6, I40-5, I40-6, O16-5, O16-6, O22-4, O22-5, O22-6, O22-8, O22-9, O23b, O23-8, O24-4, O24-8, O25-20, O26-12, O28-8, O28-44, O28-45, O28-46, O28-48, O28-69, O28-71, O28-72, O28-75, O28-77, O28-80, O28-81, O31-18, O31-20, FA1-6, FA1-10, as well as other similar comments. These comments focus upon the Draft EIR's comparison of the alternatives' ability to accomplish project objectives. The Draft EIR utilizes two sets of criteria to evaluate alternatives to the proposed project – the ability of the alternative to avoid or reduce significant impacts of the proposed project, and the ability of the alternative to accomplish the objectives of the project. With respect to the first set of criteria, the Draft EIR analyzes the footprint impacts of each alternative (i.e., effects on sensitive habitat, agricultural resources, hydrology and visual quality) and operational impacts (i.e., traffic, air emissions, noise, and the need for utilities and services), and compares the alternative to the proposed project. This response addresses comments received regarding the second set of criteria, i.e., the ability to accomplish project objectives, as well as the relationship between the CEQA alternatives analysis and the alternatives analysis under federal permitting requirements.

4.21.B.1 Project Objectives

The Draft EIR identifies the guiding objective of the project, which is to develop a premier, research university consistent with the University of California's mission of teaching, research,

and service excellence. Towards the ultimate objective of establishing a premier research university, the Draft EIR identifies 14 objectives that will facilitate accomplishment of the guiding objective:

- Meet Enrollment Demand
- Serve Historically Under-served Populations
- Provide a High Quality Campus Setting
- Maximize Academic Distinction
- Create an Efficient and Vital Teaching and Learning Environment
- Attract High Quality Faculty
- Accommodate Student Housing Needs
- Provide Student Support
- Provide Athletic and Recreational Opportunities
- Plan for the Future
- Model Environmental Stewardship
- Promote Regional Harmony
- Ensure Community Integration
- Avoid Unnecessary Costs

All of these objectives are important to the University because in combination accomplishment of the objectives will lead to the development of a new campus in keeping with the needs and standards of the University. Further, the University's objectives are broad enough to enable the University and EIR preparers to identify a range of alternatives that can accomplish the objectives, at least in part. The Draft EIR identifies and analyzes 11 prototypical on-site alternatives and eight off-site alternatives.

The EIR also recognizes that the University has conducted the site selection and environmental review process over many years. Several alternatives accomplish the project objective as well as the proposed project. These alternatives, to the north and east of the proposed location on the VST site, include the location originally identified in the SSEIR. After site selection, the campus planners discovered that the currently proposed location on the VST site could achieve the project objectives as well as the initially identified campus location, while substantially reducing environmental impacts by limiting wetlands impacts to the edge of the vernal pool system in a location that is downstream from other vernal pools. Thus, the currently proposed location on the VST site became the proposed location for the project.

The other alternatives do not accomplish the project objectives as well as the proposed project. The EIR provides information about the degree to which those alternatives can accomplish some of the project objectives so that The Regents can balance each alternative's ability to accomplish the project objectives with the ability to reduce environmental impacts in comparison to the proposed project. Some alternatives would reduce impacts but would not meet project objectives while others would meet project objectives but would not reduce environmental impacts of the

project. The Draft EIR discloses this information in order for the decision-makers to then decide whether they would approve the proposed project or whether other alternatives should be pursued.

The alternatives have not been assessed with respect to their impact on any one single criterion, rather they have been evaluated on a series of criteria, which reflect the totality of the project objectives for the campus. Feasibility and ability to accomplish project objectives, aesthetics, ability to assemble sufficient property for the Main Campus and Campus Land Reserve, and the availability of adjacent land for an adjacent University Community of suitable size and quality are some of the factors the Draft EIR considers in its evaluation of the alternatives. Ultimately, The Regents is the body most knowledgeable about the University's objectives and the relative ability of the alternatives to accomplish those objectives. While commenters have provided their opinions on these matters, and those opinions will be considered by The Regents, no commenter has greater expertise than the University staff, campus planners and The Regents with regard to the factors relevant to development of a premier research university. The Regents' consideration of the alternatives necessarily will be based to a large degree upon its collective experience and that of the University staff.

The effect of the size of the campus on accomplishment of the project objectives is addressed in Sections 4.4.A, 4.4.B, and 4.4.C. The discussion below addresses comments questioning other factors pertaining to the alternatives' comparative ability to accomplish project objectives.

Meeting Enrollment Demand/ Ease of Assembly

The need for a 10th UC campus is discussed in detail in Sections 1 and 2 of the Draft EIR. Statewide student enrollment is projected by the CDOF to grow significantly. The CDOF's projections show that a new UC campus needs to be developed by 2004 to accommodate near-term enrollment demand. A full UC Merced campus will be needed in the long-term. As explained in the Draft EIR, a 25,000-student campus is best suited to offering the full range of academic programs planned for UC Merced.

In order to meet short-term demand, the University must be able to acquire the land for the campus relatively quickly. Further, ease of assembly of land for the full Main Campus and the Campus Land Reserve is relevant to the ability to construct the project in a cost effective manner, to provide a high quality campus setting, and to plan for the future. Thus, the Draft EIR compares the number of parcels in separate ownership that the University would need to assemble to develop the Main Campus and Campus Land Reserve at each alternative site. The Draft EIR also compares the number of additional parcels that the University would need to assemble a Campus Natural Reserve at each alternative site where such a reserve can be located adjacent to the campus.

The analysis shows that many of the off-site alternatives would entail a long lead-time and high costs to acquire the parcels needed for the campus. For instance, the North Merced/Bellevue Alternative would require assembly of 26 separate parcels and the South Merced City Infill alternative would require assembly of 171 separate parcels plus additional land for a Campus Natural Reserve. Other alternatives would also involve acquisition of significantly more parcels than the proposed project, which involves only two property owners. As the number of parcels in separate ownership increases, the feasibility of achieving project implementation at these alternative sites decreases.

Serving Historically Under-Served Populations

Section 4.1.A of this Final EIR describes the relationship between this EIR and the SSEIR. The SSEIR explains at length the process that the University conducted to determine that the need for a new campus is the most acute in San Joaquin Valley where the population has been historically under-served. The University performed an extensive evaluation of potential campus sites throughout the Central Valley when it conducted its site selection process. The SSEIR explains the criteria that the University used to identify sites, and to arrive at the finalist sites studied in that EIR. This LRDP EIR updates information about the alternatives studied in the SSEIR, and compares those alternatives to the proposed project based upon the most up-to-date information available. The Draft EIR demonstrates that the reasons that the University rejected the alternative sites studied in the SSEIR remain valid.

Based upon comments received during scoping, input from other agencies, and internal due diligence, the University and EIR preparers identified a range of alternative sites in Eastern Merced County that further supplement the alternative sites evaluated in the SSEIR. USEPA agrees that the range of alternatives currently being assessed within Merced County is a reasonable range of alternatives for purposes of the Section 404(b)(1) Guidelines (see Comment 028-69). These sites exemplify the general trade-offs that occur throughout the Central Valley between sites that provide significant wildlife habitat and sites that provide significant agricultural resources. Development of a campus at any of these alternative locations could achieve the objective of serving historically under-served populations.

Proximity of a University Community and Campus Natural Reserve

The importance of a planned community adjacent to the proposed campus is discussed in the Draft EIR and further substantiated in Section 4.4.D. While many UC campuses do not have a planned community nearby, all UC (and non-UC) campuses are struggling with problems of housing students, faculty and staff. Very recently, the mayor of Berkeley noted that due to the built out status of Berkeley, the City is facing a serious housing problem on account of the growing student population at UC Berkeley. An integrated University Community would further the campus objectives by providing housing and services to the campus population, by modeling environmental stewardship, and by enhancing the campus's ability to recruit faculty, staff and students.

The alternatives analysis in the Draft EIR nevertheless evaluates alternatives that do not include land nearby for an adjacent University Community. Further, the Draft EIR considers the location of the campus on sites somewhat closer to existing urban centers under the Castle Airport, North Merced/Bellevue, and South Merced City infill alternatives. For each of these locations, the Draft EIR presents a comparison of the impacts of the alternative to those of the proposed project with and without the University Community. This analysis allows the reader to understand the impacts of the campus at the alternative location if no university community were to be built. Past patterns at other campuses demonstrate, however, that natural urban growth processes cannot be depended upon for the provision of adequate and environmentally sound urban services in the nearby city/cities. Absent a planned community that is nearby, the proposed project could trigger unplanned growth resulting in conversion of agricultural lands and wildlife habitat. Such a pattern of growth could also result in more vehicle trips, longer vehicle trips, and associated air emissions in a region that has been struggling with meeting air quality standards.

