

7. Alternatives to the 2012 Modified Project

7.1 INTRODUCTION

7.1.1 Purpose and Scope

CEQA requires that an EIR include a discussion of a reasonable range of project alternatives that would “feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any significant effects of the project, and evaluate the comparative merits of the alternatives” (CEQA Guidelines Section 15126.6). This chapter identifies potential alternatives to the 2012 Modified Project and evaluates them, as required by CEQA.

Key provisions of the CEQA Guidelines on alternatives (Section 15126.6[a] through [f]) are summarized below to explain the foundation and legal requirements for the alternatives analysis of an EIR.

- “The discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly” (CEQA Guidelines 15126.6[b]).
- “The specific alternative of ‘no project’ shall also be evaluated along with its impact” (CEQA Guidelines 15126.6[e][1]).
- “The no project analysis shall discuss the existing conditions at the time the Notice of Preparation (NOP) is published, or if no notice of preparation is published, at the time the environmental analysis is commenced, as well as what would reasonably be expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services. If the environmentally superior alternative is the ‘no project’ alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives” (CEQA Guidelines 15126.6[e][2]).
- “The range of alternatives required in an EIR is governed by a ‘rule of reason’ that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project” (CEQA Guidelines 15126.6[f]).
- “Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent)” (CEQA Guidelines 15126.6[f][1]).

7. Alternatives to the Modified Project

- For alternative locations, “only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR” (CEQA Guidelines 15126.6[f][2][A]).
- “An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative” (CEQA Guidelines 15126.6[f][3]).

This alternatives analysis differs from a typical alternatives analysis because the 2011 Approved Project is vested and therefore it is not legally feasible to reduce the previously approved densities. In addition, impacts of the 2012 Modified Project are generally similar to the 2011 Approved Project so that there is no alternative that would reduce an identified significant impact to less than significant. Moreover, there are benefits of the 2012 Modified Project that will be greater than the 2011 Approved Project. For example, the 2012 Modified Project would provide a mechanism to accelerate the funding and implementation of the Great Park improvements.

For each development alternative, this analysis:

- Describes the alternative.
- Analyzes the impact of the alternative as compared to the 2012 Modified Project.
- Identifies the impacts of the 2012 Modified Project that would be avoided or lessened by the alternative.
- Assesses whether the alternative would meet most of the basic project objectives of the 2012 Modified Project.
- Evaluates the comparative merits of the alternative and the 2012 Modified Project.

Per CEQA Guidelines Section 15126.6(d), additional significant effects of the alternatives are discussed in less detail than the significant effects of the 2012 Modified Project.

7.1.2 Project Objectives

As described in Section 3.2, *Statement of Objectives*, of this DSSEIR, the following objectives have been established for the 2012 Modified Project and will aid decision makers in their review of the 2012 Modified Project, the project alternatives, and their respective environmental impacts:

Land Use

- Implement the project objectives stated in the 2011 Certified EIR.
- Redevelop and reuse a portion of the former MCAS El Toro Property for a mixed-use community adjacent to the Great Park, consistent with the General Plan.
- Increase the amount of property within “Combined PA 51” (formerly Existing PA 30 and Existing PA 51) that is zoned 8.1 Trails and Transit Oriented Development (TTOD) to provide greater flexibility in meeting City General Plan Goals.
- Advance the State's and Southern California Association of Governments’ (“SCAG”) policies to provide sustainable mixed-use development and to reduce trips and vehicle miles travelled in automobiles and light trucks.

7. Alternatives to the Modified Project

- Help meet the City's Regional Housing Needs Assessment.
- Provide for a range of housing types in a location that is responsive to current and anticipated demands and is supportive of continued economic growth within the City.
- Convert existing non-residential intensity to residential uses through a revised land use plan in Combined PA 51, thereby providing a better balance of population and employment to increase internal trip capture and reduce vehicle miles travelled and improve the jobs/housing balance in jobs-rich Irvine.
- Establish a revised land use plan in Combined PA 51 to create a mixed-use community with neighborhood serving land uses near residences as well as employment centers.
- Combine Existing PAs 30 and 51 into a single PA, Combined PA 51, so that the 2012 Modified Project will be a cohesive development governed by a unified set of land use and development regulations.
- Better accommodate projected regional growth in an infill location that is adjacent to existing and planned infrastructure, urban services, transit, transportation corridors, and major employment centers.
- Establish a revised land use plan that permits a wide range of housing densities, types, styles, prices, and tenancy (for sale and rental).
- Create a mixed-use community that optimizes the open space and recreational opportunities in the adjacent Great Park.
- Provide for a fiscally sound land use plan that includes public and commercial uses to support and enhance the new residential community and other residential communities in the vicinity.
- Provide additional market rate and affordable housing opportunities near existing employment and transportation centers, consistent with the City's General Plan Land Use and Housing Elements, SB 375 and SCAG's Regional Comprehensive Plan.
- Provide a biologically effective wildlife corridor that meets the goals of the City's General Plan, while relocating Segments 2 and 3 of the Approved Wildlife Corridor Feature in order to provide greater flexibility in developing a mixed-use community that meets City General Plan goals.

Transportation

- Provide a safe, efficient, and aesthetically attractive street system with convenient connections to adjoining transportation routes.
- Allow level of service (LOS) "E" to be considered a potentially acceptable level of service within certain high activity, mixed-use areas within the Proposed Project Site, to be consistent with other areas of the City and to promote use of alternative modes of transportation.

7. Alternatives to the Modified Project

- Provide a walkable community through the use of innovative traffic calming techniques such as roundabouts designed to slow traffic, and pedestrian pathways.
- Create a highly livable, pedestrian-friendly environment that encourages alternative means of transportation to the automobile by incorporating unique site designs and enhanced pedestrian access between land uses, trails, and streets.

Open Space

- Create a medium-density, mixed-use community that optimizes the open space and recreational opportunities in the adjacent Orange County Great Park.
- Provide new parks, trails and public open space, and complete connections to regional trails in City's General Plan Trails Map.
- Advance funding for the implementation of recreational facilities for the Great Park.

7.2 ALTERNATIVES CONSIDERED AND REJECTED DURING THE SCOPING/PROJECT PLANNING PROCESS

In accordance with CEQA Guidelines Section 15126.6(c), this section identifies alternatives that were considered by the City during the scoping process but that were rejected as infeasible and briefly explains the reasons underlying the City's determination not to analyze them further in this DSSEIR.

7.2.1 No Project/ No Development

As described in the 2011 Certified EIR, under this alternative, no development would occur at the Proposed Project Site and the existing physical conditions would remain, despite the fact that development of the 2011 Approved Project has already been approved. This alternative is infeasible because it is contrary to the Applicant's vested rights under the ARDA and under the 2011 Approved Project. The Applicant is vested to develop 4,894 residential units and approximately 5.3 million square feet of non-residential development within the Heritage Fields Development Districts. This No Project / No Development alternative would require the City to revoke those entitlements, which the City cannot legally do. For these reasons, the City has determined that the No Project/No Development Alternative is not a legally feasible alternative to the 2012 Modified Project.

7.2.2 Reduction of Dwelling Units

Under this alternative, the number of dwelling units on the Proposed Project Site would be reduced to below 4,894. As stated above with respect to the No Project/ No Development Alternative, the Applicant has vested rights to develop 4,894 dwelling units and approximately 5.3 million square feet of non-residential within the Heritage Fields Development Districts. Therefore, the City cannot prohibit the Applicant from developing all of these uses even if a reduction in the amount of residential and/or non-residential uses developed would mitigate significant impacts. For these reasons, the City has determined that the Reduction of Dwelling Units Alternative is not a legally feasible alternative to the 2012 Modified Project.

7. Alternatives to the Modified Project

7.2.3 Different Site Alternative

The 2011 Certified EIR concluded:

Development of the Project at an alternative location would likely result in a similar, and in some cases, greater impacts than those identified in this Final Program EIR. Furthermore, it has been determined that no feasible alternative locations exist considering the fact that the project is the reuse of the former MCAS El Toro.

(2003 OCGP EIR at 6-2.) There are no other properties within Irvine or within the City's Sphere of Influence under the ownership or control of the Applicant that would accommodate the 2012 Modified Project and that would satisfy the objectives for the 2012 Modified Project. Nor is there any land outside the City's jurisdiction which could reasonably be acquired by the Applicant and which would accommodate the 2012 Modified Project. In addition, the Applicant has a vested right to develop the 2011 Approved Project on the Proposed Project Site. The 2012 Modified Project cannot be moved to a different location without moving the 2011 Approved Project along with it, which is not legally feasible.

For these reasons, the City determined that an alternative development site for the 2012 Modified Project would not be a feasible alternative. (CEQA Guidelines § 15126.6(f)(2)(B).)

7.2.4 Increased Residential Development

This alternative would consist of all of the changes to the 2011 Approved Project that are proposed by the 2012 Modified Project without the optional conversion, except that more multi-family residential units would be permitted as compared to the 2012 Modified Project, creating more intense residential development and a more transit-oriented and pedestrian friendly development. Thus, under this alternative, the number of residential units in Combined PA 51 would be more than the 10,700 dwelling units proposed by the 2012 Modified Project (with the optional conversion). This alternative would allow the same amount of non-residential development to be developed within the Heritage Fields Development Districts as the 2012 Modified Project. Except as described previously, all other characteristics (e.g., lighting, landscaping, etc.) of the 2012 Modified Project would be the same in this alternative.

The objective of this alternative would be to decrease the significant air quality impacts that would be created by the 2012 Modified Project through the development of higher density multi-family uses in close proximity to transit facilities. However, traffic studies for the 2011 Approved Project have shown that even increased residential development is likely to have VMT rates and increased trips that would still cause significant air quality impacts. Indeed, even if the VMT were reduced to that of the 2011 Approved Project, the significant air quality impacts would remain. In addition, this alternative would result in increases in other impacts as compared to the 2012 Modified Project, including for example impacts on police, fire, schools, libraries and utilities. Other alternatives with similar characteristics (i.e. increasing the number of residential dwelling units by varying amounts) were considered, and rejected for the same reasons.

7.2.5 Increased Non-Residential Development

This alternative would consist of all of the changes to the 2011 Approved Project that are proposed by the 2012 Modified Project without the optional conversion, except that more Multi-Use development would be permitted as compared to the 2012 Modified Project, creating more intense non-residential

7. Alternatives to the Modified Project

development and a more office-transit-oriented development. This alternative would allow the same number of residential dwelling units as the 2012 Modified Project (without the conversion) and more non-residential development than the 2012 Modified Project. Except as described previously, all other characteristics (e.g., lighting, landscaping, etc.) of the 2012 Modified Project would be the same in this alternative.

