7.1 INTRODUCTION

7.1.1 Purpose and Scope

The California Environmental Quality Act (CEQA) requires that an Environmental Impact Report (EIR) include a discussion of reasonable 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 proposed 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 in the 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" (15126.6[b]).
- "The specific alternative of 'no project' shall also be evaluated along with its impact" (15126.6[e][1]).
- "The no project analysis shall discuss the existing conditions at the time the Notice of Preparation (NOP) is published, and 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" (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" (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)" (15126.6[f][1]).
- "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" (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" (15126.6[f][3]).



For each development alternative, this analysis:

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

Per the CEQA Guidelines Section 15126.6(d), additional significant effects of the alternatives are discussed in less detail than the significant effects of the project as proposed.

7.1.2 Project Objectives

As described in Section 3.2, the following objectives have been established for the proposed project and will aid decision makers in their review of the project, the project alternatives, and associated environmental impacts:

- To provide a comprehensive update to the City's General Plan that establishes the goals and policies that create a built environment that fosters the enjoyment, financial stability and well being of the entire community;
- To designate the distribution, location, balance and extent of land uses including residential, commercial, industrial and open space;
- To ensure that future development will occur consistent with the high standards that the City has set and that make Torrance a desirable place to live;
- To preserve the City's valuable industrial core and jobs base;
- To accommodate a diverse range of commercial uses at locations throughout Torrance to meet the local shopping and service needs of residents, and to create opportunities for revenue generation at regional centers;
- To encourage the revitalization and conversion of older, under-performing, blighted commercial and industrial areas;
- To support, on a limited basis, mixed-use development approached where such development is compatible with surrounding uses;
- To ensure that future growth will be respectful towards the City's cultural resources and architectural heritage, and to encourage preservation of Old Torrance's distinct character and unique characteristics, including the street layout and structures;
- To encourage alternative modes of transportation, such as walking, bicycling and transit;
- To seek ways to enhance the level of service of the citywide roadway system while minimizing traffic intrusion into residential neighborhoods;

• To continue to maintain a high level of public services to the community by protecting and enhancing public resources such as schools, libraries, the airport, hospitals, parks and open space, and community centers.

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

The following is a discussion of the land use alternatives considered during the scoping and planning process and the reasons why they were not selected for detailed analysis in this Draft EIR.

7.2.1 Alternative Development Areas

CEQA requires that the discussion of alternatives focus on alternatives to the project or its location that are capable of avoiding or substantially lessening any significant effects of the project. The key question and first step in the analysis is whether any of the significant effects of the project would be avoided or substantially lessened by putting the project in another location. Only locations that would avoid or substantially lessen any of the significant effects of the project need be considered for inclusion in the EIR (Guidelines Sec. 15126[5][B][1]). In general, any development of the size and type proposed by the project would have substantially the same impacts on air quality, land use/planning, noise, population/ housing, public services, recreation, transportation/traffic and utilities/service systems. Without a site-specific analysis, impacts on aesthetics, biological resources, cultural resources, geology/soils, hazards and hazardous materials, hydrology/water quality and mineral resources cannot be evaluated.

Since the proposed project consists of a general plan update that encompasses that entire City of Torrance, an alternative site analysis is not appropriate. However, areas proposed for development or intensification were reviewed to determine if development could be redirected to less sensitive areas. Since the City of Torrance is primarily built-out, there are very few undeveloped areas. As a result, shifting development intensities, while feasible, would not result in a reduction of significant impacts. Thus, alternative development areas were rejected and are not analyzed in detail in this document.



7.3 ALTERNATIVES SELECTED FOR FURTHER ANALYSIS

Based on the criteria listed above, the following three alternatives have been determined to represent a reasonable range of alternatives which have the potential to feasibly attain most of the basic objectives of the project but which may avoid or substantially lessen any of the significant effects of the project. These alternatives are analyzed in detail in the following sections.

