CHAPTER 8.0 LIST OF MITIGATION MEASURES AND ENVIRONMENTAL DESIGN CONSIDERATIONS

8.1 Comprehensive List of Mitigation Measures

8.1.1 Mitigation for Impacts to Aesthetics

The following would be required to mitigate impacts to aesthetics.

M-A-1 Direct impacts resulting from short-term construction would remain significant. There is no feasible mitigation available to lessen these short-term effects.

M-A-2 Design measures have been incorporated into the Proposed Project that would reduce direct impacts to existing visual character and quality. However, there is no feasible mitigation available to lessen the cumulative effects.

M-A-3 Design measures have been incorporated into the Proposed Project that would reduce direct impacts to existing visual character and quality. However, there is no feasible mitigation available to lessen the cumulative effects.

8.1.2 Mitigation for Impacts to Air Quality

The following would be required to mitigate air quality impacts:

M-AQ-1 The Proposed Project was not considered in SANDAG growth projections used as a basis for RAQS and the SIP. While the Proposed Project contains smart growth features, which would serve to reduce motor vehicle use, a major goal of the RAQS Transportation Control Measures (TCMs), this would not eliminate this inconsistency with RAQS for the SDAB. This inconsistency can only be rectified when SANDAG updates the RAQS based on the growth projections after the Proposed Project has been approved.~~The Proposed Project is not considered in SANDAG growth projects and thus is not consistent with the existing RAQS and the SIP. Until SANDAG updates the RAQS and SIP, there is no feasible mitigation available to reduce this impact.~~

M-AQ-2 During the architectural coatings (painting) phase of construction, the applicant shall use interior coatings with a VOC content less than or equal to 50 grams per liter; residential exterior coatings with a content less than or equal to 100 grams per liter; and non-residential exterior and interior coatings with a content less than or equal to 250 grams per liter.

M-AQ-3 The Proposed Project design would promote walking, bicycle riding, and horseback riding as alternative forms of transportation to motorized vehicles and would reduce the projected operational emissions. However, this will not completely reduce emissions to a level below significance. No additional feasible mitigation is available, thus impacts would remain significant and unmitigatable.

M-AQ-4 To utilize Toxic-Best Available Control Technology (T-BACT) and mitigate for impacts, the applicant shall ensure that 10 percent of the construction fleet uses any combination of diesel catalytic converters, diesel oxidation catalysts, diesel particulate filters and/or CARB certified Tier I, II, or III equipment.

M-AQ-5 The Proposed Project was not considered in SANDAG growth projections used as a basis for RAQS and the SIP. While the Proposed Project contains smart growth features, which would serve to reduce motor vehicle use, a major goal of the RAQS TCMs, this would not eliminate this inconsistency with RAQS for the SDAB. This inconsistency can only be rectified when SANDAG updates the RAQS based on the growth projections after the Proposed Project has been approved.~~Until SANDAG updates the RAQS and SIP, there is no feasible mitigation available to reduce this impact, thus impacts would be significant and unmitigable.~~

M-AQ-6 To ensure the use of T-BACT and mitigate for impacts, the applicant shall have 10 percent of the construction fleet use any combination of diesel catalytic converters, diesel oxidation catalysts, diesel particulate filters and/or CARB certified Tier I, II, or III equipment.

M-AQ-7 There is no feasible mitigation available to reduce this impact, thus impacts would be significant and unmitigable.

8.1.3 Mitigation for Impacts to Transportation/Traffic

The following would be required to mitigate traffic impacts for affected intersections, street segments and freeway segments.

M-TR-1 The applicant shall install a traffic signal at the intersection of Old Highway 395 and Reche Road to the satisfaction of the Director of DPW.

M-TR-2 Direct impacts to study area street/State Route segments shall be mitigated through the construction of one additional travel lane in each direction. The Caltrans SR-76 project proposes the widening of SR-76 from Via Monserate to Gird Road and SR-76 from the I-15 SB ramp to I-15 the NB ramp. Should the Caltrans project not be completed prior to the Proposed Project, the applicant shall make a fair share contribution to be allocated to the widening of SR-76, if feasible.

M-TR-3 Cumulative impacts to study area intersections shall be mitigated through applicant participation in the TIF program.

M-TR-4 Cumulative impacts to study area street/State Route segments shall be mitigated through applicant participation in the TIF program.

8.1.4 Mitigation for Impacts to Biological Resources

The following would be required to mitigate significant impacts to biological resources:

M-BR-1 To mitigate indirect construction-related impacts on the arroyo toad, the owner/permittee shall, using a qualified biologist, implement the following mitigation measure(s):

a. The project biologist shall meet with the owner, permittee or designee, and the construction crew to conduct an on site educational session regarding the need to avoid impacts outside of the approved development area and identify locations for placement of protective fencing. The project biologist shall continue to monitor grading activities.

b. During grading activities, Best Management Practices for erosion control shall be implemented and monitored as needed to prevent any significant sediment transport. These practices may include, but may not be limited to, the following: the use of materials such as sandbags; sediment fencing and erosion control matting to stabilize disturbed areas; and installation of erosion control materials, particularly on the downs lope side of disturbed areas, to prevent soil loss.

c. All construction activities shall take place only inside the fenced area. Grading materials shall be stored either inside the fenced development area or in an area approved by the project biologist.

d. A storm drain system and detention basins shall be constructed to restrict excess water flow from proposed roads and structures associated with the Meadowood project. Filter devices shall be installed at the appropriate points to ensure that run-off is cleansed before reaching the basins. All water-catchment features shall be located above graded and natural slopes.

e. Nighttime lighting shall be shielded and directed away from riparian and upland habitat adjacent to the development.

M-BR-2 Permanent direct impacts to a total of 14.5 acres on- and off-site, of suitable habitat for California gnatcatcher shall be mitigated on-site at a ratio of 2:1 for a total of 29.0 acres. <u>If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce impacts to gnatcatcher habitat by 0.7 acre and mitigation by 1.4 acres, for a total mitigation requirement of 27.6 acres.</u> A total of 74.5 acres of habitat shall be preserved in the proposed on-site open space easement. The mitigation land shall also cover impacts to designated Critical Habitat for the California gnatcatcher as detailed in the Conceptual Resource Management Plan (Appendix F-3).

Temporary direct impacts to a total of 0.3 acre on- and off-site shall be mitigated through revegetation of the coastal sage scrub with the same species present within the impact area. The revegetation areas are shown on the Conceptual Landscape Plan.

Take authorization of the California gnatcatcher and removal of coastal sage scrub habitat shall be obtained through the Section 7 <u>Consultation</u>

with the USFWS or through the County Habitat Loss Permit Ordinance and compliance with the Coastal Sage Scrub NCCP. ~~consultation with the USFWS.~~

M-BR-3a~~.1~~ Indirect impacts on the California gnatcatcher shall be mitigated by the following measures to be implemented by the project applicant:

a. The project biologist shall meet with the owner, permittee or designee, and the construction crew to conduct an on site educational session regarding the need to avoid impacts outside of the approved development area.

b. During grading activities, Best Management Practices for erosion control shall be implemented and monitored as needed to prevent any significant sediment transport. These practices may include, but may not be limited to, the following: the use of materials such as sandbags; sediment fencing and erosion control matting to stabilize disturbed areas; and installation of erosion control materials, particularly on the downslope side of disturbed areas, to prevent soil loss.

c. All construction activities shall take place only inside the fenced area. Grading materials shall be stored either inside the fenced development area or in an area approved by the project biologist.

d. Nighttime lighting shall be shielded and directed away from coastal sage scrub habitat adjacent to the development. This shall be implemented through a Lighting Plan.

e. Permanent fencing and signage shall be placed along the trails and/or between the development open space interface in compliance with County standards and as shown on the Landscape Concept Plans. .