The objective of this alternative would be to decrease the significant air quality impacts that would be created by the 2012 Modified Project through the development of additional non-residential uses in close proximity to transit. However, with the increased non-residential development, it is likely that the VMT rates and trips would increase so as to cause greater significant air quality impacts. Indeed, even if the VMT level were reduced to that of the 2011 Approved Project, the significant air quality impact would remain. Moreover, this alternative, while creating substantial employment opportunities in the area, would also increase the jobs/housing ratio compared to that of the 2012 Modified Project, which has a balanced jobs/housing ratio and therefore does not have a significant impact. Unlike the 2011 Approved Project, the 2012 Modified Project does not have a significant impact with respect to jobs/housing. In addition, this alternative would result in increases in other impacts as compared to the 2012 Modified Project, including for example impacts on utilities. Thus, this alternative would result in more significant impacts than would the 2012 Modified Project. Other alternatives with similar characteristics (i.e. increasing the non-residential development by varying amounts) were considered, and rejected for the same reasons.

7.2.6 Increased Residential and Non-Residential Development

This alternative would include all of the changes to the 2011 Approved Project that are proposed by the 2012 Modified Project without the optional conversion, except that more multi-family residential units and more non-residential development would be permitted as compared to the 2012 Modified Project, creating more intense residential and non-residential development and a more transit-oriented and pedestrian friendly development. Except as described previously, all other characteristics (e.g., lighting, landscaping, etc.) of the 2012 Modified Project would be the same in this alternative.

The objective of this alternative would be to decrease the significant air quality impacts that would be created by the 2012 Modified Project through the development of additional mixed-uses in close proximity to transit. However, even with the increased mixed-use development, it is likely that the VMT rates and trips would increase so as to cause greater significant air quality impacts. Indeed, even if the VMT level were reduced to that of the 2011 Approved Project, the significant air quality impact would remain. Moreover, this alternative, while creating substantial employment opportunities in the area, would also increase the jobs/housing ratio compared to that of the 2012 Modified Project, which has a balanced jobs/housing ratio and therefore does not have a significant impact, unless residential developments were provided in substantially higher proportions than non-residential development. In addition, this alternative would result in increases in other impacts as compared to the 2012 Modified Project, including for example impacts on police, fire, schools, libraries and utilities. Thus, this alternative would result in more significant impacts than would the 2012 Modified Project. Other alternatives with similar characteristics (i.e. increasing the number of residential dwelling units and non-residential intensity by varying amounts) were considered, and rejected for the same reasons.

7.2.7 Reduced Residential

This alternative would involve the conversion to fewer residential units in the Heritage Fields Development than would be converted in the 2012 Modified Project, with or without the optional

7. Alternatives to the Modified Project

conversion. Because less conversion would occur, there would be more non-residential development than in the 2012 Modified Project. All of the other changes to the 2011 Approved Project that are proposed by the 2012 Modified Project would remain the same to the extent they are consistent with the aforementioned land uses. Moreover, this alternative, while creating substantial employment opportunities in the area, would also increase the jobs/housing ratio compared that of the 2012 Modified Project. The 2012 Modified Project does not have a significant impact with respect to jobs/housing, which has a balanced jobs/housing ratio and therefore does not have a significant impact. Thus, this alternative would result in more significant impacts than would the 2012 Modified Project. Other alternatives with similar characteristics (i.e. addition of fewer residential units to the 2011 Approved Project) were considered, and rejected for the same reasons.

7.3 ALTERNATIVES SELECTED FOR FURTHER ANALYSIS

Based on the criteria set forth in CEQA and the CEQA Guidelines concerning alternatives, the City has determined that the following two alternatives represent a reasonable range of alternatives. As described above, due to the unique circumstance that the Applicant has vested rights to develop 4,894 dwelling units and approximately 5.3 million square feet of non-residential development within the Heritage Fields Development Districts, there are no legally feasible alternatives that could avoid or substantially lessen one or more identified effects. These alternatives are analyzed in detail in the following sections.

- No Project/2011 Approved Project Alternative
- Marine Way Realignment Alternative

CEQA requires the alternatives analysis to include a No Project Alternative. The purpose of analyzing a No Project Alternative is to allow decision makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project (CEQA Guidelines § 15126.6[e][1]). According to CEQA Guidelines section 15126.6(e)(2), the No Project Alternative "shall discuss the existing conditions at the time the notice of preparation is published... as well as what would reasonably be expected to occur in the foreseeable future if the proposed project were not approved, based on current plans, and consistent with available infrastructure and community services." This chapter analyzes in detail one No Project alternative. (Section 7.2.1, *No Project/No Development*, discusses why the No Project/No Development scenario is not analyzed in this DSSEIR.)

An EIR must identify an "environmentally superior" alternative. Where the No Project Alternative is identified as environmentally superior, the EIR is then required to identify as environmentally superior an alternative from among the others evaluated (CEQA Guidelines § 15126.6(e)). Each alternative's environmental impacts are compared to those of the 2012 Modified Project and determined to be environmentally superior, neutral, or inferior. The assessment of those alternatives chosen for detailed analysis focuses on the significant impacts of the 2012 Modified Project, particularly those determined in this DSSEIR to be significant prior to mitigation as analyzed in Chapter 5 of this DSSEIR.

Chapter 8 of this DSSEIR, *Impacts Found Not to Be Significant*, substantiates the City's determination in the Initial Study for the 2012 Modified Project (Appendix A to this DSSEIR) that effects associated with a variety of impacts would be less than significant for the 2012 Modified Project, as compared to the 2011 Approved Project. For the same reasons as described in Chapter 8 of this DSSEIR, each of the alternatives analyzed in this chapter would have the same less than significant impact or no impact as the 2012 Modified Project, including, but not limited to, certain impacts in the following CEQA environmental factors: aesthetics, agricultural resources, air quality, greenhouse gas emissions, biological

7. Alternatives to the Modified Project

resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, transportation and traffic and utilities and service systems. The impacts analyses contained in Chapter 8 of this DSSEIR are incorporated by reference into the analysis of each of the alternatives below.

Section 7.7 identifies the Environmentally Superior Alternative. Table 7-1 provides a summary of each project alternative analyzed in this chapter.

The environmental impacts of the 2012 Modified Project as compared to the 2011 Approved Project are analyzed in detail in Chapter 5 of this DSSEIR.

*Table 7-1
Summary of Alternatives to the 2012 Modified Project*

| <i>Alternative</i> | <i>Description</i> | <i>Basis for Selection and Summary of Analysis</i> |
|--|--|--|
| 2012 MODIFIED PROJECT | | |
| 2012 Modified Project | See Section 1.4, <i>Project Summary</i> , and Chapter 3, <i>Project Description</i> . | Not Applicable |
| PROJECT ALTERNATIVES | | |
| No Project/2011 Approved Project Alternative | The Approved Project Site would be developed with the 2011 Approved Project, including 4,894 dwelling units located on five Vesting Tentative Tract Maps in Districts 1 North, 1 South, 4, 7 and 8, and approximately 5.3 million square feet of non-residential uses. | This alternative would not avoid or substantially reduce any of the significant impacts of the 2012 Modified Project. In fact, for the reasons detailed below, this alternative's impacts related to population and housing would be significant and unavoidable, and therefore greater than for the 2012 Modified Project's less than significant impact. In addition, this alternative would not advance funding for the implementation of recreational facilities for the Great Park. All impacts of this alternative, including aesthetics, air quality, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, public services, recreation, transportation and traffic, and utilities and service systems, would be similar to those of the 2012 Modified Project. |
| Marine Way Realignment Alternative | This alternative has been developed to provide an alternate alignment for Marine Way from Sand Canyon to Bake Parkway. All other components of the 2012 Modified Project would remain the same under this alternative. | This alternative was studied in an effort to reduce traffic and construction impacts associated with the 2012 Modified Project. Since this alternative does not change the land uses proposed by the 2012 Modified Project, most of the impacts of this alternative analyzed would be the same as for the 2012 Modified Project. |

7. Alternatives to the Modified Project

7.4 NO PROJECT/2011 APPROVED PROJECT ALTERNATIVE

This No Project/2011 Approved Project Alternative is the circumstance under which the 2012 Modified Project would not proceed on the Proposed Project Site, and the 2011 Approved Project would be built in its place on the Approved Project Site. At the time the Notice of Preparation was published for the 2012 Modified Project, the Approved Project Site was vested for development of the 2011 Approved Project, including 4,894 dwelling units and approximately 5.3 million square feet of non-residential development within the Heritage Fields Development Districts.

Under this No Project/2011 Approved Project Alternative, the 4,894 dwelling units would be located in their existing locations under the 2011 Approved Project on the five Vesting Tentative Tract Maps approved for Districts 1 North, 1 South, 4, 7 and 8, respectively, and 5.3 million square feet of non-residential development would be located within the Heritage Fields Development Districts as entitled under the 2011 Approved Project. This alternative would also include implementation of the Master Plans and Park Plans for Districts 1 North, 1 South, 4, 7 and 8, implementation of the 2nd Amended VTTM 17008, and implementation of the Amendments to Master Landscape and Trails Plan. Additionally, under the No Project/2011 Approved Project Alternative, the boundaries of Existing PAs 30 and 51 would remain as is; the TCA Property would remain within the boundaries of PA 9 and would not be rezoned to 8.1 Trails and Transit Oriented Development; no rezoning of Districts 2, 3, 6 and the City Parcels to 8.1 Trails and Transit Oriented Development would occur; the Option 2 Main Street development along Trabuco Road would not occur; the right to convert non-residential development to residential units would not occur; the Relocated Wildlife Corridor Feature would not occur; and the amendment of Figure B-1 to the Master Plan of Arterial Highways would not occur. In addition, this No Project/2011 Approved Project Alternative would not advance funding for the implementation of recreational facilities for the Great Park.

Aesthetics

Potential impacts associated with scenic vistas, visual character, and light and glare under this alternative would be similar to those of the 2012 Modified Project, as analyzed in Section 5.1, *Aesthetics* of this DSSEIR. As there are no scenic vistas or scenic resources on or near the Proposed Project Site, no significant impacts would occur to scenic vistas or scenic resources under either this alternative or the 2012 Modified Project. Likewise, the visual character of the Proposed Project Site, including light and glare, would remain the same because the same general types of residential and nonresidential uses would be developed under this alternative and under the 2012 Modified Project. Therefore, the overall character and development area at buildout of the Proposed Project Site under this alternative would be similar to that of the 2012 Modified Project, and the impacts of this alternative, like that of the 2012 Modified Project, would be less than significant.

