4.2 MASTER RESPONSES

4.2.1 Master Response CEQA Process–1 (Public Notice and Length of Comment Period)

Comments ORG-7-3, I-23-1, I-32-1, I-35-1, I-52-1, I-66-1, I-69-1, I-71-1, I-74-1, I-75-1, I-98-1, and I-100-1 stated that there was inadequate public hearing notice and/or inadequate length of comment period for the LRDP Draft EIR.

The initial comment period for the LRDP Draft EIR was 60 days (15 days longer than the minimum 45-day review period required by CEQA), extending from May 5 to July 3, 2003. A public hearing was held on June 2. In response to community requests, related primarily to a

possible vehicular connection to Russell Boulevard indicated in the NMP, the campus extended the comment period an additional 33 days to August 5, 2003, and held a second public hearing on July 28. In addition, two community meetings were held, one on July 10 and one on July 24, to discuss the potential vehicular connection to Russell Boulevard. Public notice regarding the initial comment period and public hearing, as well as the comment period extension and second public hearing, far exceeded CEQA noticing requirements and included the following:

Notice for Initial Comment Period and First Public Hearing

- A press release in late April 2003 announced the availability of the Draft 2003 LRDP, NMP, and RPMP and stated the dates of the 2003 LRDP Draft EIR's comment period and public hearing.
- Paid advertisements in *The Davis Enterprise* ran in late April, 2003, stating the dates of the comment period and the public hearing.
- Formal notice of the 2003 LRDP Draft EIR's comment period and public hearing was published on April 28, 2003 in the classified section of *The Davis Enterprise* as required by CEQA.
- The UC Davis Office of Resource Management and Planning (ORMP) web page has made detailed information about the 2003 LRDP Draft EIR's public comment period and public hearing available since late April, 2003.
- A detailed 2003 LRDP insert in *The Dateline* newspaper, which is distributed to all campus faculty and staff, was distributed in April, 2003 stating the location, date, and time of the public hearing and the timing of the comment period.
- The hard-copy and CD versions of the Notice of Completion (NOC) and Draft EIR state the location, date, and time of the public hearing. The NOC and Draft EIR were distributed to the State Clearinghouse and local and state reviewing agencies, and they were made available at the UC Davis ORMP, online, and at local libraries. Documents on CD were provided free of charge to those requesting copies.
- Emails were sent to all Deans, Directors, and Department Chairs and subscribers of the ORMP environmental review e-mail list in early July, 2003 that stated the location, date, and time of the public hearing and deadline for submitting comments.
- An email and/or letter stating the location, date, and time of the public hearing and deadline for submitting comments was sent to those who had submitted comments on the Initial Study and/or who had requested to be noticed at one of the LRDP scoping or planning meetings.
- Presentations to numerous City of Davis commissions and the Davis City Council (including some that were televised) stated the location, date, and time of the public hearing and deadline for submitting comments.
- Presentations to local groups, including the Chamber of Commerce and League of Women Voters, stated the location, date, and time of the public hearing and deadline for submitting comments.

- Email notification to Davis City Council members and Yolo County supervisors stated the location, date, and time of the public hearing and deadline for submitting comments.
- Paid advertisements in *The Davis Enterprise* reminding the community about the close of the comment period ran twice in mid-June 2003.

Notice for Comment Period Extension and Second Public Hearing

- The UC Davis Vice Chancellor of Resource Management and Planning sent emails providing notice of the extended comment period, the additional community workshops, and the second public hearing in early July 2003 to those who had submitted comments about Russell Boulevard or requesting an extension of the comment period.
- Formal notice of the 2003 LRDP Draft EIR's extended comment period, the additional community workshops, and the second public hearing was published on July 3, 2003 in the classified section of *The Davis Enterprise* as required by CEQA.
- Emails were sent to all Deans, Directors, and Department Chairs and subscribers of the ORMP environmental review e-mail list in early July 2003 providing notice of the extended comment period, the additional community workshops, and the second public hearing.
- An email and/or letter providing notice of the extended comment period, the additional community workshops, and the second public hearing was sent to those who had submitted comments during the environmental review process and/or who had requested to be noticed at one of the LRDP scoping or planning meetings.
- The UC Davis ORMP web page has posted detailed information about the extended comment period, the additional community workshops, and the second public hearing since early July 2003.
- The updated Notice of Completion – Extension of Comment Period providing notice of the extended comment period, the additional community workshops, and the second public hearing was distributed to the State Clearinghouse and local and state reviewing agencies, and was made available online and at local libraries.
- A press release in early July 2003 announced the extended comment period, the additional community workshops, and the second public hearing.
- Postcards were sent to over 3,000 west Davis neighbors providing notice of the extended comment period, the additional community workshops, and the second public hearing.
- Four paid advertisements announcing the extended comment period, the additional community workshops, and the second public hearing ran in *The Davis Enterprise* in July 2003.
- A press release in late July 2003 announced the second community workshop.

4.2.2 Master Response Aesthetics–1 (Design Standards/Guidelines)

Comment LA-2-11 states that design guidelines for the core campus are needed. Comments ORG-11-8, LA-2-10, and LA-2-79 suggest the need for design standards for the neighborhood along Russell Boulevard.

LRDP Mitigation 4.1-2(b) indicates that prior to approval of development projects under the 2003 LRDP, the campus Design Review Committee would determine that project designs are consistent with the valued elements of the campus' visual landscape, applicable planning guidelines, and the character of surrounding development so that the visual character and quality of the campus are enhanced and not degraded. The applicable planning guidelines referred to in the mitigation measure include the Campus Standards & Design Guide manual (which has been in place and updated annually since 1994 and provides a list of required products and mandatory design constraints for all construction on campus). Additional guidelines include the campus Architectural Design Guidelines used by the Architects and Engineers Office to communicate design objectives to consulting architects and further used by the Design Review Committee to evaluate proposed architectural designs. The identification of site locations for future buildings, as well as the relationships among buildings, open spaces, and circulation within the central campus is provided by the Campus Core Study. This study was completed by Sasaki Associates in December of 2001. This study is used by the Office of Resource Management and Planning as a guideline for recommendations to University decision makers to assure an integrated environment of buildings, open spaces, and circulation routes. This study is updated and refined as more detailed site plans are developed by the Office of Resource Management and Planning for specific campus neighborhoods or districts. These planning guidelines helped to inform the proposed 2003 LRDP land use plan, and also provide more detailed information to guide the design and evaluation of new core campus development projects within the land use context set by the LRDP. The 2003 LRDP Final EIR (Sections 4.1.1.5 and the discussion under Impact 4.1-2) clarifies the use of these planning guidelines.

As indicated in the discussion under NMP Impact 2.4-2 in Section 2 of Volume III of the LRDP EIR, the neighborhood would include an open space buffer along Russell Boulevard that would be at least 200 feet wide. The campus Design Review Committee, or a Design Review Committee charged with review of neighborhood implementation, would review specific designs of neighborhood structures, roads, and landscaping for consistency with the visual elements and policies identified in the 2003 LRDP and the design guidelines presented in the NMP. In particular, the NMP specifies design objectives for elements in the Russell Boulevard/ neighborhood buffer area for elements including pond edges, bicycle/pedestrian pathways, and naturalized landscaping (see Chapter IV, Neighborhood Districts, of the NMP). The NMP also specifies design objectives for the faculty and staff housing that would border the buffer area along Russell Boulevard. Homes closest to Russell Boulevard (at least 200 feet south of the road) would include a range of styles and sizes, and would have narrow tree-lined roadways, decks, front porches, and entries opening to public spaces (see Chapter IV, Neighborhood Districts, of the NMP). The NMP includes environmental design guidelines, calling for solar access, building orientation to take advantage of the prevailing cooling breezes, on-site drainage, and emphasis on bicycle and bus access to the campus. The NMP also includes guidelines for building placement, the relationship of buildings to streets and open spaces, parking placement, and open space characteristics of the proposed housing, as well as all other proposed neighborhood

elements. The NMP also includes typical unit sizes, densities, and lot sizes for all types of housing proposed in the plan (see Chapter V, Typical Design Characteristics).

4.2.3 Master Response Aesthetics–2 (Lighting)

Comments LA-2-12, I-55-5, and ORG-7-46 concern light and glare impacts, particularly from recreation fields and the proposed Multi-Use Stadium. The commenters suggest additional mitigation measures, including making new developments compatible with the City of Davis' Outdoor Lighting Control Ordinance, retrofitting lighting on existing campus development, using latest lighting technology, and reducing the height and intensity of floodlamps.

Potential lighting and glare impacts of development under the 2003 LRDP are discussed on pages 4.1-9 and 4.1-10 of Volume I of the Draft EIR. Potential lighting impacts of the NMP are discussed on 2-51 and 2-52 of Volume III, and potential light impacts of the Stadium Complex project are discussed on 4-24 through 4-27 of Volume III. LRDP Mitigation 4.1-3(b) requires that, except for lighting fixtures used to enhance nighttime view of walking paths, specific landscape features, or specific architectural features, all new lighting shall utilize directional lighting methods with shielded and cutoff type light fixtures to minimize glare and upward-directed lighting. Mitigation 4.1-3(c) requires that where non-cutoff, non-shielded lighting fixtures are to be used, the campus Design Review Committee shall review the design prior to installation to ensure that the minimum amount of lighting is proposed to achieve the desired nighttime emphasis, and that the proposed illumination creates no adverse effect on nighttime views. The proposed Stadium Complex design incorporates shielding on stadium and practice field lights to minimize the amount of spill and glare. Lighting at the Stadium Complex and the NMP would also conform to LRDP Mitigations 4.1-3(b) and (c).

With respect to the request that existing campus lighting be retrofitted to reduce contribution to the cumulative lighting impact, the campus has added LRDP Mitigation 4.1-3(d) to require the use of the specified lighting designs and equipment when older lighting fixtures and designs are replaced over time.

4.2.4 Master Response Agricultural Resources–1 (Mitigation for Impact associated with the Loss of Agricultural Lands)

Comments SA-1-1, SA-5-1, LA-2-14, ORG-10-8, ORG-10-10, and ORG-10-11 concern mitigation ratios for impacts on prime farmland, the location of the mitigation site, and the mechanism that would be used to preserve farmlands.