- No Project/Existing General Plan Alternative
- Mixed-Use Development Alternative
- Increased Residential Land Use Alternative

An EIR must identify an "environmentally superior" alternative, and 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. Each alternative's environmental impacts are compared to the proposed project and determined to be environmentally superior, neutral, or inferior. However, only those impacts found significant and unavoidable are used in making the final determination of whether an alternative is environmentally superior or inferior to the proposed project. Only the impacts involving air quality and noise were found to be significant and unavoidable. Section 7.7 identifies the environmentally superior alternative.

The proposed land use alternative (proposed general plan update) is analyzed in detail in Chapter 5 of this DEIR.

Alternatives Comparison

The following statistical analysis provides a summary of general socioeconomic build-out projections determined by the four land use alternatives, including the proposed project. It is important to note that these are not growth projections. That is, they do not anticipate what is likely to occur by a certain time horizon, but rather provide a buildout scenario that would only occur if all the areas of the City were to develop to the probable capacities yielded by the land use alternatives. The following statistics were developed as a tool to understand better the difference between the alternatives analyzed in the DEIR. Table 7-1 identifies City-wide information regarding dwelling unit, population, and employment projections, and also provides the jobs-to-housing ratio for each of the alternatives.

Table 7-1 Buildout Statistical Summary				
	Proposed Project	No Project/Existing General Plan Alternative	Mixed-Use Development Alternative	Increased Residential Land Use Alternative
Dwelling Units	57,536	54,476	58,536	63,290
Population	147,082	139,262	150,238	161,790
Employment	105,689	92,158	106,179	95,120
Jobs-to-Housing Ratio	1.84	1.69	1.81	1.50

7.4 NO PROJECT/EXISTING GENERAL PLAN ALTERNATIVE

Section 15126.6(e) of the CEQA Guidelines requires that an EIR evaluate and analyze the impacts of the no project alternative. When the project is the revision of an existing land use or regulatory plan, policy, or ongoing operation, the no project alternative will be the continuation of the plan, policy, or operation into the future. Therefore, the No Project/Existing General Plan Alternative, as required by the CEQA Guidelines, analyzes the effects of continued implementation of the City's existing general plan. This alternative assumes the existing general plan remains as the adopted long-range planning policy document for the City. Development would continue to occur within the City in accordance with the existing general plan, zoning code, and specific plans. Buildout pursuant to the existing general plan would allow current development patterns to remain.

The existing general plan land use map consists of various land use designations. Broad categories of these designations include residential, commercial, industrial, public/quasi-public/open space, and airport. Tables 3-1 and 3-2 summarize the residential and nonresidential buildout estimates of the current general plan, respectively. Residential development represents the predominant land use in Torrance, with housing covering 49 percent of the City's land area. Industrial uses occupy the second largest land area, with 2,276 acres (22 percent). Public/Quasi-Public/Open Space uses represent the third largest land use in the City (12 percent). Torrance has a limited supply of vacant land. Of the 116 acres of vacant land, most of the area (94 percent) lies within commercial and industrial areas. The remainder (6 percent) lies within residential areas.

7.4.1 Aesthetics

Under the No Project/Existing General Plan Alternative, the City would continue to function under the direction of the existing general plan. Buildout under the existing general plan would result in 3,060 fewer dwelling units and 7,820 fewer residents than the proposed project.

Under the existing as well as the proposed general plan, impacts to visual resources are regulated through the land use element. Additionally, the proposed general plan includes a community resource element, which also addresses aesthetic resources within the community. Restrictions to hillside development are addressed per the Hillside Preservation Ordinance, discussed in the land use element. These elements include policies concerning open space, streetscape, hardscape, street trees, and lighting. Although commercial and industrial square footage is increased under the proposed general plan, no additional land is proposed for development. Therefore, the No Project/Existing General Plan Alternative would be considered similar to the proposed project regarding aesthetics.