Agricultural Resources

The 2011 Certified EIR, which analyzed the impacts of the 2011 Approved Project, concluded that the 2011 Approved Project would not result in an impact to agricultural resources; consequently this alternative also would not result in an impact to agricultural resources. Although the 2012 Modified Project would rezone 13 acres in District 6 currently zoned 1.1 Exclusive Agriculture to 1.4 Preservation to allow for the development of the Relocated Wildlife Corridor Feature, the analysis included in Section 5.2, *Agricultural Resources* of this DSSEIR demonstrates that the conversion of this farmland would result in a less than significant impact on agricultural resources and would not conflict with the proposed

7. Alternatives to the Modified Project

zoning or surrounding agricultural uses. As such, neither this alternative nor the 2012 Modified Project would result in a significant impact on agricultural resources.

Because no areas within the Proposed Project Site are zoned for forest land, timberland, or timberland production, neither this alternative nor the 2012 Modified Project would create any impact on these resources. Both this alternative and the 2012 Modified Project propose to develop the same forest land areas, and both incorporate Mitigation Measure Bio-4 from the 2011 Certified EIR and associated MMRP, which requires a tree survey by an arborist; trees greater than six inches in diameter at chest height and trees designated significant by the arborist would be protected under the City's Urban Forestry Ordinance. Therefore, both this alternative and the 2012 Modified Project would result in the same conversion of forest land to non-forest land use. Neither this alternative nor the 2012 Modified Project would result in any other impacts to agricultural resources.

Air Quality

Implementation of the No Project/2011 Approved Project Alternative would allow development of the fewer residential units and greater non-residential intensity as compared to the 2012 Modified Project. Since the Proposed Project Site falls within the Approved Project Site (except the TCA Parcel), this alternative would result in a similar area of disturbance, construction equipment mix, and phasing as the 2012 Modified Project. As is true for the 2012 Modified Project, this alternative would result in significant short-term mass criteria air pollutant construction emissions of VOC, NO_x, PM₁₀, PM_{2.5}, and CO. Therefore, as for the 2012 Modified Project, the regional construction-related air quality impacts under this alternative would remain significant and unavoidable.

As is true for the 2012 Modified Project, the long-term operation-related mass criteria air pollutant emissions of this alternative would exceed the significance thresholds for VOC, NO_x, CO, and PM_{2.5}. However, as the analysis in Section 5.3, *Air Quality*, of this DSSEIR demonstrates, this alternative's operational mass criteria pollutant emissions would be slightly lower than the 2012 Modified Project's. Even so, as is true for the 2012 Modified Project, operation-related air quality impacts under this alternative would remain significant and unavoidable.

This alternative has the same number of residential units and the same amount of non-residential uses as the 2011 Approved Project, which the 2011 Certified EIR concluded would be consistent with the 2007 AQMP. Therefore, this alternative would likewise be consistent with the 2007 AQMP, as is the 2012 Modified Project.

Neither this alternative nor the 2012 Modified Project propose to include any land uses that would involve handling large amounts of solid waste, chemicals associated with heavy industry, or other uses that may generate objectionable odors. Therefore, neither this alternative nor the 2012 Modified Project would result in any adverse odor impact.

Overall, the construction- and operation-related air quality impacts associated with this alternative would be similar (i.e., significant and unavoidable) to the 2012 Modified Project. Therefore, this alternative would not reduce or avoid the level of any of the 2012 Modified Project's significant and unavoidable air quality impacts.

7. Alternatives to the Modified Project

Biological Resources

As discussed in Chapter 8, *Impacts Found Not To Be Significant*, of this DSSEIR, impacts to the Southern tarplant, a federal species of concern, were identified in the 2011 Certified EIR as less than significant after implementation of Mitigation Measure Bio-1, which is incorporated into both this alternative and the 2012 Modified Project. The 2012 Modified Project would not develop any areas that were not previously identified for development in the 2011 Approved Project, with the exception of the 11-acres located between the current western boundary of Existing PA 51 and SR-133 between Trabuco Road and Irvine Boulevard. Development of the 11 acres would not impact any such species since it has been previously graded and consists of non-native grasses. Therefore, the 2012 Modified Project and this alternative would have the same less than significant biological impacts on species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

The 2011 Certified EIR found that coastal sage scrub is considered sensitive in regards to the habitat it provides for the California gnatcatcher, but that, due to the large amount of land designated for habitat preserve and protected in perpetuity, no significant impact would occur as a result of the development of the 2011 Approved Project. It further found that small portions of the NCCP Reserve have been or may be conveyed to other agencies for non-habitat uses, but that the City did not have any control over those transfers. The 2012 Modified Project would not develop any areas that were not previously identified for development in the 2011 Approved Project or that are not otherwise disturbed. Therefore, both the 2012 Modified Project and this alternative would have the same less than significant biological impacts on riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

Impacts to federally protected wetlands were evaluated in the 2011 Certified EIR and determined to be less than significant with incorporation of Mitigation Measure BIO-2, which is incorporated in the 2012 Modified Project. The 2012 Modified Project would not develop any areas containing wetlands that were not previously identified for development in the 2011 Approved Project. Therefore, both the 2012 Modified Project and this alternative would result in the same less than significant impacts to federally protected wetlands.

All of the areas proposed for development on the Proposed Project Site under the 2012 Modified Project were already proposed for development under the 2011 Approved Project, with the exception of the 11-acres located between the current western boundary of Existing PA 51 and SR-133 between Trabuco Road and Irvine Boulevard. Both the 2011 Approved Project and the 2012 Modified Project include a wildlife corridor and drainage corridors. Therefore, both this alternative and the 2012 Modified Project would result in the same less than significant impacts related to wildlife corridors or movement of species.

Impacts to tree resources were evaluated in the 2011 Certified EIR and identified as less than significant after implementation of Mitigation Measure Bio-4, which requires a tree survey by an arborist; this mitigation measure has been incorporated into the 2012 Modified Project. Trees greater than six inches in diameter at chest height, and trees designated significant by the arborist, would be protected under the City's Urban Forestry Ordinance. The 2012 Modified Project would not develop any areas containing tree resources that were not previously identified for development in the 2011 Approved Project, with the exception of the 11-acres located between the current western boundary of Existing PA 51 and SR-133 between Trabuco Road and Irvine Boulevard which do not contain tree resources. Therefore, both this

7. Alternatives to the Modified Project

alternative and the 2012 Modified Project would be consistent with local policies and ordinances protecting biological resources, and result in the same less than significant impacts.

No significant impacts to Natural Community Conservation Plans (NCCPs) or Habitat Conservation Plans (HCPs) were identified in the 2011 Certified EIR. Approximately 974 acres offsite, in Planning Area Zone 3 of Existing PA 51, have been designated habitat preserve in accordance with the Orange County Central-Coastal NCCP. The habitat preserve has been conveyed to the Federal Aviation Administration (“FAA”), and it is expected that it will be managed in the future by the US Fish and Wildlife Service. The 2012 Modified Project would not develop any areas designated as habitat preserve in the 2011 Approved Project, or on the Proposed Project Site. Therefore, neither this alternative nor the 2012 Modified Project would conflict with an NCCP or Habitat Conservation Plan and both would result in a less than significant impact.

Cultural Resources

As discussed in Chapter 8, *Impacts Found Not To Be Significant*, of this DSSEIR, impacts to historical resources were identified as less than significant in the 2011 Certified EIR for the 2011 Approved Project. The 2012 Modified Project would not develop any areas that were not part of the 2011 Approved Project, with the exception of the 11-acres located between the current western boundary of Existing PA 51 and SR-133 between Trabuco Road and Irvine Boulevard. The 11 acres do not contain any historical resources. Therefore, neither this alternative nor the 2012 Modified Project would result in any impact to historic resources.

Impacts to archaeological resources were evaluated in the 2011 Certified EIR and determined to be less than significant after implementation of Mitigation Measures Cult-1 through Cult-4, which are incorporated into both the 2011 Approved Project and the 2012 Modified Project. The 2012 Modified Project would not develop any areas that were not part of the 2011 Approved Project, with the exception of the 11 acres located between the current western boundary of Existing PA 51 and SR-133 between Trabuco Road and Irvine Boulevard. The incorporation of Mitigation Measures Cult-1, Cult-2 and Cult-3 from the 2011 Certified EIR and associated MMRP into the 2012 Modified Project, including the abovementioned 11 acres, would reduce any potential impacts of the 2012 Modified Project on archeological resources to a less than significant level. Therefore, both this alternative and the 2012 Modified Project would result in less than significant impacts to archaeological resources.

As discussed in the 2011 Certified EIR, there are no unique geological features within the Approved Project Site. The majority of the Proposed Project Site, including the 11 acres located between the current western boundary of Existing PA 51 and SR-133 between Trabuco Road and Irvine Boulevard, has little topographic relief, with 1.5 to 2.5-percent-grade slope to the west and southwest, and a gently sloping to steep hillside area at the eastern section of the Proposed Project Site. The 2011 Certified EIR found that the 2011 Approved Project's impacts to paleontological resources would be less than significant after mitigation. Mitigation Measure P-1 from the 2011 Certified EIR and associated MMRP is incorporated into the 2012 Modified Project, and would reduce any potential impact of the 2012 Modified Project on paleontological resources to a less than significant level. Therefore, both this alternative and the 2012 Modified Project would result in less than significant impacts to paleontological resources.

The 2011 Certified EIR found that the 2011 Approved Project's impacts to cultural resources, including human remains, would be less than significant with incorporation of Mitigation Measure Cult-4. The 2012 Modified Project also incorporates Mitigation Measure Cult-4 to reduce impacts to human remains to a

7. Alternatives to the Modified Project

less than significant level. Therefore, both this alternative and the 2012 Modified Project would result in less than significant impacts to cultural resources, including human remains.