The EIR also recognizes that a Campus Natural Reserve does not have to be near the proposed campus. However, its proximity to the campus offers numerous benefits that are described in Section 4.4.A. The presence of a Campus Natural Reserve close to the campus is one of several factors that have been taken into consideration in evaluating alternatives.

Providing a High-Quality Campus Setting

As stated in the Draft EIR, visual quality of the campus and its surroundings is important to this campus in order for the campus to recruit and retain distinguished faculty and staff and high-caliber students. This is especially true for faculty and staff who may not consider a Central Valley location if it were not for the availability of affordable housing and a top-notch campus with a prestigious appearance. Visual quality of the campus and its surroundings is one of several factors that have been taken into consideration in the alternatives analysis. The Draft EIR does not suggest that the University places greater value on aesthetics than it does on biological or other resources. As with the other factors that are relevant to accomplishment of the project objectives, the analysis of visual quality is included so that all relevant factors can be weighed and balanced in determining which alternative should be pursued. Visual quality is inherently subjective. In weighing the feasibility of alternative sites, The Regents will determine the quality needed for the Campus. The Draft EIR provides an assessment of the relative merits and detriments of each site.

Avoiding Unnecessary Costs

The Draft EIR explains the factors that the University has included in its design and planning of the proposed project in order to meet this objective of avoiding or minimizing unnecessary costs. The campus has been proposed with most academic buildings 3 to 4 stories high and student housing also in 3 and 4 story apartments, these in order to avoid both the initial higher cost of constructing high-rise buildings and the subsequent higher cost of rehabilitation and maintenance of high-rise buildings. Similarly by locating the campus at the proposed location at the southern end of the VST property, the University has reduced the costs of utility and infrastructure extension that would have occurred if the campus had been located at the previously considered location. The cost of operating services such as transit to the proposed site would also be lower because of the reduced distance between the campus and the city with the currently proposed site of the campus.

Commenters argue that the cost of the campus at locations near existing communities such as Merced or Atwater would be lower because of lower costs associated with utility extensions, provision of services, and the cost of mitigation for impacts to biological resources. Infrastructure improvements that may differ somewhat between the sites would be roadways and water and wastewater pipelines.

At the proposed site, no roadway extensions would be necessary in the initial stages because the proposed project would be accessible via existing Lake and Bellevue Roads. Eventually, Campus Parkway will provide additional access to the Campus; however, the portion of Campus Parkway south of Yosemite Avenue would be constructed with or without the project. The extension of Campus Parkway north of Yosemite Avenue to the Campus is anticipated to be built as part of the University Community. Similar roadways likely would be built as part of a University Community, if such a community is built, at the alternative sites.

With respect to public services such as police, fire, emergency medical and libraries, as discussed in the Draft EIR, at full development under the LRDP, many of these services would be provided out of facilities located on the campus. To the extent that these are provided or supplemented by services from off-site locations, the costs would be similar regardless of location and less than significant as described in the Draft EIR.

The proposed project would require utility extensions involving about 2.5 miles of pipeline for water and 3.8 miles for sewer. By comparison utility extensions to the Bellevue Ranch site would involve about 1.7 miles of water and sewer lines (an estimated cost of \$1.3 million for a water connection extending to the proposed project site versus \$0.90 million for a water connection to the Bellevue Ranch site). Minor if any water and sewer improvements would be necessary to serve the Castle Airport site.

4.21.B.2 *Relationship Between the Draft EIR Alternatives Analysis and the CAA*

One organization submitting comments on this EIR attached prior correspondence commenting on the CAA. The University and Merced County prepared the CAA as a preliminary step in identifying alternatives that ultimately may be considered in the Section 404 federal process. The CAA was designed to address different criteria than an alternatives analysis under CEQA. Accordingly, comments on the CAA refer to the federal criteria for a Section 404(b) alternatives analysis, not the evaluation of alternatives under CEQA. Thus, the University is responding to the comments on the CAA in working directly with the federal agencies in the federal permitting process.

In particular, many of the comments on the CAA relate to the project purpose statement considered in a Section 404(b)(1) analysis. One commenter acknowledges that the project objectives in the Draft EIR differ from those in the CAA. CEQA and Section 404 (b)(1) contain different requirements for the treatment of alternatives. The project objectives in an EIR are more broadly defined than the basic project purpose statement considered in the Section 404 process and described in the CAA. Accordingly, comments pertaining to the CAA's project purpose statement are being addressed with the USACE and other federal agencies through the Section 404 process.

Other comments on the CAA seek clarification about the methodology used to identify alternatives for Section 404(b)(1) purposes. In comments on the CAA, one commenter suggested that the University's alternatives analysis must document that none of the available sites considered since project planning began were capable of supporting a university campus with less damage to the aquatic system and that all sites that are or were available during that period were considered. CEQA requires that an EIR evaluate a reasonable range of alternatives, not all possible alternatives that may have been available at the time the project planning commenced, or that currently may be available. Thus, these comments on the CAA also are not applicable to the EIR and will be addressed, as appropriate, through the Section 404 process.

Some of the comments on the CAA also question the screening criteria used in that document. The Draft EIR evaluated the alternatives based upon different criteria, which included all relevant environmental effects and all project objectives.

Comments on the CAA seek a level of detail that is not required in a CEQA document. Alternatives to the project are studied in CEQA documents in less detail than the proposed

project. The purpose of an alternatives analysis under CEQA is to provide enough information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. Accordingly, the CEQA alternatives analysis focuses on the key differences between the alternatives and the proposed project. Additional alternatives analysis will be performed under Section 404(b) in consultation with the applicable federal agencies.

Finally, the CAA is geared toward a federal process that focuses first on impacts to wetlands, and only secondarily on impacts to other resources. CEQA, by contrast, does not mandate that avoidance of impacts to wetlands be evaluated before evaluating impacts to other resources. Thus, comments regarding the procedure and depth of analysis for conducting an alternatives analysis under 404(b) are not applicable to the process for performing an alternatives analysis under CEQA. Further, comments on the CAA voicing the opinion that effects on wetlands and associated habitat outweigh other impacts such as loss of agricultural resources will be considered by The Regents in evaluating project alternatives. Ultimately, however, The Regents will need to independently weigh and balance the various environmental impacts and project alternatives, and such policy decisions will be within its discretion.

4.21.C Smaller Campus/Decreased Population

This response addresses comment O28-51, which seeks additional information about the Smaller Main Campus/Decreased Population alternative.

The LRDP EIR analyzes a 15,000 student reduced population campus because 15,000 students correlates well to the amount of buildable acreage on the 610-acre smaller Main Campus. To achieve a smaller main campus/decreased population alternative, the University and biologists did not reduce footprint size and population in exactly the same proportion because on a smaller campus the acreage cannot be used as efficiently as on a larger campus. In addition, as Figure 5-2 of the Draft EIR illustrates, Le Grand and Fairfield Canals and their required setbacks create constrained areas for campus facilities. The irrigation canals and much of the low area between the canals would not be planned for development on either a 910-acre campus or a 610-acre campus (except for use as storm water detention basins), but this area makes up a higher proportionate area of a 610-acre campus.

If the smaller main campus were to accommodate a slightly larger student population of approximately 17,500 students, operational effects would be similar to a 15,000-student campus, with traffic and emissions being slightly higher than would be generated by a 15,000 student population. Tables 4.1-1 and 4.1-2 below illustrate the proportionate difference in operational impacts between a 15,000-student, 17,500-student, and 25,000-student campus.

**Table 4.21-1
Vehicle-Related Emission: Reduced-Population Alternatives**

Student Population	Nitrogen Oxides (NO_x)*	Reactive Organic Gases (ROG)*	Carbon Monoxide*
15, 000 Students	10.4 tpy (tons per year)	4.0 tpy	41.8 tpy
17,500 Students	12.1 tpy	4.6 tpy	48.8 tpy
25,000 Students	17.3 tpy	6.6 tpy	69.7 tpy

*Emissions decreased relative to the Draft EIR (Table 5-1) because they were estimated with EMFAC 2000 instead of EMFAC 7G as they were in the Draft EIR. See Section 4.7.A.2.

**Table 4.21-2
Utility and Public Services Impacts: Reduced-Population Alternatives**

Student Population	Water Demand	Wastewater Treatment Capacity	Electricity Supply	School-Age Children
15, 000 Students	1,386 afy	1.16 million gallons per day	11.0 megawatts	542 school-age children
17,500 Students	1,617 afy	1.35 million gallons per day	12.8 megawatts	632 school-age children
25,000 Students	2,310 afy	1.93 million gallons per day	18.3 megawatts	903 school-age children

A 17,500-student campus would not accomplish the project objectives to a substantially greater degree than a 15,000-student campus. As shown by studies of UC Santa Cruz, campuses with fewer than 25,000 students cannot offer the full complement of academic programs that the University plans to offer at the Merced campus. In addition, the University does not intend to operate its campuses at the 17,500-student level. As explained in Section 1.3 of the Draft EIR, Enrollment Shortfall and Need for New Facilities, population projections over the next decade show a dramatic increase in the number of qualified California students seeking admission to the UC system. Therefore, universities throughout California are in the midst of updating their long-range development plans in order to accommodate the projected growth. UC campuses that currently have approximately 17,500 students will continue to grow and expand.