As discussed in the Draft EIR (page 4.2-9), although campus planners have attempted to minimize the loss of farmland, because the campus site is underlain largely by lands that qualify as prime farmland, loss of prime farmland acreage due to expansion of campus facilities is unavoidable. As discussed in Draft EIR Section 4.2.2.4, preservation of prime farmland through a long-term land use restriction would prevent the future loss of prime farmland but cannot replace farmland converted to development. Only converting developed land back to prime farmland, which is infeasible and perhaps impossible, would potentially mitigate this impact. Nevertheless, to mitigate for this impact, as stated in the Draft EIR, prior to the conversion of prime farmland to nonagricultural uses, the University will preserve 525 acres of land at Russell Ranch for agricultural purposes. Since the publication of the Draft EIR, the University also has

determined that it may be possible to implement this mitigation program at two alternate off campus sites – the McConeghy or the Kidwell parcels, as the University has options to purchase these lands. Section 3.2, Volume I of the Final EIR has been revised to reflect this project refinement, which is further explained in Section 2.3 of Volume IV of the Final EIR.

As stated in the Draft EIR, of the 745 acres of prime farmland that would be converted, about 415 acres would be converted to developed uses, and for the loss of this acreage, the University proposes to preserve an equivalent acreage of prime farmland at the ratio of 1:1. There is no agricultural preservation ratio that is applicable to the campus, however, this ratio is consistent with agricultural preservation ratios used in the Central Valley, including the ratios used by Yolo County and as stipulated by the City of Davis General Plan (City of Davis 2001), and the City of Davis Farmland Preservation Ordinance (Municipal Code Section 40A.03.030). Although the City of Davis General Plan states that it is the intention of the City immediately to pursue amendment to the Farmland Preservation Ordinance for a mitigation requirement of agricultural mitigation at a 2:1 ratio, the Farmland Preservation Ordinance has not been modified at this time. In any case, while the City of Davis General Plan and the City's Farmland Preservation Ordinance do not apply to campus lands, the proposed mitigation ratio is consistent with the City's current ordinance and County of Yolo standards.

Farmland acreage converted to wildlife habitat under the 2003 LRDP (about 330 acres of Prime Farmland) would be compensated at a ratio of 0.33:1, with about 110 acres of farmland permanently preserved for this purpose. This is considered adequate for several reasons. First, even though the land converted to habitat would not be available for agricultural use, the soils would remain intact and usable. Second, some of the acreage within the Russell Ranch Habitat Mitigation Area may remain in dual use (agricultural uses that simultaneously provide habitat values, or habitat areas where limited grazing may be used as a habitat management tool). This dual use would further reduce the magnitude of the impact and would improve the mitigation ratio listed above. Third, it should be noted that agricultural teaching and research activities at the campus, both existing and planned, provide overall benefits to agriculture that ameliorate the impact related to conversion of prime farmland in an important way. UC Davis is a major center in the state and worldwide for the study of agricultural issues and has made significant contributions to the state economy through research focused on improving the productivity of agricultural lands. These benefits from UC Davis agricultural research and teaching programs further reduce the significance of the impact associated with the conversion of prime farmland. For all of these reasons, the mitigation ratios provided in the Draft EIR are considered adequate and appropriate for the impact of the 2003 LRDP on farmland.

With respect to the commenter's suggestion that the campus provide additional mitigation to address the cumulative impact, please note that the reason this EIR finds the residual cumulative impact (after mitigation) significant and unavoidable is not because the campus has not committed to adequate mitigation but because farmland once built over cannot be restored to agricultural use. Therefore even if additional mitigation were to be provided, it would not reduce this impact to a less-than-significant level.

Some commenters have stated that in order to prevent cumulative loss of agricultural land, the agricultural mitigation site should be adjacent to the NMP or within ½ mile of the campus site. It is unclear how this suggestion affects the effectiveness of the proposed mitigation. Nevertheless, because, undeveloped lands surrounding the NMP to the south and west are in University

ownership, these lands would not be subject to the same development pressures as they would be if these lands were in private ownership. Lands to the north of the NMP are already developed. For additional information on this issue, also see Master Response Growth-1. If implemented at one of the two off-campus sites, the preservation action would help establish community separators and could potentially control growth in an area that otherwise has a high potential for development.

The University would permanently preserve 525 acres of prime farmland under agricultural use most likely using one of the two following mechanisms or other equivalent method: (1) the campus could create an overlay on the designated 525 acres as an agricultural preserve for the mitigation of loss of prime farmland on Russell Ranch and/or at the alternate off-campus sites. The LRDP overlay would clearly identify the types of uses that would be allowed and those that would not be allowed on these lands, and would require that an LRDP amendment with Regental approval would be necessary to make any modifications/revisions to this designation any time during the timeline of the 2003 LRDP or after. An amendment of the 2003 LRDP would require review under CEQA. Alternately, (2) the campus could record an agricultural conservation easement/deed restriction for the agricultural preserve site(s) with the county clerk, and establish procedures in the 2003 LRDP to inform future campus planners of the agricultural easement and the development restrictions on the identified lands.

As noted in the 2003 LRDP EIR MMP, preservation of prime farmland will be timed to occur before any farmland is converted to nonagricultural uses under the 2003 LRDP. The University may choose to preserve the entire acreage (525 acres) at one time or may preserve the acreage in smaller increments that correspond to the acres of prime farmland that would be converted by specific projects on the campus as they are implemented. The campus will also implement a self-monitoring program that would monitor campus compliance with LRDP EIR mitigation measures on an ongoing basis and prepare an annual report that would be available for public review.

Section 4.2 in the Final EIR has been revised to include this information on the preservation mechanism and timing of farmland preservation.

4.2.5 Master Response Biological Resources–1 (Burrowing Owl Impacts and Mitigation)

This master response addresses comments LA-1-2, LA-2-25.2, LA-2-25.10, I-65-14, I-65-17, I-65-22, I-132-5, ORG-11-11, and ORG-11-12.

History and Management of Burrowing Owls on Campus

The distribution and history of burrowing owl populations on the UC Davis campus is described on pages 4.4-10 to 4.4-13 of the 2003 LRDP EIR. The primary location for burrowing owls on the campus has been around the Health Sciences District. Presence of owls here has been intermittent. They were absent from 1993-1996, and from 1997 to 2000, the number of birds varied between one bird to two pairs. From 2001 to the present, no birds have been identified around the Health Sciences District.

Potential impacts to burrowing owls in the Health Sciences District were analyzed and mitigation was proposed in the 1994 LRDP EIR as amended. The current management of the area and implementation of habitat mitigation at the Russell Ranch was approved by the California

Department of Fish and Game in conjunction with the UC Davis Veterinary Medicine Facilities Improvement Project (State Clearinghouse #2000092012). The goal of the campus was not to harm to any birds that resided in the area and to manage the area to discourage additional burrowing owls from becoming established and creating future conflicts.

The 2003 LRDP conservatively overestimates impacts to burrowing owls. The only new impact to burrowing owls identified under the 2003 LRDP is the potential loss of owls present on the proposed site of the Neighborhood. Presence of owls in this area has been intermittent and no birds have been present in 2002 or 2003. However, LRDP EIR Impact 4.4-3 conservatively assumes up to 10 pairs could be affected as a result of development associated with the 2003 LRDP including development of the proposed neighborhood. There is some potential for burrowing owls to occupy the area in the future but this is unlikely since the campus will manage development areas to discourage establishment of new pairs in order to avoid future impacts to occupied burrows. Creation of habitat for burrowing owls will be undertaken at the Russell Ranch.

Potential for Success of Mitigation at the Russell Ranch

A primary habitat used by burrowing owls in the Central Valley of California as elsewhere is an open, low-growing habitat including native annual and perennial grasslands that may be native or ruderal (Haug et al.1993, Burrowing Owl Consortium). The proposed mitigation area will be restored with native perennial grassland vegetation and will be managed to keep it low and open as required for the species. Initial planting is scheduled for Fall 2003.

Burrowing owls benefit from the presence of fossorial mammals that create the burrows used by burrowing owls. Surveys on the mitigation site at the Russell Ranch have confirmed the presence of the California ground squirrels (*Spermophilus beecheyi*) on and adjacent to the mitigation site. Once active agriculture on the site stops, their population will be able to expand onto the site. In addition, artificial burrows constructed consistent with CDFG and Burrowing Owl Consortium mitigation guidelines will be constructed initially to promote recruitment of burrowing owls. Thus, the site will have the necessary components of habitat type and burrows available.

Burrowing owls can range widely from their burrows (i.e., several kilometers) to forage for prey (Haug et al. 1993), and these burrows can be in areas with little foraging habitat immediately adjacent to the active burrow (e.g., an island within a parking lot at the School of Medicine). Consistent with Burrowing Owl Consortium mitigation guidelines, LRDP Mitigation 4.4.-3(a) includes 6.5 acres of habitat mitigation for each of the assumed up to 10 pairs that could be affected for a total of 65 acres. However, the guidelines recommend that three times this amount be provided for offsite mitigation. Therefore, LRDP Mitigation 4.4-3(a) has been revised from 65 acres to 195 acres.

Local observations in and around Davis indicate that burrowing owls are capable of expanding their populations into available habitat such as the mitigation site at Russell Ranch. For example, the population of burrowing owls expanded in the Health Sciences District after the orchards and intense agriculture were removed in the late 1960s for construction of the Schools of Medicine and Veterinary Medicine. Reoccupation of the habitat on campus in the Health Sciences District occurred from 1997-2000 after being absent from 1993-96. At least one burrowing owl was present for parts of two years at the LTRAS research plots adjacent to the mitigation site. These plots are an intensely managed agricultural research area. The birds were observed along the drainage canals adjacent to the fields, and the birds eventually disappeared. Similarly, the

burrowing owl population also expanded on the Mace Ranch property in east Davis after active agriculture ended in advance of development for housing.

The mitigation area at the Russell Ranch will improve habitat conditions in several ways:

- The Health Sciences area of campus is a habitat fragment surrounded on all sides by intense development. The mitigation area is larger, contiguous, and in a rural area surrounded by agricultural lands, making it an area of higher quality foraging habitat for the birds.
- The Health Sciences area where owls have been found in the past is used by staff at the adjacent Veterinary Medicine Teaching Hospital to exercise their dogs, which are perceived as predators by owls. The Russell Ranch mitigation area will be farther away from human development and will be less likely to provide areas for people to walk their dogs.
- The Health Sciences area is crisscrossed by campus utility systems that require routine access and maintenance. Owls frequently nested in ground squirrel burrows adjacent to utility boxes, which created an ongoing conflict with maintenance activities.
- Ground squirrel control is done routinely on lands in the Health Sciences District for health and safety reasons and occasionally on the proposed neighborhood site to prevent damage to research crops. This will not be required at the Russell Ranch.

In addition, LRDP Mitigation 4.4-3(d) includes avoidance measures to assure that displacement of burrowing owls from nest burrows will not occur during the breeding season. This mitigation measure has also been expanded to include the provision that where feasible, artificial burrows will be provided in adjacent suitable habitat consistent with CDFG burrowing owls guidelines.

