

7.11 SUMMARY OF ENVIRONMENTAL CONSEQUENCES

This subsection presents a summary of the environmental consequences reviewed in Chapter 7.0 and, afterwards, discusses whether the conclusions reached regarding each alternative would affect the choice of alternatives carried forward into Chapter 8.0 for analysis pursuant to the Section 404(b)(1) Guidelines.

7.11.1 NON-AQUATIC BIOLOGICAL RESOURCES

7.11.1.1 Alternative B-10 Modified

The B-10 Modified Alternative would result in significant impacts to grassland, coastal sage scrub, woodland and forest, and cliff and rock and brodiaea. Through implementation of the GPA/ZC EIR 589 Adaptive Management Plan, including the Plant Species, Translocation Propagation and Management Plan, and in conjunction with the open space dedication program, the impacts to grassland, coastal sage scrub, and woodland and forest, and brodiaea would be reduced to a level of less than significant. Impacts to cliff and rock would remain a significant impact. Implementation of infrastructure associated with the B-10 Modified Alternative would result in significant impacts to nesting raptors. Significant construction impacts to nesting raptors would be reduced to a level of less than significant through implementation of GPA/ZC EIR 589 mitigation measures and UASCE Special Conditions. Implementation of the B-10 Modified Alternative would result in significant impacts related to invasive species; this impact would be reduced to a level of less than significant through implementation of the Invasive Species Control Plan. Water quality impacts would be reduced to a level of less than significant through implementation of GPA/ZC EIR 589 mitigation measures (inclusive of a WQMP) and compliance with UASCE Special Conditions. Through implementation of the mitigation measures adopted by the County of Orange and USACE Special Conditions regarding the control of lighting, potential lighting impacts on wildlife would be reduced to a level of less than significant. Without minimization and mitigation measures, implementation of the B-10 Modified Alternative would result in significant impacts related to human activity. Through implementation of the mitigation measures adopted by the County of Orange, this impact would be reduced to a level of less than significant.

7.11.1.2 Alternative B-12

The B-12 Alternative would result in significant impacts to grassland, coastal sage scrub, woodland and forest, cliff and rock, and brodiaea. Through implementation of the GPA/ZC EIR 589 Adaptive Management Plan in conjunction with permanent protection provided through the GPA/ZC open space phased dedication program, impacts to grassland, coastal sage scrub, and woodland and forest would be reduced to a level of less than significant. Impacts to cliff and rock would remain a significant impact.

Impacts to brodiaea would be reduced to a level of less than significant through the dedication of open space and associated conservation of brodiaea populations. Implementation of the Plant Translocation Plan is part of the GPA/ZC Adaptive Management Plan and through the USACE Special Condition regarding this species, the location supporting 2,000 flowering stalks in the Chiquadora Ridge *major population/ key location* would be conserved. Four smaller populations totaling about 85 flowering stalks would be developed as a result of construction in Planning Area 2. The *major population/key location* located in southern Cristianitos/Gabino Canyons would be 100 percent conserved, and the Arroyo Trabuco *important population* would be conserved.

As reviewed in Chapter 7.0, individual impacts to gnatcatchers are not considered cumulatively significant and would be mitigated through the conservation of over 80 percent of the major population/key location and additional important populations and key locations, in conjunction with the long-term management and enhancement actions provided through the GPA/ZC Adaptive Management Program.

Implementation of infrastructure associated with the B-12 Alternative could potentially result in significant impacts to nesting raptors. Implementation of mitigation measures specifying avoidance of active nesting sites would reduce construction impacts to a level of less than significant.

Implementation of the B-12 Alternative would potentially result in significant impacts related to invasive species. Mitigation measures specifying prohibitions on planting invasive species within development areas and requiring the implementation of the Invasive Species Control Plan, in conjunction with the Aquatic Resources Adaptive Management Program and the USACE Special Condition, invasive species impacts would be reduced to a level of less than significant.

Through implementation of the mitigation measures adopted by the County of Orange and USACE Special Conditions, water quality impacts would be reduced to a level of less than significant. Through implementation of the mitigation measures adopted by the County of Orange and USACE Special Condition regarding control of lighting, this potential indirect impact to wildlife would be reduced to a level of less than significant. Without minimization and mitigation measures addressing human activity within the ARCA and other RMV Planning Area open space, implementation of the B-12 Alternative would potentially result in significant impacts related to human activity. Through implementation of the mitigation measures adopted by the County of Orange, this impact would be reduced to a level of less than significant.

7.11.1.3 Alternative A-4

Impacts for, and the level of significance after mitigation for, Alternative A-4 would be as described above for Alternative B-10 Modified, except that incremental permitting may not achieve a level of avoidance and minimization comparable to the B-10 Modified due to the planning limitations inherent in incremental permitting.

7.11.1.4 Alternative A-5

Significant non-aquatic resource areas would be avoided. However, because of the absence of impacts creating a regulatory nexus justifying open space dedications, open space areas outside of proposed development areas may not have permanent use restrictions. As a consequence, while these areas would be “avoided,” they would not be protected because future land use entitlements could be requested by a private landowner. Given the low density of housing and the County’s overall housing goals reflected in OCP-2004, requests for densification could occur. As previously noted, comprehensive non-aquatic resource restoration would not be undertaken. Additionally, two non-USACE jurisdictional areas important to maintaining and restoring long-term hydrologic/terrains resources—the side canyons of middle Chiquita and the non-wetlands areas adjoining Gobernadora Creek—would not be protected under this alternative scenario. Finally, this alternative would not provide adequate buffers, would allow development in non-jurisdictional headwaters areas, and would not provide a level of wildlife habitat connectivity comparable to the B-10 Modified and B-12 Alternatives.