The footprint for the Smaller Main Campus alternatives was established by the campus planners and biological consultants. The guiding principal in the footprint design was to avoid areas with a high acreage of vernal pool habitat while still maintaining a contiguous main campus area. The result of this effort was a 610-acre Main Campus footprint.

The smaller main campus footprint analyzed in the EIR includes the strip of land adjacent to Lake Yosemite. Although this strip of land is the same as in the proposed 910-acre Main Campus footprint, it appears more intrusive in the smaller footprint because the land to the east has been designated Campus Land Reserve to avoid an area of wetlands. The linear strip was

kept as part of the reduced Main Campus footprint to aid in achieving a variety of project objectives. First, the location adjacent to the lake provides a high quality campus setting that is aesthetically pleasing with regard to surrounding natural characteristics. The linear strip would enhance the University by drawing upon the positive characteristics of the lake. Second, the linear strip of Main Campus provides important acreage for athletic and recreational opportunities. This proposed location for play fields would integrate campus recreation with the public recreational uses in the adjacent Lake Yosemite Regional Park. Secondary benefits would also result from meeting these first two objectives. Although aesthetics is not the only objective that is considered in achieving the proposed campus goals, it is an important objective for a brand new campus. Creating a physical campus that helps to attract high-quality faculty, as well as students and staff, will help the new campus develop into a school of academic distinction.

4.21.D Smaller Campus/Higher Density Alternative

This response addresses comments FA1-5, FA1-11, I35-4, O22-3b, O22-7, O22-8, O22-9, O28-46, and O28-52, as well as other similar comments which address the approach taken in determining the size of the Smaller Main Campus, the efficiency and costs of a higher density campus, and the need to create an aesthetically pleasing campus.

As explained above under Section 4.21.C, the area for the Smaller Main Campus alternatives was established by the campus planners and biological consultants, who designed a prototypical smaller Main Campus that would avoid some of the more significant wetland areas within the Main Campus boundaries while still maintaining a contiguous Main Campus area. Under this alternative, the Draft EIR evaluates accommodating the projected population of 25,000 FTE students on this smaller 610-acre Main Campus. The only way in which this could be done would be to increase the density of development on this smaller campus. As explained in the Draft EIR, there are numerous problems associated with a smaller, high-density campus. Section 4.4.C in this Final EIR explains the manner in which the acreage needed for the proposed campus was derived.

The Draft EIR explains that a 610-acre Main Campus would hinder achievement of several project objectives. The current overcrowding and unmet demand at UC campuses demonstrates the lack of sufficient land on or adjacent to the campuses to accommodate students. All of the current UC campuses with a developable area smaller than approximately 1,000 acres, UCLA, UC Berkeley, UC Riverside, and UC Santa Cruz are considered “land poor.” Section 4.4.C, Table 4.4-1, provides land use data for all UC campuses, including data on the size of their academic cores and their total acreage of housing. Land-poor campuses have been forced to adopt strategies such as off-campus land acquisition as opportunities arise to cope with their land constraints. In particular, UCLA and UC Berkeley were sized too small. Thus, they have had to expand elsewhere. In order to accommodate the growth in student body and programs, both of these campuses have had to acquire off-campus space. UC Berkeley owns 1.4 million asf of off-campus space (LRDP 1990), and UCLA owns approximately 280,000 square feet and leases approximately 200,000 square feet of off-campus space for administration and research facilities, plus University-owned off-campus housing, which adds still more off-campus space. This type of land acquisition is limited to availability of land and is often physically separated from the original campus. Physical separation of campus facilities is not desirable because facilities may not be in walking distance, increasing transportation needs and costs, and decreasing student-faculty interactions; therefore potentially reducing the frequency of use of the off-site facility.

Further, the separation between campus facilities increases reliance on automobile travel, resulting in a need for additional parking, more traffic impacts, and higher amounts of air pollutant emissions compared to a campus where core facilities are grouped together.

Increasing density to accommodate growth at land-poor campuses is also problematic. For example, when a hospital replacement project was proposed on the UCLA campus, the only option was to construct the new building on an already developed site. Therefore, an existing parking structure had to be demolished. The lost parking spaces then had to be replaced in an underground parking facility that was constructed under an existing athletic field. San Jose State University (SJSU), another small footprint/high density campus, has had similar difficulties in accommodating campus growth. The construction of a new library on the SJSU campus required the demolition of an existing administration building, which displaced the administrative facilities, and required the retrofitting of a parking structure to accommodate the displaced administrative programs. Additionally, a proposed housing project on the SJSU campus will require demolition of existing residence halls and will require placing three students to a room during construction of the new housing. This type of “domino development” is inefficient and expensive. Costs are higher due to demolition and engineering constraints. Temporary displacement of academic programs and housing is disruptive. Timing of demolition and construction may be sensitive because of disruption to ongoing programs. The establishment of the new UC Merced campus offers the opportunity and obligation to take advantage of the University’s knowledge and experience, avoid repeating the mistakes that resulted in land-poor campuses, and provide a well planned Main Campus area.

In contrast to UCLA and UC Berkeley, UC Davis is not considered to be a land-poor campus and has not had to demolish structures in order to build new buildings. It has a total campus area of about 5,300 acres. Within its 900-acre Central Campus, there are approximately 839 buildings. Of these buildings, 815 buildings are three stories or shorter and 24 buildings are four stories or higher, and the tallest building (Sproul Hall) is 10 stories. Although the current LRDP for UC Davis allows for buildings up to nine stories high in the Central Campus, it calls for an average new building height of four stories. Currently, UC Davis development is proposed to occur in and around the Central Campus and would concentrate on maintaining a pedestrian-oriented campus and limiting the conversion of undeveloped land (UCD LRDP 1994).

Like UC Davis, UC Merced would have a 910-acre Main Campus and most buildings would be 3 to 4 stories high, equivalent to the UC Davis Central Campus average building height. The presence of taller buildings at UC Davis illustrates that it is possible to have high-rise structures, but UC Merced can attain its goal to have all facilities in the academic core within a 10-minute walking distance without developing high-rise buildings on the 157 acres at the center of the campus site. Closely spaced buildings of more than 3 or 4 stories are generally not recommended for academic core and student support areas because of the inherent surcharge associated with constructing such buildings. Higher costs result from increased stringency in seismic and safety codes and accompanying materials requirements, as well as increased difficulty in staging construction, including access for workers and storage of materials and machinery. High-rise building also cost more per square foot than mid-rise or low-rise building. For mid-rise buildings, the multiplier is 1.15 times the cost of constructing a low-rise building. For high-rise buildings, the multiplier is 1.4 times the cost of constructing a low-rise building. As a 1998 University study found, the future need for renovation of tall buildings is on average 15 to 40 percent more expensive than low-rise buildings. As a state-funded campus, UC Merced must

compete with other campuses for funds, and both initial construction and long-term operational costs must be considered at this initial planning stage.

As opposed to academic and academic support facilities, student housing is not funded by the State. Student housing must be self-supporting and financially viable. Therefore, student housing must be priced competitively with off-campus markets to assure occupancy and adequate income to repay housing debts and operating expenses. The development of student housing must proceed in the most economically sound way as possible. Although high-rise housing is used at other campuses, the most economical construction for student housing is Type V, 1-hr. wood-frame construction. Due to seismic code requirements, buildings over this type of 3-story wood frame construction add a significant cost surcharge (25 to 50 percent). In addition, the cost of building systems (electrical and piping) for buildings of four stories and above are much higher. In addition, student housing with architectural character, human scale, and opportunities for social interaction in plazas, seating, and landscaped areas is important to a successful student housing project. High-rise construction would be generally more institutional in appearance and would not allow light into interior plazas.

As stated in the Draft EIR and noted by some commenters, the smaller campus/higher density alternative would reduce the degree of footprint impacts by reducing the acreage of the Main Campus. Although decreased, the same impacts would occur as those associated with the proposed Main Campus. Impacts on biological resources, the amount of impervious surfaces, the effects on water quality, the demand for irrigation water, and construction-associated impacts would occur but to a lesser extent. Mitigation would still be required for impacted resources. The reduction of impacts is taken into account and considered heavily when evaluating alternatives, but the analysis shows that the reduction in footprint impacts comes at a high price in terms of construction costs and accomplishing project objectives. The UC Merced campus would not be able to accommodate the projected 25,000 students on a 610-acre Main Campus site.