The campus acknowledges that it cannot guarantee that burrowing owls will occupy the habitat mitigation area at the Russell Ranch. However, due to the small number of birds potentially affected (none at present) and mitigating for 10 pairs at a 3:1 ratio, the campus concludes that the potential impact is less than significant.

4.2.6 Master Response Biological Resources–2 (Adequacy of Swainson's Hawk Foraging Habitat Mitigation)

This master response addresses comments LA-1-2, LA-2-25.2, LA-2-25.8, LA-2-25.10, I-40-1, I-65-10, I-65-11, I-65-18, I-65-21, and ORG-11-12.

Foraging Distance

The proposed mitigation site is approximately 4-5 miles west of the areas where the Swainson's Hawk foraging habitat will be lost, which is within the typical foraging distances of Swainson's hawks nesting near the areas where habitat would be lost to development. Swainson's hawks in Yolo County range widely when foraging. Radiotelemetry studies conducted in Yolo County by Estep (1989) and Babcock (1995) in Yolo County found that 7 of 12 Swainson's hawk territories and 4 of 4 territories, respectively, had distances of greater than 5 miles within their foraging territories.

The proposed development would not create a significant impact to foraging Swainson's hawks due to an increased distance to foraging habitat. With the exception of the several urban nesting birds in the City of Davis and on the UC Davis campus, Swainson's hawk nest sites on or adjacent to the campus are to the south, west, and east of existing development. Existing agricultural lands would continue to be adjacent the nest sites. The proposed development areas under the 2003 LRDP (i.e., Health Sciences District, NMP, RPMP, and west campus research park areas) are either contiguous with or are within already developed areas. Thus, proposed development would not fragment existing habitat (i.e., divide remaining habitat into smaller isolated parcels of less value than larger contiguous habitat areas).

All of the urban nesting birds on the campus and in the City of Davis are within approximately 1.5 miles of foraging habitat in adjacent agricultural lands because the City of Davis and campus at their widest point are approximately 3 miles wide in the north-south axis. Development of infill parcels and the approximately ½-mile wide NMP would not increase the minimum distance to agricultural foraging habitat for the approximately four adjacent urban nest sites in the City of Davis and will not exceed the 3-5 mile minimum foraging distance for successfully nesting urban birds. Suitable nest trees become available in neighborhoods when the trees are over 20 years old (England et al. 1995). As the trees in the neighborhoods in west Davis and the new neighborhood on the campus mature, new nest sites will become available.

Adequacy of 1:1 Mitigation Ratio for Swainson's Hawk Foraging Habitat

Two studies in Yolo County have determined that the preferred foraging habitats of Swainson's hawks are:

- alfalfa, disked field, fallow, and dry-land pasture (Estep 1989). This study notes that dry-land pasture most closely resembled the physical characteristics of historic grassland foraging habitat in the Central Valley.
- ruderal/fallow fields, alfalfa and pastureland (Babcock 1995).

A common trait of all these habitat types is that they have low vegetation where the ground and prey are easily observed. Alfalfa is periodically mowed so it intermittently is used for foraging until the crop grows and gets too tall for use by Swainson's hawks. Converting 390 acres of existing agricultural lands to suitable Swainson's hawk foraging habitat would be more beneficial over typical agricultural crops in three ways.

First, existing kiwi and Asian pear orchards on approximately 80 acres which are not suitable Swainson's foraging habitat at the Russell Ranch will be removed and restored to native perennial grassland.

Second, all 390 acres restored to native perennial grassland will be available permanently as foraging habitat. Restoring the acreage to native perennial grassland will be beneficial because many of the habitat types identified by Estep and Babcock as "preferred" by Swainson's hawks have limited temporal availability. Fallow fields are only available during the short time between crops that typically will vary from a few weeks to a single season. Alfalfa is part of a normal rotation of crops that typically includes corn, tomatoes, other row crops, and wheat or other grain crops. These other crops have limited suitability for foraging by Swainson's hawks, and although alfalfa may be present for 4-5 years, these fields frequently rotate to other crops.

Third, since the mitigation site will be restored native perennial grassland, prey populations will be able to fluctuate with local conditions and will not be subjected to periodic disking, rodent control, or application of insecticides. For example, Botta's pocket gophers (*Thomomys bottae*) are important prey species for Swainson's hawks and predators. Smallwood et al. (2001) rank alfalfa (four years after it is planted) and native grasses as the highest rating (i.e., 1.0) for pocket gopher habitat. However, when alfalfa rotates into another typical crop, it would be replaced by annual field crops which Smallwood et al. (2001) rank as 0.0 or representing areas where gophers cannot occur. This would not occur on a site that is permanently restored to native perennial grassland.

Mitigation Acreage

The acreage proposed is sufficient because 80 acres of kiwi and orchards will be new habitat and the remaining acreage will be available every year and not subject to rotation into unsuitable crops for 1-2 years following an alfalfa crop and not subject to the lag period during which prey populations must rebuild. In addition, 280 acres of agricultural land will be protected in crop types used by Swainson's hawks for foraging. This agricultural land will provide foraging habitat types that ensure a mixture with the restored native perennial grasslands.

The proposed mitigation exceeds recommended mitigation measures in a CDFG staff report which calls for either:

- Providing 1 acre of habitat mitigation for every acre within 1 mile of a nest (i.e., 1:1 mitigation ratio) with 10 percent to be managed actively for Swainson's hawk and 90 percent protected in either agricultural lands or other suitable foraging habitat, or
- Providing ½ acre of habitat mitigation for every acre within 1 mile of a nest (i.e., 0.5:1 mitigation ratio) with 100% managed actively for Swainson's hawk.

LRDP Mitigation 4.4-2 proposes 1:1 mitigation with 58% managed actively for Swainson's hawks.

4.2.7 Master Response Biological Resources–3 (Adequacy of Valley Elderberry Longhorn Beetle Mitigation)

This master response addresses comments LA-1-2, LA-2-25.2, LA-2-25.3, LA-2-25.10, and I-65-19.

As stated on page 4.4-37 of the 2003 LRDP EIR, elderberry shrubs which are the potential host plant for the federally endangered VELB occur primarily in two places on campus: as isolated shrubs and shrub clusters on campus lands developed for urban and agricultural uses, or in the Putah Creek Riparian Reserve.

The isolated shrubs are generally associated with fences, overhead power lines and other structures where birds perch and drop seeds. They have developed as isolated stands, disconnected from the shrubs associated with the Valley-Foothill Riparian habitat along the current or former channels of Putah Creek. Surveys for elderberry plants have been conducted over a large part of the campus including the major areas proposed for new development. The locations of the shrubs are illustrated in Figure 4.4-2 and/or are summarized on page 4.4-37. To date, no emergence holes have been observed in the stems of any of the elderberry plants

checked so far on the developed part of the campus. Thus, as stated on page 4.4-37, the impact being mitigated is for potential habitat, not occupied habitat.

Two significant factors likely contribute to the absence of VELB from shrubs on the developed part of the campus.

- The plants have developed in isolation, away from the historically occurring shrubs along Putah Creek. Thus, the shrubs are disjunct from shrub populations along the creek that may support VELB, and the VELB may not have been able to disperse there. Collinge et al. (2001) suggest that limited dispersal abilities may limit the ability of VELB to occupy areas, but have not determined the distances.
- The non-native Argentine ant (*Linepithema humile*) may eliminate VELB populations (Huxel 2000). The presence of water in the summer increases the likelihood that this ant can colonize an area (e.g., Holway 1998). Due to the fact that most of the developed part of the campus is irrigated during the summer, the Argentine ant has become established throughout the developed part of the campus with few exceptions.

As stated on page 4.4-20 of the Draft EIR, the distribution of elderberry shrubs along the Putah Creek drainages is not illustrated in Figure 4.4-2. This is because the drainages are not identified for development in the 2003 LRDP. Surveys conducted by Teresa Talley (UC Davis graduate student in Ecology) on the main campus and Lynn Kinsey (UC Davis Professor of Entomology) on the Russell Ranch have documented the location of elderberry shrubs along these stream courses. Likely VELB emergence holes have been documented in approximately 4 shrubs at the Russell Ranch and 18 shrubs on the main campus. All but one shrub with likely exit holes are in shrubs within the Putah Creek Riparian Reserve. The one additional shrub is immediately adjacent to the reserve, is not a likely site for future development, and actions to protect the shrubs were included in an endangered species permit and low-effects habitat conservation plan recently issued to the campus by the U.S. Fish and Wildlife Service (UC Davis 2003).

The Putah Creek Riparian Reserve is identified for Teaching and Research Open Space in the 2003 UC Davis LRDP. These lands are proposed to be managed for natural resource values and would not be the site of significant development. The campus believes that the proposed plant and mitigation measures for VELB would at a minimum protect the habitat of the species and would likely enhance the habitat since shrubs along Putah Creek, the south Fork of Putah Creek, and the North Fork Cutoff would be protected within the Putah Creek Riparian Reserve.

No VELB exit holes or beetles have been reported from any of the shrubs that have been checked in the developed parts of the campus including:

- Approximately 15 acres of the North Fork Cutoff currently occupied by Department of Animal Science beef and sheep pen that would be removed and habitat restored as part of the 2003 LRDP EIR mitigations; and
- Along the Arboretum Waterway, including shrubs in the undeveloped portion of the historical Putah Creek channel between the School of Veterinary Medicine and State Route 113.

Due to the isolation of elderberry shrubs on the developed portion of campus and the presence of Argentine ants, it is unlikely that the shrubs would become occupied by VELB. However, as required by LRDP Mitigation 4.4-6(a) surveys would be conducted prior to disturbance of the

shrubs. Any shrubs to be relocated would be moved to the Putah Creek Riparian Reserve on the Russell Ranch and would be moved closer to existing populations of elderberry shrubs along Putah Creek increasing the likelihood that this potential habitat could become occupied habitat. Associated riparian shrub plantings done with the relocation of shrubs from the main campus would result in a significantly restored and expanded riparian habitat zone along Putah Creek and creation of some elderberry savannah habitat adjacent to the creek.

Agricultural irrigation on the habitat restoration lands on the Russell Ranch would cease once the restored habitats are established, removing a source of water and potentially slowing, stopping, or reversing the establishment of Argentine ants in the restoration area. This potential effect is speculative and would be a management goal for the reserve. However, even if this were not accomplished, the setting would still be comparable or better than that which currently occurs on or adjacent to the developed portions of campus.

4.2.8 Master Response Biological Resources–4 (Adequacy of Resource Information)

This master response addresses comments LA-2-25.1, LA-2-25.9, and I-5-3.