7.11.2 LAND USE

7.11.2.1 Alternative B-10 Modified

The RMV Planning Area is generally at the edge of urban development. Existing uses within the RMV Planning Area include various agricultural uses, industrial leases, and ranch-related residential uses. The Alternative B-10 Modified Alternative would not disrupt or divide the physical arrangement of an established community.

There is the potential for residential uses in Planning Area 8 to experience disturbance from helicopter flights and artillery training exercises, especially those occurring during night hours, potentially resulting in incompatible land uses. MCB Camp Pendleton borders the RMV Planning Area on the south and east, adjacent to Planning Areas 8 and 10. Alternative B-10 Modified would not have a direct impact on MCB Camp Pendleton. However, there is a potential for impacts from MCB Camp Pendleton on future sensitive land uses, specifically in Planning Area 8. Specific concerns relate to noise impacts from training operations and increased night lighting from proposed development in Planning Area 8 affecting base training operations and vice versa. Residential use would be considered a sensitive, incompatible use by MCB Camp Pendleton. Associated with the land compatibility issue, MCB Camp Pendleton has expressed concern that the placement of residential development adjacent to the base would result in impacts to future residents, which may ultimately result in pressures to modify their training operations. If this were to occur, it is uncertain if there would be a significant physical impact associated with modification of training operations to reduce impact from MCB Camp Pendleton operations on the adjacent RMV Planning Area. There is a potential that impacts associated with training operations, such as noise, may then occur in an area not currently impacted. Any impact is speculative because it is uncertain if the area in Planning Area 8 would be adversely impacted by MCB Camp Pendleton, and if the residents would pressure for modification to training operations, and how the training operations would be modified. However, mitigation requiring the evaluation of the compatibility of the noise sensitive land use at the time of the processing of an area plan with the County of Orange for review and approval, as well as a buyer notification program, would reduce this potential impact to a level of less than significant.

7.11.2.2 Alternative B-12

Alternative B-12 could have the same potential land use compatibilities with MCB Camp Pendleton as would occur with Alternative B-10 Modified. However, given the reduced development in Planning Area 8, the potential could be less. Any impact is speculative because it is uncertain if the area in Planning Area 8 would be adversely impacted by MCB Camp Pendleton and if residential uses in Planning Area 8 would be as close to the base as proposed for Alternative B-10 Modified, and if the residents would pressure for modification to training operations, and how the training operations would be modified. Mitigation requiring the evaluation of the compatibility of the noise sensitive land use at the time of the processing of an area plan with the County of Orange for review and approval, as well as a buyer notification program, would reduce this potential impact to a level of less than significant.

7.11.2.3 Alternative A-4

Alternative A-4 would provide the same level of development as Alternative B-10 Modified. However, Alternative A-4 assumes that permits to authorize discharge or fill in Waters of the U.S. would be processed on a project-by-project basis instead of under the SAMP process. This procedural change related to Waters of the U.S. would not affect the land use findings set forth

for Alternative B-10 Modified. As such, the land use impacts for both alternatives would be the same.

7.11.2.4 Alternative A-5

Under Alternative A-5, estate residential development would occur within an approximately 8,000-acre development area (35 percent) of the RMV Planning Area. Approximately 14,815 acres (65 percent) of the RMV Planning Area would be in some form of open space. This alternative assumes the development of up to 3,000 estate lots. This alternative also assumes that a portion of the undeveloped portion of each residential lot would extend into open space areas and that other avoidance areas such as in Planning Area 3 would be included within the development envelope as community open space amenity areas. Implementation of the A-5 Alternative would not result in significant physical land use impacts. It would not result in the disruption of an established community because all development would occur within the RMV Planning Area boundaries. The land uses associated with the alternative would be compatible with existing or planned on-site land uses and uses adjacent to the RMV Planning Area because they would be a continuation of large-lot residential development. This alternative would have similar impacts associated with compatibility with MCB Camp Pendleton, although the overall number of units in Planning Area 8 would be substantially less.

7.11.3 TRANSPORTATION AND CIRCULATION

7.11.3.1 Alternative B-10 Modified

The total trip generation of Alternative B-10 Modified is 183,338 trips per day, of which 14,289 are in the a.m. peak hour and 18,033 are in the p.m. peak hour. Buildout of Alternative B-10 Modified under the *Year 2025 + Alternative B-10 Modified Buildout* traffic scenario would result in significant cumulative impacts to study area intersections, freeway ramps, and freeway mainline segments. Under the committed circulation scenario, this alternative would significantly impact 17 intersections, 7 freeway ramps, and 14 freeway mainline segments. Under the Committed Circulation System plus La Pata Avenue Extension scenario, Alternative B-10 Modified is expected to significantly impact 15 intersections, 5 freeway ramps, and 13 freeway mainline segments. Under the Committed Circulation System plus La Pata Avenue Extension plus SR-241 Extension, Alternative B-10 Modified is expected to significantly impact 11 intersections, 5 freeway ramps, and 6 freeway mainline segments.

The proposed transportation improvements result in acceptable levels of service at each improvement location with the exception of three intersections (Marguerite Parkway at Crown Valley Parkway in the City of Mission Viejo, Camino Capistrano at Del Obispo Street in the City of San Juan Capistrano, and the I-5 southbound ramp intersection at Avenida Pico in the City of San Clemente) under cumulative with Alternative B-10 Modified conditions without the SR-241 extension. The at-grade and grade-separated plans at the Antonio Parkway/New Ortega Highway intersection both result in acceptable levels of service under cumulative conditions with the SR-241 extension. However, only the grade-separated improvement plan results in acceptable levels of service under cumulative conditions without the SR-241 extension. For this reason, a grade-separated plan may be the preferred design option.

Alternative B-10 Modified's contribution to impacts on freeway mainline segments that are forecast to operate deficiently would be considered significant and unavoidable.