In order to support the new campus, the County of Merced's University Community would provide additional housing. The County formulated the proposed size for the community from policy and planning criteria developed through a community design and economic study process evaluating the community size necessary to carry the costs of needed infrastructure. The Draft EIR for the UCP (EIP 2001) completed an alternatives analysis, that evaluated a reasonable range of alternatives to the size, configuration and location of the community. The analysis addressed the ability to meet the basic community project objectives while reducing impacts related to farmlands, biological resources, transportation-related effects, and impacts to public utilities and services. The UC Merced campus is estimated to generate a total new off-campus population of 31,248 persons, and an off-campus demand for 11,616 housing units, 716,000 square feet of retail space, and 1.3 million square feet of office and research and development uses, as well as supporting schools, parks, civic, and cultural facilities. The proposed 2,133 acres of land proposed for the community assumes that, although not all students or UC Merced faculty and staff will choose to live in the community, many persons employed in the nearby areas may choose to live in the University Community.

4.21.E Smaller Campus/ Fewer Programs

This response addresses comments FA1-12, FA1-32, I34-2, O28-53, O31-25, and O31-26, as well as other similar comments. In order to accommodate the projected population, reduce

footprint impacts, and maintain the same density as for the proposed project, the Smaller Campus/Fewer Programs alternative would eliminate or move programs or campus elements off-site. The comments request additional explanation as to why it is not feasible to move additional programs or facilities off-site.

As discussed in the Draft EIR, although a reduced campus footprint would require less construction and infrastructure than the proposed project, locating programs or housing off campus would result in increased traffic effects and therefore increased emissions of criteria pollutants and increased traffic noise.

In order to accommodate the reduced campus size and the projected 25,000 student population, it was suggested that academic facilities be located off-site or be accommodated through on-line services. As explained below, the University is pursuing both of these programs. However, the location of still more academic facilities at off-site locations or on-line would be detrimental to the efficiency of academic facilities, recruitment of faculty, student/faculty interaction, and maximizing academic distinction. Off-site locations for academic/ research facilities are often underutilized despite the best efforts of campus administrators to create incentives and opportunities for students and faculty to take advantage of the site. Furthermore, the University proposes to create a campus of academic distinction, which involves student and faculty interaction and academic research in regular day-to-day instruction.

The UC Merced educational centers opened in Merced, Fresno, and Bakersfield, and planned for Modesto, should not be considered relief for the necessity of on-campus academic and housing facilities. The services currently supplied through those centers include nondegree professional development education. At existing UC campuses, it is common for University Extension to offer such nondegree education at remote sites, for the convenience of working adults. This does not reduce the need for campus facilities for the regular teaching and research programs for degree-bound students. UC Merced has also used its centers to carry out UC mandates to improve student preparation, especially for students from low-performing schools; and contribute to advanced teacher professional development. These mandates will likely continue into the future and can be effectively served in off-campus locations, closer to the Valley's communities and schools. Thus, the centers will continue to serve a series of purposes that benefit from geographical distribution and stand apart from the campus missions of undergraduate and graduate instruction, and faculty research.

UC Merced is also planning to use the off-campus centers as an additional pathway to improve participation of eligible San Joaquin Valley students in UC education, to increase the participation expected by locating the campus itself in San Joaquin Valley. It is anticipated that some low-income Valley students would accept the offer of admission if they were able to complete the first year of UC Merced courses closer to home. For these students, UC Merced is planning a first year that would include a highly prescribed curriculum, special student support services, and an early introduction to campus activities. Because the number of students that may be interested will not be known until the program is actually offered, the additional numbers of students who might start at the UC Merced centers have not been included in campus enrollment estimates. Instead, campus enrollment estimates and plans for accommodating students both academically and outside classes have been derived from observed patterns among UC students at the existing eight general campuses.

With regard to future uses of educational technologies, assumptions are also based on observed UC student behavior and behavior of students at similar research universities. Across the country, UC's peers among research universities have, like UC, been greatly expanding their use of on-line and other technologically-based educational offerings and services. UC Merced itself has set as an academic goal to offer the most technologically advanced educational environment that is feasible within current resources.

Advanced technologies have unquestionably changed the way in which students complete their academic programs and faculty fulfill their myriad responsibilities. Students may use on-line courses to manage their schedules, for example, by taking a required course that is hard to fit in otherwise. Faculty are likely to participate in more than one on-line worldwide research network, characterized by almost instantaneous communication. What has not changed is the high demand for personal, face-to-face interaction among faculty, among students, and between faculty and students. This personal interaction continues to be a hallmark of the most effective research universities; it continues to define quality in the minds of both UC faculty and students. One example at UC Merced is the emphasis that Engineering Dean Jeff Wright is placing on developing an engineering curriculum that will promote students working in teams, from the freshman through the advanced level. UC faculty and students demand both a technology-enriched environment and the physical interaction that promotes creative work within and across disciplinary lines.

As with on-campus programs, on-campus housing is an important element of a UC education. As the Draft EIR explains (pg. 5-16), providing on-campus housing enhances research opportunities, leads to an intellectual and social campus community, and provides technological opportunities. Research shows that students who live on campus experience greater levels of involvement with their peers and faculty; a high degree of institutional identity and commitment; higher gains in communication and general education outcomes; and substantially higher retention and graduation rates. These benefits are especially high for students of color. Therefore, the project objective of serving historically underrepresented populations will also be served by sufficient on-campus student housing.

In addition to providing undergraduate on-campus housing, targeted housing for graduate students and students with families is an important recruiting tool. As an example, UC Berkeley has experienced significant rejections by graduate students who have cited the lack of on-campus housing as the reason. UC Merced's ability to house a significant percentage of graduate students on campus would facilitate the success of the graduate programs and the campus in general.

Faculty housing is important to the success of the campus. As the Draft EIR explains, lessons learned from other UC campuses show that areas that once had ample off-campus housing opportunities and minimal development restrictions now face local land use restrictions and other constraints. These have severely limited new housing supplies and have resulted in costs escalating beyond a level affordable to entry-level faculty. UC Merced has an opportunity to learn from these experiences. Therefore, the campus has made the provision of adequate housing a critical project objective and one that is essential for faculty recruitment and retention. High quality faculty will have a direct effect on the quality of academic programs and meeting the objective of becoming a campus of academic distinction.

Some commenters have suggested that UC Merced should include more on-campus housing, not eliminate on-campus housing or move it off-site. Vehicle trips generate air pollution, primarily from starting of the vehicle rather than from the length of the trip. Therefore, it is preferable to eliminate trips by having on-campus housing rather than creating trips by locating housing off-site.

The availability of services such as student health services, career counseling, police and fire protection, mentoring and support, clubs and organizations, etc. is necessary for students to become fully involved in the academic aspects of their educational experience. If these services were moved off-site, the inconvenience and time spent obtaining services would detract from their use and from activities that are central to the academic and research mission of the University.

The provision of adequate athletic and recreation facilities on campus is necessary to meet the objective of providing athletic and recreation opportunities, as well as the recruitment of faculty, staff, and students and the enhancement of the university experience. Recreational facilities provide opportunities for interaction with the local community through public events and some also serve as detention basins for runoff. As a comprehensive institution, the campus seeks to meet the acreage requirements for the development of a premier athletics and recreation program. Reduction of the acreage for these facilities or the elimination of certain elements would undermine the stated project objectives. In addition, eliminating recreational programs would not eliminate the need for fields and open spaces because of the multiple purposes the land serves. Also, see Section 4.4.C.6 which discusses the problems faced by UC campuses that do not have adequate land for athletic programs.

4.21.F On-Site Alternatives

This response addresses comments O22-3, I33-3, I33-4, I33-4, I33-5, I33-6, I33-7, I33-10, I33-11, I33-16, and I33-17, as well as other similar comments. The Draft EIR analyzed a total of 11 on-site alternatives organized into two sets depending on where on the VST property these on-site alternatives would be located. The first set included variations on the size of the Main Campus and all of these smaller and larger alternatives would be located at the same site as the proposed project. The second set included five other alternatives further north and east of the proposed project site on the VST property. Commenters have expressed the same concerns for all of the on-site alternatives, which include biological impacts, agricultural impacts, the potential for leapfrog development due to increased distance between the campus and the City of Merced, and greater costs from the extension of utilities to these alternate locations as compared to locations nearer the cities of Merced and Atwater.

Biological Resource Impacts. On-site alternatives involving a smaller Main Campus would reduce impacts to biological resources on the VST property but would fail to meet some of the key project objectives. On-site alternatives involving a larger Main Campus would conversely meet most of the objectives but would result in greater environmental impacts. The alternatives that are of the same size, population, and density as the proposed project but on alternate locations on the VST site would also satisfy project objectives for the most part the same as the proposed project. However, as noted by the commenters, these alternatives would result in a greater extent and severity of biological resource impacts than the proposed project. Increased

impacts could affect the University's ability to obtain the necessary permits in a timely manner and could increase the costs of the required mitigation.