The survey information used in the environmental analysis is descried in the Environmental Setting of the LRDP EIR on pages 4.4-1 through 4.4-16. The data set described is extensive and appropriate for the level of analysis in the LRDP. Among the information collected and used are:

Habitat Mapping

A habitat map for the campus for the base year of the LRDP analysis 2001-02 is an updated map from the 1994 LRDP EIR (Figure 4.4-1). The map was prepared using aerial photographs with extensive ground verification. The habitat types presented and described are based on the classification system in the Mayer et al. (1988) "A Guide to Wildlife Habitats of California." This guide was prepared by a consortium of natural resource agency and academic specialists in each habitat type and their associated wildlife. The guide "was developed to recognize and logically categorize major vegetative complexes at scale sufficient to predict wildlife-habitat relationships." That is the way in which this classification system combined with on-site survey information is used to the 2003 LRDP EIR analysis. As stated in the guide, other more detailed vegetation classification systems may be appropriate for other studies and purposes, but the guide was meant to be a hierarchical structure under which other systems could nest.

Survey Results

Figure 4.4-2 presents the results of extensive surveys on the campus for sensitive plant species or their potential habitat and for elderberry shrubs, the host plant for the federally endangered Valley elderberry longhorn beetle (also see table under LRDP EIR Impact 4.4-6). Over the last decade, surveys have been conducted in advance of potential projects. In addition, all of the large areas proposed for new development under the 2003 LRDP have been surveyed. Most of the rest of the campus is in active agricultural research and does not support native vegetation. Due to over a century of agricultural activities and due to existing urban development, no special status plants or their potential habitats have been identified on the campus.

Detailed survey information of special status animal species is summarized on pages 4.4-9 through 4.4-16. Extensive information on burrowing owl, Swainson's hawk, and Chinook salmon are summarized as is appropriate under CEQA which encourages that detailed technical

information presented in summary form. A map showing the location of Swainson's hawk nests was not included in order to protect the nest sites from unwanted disturbance.

4.2.9 Master Response Cultural Resources–1 (Russell Boulevard Walnut Trees, Lincoln Highway)

Comments LA-2-7, LA-2-9, and LA-2-26, ORG-7-3, ORG-7-8, ORG-7-11, ORG-10-6, I-70-2, I-116-2, and I-125-5 expressed concerns regarding potential impacts to a double row of mature walnut trees along Russell Boulevard as a result of development of the NMP, particularly if there were a roadway connection from the Neighborhood to Russell Boulevard. This issue was raised with respect to the trees as a cultural, biological and aesthetic resource. Concerns were also raised for the same segment of roadway with respect to its status as an historical resource, as a segment of the historic Lincoln Highway.

The Draft EIR evaluated the impact on the double row of walnut trees along Russell Boulevard (see NMP Impact 2.4-13 on page 2-62 in Volume III), explaining that to the extent feasible, the campus would avoid removal of these trees. Should avoidance of some of the trees not be feasible, the affected tree would either be relocated or replaced with another tree to be planted in the near vicinity. Since the time that the Draft EIR was circulated, the campus has rejected the proposal of providing a vehicular connection to the NMP from Russell Boulevard. Instead the Final EIR includes two bicycle, pedestrian, and emergency-vehicle-access-only connections to Russell Boulevard from the Neighborhood at Eisenhower Avenue and Arthur Avenue. Because there is already a gap in the row of trees at the Eisenhower Avenue connection location and there are no walnut trees at the Arthur Avenue connection location, there would be no need to remove any Russell Boulevard walnut trees. Therefore, no impact to the trees would occur. The EIR has been revised to reflect this change.

The City of Davis Municipal Code establishes criteria for designation of historical resources and districts (Section 40.23.060). The City's Historical Resources Management Commission maintains a Davis Register of Historical Resources. This register designates Landmarks and Merit Resources. "Landmark means buildings, structures, objects, signs, features, sites, places, areas, cultural landscapes or other improvements of the highest scientific, aesthetic, educational, cultural, archaeological, architectural, or historical value to the citizens of the City of Davis…A landmark is deemed to be so important to the historical and architectural fabric of the community that its loss would be deemed a major loss to the community" (City of Davis Designated Historical Resources 2003). 'Merit Resource' means buildings, structures, objects, signs, features, sites, places, areas, cultural landscapes or other improvements with scientific, aesthetic, educational, cultural, archaeological, architectural, or historical value to the citizens of the City of Davis" (ibid).

The double row of black walnut trees along Russell Boulevard, designated the Avenue of Trees by the City of Davis, is listed on the Davis Register of Historical Resources as a landmark. The Lincoln Highway, of which Russell Boulevard is a segment, is also listed on the Davis Register. This information has been incorporated into the Cultural Resources section of the EIR.

The Russell Boulevard segment of the Lincoln Highway is currently in use as a modern roadway. The development of the NMP would not result in a substantial adverse change in the significance of the resource, because not trees would be removed or harmed. Therefore, the impact would be less than significant.

4.2.10 Master Response Hazards–1 (Environmental Review Process and Risks for NBL)

Many comments express concern about the environmental review process and potential risks associated with a potential National Biocontainment Laboratory (NBL) on campus (I-10-1, I-11-1, I-37-3, I-38-3, I-39-1, I-55-1, I-60-9, I-76-1, I-76-2, I-105-2, I-114-4, I-125-8, ORG-11-3, ORG-11-4, ORG-11-5, ORG-11-6, and ORG-11-7).

As discussed in Appendix B to the Draft EIR, in February 2003, the campus submitted a Federal Grant Application to the National Institute of Health (NIH) in response to a National Institute of Allergy and Infectious Diseases (NIAID) Request for Application to fund NBLs that would include state-of-the-art BSL 4 laboratories capable of handling any infectious microorganism safely, associated Biosafety Level 2 and 3 laboratories, and other research support facilities. On September 30, 2003, NIAID announced the recipients of the NBL funding, and UC Davis was not among the recipients. Instead, NIAID will go forward with proposals in other parts of the country.

As explained in Appendix B to the Draft EIR, the 2003 LRDP EIR is a program-level document that analyzes the overall effects of campus development through the 2015-16 academic year. As is done with other campus projects, the environmental review for the proposed NBL project would have been a project-specific environmental review that would have built, or "tiered," from the LRDP EIR. Under CEQA, "tiering" refers to the coverage of general matters in broader EIRs, such as this program-level EIR on the campus-wide LRDP, followed by more narrow project-level environmental reviews for specific projects, such as the proposed NBL project. The potential future development of the proposed NBL site would have been able to tier from the LRDP analysis because the campus proposed to develop this proposed site as part of the overall expansion of facilities and programs in the Health Sciences District of the campus, and not just to accommodate the NBL. Therefore, as explained in Appendix B to the Draft EIR, the land use designation for this site under the LRDP is not specifically for an NBL, but rather for any appropriate Academic/Administrative High Density use.

An analysis of the potential environmental impacts and risks specifically associated with the NBL project, including the use of Biosafety Level 4 (BSL 4) microorganisms, would have been premature and speculative in the Draft EIR. The appropriate time for analysis of the proposed NBL project would have been after project design had reached a point where the site-specific impacts of the project could be determined. Since NIAID is not proposing to go forward with the project at UC Davis, it was appropriate to have waited for proper timing for a project-level evaluation.

No other project is proposed for this site, however the site will retain the Academic/ Administrative High Density designation under the 2003 LRDP.

4.2.11 Master Response Hazards–2 (Siting of NBL)

Several comments expressed concern about the safety of the proposed site indicated for the potential NBL (I-37-3, I-38-3, I-39-1, I-55-1, I-60-9, I-105-2, I-114-1, ORG-11-5, ORG-11-6, ORG-11-7). The NIAID did not propose to fund the Davis campus NBL application. Although the proposed site is located adjacent to two highways, the existing topography of the area provides excellent security opportunities. The campus Arboretum (with a 20-foot drop in

elevation to the creek bed) adjacent to the northern edge of the site and the engineered graded slope from the 1-80 off ramp to SR 113 along the south and west edges of the site provide barriers to prevent vehicular intrusion into the site. An earthen berm was proposed in the campus' NIAID grant application at the southeast corner of the site to eliminate any possible uncontrolled vehicular intrusions to the site. Also see Master Response Hazards–1.

4.2.12 Master Response Land Use–1 (Annexation Issues)

Comments LA-2-14, ORG-7-30, ORG-7-52, ORG-7-55, I-20-2, I-24-2, I-33-2, I-34-2, and I-84-3 relate to the issue of the annexation of the NMP to the City of Davis. Comments ORG-7-27, ORG-7-55, ORG-7-60, I-20-2, I-24-2, I-25-1, I-33-2, and I-84-3 were concerns related to land use as a result of annexation of the NMP. Comments ORG-2-2 and ORG-7-59 relate to fiscal impacts of annexation. Comments ORG-7-2, I-37-5, I-38-5, and I-106-7 contended that the NMP should not be exempt from local land use planning or review because University planning and development could affect local communities, particularly in the event of subsequent annexation. One letter from the City of Davis (LA-2) states that if the objective is to increase the possibility of annexation, the project should attempt to meet all achievable standards of the City relative to agricultural mitigation. West Davis Neighbors (ORG-7) ask that the EIR explain the complete annexation process, fee and assessment issue to evaluate the impact upon City services, especially on wastewater and water supply, and that the NMP be evaluated as if it would be annexed to the City. They express concern regarding application of the Measure J requirement relative to agricultural land conversion for urban use. Comments from individuals primarily state that they are opposed to annexation, that the University, not the City, should pay the cost of providing services to the new housing, and the Measure J process would be circumvented by annexing the NMP. Two commenters state that the proposal of a Russell Boulevard connection for the NMP and the east-west pattern in which the NMP has been laid out are essentially indications that the campus really intends to annex the Neighborhood to the City.

As stated in the LRDP EIR, Section 4.9, annexation of the NMP into the City of Davis was not proposed nor was it analyzed. The City of Davis General Plan does not apply to lands that are not under its authority. Since the campus NMP land is not under the jurisdiction of the City of Davis, the NMP was not analyzed under the framework of the General Plan. If annexation were to take place, the City, as lead agency, would need to file an application with the Yolo County Local Agency Formation Commission (LAFCO), amend its General Plan and zoning, and conduct appropriate environmental review. Questions regarding operation of Measure J, a city ordinance, are properly directed to the City of Davis.

While it is true that University development on campus is not subject to local government planning review, the issue of compatibility with local general plans is considered in the LRDP EIR. Table 4.9-1 lists relevant local land use policies and standards and concludes that there would be no conflicts because the campus developments would be within campus boundaries. As described in Section 4.9.2.4, the University has reviewed City and County land use plans and policies because it is interested in coordinating campus plans and projects with the beneficial planning efforts of other local jurisdictions.