Geology and Soils

As discussed in Chapter 8, *Impacts Found Not To Be Significant*, of this DSSEIR, both this alternative and the 2012 Modified Project would result in less than significant impacts from exposure of persons or structures to the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic related ground failure, including liquefaction, and landslides. No earthquake faults have been identified within the Proposed Project Site or the Approved Project Site, and, therefore, the risk of surface rupture of a fault affecting either this alternative or the 2012 Modified Project is extremely low. In addition, the 2011 Certified EIR concluded that hazards arising from strong ground shaking would be less than significant after implementation of Mitigation Measures GS-1 through GS-3, which are incorporated into both the 2011 Approved Project and the 2012 Modified Project; therefore, both this alternative and the 2012 Modified Project would have less than significant impacts related to ground shaking. Further, the 2011 Certified EIR concluded that, with implementation of one or more measures and current code-prescribed design methodology, based on development type and local ground conditions as determined by site-specific geological investigations prior to grading and construction of individual projects in accordance with the City's Grading Ordinance, the potential liquefaction impacts of both this alternative and the 2012 Modified Project would be reduced to less than significant. Finally, the 2011 Certified EIR concluded that hazards related to landslides would be less than significant after implementation of Mitigation Measure GS-2, which has already been imposed and is incorporated in the 2011 Approved Project, and conformance with the City's Grading Ordinance, both of which are applicable to the 2012 Modified Project; therefore, both this alternative and the 2012 Modified Project would have less than significant impacts related to landslides.

Soil erosion impacts were determined in the 2011 Certified EIR to be less than significant for the 2011 Approved Project after implementation of Mitigation Measures GS-2 and GS-4. Mitigation Measures GS-2 and GS-4 are incorporated into the 2012 Modified Project. Therefore, both this alternative and the 2012 Modified Project would have less than significant impacts related to soil erosion and loss of topsoil.

As stated in the 2011 Certified EIR, most soils on the Proposed Project Site are considered well suited for grading and construction. Potential impacts related to soil instability were identified to be less than significant impact in the 2011 Certified EIR for the 2011 Approved Project. Specifically, it was determined that Mitigation Measure GS-2 and corrective grading would reduce potential impacts due to landslide, lateral spreading, potential liquefaction, and subsidence hazards, which measures are also incorporated into the 2012 Modified Project. Therefore, both this alternative and the 2012 Modified Project would have less than significant impacts related to unstable soils.

The 2011 Certified EIR concluded that hazards arising from expansive soils would be less than significant for the 2011 Approved Project after implementation of Mitigation Measure GS-2, which has already been imposed and is incorporated into the 2012 Modified Project. Therefore, both this alternative and the 2012 Modified Project would have less than significant impacts related to expansive soils.

Neither this alternative nor the 2012 Modified Project includes the use of septic tanks or alternative wastewater disposal systems; therefore, neither would result in impacts related to the use of septic tanks.

7. Alternatives to the Modified Project

Greenhouse Gas Emissions

As discussed in Section 5.4, *Greenhouse Gas Emissions*, of this DSSEIR, the 2012 Modified Project would generate 162,406 metric tons (“MTons”) of greenhouse gas (“GHG”) emissions (CO₂e) per year without the optional conversion, and 164,152 MTons of CO₂e per year with the optional conversion, both of which include one-time amortized emissions from construction activities and one-time amortized carbon sequestration from vegetation changes. By contrast, as discussed in Section 5.4 of this DSSEIR, this alternative (the Heritage Fields Development portion of the 2011 Approved Project) would generate 146,573 MTons of CO₂e per year, but a slightly higher efficiency metric as compared to the 2012 Modified Project. However, both the 2012 Modified Project and this alternative would yield efficiency metrics below the SCAQMD's draft threshold of 4.8 MTons of CO₂e per service population per year, and, therefore, both this alternative and the 2012 Modified Project would result in a less than significant impact on GHG emissions.

Hazards and Hazardous Materials

This alternative would involve greater non-residential intensity as compared to the 2012 Modified Project. Some non-residential land uses involve use of greater amounts of hazardous materials than do residential uses. Thus, the total amount and variety of hazardous materials used in the operation of this alternative could be higher than that of the 2012 Modified Project. However, as this alternative would result in the development of the same general types of residential and non-residential uses as the 2012 Modified Project, the impact would still be less than significant. Both this alternative and the 2012 Modified Project would have less than significant impacts related to the routine transport, use, or disposal of hazardous materials. The potential impacts of this alternative and the 2012 Modified Project related to potential release of hazardous materials into the environment would be mitigated to a less than significant level through implementation of the 2011 Approved Project PPPs 4-2, 4-4, 4-5 4-6, 4-7, 4-8 (which are the same as the PPPs 5-2, 5-4, 5-5 5-6, 5-7, 5-8 in this DSSEIR, just renumbered) and Mitigation Measures HH1, HH5, and HH6. Existing regulatory requirements pertaining to the handling, storage, use, transportation and disposal of these materials apply to both the 2012 Modified Project and this alternative, and significant health and safety impacts are not expected to occur under this alternative or the 2012 Modified Project.

This alternative's and the 2012 Modified Project's potential impacts related to potential release of hazardous materials within one-quarter mile of an existing or proposed school would be less than significant level due to the 2011 Approved Project PPPs 4-2, 4-4, 4-5 4-6, 4-7, 4-8 (which are the same as the PPPs 5-2, 5-4, 5-5 5-6, 5-7, 5-8 in this DSSEIR, just renumbered) and Mitigation Measures HH-1 and HH-5, and, therefore, both would have less than significant impacts. Since the Proposed Project Site is not located within two miles of a public airport, or within or near any private airstrip or airport, neither this alternative nor the 2012 Modified Project would have any impact related to such a safety hazard.

As described in the 2011 Certified EIR, the 2011 Approved Project would not interfere or conflict with any emergency response plans; as described in Section 5.5, *Hazards and Hazardous Materials*, of this DSSEIR, the 2012 Modified Project also would not interfere or conflict with any emergency response plans. Therefore, both this alternative and the 2012 Modified Project would have a less than significant impact on emergency response plans.

Like the 2012 Modified Project, this alternative would also cause portions of Existing PA 51 containing existing structures to be developed, resulting in the need to demolish existing structures that may contain

7. Alternatives to the Modified Project

asbestos containing materials and/or lead-based paint. Like the 2012 Modified Project, development under this alternative would occur in areas containing remediation sites. However, as with the 2012 Modified Project, demolition and development activities under this alternative would be required to adhere to the already-imposed mitigation measures from the 2011 Certified EIR and associated MMRP and the applicable PPPs, as well as Navy-imposed use restrictions, outlined in Section 5.5, *Hazards and Hazardous Materials*, of this DSSEIR.

The impacts associated with locating structures and population adjacent to wildland fire hazard areas under this alternative would be, like the 2012 Modified Project, less than significant with implementation of the already-imposed mitigation measures from the 2011 Certified EIR and associated MMRP and PPPs outlined in Section 5.5, *Hazards and Hazardous Materials*. Furthermore, as with the 2012 Modified Project, implementation of this alternative would not significantly interfere with an adopted emergency response plan or emergency evacuation plan or result in an airport safety hazard for people residing or working in the project area.

Hydrology and Water Quality

Implementation of this alternative would have similar hydrology and water quality impacts to those of the 2012 Modified Project, discussed in Section 5.6, *Hydrology/Water Quality*, of this DSSEIR, all of which would be less than significant like those of the 2012 Modified Project. Under this alternative, which is the 2011 Approved Project scenario, there would be similar drainage patterns and peak flows as compared to the 2011 Modified Project.

Similar to the 2012 Modified Project, development under this alternative would be required to adhere to existing procedures governing water quality, many of which have already been met for the 2011 Approved Project, which would result in less than significant impacts. See Section 5.5., *Hydrology/Water Quality*, for the analysis of the 2011 Approved Project's compliance with regulatory requirements and the already-imposed mitigation measures from the 2011 Certified EIR and associated MMRP. In terms of water quality, this alternative would have less than significant impacts on water quality, like the 2012 Modified Project.

Current Irvine development standards and Zoning Code requirements prohibit the construction of any structure within a 100 year Flood Hazard Area. Per the Zoning Code and previously-adopted Mitigation Measure H/WQ-4 from the 2011 Certified EIR and associated MMRP, which is necessarily incorporated into both this alternative (which is the 2011 Approved Project) and the 2012 Modified Project, a Letter of Map Revision (LOMR) must be completed prior to building any structure within an area mapped on the Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map. The LOMR must be filed upon the completion of the design of the flood control improvements required to contain or redirect the 100-year flood hazard. This would ensure that impacts from flooding under this alternative would be similar to the 2012 Modified Project.

This alternative's proposed uses would be developed on essentially the same site as the 2012 Modified Project, and therefore for the same reasons identified for the 2012 Modified Project, it would also have less than-significant impacts resulting from exposure to flooding as a result of a levee or dam, or effects of seiche, tsunami, or mudflow.

Overall hydrology and water quality impacts of this alternative would be less than significant, like those of the 2012 Modified Project.

7. Alternatives to the Modified Project

Land Use and Planning

Under this alternative, development would occur throughout the Approved Project Site as currently entitled. The benefits of providing additional housing opportunities in proximity to existing and future employment centers on-site and in the vicinity of the Proposed Project Site would occur with this alternative, as with the 2012 Modified Project, but not to the same extent as provided by the 2012 Modified Project. As with the 2012 Modified Project, this alternative would also be consistent with SCAG's Regional Comprehensive Plan, Regional Transportation Plan and Compass Growth Vision and its 2012 RTP/SCS adopted in May 2012.

Since there are currently no residents living within the Approved Project Site or the Proposed Project Site, neither this alternative nor the 2012 Modified Project would physically divide an established community. No significant impacts to Natural Community Conservation Plans (NCCPs) or Habitat Conservation Plans (HCPs) were identified in the 2011 Certified EIR for the 2011 Approved Project, and none have been identified for the 2012 Modified Project (see above); therefore, neither this alternative nor the 2012 Modified Project would conflict with any such plans.

Overall, the land use impacts under this alternative would be similar to those of the 2012 Modified Project (i.e. less than significant).

Mineral Resources

As discussed in Chapter 8, *Impacts Found Not To Be Significant*, of this DSSEIR, most of the Proposed Project Site is mapped as Mineral Resource Zone 1 (MRZ-1) by the California Geological Survey, designating areas where available geologic information indicates there is little likelihood that significant mineral resources are present. The central and eastern parts of District 7 are mapped as MRZ-3, designating areas containing known or inferred mineral resources of unknown significance (CDGM 1994). Therefore, neither this alternative nor the 2012 Modified Project would cause a loss of availability of mineral resources, and no impact would occur. For these same reasons, no impact would occur relating to the loss of availability of a locally important mineral resource with either this alternative or the 2012 Modified Project.