To address those proposed transportation improvements located outside the County's jurisdiction, the County is endeavoring to enter into agreements with the affected jurisdictions

regarding the design and construction of the improvements and the transfer of monies paid towards funding of these improvements from the SCRIP program. However, if the County is not able to reach agreement with one or more of the jurisdictions, for purposes of this EIS, the impacts to be mitigated by those improvements may remain significant and be unavoidable.

7.11.3.2 Alternative B-12

Like the B-10 Modified Alternative, the B-12 Alternative assumes 14,000 residential units and a similar amount of non-residential square footage. Therefore, maximum entitlements under Alternatives B-10 Modified and B-12 are comparable. It is anticipated that there could be some differences between projected traffic impacts under the B-12 Alternative (as compared with the B-10 Modified Alternative) in the event of a reallocation of residential units/nonresidential square footage between and among the development areas, due to the reduction in size of development areas within Planning Areas 4, 6, 7, and 8, as well as the proposal under Alternative B-12 to retain Cristianitos Road as a private road south of the Ortega Highway. However, such reallocations will not be proposed until master area plans are submitted to the County for each of the planning areas. Therefore, any analysis of the changes would be speculative at this time. Because the maximum levels of development would be unchanged, the significant effects of and level of significance after mitigation for Alternative B-12 are expected to be similar to those of Alternative B-10 Modified.

7.11.3.3 Alternative A-4

Alternative A-4 assumes the same amount of development within the same footprint as Alternative B-10 Modified. Because Alternative A-4 assumes the same amount of development within the same footprint as Alternative B-10 Modified, it would have the same traffic and circulation impacts as Alternative B-10 Modified.

7.11.3.4 Alternative A-5

Implementation of Alternative A-5 assumes development would occur on approximately 8,000 acres (35 percent) with approximately 14,815 acres (65 percent) of the RMV Planning Area in open space. This alternative assumes up to 3,000 dwelling units. With 3,000 dwelling units, it is expected that there would be limited employment-generating land uses. For Year 2025, under a committed network scenario, Alternative A-5 is anticipated to result in 19 intersection deficiencies, 8 freeway ramp deficiencies, and 7 freeway mainline deficiencies. Although Alternative A-5 would generate substantially less traffic than the other alternatives, given the projected impacts under the 2025 scenario and the number of deficient intersections and other facilities, it is expected that a substantial mitigation program to provide required road/intersection improvements would also be required for this alternative in order to address cumulative impacts. As with the other alternatives, a fair share contribution towards the cost of these improvements would be required to be paid into a SCRIP-like program. As with the other alternatives, it is expected that the provision of necessary improvements would result in acceptable levels of service at each improvement location. To the extent that the improvements lie outside of the County's jurisdiction, the County would be required to enter into agreements with the affected jurisdictions regarding the design and construction of the improvements and the transfer of monies paid towards funding of these improvements from a SCRIP-like program. However, if the County is not able to reach agreement with one or more of the jurisdictions, for purposes of this EIS, the impacts to be mitigated by those improvements may remain significant and be unavoidable. Alternative A-5's contribution to impacts on freeway mainline segments that are forecast to operate deficiently would be considered significant and unavoidable.

7.11.4 AGRICULTURAL AND AGGREGATE RESOURCES

7.11.4.1 Alternative B-10 Modified

The B-10 Modified Alternative would result in the development of urban uses on lands designated as Important Farmland in the RMV Planning Area. This alternative would result in the removal of 278 acres of Prime Farmland, 38 acres of Farmland of Statewide Importance, and 529 acres of Unique Farmland. Cumulatively, implementation of the B-10 Modified Alternative would result in the loss of 845 acres of Important Farmland. There are no feasible mitigation measures that would reduce the loss of Important Farmland to less than significant. The identification of development areas took into consideration the need to avoid and minimize impacts to sensitive habitat and species. Relocation of agriculture to other locations within the SAMP Study Area is limited because consideration must be given to the sensitive habitat, suitable soils, topography, and availability of water. Therefore, the impacts to Important Farmland would be considered a significant, unavoidable impact. It should also be noted that while the nurseries are located on what is considered Important Farmland, the plant material is being grown in containers and the impact on Important Farmland is unaffected. These uses would be able to relocate outside of the RMV Planning Area and continue operation elsewhere.

Implementation of Alternative B-10 Modified on the RMV Planning Area would result in the inability to extract the sand and gravel within San Juan Creek. The California Geological Survey identifies this resource as a locally important mineral resource recovery site. This is considered a significant unavoidable impact. Additionally, implementation of this alternative would curtail the extraction of resources at the ONIS site, a locally important resource. In this latter instance, Project Design Features can help to reduce the level of impact, but not to a level of less than significant.

7.11.4.2 Alternative B-12

The B-12 Alternative would result in the development of urban uses on lands in the RMV Planning Area designated as Important Farmland. It should be noted that for the B-12 Alternative, an overstated impact analysis is assumed for Planning Areas 4 and 8 and for the orchards proposed in Planning Areas 6 and 7. The final footprint of future development/orchards within these planning areas is undefined at this time because the precise location of future development/orchards is not known. In order to provide an analysis of possible impacts to Important Farmland, the impacts in Planning Area 4 are assumed to affect a larger "impact area" of approximately 1,127 acres and the impacts for Planning Area 8 are assumed to affect a larger "impact area" of approximately 1,349 acres. The impact areas in Planning Areas 6 and 7 are approximately 249 acres and 182 acres, respectively. This impact analysis overstates the possible impacts to vegetation communities and species because, ultimately, Rancho Mission Viejo is limited to developing a maximum of 550 acres in Planning Area 4, 500 acres in Planning Area 8, and a total of 50 acres of orchards in either/or Planning Area 6 and 7, as well as all necessary supporting infrastructure in addition to the proposed development in the other planning areas. Therefore, under the overstated impact scenario, this alternative would result in the removal of up to 307 acres of Prime Farmland, 48 acres of Farmland of Statewide Importance, and 584 acres of Unique Farmland. In total, implementation of the B-12 Alternative would result in the loss of up to 939 acres of Important Farmland.