As analyzed in the 2003 LRDP EIR (Section 4.12), public services could be provided to the NMP neighborhood either by the University or by the City of Davis without annexation of the NMP site. In addition, the University and the City have standing mutual aid agreements for

police and fire services. As noted on page 2-73 of Volume III, in addition to examining the effects of providing services to the NMP via campus service departments, the Draft EIR analyzes the potential impacts of NMP development on selected County/City services, namely solid waste collection and disposal for the housing in the NMP; fire protection services, police services; and road and park maintenance. This analysis was included in the Draft EIR because for these selected services, service from the City or County could potentially be a superior option compared to service by campus departments. City/county services can be provided to the NMP with approval for amendment of the service area boundaries by Yolo County LAFCO. Annexation of the NMP area to the city is not necessary for provision of these services.

4.2.13 Master Response Land Use–2 (Land Grant Institution Status)

One comment (I-25-1) stated that the proposed neighborhood development conflicts with UC Davis' status as a Land Grant institution and that the NMP could result in further urbanization of research facilities west of SR 113. Comment I-37-5 raised a similar issue.

The University of California, as a whole, is considered a land grant institution. All UC campuses except the University of California, San Francisco (which is a health sciences campus only) are considered "land grant." The Morrill Act of 1862 made it possible for western states to establish colleges. While the Morrill Act was passed prior to the establishment of the University of California, money and land from this bill were used to establish UC Berkeley (Stadtman 1970). In 1862, the Morrill Act granted to every state in the Union 30,000 acres of public land for every member of congressional delegation. Since every state had at least two senators and one representative, the minimum grant was 90,000 acres. The states were to sell this land and use the proceeds to establish "…at least one college where the leading object shall be, without excluding other scientific and classical studies and including military tactics, to teach such branches of learning as are related to agriculture and mechanical arts, in such manner as the legislatures of the State may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions in life…" (US Department of State 2003). As is evident from this excerpt from the Morrill Act, land grant institutions are not limited in their educational scope to solely agricultural pursuits, nor does the Act dictate how agricultural subjects should be taught, nor how the land granted under the Morrill Act should be administered with regard to agricultural higher education. The proposed NMP will not reduce the quantity or quality of any agricultural academic discipline at the Davis campus.

As discussed in Section 2.0 of Volume III of the LRDP EIR, the proposed NMP would provide an affordable and accessible residential community for students, faculty, and staff that would enhance the sense of community on campus and in the City of Davis, thereby supporting the mission of the University of California, which is outlined in Education Code Sections 66010.1-66010.8. Please see Master Response Growth Inducement–1, which explains that the NMP would not have growth inducing effects on lands west of SR 113. Agricultural impacts and mitigation measures for the NMP are discussed in Volume III, Section 2.4.2 of the LRDP EIR.

4.2.14 Master Response Land Use–3 (Eminent Domain)

Comments I-119-1 and ORG-7-3 questioned the use of land taken by the university in eminent domain. As identified in the court filing to condemn the property, the property was acquired for University purposes and was not acquired for a specific use. In addition, property acquired

through condemnation by a public body, such as the University, that originally was intended for one public purpose can legitimately and properly be put to another use within the discretionary powers granted to the University. This principle ensures that public bodies like the University are able to most effectively use their resources to continue to meet the changing needs of the public.

4.2.15 Master Response Public Services–1 (School Capacity)

Comments LA-2-45, LA-3-1, LA-3-2, LA-3-3, ORG-7-65, I-46-1, and I-60-3 raised school capacity and fair share issues. Comment LA-2-45 notes that the EIR should address the potential short term impacts on schools if the NMP's proposed elementary school or CEC satellite high school facilities were not operational at the time of the initial residential occupancy of the Neighborhood. Comment ORG-7-65 notes that Davis' existing high school is now at maximum capacity. Comment I-60-3 suggests that the NMP population would overburden the infrastructure including the existing high school, and Comment I-46-1 notes that the NMP would place a demand on Emerson Junior High School. Comments in LA-3 provide additional information pertinent to school capacity. These comments are addressed below.

LRDP Impact 4.12-4 (EIR Volume II) recognizes that implementation of the 2003 LRDP would increase the number of school-age children residing in housing on campus. The proposed NMP includes school facilities, including satellite high school facilities at the CEC and a new elementary school, and the construction of these NMP facilities would not result in significant environmental impacts (as analyzed in Section 4.12 of Volume II and Section 2.4-12 of Volume III of the EIR).

The campus would work with the Davis Joint Unified School District (DJUSD) to coordinate the construction timing of the neighborhood's elementary school and CEC facilities to ensure that the capacity of existing elementary and high school facilities would not be exceeded or would assist the DJUSD in providing this capacity in other mutually acceptable ways. In addition, as described further below, even if Neighborhood schools were not available to serve the first phase of NMP development, environmental impacts associated with construction of school facilities would not occur.

The LRDP EIR analysis indicates that the population of the Neighborhood, at buildout of the NMP, would generate a total of approximately 335 students, including an estimated 178 elementary school students, 80 junior high and 77 high school students. The housing associated with the NMP would be built in phases, with about half of the proposed housing units constructed during the initial phase of development between about 2004 and 2008 (Volume III, Table 2-3).

Table 2-4, Volume III of the EIR estimates the number of dependents generated by each housing type in the NMP. Based on this table and the housing types that would be provided during the first phase of construction as shown in the preceding Table 2-3, it is estimated that about 160 K-12 students would reside in the Neighborhood at the conclusion of the first phase of development. Based on student generation ratios used by the DJUSD (see Volume III, pages 4.12-15), the first phase of the NMP would generate about 85 elementary students, 38 junior high school students, and 37 high school students. The proposed elementary school and CEC are in this first phase development area, and would be constructed during this phase if warranted by anticipated demand. Thus, the elementary school and the CEC could provide additional

elementary and high school capacity concurrently and consistent with the anticipated population growth and no significant short-term impacts on schools from the NMP.

Baseline enrollment and capacity numbers for DJUSD elementary schools (shown in Table 4.12-2 of Section 4.12 in Volume II of the EIR) indicate that local elementary schools would have sufficient capacity to accommodate the approximately 85 elementary students that could be generated during occupation of the first phase of NMP development. Therefore, even if the NMP's elementary school were not operational at the time the first elementary students reside in the Neighborhood, local schools would be able to provide interim service without the need for expansion of existing facilities.

The NMP does not propose any new junior high facility. As shown in Table 4.12-4 (which has been revised in Volume II of the Final EIR with data provided by the DJUSD), Davis will have sufficient junior high capacity to accommodate the anticipated population of the NMP at full development when current projects under construction are completed. The new junior high school under construction would have a capacity for 800 students and is expected to be completed by 2004-05. This capacity would be sufficient to accommodate the 38 junior high school students present at conclusion of the NMP's first development phase, as well as the 80 junior high school students generated by the NMP at full development.

The high school population generated by NMP Phase I would exceed the current capacity of the Davis High School. However, the NMP construction schedule calls for the construction of the CEC during Phase I. Once the CEC is operational, it would provide high school capacity in excess of NMP demand. Pursuant to communication between the campus and DJUSD after publication of the Draft EIR, the Final EIR has been updated to emphasize that the NMP's proposed high school program would provide, for up to 250 students, sufficient capacity both to offset the NMP's demand for new high school facilities and to compensate for NMP demand placed on junior high facilities in the City of Davis. If the NMP's CEC is not operational by the time the first high school students reside in the Neighborhood, the high school population of the NMP would slightly strain the capacity of Davis High School. However, this demand would be small – 37 additional high school students generated during the first phase of NMP development, which represent about 2 percent of the current high school capacity (not including portable units). This demand could be accommodated by increasing class sizes slightly or adding an additional portable classroom. Further, the excess demand would be of short duration, since it is anticipated that the CEC would be built during the same period and would provide high school capacity in excess of the NMP demand. Thus, it is not anticipated that the NMP high school population would result in a need for construction of additional high school facilities outside of the NMP that would have the potential to result in environmental impacts.

4.2.16 Master Response Public Services–2 (Impacts to Regional Public Services)

Comments LA-1-7, LA-2-39, LA-2-45, LA-2-46, I-7-9, ORG-7-27, ORG-7-29, ORG-7-30, ORG-7-52, and ORG-7-65 expressed concerns related to impacts of the proposed LRDP upon regional public services. Because CEQA provides for analysis of environmental impacts, but not fiscal impacts, the analysis in the LRDP EIR is limited to an analysis of environmental impacts due to the physical requirements related to new services for the LRDP, including the NMP. Staffing and support needs for police services, fire protection and schools are relevant only to the extent that they translate into the need for expansion of existing facilities or construction of new

facilities, which in turn result in environmental impacts. Environmental impacts associated with the requirement for a new fire or police station, school or library facility are addressed in the Section 4.12 of the LRDP EIR. The LRDP EIR concludes that implementation of the 2003 LRDP itself would not result in significant environmental impacts associated with the provision of new or altered facilities for all campus and most City of Davis services. The only project-specific case that could result in significant environmental impacts is if the City of Davis Fire Department provides service to the proposed Neighborhood and new facilities are required to maintain the department's preferred response standard, the construction of which could result in significant adverse environmental impacts to prime farmland and habitat (LRDP Impact 4.12-3). In this case, LRDP Mitigation 4.12-3 states that the University will negotiate with the City of Davis to determine the campus' fair share, as defined in Section 4.12.2.3, of the costs to implement feasible and required mitigation measures. However, because impacts associated with an irreversible loss of prime farmland and habitat could not be mitigated to less-than-significant levels, this impact would remain significant and unavoidable. Likewise, the LRDP EIR concludes that implementation of the 2003 LRDP in conjunction with regional growth could generate a cumulative demand for new regional police, fire, or school facilities, the construction of which could result in significant adverse environmental impacts to prime farmland and habitat (LRDP Impacts 4.12-6 and 4.12-7). LRDP Mitigations 4.12-6 and 4.12-7 would require negotiation to determine the campus' fair share of feasible mitigation costs, but as described above for LRDP Impact 4.12-3, these impacts would remain significant and unavoidable. The cumulative impact on regional library facilities was determined to be less than significant.

4.2.17 Master Response Recreation–1 (Parks and Recreation Fields)

Comments 1-46-2, ORG-11-13 and LA-2-40 raise issues with regard to parks and recreation fields. Comment I-46-2 claims that the NMP does not include a park that is big enough by City of Davis Neighborhood Park Standards (5 acres), that the small pocket parks are too small to be effectively used, and that recreational space for families is being ignored in the NMP design. Comment ORG-11-13 claims that pocket parks are expensive to maintain, are not large enough to accommodate desired amenities, and should be replaced with 5-acre parks or greenbelts. Comment LA-2-40 requests that the University construct recreational fields in Phase 1 of the NMP and that the University meet the City's standard for parks. These comments are addressed below.