M-BR-3b~~.2~~ Direct impacts on the California gnatcatcher shall be mitigated by the following measures to be implemented by the project applicant:

a. Direct impacts to California gnatcatcher shall be mitigated in accordance with M-BR-2.~~Habitats shall be mitigated on site at a ratio of 2:1 for coastal sage scrub and disturbed coastal sage scrub for a total of 29.0 acres or in accordance with the County guidelines. If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce impacts to gnatcatcher habitat by 0.7 acres and mitigation by 1.4 acres, for a total mitigation requirement of 27.6 acres. Temporary impacts would be mitigated through revegetation of the coastal sage scrub with the same species present within the impact area. The revegetation areas are shown on the Conceptual Landscape Plan. This mitigation shall be incorporated into Section 7 consultation.~~

b. A qualified biologist shall supervise the placement of orange construction fencing or equivalent along the boundary of the development area as shown on the approved grading plans. The location and design for fencing shall be recommended and subsequently installed by a qualified biologist.

c. To avoid impacts to nesting gnatcatchers, vegetation clearing and grubbing within 500 feet of coastal sage scrub shall no occur in potential nesting habitat during the breeding season from February 15 through August 31. If project construction (other than clearing and grubbing of sensitive habitats) is necessary adjacent to preserved on- and off-site habitat during the gnatcatcher breeding (or sooner if a Wildlife Agency-approved biologist demonstrates to the satisfaction of the Wildlife Agencies that all nesting is complete), a Wildlife Agency-approved biologist shall conduct pre-construction surveys in the adjacent habitat to determine the location of any active gnatcatcher nests in the area. The survey shall begin not more than three days prior to the beginning of construction activities. The Agencies shall be notified if any nesting gnatcatchers are found. During construction, no activity shall occur within 500 ft (152.4 m) of active gnatcatcher nesting territories, unless measures are implemented to minimize the noise and disturbance to those adjacent birds. Exceptions to this measure includes cases where surveys confirm that adjacent habitat is not occupied or where noise studies confirm that construction noise levels are below 60 dBA hourly Leq along the edge of adjacent habitat. If construction activities are not completed prior to the breeding season and noise levels exceed this threshold, noise barriers shall be erected to reduce noise impacts to occupied habitat to below 60 dBA hourly Leq and/or the culpable activities will be suspended.~~Prior to any grading or native vegetation clearing associated with construction, a "directed" survey shall be conducted to confirm the presence or absence of the California gnatcatcher on-site and, if found to be present, to locate active nests (if any). If active nests are present, no grading or removal of habitat shall take place within 500 feet of active nesting sites during the nesting/breeding season (February 15 through August 31). Should active nests be abandoned prior to the end of the expected breeding season, grading and construction may proceed within approved grading limits.~~

~~d. Construction noise shall continue to be monitored to verify that noise levels are not adversely affecting behavior and are maintained below 60 dB(A) hourly average or to the ambient noise level if it already exceeds 60 dB(A) hourly average. Sound barriers shall be put in place if construction noise exceeds 60 db(A) in the immediate vicinity of an active gnatcatcher nest.~~

M-BR-4 Impacts to least Bell's vireo habitat shall be mitigated at a ratio of 3:1 for a total of 11.1 acres to be purchased off-site. This mitigation shall be incorporated into the Section 7 consultation. The habitat shall be a southern willow scrub or willow riparian forest habitat which can be occupied by least Bell's vireo as detailed in the Conceptual Wetlands

Mitigation Plan (Appendix F-4). If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce impacts to vireo habitat by 0.7 acre and mitigation by 2.1 acres for a total mitigation requirement of 9.1 acres. This mitigation shall be incorporated into the Section 7 consultation. ~~.~~

Temporary direct impacts to 2.2 acres shall be mitigated through revegetation of the riparian habitat with the same species present within the impact area. The revegetation areas are shown on the Conceptual Landscape Plan.

M-BR-5a~~.1~~ Indirect impacts to least Bell's vireo shall be mitigated by the following measures to be implemented by the project applicant:

a. The project biologist shall meet with the owner, permittee or designee, and the construction crew to conduct an on site educational session regarding the need to avoid impacts outside of the approved development area.

b. During grading activities, Best Management Practices for erosion control shall be implemented and monitored as needed to prevent any significant sediment transport. These practices may include, but may not be limited to, the following: the use of materials such as sandbags; sediment fencing and erosion control matting to stabilize disturbed areas; and installation of erosion control materials, particularly on the downslope side of disturbed areas, to prevent soil loss.

c. All construction activities shall take place only inside the fenced area. Grading materials shall be stored either inside the fenced development area or in an area approved by the project biologist.

d. Nighttime lighting shall be shielded and directed away from riparian habitat adjacent to the development. This shall be implemented through a Lighting Plan.

M-BR-5b~~.2~~ Direct impacts to least Bell's vireo shall be mitigated by the following measures to be implemented by the project applicant:

a. Direct impacts to least Bell's vireo habitat shall be mitigated in accordance with M-BR-4~~Vireo habitat shall be mitigated at 3:1 for riparian vegetation types for a total of 11.1 acres. Temporary impacts shall be mitigated through revegetation of the riparian vegetation with the same species found within the impact area. The revegetation areas are shown on the Conceptual Landscape Plan. This mitigation shall be incorporated into the Section 7 consultation. The off-site location, land manager, and conservation status of the mitigation land shall be identified prior to Final Map recordation. The habitat shall be a southern willow scrub or willow riparian forest habitat occupied by least Bell's vireo similar to that affected by the Proposed Project and as detailed in the Wetland Mitigation Plan (Appendix F-4).~~

b. A qualified biologist shall supervise the placement of orange construction fencing or equivalent along the boundary of the development area as shown on the approved grading plans. The location and design for fencing shall be recommended and subsequently installed by a qualified biologist.

c. To avoid impacts to nesting vireos, vegetation clearing and grubbing shall not occur within 500 feet of riparian habitat during the breeding season from March 15 to September 15. If project construction (other than clearing and grubbing of sensitive habitats) is necessary adjacent to preserved on- and off-site habitat during the vireo breeding (or sooner if a Wildlife Agency-approved biologist demonstrates to the satisfaction of the Wildlife Agencies that all nesting is complete), a Wildlife Agency-approved biologist shall conduct pre-construction surveys in the adjacent habitat to determine the location of any active vireo nests in the area. The survey shall begin not more than three days prior to the beginning of construction activities. The Agencies shall be notified if any nesting vireos are found. During construction, no activity shall occur within 500 ft (152.4 m) of active vireo nesting territories, unless measures are implemented to minimize the noise and disturbance to those adjacent birds. Exceptions to this measure includes cases where surveys confirm that adjacent habitat is not occupied or where noise studies confirm that construction noise levels are below 60 dBA hourly Leq along the edge of adjacent habitat. If construction activities are not completed prior to the breeding season and noise levels exceed this threshold, noise barriers shall be erected to reduce noise impacts to occupied habitat to below 60 dBA hourly Leq and/or the culpable activities will be suspended.