7.4.2 Air Quality

Under the No Project/Existing General Plan Alternative, the City would be developed consistent with the existing general plan. Buildout under the existing general plan would result in 3,060 fewer dwelling units, 7,820 fewer residents, and 1,271,821 less square footage of nonresidential use than the proposed project; however, there would be 3,101,835 less square footage of commercial uses allowed. A reduction in developments would reduce short-term emissions related to project construction activities. Although this alternative would reduce both long- and short-term pollutant emissions generated in the City of Torrance, it would not eliminate significant short- and long-term criteria pollutant contributions to volatile organic compounds (VOC), NO_X , CO, SO_2 , PM_{10} , and $PM_{2.5}$; would not be consistent with the air quality management plan, as criteria pollutants thresholds would be exceeded; and would cumulatively contribute to the SoCAB nonattainment designations for O_3 , PM_{10} , and $PM_{2.5}$.



Implementation of the Proposed Land Use Plan was found to have significant and unavoidable impacts to short- and long-term air quality. In comparison to the Proposed Land Use Plan, this alternative would substantially reduce but not eliminate short- and long-term air quality impacts.

7.4.3 Biological Impacts

Under the No Project/Existing General Plan Alternative, the City would be developed consistent with the existing general plan. The majority of the City is built out; however, the remaining areas of the City that provide viable habitat are designated as open space and/or protected areas. The impacts of this alternative would be similar to those of the proposed general plan update, and this alternative would be considered environmentally neutral.

7.4.4 Cultural Resources

Under the No Project/Existing General Plan Alternative, the City would continue to develop consistent with the existing general plan. Both the existing general plan and the proposed general plan contain policy guidance concerning areas of cultural and historical significance in the City. Since the City is primarily built out, and areas of the City would likely intensify already existing development, the proposed project would likely have similar impacts to cultural resources as the current general plan. Therefore, this alternative would be considered environmentally neutral.

7.4.5 Geology and Soils

Buildout under the existing general plan would result in 3,060 fewer dwelling units and 7,820 fewer residents that the proposed project. The before, the existing general plan would expose fewer people to impacts related to geology and soils, including earthquakes, ground shaking, liquefaction, and erosion. Therefore, the No Project/Existing General Plan Alternative would be environmentally superior to the proposed project with regard to geology and soils.

7.4.6 Greenhouse Gas Emissions

Under the No Project/Existing General Plan Alternative, the City would continue development consistent with the existing general plan. Buildout under the existing general plan would result in 3,060 fewer dwelling units, 7,820 fewer residents, and 1,271,821 less square footage of total nonresidential uses. Although this alternative would reduce daily trips generated in the City of Torrance, it would lose the potential benefits derived from more mixed-use and higher density developments proposed by the Proposed Land Use Plan. These types of developments could reduce per-capita VMT and ADT by reducing the distance between employment, services and amenities, and residences, in addition to supporting higher utilization of alternative modes of transportation (Urban Land Institute 2008).

This alternative would be considered environmentally superior to the proposed project due to the reduced amount of greenhouse gas emissions.

7.4.7 Hazards and Hazardous Materials

This alternative would slightly decrease impacts to hazards and hazardous materials as compared to the proposed project because the General Plan Update allows for more commercial and industrial development. Consequently, impacts related to the routine transport, use, or disposal of hazardous materials, and those related to reasonably foreseeable upset conditions, would be slightly decreased under this alternative. However, development under the existing General Plan would continue to expose people to hazardous substances that may be present in soil or groundwater, and demolition activities could expose workers and the environment to asbestos-containing materials and/or lead based paint and residues. Development under both the proposed project and this alternative would be held to federal, state, and local policies protecting humans and the environment from exposure to hazards. Compliance with the provisions of hazardous material policies in the City's Municipal Code and implementation of the existing regulations related to hazardous materials would reduce this impact to a less-than-significant level. Consequently, impacts would be similar to or slightly less as compared to the proposed.