There are no feasible mitigation measures that would reduce the loss of Important Farmland to less than significant. The identification of development areas took into consideration the need to avoid and minimize impacts to sensitive habitat and species. Relocation of agriculture to other locations within the SAMP Study Area is limited because consideration must be given to the

sensitive habitat, suitable soils, topography, and availability of water. Therefore, the impacts to Important Farmland would be considered a significant, unavoidable impact. It should also be noted that while the nurseries are located on what is considered Important Farmland, the plant material is being grown in containers, although the impact on Important Farmland is unaffected. These uses would be able to relocate outside of the RMV Planning Area and continue operation elsewhere.

Alternative B-12 would result in significant unavoidable impacts by precluding the extraction of mineral resources in San Juan Creek, an area designated as a Mineral Resource Zone by the state. There are no mitigation measures that can reduce this impact to a level of less than significant. Additionally, the alternative would curtail the extraction of resources at the ONIS site, a locally important resource. In this latter instance, a Project Design Feature can reduce the level of impact, although not to a level of less than significant.

7.11.4.3 Alternative A-4

The A-4 Alternative would result in the same impacts as Alternative B-10 Modified.

7.11.4.4 Alternative A-5

The A-5 Alternative would result in the development of urban uses on lands within the RMV Planning Area designated as Important Farmland. Under a worst-case scenario, this alternative could result in the removal of up to 273 acres of Prime Farmland, 45 acres of Farmland of Statewide Importance, and 512 acres of Unique Farmland. Therefore, development of the A-5 Alternative could result in the loss of up to 830 acres of Important Farmland. There are no feasible mitigation measures that would reduce the loss of Important Farmland to less than significant. The identification of development areas took into consideration the need to avoid and minimize impacts to aquatic resources. Relocation of agriculture to other locations within the SAMP Study Area is limited because consideration must be given to the sensitive habitat, suitable soils, topography, and availability of water. Therefore, the impacts to Important Farmland would be considered a significant, unavoidable impact. It should also be noted that while the nurseries are located on what is considered Important Farmland the plant material is being grown in containers, although the impact on Important Farmland is unaffected. These uses would be able to relocate outside of the RMV Planning Area and continue operation elsewhere.

Alternative A-5 would result in significant unavoidable impacts by precluding the extraction of mineral resources in San Juan Creek, an area designated as a Mineral Resource Zone by the state. There are no mitigation measures that can reduce this impact to a level of less than significant. Additionally, the project would curtail the extraction of resources at the ONIS site, a locally important resource.

7.11.5 AIR QUALITY

7.11.5.1 Alternative B-10 Modified

Construction-related air quality emissions would result in significant impacts on a daily and quarterly basis. With respect to quarterly construction emissions, Alternative B-10 Modified is expected to generate 49.7 tons per quarter of carbon monoxide (CO) (SCAQMD daily threshold is 24.75 tons per quarter), 46.26 tons per quarter of volatile organic compounds (VOC) (the threshold is 2.5 tons per quarter), 34.69 tons per quarter of oxides of nitrogen (NO_x) (the threshold is 2.5 tons per quarter), and 398.8 tons per quarter of particulate matter (PM₁₀) (the

threshold is 6.75 tons per quarter). Recommended control measures would substantially reduce short-term, construction-related PM₁₀ emissions. However, short-term, construction-related emissions of NO_x, CO, VOC, and PM₁₀ during the peak construction period would remain significant after mitigation.

Because the region is in non-attainment for ozone, CO, and NO₂, and project-related increases of these pollutants are above SCAQMD thresholds, operation of Alternative B-10 Modified would result in a significant cumulative air quality impact for CO, NO_x, and ROG (an ozone precursor). Long-term operational emissions of CO, VOC, NO_x, and PM₁₀ would remain significant and unavoidable.

With respect to local operational air emissions, no additional mitigation beyond that assumed in the traffic analysis is assumed for traffic emissions. Alternative B-10 Modified would not result in significant local operational air quality effects.

Consistency with an Air Quality Management Plan requires that the project be consistent with the approved Air Quality Management Plan/State Implementation Plan for the region that provides controls sufficient to attain the national ozone standards by the required attainment date. The Air Quality Management Plan is based on growth projections agreed to the five affected counties and SCAG. If the total population accommodated by a new project, together with the existing population and the projected population from all other planned projects in the subarea, does not exceed the growth projections for that subarea incorporated in the most recently adopted Air Quality Management Plan, the completed project is consistent with the Air Quality Management Plan. The entire County of Orange is considered to be one subarea. The Air Quality Management Plan is region-wide and accounts for, and offsets, cumulative increases in emissions that are the result of anticipated growth throughout the region. Because implementation of Alternative B-10 Modified would not exceed growth projections for the subarea, the alternative is considered consistent with the Air Quality Management Plan.

7.11.5.2 Alternative B-12

Alternative B-12 is very similar to Alternative B-10 Modified. It would allow for the development of a maximum of 14,000 residential units, with a similar mix of single-family attached and detached units, multi-family, and the 6,000 senior housing units (including both single-family units and apartments). Because of similar grading and construction assumptions between Alternative B-12 and Alternative B-10 Modified, the findings for Alternative B-10 Modified would also be applicable for this alternative. Emissions of all pollutants except sulfur oxides would be significant, based on the thresholds of significance set forth in this EIS. Because the region is in non-attainment for ozone, CO, and NO₂, and project-related increases of these pollutants are above SCAQMD thresholds, operation of Alternative B-12 would result in a significant cumulative air quality impact for CO, NO_x, and ROG (an ozone precursor). Long-term operational emissions of CO, VOC, NO_x, and PM₁₀ would remain significant and unavoidable. Alternative B-12 would also be considered consistent with the Air Quality Management Plan. Alternative B-12 would not result in significant local operational air quality effects.