Agricultural Impacts. Commenters argue, with respect to all on-site alternatives, that these would result in the conversion of grazing land and that the impact on grazing lands is as important as the impact on croplands. See Section 4.6.A in this Final EIR with respect to this issue for the proposed project. That analysis also applies to all on-site alternatives. With respect to commenters' concern regarding potential inconsistency of these on-site alternatives with the County General Plan (Agricultural Section), it should be noted that the University is not required to be consistent with local plans but strives to be consistent to the extent possible.

Infrastructure Extension and Public Services. All of the size variation alternatives would be very similar to the proposed campus in terms of the need for infrastructure extensions because these would be at the same distance from existing utilities as the proposed project. Similar to the proposed project, these alternatives would require utility extensions involving about 2.5 miles for water and 3.8 miles for sewer. These alternatives would also be similar to the proposed project relative to provision of public services including police, fire, emergency medical and libraries.

The five on-site alternatives that would be further north and east of the campus site would be an additional 1 to 1.8 miles from the nearest utility and roadway connections. This increased distance from existing utilities and roadway infrastructure (compared to the proposed project) would proportionally increase the cost to develop any of these alternatives. Provision of public services should be similar to the proposed project as described above. To the extent that some of the public services are provided from off-site locations, a somewhat greater response time would be involved.

Leapfrog Development. The University is attempting to avoid damaging leapfrog development by planning a campus that reduces the potential for sprawl, infrastructure costs, and resource impacts while attaining project objectives. The University proposes to locate the Campus on the southwest portion of the VST property in order to further these goals. Furthermore, the County is proposing the University Community adjacent to the campus also to avoid haphazard growth in the region, and to support the tenet of smart growth by keeping needed housing and amenities close to the campus.

The other on-site alternatives that would be further north and east of the campus site would be at a greater distance from the urban area of Merced. For these campus alternatives too, the County could propose an adjacent University Community to control haphazard growth. However, at these locations, the greater separation between the city and the future campus and University Community would encourage additional growth and development in the gap between the campus and the City. Due to greater resource impacts and the potential to instigate sprawl, these alternatives do not meet the objective of modeling environmental stewardship.

Effect on Downtown Businesses. Commenters express concern regarding the potential effect of developing of alternatives to the north and east of Lake Yosemite on existing businesses in Merced's downtown. The concern expressed is an economic issue and not environmental in nature. However the University notes that by drawing a large population to the Merced area and by conducting purchases of goods and services in the region, the campus will boost the regional economy (see Section 6 in the Draft EIR). It is reasonable to expect that for day-to-day purchases, campus population may not shop at businesses that are in the downtown area because of the distance to these businesses and the availability of businesses closer to the campus along G

and M Streets in Merced, or in the University Community as and when it develops. However, some amount of purchasing will occur in the wider area including the downtown.

4.21.G Off-Site Alternatives

This response addresses comments O24-4, O24-7, O24-8, O24-9, O24-10, O24-11, O28-47, I35-5, O28-74, and I33-15, as well as other similar comments, which concern the offsite alternatives analyzed in the Draft EIR.

The Draft EIR compares the environmental impacts of developing a campus at several offsite locations. Where information is available, or could be readily calculated, the EIR quantifies the extent of the impact that would occur at the offsite location. For example, acreage of impacts to agricultural resources has been calculated for each offsite location. This calculation is based upon aerial photos and maps of those sites, with campus boundaries overlaid. In addition, indirect impacts have been identified at the alternative sites to the extent they differ substantially from the impacts of the proposed project. Indirect impacts cannot be quantified.

The University's traffic consultants also prepared an analysis of traffic impacts at the Castle Airport and Bellevue Ranch sites, where some urban planning has been performed by Merced County and/or the City of Merced regarding circulation improvements. Those analyses, like the analysis of the project, include reasonable assumptions regarding the potential for mass transit use and other non-automobile transportation. The trip generation calculation used in the traffic modeling takes into account the TDM policies in the LRDP. The Draft EIR and Section 4.18 also explain how the University's traffic consultant determined the number of trips that would be avoided by providing a University Community adjacent to the campus. At the other off-campus sites in Eastern Merced County, the Draft EIR provides a more qualitative comparison of traffic impacts because no circulation systems have been planned or proposed at or around those sites. In general, the majority of campus travel would be unaffected by the change in location, either for intra-campus or campus-to-community travel, assuming that the community is still adjacent to the campus. A location shift, however, would have a minor effect on approximately one-third of the off-campus regional trips. Moving the campus closer to an urban center would slightly increase transit use for off-campus travel and reduce the cost to provide off-campus transit service. For each mile the campus is moved closer to the urban center, campus-to-center- transit travel would increase by about five percent of the currently proposed campus travel percentage. For example, if 20 percent of the campus-to-center travel would occur via transit for the currently proposed campus, moving the site one mile closer to the urban center would increase this percentage to 21 percent (a five percent increase). The cost to operate the campus-to-center transit service would also reduce by about 10 percent for each mile closer the campus is to the urban center.

Other utilities at the offsite locations, such as wastewater treatment and water supply, are discussed where information is available. All of the offsite locations in eastern Merced County, east of the San Joaquin River, would depend upon the provision of groundwater from the Merced Groundwater Basin. Alternative 15, located in Madera County, would be in the Madera Groundwater Basin, while Alternatives 16, 17, 18, and 19 would be in the Kings Groundwater Basin. All of these groundwater basins are within the larger San Joaquin Valley Groundwater Basin. The availability of water at each of the alternative site locations analyzed in the SSEIR is described in that EIR.

The EIR describes the City of Merced's wastewater treatment capacity. Sites located within or near the City of Merced likely would contract with the City of Merced for wastewater treatment. The City of Atwater's WWTPs also could provide service to many of the sites in Eastern Merced County, including the proposed campus site if City of Merced wastewater treatment were unavailable.

The City of Atwater's WWTP is located southwest of downtown Atwater and treats sewage generated by the City, the community of Winton, Castle Airport development, and the Atwater Federal Penitentiary. The existing facilities consist of primary sedimentation, activated sludge secondary treatment, chlorination, and dechlorination. The existing plant capacity is 6.0 mgd. Current flows are approximately 3.0 mgd so there is approximately 3.0 mgd of available capacity. However, approximately 2.65 mgd of the remaining capacity is expected to be used by the Castle Airport as it is developed. According to the City of Atwater General Plan EIR, the City would need a second WWTP to serve future development in identified growth areas (City of Atwater 2000).

Effluent from the Atwater WWTP is discharged to the Atwater Drain, a tributary to Bear Creek which flows to the San Joaquin River. The plant operates under a NPDES permit issued by the CVRWQCB. Biosolids generated at the plant are hauled during the spring and fall to a 100-acre City-owned land application site located approximately 1.5 miles south of the treatment plant. The biosolids are incorporated into the land at this site. Several of the offsite locations are more distant from urban areas than the project area. Alternative 15, the Table Mountain site, is located approximately 18 miles east of Madera. Of the alternative sites in Fresno County, the Academy Alternative is the furthest from the City of Fresno and is located approximately 13 miles northeast of the city. To the extent that the information is available, the description of public facilities and services for these alternatives is provided in the SSEIR Section 4.4, Land Use and Planning Policies.

At some offsite locations, the potential site of an adjacent community is identified, while at others no adjacent community is assumed. This was done in order to broaden the range of alternatives by recognizing that an adjacent community would not necessarily be constructed at the alternative locations. The communities of Planada and Livingston are not better able to absorb campus growth than other similarly sized communities, and if a campus were located near those communities it is possible that an adjacent University Community would be planned and constructed. In each case, the adjacent community would result in a substantial loss of agricultural land. In addition, both of these communities are substantially smaller than Merced or Atwater and cannot offer the additional resources that can be found in larger cities. Thus, a significant number of off-campus vehicle trips to Merced or Atwater could be expected with corresponding air pollutant emissions.

A commenter has asserted that at the South Merced alternative, some of the community housing and services anticipated to be provided by the University Community could be provided in the City of Merced. At the South Merced alternative site, the Draft EIR identifies impacts on agricultural resources with and without an adjacent community. If a smaller community were constructed, impacts within the range between these potential community sizes would occur.

However, the EIR also recognizes that at the proposed site not all faculty, staff and students would choose to live in the University Community. The size of the community is planned to accommodate the amount of growth generated by the campus growth that will need to be

accommodated somewhere, no matter where the campus is sited. The University Community offers the potential benefit of ensuring that planning for this growth is conducted in a comprehensive manner before the growth occurs. Whether one site or another will lead to downtown redevelopment cannot be ascertained.