Noise

This alternative would include the same general types of residential and non-residential development as the 2012 Modified Project. The 2011 Certified EIR concluded that the 2011 Approved Project would result in less than significant construction noise and vibration impacts on nearby off-site and on-site sensitive receptors. As discussed in Section 5.8, *Noise* of this DSSEIR, the 2012 Modified Project would also result in less than significant construction noise and vibration impacts on nearby off-site and on-site sensitive receptors, the closest of which would be located approximately 100 feet from the construction boundary. Therefore, relative to construction noise and vibration, the impacts of this alternative would be generally the same as those of the 2012 Modified Project. With implementation of the existing PPPs as described in Section 5.8, *Noise*, of this DSSEIR, potential impacts associated with construction noise and vibration would be less than significant. Therefore, the construction noise and vibration impacts associated with this alternative would be similar to those of the 2012 Modified Project (i.e. less than significant).

7. Alternatives to the Modified Project

The 2011 Certified EIR's noise analysis concluded that the 2011 Approved Project's traffic noise would be less than significant and considered "barely perceptible" in terms of community noise impact assessment. The only significant impact identified in that Noise Impact Analysis was to on-site sensitive receptors, and that impact was reduced to less than significant with the adopted mitigation (including, e.g., sound walls, closed window/mechanical ventilation, dual-glazed windows), as discussed below. Consequently, the 2011 Certified EIR concluded that the 2011 Approved Project would not create a substantial permanent increase in traffic-related noise levels. Similarly, as demonstrated by the noise analysis in Section 5.8, *Noise* of this DSSEIR, the 2012 Modified Project also would not result in a substantial permanent increase in traffic-related on-site or off-site noise levels.

The 2011 Certified EIR also assessed noise compatibility associated with the development of the 2011 Approved Project, by evaluating its compliance with the City of Irvine's preliminary acoustical analysis criteria for residential development (i.e., 65 dBA CNEL exterior and 45 dBA CNEL interior). Placement of certain of the noise-sensitive land uses proximate to high-volume roadways was identified as a significant impact for the 2011 Approved Project, but this impact was reduced to a less than significant level with the Mitigation Measures N-1 and N-2 that were adopted for the 2011 Approved Project. As discussed in Section 5.8, *Noise* of this DSSEIR, similar noise impacts to on-site sensitive receptors would occur under the 2012 Modified Project. However, similar measures as those recommended for the 2011 Approved Project could be required for the 2012 Modified Project in order to ensure its compliance with the City of Irvine's design standards for noise compatibility (i.e., 65 dBA CNEL) and the State's interior noise criteria (i.e., 45 dBA CNEL) as prescribed in PPP 8-2, and those measures would reduce the impact to a less than significant level. Therefore, the 2012 Modified Project would have a less than significant noise impact to on-site sensitive receptors, similar the 2011 Approved Project's less than significant impact.

Because the 2012 Modified Project and this alternative contain the same stationary noise sources (e.g., residential, commercial, cultural/institutional/education use and transportation facilities), this alternative would have less than significant noise impacts from these sources, similar to the 2012 Modified Project's impacts. Like the 2012 Modified Project, this alternative would be required to adhere to PPPs 8-1 and 8-2 and would; therefore, also result in less than significant off-site noise impacts from stationary sources.

Since the Proposed Project Site and the Approved Project Site are not located within two miles of a public airport, or within or near any private airstrip or airport, neither this alternative nor the 2012 Modified Project would expose people residing or working in the Approved Project Site or the Proposed Project Site to excessive airport-related noise levels.

Population and Housing

The 2011 Certified EIR concluded that development of the 2011 Approved Project would create 12,405 residents and 16,510 jobs and have a jobs-housing ratio of 3.37, which is the same scenario as this alternative, would be a significant impact with respect to the jobs-housing ratio. By contrast, Section 5.9, *Population and Housing*, of this DSSEIR concludes that the 2012 Modified Project would create an additional 11,324 residents (14,274 residents with the option conversion), an additional 1,062 jobs (or a decrease of 542 jobs with the optional conversion) and a jobs housing ratio of 1.85 (or 1.49 with the optional conversion). Based on those numbers, this DSSEIR concludes that the 2012 Modified Project would have a less than significant impact with respect to the jobs-housing ratio. Therefore, this alternative would have a significant and unavoidable population and housing impact, whereas the 2012 Modified Project would have a less than significant impact.

7. Alternatives to the Modified Project

Similar to the 2012 Modified Project, this alternative would provide a contribution to the City's achievement of its RHNA targets, but to a lesser degree than would the 2012 Modified Project.

There are no residents currently living on the Proposed Project Site or the Approved Project Site. Therefore, neither the development of this alternative nor the development of the 2012 Modified Project would displace existing housing or substantial numbers of people, requiring construction of replacement housing elsewhere.

Public Services

Under this alternative, development would occur throughout the Approved Project Site as currently entitled. Impacts associated with fire protection, law enforcement and library services would be generally the same as for the 2012 Modified Project; although the 2012 Modified Project's residential population is higher than this alternative's residential population, both scenarios' impacts would be less than significant.

The 2012 Modified Project would generate more students than would this alternative. The 2012 Modified Project development would generate students in both the IUSD and the SVUSD. Impacts to school services would be less than significant for both this alternative and the 2012 Modified Project through the provision of SB 50 fees.

Overall, impacts to public services for this alternative would be similar to those of the 2012 Modified Project (i.e., less than significant).

Recreation

Under this alternative, fewer residential units would be developed than under the 2012 Modified Project. However, as is true for both this alternative and the 2012 Modified Project, residential development would be required to comply with City's park dedication requirements, and therefore, adequate park and recreation facilities would be provided to meet the needs of the anticipated population of both scenarios. Additionally, as with the 2012 Modified Project, the open space areas and recreational uses and facilities that are slated for development as a part of the Great Park would be implemented under this alternative. However, the 2012 Modified Project advances funding for the implementation of recreational facilities for the Great Park. As with the 2012 Modified Project, this alternative would include the development of a comprehensive trail system that would not only connect the uses and areas on- and off-site, but would also provide a means of recreation. Therefore, the demand for parkland and recreational facilities would be the same under this alternative as for the 2012 Modified Project, and the impacts would be generally similar (i.e., less than significant).

Transportation and Traffic

Implementation of this alternative would develop fewer residential units than the 2012 Modified Project. However, as discussed in Section 5.11, *Transportation and Traffic*, of the 2011 SEIR and Section 5.12, *Transportation and Traffic*, of this DSSEIR, this alternative (i.e. the 2011 Approved Project), would impact fewer locations, but like the 2012 Modified Project, would still result in significant and unavoidable impacts on affected intersections and roadway segments outside the jurisdiction of the City because implementation of certain mitigation measures for those impacts would be under the control of other cities, Orange County, or Caltrans.

7. Alternatives to the Modified Project

Additionally, as with the 2012 Modified Project, this alternative would achieve the goals of the City's General Plan for effective non-motorized transportation (Objectives B-3 and B-4) through the provision of enhanced local street connectivity, an extensive network of walkways and bikeways, and the arrangement of land uses that would allow for access by various modes of non-motorized transportation.

The nearest airport to the Proposed Project Site and the Approved Project Site is John Wayne Airport, located six miles to the west. The 2011 Certified EIR identified no significant impacts relating to air traffic for the 2011 Approved Project, and implementation of the 2012 Modified Project on the Proposed Project Site also would not require a change in location of air traffic patterns. Therefore, no air traffic impacts would occur with either this alternative or the 2012 Modified Project.

According to the 2011 Certified EIR, the 2011 Approved Project would not increase any air traffic hazards impact due to a design feature. Like the 2011 Approved Project, the 2012 Modified Project includes proposed improvements to area roadways and new roadways within the Proposed Project Site; however, all new roadways and improvements to existing roadways would be designed and built in compliance with local, regional, and state agency requirements. Therefore, neither this alternative nor the 2012 Modified Project would create any hazards impacts due to roadway design features.

According to the 2011 Certified EIR, the 2011 Approved Project would not result in any impacts related to emergency access. As set forth in Section 5.10, *Public Services*, of this DSSEIR, adequate police and fire services are available to serve the 2012 Modified Project. Like the 2011 Approved Project, the existing and proposed roadway system in the 2012 Modified Project would provide adequate emergency access to all uses on-site and would not affect off-site emergency access. Therefore, neither this alternative nor the 2012 Modified Project would result in emergency access impacts.

Overall, the traffic and circulation impacts associated with this alternative would be similar to those of the 2012 Modified Project (i.e., significant and unavoidable).

Utilities and Service Systems

Under this alternative the utility and service demands have already been analyzed and approved as part of the 2011 Approved Project. As with the 2012 Modified Project, the appropriate infrastructure and facilities for each service under this alternative would be available and/or built and the provider of each service would be able to effectively supply the necessary utilities and service systems. Additionally, the impacts to utilities and services systems under this alternative would be, similar to the 2012 Modified Project, less than significant after implementation of the regulations, PPPs, and already-imposed 2011 Approved Project mitigation measures outlined in Section 5.12, *Utilities and Service Systems*, of this DSSEIR. Therefore, the impacts to utilities and service systems associated with this alternative would be similar to the 2012 Modified Project (i.e., less than significant).

The 2011 Approved Project's impacts relating to solid waste disposal were identified in the 2011 Certified EIR as being less than significant with implementation of Mitigation Measures SW-1 through SW-5; those Mitigation Measures were adopted for the 2011 Approved Project and are also incorporated into the 2012 Modified Project. Additionally, the 2012 Modified Project would, like the 2011 Approved Project, comply with laws and regulations governing solid waste disposal. Therefore, neither this alternative nor the 2012 Modified Project would result in impacts related to solid waste.

7. Alternatives to the Modified Project

7.4.2 Ability to Reduce Environmental Impacts

This No Project/2011 Approved Project Alternative would not avoid or substantially reduce the significance level of any of the impacts of the 2012 Modified Project discussed above, and with mitigation, this alternative would not have significant traffic impacts, and its impacts would generally be of the same level as the 2012 Modified Project's impacts. However, the mass criteria pollutant emissions for the No Project/2011 Approved Project Alternative are lower than for the 2012 Modified Project, although the mass criteria pollutant emissions of both are significant and unavoidable. Therefore, this alternative would not represent an improvement as compared to the 2012 Modified Project and, in fact, would have one significant impact that the 2012 Modified Project would not have (population and housing).