7.11.5.3 Alternative A-4

Alternative A-4 would provide the same level of development as Alternative B-10 Modified. However, permits to authorize discharge or fill in Waters of the U.S. would be processed on a project-by-project basis instead of under the SAMP process. This procedural change related to Waters of the U.S. would not affect the air quality findings set forth for Alternative B-10 Modified. As such, the air quality impacts for both alternatives would be the same.

7.11.5.4 Alternative A-5

Under Alternative A-5, development would occur within approximately 8,000 acres (35 percent) of the 22,815-acre RMV Planning Area. Approximately 14,815 acres (65 percent) of the RMV Planning Area would be in some form of open space. It is estimated that Alternative A-5 could accommodate approximately up to 3,000 estate lots. Because substantially less development would occur associated with this alternative and the avoidance of all state and federal threatened/endangered species is required, this alternative assumes less disturbance activities. However, it is anticipated that emissions of all pollutants except sulfur oxides would be significant, based on the thresholds of significance set forth in this EIS. Because the region is in non-attainment for ozone, CO, and NO₂, and project-related increases of these pollutants are above SCAQMD thresholds, operation of Alternative A-5 would result in a significant cumulative air quality impact for CO, NO_x, and ROG (an ozone precursor). Long-term operational emissions of CO, VOC, NO_x, and PM₁₀ would remain significant and unavoidable. Alternative A-5 is considered consistent with the Air Quality Management Plan.

7.11.6 NOISE

7.11.6.1 Alternative B-10 Modified

Most of the proposed development associated with Alternative B-10 Modified is located away from existing noise-sensitive uses. The exception to this situation is at the edge of the RMV Planning Area near Ortega Highway where development would occur directly adjacent to existing residences. Alternative B-10 Modified would be developed in phases, potentially resulting in construction occurring adjacent to or near residential areas already constructed within or proximate to the RMV Planning Area. The Noise Ordinance limits noise generated by construction to the hours of 7 a.m. to 8 p.m. on weekdays and Saturdays. No noise generating activities are expected outside of these hours. In addition, the County requires compliance with the *Noise Ordinance*, the use of mufflers, and location of stock piles away from residential areas. Therefore, the construction would not result in significant short-term noise impacts.

Impacts from noise produced by project-generated traffic are estimated based on the traffic projections presented in the traffic study. By comparing the traffic volumes for different scenarios, the changes in noise levels along roadways in the vicinity of the RMV Planning Area can be estimated. To estimate noise level increases and noise impacts due to the development of Alternative B-10 Modified, the “with Alternative B-10 Modified” traffic volumes are compared to the “without Alternative B-10 Modified” traffic volumes.

To assess the impacts of buildout of the alternative, year 2025 conditions with and without the alternative were compared. Both scenarios assume the committed circulation system described in Chapters 4.1.5 and 7.3 of this EIS. Alternative B-10 Modified is forecast to result in noise increases greater than the 3 dB threshold along three roadway segments. However, based on the thresholds of significance set forth in this EIS, no significant project-specific impacts would occur.

Cumulative traffic noise impacts are assessed by comparing traffic noise CNEL increases compared to existing conditions with Alternative B-10 Modified and all other projected development within the study area. This provides the forecast traffic noise level increases due to the project alternative in addition to other projects and general growth anticipated for the area. Up to 14 roadway segments are forecast to experience 2025 traffic noise level increases over existing conditions greater than 3 dB as a result of implementation of Alternative B-10 Modified and projected growth in the area. Implementation of the recommended standard conditions and

mitigation measures would reduce all impacts to less than significant levels with the exception of cumulative noise impacts on Camino Capistrano north of Junipero Serra that would require the construction of a sound wall on private residential property. At this time, it cannot be guaranteed that permission to construct a wall of private property would be granted.

With respect to potential noise impacts to on-site land uses attributable to the Alternative B-10 Modified, noise-generating activities could include noise from commercial uses adjacent to residential uses, restaurants and nightclubs with late night operations, etc. Proposed commercial uses would be required to comply with the Noise Ordinance. Compliance with County Standard Condition N08 would ensure that commercial uses proposed by Alternative B-10 Modified would not significantly impact any proposed residential uses. The proposed southern extension of SR-241 could result in noise levels that would exceed 65 CNEL at 100 feet from the toll road centerline to 18 roadway segments. Sound attenuation would be required for proposed Alternative B-10 Modified sensitive receptors affected by SR-241 noise.

Residences proposed in Planning Area 8 would be the most impacted by noise generated from activities at MCB Camp Pendleton. Noise levels from the base are not expected to exceed the County's 65 CNEL outdoor residential noise standard within the RMV Planning Area, including Planning Area 8. However, noise from activities on the base, including aircraft and artillery firings, would be audible in Planning Area 8. With mitigation, Planning Area 8 would not be significantly impacted by noise from activities at the base.

7.11.6.2 Alternative B-12

Like the B-10 Modified Alternative, the B-12 Alternative assumes 14,000 residential units and a similar amount of non-residential square footage. Therefore, maximum entitlements under Alternatives B-10 Modified and B-12 are comparable. It is anticipated that there could be some differences in traffic-related noise impacts under the B-12 Alternative (as compared with the B-10 Modified Alternative) in the event of a reallocation of residential units/nonresidential square footage between and among the development areas, due to the reduction in size of development areas within Planning Areas 4, 6, 7, and 8, as well as the proposal under Alternative B-12 to retain Cristianitos Road as a private road south of the Ortega Highway. However, any changes would not be known until master area plans are requested in the future to the County of Orange. Because the maximum levels of development would be unchanged, the significant effects of Alternative B-12 are expected to be similar to those of Alternative B-10 Modified.