~~Prior to any grading or native vegetation clearing associated with project construction, a "directed survey" shall be conducted to confirm the presence or absence of the least Bell's vireo on-site and, if found to be present, to locate active nests (if any). If active nests are present, no grading or removal of habitat shall take place within 500 feet of active nesting sites during the nesting/breeding season (March 15 through September 15). Should active nests be abandoned prior to the end of the expected breeding season, grading and construction may proceed within approved grading limits.~~

~~d. Construction noise shall continue to be monitored to verify that noise levels are not adversely affecting behavior and are maintained below 60 dB(A) hourly average or to the ambient noise level if it already exceeds 60 dB(A) hourly average. Sound barriers shall be put in place if construction noise exceeds 60 db(A) in the immediate vicinity of an active vireo nest.~~

M-BR-6 Impacts to southwestern willow flycatcher habitat shall be mitigated at a ratio of 3:1 for a total of 11.1 acres to be purchased off-site as detailed in the Conceptual Wetlands Mitigation Plan (Appendix F-4). If Palomar Community College mitigates for impacts associated with Horse Ranch

Creek, this would reduce impacts to southwestern willow flycatcher habitat by 0.7 acres and mitigation by 2.1 acres, for a total mitigation requirement of 9.1 acres. This mitigation shall be incorporated into the Section 7 consultation.

Temporary direct impacts to 2.2 acres of suitable habitat shall be mitigated through revegetation of the riparian habitat with the same species present within the impact area. The revegetation areas are shown on the Conceptual Landscape Plan.

M-BR-7a~~.1~~ Indirect impacts on the southwestern willow flycatcher shall be mitigated by the following measures to be implemented by the project applicant:

a. The project biologist shall meet with the owner, permittee or designee, and the construction crew to conduct an on site educational session regarding the need to avoid impacts outside of the approved development area.

b. During grading activities, Best Management Practices for erosion control shall be implemented and monitored as needed to prevent any significant sediment transport. These practices may include, but may not be limited to, the following: the use of materials such as sandbags; sediment fencing and erosion control matting to stabilize disturbed areas; and installation of erosion control materials, particularly on the downslope side of disturbed areas, to prevent soil loss.

c. All construction activities shall take place only inside the fenced area. Grading materials shall be stored either inside the fenced development area or in an area approved by the project biologist.

d. Nighttime lighting shall be shielded and directed away from riparian habitat adjacent to the development. This shall be implemented through a Lighting Plan.

M-BR-7b~~.2~~ Direct impacts on the southwestern willow flycatcher shall be mitigated by the following measures to be implemented by the project applicant:

a. Direct impacts to southwestern willow flycatcher habitat shall be mitigated in accordance with M-BR-6.~~Impacts to flycatcher habitat shall be mitigated at 3:1 for riparian vegetation types for a total of 11.1 acres. Temporary impacts shall be mitigated through revegetation of the riparian vegetation with the same species found within the impact area. The revegetation areas are shown on the Conceptual Landscape Plan. This mitigation shall be incorporated into the Section 7 consultation.~~

b. A qualified biologist shall supervise the placement of orange construction fencing or equivalent along the boundary of the development area as shown on the approved grading plans. The location and design for fencing shall be recommended and subsequently installed by a qualified biologist.

c. To avoid impacts to nesting southern willow flycatchers, vegetation clearing and grubbing within 500 feet of riparian habitat shall not occur from May 1 to September 1. If project construction (other than clearing and grubbing of sensitive habitats) is necessary adjacent to preserved on- and off-site habitat during the flycatcher breeding (or sooner if a Wildlife Agency-approved biologist demonstrates to the satisfaction of the Wildlife Agencies that all nesting is complete), a Wildlife Agency-approved biologist shall conduct pre-construction surveys in the adjacent habitat to determine the location of any active flycatcher nests in the area. The survey shall begin not more than three days prior to the beginning of construction activities. The Agencies shall be notified if any nesting flycatchers are found. During construction, no activity shall occur within 500 ft (152.4 m) of active flycatcher nesting territories, unless measures are implemented to minimize the noise and disturbance to those adjacent birds. Exceptions to this measure includes cases where surveys confirm that adjacent habitat is not occupied or where noise studies confirm that construction noise levels are below 60 dBA hourly Leq along the edge of adjacent habitat. If construction activities are not completed prior to the breeding season and noise levels exceed this threshold, noise barriers shall be erected to reduce noise impacts to occupied habitat to below 60 dBA hourly Leq and/or the culpable activities will be suspended~~Prior to any grading or native vegetation clearing associated with project construction, a "directed" survey shall be conducted to confirm the presence or absence of the southwestern willow flycatcher on-site and, if found to be present, to locate active nests (if any). If active nests are present, no grading or removal of habitat shall take place within 500 feet of active nesting sites during the nesting/breeding season (May 1 through September 1). Should active nests be abandoned prior to the end of the expected breeding season, grading and construction may proceed within approved grading limits.~~

~~d. Construction noise shall continue to be monitored to verify that noise levels are not adversely affecting behavior and are maintained below 60 dB(A) hourly average or to the ambient noise level if it already exceeds 60 dB(A) hourly average. Sound barriers shall be put in place if construction noise exceeds 60 db(A) in the immediate vicinity of an active flycatcher nest.~~

M-BR-8 Permanent direct impacts to 62.2 acres of foraging habitat for birds of prey and other special status species shall be mitigated through preservation of 122.4 acres of open space on-site within a regional open space network as detailed in the Conceptual Resource Management plan (Appendix F-3).

Temporary impacts would be mitigated through revegetation of foraging habitat with the same plant species found within the impact area. The revegetation areas are shown on the Conceptual Landscape Plan.

Indirect impacts shall be mitigated by the following measures:

a. Shielding lighting away from the open space.

b. Monitoring noise levels during construction.

c. Use of range construction fencing, and silt fencing.

d. Permanent fencing and signage shall be placed along the trails and/or between the development open space interface in order to be compliant with County standards and as shown on the Landscape Concept Plans.

M-BR-9 Impacts to the western spadefoot shall be mitigated by the purchase of 11.1 acres of riparian forest and scrub habitat and the 122.4 acres of open space on-site within a regional open space network as detailed in the Conceptual Resource Management Plan (Appendix F-3). If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce impacts to western spadefoot habitat by 0.7 acres and mitigation by 2.1 acres, for a total mitigation requirement of 9.1 acres.

Additionally, prior to grading, a written relocation plan shall be prepared and approved by the County and CDFG. In accordance with the plan, western spadefoot toads shall be trapped and relocated. The timing and duration of the relocation program shall be based on the activity period of the western spadefoot (generally associated with rainfall and temperature) and proposed construction schedule.

Trapping shall occur along the existing pitfall traps located along the western and southern property boundaries and monitored prior to and during proposed construction activities. Any western spadefoot found in the traps shall be collected, noted and relocated to predetermined receptor sites within the region. Trapping and relocation shall be conducted by a biologist familiar with the biological natural history of the western spadefoot and possesses a CDFG Memorandum of Understanding (MOU) for conducting these activities. At the end of the relocation effort, the biologist shall prepare a summary report noting the number of western spadefoot relocated, the location of the area to which they were moved, and other pertinent facts. The report shall be submitted to the County and CDFG.