The proposed open space and recreational facilities in the NMP are described in Sections 2.3.4.7, 2.3.4.8, and 2.3.4.9 of Volume III of the Draft LRDP EIR. Although a 5-acre neighborhood park is not included in the NMP, approximately 20 acres of formal recreational fields north of Hutchison Drive are proposed that not only would provide expanded athletic opportunities for campus affiliates but also for neighborhood and other local community members and families. Neighborhood residents would be able use the fields during off-hours, such as weekends, and during the summer. In addition to the 20 acres of recreational fields, approximately 19 acres of formal open space would be distributed throughout the Neighborhood. These spaces include small pocket parks, greenways, landscaped setbacks, courtyards and informal recreational space. The Transit Green would include approximately 8 acres of linear space for formal recreational facilities, such as tennis courts, and informal open space to create a centralized public gathering area for the residents and community members. An approximately 2-acre neighborhood park at the northeastern corner of the development would provide community space for play, relaxing,

and picnics. Although the pocket parks are smaller than 5 acres, they are consistent with City of Davis park-types. Furthermore, they distribute parkland throughout the Neighborhood to be accessible by all residents, and they enhance the greenways between the larger fields and open space areas.

Although cost is not a CEQA issue, the campus is developing various financial analyses for implementation of the Neighborhood. Regarding the pocket parks, the UC Davis Neighborhood Master Plan Fiscal Impact Analysis 2003) explains the methodology for estimating park maintenance costs associated with the NMP. The study uses current maintenance costs for a variety of park and open space types, and applies those figures to the various types of parks and open spaces proposed in the NMP. These figures were developed in consultation with the City of Davis Parks and Community Services Department using current budget data and maintenance standards. The Fiscal Impact Analysis report is available for review during normal office hours at the Office of Resource Management and Planning, 376 Mrak Hall, on the UC Davis campus.

The construction of recreational fields, formal open space, pocket parks, greenways, landscaped setbacks, and courtyards would be phased with the construction of the Neighborhood. Each phase of construction would include a portion of the parklands and open space.

4.2.18 Master Response Transportation–1 (Vehicular Connection on Russell Boulevard)

Numerous comments were received objecting to the vehicular connection from the NMP on Russell Boulevard. The issue of vehicular connection is described below.

The NMP traffic analysis contained in the Draft EIR analyzed the 2003 LRDP with and without a vehicle connection to Russell Boulevard. The NMP access to Russell Boulevard was assumed to be located between Arthur Street and Eisenhower Street.

During the process of studying additional access options for the NMP along Russell Boulevard, UC Davis held a workshop at Emerson Junior High School on July 10, 2003 to receive feedback from the West Davis community. At the workshop, West Davis residents expressed their concern of providing a vehicle connection on Russell Boulevard and many were adamant that a vehicle connection not be provided. After the community meeting, the Davis City Council met and voted against providing a vehicle connection to Russell Boulevard. In addition, the City Council requested that if the NMP is approved, one emergency vehicle connection should be provided to Russell Boulevard along with multiple bicycle and pedestrian connections.

Based on feedback received from the Davis City Council and West Davis neighbors, UC Davis is proposing the following access for the NMP.

- NMP vehicle access would only be provided to/from Hutchison Drive.
- Under Phase 1 of the NMP development, emergency vehicles, bicyclists, and pedestrians would have access to Russell Boulevard at the Russell Boulevard/Arthur Street signalized intersection.
- Under Phase 2, emergency vehicle access would be shifted to Eisenhower Street and a traffic signal would be constructed at the Russell Boulevard/Eisenhower Street intersection to provide an additional protected crossing for bicyclists and pedestrians across Russell Boulevard.

No environmental effects or changes to the traffic LOS are expected from adding and emergency vehicle access option to the Arthur Street/Russell Boulevard intersection. Installing a traffic signal at the Russell Boulevard/Eisenhower Street intersection and providing NMP access for emergency vehicles, bicyclists, and pedestrian would provide LOS A operations during the AM and PM peak hours in 2015 with the implementation of the 2003 LRDP (Fehr and Peers 2003a). The 2003 LRDP has been revised to include additional discussion of the Arthur Street and Eisenhower Street pedestrian, bicycle, and emergency vehicle connections.

4.2.19 Master Response Alternative–1 (Higher Density/Central Campus Infill Summaries)

Comments LA-4-2, ORG-1-5, ORG-1-6, ORG-7-24, ORG-10-10, ORG-11-1, I-43-3, I-48-2, I-55-10, I-60-3, I-60-8, I-63-2, I-64-2, I-107-1, I-108-1, I-111-1, I-112-1, I-113-2, I-113-3, I-113-17, I-118-1, I-122-1, I-124-1, I-125-1, I-131-1, I-132-2, and I-133-1 express support for, and indicate concern about the Draft EIR's analysis of, the Higher Density and Central Campus Infill Alternatives to the NMP and the Central Campus Infill Alternative to the LRDP. Section 2.5 in Volume III of the Draft EIR includes evaluations of alternatives to the proposed NMP, including a Higher Density Alternative and a Central Campus Infill Alternative. In addition, Section 5.0 in Volume II of the Draft EIR includes evaluations of alternatives to the proposed 2003 LRDP, including a Central Campus Infill (Higher Density) alternative. These alternatives and associated limitations are described below.

Higher Density Alternative

The Higher Density Alternative to the NMP would include the same elements as the proposed NMP and would also be located west of SR 113 and north of Hutchison Drive on the west campus. However, this alternative would double housing densities to reduce the community footprint from 225 to 180 acres. Faculty and staff housing would be densified by reducing the number of detached single family homes and increasing the number of townhomes and apartments. Student housing would be provided in high-rise construction-type buildings over six stories tall (as opposed to the NMP's proposed three to four story apartment buildings). While the same number of faculty, staff, and students could be accommodated with this alternative as with the proposed NMP, this alternative would increase the average density of the proposed residential development to a point that would be inconsistent with the scale and character of the surrounding City (as shown in the table below), as well as much of the region. This inconsistency would create difficulties in marketing neighborhood properties to faculty and staff (many of whom would likely seek detached single family homes). This would reduce the ability of the alternative to provide a viable campus community and attract and retain talented faculty and staff. In addition, the high-rise type construction required for the student apartment buildings would make the rental costs for the apartments higher than most other student housing options on campus and in the city (as described further in Master Response Alternative-2), thus failing to meet the goal of providing affordable housing.

Housing Density Comparisons of Proposed NMP, NMP Alternatives, and Local Developments

Development	Single Family Residential			Multi-Family Residential			Totals		
	Units	Net Acres (a)	Net Density (unit per acre)	Units	Net Acres (a)	Net Density (unit per acre)	Units	Net Acres (a)	Net Density (unit per acre)
Village Homes	220	49.4	4.5	20	2.0	10.0	240	51.4 (b)	4.7
Wildhorse	629	100.2	6.3	189	11.9	15.9	818	112.1	7.3
Mace Ranch	1,213	181.1	6.7	440	25.2	17.5	1,653	206.3	8.0
Stonegate	706	129.5	5.5	1,106	57.6	19.2	1,812	187.1	9.7
Evergreen	358	50.3	7.1	384	20.8	18.5	742	71.1	10.4
Aggie Village	21	2.38	8.8	16	0.84	19	37	3.22	11.5 (c)
Aspen	249	36.5	6.8	786	44.7	17.6	1,035	81.2	12.7
Proposed NMP	275	43.3	6.4	1,210	41.9 (d)	28.9	1,485	85.2	17.4 (e)
Higher Density Alternative	275	N/A	N/A	1,210	N/A	N/A	1,485	50	29.7
Central Campus Infill Alternative	275	N/A	N/A	1,210	N/A	N/A	1,850 (f)	37	50

(a) Net acres includes lots only and does not include public streets.
(b) Net acres in Village Homes includes lots (22.7 acres) and unit common areas (26.7) to be comparable to conventional subdivisions.
(c) Single family residential units include 17 cottage units that can be rented. If these are included in the total unit count, the net density of the development is 16.8 units/acre.
(d) The NMP's multi-family residential net acreage includes 1.5 acres for the housing portion of the mixed-use area.
(e) The 150 student cottages that are planned to accompany the single-family units are not included in NMP densities. If included, the total net density would be higher.
(f) In addition to the 1,485 units proposed under the NMP, an additional 214 units would be needed under this alternative to replace displaced housing (from Orchard Park and Baggins End).
N/A: This level of detail is not available.

Sources: NMP and alternatives densities from Draft EIR (Section 2 of Volume III). City of Davis development densities from City of Davis Planning and Building Department, April 13, 2002, based on existing development and approved subdivisions. Aggie Village densities from Cunningham Engineering, Prezoning and Planned Development Map, Aggie Village. University of California, Davis. Sept., 1995.

Central Campus Infill Alternative

The Central Campus Infill Alternative to the NMP would infill neighborhood land uses on the central campus to accommodate most components of the proposed NMP and to avoid development west of SR 113. The campus determined, based on community planning principles

and existing and anticipated central campus land uses, that the most feasible location for this type of development would be on an approximately 73 to 88 acre contiguous central campus parcel located east of SR 113, south of Russell Boulevard, and north of Hutchison Drive. This land is currently being used for agricultural fields, primarily low density academic and housing developed uses, and parking. Because this site is about half of the size of the proposed NMP site, housing densities would need to be increased significantly. The recreation fields, neighborhood park, elementary school, and CEC would be retained at proposed densities, since changes to the configurations of these elements could diminish their abilities to function as suitable assets to the residential area and the campus. Some of the proposed community open space and much of the proposed formal open space and transportation corridor areas could be eliminated due to proximity to adjacent campus resources. Housing that would have been constructed on 85 acres under the proposed NMP would need to fit on approximately 37 acres under this alternative. Detached single family homes would be replaced with three- to four-story townhouse apartments. Two-story faculty/staff townhouses and live-work units would be replaced by four- to six-story townhouse/ apartment buildings, and three- to four-story faculty/staff apartments would be replaced with high-rise six- to eight-story apartment buildings. Student apartments would be accommodated in nine- to twelve- story high-rise buildings as opposed to the NMP's proposed three- to four-story buildings.

The high rise housing and underground parking required to accommodate the NMP on this reduced area, as well as the costs of redeveloping this currently partially developed site, would result in development costs that would require housing unit payments that would be considerably more expensive than existing housing costs in Davis (see Master Response Alternative–2). Thus, this alternative would not meet the project objective of building affordable housing for students, faculty, and staff. In addition, the housing would be at significantly higher densities than other housing in the Davis (see table above) and most regional markets, and would likely face severe marketing challenges, especially with faculty and staff. If the housing was not marketable, this alternative would have a reduced ability to provide a viable campus community and attract and retain talented faculty and staff.