Finally, the Draft EIR discloses whether alternative sites are located within floodplains. No single factor, including floodplains, is used to avoid studying an offsite alternative.

Table 5-2 in the Draft EIR summarizes the comparison of the environmental effects of developing a campus at each of the alternative sites, including effects on transportation, air quality, cultural resources and public services.

4.21.H North Merced/Bellevue Ranch Alternative

This response addresses comments FA1-13, FA1-33, I33-9, I33-20b, I33-22, I33-23, I35-4, O24-5, and O31-27, as well as other similar comments. The comments express opinions or seek information about infrastructure costs, parcel assembly, traffic, loss of farmland, vernal wetlands and the Campus Natural Reserve with respect to North Merced/Bellevue Ranch alternative.

The Draft EIR analyzes the environmental effects of developing a campus at the North Merced/Bellevue Ranch site. The analysis shows that, compared to the proposed project, this alternative would result in greater impacts on agricultural lands that are under cultivation, somewhat lesser direct impacts on vernal pools and other wetlands, greater impacts on jurisdictional waters, impacts to the same special-status species as the proposed project, and comparable impacts to the transportation network.

The University recognizes that the area of this alternative has been designated by the City of Merced for urban growth and impacts to farmlands have been considered in the City's General Plan. However the physical conversion of farmland has not as yet occurred and would be caused by the specific project that develops the site with urban uses. Thus, this would be a campus-related impact.

Commenters have argued that the footprint of the project at the North Merced/Bellevue Ranch site can be refined to further minimize impacts to wetlands and species habitat. As Figure 5-12 in the Draft EIR shows, any such refinement would not only increase impacts on farmland but would also increase distances within the campus making the campus oriented more towards automobile use rather than pedestrian use.

As one commenter indicates, some structures on the Bellevue Ranch would need to be evaluated for their potential historic significance. An evaluation of the barn on the proposed campus site adjacent to Lake Yosemite was conducted for the Draft EIR by a qualified architectural historian, who concluded that the barn on the Main Campus site did not meet any of the eligibility criteria for listing on the state or national registers of historical resources.

Some of the comments question the analysis of transportation impacts in central Merced resulting from the Bellevue Ranch Alternative. The City of Merced has designated the Bellevue Ranch area of northern Merced for urban growth. As discussed on page 5-33 of the Draft EIR, the analysis of this alternative did not assume that the campus and the University Community would replace all planned Bellevue Ranch development; instead, the growth that was already anticipated to occur in the affected portion of Bellevue Ranch was relocated to nearby areas of northern Merced. Therefore, the development associated with the campus and the University

Community would be in addition to the development already planned for Bellevue Ranch. As discussed on page 4.14-37 of the Draft EIR, the Merced General Plan and its associated EIR, which include Bellevue Ranch development and transit improvements such as the M Street Transitway, acknowledge that downtown segments of G and M Streets will be heavily congested in the future and identify no feasible improvements to bring the operations of these streets up to acceptable levels.

It may be less costly to extend transit service to this alternative campus site than to the proposed project site, because the alternative site is closer to existing urbanized areas and because development has been planned in that area for a number of years. However, the extension of transit service to this area was envisioned in the General Plan and the General Plan EIR, and those documents still identified significant levels of congestion in the downtown area. Therefore, it is reasonable to expect that the overall traffic impacts of this alternative on downtown streets would be greater than if Bellevue Ranch developed as planned, and the campus and University Community were constructed on the proposed project sites.

Compared to utility extensions for the proposed project involving 2.6 miles for water and 3.8 miles for wastewater, the Bellevue Ranch alternative would require an extension of about 1.7 miles of pipelines for water and wastewater. Due to the linear nature of these extensions, the proportional decrease in cost would be about \$400,000.

One commenter asserts that the Draft EIR did not acknowledge that the Bellevue Ranch Alternative would result in impacts to 44.5 acres of waters of the U.S. which would be substantially lower than the impacts from the proposed project. This commenter also indicates that the extent of jurisdictional waters on the Bellevue Ranch site has not been verified by the USACE. Contrary to the commenter's assertion, the Draft EIR explains that development of the Campus and University Community under the Bellevue Ranch Alternative would generate impacts to 44.6 acres. Additionally, the Draft EIR indicates that this alternative would result in substantially greater impacts to Juncus wetlands, a wetland obligate, which occupy over 68 acres of this site. Moreover, impacts to two down-gradient watershed subbasins containing vernal pool and vernal pool-swale complexes would occur under this alternative. Consequently, combined direct and indirect impacts are not anticipated to be substantially lower than the impacts resulting from the proposed project. Additionally, impacts to special-status species and their habitats would occur as described in the Draft EIR.

One commenter believes that the \$30 million appropriation would not be required for the purchase of mitigation lands if the Campus were developed at the Bellevue Ranch site. The commenter provides no support for the asserting that development of the Campus at the Bellevue Ranch site would not result in the need for compensatory mitigation. Due to the impacts to biological resources at this alternative location, mitigation would be needed in order to offset such impacts.

With respect to meeting the objectives of the project, this alternative suffers from the significant difficulty of assembling a large number of parcels to develop the campus and community. As the number of separately owned parcels increases, project feasibility is significantly reduced. The Bellevue Ranch alternative would require 98 parcels for the campus and University Community versus 5 for the proposed project and University Community. At least 23 parcels in separate ownership would need to be assembled for the Main Campus and the Campus Land

Reserve. By having to acquire many parcels of land to assemble the campus, potential for considerable delay in opening the campus (and meeting demand) becomes very great.

One of the comments asserted that the University's analysis should contain a scientifically defensible methodology for comparing the degree of wetland damage resulting from the project alternatives. The analysis presented in the CAA characterizes the types of wetlands that would be affected for each of the project alternatives. Equal levels of detail were not available for each of the alternatives. However, CEQA does not require the University to conduct equal levels of analysis and data collection for alternatives. Furthermore, there is no widely accepted scientific methodology for characterizing the environmental value of wetlands.

The University has provided sufficient detail to demonstrate similarities and differences between wetland impacts at the alternative sites versus the proposed project (Main Campus) site. For example, the Draft EIR reports the best available information on the Bellevue Ranch site referenced in the comment. It is accurate that the Bellevue Ranch site and Castle Airport have been studied most extensively of all the alternatives, however detailed surveys of all lands within this site have not been conducted (Willdan Associates 1993). Existing data for the Bellevue Ranch site is inadequate to fully identify the potential direct and indirect wetland impacts or impacts to special status species. Surveys of the Bellevue Ranch site referenced in the Draft EIR were conducted in September and October 1992 and were not timed to identify the diversity of special status species that may occur on the alternative site. Additional wetlands and special status species are likely to occur on the Bellevue Ranch site based on its proximity to other known occurrences. Therefore, impacts of the Bellevue Ranch alternative would be greater than stated in the CAA. Unlike what is suggested by one of the commenters, more surveys would be necessary which would add to the lead time necessary to develop a campus at this site.

4.21.1 Castle Airport Alternative

This response addresses comments I33-20a, I33-21, I33-24, I33-25, I34-3, I34-4, I34-5, I34-6, I34-7, I34-8, I34-9, I34-10, I34-11, I34-12, and O24-6, as well as other similar comments. The comments express policy views about the Castle Airport Alternative and seek clarification regarding this alternative. Commenters state that the Castle Airport Alternative is near the communities of Atwater, Winton and Merced, and that use of a portion of the former airbase for university purposes has been studied in the environmental documents prepared after base closure.

The Draft EIR analyzes two Castle Airport alternatives: a 458-acre campus and a 910-acre campus at Castle Airport. Under both variations, the campus is proposed to be located in the southwestern portion of the former air base. One commenter has suggested that an alternative involving Castle Airport should include 550 acres in the western half of the air base, and use of lands further west (presumably off of the air base) for the future expansion of the campus. In examining the area of Castle Airport, it is unclear which area the commenter is suggesting for this alternative. It appears however that the University's configuration of the 910-acre campus conforms overall to the commenter's concept of this alternative.

The Draft EIR discloses the environmental impacts of developing a campus at Castle Airport in comparison to the project. As explained in more detail in the Draft EIR, both the 458-acre and the 910-acre campus at CAFB would reduce some of the project's significant environmental effects. However, a 910-acre campus would result in more significant effects on agricultural

resources than the proposed project because, under the significance standards employed by the University and developed by the State Office of Planning and Research in its CEQA Guidelines, preservation of farmland of statewide significance is given a higher value than preservation of grazing land. The Draft EIR identifies other impacts that also could result from development of a 458-acre or 910-acre campus at Castle Airport.