M-BR-10 Permanent and temporary impacts to the 14 special status wildlife species identified on-site shall be mitigated through preservation of 122.4 acres of open space on-site within a regional open space network as detailed in the Conceptual Resource Management Plan (Appendix F-3).

M-BR-11 Impacts to nesting birds shall be mitigated through the following measures:

a. Native and naturalized vegetation clearing shall not occur during the breeding season from -February 15 to -September 15; However, Project construction activities may occur within this period ~~Vegetation~~

~~clearing shall take place outside of the nesting season, roughly defined as mid-February to mid-September. Vegetation clearing activities could occur within potential nesting habitat during the breeding season~~ with written concurrence from the Director of the Department of Planning and Land Use (DPLU), the USFWS, and the CDFG that nesting birds would be avoided. If vegetation removal is to take place during the nesting season, a biologist shall be present during vegetation clearing operations to search for and flag active nests so that they can be avoided.

b. To avoid impacts to nesting raptors, any vegetation clearing or grubbing within 500 feet of trees suitable for raptor nesting shall not occur from February 1 to July 15. However, Project construction activities may occur within this period with written concurrence from the Director of the Department of Planning and Land Use (DPLU), the USFWS, and the CDFG that nesting birds would be avoided. A County-approved biologist shall conduct pre-construction surveys in the adjacent habitat to determine the location of any active raptor nests in the area. The survey shall begin not more than ten days prior to the beginning of construction activities. During construction, no activity shall occur within 500 ft (152.4 m) of active raptor nests, unless measures are implemented to minimize the noise and disturbance to those adjacent birds. ~~Prior to any grading or native vegetation clearing during the nesting/breeding season for raptors (roughly from mid-February through mid-July), a "directed" survey shall be conducted to locate active raptor nests, if any. If active raptor nests are present, no grading or removal of habitat shall take place within 500 feet of any active nesting sites of sensitive species and raptors and 300 feet of all other nesting birds.~~ The project proponent may seek approval from the Director of DPLU if nesting activities cease prior to July 15.

c. Potential impacts to nesting California gnatcatcher, least Bell's vireo, and southern willow flycatcher will be implemented through agency permitting and with M-BR-3b(c), M-BR-5b(c), and M-BR-7b(c). ~~Prior to any grading or native vegetation clearing associated with project construction, a "directed" survey shall be conducted to confirm the presence or absence of the California gnatcatcher, least Bell's vireo, and southwestern willow flycatcher on-site and, if found to be present, to locate active nests (if any). If active nests are present, no grading or removal of habitat shall take place within 500 feet of active nesting sites during the nesting/breeding season (February 15 through August 31 for gnatcatcher, March 15 through September 15 for vireo, and May 1 through September 1 for flycatcher). Should active nests be abandoned prior to the end of the expected breeding season, grading and construction may proceed within approved grading limits.~~

M-BR-12 General indirect impacts associated with external community lighting shall be mitigated through the requirement that all communal lighting be shielded and directed away from the urban/natural edge. The Proposed Project shall be designed to be in

compliance with the San Diego County Light Pollution Code (Sections 59.101-59.115). A lighting plan shall be included in the grading plans which shows required lighting adjacent to the open space as being shielded, unidirectional, low pressure sodium illumination (or similar), and directed away from preserve areas using appropriate placement and shields.

M-BR-13 Permanent impacts to coastal sage scrub and disturbed coast sage scrub in the amount of 12.6 acres on-site and 1.9 acres off-site shall be mitigated at the ratio of 2:1 totaling 29.0 acres within the 122.4-acre proposed on-site open space easement as detailed in the Conceptual Resource Management Plan (Appendix F-3). (Actual amount of coastal sage scrub preserved on-site is 74.5 acres). If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce impacts to disturbed coastal sage scrub by 0.7 acres and mitigation by 1.4 acres, for a total mitigation requirement of 27.6 acres.

Temporary impacts in the amount of 0.3 acres shall be mitigated through revegetation with the same plant species found within the impact area. The revegetation areas are shown on the Conceptual Landscape Plan.

M-BR-14 Permanent impacts to southern mixed chaparral shall be mitigated at the ratio of 0.5:1 totaling 1.1 acres within the 122.4 acre proposed on-site open space easement as detailed in the Conceptual Resource Management Plan (Appendix F-3) (Actual amount of southern mixed chaparral preserved on-site is 17.5 acres).

M-BR-15 Permanent impacts to coast live oak shall be mitigated at the ratio of 3:1 totaling 0.9 acres within the 122.4 acre proposed on-site open space easement as detailed in the Conceptual Resource Management Plan (Appendix F-3). (Actual amount of coast live oak woodland preserved on-site is 1.7 acres).

M-BR-16 Permanent impacts to non-native grassland shall be mitigated at the ratio of 0.5:1 totaling 7.7 acres within the 122.4 acre proposed on-site open space easement as detailed in the Conceptual Resource Management Plan (Appendix F-3). . (Actual amount of non-native grassland preserved on-site is 22.0 acres).

M-BR-17 Permanent impacts to pastureland shall be mitigated at the ratio of 0.5:1 totaling 15.1 acres of non-native grassland. A portion of the mitigation shall be on-site within the proposed open space easement. An additional 2.7 acres of mitigation land is required and shall be preserved off-site as detailed in the Conceptual Resource Management Plan (Appendix F-3). If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce impacts to pastureland by 16.7 acres and mitigation by 8.3 acres, for a total mitigation requirement of 6.8 acres.

M-BR-18 Impacts willow/mule fat scrub, southern willow scrub, southern arroyo willow riparian forest, and freshwater marsh off-site shall be mitigated

through dedication, restoration, creation and/or enhancement of wetlands at a ratio of 3:1 for a total of 12.3 acres or as defined through required state and federal wetland permits as detailed in the Conceptual Wetland Mitigation Plan (Appendix F-4). The Conceptual Wetlands Mitigation Plan will be updated to account for the impacted Jurisdictional Vegetated Wetlands separately from the impacted Vegetation Communities Impacts.

If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce impacts to willow/mule fat scrub, southern willow scrub, southern arroyo willow riparian forest, and freshwater marsh by 1 acre and mitigation by 3 acres, for a total mitigation requirement of 9.3 acres Temporary impacts shall be mitigated through revegetation with the same plant species found within the impact area. The revegetation areas are shown on the Conceptual Landscape Plan.

M-BR-19 Permanent Impacts to jurisdictional wetlands shall follow the terms and conditions of permits and agreements with ACOE and CDFG.

Permanent impacts shall be mitigated at a ratio of 3:1 and shall consist of purchase and dedication of replacement habitat, creation of wetlands, and revegetation of disturbed riparian habitat. Mitigation measures for impacts to ACOE jurisdictional wetlands, CDFG vegetated riparian habitat, and County wetlands are listed as follows:

- ACOE jurisdiction: Permanent impacts to 0.83 acre on-site and 2.29 acres off-site, for a total of 3.12 acres of ACOE jurisdictional waters and wetlands shall be mitigated with 9.36 acres of ACOE jurisdictional waters and wetlands. If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce impacts to ACOE jurisdiction by 0.11 acre and mitigation by 0.33 acres, for a total mitigation requirement of 9.25 acres.
- CDFG jurisdiction: Permanent impacts to 0.93 acres on-site and 2.29 acres off-site, for a total of 3.22 acres of CDFG jurisdictional waters and vegetated riparian habitat shall be mitigated with 9.66 acres of CDFG jurisdictional waters and vegetated riparian habitat. . If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce impacts to CDFG jurisdiction by 0.11 acre and mitigation by 0.33 acres, for a total mitigation requirement of 9.25 acres.
- RPO jurisdiction: Permanent impacts to 2.29 acres of RPO wetlands off-site shall be mitigated with 6.87 acres of RPO wetlands. with Horse Ranch Creek, this would reduce impacts to RPO jurisdiction by 0.11 acre and mitigation by 0.33 acres, for a total mitigation requirement of 9.25 acres.