7.11.6.3 Alternative A-4

Alternative A-4 assumes the same amount of development within the same footprint as Alternative B-10 Modified. Under this alternative, a NCCP/MsAA/HCP or SAMP would not be prepared and permitting would proceed with incremental project-by-project review of new development proposals within the RMV Planning Area. Alternative A-4 would have the same noise impacts as Alternative B-10 Modified.

7.11.6.4 Alternative A-5

Implementation of Alternative A-5 assumes development would occur within approximately 8,000 acres (35 percent) with approximately 14,815 acres (65 percent) of the RMV Planning Area in open space. With up to 3,000 estate units, it is expected that there would be limited employment-generating land uses. The A-5 Alternative would generate similar short-term construction noise levels when compared to the other RMV Planning Area alternatives, but the

duration of construction would be shorter because of less development associated with this alternative. Alternative A-5 would generate approximately 30,000 trips per day. The A-5 Alternative would generate less long-term operational noise when compared to the other alternatives project because of the reduction in development associated with this alternative. In particular, less traffic noise would be generated.

7.11.7 VISUAL RESOURCES

7.11.7.1 Alternative B-10 Modified

Alternative B-10 Modified involves altering the existing natural visual characteristics of the RMV Planning Area through the grading and construction of residential, urban activity center, commercial, business park, and recreational uses. Alternative B-10 Modified would require approximately 288,461,000 cubic yards (cy) of cut and fill (153,235,000 cy of mass grading and 135,226,000 cy of remedial grading) including cuts to ridgelines and fills in valleys. The alternative incorporates design features and would implement County of Orange standard conditions and requirements and mitigation measures that would apply at the time of subsequent approvals, for the purpose of reducing visual disruption associated with this change in uses. However, to the extent that the open space appearance of the predominantly undeveloped portion of the RMV Planning Area would be irreversibly lost, this significant impact is unavoidable. Also, implementation of Alternative B-10 Modified would result in significant lighting impacts. After mitigation, there would also be incremental increases in light levels that are considered significant and unavoidable.

7.11.7.2 Alternative B-12

Alternative B-12 would also alter the existing natural visual characteristics of the RMV Planning Area through the grading and construction of residential, urban activity center, commercial, business park, and recreational uses. Alternative B-12 would require less cut and fill grading when compared to Alternative B-10 Modified because less land would be developed. Alternative B-12 assumes development on 5,873 acres with 16,942 acres in open space. Less grading would occur in Planning Areas 2, 4, and 8. With the exception of additional orchards in Planning Areas 6 and 7 and the relocation of the Rancho Mission Viejo headquarters to Planning Area 7, no development would occur within these two planning areas. Planning Area 9 has been eliminated. The alternative incorporates design features and would implement County of Orange standard conditions and requirements and mitigation measures that would apply at the time of subsequent approvals, for the purpose of reducing visual disruption associated with this change in uses. However, to the extent that the open space appearance of the predominantly undeveloped portion of the RMV Planning Area would be irreversibly lost, this significant impact is unavoidable. Also, implementation of Alternative B-12 would result in significant lighting impacts. After mitigation, there would also be incremental increases in light levels that are considered significant and unavoidable.

7.11.7.3 Alternative A-4

Alternative A-4 assumes the same amount of development within the same footprint as Alternative B-10 Modified. Under this alternative, a NCCP/MsAA/HCP or SAMP would not be prepared and permitting would proceed with incremental project-by-project review of new development proposals within the RMV Planning Area. Alternative A-4 would have the same visual impacts as Alternative B-10 Modified.

7.11.7.4 Alternative A-5

Impacts associated with Alternative A-5 are expected to be less than would be associated with Alternatives B-10 Modified, B-12, or A-4 because less development would be implemented and less area would be disturbed. Alternative A-5 assumes up to 3,000 estate lots within a development footprint of up to 8,000 acres with 14,815 acres in open space. This alternative also assumes that a portion of the undeveloped portion of each residential lot would extend into open space areas and that other avoidance areas such as in Planning Area 3 would be included within the development envelope as community open space amenity areas. However, because it is unknown where individual estate lots would be sited within the development footprint, the exact locations where development would be visible cannot be determined at a programmatic-level of analysis. Although this alternative would be expected to result in a reduction in the severity of the visual impacts when compared to the other alternatives, implementation of Alternative A-5 within the RMV Planning Area is expected to require grading, be visible from existing viewpoints, may be visible from wilderness parks, and would introduce nighttime lighting. These changes in the character of the RMV Planning Area are considered significant visual impacts of Alternative A-5.

7.11.8 CULTURAL RESOURCES

7.11.8.1 Alternative B-10 Modified

Implementation of Alternative B-10 Modified would directly impact 19 of the 53 archaeological sites in the RMV Planning Area that are either eligible or potentially eligible for the NRHP. They are prehistoric sites: CA-ORA-535, -656, -753, -754, -882, -997, -1043, -1048, -1121, -1222, -1134, -1136, -1137, -1138, -1449, -1556, -1559, -1560, and -1565. Inclusive of these identified sites are sites that have not had their eligibility determined: CA-ORA-535, -753, -754, -1134, -1136, -1137, and -1138. Because the significance of these sites has not yet been determined, any impacts to these sites would be considered significant until proven otherwise. Additionally, there are five historic sites which would be directly impacted through implementation of this alternative: CA-ORA-29, 30-176631, 30-176633, 30-176634, and 30-176635; impacts to these sites are considered significant. The eligibility of historic site 30-176633 and historic site 30-176631 has not been determined. Any impacts to these sites would be considered significant unless subsequent evaluation determines otherwise. With implementation of the mitigation program, potential impacts to prehistoric archaeological and historic resources would be reduced to a level considered less than significant.