The Draft EIR also discloses some of the reasons why this alternative would not achieve the project objectives as well as the proposed project. Proximity to an active airfield is one of the key concerns at this location. Commenters have stated that few aircraft use this airport. While that may be relatively true today, there is no assurance that aviation activity would not be higher in the future. To the contrary, the best evidence available shows that the County plans to encourage commercial aviation activity at Castle Airport. The Draft EIR summarizes the policies of the County's General Plan. Under federal law, if an airport is open to commercial aircraft, the airport proprietor generally cannot impose restrictions that limit airport use for the purpose of reducing noise. Curfews, noise budgets, noise-based landing fees, and other such measures cannot be mandated by local airport proprietors. Thus, it is reasonable to conclude that noise levels at Castle Airport could reach levels similar to those that existed when the airfield was in active military use, and certainly could be high enough to interfere with the learning environment. The Draft EIR's statement that aircraft noise could reach 80dB 24-hour average noise levels is based upon the SSEIR. It is also reasonable to conclude that the proximity of the Airport could hinder the campus's ability to establish itself as a premier university by attracting high quality faculty, staff and students.

Similarly, visual quality is a relevant criterion in the analysis of the various off-site alternatives. A visually appealing campus promotes a high quality of life for students, faculty, staff and surrounding community and aids the campus in attracting faculty, staff and students. The aesthetic characteristics of the campus create certain hallmark features, which serve to identify it. While it may be true that from the interior, a campus at any of the locations may be equivalent in terms of the visual aesthetics, examined from a larger perspective, a fundamental qualitative difference exists between the Castle Airport site and the proposed project. The combination of the proximity to Lake Yosemite with the views of the Sierra Foothills, rolling grasslands, mima mounds will provide the UC Merced with an aesthetic appeal, which would not be true for a campus at the Castle Airport site.

The Draft EIR further discloses that Castle Airport, as a former military installation, has groundwater and other hazardous material contamination from its use as a military installation and has been designated a Superfund site. Clean-up of hazardous materials contamination at Castle Airport is not projected to be completed until 2029. Industrial development on and near Castle Airport also make this a less appealing site than the proposed site in terms of its attractiveness for faculty, staff, and student recruitment and retention. This is exacerbated by the fact that the Federal Bureau of Prisons controls 660 acres of the base, and has constructed a 1,000-bed high security federal penitentiary here.

Finally, there is no land suitable for a natural reserve adjacent to the Castle Airport alternative sites. Section 4.4.A explains why an adjacent natural reserve would benefit the campus, and therefore is a relevant factor to consider in comparing the various alternatives.

Commenters argue that housing, community services, infrastructure, and transportation all exist within Atwater and on Castle Airport, and these existing communities might, in the short term,

support the campus population. The University recognizes these communities would provide a benefit to the campus in its early years of operation. However, the degree to which those communities could provide needed housing and other amenities to the campus in the long-term is uncertain because these communities have not planned for long-term campus-related growth. The County's plans for the proposed University Community include a campus-focused orientation, actively used public spaces, balanced transportation, measures to reduce vehicle use and corresponding environmental impacts, housing designed to accommodate campus faculty, staff and students, and a research park sited to be mutually advantageous to the campus and community. If long-term campus-related growth were not accommodated near the campus, then the campus population likely would be more auto-dependent than the LRDP contemplates, and unplanned growth may lead to the undesirable effects of urban sprawl.

The Draft EIR also recognizes that extensive public utilities already on site at Castle Airport could meet some of the needs of a campus and limited if any utility improvements will be necessary. The ability to use these existing utilities would reduce the cost of provision of utilities to the campus and avoid the need to construct improvements, and thereby avoid environmental impacts from utilities. However, it should be noted that the environmental impacts, which are the main focus of this EIR, from the provision of utilities to the proposed site would also be less than significant.

The Castle Airport alternative is, as are all the alternatives, not being assessed solely with respect to any one single criterion. Rather it is being evaluated on a series of criteria, which reflect the project objectives for the UC Merced campus and the significant environmental impacts associated with developing a campus. This alternative has significant strengths and weaknesses in comparison to the proposed project. Based upon the EIR, the other evidence in the record, and its expertise in University matters, The Regents will decide whether, as policy matters, the alternative would achieve the project objectives and would result in an overall reduction of the project's environmental impacts.

4.21.J Suggestion to Locate the Campus Elsewhere Near the Proposed Site

This response addresses comments O26-12, O28-8, and O28-54, which suggest that the campus could be located wholly or partially on the County's proposed site for the University Community, or to the west of the proposed site.

The Draft EIR evaluates a range of alternatives designed to inform the decision makers and the public regarding the relative benefits and detriments of changing the proposed location of the campus. The EIR does not evaluate every conceivable alternative site because it would be impossible to do so.

The alternative of locating the campus on the site of the proposed University Community is similar to the alternatives already evaluated in the Draft EIR. The analysis in the Draft EIR demonstrates that locating the campus on farmland of statewide significance results in more severe impacts to agricultural resources and less severe impacts to biological resources than the proposed project. The suggested alternatives further illustrate the balance between these two impacts.

The Draft EIR studied several campus alternatives that would result in a direct loss of farmland of statewide significance: North Merced/Bellevue Ranch Site A, Castle Airport (910 acres),

South Merced City Infill, Southern Highway 99, Highway 140, East Livingston, and Delhi Area. At each of these sites, development of an adjacent University Community would further eliminate farmland of statewide significance. Table 5-2 in the Draft EIR quantifies the acreage of significant farmland at each site. Direct loss of significant farmland from development of the 910-acre Main Campus could range from 330 acres to 897 acres. The cumulative loss of significant farmland from the campus and an adjacent University Community could range from 895 acres to 2,889 acres.

Construction of the campus at the proposed University Community site would result in impacts to agricultural resources similar to the impacts of developing a campus at the alternative sites evaluated in the Draft EIR. Merced County's Draft EIR for the UCP depicts the farmland types and locations on the proposed community site (EIP 2001). If the campus were located entirely on the community site, and if the Main Campus were constructed on the southern portion of the site, all 910 acres of the Main Campus would be located on prime and unique farmland (EIP 2001). Based on the discussion of the "no loss of prime farmland" alternative in the UCP Draft EIR, if the campus were located only partially on the proposed community site, and the Main Campus were constructed north of Cardella Road, then 270 acres of the Main Campus would be located on unique farmland and an additional 29 acres would be located on farmland of statewide importance (EIP 2001). In each case, if an adjacent University Community were constructed, further impacts to agricultural resources could occur. Undeveloped land to the south and southeast of the proposed University Community site is predominantly prime agricultural land (EIP 2001). Thus, developing the campus on the University Community site could directly affect from 299 to 1,420 acres of farmland of statewide significance. The cumulative loss of significant farmland from the campus and an adjacent University Community could total as much as 2,910 acres, depending upon where the community is sited.

The Draft EIR also evaluates impacts to biological resources from construction of a campus at each alternative site. Table 5-2 in the Draft EIR shows that loss of wetlands and grasslands, and their associated species, would be minimal on the three sites that result in the greatest loss of farmland: Highway 140, East Livingston, and Delhi Area. The North Merced Rangeland alternative, by contrast, would result in no impacts to significant farmland but would result in greater cumulative impacts to biological resources than the proposed project.

Construction of the campus at the proposed University Community site would result in impacts to biological resources consistent with the conclusions of the Draft EIR's alternatives analysis. Because much of the Main Campus would be constructed on agricultural land, effects on biological resources would be less severe than those of the proposed project. Much like the Highway 140, East Livingston and Delhi Area alternatives, if the Main Campus were constructed on the portion of the proposed University Community site that is south of Cardella Road, no loss of wetlands, grasslands, or their associated species, would occur. If the Main Campus were constructed on the portion of the University Community site that is north of Cardella Road, the campus would affect approximately 36 acres of wetlands and 382 acres of annual grassland on the UCP site (EIP 2001).

Traffic and air quality impacts associated with development of a campus on the proposed University Community site would be substantially the same as traffic and air quality impacts associated with the proposed project. See Section 4.21.G for information regarding the incremental increase in transit usage were the campus to be located closer to an urban center than the proposed site.

Constructing a campus on the proposed University Community site is less desirable than the proposed project from the perspective of achieving the project objectives. If the County's proposed University Community were displaced by the campus, it is unknown whether the County or the City of Merced would plan an adjacent community of sufficient size to accommodate campus growth. As explained above, land to the south and southeast of the proposed University Community site is predominantly prime agricultural land. Some of the land to west of the proposed University Community site is already developed as a rural residential area. In a meeting convened by Merced County, many of owners of the land in the western portion of the County's "no loss of prime farmland" alternative site stated that they did not want their land to be developed in the manner proposed for the University Community. Furthermore, land to the west of the University Community site is governed by both Merced County and the City of Merced. It would be much more difficult to plan an integrated community located within the boundaries of two jurisdictions. On pages 5-31 and 5-32, the Draft EIR explains why a nearby university community of suitable size and quality furthers the objectives of accommodating student housing needs, modeling environmental stewardship, and ensuring community integration. Further, as explained in the Draft EIR, without an adjacent community, the campus would generate about 15 percent more vehicle trips per day, and the average vehicle trip would increase from 1.4 to 3.9 miles. Vehicle emissions also would increase proportionately.