7.4.8 Hydrology and Water Quality

Implementation of the No Project/Existing General Plan Alternative would have similar hydrology and water quality impacts to those of the proposed project. Although the total amount of development could differ from the proposed project under this alternative, similar alterations to drainage and hydrological patterns would occur. Similar to the proposed project, runoff would be subject to National Pollutant Discharge Elimination System (NPDES) permit standards and provisions stipulated in the Drainage Area Management Plan (DAMP). If necessary, treatment would be employed to remove excess pollutants from runoff during the construction and operational phases of development. Runoff would be expected to be treated to the maximum extent practicable. In terms of water quality, this alternative would be similar to the proposed project.

Since designated Open Space areas remain primarily the same (1,241 acres in the existing General Plan and 1,218 acres in the Proposed Land Use Plan), depletion of groundwater and percolation of pollutants into groundwater aquifers would be less than significant, similar to the proposed project.

This alternative would increase the impervious surface groundcover over existing conditions, and increase the quantity of runoff discharged into the City storm drain system, similar to the proposed project. General Plan policies adopted to minimize total site runoff would not be implemented. Projects would be subject to additional review in order to ensure that they do not exceed the capacity of the storm drain system. It is therefore expected that the net effect would be similar, and individual projects would not exceed the capacity of the storm drain system. These impacts would be less than significant, similar to the proposed project. Hydrology and water quality impacts overall would be similar for this alternative in comparison to the proposed project.

7.4.9 Land Use and Relevant Planning

Under this alternative, the City would continue to function under the direction of the existing general plan. The general plan update does not introduce significant land use changes; however, it does provide new guidance opportunities and policy direction. Consequently, this alternative would not implement all the objectives of the General Plan Update. No land use development would occur that would physically divide an established community, and no conflicts with adopted plans and policies would occur. As a result, this alternative would be environmentally inferior to the proposed project.

7.4.10 Mineral Resources

Under the No Project/Existing General Plan Alternative, the City would continue to function under the direction of the existing general plan. There is a small amount of MRZ-2 area within the City, but, development under the proposed general plan would not affect these areas, and there would be no impacts to mineral resources within the City. Therefore, the No Project/Existing General Plan Alternative would be considered similar to the proposed project.

7.4.11 Noise

The No Project Alternative/Existing General Plan Alternative would reduce short-term construction-related impacts associated with the proposed land use plan. Under this alternative, there would be fewer and less residential and nonresidential development built, thereby eliminating potential short-term noise impacts from construction of these projects. Additionally, the reduction of residential and nonresidential development and construction activities would also reduce potential short-term vibration impacts to sensitive receptors. This alternative would also reduce long-term noise impacts from mobile and stationary sources. The reduction of planned land use developments would reduce the number of vehicle trips generated by new developments and would reduce the number of stationary sources of noise. Overall, this alternative would substantially reduce short- and long-term noise impacts of the proposed project. However, buildout of the existing general plan would continue to expose sensitive receptors to elevated noise levels and strong vibration from construction and result in an increase in traffic on the local roadways, which would substantially increase noise levels. Consequently, this alternative would substantially reduce but would not eliminate the short- and long-term noise and vibration significant and unavoidable impacts of the proposed project.

7.4.12 Population and Housing

Under the No Project/Existing General Plan Alternative, the City would be developed consistent with the general plan buildout, which would result in 3,060 less dwelling units, 7,820 fewer residents, and 1,271,871



less total nonresidential square footage. The jobs/housing ratio under the existing general plan is 1.69; under the proposed general plan update, the jobs/housing ratio is anticipated to be 1.84. As a result, the No Project/Existing General Plan Alternative would be considered environmentally superior to the proposed project.