The Conceptual Wetlands Mitigation Plan will be updated to account for the impacted Jurisdictional Vegetated Wetlands separately from the

impacted Vegetation Communities Impacts. ~~Details are contained within the Wetlands Mitigation Plan (Appendix F-4).~~

M-BR-20 Temporary impacts to 2.04 acres of jurisdictional wetlands shall be mitigated through revegetation with the same plant species found within the impact area. The revegetation areas are shown on the Conceptual Landscape Plan. If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, this would reduce temporary impacts by 0.4 acre. ~~**8.1.5 Mitigation for Impacts to Agricultural Resources**~~

~~The following would be required to mitigate significant direct impacts to properties adjacent to agricultural uses:~~

~~**M-AG-1/ M-AG-2**~~ ~~The Proposed Project shall retain 49.3 acres of existing citrus and avocado groves in an agricultural conservation easement to be maintained by the HOA; open space thereby providing for the continued growth of citrus and avocado groves.~~

8.1.6~~5~~ Mitigation for Impacts to Geology and Soils

The following would be required to mitigate significant impacts associated with geology and soils:

M-GE-1 The applicant shall raise the grade while also removing and re-compacting the alluvium above the groundwater table to increase the overburden pressure over the liquefiable deposits as recommended by the geotechnical engineer.

M-GE-2 Mitigation of rockfall potential shall consist of the following:

- The boulders identified as having a high potential of rockfall in the Response to County of San Diego Review Comments for Rockfall prepared by Geocon Incorporated dated March 31, 2011 shall be broken and removed from the slope, or alternatively rock bolted to the slope as part of the grading of the site.

- Boulders identified as having a less than significant rockfall potential shall be tested by applying pressure with an excavator. If the boulders move they shall be mitigated using the same techniques described for boulders with high potential for rockfall. Boulders identified as having a less than significant rockfall potential shall be monitored during grading after any heavy rains if they should occur. If any undermining on the downhill side of any of the boulders has occurred, removal and/or breaking of the boulder(s) as recommended shall be performed to mitigate the rockfall hazard.

- A letter of certification shall be provided by a California Registered Professional Engineer or Certified Engineering Geologist to the *[DPLU, PCC]*, which states that the identified rockfall hazards at

the site have been mitigated to a level of less than significant and any proposed buildings are safe for human occupancy.

- The above certification letter shall be provided prior to approval of any building plans and issuance of any building permit. The [DPLU, PCC] shall review the rockfall hazard certification report for compliance with this condition.

~~The above certification letter shall be provided prior to approval of any building plans and issuance of any building permit. The [DPLU, PCC] shall review the rockfall hazard certification report for compliance with this condition.~~

~~: (1) identifying boulders that have a high potential for rockfall and breaking and/or removing these rocks from the hillside; (2) identifying boulders that have a less significant rockfall potential, testing these rocks with excavation equipment, and removing rocks that move or appear to be unstable; and (3) monitoring rocks during development of the Proposed Project.~~

~~1)Boulders identified as having a high potential (eroded at the base or entirely free from the soil) shall be broken and removed from the slope, or alternatively rock bolted to the slope. This will require use of an excavator with a rock breaking device or drilling the rock and using chemicals that break rock, or the use of anchors to pin the rock to the slope. Large rocks that are impractical to completely remove or anchor to the slope shall be broken down such that they are relatively flat or on contour with the slope face to create a rock with a shape that will not roll.~~

~~2)Boulders identified as having a less significant rockfall potential shall be tested by applying pressure with the excavator. If the boulders move they shall be mitigated as recommended under No. 1. Boulders that are small enough such that they can easily be moved shall be pushed or rolled down the slope.~~

~~3)During the monitoring period after a period of heavy rain, the boulders shall be observed to assess if runoff has caused undermining of the downhill side of the boulder. Removal and/or breaking of the boulders as recommended shall be performed if undermining occurs.~~

8.1.~~7~~6 Mitigation for Impacts to Cultural Resources

The following would be required to mitigate significant impacts to cultural resources:

M-CR-1 A County-approved archaeologist and a Luiseno Native American monitor ~~professional archaeologist~~ shall monitor grading in the vicinity of the mapped location of the Monserate Adobe, as well as the area north of SR-76. A Monitoring Discovery Plan shall be prepared prior to commencement of construction activity, to be put in use in the event historic deposits are discovered. All artifacts recovered during all phases of survey, testing, and grading monitoring shall be curated according to

current professional repository standards. The collections and associated records shall be transferred, including title, to an appropriate curation facility within San Diego County that meets federal standards per 36 CFR Part 79, to be accompanied by payment of the fees necessary for permanent curation.

M-CR-2a To preserve the integrity of CA-SDI-682, the applicant shall cap Loci A and B per County of San Diego standards, landscaped as part of the overall development and placed in an open space easement. A Preservation Plan describing the methods and ultimate disposition of the capped site area has been prepared and is included as Appendix I of the Cultural Resources Report. The location of the conservation open space easement is shown in Figure 4 of the Preservation Plan. If Palomar Community College mitigates for impacts associated with Horse Ranch Creek, they will be responsible for mitigation associated with Locus B which entails capping, temporary fencing and open space easement dedication.

M-CR-2b For the protection of archaeological site CA-SDI-682, Loci A and Loci B, the applicant shall prepare and implement a temporary fencing plan during any grading activities with one hundred feet. The fencing plan shall be prepared in consultation with a County-approved archaeologist and a Luiseño Native American representative ~~qualified archaeologist~~ to the satisfaction of the Director of the Department of Planning and Land Use. The fenced area should include a buffer sufficient to protect the archaeological site. The fence shall be installed under the supervision of the ~~qualified~~approved archaeologist prior to commencement of grading or brushing and be removed only after grading operations have been completed.

M-CR-3 A County-approved archaeologist and a Luiseno Native American representative ~~professional archaeologist~~ shall monitor grading in the vicinity of Loci C, as well as the area north of existing SR-76. A Monitoring Discovery Plan shall be prepared prior to commencement of construction activity, to be put in use in the event archeological deposits are discovered. All artifacts recovered during all phases of survey, testing, and grading monitoring shall be curated according to current professional repository standards. The collections and associated records shall be transferred, including title, to an appropriate curation facility within San Diego County that meets federal standards per 36 CFR Part 79, to be accompanied by payment of the fees necessary for permanent curation.

M-CR-4 A County-approved archaeologist and a Luiseno Native American representative ~~professional archaeologist~~ shall monitor grading and subsurface excavation in off-site areas. All artifacts recovered during all phases of survey, testing and grading monitoring shall be curated according to current professional repository standards. The collections and associated records shall be transferred, including title, to an appropriate curation facility with San Diego County, to be accompanied by payment of the fees necessary for permanent curation.