If the campus were constructed entirely on the proposed University Community site, then the benefits from adjacency to Lake Yosemite would be reduced or eliminated. Further, because most of the University Community site has been disturbed, it would not be suitable for use as a Campus Natural Reserve. Accordingly, the Campus Natural Reserve might remain to the north, on the VST property. No buffer would exist around the western, eastern and southern boundaries of the campus, increasing the likelihood of land use conflicts and incompatibilities in the future.

One commenter also posited that were the campus to be shifted to the west of the proposed site, the campus would be partially within the City of Merced SUDP. However, the proposed site is entirely within an existing SUDP. As explained above, landowners to the west of the University Community site have been consulted by the County, and many objected to development of their land. Acquisition of such parcels therefore would prove difficult and time consuming. Finally, while placing the campus to the west of the proposed University Community would result in fewer direct impacts to agricultural resources than placing the campus on the proposed University Community site, this location would not reduce significant impacts to agricultural resources compared to the proposed site for the campus, which is located entirely on grazing land. If a University Community were planned by the County to house University faculty, staff and students, the Community likely would be located on or near the same site as is currently proposed, and would result in the same or greater cumulative impacts to agricultural resources as the two proposed projects.

4.21.K Fresno Alternatives and Other Alternatives Studied in the SSEIR

This response addresses comments I25-1, I25-2, I33-18, O16-7, O23-3, O23-9, O24-12, O24-13, O24-15, O24-14, O24-16, O24-17, O24-18, O28-77, O28-84, O28-85, O29-3, O31-2, O31-3, O31-20, O31-21, O31-23, and O31-24, which request further consideration of Fresno County

alternatives in the Draft EIR or address the relationship between the SSEIR's alternatives analysis and this EIR's alternatives analysis.

The Draft EIR for the LRDP summarizes the Site Selection process the University previously has undertaken, and the comprehensive studies that were conducted to identify potentially feasible alternatives. Prior to Site Selection, the University conducted a multi-step screening process to identify a range of alternatives. The alternatives were reviewed and ranked using a process designed by Bechtel Civil, Inc. and criteria adopted by The Regents. That process resulted in the initial identification of 20 candidate sites, which were narrowed to eight preferred sites, and ultimately to three finalist sites. In addition, the SSEIR evaluated three other alternatives. Based upon this analytical process, the SSEIR studied three sites in the Fresno vicinity: the Academy Site, the Downtown Fresno site, and the Metropolitan Fresno/Herndon site. Because those sites were already evaluated fully in the SSEIR, and rejected by The Regents as infeasible, this EIR supplemented that analysis with new information rather than repeating the analysis previously performed. All three Fresno sites are discussed in Section 5 of the Draft EIR.

Commenters have pointed out that the SSEIR determined that the siting of a campus in downtown Fresno would pose no biological impacts. That is correct. The analysis of the environmental effects of developing a campus at the Fresno sites is found in the SSEIR, and no new information has been discovered regarding the environmental effects of developing a campus at this site. The Site Section EIR will be before The Regents when it decides whether to approve the proposed LRDP. In 1995, The Regents found that the site does not provide an adequately sized area for development of a core campus or provide for an adequate reserve. The Regents also found that development of a high-density campus would be costly.

The difficulty in developing an UC Campus in downtown Fresno is further acknowledged in a recent (December 1999) report by the Urban Land Institute ("Downtown Fresno, California/Strategies for Redevelopment"). ULI's Advisory Services Panel Report cites physical challenges to revitalization of the Fresno Central Business District, including: deteriorated commercial and housing stock; streets that are not pedestrian friendly; a disconnected open space system; poor signage and lighting; and a generally low level of cleanliness."

One commenter asked whether the University's property at Kearney Park, west of Fresno, would be a feasible alternative. According to Charles Janiel, Parks Superintendent with Fresno County Department of General Services, the University of California owns the Kearney Mansion, an historic building on 125 acres, 7 miles west of Fresno on Kearney Boulevard. The County leases this 125 acres from the University of California (approximately 45 years are left on a 50-year lease). Fresno County also owns additional land surrounding the Kearney Mansion, and has incorporated the Mansion into a 225 acre Regional Park, with day use and picnic facilities and active and passive recreational uses. Mr. Janiel also indicates that the Kearney Park is surrounded by active agricultural operations. The Kearney Park site therefore suffers similar size constraints as the Downtown Fresno site, and in addition could affect active agricultural operations.

Some commenters have suggested that the University consider location of the proposed campus at the California State University (CSU), Fresno campus site. CSU Fresno is a fully functioning, developed campus with approximately 18,000 students. As outlined in the State of California's Master Plan for Higher Education, CSU Fresno operates under the CSU system, offering undergraduate and graduate instruction through the master's degree in the liberal arts and

sciences and professional education. Although research is allowed on CSU campuses, the chief mission of the CSU system is instruction. In contrast, the primary mission of the UC system, which is independent of the CSU system, is undergraduate and graduate instruction through the doctoral degree. Although instruction in the professions is permitted, the UC system is the primary academic agency for research.

In short, the missions of the UC and the CSU systems are distinctly different. In order for the University of California to establish a campus at the present site of CSU Fresno, the existing State University would be displaced. This would result in fewer options for underserved populations and a reduction in the ability to accommodate demand.

It is impossible, as a practical matter, to study every potential alternative site for a campus in the Central Valley. Accordingly, as explained above, the University has undertaken a multistep public process to identify a reasonable range of sites for review. No additional Fresno sites have been identified that would differ substantially from the sites analyzed in the Site Selection process and in the present LRDP EIR. Accordingly, this EIR focuses on sites that better enable The Regents to evaluate the environmental choices available to it.

4.21.L General

This response addresses comments O16-1, O16-5, O16-6, O22-3b, O31-3, O31-19, O31-20, O31-27, I33-4, I33-13, I35-4, I35-11, I46-1, O16-7, O28-70, and LA12-3, and other comments which advocate in favor of one alternative or set of alternatives over the proposed project. Some commenters also opined that certain factors such as effects on agricultural resources should be given less weight than other factors such as effects on vernal pools. Other commenters opined effects on agricultural resources should be minimized or avoided, and accordingly asked that The Regents locate the Campus on the portion of the VST property originally identified in the SSEIR.

The Regents will consider all of the comments on the Draft EIR in determining whether to approve the LRDP and Phase 1 Campus. The views of the commenters provide valuable information. Some of the key policy decisions that The Regents must make will involve the weighing and balancing of different types of environmental impacts and the relative ability to achieve the project objectives at each alternative site and campus configuration. In addition, The Regents will determine whether an impact should be addressed by approving an alternative to the project or by adopting measures designed to mitigate the impact to a less than significant level. The Regents will base these policy decisions upon the information in the EIR, the record as a whole, and the members of The Regents' collective experience.

Alternatives to the project are studied in CEQA documents in less detail than the proposed project. The purpose of the alternatives analysis is to provide enough information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. Accordingly, the alternatives analysis focuses on the key differences between the alternatives and the proposed project. Because an alternatives analysis focuses on the proposed project as the point of comparison, it was important that the University identify its preferred location and configuration for the Campus early in the environmental review process.

Several commenters have asserted that the proposed location for the campus should be close to an "urban center." The campus location originally identified in the SSEIR was approximately 4 miles from the Merced city limits and 6 miles from the City of Merced urban center. The

proposed campus location, at the southwest boundary of the VST property, is close to the existing urban center. The proposed campus site is only 2 miles northeast of the Merced city limits, and about 4 miles from the City of Merced urban center. Additional development is being considered near the campus site, including a 2,000-unit planned community next to Lake Yosemite (Gallo Yosemite Lake Estates General Plan Amendment), and the University Community directly to the south of the campus boundary. If the University Community is approved and built, the community will bridge the gap between the urbanized areas of the City of Merced with the campus. There also is an existing major transit stop close to the proposed campus site, at Yosemite Avenue and G Street; most Merced bus routes serve this stop. Existing bicycle paths link the City of Merced to Lake Yosemite Regional Park, which is adjacent to the campus site. Further, under the LRDP, the campus will be transit oriented, and will employ state-of-the-art trip demand management programs. The campus also will be designed in a manner that will maximize energy efficiency. Thus, while some sites may be marginally closer to the “urban center,” the proposed site fulfills many of the criteria identified by the commenters.

References

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