7.4.13 Public Services

Under the No Project/Existing General Plan Alternative, the City would be developed consistent with the existing general plan. Buildout under the existing general plan would result in 3,060 less residential units, and 7,820 fewer residents than under the proposed general plan update. The higher level of population growth projected in the proposed general plan, though small, would result in increased impacts to public services and utilities in the City. Therefore, the No Project/Existing General Plan Alternative would be considered environmentally superior to the proposed project.

7.4.14 Recreation

Under this alternative, the City would be developed consistent with the existing general plan. Due to smaller levels of population growth projected under buildout conditions of the existing general plan, the demands on existing recreational facilities would be slightly reduced in comparison to the proposed project. As a result, less parkland/open space would be required to serve the project population, and the No Project/Existing General Plan would be considered environmentally superior to the proposed project.

7.4.15 Transportation and Traffic

Under the No Project/Existing General Plan Alternative, the City would be developed consistent with the existing general plan. Buildout under the existing general plan would result in 3,060 less dwelling units, 7,820 fewer residents, and 1,271,871 less total nonresidential square footage. The proposed general plan is estimated to generate approximately 18,328 additional daily trips; therefore, this alternative would be considered environmentally superior to the proposed project.

7.4.16 Utilities and Service Systems

Under the No-Project/Existing General Plan Alternative, the City would continue to function under the direction of the general plan. Buildout under the existing general plan would result in 3,060 less dwelling units, 7,820 fewer residents, and 1,271,871 less total nonresidential square footage. Impacts to utilities and service systems would be reduced in comparison with the proposed project; therefore, this alternative would be considered environmentally superior to the proposed project.

7.4.17 Conclusion

The No Project/Existing General Plan Alternative would be considered environmentally superior to the proposed project in the areas of air quality, geology and soils, greenhouse gas emissions, hazards and hazardous resources, hydrology and water quality, noise, public services, recreation, traffic and circulation, and utilities and service systems.

The adoption of the No Project/Existing General Plan Alternative would not be compatible with the goals and objectives identified by City for growth through 2030. The No Project/Existing General Plan Alternative fails to accomplish the project objectives in the City's vision and would still result in significant air quality and noise impacts.

7.5 MIXED-USE DEVELOPMENT ALTERNATIVE

The Mixed-Use Development Alternative would concentrate a high-density corridor of mixed-use development likely along the length of Hawthorne Boulevard or Sepulveda Boulevard, to take advantage of the proximity to residential uses that could benefit from and support the development alternative, and the availability of alternative transportation opportunities. The Mixed-Use Development Alternative was considered to reduce the traffic, greenhouse gas emission, air quality, and noise impacts of the proposed project through a reduction of vehicle trips within the City. The development would support buildings consisting of first-floor retail establishments (assumes 250,000 square feet of retail use and 490 additional employees), up to four stories of residential uses (at approximately 40 du/ac, assumes 1,000 total units throughout the project), and allow for future development of a regional transit hub.

7.5.1 Aesthetics

This alternative would change the existing aesthetic of a small portion of the City; however, the proposed location of this alternative would be along highly developed corridors, and would be regulated by the existing design standards of the City. Therefore, while this alternative would offer a different aesthetic, it would be considered environmentally neutral to the proposed project.

7.5.2 Air Quality

While the Mixed-Use Development Alternative would introduce an increase in development, residents, and trips to the City, the ultimate goal of the implementation of the alternative would be to reduce both daily trips and vehicle miles traveled (VMT) within the City, not only for the occupants of the development, but for surrounding neighbors who would be able to walk and/or bike to the retail establishments, instead of driving elsewhere in the City. Therefore, assuming that VMT and daily trips of project occupants decreased, and surrounding neighbors utilized the mixed-use development as well, this alternative would be considered environmentally superior to the proposed project, however due to the overall development involved with the both the General Plan Update and this alternative, air quality impacts would remain significant and unavoidable.



7.5.3 Biological Impacts

The Mixed-Use Development Alternative would involve an area of the City that is already completely developed, and does not contain any viable biological resources or sensitive habitats. This alternative would be considered environmentally neutral to the proposed project.