M-CR-5 A County-approved archaeologist and a Luiseno Native American representative ~~professional archaeologist~~ shall monitor grading and subsurface excavation in on- and off-site areas not covered by CR-1 and CR-3. All artifacts recovered during all phases of survey, testing, and grading monitoring shall be curated according to current professional repository standards. The collections and associated records shall be transferred, including title, to an appropriate curation facility within San Diego County that meets federal standards per 36 CFR Part 79, to be accompanied by payment of the fees necessary for permanent curation.

8.1.8~~7~~ Mitigation for Impacts to Noise

The following would be required to mitigate significant noise impacts

M-N-1 The Proposed Project shall construct noise attenuation barriers ranging from three to ten feet along the edge of the residential pads, as shown in Figures 3.5~~4~~-4 and 3.5~~4~~-7. Barriers shall be free of cracks and holes. The transmission loss through a barrier should be at least 10 decibels greater than the estimated barrier attenuation (Federal Highway Administration 1979:34). If a barrier attenuates noise levels by 10 decibels at a receiver location, the barrier transmission loss must be at least 20 decibels to prevent audible noise from traveling through the barrier and adding to the acoustical environment. Examples of acceptable barrier materials include, but are not limited to, masonry block, wood frame with stucco, 0.5-inch-thick ~~Plexiglas~~plexiglass, or 0.25-inch-thick plate glass. If transparent barrier materials are used, no gaps shall occur between the panels.

Figure 3.4~~5~~-6 shows the barriers that would be required if the Campus Park project was constructed before the Proposed Project. As shown in Figure 3.4~~5~~-6, several noise barriers at the southwest portion of Planning Area 1 as shown on Figure 3.4~~5~~-4 would not be required with development of the Campus Park project.

M-N-2 A noise protection easement shall be placed on those lots where exterior noise levels exceed 60 CNEL to assure that at such time as architectural plans are available, and prior to the issuance of building permits, an interior acoustical analysis shall be conducted in accordance with the State Building Code and County standards. If interior allowable noise levels are met by requiring that windows be unopenable or closed, the design for the structure must also specify a ventilation or air-conditioning system to provide a habitable interior environment, as ~~specified~~ stated in the State Building Code. For exterior balconies, the acoustical analysis will determine the height and make up of acoustical barriers, also in accordance with State Building Code and County standards.

M-N-4 ~~To reduce noise levels from the WWTP, the Proposed Project shall construct a 10-foot barrier at the property line south of Planning Area 1 and north of SR-76.~~ To reduce noise levels from the WWTP, the Proposed Project shall construct a nine-foot barrier at the property line south of Planning Area 1 and north of SR-76 and a seven-foot barrier

proposed south of the WWTP site, The seven-foot barrier shall consist of a six-foot wall on top of a one-foot landscaped berm.

8.1.~~9~~8 Mitigation for Impacts to Hazards and Hazardous Materials

The following would be required to mitigate significant impacts related to hazards and hazardous materials:

M-HZ-1 Prior to grading, irrigation water shall be removed from the two on-site irrigation ponds and soil samples from the bottom of the ponds shall be collected and analyzed for potential agricultural residues, to the satisfaction of the Director of DEH. If contamination is present, evidence shall be provided to the satisfaction of the Director of DEH that all contaminated soils from the irrigation ponds have been remediated under the oversight of the DEH's SAM Program or removed and properly disposed of at an appropriately permitted facility, in accordance with government agency regulations.

M-HZ-2 Prior to grading, surficial soil in the vicinity of the smudge pots and elsewhere on the property where minor surficial staining is evident shall be excavated, removed from the site, and properly disposed of at an appropriately permitted facility, in accordance with government agency regulations and to the satisfaction of the County DEH.

M-HZ-3a Prior to issuance of a building permit that includes demolition of on-site structures and prior to commencement of demolition or renovation activities, a facility survey shall be performed to determine the presence or absence of asbestos containing materials (ACMs). Suspect materials that will be disturbed by the demolition or renovation activities shall be sampled and analyzed for asbestos content, or assumed to be asbestos containing. The survey shall be conducted by a person certified by Cal/OSHA pursuant to regulations implementing subdivision (b) of Section 9021.5 of the Labor Code, and shall have taken and passed an EPA-approved Building Inspector Course. Should regulated asbestos containing materials be found, it shall be handled in compliance with the San Diego County Air Pollution Control District Rule 361.145 – Standard for Demolition and Renovation. Evidence of completion of the facility survey shall consist of a signed, stamped statement from the person certified to complete the facility survey and shall be submitted to County DEH indicating that the survey has been completed and that either regulated asbestos is present or absent. If present, the letter shall describe the procedures that shall be taken to remediate the hazard.

M-HZ-3b Prior to issuance of a building permit that includes demolition of on-site structures and prior to commencement of demolition or renovation activities, a survey shall be performed by a California Department of Health Services (DHS) certified lead inspector/risk assessor to determine the presence or absence of lead based paint (LBP). All lead containing materials scheduled for demolition must comply with applicable regulations for demolition methods and dust suppression. Lead

containing materials shall be managed in accordance with applicable regulations including, at a minimum, the hazardous waste disposal requirements (Title 22 California Code of Regulations [CCR] Division 4.5), the worker health and safety requirements (Title 8 California Code of Regulations Section 1532.1), and the State Lead Accreditation, Certification, and Work Practice Requirements (Title 17 CCR Division 1, Chapter 8). The survey must be submitted to and deemed complete by the County DEH.

8.2 Environmental Design Considerations/Conditions of Approval Required to Ensure Implementation of Design Features

8.2.1 Aesthetics

To reduce aesthetics impacts, the Proposed Project includes design guidelines contained within the Community Design Element of the Meadowood Specific Plan Amendment. The design guidelines provide detailed site planning, architecture, landscape and grading measures for all residential, roadways and recreational uses. Implementation of these design measures would ensure long-term application and continued conformance with other design guidelines including the Fallbrook Design Guidelines, I-15 Corridor Guidelines and Scenic Roadway preservation. The Community Design Element is included in its entirety in Appendix C-2.

8.2.2 Air Quality

To reduce potential nuisance impacts and to ensure compliance with SDAPCD rules and regulations, standard dust and emission control during grading operations shall be implemented. The standard emissions control measures listed below are considered part of the project design:

- All unpaved construction areas shall be sprinkled with water or other acceptable SDAPCD dust control agents at least twice daily and during dust-generating activities to reduce dust emissions. Additional watering or acceptable SDAPCD dust control agents shall be applied during dry weather or windy days until dust emissions are not visible.
- Apply soil stabilizers to inactive areas.
- A 15-mile-per-hour speed limit on unpaved surfaces shall be enforced.
- On dry days, dirt and debris spilled onto paved surfaces shall be swept up immediately to reduce resuspension of particulate matter caused by vehicle movement. Approach routes to construction sites shall be cleaned daily of construction-related dirt in dry weather.
- Disturbed areas shall be hydroseeded, landscaped, or developed as quickly as possible and as directed by the County of San Diego and/or SDAPCD to reduce dust generation.

To reduce potential impacts associated with operation related emissions from project generated traffic and on-site source emissions, the Proposed Project promotes walking, bicycle riding, or horseback riding as alternative forms of transportation to motorized vehicles by including the following features into the specific plan:

- Complete sidewalk coverage.
- Street trees to provide shade.
- Internal trail system with connections to a regional system.
- Bike routes with paved shoulders to most major destinations.
- Mixed residential uses and routes that are visually interesting.
- Pedestrian and bicyclist safety through lighting, signalization and signage, bike lanes (as appropriate), and crosswalks.