7.11.8.2 Alternative B-12

Implementation of Alternative B-12 would have fewer impacts to prehistoric archaeological resources than Alternative B-10 Modified. Alternative B-12 would directly impact 16 of the 53 archaeological sites that are either eligible or potentially eligible for the NRHP: CA-ORA-656, -753, -754, -882, -1043, -1048, -1137, -1121, -1144, -1185, -1222, -1449, -1556, -1559, -1560, and -1565. Inclusive of these identified sites are sites that have not had their eligibility determined. Because the significance of these sites has not yet been determined, any impacts to these sites would be considered significant until proven otherwise. Five historic sites would be directly impacted through implementation. They are CA-ORA-29, 30-176631, 30-176633, 30-176634, and 30-176635; impacts to these sites are considered significant. With implementation of the mitigation program, potential impacts to prehistoric archaeological and historic resources would be reduced to a level considered less than significant.

7.11.8.3 Alternative A-4

Alternative A-4 assumes the same amount of development within the same footprint as Alternative B-10 Modified. Alternative A-4 would have the same cultural resource impacts as Alternative B-10 Modified. With implementation of the mitigation program, potential impacts to prehistoric archaeological and historic resources would be reduced to a level considered less than significant.

7.11.8.4 Alternative A-5

Implementation of Alternative A-5 would have fewer impacts to prehistoric archaeological resources when compared to the other alternatives. Alternative A-5 would directly impact 13 of the 53 archaeological sites that are either eligible or potentially eligible for the NRHP: CA-ORA-753, -754, -882, -997, -1043, -1048, -1121, -1134, -1222, -1555, -1556, -1559, and -1560. Where the significance of a site has not yet been determined, any impacts to the site would be considered significant until proven otherwise. Three historic sites would be directly impacted through implementation: CA-ORA-29, 30-176631, and 30-176633; impacts to these sites are considered significant. With implementation of the mitigation program, potential impacts to prehistoric archaeological and historic resources would be reduced to a level considered less than significant.

7.11.9 POPULATION, HOUSING, AND EMPLOYMENT

7.11.9.1 Alternative B-10 Modified

Alternative B-10 Modified would allow for the development of a maximum of 14,000 residential units. Of those 14,000 units, 7,020 would be single-family attached and detached units; 6,000 would be senior housing units (including both single-family units and apartments); and 980 units would be multi-family units. Alternative B-10 Modified has the potential to generate 32,823 new residents living within the RMV Planning Area and 16,508 jobs. This would not exceed OCP-2004 projections for the RMV Planning Area. No significant impacts would occur based on the thresholds of significance set forth in this EIS. With respect to the Regional Housing Needs Assessment (RHNA), the County of Orange is required to comply with the RHNA allocations and Alternative B-10 Modified would be responsible for contributing to the County's portions for regional housing. Alternative B-10 Modified would not conflict with the RHNA and no impact would occur related to RHNA.

Based on the jobs projected for the RMV Planning Area, Alternative B-10 Modified would generate approximately 16,509 jobs, resulting in a jobs-to-housing ratio of 1:18. This ratio means that Alternative B-10 Modified would be housing rich, which is consistent with the current trends in southern Orange County. However, of the 14,000 dwelling units proposed, 6,000 units would be age-restricted units (i.e., one resident must be aged 55 or older), resulting in a lower ratio. As a result of the reduced employment rates for residents of the 6,000 age-restricted units, the adjusted jobs/housing ratio for the RMV Planning Area would be approximately 1.7 jobs per household; therefore, this alternative would be jobs rich. This jobs-to-housing ratio would exceed SCAG's regional jobs/housing ratio of 1.33 for the Orange County Subregion projected for 2025. Because Orange County is considered "housing rich," this alternative would contribute employment opportunities in south Orange County and be consistent with the jobs/housing balance goal. As a result, implementation of the B-10 Modified Alternative would not result in significant jobs/housing balance impacts.

Alternative B-10 Modified would displace 11 housing units that are owned by Rancho Mission Viejo and occupied by people affiliated with Rancho Mission Viejo. These residents would be relocated to comparable housing units by Rancho Mission Viejo prior to demolition of the existing units. Because of the small number of units affected, as well as relocation of the residents by Rancho Mission Viejo, the impact resulting from the displacement of housing would be less than significant. Alternative B-10 Modified would not result in any significant impacts associated to population, housing, or employment.

7.11.9.2 Alternative B-12

Alternative B-12 is very similar to Alternative B-10 Modified. It would allow for the development of a maximum of 14,000 residential units, with a similar mix of single-family attached and detached units, multi-family, and the 6,000 senior housing units (including both single-family units and apartments). This alternative would provide the same amount of employment uses (5.2 million square feet) as Alternative B-10 Modified.

Alternative B-12 has the potential to generate 32,823 new residents living within the RMV Planning Area (the same as Alternative B-10 Modified) and 16,508 jobs. This increase would not exceed OCP-2004 projections for the RMV Planning Area. As with Alternative B-10 Modified, there would be no significant impacts associated with implementation of this alternative. The relationship of Alternative B-12 to the RHNA would be the same as Alternative B-10 Modified. This alternative would not conflict with the RHNA and no impact would occur related to RHNA. The B-12 Alternative would be consistent with SCAG's jobs/housing balance goal. Therefore, no significant jobs/housing balance impacts are anticipated. Because Orange County is considered "housing rich," this alternative would contribute employment opportunities in south Orange County and be consistent with the jobs/housing balance goal.