This alternative would also displace uses that are valued by the campus, such as the Student Farm's sustainable agriculture fields and facilities, Baggins End housing (the Domes), and the low-cost Orchard Park family housing area. In addition, this alternative would limit the campus' long-term future ability to develop academic facilities in this area of the central campus.

Central Campus Infill (Higher Density) Alternative

The Central Campus Infill (Higher Density) alternative to the 2003 LRDP evaluated in Section 5.0 in Volume II of the Draft EIR is similar to the Central Campus Infill alternative to the NMP discussed above in that it evaluates locating most proposed neighborhood elements on the same central campus site east of SR 113. This alternative, however, has a broader campus growth perspective and evaluates consolidating all research park development proposed under the 2003 LRDP on the central campus (in the south entry area north of I-80).

4.2.20 Master Response Alternative–2 (Higher Density/Central Campus Infill Costs)

Comments ORG-1-5, ORG-7-34, ORG-10-2, I-60-3, I-63-2, I-108-1, I-112-1, I-113-3, I-132-2, and I-133-1 requested additional information to substantiate the Draft EIR's conclusion that higher density development and infill would result in significantly higher housing costs. The

higher density alternatives would require high-rise construction above underground parking. This would require Type I construction (stronger and more elaborate foundations and construction materials) versus Type V construction (wood frame at grade) that is typically used for lower density housing. The higher density Type I construction generally has a $40-$60, or approximately 30 to 40 percent, project cost premium per gross square foot over lower density projects (Bade 2003, Lee 2003). To pay the higher project costs, an apartment in a high-rise building would need to be rented at approximately $100 to $200 per month higher than a comparable apartment in a low-rise building (Lee 2003). While the proposed project aims to construct housing at or below market prices, these alternatives would add construction costs that would increase housing costs over market levels.

The premiums for high-rise construction are significantly higher than the land cost savings associated with building at higher densities on campus, which makes offsetting high-rise construction costs by accommodating more housing units on a smaller parcel of land infeasible (Yates 2003). The construction premiums associated with high-rise development would make the Higher Density and Central Campus Infill alternatives to the NMP and the Central Campus Infill (Higher Density) alternative to the LRDP less financially viable than the proposed project, regardless of the land development strategy the campus undertakes for the development of the Neighborhood.

One commenter suggested that private developers could mitigate these costs. Student housing projects using private developers are structured so that the developer pays fair market value for lease of the land and is restricted by ground lease to keep the rents to students at affordable levels. In return, the developer nets a fair market return (profit) commensurate with the risk of development. Higher density projects are only feasible where the cost of land and the rent premiums paid by tenants exceed the premium paid in the cost of the project. Given these terms and project economics, the developer would be required to pass along any cost premiums to residents in the form of higher rents, or it could operate the facility at a loss – thus rendering the project unacceptable to residents and the campus, or infeasible for the developer. The fact that private development in the City of Davis is at an even lower average density than that proposed for the new neighborhood (as shown in the table in Master Response Alternative–1) supports this.

In addition to costs associated with high-rise construction, the Central Campus Infill Alternative would also have increased construction costs associated with the redevelopment of central campus sites and replacement of displaced land uses. One commenter questioned why redevelopment of parking lots could raise parking fees to unsustainable levels (as is indicated on page 5-15 of the Draft EIR). The approximately 230 surface parking spaces within Parking Lot 35, which would be displaced under the Central Campus Infill Alternative, would need to be replaced. Given the reduced central campus area available under this alternative, new and replacement parking would need to be supplied in new parking structures (as opposed to surface lots). Based on the recently approved West Entry Parking Structure project, parking spaces in structures currently cost approximately $20,000 each to construct, while long-term surface parking spaces cost approximately $3,000 each. Assuming these costs, replacing all of the surface parking spaces in Lot 35 in a parking structure could cost a total of approximately $4.6 million. The campus' Transportation and Parking Services office has proposed to raise current campus parking permit fees by up to approximately $17 per month to repay construction costs

for the newest West Entry Parking Structure (Contreras 2003). Additional permit increases would likewise be required to replace parking displaced under this alternative.

4.2.21 Master Response Alternative–3 (Higher Density Housing)

Comments ORG-10-2, I-60-3, I-63-2, I-108-1, I-112-1, I-113-3, and I-132-2 offered support and suggestions for higher density student housing. Specifically, comments compared the NMP's student housing densities to housing densities at other campuses, offered design suggestions for high density development, suggested that high density housing would appeal to students, recommended constructing apartment buildings at least four stories tall, encouraged apartment towers, suggested that the number of students per apartment be increased, encouraged use of the NMP's proposed retail and recreation field areas for high density student housing, and indicated that higher density student housing on campus could reduce housing pressures in the City for faculty and staff.

The proposed NMP does not include high-rise student apartment buildings because such buildings introduce management difficulties, reduce the potential for a sense of community, result in crowded conditions, and present affordability issues (as discussed in Master Response Alternative–2, above). In fact, the most recently approved and planned student apartments on campuses in the University of California system typically range from two to four levels due to these factors (Strem 2003). Two exceptions include an eight-story undergraduate apartment project *under study* at UC San Diego, and a 15 to 18-story apartment complex at UC San Francisco in Mission Bay that has high rental rates and serves graduate students and post doctorates with families. Both of these buildings would be located in much larger urban cities. Recently approved and planned dormitories, residence halls, and residential colleges at University of California campuses typically have more levels than student apartments; they range from four to seven stories tall. However, these types of facilities differ from student apartments in that they include strong residential life programs and accommodate live-in residential staff.

To make the NMP's proposed student apartments marketable and feasible, they must encourage the fairly independent lifestyle available at other local apartment facilities. Requiring a minimum number of students per apartment (as one commenter suggested) would conflict with this aim.

The NMP's non-housing areas, including its mixed-use retail area and recreation fields, are included in the plan to offer valuable services to those residing in the community. Replacing these uses with more housing would conflict with the project objective of providing a mixed-use neighborhood to foster a vibrant, convenient, and well-served community. In addition, the proposed recreation fields would help serve the campus' currently unmet need for athletic fields.

Additional student housing within the NMP would likely help reduce future student occupancy of local apartments. However, given the current low vacancy rates and high home prices in the City of Davis, the low potential for new housing development under the current City of Davis General Plan, and the likely increase in future housing demand associated with growth on campus and in the region, it is highly unlikely that additional student housing capacity in the NMP would assist in reducing housing pressures in the City of Davis for faculty and staff.

4.2.22 Master Response Alternative–4 (Central Campus Infill Sites)

Comments ORG-1-6, ORG-10-2, ORG-10-10, I-43-3, I-48-2, I-55-10, I-60-3, I-63-2, I-107-1, I-111-1, I-112-1, I-112-2, I-113-2, I-113-3, I-113-18, I-118-1, I-124-1, I-125-1, I-131-1, and I-132-2 expressed concern about the area considered for the Central Campus Infill alternative to the NMP, identified additional sites for this development, and questioned the campus' objective to preserve areas on the central campus for academic uses. Infill sites identified by commenters include the Orchard and Solano Park housing complexes, the land southeast of the SR 113 and Russell intersection, parking lots near Orchard Park housing, Baggins End housing, the Student Farm, Toomey Field, the proposed stadium site, the A Street sports field, the recreation fields south of Russell Boulevard, various surface parking lots, the proposed research park site, the dairy barn site, the Equestrian Center site, temporary buildings located west of Walker Hall, temporary buildings near the Silo, the commercial parcel east of Arboretum, and the Fleet Services and Unitrans sites.

As discussed in Master Response Alternative–1, the Central Campus Infill Alternative evaluated in the Draft EIR sited the alternative neighborhood development on a contiguous central campus parcel located east of SR 113, south of Russell Boulevard, and north of Hutchison Drive. The Central Campus Infill Alternative site includes several of the sites recommended by commenters, including the Orchard Park housing complex, the land southeast of the SR 113 and Russell Boulevard intersection, the parking lots near Orchard Park housing, Baggins End housing, and the Student Farm (see Master Response Alternative–1 for further discussion of this alternative). As discussed in the Draft EIR, a contiguous configuration with most proposed elements integrated was selected for this alternative so that residential uses could be consolidated to provide the positive community environment desired for the project, rather than having housing and neighborhood support uses scattered throughout campus apart from each other and adjacent to a variety of other land uses.

Preserving areas proposed under the 2003 LRDP for academic/administrative and research development (such as the proposed research park site, the current Equestrian Center site, and the Temporary Building areas west of Walker Hall and near the Silo) is important because it would allow the campus flexibility in providing for future academic growth and initiatives within and beyond the 2015-16 planning horizon. If housing were constructed on highly developed sites such as the Fleet Services and Unitrans sites, the dairy site, surface parking lots, and the commercial area east of the Arboretum, higher cost premiums associated with redevelopment and replacement of existing land uses would result, reducing housing affordability.

The Solano Park and Orchard Park housing complexes offer low-cost student/family apartments. These apartments rent at approximately 1/2 to 2/3 the cost of comparable apartments in the City, and they serve a substantially unmet demand. There is typically a wait list of approximately 60 students for these complexes. Even given the costs associated with maintaining these older housing developments (one commenter noted an upcoming reroofing project), redevelopment of these sites could not replace this type of affordable housing due to the high costs associated with clearing the sites, accommodating residents during redevelopment, and constructing new buildings. The high-rise type construction needed to infill new and replace existing student housing on these sites would further add to these redevelopment costs (see Master Response Alternative–2). Redeveloping these family housing complexes would remove the most

affordable student housing in the community and replace it with significantly higher priced housing.

Recent and planned campus developments already displace two recreation fields near the Segundo and Tercero student housing complexes. The campus did not consider existing and proposed recreation areas for additional development due to the difficulty of relocating recreation areas in other locations proximate to student housing and student activity. In addition to the costs associated with relocating established recreation fields, due to the limited space in the central campus that would remain under this alternative for replacement of such uses, if displaced, recreation areas would likely need to be relocated outside the central campus on teaching and research fields. This would not allow recreation areas to serve as vital a role in creating a vibrant student life on the central campus.

Comment I-63-2 questioned the Draft EIR's determination that small, scattered residential developments would not provide optimum residential community environments. The community feel associated with a contiguous neighborhood would be essential in effectively marketing the community's housing, especially to faculty and staff and their families. Small, separate central campus sites would not provide the desirable neighborhood atmosphere (including elements of privacy, safety, quietude, and proximity to schools, services, and neighborhood parks) that most faculty and staff seeking long-term housing would be looking for. The 73 to 88-acre Central Campus Infill Alternative site located east of SR 113 was selected for this alternative because it is the only contiguous undeveloped or sparsely developed site on the central campus that is not substantially planned for other building development under the 2003 LRDP (see Master Response Alternative–1).