To reduce potential impacts associated with the generation of objectionable odors, the on-site WWTP includes the following design features:

- The preliminary treatment building, equalization basins, and solids dewatering facilities shall be enclosed and the air would be conveyed to either wet scrubbers or activated carbon odor control units.
- Odor control units shall matter causing unpleasant odors which are perceptible by the average person at or beyond the lot line of the WWTP.
- Odor treatment units shall be required to provide a dilution ratio of one volume of odorous air to eight volumes of clean air.
- Wastewater treatment processes such as aeration and disinfection basins that are not enclosed within buildings shall be covered.

To reduce potential impacts associated with global climate change, the Proposed Project includes the following design measures:

Vehicle Emissions

- Bike lanes, wide trails, and pathways are designed throughout the subdivision to promote non-motorized transportation.
- The design of the Proposed Project encourages residents to walk and bike through their neighborhoods to the on-site school, park and town center, commercial areas, and college located in adjacent proposed projects.
- Circulation within the Proposed Project is accomplished using a system of roadways combined with a trail and sidewalk system for bike and pedestrian use. Interior roads link through the Proposed Project, Campus Park, and the Campus Park West properties, allowing residents easy access to the planned town center and commercial areas located in these other projects.
- The Proposed Project will be conditioned to participate, along with the other projects in the vicinity, in the contribution of funds for the acquisition, design, and construction of a future transit node in the location of the I-15/SR-76 quadrant.

Electricity Generation

- Homes comply with the U.S. Environmental Protection Agency's Energy Star criteria, which results in homes that are at least 30 percent more energy efficient than required by Title 24.
- Outdoor and indoor shaded areas have been implemented into the design of the multi-family planning areas to reduce energy use.

- Minimization of site lighting to that necessary for security, safety, and identification.

Water Use

- The Proposed Project shall use either reclaimed water or groundwater to irrigate common areas and retained agricultural groves.
- By utilizing the new stormwater regulations, more efficient irrigation will be used reducing the Proposed Project's water demand.
- Installation of low water usage appliances.
- The Proposed Project will be required to develop an off-set program ~~in conjunction with annexation into SDCWA or MWD. The goal of these actions is~~ to achieve a net zero project-wide water demand.

Solid Waste

- Meet or exceed the requirements of the County's Construction and Demolition Debris Ordinance (Sections 68.508 through 68.518 of the County Code of Regulatory Ordinances) that requires recycling of 90 percent of inert and 70 percent of other materials.
- Recycling bins as well as trash bins shall be provided to each resident.

8.2.3 Transportation/Traffic

To reduce potential traffic impacts:

- The Proposed Project will prepare a Traffic Control Plan. This plan shall be approved by the County Department of Public Works prior to the start of any clearing or grading activities, and shall be implemented during construction of the Proposed Project.
- Horse Ranch Creek Road has been designed per General Plan Update "Boulevard" standards.

8.2.4 Biological Resources

To reduce potential indirect effects of invasive plants on any biological resources, the landscape plant palette for the proposed slopes adjacent to natural areas shall include only native and low-fuel plant species. No invasive (non-native weedy species) plants shall be introduced adjacent to natural open space.

To reduce potential impacts associated with conformance with local ordinances and Natural Community Conservation Plans, the Proposed Project is consistent with the proposed subregional NCCP. Specifically, the Proposed Project is designed to conform to the proposed "take authorized" and "preserve" areas developed for the proposed North County MSCP.

To reduce impacts to regional wildlife movement, the Proposed Project has been designed to avoid the three mapped wildlife movement corridors in the area, as follows:

- Local wildlife and migratory bird movement within the island of riparian habitat along Horse Ranch Creek shall be avoided by constructing Pala Mesa Road south of the

main drainage. Vegetation disturbed by excavation for Pala Mesa Road will be revegetated. In addition, the proposed Pala Mesa Road shall use an existing bridge for Pankey Road to continue to allow access for small wildlife to the small patch of riparian vegetation to the southwest.

- The proposed water tank location has been designed around the existing water tank to reduce any new visual or physical barriers to wildlife movement along corridor 1. Similarly, the access road to the water tanks shall follow an existing road.
- The development area on the Project Site have been designed to avoid corridor 1 by limiting development to the lower elevations consisting of mostly agriculture vegetation and leaving the natural vegetation on the ridge intact.

To reduce impacts to the existing off-site wetland area located on the Campus Park project site, west of the Proposed Project, an on-site 100' wetland buffer shall be dedicated along the riparian woodland west of the southwestern boundary of the Project Site.

To reduce impacts to wildlife habitat, all trails in the open space preserve shall be located within existing trails/dirt roads. Any existing trails/dirt roads not included in the proposed trail system shall be closed and restored to natural habitat.

To prevent bullfrog use of the water storage and detention basins associated with the wastewater treatment plant an exclusion fence shall be installed around the perimeter. The fence will have small diameter holes of suitable size to prevent bullfrogs from passing through. The basins will be checked periodically during the focused monitoring for exotic species. If bullfrogs are observed in the basins they will be removed. Control and eradication efforts shall be implemented at the most appropriate times of year, usually after heavy rains when the basins will be inundated, and will reflect current field conditions and observations regarding the bullfrogs. The County Department of Parks and Recreation as well as the DEH will be contacted to determine the need and manner of exotic species eradication efforts.

~~8.2.5 Agricultural Resources~~

~~To reduce potential impacts from the location of agricultural uses adjacent to residential development, the Proposed Project shall distribute disclosure statements shall in sales documentation for all proposed residential units. The statements shall notify potential owners that the adjacent properties could potentially be used for agricultural operations such as farming and/or cattle ranching and that there could be associated issues such as odors, noise, and vectors.~~

~~To reduce potential impacts associated with land use conflicts, the Proposed Project includes agricultural buffers separating on-site structures and off-site agricultural uses. This buffer is comprised of the 49.3-acre agricultural open space and 122.4 acres of natural open space, which would be a minimum of 1,000 feet in width and up to approximately 2,500 feet at its widest part. The distance between the on-site residential uses and off-site agricultural operations would be adequate to prevent incompatibility. Additionally, a landscape buffer between the agricultural open space and the on-site residential areas shall be implemented to provide additional buffering. The landscaped buffer would be a 100-foot-wide area.~~

8.2.6~~5~~ Geology and Soils

To reduce the risk of exposure of people or structures to geologic hazards:

- The project design shall address seismic and geologic hazards through conformance with the UBC and the County Zoning Ordinance.
- The project design shall comply with all recommendations found in Section 7 of the geotechnical report.

To reduce the potential for rockfall from Rosemary's Mountain, the project design incorporates standard design measures including open space buffers and tree plantings.

- To reduce the potential for erosion, the project design shall include erosion control measures during construction and a landscaping plan that comply with current San Diego County and Fallbrook community rules and regulations to prevent soil erosion on- and off-site.

To reduce hazards associated with a project located on expansive soils:

- Comply with the improvement requirements identified in the 1997 Uniform Building Code, Division III—Design Standard for Design of Slab-On-Ground Foundations to Resist the Effects of Expansive Soils and Compressible Soils.
- Complete removal and recompaction of the compressible deposits, which are found in several locations across the site, shall be required in order to support structural improvements.