Alternative B-12 would also displace 13 housing units. Similar to Alternative B-10 Modified, these residents would be relocated to comparable housing units by Rancho Mission Viejo prior to demolition of the existing units. Alternative B-12 has designated an 11-acre site in Planning Area 3 for relocation of displaced units. Because of the small number of units affected, as well as relocation of the residents by Rancho Mission Viejo, the impact resulting from the displacement of housing would be less than significant.

7.11.9.3 Alternative A-4

Alternative A-4 would provide the same level of development as Alternative B-10 Modified. However, permits to authorize discharge or fill in Waters of the U.S. would be processed on a project-by-project basis instead of under the SAMP process. As such, the findings for Alternative B-10 Modified are applicable for Alternative A-4. Based on the thresholds of significance, there would be no significant impacts to population, housing, or employment associated with implementation of Alternative A-4.

7.11.9.4 Alternative A-5

Alternative A-5 would allow for the development of 3,000 residential units. This alternative would provide limited employment opportunities. The only employment would be possible small services to support the residential uses (e.g., small markets). Based on the generation factors identified for the other alternatives, Alternative A-5 has the potential to generate approximately 9,000 new residents living within the RMV Planning Area. This increase would not exceed OCP-2004 projections for the RMV Planning Area. As with Alternative B-10 Modified, there would be no significant impacts associated with implementation of this alternative.

7.11.10 RECREATION

7.11.10.1 Alternative B-10 Modified

Alternative B-10 Modified would result in a substantial increase in population in the SAMP Study Area. Associated with this increase in population would be an increased demand for recreational resources. This increased demand would be served through the development of neighborhood and community parks that would be provided to serve the proposed development. Based on the County local park requirements, 2.5 acres of parkland for every 1,000 residents would be required. Alternative B-10 Modified would have to provide an estimated 82 acres of local parkland. Alternative B-10 Modified would be required to construct new parks and recreational facilities, such as trails and bikeways. The parks would all be constructed within the development areas associated with this alternative. Therefore, the impacts on the environment have been addressed as part of the development impacts. No additional significant impacts would result from construction of new recreational facilities.

7.11.10.2 Alternative B-12

Alternative B-12 also would result in a substantial increase in population in the SAMP Study Area. As with Alternative B-10 Modified, this increase in population would result in an increased demand for recreational resources. Assuming the same amount of single-family and multi-family units as Alternative B-10 Modified, Alternative B-12 Modified would have to provide an estimated 82 acres of local parkland. As with Alternative B-10 Modified, Alternative B-12 would be required to comply with the Local Park Code and provide local parks within the new development areas to reduce spillover demand on other park facilities in currently developed areas. Alternative B-12 would not have any significant physical impacts on recreational resources. There would be no significant unavoidable impacts on recreational resources.

7.11.10.3 Alternative A-4

The development proposal and footprint for Alternative A-4 is the same as Alternative B-10 Modified. Therefore, the impacts associated with Alternative A-4 would be the same as those outlined above for Alternative B-10 Modified. Alternative A-4 would not have any significant physical impacts on recreational resources. There would be no significant unavoidable impacts on recreational resources.

7.11.10.4 Alternative A-5

The County of Orange local park requirement calls for 2.5 acres of parkland for every 1,000 residents. Under the Alternative A-5 scenario, it is anticipated that in the larger blocks of development, this requirement would be met through the provision of local parks. However, in the more remote areas or smaller pockets of development, this local parks requirement may be met through the payment of fees. For those areas where fees are paid, residents would use existing parks until sufficient fees are collected for the County to provide park area. This could place additional demand on existing recreational facilities in the short term. However, in the long range, it is anticipated that sufficient parks would be provided. Whether through provision of parkland or the payment of fees, Alternative A-5 would be required to comply with the County's Local Park Code; no significant impacts would occur.

The Master Plan of Riding and Hiking Trails depicts the San Juan Creek Trail, the Cristianitos Trail, a portion of the Prima Deshecha Trail, and the trail staging area, within the RMV Planning Area. In those locations where trails are designated and development would occur, the trails

would be implemented. However, under the Alternative A-5 scenario, there are large areas where trails are designated where no development would be allowed. Given the limited amount of development, it is uncertain if the entire trail network would be constructed. With limited residential development, it may not be financially possible for the 3,000 units to finance the implementation off-site portions of the trail network. This would result in gaps in the trail network. This would be a significant impact. Similarly, given the limited amount of residences, the provision of a community trails network may not be feasible. Community trails are desirable for providing connectivity to trails that have been developed in nearby communities, although it would not be a significant impact because it is not part of a regional trails network.

Similar to riding and hiking trails, Alternative A-5 would potentially leave gaps in the bikeway network. With Alternative A-5, Antonio Parkway would not be widened. As a result, the designated Class II bikeway would not be constructed. Since there is only limited development along San Juan Creek, it is uncertain if the Class I San Juan Creek Bikeway would be fully implemented. This alternative would not provide a parallel arterial highway (e.g., Cow Camp Road) which could be designed to include a Class I bike trail. With limited residences, it may not be financially possible for the 3,000 units to finance the implementation off-site portions of the bikeway network. Alternative A-5 would potentially conflict with the implementation of the County Master Plan of Bikeways. This would be considered a significant unavoidable impact on recreational resources.

7.11.11 RELEVANCE TO SECTION 404(b)(1) GUIDELINES ANALYSIS

The public interest issues discussed above may be considered as the “other environmental consequences” mentioned in the Section 404(b)(1) Guidelines (40 CFR 230.10[a]). Significant adverse environmental consequences with regard to these non-aquatic issues can be a consideration in deciding which alternatives to consider as a potential LEDPA. However, with regard to the Section 404(b)(1) Guidelines, “other environmental consequences test,” the conclusions discussed above for each of the various environmental topics/public interest issues do not affect the choice of alternatives carried forward into Chapter 8.0.