7.5.4 Cultural Resources

The Mixed-Use Development Alternative would involve an area of the City that is already completely developed, and does not contain any viable cultural resources. This alternative would be considered environmentally neutral to the proposed project.

7.5.5 Geology and Soils

While the proposed project would offer a different type of land use for a portion of the City, the development area would remain the same; therefore, impacts to geology and soils would be considered similar to the proposed project.

7.5.6 Greenhouse Gas Emissions

As with air quality, the ultimate goal of the implementation of the Mixed-Use Development Alternative would be to reduce both daily trips and VMT within the City, not only for the occupants of the development, but for surrounding neighbors who would be able to walk or bike to the retail establishments, instead of driving elsewhere in the City. Therefore, assuming that VMT and daily trips of project occupants decreased, and surrounding neighbors utilized the mixed-use development as well, this alternative would be considered environmentally superior to the proposed project.

7.5.7 Hazards and Hazardous Materials

This alternative would likely result in a slightly reduced amount of commercial/industrial development, and would place residential uses within close proximity to retail and commercial establishments. Consequently, impacts related to the routine transport, use, or disposal of hazardous materials, as well as those related to reasonably foreseeable upset conditions would be slightly reduced, though the impact is already less than significant. Development under both the proposed project and this alternative would be held to federal, state, and local policies protecting humans and the environment from exposure to hazards. Compliance with the provisions of hazardous material policies in the City's Municipal Code and implementation of the existing regulations related to hazardous materials would reduce this impact to a less-than-significant level. This impact would remain less than significant. Overall, impacts related to hazards and hazardous materials would be similar or slightly reduced under this Alternative.

7.5.8 Hydrology and Water Quality

Under the Mixed-Use Development Alternative, the land use of a portion of the City would change from commercial to residential and retail. Although nonresidential intensity would be reduced under this alternative, similar alterations to drainage patterns and alterations to hydrological patterns would occur. Similar to the proposed project, runoff would be subject to NPDES permit standards and provisions stipulated in the DAMP. If necessary, treatment would be employed to remove excess pollutants from runoff during the construction and operational phases of development. Policies that offer additional protection from water quality impairment would be adopted, and runoff would be expected to be treated to the maximum extent practicable. In terms of water quality, this alternative would have a less than significant impact, similar to the proposed project. Since designated Open Space areas remain the same, depletion of groundwater and percolation of pollutants into groundwater aquifers would be less than significant, similar to the proposed project. The development area would remain the same, and a similar amount of impervious surface would be expected due to the high-density nature of the development. Individual projects would be subject to additional review in order to ensure that they do not exceed the capacity of the storm drain system. It is therefore expected that the net effect would be similar, and individual projects would not exceed the capacity of the storm drain system. These impacts would be less than significant, similar to the proposed project. This alternative would 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, similar to the proposed project (see Section 5.8, Hydrology and Water Quality). Hydrology and water quality impacts overall would be similar for this alternative in comparison to the proposed project. This alternative would be considered environmentally similar to the proposed project.

7.5.9 Land Use and Relevant Planning

The Mixed-Use Development Alternative would allow for the development of a high-density, mixed-use development corridor with the potential to implement and serve as a transit hub in the future. To allow for the proposed development alternative, a redesignation of land uses would be required. However, since the

proposed project is a general plan update, involving the redesignation of land uses, this alternative's impacts are similar to those of the proposed project. Therefore, this alternative is considered environmentally neutral to the proposed project.

7.5.10 Mineral Resources

While the proposed project would offer a different type of land use for a portion of the City, the development area would remain the same, and would not be located near the City's MRZ-2 zone. Therefore, impacts to mineral resources would be considered similar to the proposed project.