Remedial grading recommendations (Geotechnical Report; Section 7) are provided for areas where groundwater is encountered.

To reduce the potential for hazards associated with cut and fill slopes:

- Slopes shall be constructed at inclinations no steeper than 2:1. Cut or fill slopes comprised of granular soils should be stable up to heights of approximately 50 feet. Slope stability analyses were based on assumed direct shear strength parameters and are considered conservative. As such, the analyses indicate factors of safety in excess of 1.5 for both deep seated and surficial stability.
- Cut slopes shall be observed during grading by an engineering geologist to observe the exposed slope face to assess if adverse geologic conditions exist. Additional remedial grading may be recommended at that time.
- The outer 15 feet of fill slopes should be composed of properly compacted granular "soil" fill to reduce the potential for surface sloughing.
- All fill slopes shall be overbuilt at least 3 feet horizontally, and cut to the design finish grade. As an alternative, fill slopes may be compacted by backrolling at vertical intervals not to exceed 4 feet and then trackwalking with a D-8 bulldozer, or equivalent, such that the soils are uniformly compacted to at least 90 percent relative compaction to the face of the finish slope.
- All slopes shall be planted, drained, and properly maintained to reduce erosion.

To reduce the potential for adverse impacts associated with seepage and perched water:

- Subdrains are recommended to collect the perched water that migrates along the contact between natural ground and fill surfaces. The subdrain outlet points shall be located according to the recommendations of the Geotechnical Report.
- The lower 20 feet of the subdrains shall consist of non-perforated PVC pipe. The perforated/non-perforated joint shall have a concrete cutoff wall built at locations indicated by the Geotechnical Report. The subdrains shall outlet at the toe of fill slopes or connected to the storm drain system. Subdrains that outlet at the toe of slopes or onto surface grades shall be provided with a concrete outlet headwall at the outlet point.
- Final grading plans shall show locations of all proposed subdrains. Upon completion of remedial excavations and subdrain installation, the project engineer shall survey drain locations and prepare an "as built" map depicting surveyed locations and elevations of the drainpipes.

8.2.~~7~~6 Noise

To reduce potential noise from construction of the Proposed Project, construction activities shall comply with the County of San Diego Noise Abatement and Control Ordinance.

To reduce potential impacts associated with neighboring Rosemary's Mountain Rock Quarry, the Proposed Project will provide a notice prior to sale of all lots within the 50 dB(A) $L_{eq(1)}$ contour of the quarry stating the following:

> This property is located adjacent to Rosemary's Mountain Rock Quarry. Noise levels due to operations at the Quarry are projected to exceed 50 decibels one-hour Leq at this property, but will not exceed 60 decibels one-hour Leq.

8.2.~~8~~7 Hazards

To reduce potential impacts associated with interference with Emergency Air Support, the Proposed Project shall implement measures contained in the Community Design Guidelines of the Meadowood Specific Plan Amendment which includes 35-foot height limitation on all structures.

To reduce potential significant hazard to the public or the environment as a result of existing agricultural uses, the Proposed Project shall remove and dispose of all above ground storage tanks according to applicable regulations prior to development.

To reduce potential significant impacts associated with the 49.3 acres of retained groves, the Proposed Project includes the requirement that all applicable pesticide use permits are obtained from the County of San Diego Department of Agriculture Weights and Measures and that applicable permit conditions are complied with for pesticide use on the agriculture open space areas.

To reduce impacts associated with existing on-site septic systems and historic wells, the Proposed Project includes a design measure requiring the abandonment and removal of

all on-site septic systems, as well as the locating and removal of the historic water well in accordance with all applicable regulations and under permit and approval from the County of San Diego Department of Health.

To reduce fire hazards, the Proposed Project includes project design features including the creation of fuel modification zones, guidelines relating to the use of ignition resistant building materials, road requirements, placement and flow of fire hydrants, and the provision of fire access. All project design measures relating to fire safety are detailed in the Fire Protection Plan included in Appendix K-2.

To reduce impacts associated with vector breeding resulting from standing water in stormwater BMPs, the Proposed Project includes the following design measures:

- Hydrodynamic separators shall be designed with the applicable measures to exclude vectors from enclosed sources of standing water in structural BMPs.
- Detention basins shall be designed to completely drain in 24 to 72 hours in order to prevent basins from becoming sources for vectors.

8.2.~~9~~8 Hydrology and Water Quality

To reduce impacts to water quality, the Proposed Project includes short-term (construction) and long-term erosion control measures to ensure that chemicals or compounds would not significantly contaminate surface waters to below standards as established by the RWQCB. All potential Site Design BMPs, Low Impact Development requirements, Source Control BMPs and Treatment Control BMPs are detailed in the SWMP included in Appendix M-1.

To reduce impacts associated with runoff and drainage, the Proposed Project design includes the implementation of seven detention basins and the energy dissipaters to manage the velocities of run-off exiting the Project Site. In addition, the hydromodification management component that is associated with the detention facilities would reduce the effect of the Proposed Project's changes to runoff characteristics. Implementation of these design measures would assure that post-development run-off does not exceed pre-development run-off. Details of the design measures are included in the Drainage and Hydromodification Studies, located in Appendices M-2 and M3, respectively.

8.2.~~10~~ 9Public Services

To reduce impacts to schools:

- Prior to the issuance of building permits for the Proposed Project the developer shall pay school impact fees pursuant to Government Code Section 65970 et seq. to Fallbrook Union High School District, Fallbrook Union Elementary School District, and Bonsall Union Elementary School District.

To reduce impacts to fire services, the Proposed Project:

- Shall improve Pala Mesa Drive from the existing bridge crossing I-15 to the Project Site via Street R, as well as a northward extension of Street D to Pala Mesa Heights

Road. Additionally, fire access to Rice Canyon via a northeasterly extension of Street E is included in the Proposed Project's circulation plan

- The Proposed Project includes fire protection measures as detailed in the Fire Protection Plan, included as Appendix K-2.

To reduce impacts from solid waste, the Proposed Project shall:

- Deposit waste at a permitted waste facility and therefore, will comply with Federal, State, and local statutes and regulations related to solid waste.
- Meet or exceed the requirements of the County's Construction and Demolition Debris Ordinance (Sections 68.508 through 68.518 of the County Code of Regulatory Ordinances) that requires recycling of 90 percent of inert and 70 percent of other materials.
- Provide recycling bins as well as trash bins for each resident.
- Conform to the applicable County recycling activities.

8.2.~~11~~10 Utilities

The Proposed Project will be conditioned to obtain water and wastewater services from a MWD, as determined by LAFCO.

To reduce impacts associated with the extension of utilities to the Project Site, the Proposed Project includes the following design measures:

- The Proposed Project shall use either reclaimed water or groundwater to irrigate common areas and retained agricultural groves.
- By utilizing the new stormwater regulations, more efficient irrigation will be used; therefore, reducing the Proposed Project's water demand.
- The Proposed Project shall install low water usage appliances.
- The Proposed Project shall offset the remainder of its delivered water requirement by participating in an offset program with the SDCWA or MWD. The project will be required to develop an off-set program in conjunction with annexation into SDCWA or MWD. The Proposed Project shall provide net zero demand on Water Authority supplies, regardless of the existence of off-set programs.

~~•The goal of these actions is to achieve a net zero project-wide water demand.~~

- The on-site WWTP shall be located a minimum of 250 feet from any residences.