7.4.3 Ability to Achieve Project Objectives

The No Project/2011 Approved Project Alternative would achieve many of the objectives for the 2012 Modified Project. However, as specified below in Table 7-2, this alternative would not meet three of the project objectives, and would meet six of the project objectives to a lesser degree than the 2012 Modified Project.

*Table 7-2
Evaluation of the No Project/2011 Approved Project Alternative and the
2012 Modified Project Objectives*

| <i>Modified Project Objective</i> | <i>Performance of Alternative</i> |
|--|--|
| Increase the amount of property within Combined PA 51 (formerly Existing PA 30 and Existing PA 51) that is zoned 8.1 Trails and Transit Oriented Development (TTOD) to provide greater flexibility in meeting City General Plan Goals | Although this alternative rezoned much of Existing PA 51 as 8.1 Trails and Transit Oriented Development (TTOD), it did not achieve the extent of the rezoning that the 2012 Modified Project would. |
| Advance the State's and Southern California Association of Governments' ("SCAG") policies to provide sustainable mixed-use development and to reduce trips and vehicle miles travelled in automobiles and light trucks | Although this alternative provides sustainable mixed-use development and reduced trips and vehicles miles travelled in automobiles and light trucks, it does not provide the increased density that the 2012 Modified Project does and therefore does not achieve the balance of mixed use development and the favorable jobs/housing ratio that the 2012 Modified Project does. |
| Help meet the City's Regional Housing Needs Assessment | Although this alternative provides housing to help meet the City's Regional Housing Needs Assessment, it does not include the greater number of residential units that are included in the 2012 Modified Project, or its higher number of affordable units. |
| Provide for a range of housing types in a location that is responsive to current and anticipated demands and is supportive of continued economic growth within the City | Although this alternative provides a range of housing types responsive to current and anticipated demands and is supportive of continued economic growth within the City, it does not provide the greater number of residential units that are included in the 2012 Modified Project, or its higher number of affordable units. |
| Convert existing non-residential intensity to residential uses through a revised land use plan in Combined PA 51, thereby providing a better balance of population and employment to increase internal trip capture and reduce vehicle miles travelled and improve the jobs/housing balance in jobs-rich | This alternative does not convert existing approved non-residential intensity to residential uses. |

7. Alternatives to the Modified Project

*Table 7-2
Evaluation of the No Project/2011 Approved Project Alternative and the
2012 Modified Project Objectives*

| <i>Modified Project Objective</i> | <i>Performance of Alternative</i> |
|---|---|
| Irvine. | |
| Combine Existing PAs 30 and 51 into a single PA, Combined PA 51, so that the 2012 Modified Project will be a cohesive development governed by a unified set of land use and development regulations | This alternative does not combine Existing PAs 30 and 51 into a single PA. |
| Better accommodate projected regional growth in an infill location that is adjacent to existing and planned infrastructure, urban services, transit, transportation corridors, and major employment centers | Although this alternative accommodates projected regional growth in an infill location adjacent to existing and planned infrastructure, urban services, transit, transportation corridors and major employment centers, it does not provide the greater number of residential units that are included in the 2012 Modified Project, or its higher number of affordable units, in this location adjacent to these facilities. |
| Provide additional market rate and affordable housing opportunities near existing employment and transportation centers, consistent with the City's General Plan Land Use and Housing Elements, SB 375 and SCAG's Regional Comprehensive Plan | Although this alternative provides market rate and affordable housing opportunities near existing employment and transportation centers, consistent with the City's General Plan Land Use and Housing Elements, SB 375 and SCAG's Regional Comprehensive Plan, it does not provide the greater number of market rate and affordable housing opportunities that are included in the 2012 Modified Project, near these facilities and therefore the 2012 Modified Project is more consistent with the City's General Plan Land Use and Housing Elements, SB 375 and SCAG's Regional Comprehensive Plan than this alternative. |
| Allow level of service (LOS) "E" to be considered a potentially acceptable level of service within certain high activity, mixed-use areas within the Proposed Project Site, to be consistent with other areas of the City and to promote use of alternative modes of transportation | As stated in Objective B-1 of the existing General Plan, in conjunction with individual subdivision map level traffic studies for development proposed in Existing PAs 30 and 51, a LOS "E" standard would be considered acceptable for application to intersections impacted in PAs 13, 30, 31, 32, 34, 35, and 39, subject to additional conditions. As a result, this objective is partially achieved under this alternative, but not to the same extent as it would be under the 2012 Modified Project.. |
| Advance funding for the implementation of recreational facilities for the Great Park | This alternative would not advance funding for the implementation of recreational facilities for the Great Park. |

7.5 MARINE WAY REALIGNMENT ALTERNATIVE

This alternative has been developed to provide an alternate alignment for Marine Way from Sand Canyon to Bake Parkway in an effort to reduce potential traffic associated with the 2012 Modified Project. All other components of the 2012 Modified Project would remain the same under this alternative. East of "B" Street, this alternative would shift the alignment of Marine Way easterly to create larger parcels in close proximity to the Irvine Station. The adjusted Marine Way alignment extends south from "B" Street and crosses the SCRRA right of way to connect with Barranca Parkway and Alton Parkway with a more direct bearing toward Bake Parkway.

7. Alternatives to the Modified Project

Aesthetics

Potential impacts associated with visual character would be essentially the same under this alternative as for the 2012 Modified Project, as the overall development intensity of this alternative would be the same and the only change would be to the roadway configurations. No differences in the daytime or nighttime glare impacts from these roadway changes are expected.

With regards to scenic vistas, as none are present on-site, no significant impacts would occur under this alternative.

Overall, the localized aesthetic impacts associated with this alternative would be the same as for to the 2012 Modified Project, and the impacts under both scenarios would be less than significant.

Agricultural Resources

Like the 2012 Modified Project, this alternative would rezone 13 acres in District 6 currently zoned 1.1 Exclusive Agriculture to 1.4 Preservation to allow for the development of the Relocated Wildlife Corridor. The analysis included in Section 5.2, *Agricultural Resources* of this DSSEIR demonstrates that the conversion of this farmland would result in a less than significant impact on agricultural resources and would not conflict with the proposed zoning or surrounding agricultural uses.

This alternative would not create any different impacts than the 2012 Modified Project with respect to forest land, timberland, or timberland production because the development envelope is the same for this alternative and the 2012 Modified Project. Therefore, the analysis in Chapter 8, *Impacts Found Not To Be Significant* would also apply to this alternative.

Overall, neither this alternative nor the 2012 Modified Project would result in a significant impact on agricultural resources.

Air Quality

This alternative would develop the same number of residential units and the same amount of non-residential development as the Modified Project.

This alternative would result in approximately the same amount of disturbance, construction equipment mix and phasing as the 2012 Modified Project and the development footprint would be the same. The scale of construction effort in this alternative would also be the same as for the 2012 Modified Project. Therefore, as with the 2012 Modified Project, this alternative would result in significant construction mass criteria air pollutant emissions of VOC, NO_x, CO, PM_{2.5}, and PM₁₀. As with the 2012 Modified Project, therefore, this alternative's construction impacts would be significant and unavoidable. However, like the 2012 Modified Project, it is unlikely that this alternative would create any impacts above the localized significance thresholds (LST).

The operational emissions would be the same for this alternative as for the 2012 Modified Project. Therefore, long-term operation-related air emissions of this alternative would be essentially the same as for the 2012 Modified Project, and, therefore, these emissions would be significant and unavoidable for VOC, NO_x, CO, and PM_{2.5} (the same four criteria air pollutants as to which the 2012 Modified Project would generate significant and unavoidable operational emissions).

7. Alternatives to the Modified Project

Compared to the 2012 Modified Project, this alternative is expected to have generally the same VMT as the 2012 Modified Project, and is thus expected to be consistent with the 2007 AQMP, like the 2012 Modified Project.

Overall, construction- and operation-related air quality impacts associated with this alternative would be similar to the 2012 Modified Project; both impacts would remain significant and unavoidable. Therefore, this alternative would not reduce or avoid the 2012 Modified Project's significant air quality impacts.

Biological Resources

This alternative would not create any different impacts than the 2012 Modified Project with respect to biological resources because the alternative would cover the same types of terrain and resources as the 2012 Modified Project. Therefore, the analysis in Chapter 8, *Impacts Found Not To Be Significant*, of this DSSEIR would also apply to this alternative. Neither this alternative nor the 2012 Modified Project would result in a significant impact on biological resources.

Cultural Resources

This alternative would not create any different impacts than the 2012 Modified Project with respect to cultural resources because the development envelope is the same for this alternative and the 2012 Modified Project. Therefore, the analysis in Chapter 8, *Impacts Found Not To Be Significant* would also apply to this alternative. Neither this alternative nor the 2012 Modified Project would result in a significant impact on cultural resources.

Geology and Soils

This alternative would not create any different impacts than the 2012 Modified Project with respect to geology and soils because the development envelope is the same for this alternative and the 2012 Modified Project. Therefore, the analysis in Chapter 8, *Impacts Found Not To Be Significant*, of this DSSEIR would also apply to this alternative. Neither this alternative nor the 2012 Modified Project would result in a significant impact on geology and soils.

Greenhouse Gas Emissions

As discussed in Section 5.4, *Greenhouse Gas Emissions*, of this DSSEIR, the 2012 Modified Project would generate 162,406 MTons of GHG emissions per year without the optional conversion, and 164,152 MTons of CO₂e per year with the optional conversion, both of which include one-time amortized emissions from construction activities and carbon sequestration from vegetation changes. Construction emissions of this alternative would be similar to those of the 2012 Modified Project given that the only difference in this alternative is the alignment of Marine Way.

Because the amount and types of uses that would be developed under this alternative are the same as for the 2012 Modified Project, the operational area, energy, water, and waste categories would be the same for this alternative as for the 2012 Modified Project. The traffic emissions would also be generally the same, since VMT would be generally the same.

7. Alternatives to the Modified Project

Hazards and Hazardous Materials

This alternative would include the same number of residential units and the same amount of non-residential square footage as the 2012 Modified Project. Therefore, the amount of hazardous materials potentially handled and stored on-site would be the same for this alternative as for the 2012 Modified Project. Existing regulatory requirements pertaining to the handling, storage, use, transportation and disposal of these materials apply to both scenarios. This alternative would also cause portions of Combined PA 51 containing existing structures to be developed, resulting in the need to demolish existing structures that may contain ACMs and/or LBP. Development under this alternative would also occur in the same areas containing remediation sites. However, as with the 2012 Modified Project, demolition and development activities under this alternative would be required to adhere to the regulations, already-imposed mitigation measures from the 2011 Certified EIR and associated MMRP and PPPs outlined in Section 5.5, *Hazards and Hazardous Materials*, of this DSSEIR.