4.2.23 Master Response Alternative–5 (Central Campus Infill Configuration)

Comments ORG-7-23, ORG-7-24, ORG-10-10, I-63-2, I-102-2, I-112-1, I-112-2, and I-132-2 questioned the composition of the Central Campus Infill Alternative to the NMP, and suggested that the campus evaluate a variety of other central campus infill options, including: an alternative that establishes half of the neighborhood on the west campus and the other half on the central campus, use of recreation fields on the core campus to serve the community rather than developing new fields, developing fewer recreation fields, redeveloping sites within the City (such as the University Mall or the East Eighth Street shopping center) to provide the CEC facility, converting Thoreau Hall from dorms to student apartments, and housing faculty/staff on the central campus as advisors in student housing.

As discussed in Master Response Alternative–1, the Central Campus Infill Alternative considered in the EIR consolidated most proposed NMP elements and offered a contiguous configuration in order to optimize a positive community atmosphere. The EIR did not evaluate an alternative that would establish a neighborhood divided by SR 113 for this reason.

The recreation fields that are proposed as part of the neighborhood development and are included in the Central Campus Infill Alternative are required to serve the campus' currently unmet needs for recreation and athletic fields, as well as to provide a recreation asset for new campus residents and the overall increase in the student population. Therefore, eliminating or reducing the fields would not adequately provide for current or future demand.

The CEC in the proposed NMP would provide space for the Los Rios Community College District, other campus-affiliated education programs, and DJUSD high school satellite programs. The mission of the CEC is to provide the basic educational facilities required for each entity to accomplish its objectives. The CEC also would offer the great opportunity for effective partnerships among the three educational partners that would enhance the educational offerings of each. These partnerships would not be similarly enabled if the three educational partners were located on separate sites. Development of such a facility would be feasible in part due to its location on UC property. An off-campus site (with associated purchase and redevelopment costs) would not be as viable. Furthermore, an off-campus site would reduce the CEC's access to public gathering and recreation spaces available within the NMP, and it would reduce the CEC's role on campus and within the proposed neighborhood.

Thoreau Hall provides much-needed dormitory space. If that housing complex were converted to student apartments, replacement dormitory housing would need to be constructed on the core campus. Therefore, such a solution would not offset the space demands of the Central Campus Infill Alternative.

A program to co-house faculty and staff with students on the central campus, if feasible, could only provide minimal residential capacity and would not address the housing needs of the LRDP.

4.2.24 Master Response Alternative–6 (North-South Alternative-Thayer Plan)

Comments LA-4-3, ORG-7-24, ORG-10-2, ORG-11-1, I-15-1, I-33-3, I-43-3, I-64-2, I-84-2, I-113-12, I-125-5, and I-133-1 expressed support for the North-South Orientation Alternative to the NMP and a similar alternative that was suggested by a community member during LRDP scoping and is referred to as the "Thayer Plan." These alternatives are described below.

North-South Alternative

Section 2.5 in Volume III of the Draft EIR includes an evaluation of a North-South Orientation Alternative to the NMP. This alternative would rotate the orientation of the proposed Neighborhood from an east-west alignment to a north-south alignment, so that the length of development along Russell Boulevard would be minimized. This alternative would develop approximately the same amount of land as the proposed project, and it would accommodate the same elements as the proposed project at similar densities. The western boundary of the alternative would be configured to minimize disturbance of adjacent land uses to the extent feasible.

As identified in the Draft EIR, most environmental impacts associated with the North-South Orientation Alternative would be comparable to the proposed project. However, this alternative would reduce the NMP's impacts on views to the west across agricultural lands and on prime farmland (because part of the alternative area is already developed). On the other hand, the alternative would have an increased potential for impacts to cultural resources (due to proximity to the historic channel of Putah Creek), and it would place more bicycle traffic on busier roads than the proposed project, potentially increasing conflicts between bicyclists and motor vehicles. The alternative could also place housing in increased proximity to the campus' Environmental Service Facility, a facility that handles hazardous waste on campus. Although the potential increase in health and hazard risks associated with exposure and the remote possibility of an

emergency upset is less than significant, campus planners prefer to keep this land use farther away from housing uses.

In addition, the alternative would displace the agricultural teaching and research activities of six departments, as opposed to the proposed NMP, which would only displace the activities of two departments and would not displace developed uses. In addition to the two departments affected under the proposed project, the alternative would displace the Department of Biological and Agricultural Engineering's five-year-old Heidrick Western Center for Agricultural Equipment; Vegetable Crops Department research lands and support facilities; facilities, pasture, and animal feed lands of the Animal Science Department; and meteorological and soil research fields and facilities of the Department of Land, Air and Water Resources, which support long-term, site-specific research efforts that would be significantly impaired if relocated in the near-term. While the North-South Orientation Alternative would not develop the long-term research site itself, it would develop land to the north, east, south, and southeast of the research area (while the proposed project would only develop land to the north of this area). Prevailing winds are from the southeast to the southwest (except for isolated north wind events), so development to the southeast of the long-term field site would greatly impact meteorological research, necessitating its relocation. The alternative also could indirectly result in additional impacts associated with the reestablishment of the displaced facilities at new locations.[1]

In addition, the North-South Orientation Alternative would have a long western edge adjacent to campus teaching and research uses, which would result in increased agricultural/urban conflicts over the proposed NMP. Furthermore, Hutchison Drive and Garrod Drive, cutting across the alternative, would create major dividers in the center of the community. The orientation of the plan and the road divisions would provide for a less efficient community transit design than the NMP.

Thayer Plan

Elements of the Thayer Plan have been incorporated into the proposed NMP since project scoping, including a more compact neighborhood footprint that does not extend as far along Russell Boulevard, an increased open space buffer along Russell Boulevard, location of public/community uses closer to the Hutchison Drive access than to Russell Boulevard, and elimination of the previously proposed vehicular road connecting the neighborhood to Russell Boulevard.

Basic design elements of the Thayer Plan were also included in the North-South Orientation Alternative to the NMP. The Thayer Plan is a neighborhood plan that has a north-south orientation and a northern border that is similar to the North-South Orientation Alternative; the plan extends along Russell Boulevard from SR 113 approximately to Arlington Ave. However, the Thayer Plan extends south only to Garrod Drive and consists of only approximately 170 acres, while the North-South Orientation Alternative extends south past the North Fork Cutoff and includes approximately 225 acres, similar to the proposed project.

[1] The land use and planning analysis for the North-South Orientation Alternative to the NMP (on page 2-139 in Volume III of the Draft EIR) incorrectly evaluated the land use impacts of developing a somewhat larger area than would actually be occupied by the alternative. The actual area that would be covered by the North-South Orientation Alternative is correctly presented in Figure 2-12 of the Draft EIR. This text and the Final EIR now accurately characterize land use impacts associated with the alternative.

The Thayer Plan does not meet all of the objectives of the proposed NMP. The smaller area proposed for the Thayer Plan is comparable to the size of the Higher Density Alternative (evaluated in Section 2.5 in Volume III of the Draft EIR). Like the Higher Density alternative, the plan would require increased housing densities to accommodate the full NMP program. As discussed in Master Response Alternative–1, to accommodate the elements of the NMP on a 180 acre site, the Higher Density Alternative would increase housing densities to a point that would be inconsistent with the scale and character of the surrounding City, as well as much of the region, which could create difficulties in marketing the neighborhood to faculty and staff. In addition, the high-rise type construction that would be required for student apartment buildings would make the rental costs for the apartments higher than most other student housing options on campus and in the city, which would not achieve project objectives for affordable housing.

Unlike the proposed NMP, the first phase of neighborhood development under the Thayer Plan would not include faculty and staff housing. In addition, the Thayer Plan, like the North/South Orientation Alternative, would have increased agricultural/urban conflicts over the proposed project, would be divided by Hutchison Drive, would have less efficient or less accessible transit design, and would necessitate relocation of agricultural facilities that would be difficult to replace (including the Heidrick Western Center for Agricultural Equipment facility and the long term meteorological and soil research activities).

4.2.25 Master Response Growth–1 (Urban Development Breaching Urban/Rural Boundary)

Comments LA-2-14, LA-2-61, and ORG-7-22 concern the fact that with the NMP, urban development would breach the current urban/rural boundaries provided by SR 113 and Russell Boulevard, and ask if this presents the potential for further urbanization of the area west of SR 113 in the long term.

Section 4.2 (Agricultural Resources) in Volume I, Chapter 6 (Growth Inducing Impacts) in Volume II, and Section 2.2 (Agricultural Resources for the NMP) in Volume III of the Draft EIR discuss the potential effects of developing the NMP on the west campus and explain why development of the neighborhood would not induce additional urbanization on vacant lands.

The NMP is bordered by SR 113 to the east, developed lands in the City of Davis to the north, and undeveloped campus teaching and research field lands to the south and west. All vacant lands immediately adjacent to the south and west of the NMP are currently in, and would remain in, UC ownership and are designated for continued campus use as teaching and research fields through 2015-16. With respect to some commenters' concern about further development of west campus lands by the University once the NMP is built, it should be noted that the campus has clearly identified its land needs for growth envisioned through 2015-16. Based on these projections, there is no need to urbanize any of the lands around the NMP. Since no uses other than teaching and research are foreseeable at this time for the undeveloped lands surrounding the NMP site, it would be speculative for this EIR to suggest that additional growth would occur on the west campus in the long term. Because the NMP is not located near undeveloped private lands, the project would not cause additional development pressures off campus.

As discussed in Section 6.2.4 of Volume II of the EIR, development can be triggered if infrastructure to serve a project is constructed with excess capacity or if lack of infrastructure is an obstacle to growth and a project removes that obstacle. Most utilities systems on campus

(including critical water and wastewater systems) are provided and operated by the campus, and therefore the campus controls the expansion of this infrastructure. Most utilities serving the NMP (including water and wastewater) would be provided by the campus and would be sized with adequate capacity (not excess capacity) to serve that development. In addition, all campus utilities serving the west campus under the 2003 LRDP would have capacity to serve the NMP and other academic and research space planned for this area of the campus, but would not have excess capacity to serve additional development (Karl Mohr, UC Davis Office of Resource Management and Planning, Associate Director-Public/Private Partnerships). Because campus utilities do not and cannot serve off campus areas, utility extensions developed for the NMP would not lead to urban growth outside of the boundary of the campus.

Larger versions of the NMP that extended up to Olive Tree Lane and beyond were examined initially by the campus as alternatives during the LRDP public planning process to promote discussion about various levels of residential development. Based on further evaluation of campus housing needs (including a recent decision by the City of Davis to increase its housing growth target to 250 new units per year through 2010), the campus has determined that a larger residential development than currently proposed is not needed. See also Master Response Land Use–3.