Wildfire hazard impacts of this alternative are expected to be the same as those of the 2012 Modified Project, namely, less than significant.

This alternative would not create any different impacts than the 2012 Modified Project with respect to the routine transport use or disposal of hazardous materials, with the potential release of hazardous materials within one-quarter mile of an existing or proposed school, or with any emergency response plans because the development envelope is the same for the this alternative and the 2012 Modified Project. Although the realignment of Marine Way may slightly change the route for emergency response plans, there would be no changes to the connectivity of the streets. Therefore, the analysis in Chapter 8, *Impacts Found Not To Be Significant* would also apply to this alternative. Overall, the hazards and hazardous materials impacts associated with this alternative would be the same as for the 2012 Modified Project, and impacts would be less than significant in both of these scenarios.

Hydrology and Water Quality

Drainage patterns and drainage flows in this alternative would be generally similar to those of the 2012 Modified Project. Any development at the Proposed Project Site under this alternative, as for the 2012 Modified Project, would be subject to additional review in order to ensure that the development would not result in significant hydrology impacts and would not exceed the capacity of the storm drain system. Therefore, hydrology and runoff impacts under this alternative would be the same as for the 2012 Modified Project, and like the 2012 Modified Project's impacts, would overall be less than significant.

Like the 2012 Modified Project, development under this alternative would be required to adhere to the existing procedures and regulations governing water quality, which would result in less than significant impacts. For example, prior to the issuance of precise grading permits project applicants are required to submit to the Director of Community Development for review and approval a WQMP that identifies the BMPs that will be used on the site to control predictable pollutant runoff. If necessary, treatment would be employed to remove excess pollutants from runoff during the construction and operational phases of development. Accordingly, in terms of water quality, this alternative is expected to have less than significant impacts, as is the case under the 2012 Modified Project.

Current City development standards and the City's Zoning Code prohibit the construction of any structure within a 100 year Flood Hazard Area. Per the City Zoning Code and the previously-approved Mitigation Measure H/WQ-4 from the 2011 Certified EIR and associated MMRP, which is necessarily incorporated

7. Alternatives to the Modified Project

into both this alternative and the 2012 Modified Project, a LOMR must be completed prior to building any structure within an area mapped on the Federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map. The LOMR must be filed upon the completion of the design of the flood control improvements required to contain or redirect the 100-year flood hazard. This would ensure that impacts from flooding under this alternative would be similar to the 2012 Modified Project, and less than significant.

This alternative would be developed on the same site as the 2012 Modified Project, and therefore for the same reasons identified for the 2012 Modified Project, it would also have less than significant impacts resulting from exposure to flooding as a result of a levee or dam, or effects of seiche, tsunami, or mudflow.

For the reasons explained above, overall hydrology and water quality impacts of this alternative would be the same for this alternative than for the 2012 Modified Project, and both this alternative and the 2012 Modified Project would have less than significant impacts.

Land Use and Planning

As noted above, this alternative has been developed to provide an alternate alignment for Marine Way from Sand Canyon to Bake Parkway in an effort to reduce potential traffic impacts associated with the 2012 Modified Project. All other components of the 2012 Modified Project would remain the same under this alternative. East of "B" Street, this alternative would shift the alignment of Marine Way easterly to create larger parcels in close proximity to the Irvine Station. The adjusted Marine Way alignment extends south from "B" Street and crosses the SCRRRA right of way to connect with Barranca Parkway and Alton Parkway with a more direct bearing toward Bake Parkway.

This alternative would require the same General Plan amendment and Zone Change as the 2012 Modified Project.

This alternative would not create any different impacts than the 2012 Modified Project with respect to the physical division of an existing community because the development envelope is the same for this alternative and the 2012 Modified Project. Therefore, the analysis in Chapter 8, *Impacts Found Not To Be Significant* would also apply to this alternative.

Overall, the land use impacts under this alternative would be similar as compared to the 2012 Modified Project, and the impacts of both this alternative and the 2012 Modified Project would be less than significant.

Mineral Resources

This alternative would not create any different impacts than the 2012 Modified Project with respect to mineral resources because the development envelope is the same for this alternative and the 2012 Modified Project. Therefore, the analysis in Chapter 8, *Impacts Found Not To Be Significant* would also apply to this alternative. Neither this alternative nor the 2012 Modified Project would result in a significant impact on mineral resources.

7. Alternatives to the Modified Project

Noise

As discussed in Section 5.8, *Noise*, of this DSSEIR, the 2012 Modified Project would result in less than significant construction noise and vibration impacts on nearby off-site and on-site sensitive receptors, the closest of which would be located approximately 100 feet from the construction boundary. Construction noise and vibration impacts of this alternative would be generally the same as for the 2012 Modified Project, since the construction equipment and techniques would be similar; therefore, construction noise and vibration impacts of this alternative are expected to be less than significant, like those of the 2012 Modified Project.

As is also discussed in Section 5.8, *Noise*, of this DSSEIR, the 2012 Modified Project would result in less than significant operational noise impacts from mobile and stationary sources. Operational impacts of this alternative would be the same as for the 2012 Modified Project; therefore, operational noise impacts of this alternative are expected to be less than significant, like those of the 2012 Modified Project.

Since the Proposed Project Site (which would also be the site for this alternative) is not located within two miles of a public airport, or within or near any private airstrip or airport, as discussed in Chapter 8, *Impacts Found Not To Be Significant*, neither this alternative nor the 2012 Modified Project would expose people residing or working in the Proposed Project Site to excessive airport-related noise levels.

Population and Housing

Section 5.9, *Population and Housing*, of this DSSEIR concluded that development of the 2012 Modified Project would result in a less than significant impact with respect to the jobs-housing ratio. This alternative would have the same number of residential units and the same amount of non-residential development as compared to the 2012 Modified Project; therefore, it would generally create the same population and the same number of jobs onsite. The jobs-housing ratio of this alternative would be the same as for the 2012 Modified Project. Additionally, as with the 2012 Modified Project, this alternative would help the City's achievement of its RHNA targets.

This alternative would not create any different impacts than the 2012 Modified Project with respect to the displacement of existing housing or people that would require construction of replacement housing elsewhere because the development envelope is the same for this alternative and the 2012 Modified Project. Therefore, the analysis in Chapter 8, *Impacts Found Not To Be Significant* would also apply to this alternative.

Impacts of this alternative to population and housing in general would be the same as those of the 2012 Modified Project; in both scenarios, impacts to populations and housing would be less than significant.

Public Services

This alternative would develop the same number of residential units and the same amount of non-residential square footage as the 2012 Modified Project. Impacts of this alternative associated with fire protection and law enforcement would be the same as compared to the 2012 Modified Project, and both would be less than significant.

7. Alternatives to the Modified Project

Under this alternative, the same number of students would be generated as under the 2012 Modified Project. Any impacts to school services under either this alternative or the 2012 Modified Project would be reduced to a less than significant level through the required payment of SB 50 fees.

Overall impacts to public services would be the same for this alternative as for the 2012 Modified Project. Impacts would be less than significant in each scenario.

Recreation

This alternative would develop the same number of residential units and the same amount of non-residential square footage as the 2012 Modified Project. Thus, the population generation associated with this alternative would result in the same amount of parkland and recreation facilities needed to serve the projected population at buildout as under the 2012 Modified Project. As with the 2012 Modified Project, residential development under this alternative would be required to comply with City's park dedication requirements, and therefore, adequate park and recreation facilities would be provided to meet the needs of the anticipated population of this alternative. Additionally, as with the Modified Project, the open space areas and recreational uses and facilities that are slated for development as a part of the Great Park would be implemented under this alternative. Furthermore, as with the 2012 Modified Project, this alternative would include the development of a comprehensive trail system that would not only connect the uses and areas on- and off-site, but would also provide a means of recreation.

Therefore, impacts to parkland and recreational facilities under this alternative would be to the same as for the 2012 Modified Project (i.e., less than significant).

Transportation and Traffic

This alternative would develop the same number of residential units and the same amount of non-residential square footage as the 2012 Modified Project. Therefore, this alternative would generate the same number of trips as the 2012 Modified Project.

As discussed in Section 5.12, *Transportation and Traffic*, of this DSSEIR, traffic impacts of the 2012 Modified Project would be significant and unavoidable if implementation of certain mitigation measures that are the responsibility of jurisdictions other than the City are not implemented; traffic impacts of this alternative would also be significant and unavoidable for those same reasons.

This Marine Way Realignment Alternative would decrease the distances between arterial intersections along Barranca Parkway (between Marine Way and Alton Parkway) and Alton Parkway (between Marine Way and Barranca Parkway). These distances deviate from City guidelines for the minimum distances between signalized intersections on Primary and Major arterials.

As with the 2012 Modified Project, this alternative would achieve the goals of the City's General Plan for effective non-motorized transportation (Objectives B-3 and B-4) through the provision of enhanced local street connectivity, an extensive network of walkways and bikeways, and the arrangement of land uses for access by various modes.

This alternative would not create any different impacts than the 2012 Modified Project with respect to the air traffic because the development envelope is the same for this alternative and the 2012 Modified Project. Therefore, the analysis in Chapter 8, *Impacts Found Not To Be Significant* would also apply to

7. Alternatives to the Modified Project

this alternative. Neither this alternative nor the 2012 Modified Project would result in any impacts to air traffic.

This alternative would not create any different impacts than the 2012 Modified Project with respect to a roadway design feature because the development envelope is the same for this alternative and the 2012 Modified Project, and all new roadways and improvements to existing roadways would be designed and built in compliance with local, regional, and state agency requirements. Therefore, the analysis in Chapter 8, *Impacts Found Not To Be Significant* would also apply to this alternative. Neither this alternative nor the 2012 Modified Project would result in any impacts related to roadway design features.

This alternative would not create any different impacts than the 2012 Modified Project with respect to emergency access because the development envelope is the same for this alternative and the 2012 Modified Project. Although the alignment of Marine Way may slightly change the route for police and fire services, there would be no changes to the connectivity of the streets. Therefore, the analysis in Chapter 8, *Impacts Found Not To Be Significant* would also apply to this alternative. Neither this alternative nor the 2012 Modified Project would result in any impacts to emergency access.

Overall, trip generation would remain the same for this alternative as for the 2012 Modified Project, but larger parcels in close proximity to the Irvine Station and a more direct Marine Way alignment toward Bake Parkway would offer some traffic benefit under this alternative since a more direct alignment would allow for faster travel. However, this slight traffic benefit must be weighed against other potential traffic issues that arise with this alternative, namely the decreased distances between arterial intersections on Barranca Parkway and Alton Parkway.

Traffic impacts of this alternative would be significant and unavoidable, as would those of the 2012 Modified Project, but only if the off-site improvements under other jurisdictions are not implemented. On balance, the significant traffic impacts of the 2012 Modified Project and this alternative are essentially equivalent.

Utilities and Service Systems

This alternative would develop the same number of residential units and the same amount of non-residential square footage as the 2012 Modified Project. Thus, the residential and non-residential development associated with this alternative would result in the same demand for water, electricity, and natural gas services, and generation of wastewater and solid waste, as compared to the 2012 Modified Project. As with the 2012 Modified Project, the appropriate infrastructure and facilities for each service under this alternative would be available and/or built and the provider of each service would be able to effectively supply the necessary utilities and service systems. Furthermore, as with the 2012 Modified Project, development of this alternative would be required to adhere to the regulations, 2011 Certified EIR and associated MMRP mitigation measures, and PPPs, outlined in Section 5.13, *Utilities and Service Systems*, of this DSSEIR.

Overall, impacts to utilities and service systems would be the same for this alternative as for the 2012 Modified Project, and would be less than significant in both scenarios.

7. Alternatives to the Modified Project

7.5.2 Ability to Reduce Impacts

Overall, trip generation would remain the same for this alternative as for the 2012 Modified Project, but larger parcels in close proximity to the Irvine Station and a more direct Marine Way alignment toward Bake Parkway offer some traffic benefit under this alternative. However, this slight traffic benefit must be weighed against other potential traffic issues that arise with this alternative, namely the decreased distances between arterial intersections on Barranca Parkway and Alton Parkway. Traffic impacts of this alternative would be significant and unavoidable, as would those of the 2012 Modified Project, but only if the off-site improvements under other jurisdictions are not implemented. As described above, all other impacts of this alternative would be similar to those of the 2012 Modified Project.

7.5.3 Ability to Achieve Project Objectives

The Marine Way Realignment Alternative would achieve all of the objectives of the 2012 Modified Project and would have generally the same level of impacts as the 2012 Modified Project.

7.6 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires a lead agency to identify the “environmentally superior alternative” when significant environmental impacts result from the 2012 Modified Project, if one exists. In cases where the “No Project” Alternative is environmentally superior to the 2012 Modified Project, an environmentally superior development alternative should be identified as well.

As discussed above, the alternatives analysis in this DSSEIR differs from a typical alternatives analysis contemplated in CEQA in that the 2011 Approved Project is the subject of a development agreement and has vested development rights. The CEQA Guidelines (Section 15126[a]) state that an EIR must address “a range of reasonable alternatives to the project, or to the location of the project, which could feasibly attain the basic objectives of the project, but would avoid or substantially lessen any of the significant effects of the project and evaluate the comparative merits of the alternatives. As noted the only significant and unavoidable impact of the 2012 Modified Project (aside from the traffic contingency for implementation in other jurisdictions, which cannot be remedied) is Air Quality, which primarily results from traffic. Any elimination or reduction of traffic impacts which involves reducing development below the levels approved for the 2011 Approved Project is not legally feasible because that level of development is a vested right that cannot legally be reduced.

This DSSEIR has analyzed an alternative (the Marine Way Realignment Alternative) that could potentially reduce some traffic impacts. After analyzing the Marine Way Realignment Alternative, however, the 2012 Modified Project remains the environmentally preferable choice as compared to the No Project/2011 Approved Project and the Marine Way Realignment Alternatives. As discussed above, while the Marine Way Realignment Alternative may have slight traffic benefits, it would require deviation from the City's standards for the minimized distances between signalized intersections.

An impact comparison is provided on Table 7-3 and a summary of the ability of each alternative to meet the project objectives is provided on Table 7-4.

7. Alternatives to the Modified Project

*Table 7-3
Impact Comparison
2012 Modified Project versus Project Alternatives*

| <i>Environmental Impact</i> | <i>2012 Modified Project (without/ with mitigation)</i> | <i>No Project/2011 Approved Project Alternative</i> | <i>Marine Way Realignment Alternative</i> |
|---------------------------------|---|---|---|
| Aesthetics | LS/LS | = | = |
| Agricultural Resources | LS/LS | = | = |
| Air Quality | | | |
| Short-Term | S/S | = | = |
| Long-Term | S/S | < | = |
| Biological Resources | LS/LS | = | = |
| Cultural Resources | LS/LS | = | = |
| Geology and Soils | LS/LS | = | = |
| Greenhouse Gas Emissions | LS/LS | > | = |
| Hazards and Hazardous Materials | LS/LS | > | = |
| Hydrology and Water Quality | LS/LS | = | = |
| Land Use and Planning | LS/LS | = | = |
| Minerals | LS/LS | = | = |
| Noise | | | |
| Short-Term | LS/LS | = | = |
| Long-Term | LS/LS | = | = |
| Population and Housing | LS/LS | > | = |
| Public Services | LS/LS | < | = |
| Recreation | LS/LS | = | = |
| Transportation/Traffic | | | |
| Local | S/S | < | = |
| Regional | S/S | = | = |
| Utilities and Service Systems | LS/LS | < | = |

LS = Less than significant.

S = Significant

< = Reduces impacts compared to the 2012 Modified Project.

> = Increases impacts compared to the 2012 Modified Project.

= Impacts would be similar.

7. Alternatives to the Modified Project

*Table 7-4
Ability of Each Alternative to Meet the 2012 Modified Project Objectives*

| <i>2012 Modified Project Objective</i> | <i>2012 Modified Project</i> | <i>No Project/2011 Approved Project Alternative</i> | <i>Marine Way Realignment Alternative</i> |
|--|------------------------------|---|---|
| Implement the project objectives stated in the 2011 Certified EIR | Yes | Yes | Yes |
| Redevelop and reuse a portion of the former MCAS El Toro Property for a mixed-use community adjacent to the Orange County Great Park, consistent with the General Plan. | Yes | Yes | Yes |
| Increase the amount of property within "Combined PA 51" (formerly Existing PA 30 and Existing PA 51) that are zoned 8.1 Trails and Transit Oriented Development (TTOD) to provide greater flexibility in meeting City General Plan Goals. | Yes | Less by this alternative than by the 2012 MP | Yes |
| Advance the State's and Southern California Association of Governments' ("SCAG") policies to provide sustainable mixed-use development and to reduce trips and vehicle miles travelled in automobiles and light trucks. | Yes | Less by this alternative than by the 2012 MP | Yes |
| Help meet the City's Regional Housing Needs Assessment | Yes | Less by this alternative than by the 2012 MP | Yes |
| Provide for a range of housing types in a location that is responsive to current and anticipated demands and is supportive of continued economic growth within the City. | Yes | Less by this alternative than by the 2012 MP | Yes |
| Convert existing non-residential intensity to residential uses through a revised land use plan in Combined PA 51, thereby providing a better balance of population and employment to increase internal trip capture and reduce vehicle miles travelled and improve the jobs/housing balance in jobs-rich Irvine. | Yes | No | Yes |
| Establish a revised land use plan in Combined PA 51 to create a mixed-use community with neighborhood serving land uses near residences as well as employment centers. | Yes | Less by this alternative than by the 2012 MP | Yes |
| Combine Existing PAs 30 and 51 into a single PA, Combined PA 51, so that the 2012 Modified Project will be a cohesive development governed by a unified set of land use and development regulations. | Yes | No | Yes |
| Better accommodate projected regional growth in an infill location that is adjacent to existing and planned infrastructure, urban services, transit, transportation corridors, and major employment centers. | Yes | Less by this alternative than by the 2012 MP | Yes |
| Establish a revised land use plan that permits a wide range of housing densities, types, styles, prices, and tenancy (for sale and rental). | Yes | Yes | Yes |
| Create a mixed-use community that optimizes the open space and recreational opportunities in the adjacent Great Park | Yes | Yes | Yes |
| Provide for a fiscally sound land use plan that includes public and commercial uses to support and enhance the new residential community and other residential communities in the vicinity. | Yes | Yes | Yes |
| Provide additional market rate and affordable housing opportunities near existing employment and transportation centers, consistent with the City's General Plan Land Use and Housing Elements, SB 375 and SCAG's Regional Comprehensive Plan. | Yes | Less by this alternative than by the 2012 MP | Yes |
| Provide a safe, efficient, and aesthetically attractive street system with convenient connections to adjoining transportation routes. | Yes | Yes | Yes |

7. Alternatives to the Modified Project

Table 7-4

Ability of Each Alternative to Meet the 2012 Modified Project Objectives

| <i>2012 Modified Project Objective</i> | <i>2012 Modified Project</i> | <i>No Project/2011 Approved Project Alternative</i> | <i>Marine Way Realignment Alternative</i> |
|---|------------------------------|---|---|
| Allow level of service (LOS) "E" to be considered potentially an acceptable level of service within certain high activity, mixed-use areas within the Proposed Project Site, to be consistent with other areas of the City and to promote use of alternative modes of transportation. | Yes | Less by this alternative than by the 2012 MP | Yes |
| Provide a walkable community through the use of innovative traffic calming techniques such as roundabouts designed to slow traffic, and pedestrian pathways. | Yes | Yes | Yes |
| Create a highly livable, pedestrian-friendly environment that encourages alternative means of transportation to the automobile by incorporating unique site designs and enhanced pedestrian access between land uses, trails, and streets. | Yes | Yes | Yes |
| Create a medium-density, mixed-use community that optimizes the open space and recreational opportunities in the adjacent Orange County Great Park. | Yes | Yes | Yes |
| Provide new parks, trails and public open space, and complete connections to regional trails in City's General Plan Trails Map. | Yes | Yes | Yes |
| Advance funding for the implementation of recreational facilities for the Great Park. | Yes | No | Yes |
| Provide a biologically effective wildlife corridor that meets the goals of the City's General Plan, while relocating Segments 2 and 3 of the Approved Wildlife Corridor Feature in order to provide greater flexibility in developing a mixed-use community that meets City General Plan goals. | Yes | Yes | Yes |