7.5.11 Noise

Under the Mixed-Use Development Alternative, construction noise impacts would generally be similar to the proposed project. The total number of units in the City would increase by 1,000, with an additional 250,000 square feet of retail use. Noise volumes surrounding the development would increase, but the development would be in a dense, highly developed and trafficked portion of the City and would not result in a significant noise increase. Due to the scale of development activity associated with buildout of this alternative, construction activities associated with any individual development may still occur near existing noise-sensitive receptors, and noise disturbances may occur for prolonged periods of time, construction noise impacts from buildout of this alternative would remain significant and unavoidable.

As previously mentioned, although this alternative would increase residential and retail development, its intent was to reduce both daily trips and vehicle miles traveled (VMT) within the City, not only for the occupants of the development, but for surrounding neighbors who would be able to walk and/or bike to the retail establishments, instead of driving elsewhere in the City. Therefore, assuming that VMT and daily trips were reduced as a result of the implementation of this alternative, a subsequent reduction in the project's contribution to traffic noise on local roadways would occur. This alternative would be considered environmentally neutral to the proposed project and would likely reduce but not eliminate the short- and long-term noise impacts significant and unavoidable impacts.



7.5.12 Population and Housing

Under the Mixed-Use Development Alternative, residential units in the City would be increased by 1,000 units. Although retail uses are a part of this alternative, the jobs produced have been captured in the general plan update, since the proposed land use designation for the site is commercial. Therefore, a slight change in the jobs/housing ratio would occur, from 1.84 to 1.81, but the change would be negligible. Therefore, this alternative would be considered environmentally neutral.

7.5.13 Public Services

With an estimated increase of 2,630 residents, increased demand on public services, including police, fire, schools, and library service would occur. However, as a result, this alternative would be considered environmentally inferior to the proposed project.

7.5.14 Recreation

With an estimated increase of 2,630 residents, increased demand on recreation resources would occur, though the demand would not likely be large. However, as a result, this alternative would be considered slightly environmentally inferior to the proposed project.

7.5.15 Transportation and Traffic

The Mixed-Use Alternative was proposed primarily as a means to reduce vehicle trips per day and vehicle miles traveled in the City, subsequently reducing air quality, noise, and greenhouse gas emission impacts. The Mixed-Use Development Alternative would introduce approximately 1,000 additional residential units, which would normally result in approximately 10,000 additional vehicle trips per day. However, the intent of placing the project near existing and proposed mass transit, increasing density, and including retail uses within the project was to reduce the amount of car trips made by the residents and provide greater opportunities for alternative forms of transportation, including walking and biking. Therefore, while this alternative may slightly increase traffic impacts in the immediate vicinity of the development, it would be considered environmentally superior to the proposed project due to the assumed reduction in overall trips per day and vehicle miles traveled.

7.5.16 Utilities and Service Systems

The Mixed-Use Alternative would introduce approximately 1,000 additional residential units to the City, increasing demand for utilities and service systems, including sewer, water, electricity, natural gas, and solid waste. This alternative would result in an increase in utilities and service systems impacts relative to the proposed project. Therefore, this alternative is considered environmentally inferior to the proposed project.

7.5.17 Conclusion

The Mixed-Use Development Alternative would be considered environmentally superior to the proposed project in the areas of air quality, greenhouse gas emissions, and traffic and circulation. This alternative would be considered environmentally inferior to the proposed project in the areas of public services, recreation, and utilities and services systems, due primarily to the increase in population.

The adoption of the Mixed-Use Development Alternative would be compatible with the goals and objectives identified by City for growth through 2030, and would accomplish the project objectives in the City's vision. Significant air quality and noise impacts would still remain.

7.6 INCREASED RESIDENTIAL LAND USE ALTERNATIVE

SCAG often asserts that a jobs/housing ratio of 1.50 typifies a "balanced" city. Since it is projected that the jobs/housing ratio in Torrance would be approximately 1.90, a jobs-rich ratio, this alternative will look at the impacts resulting from increased residential uses in the City. In comparison to the proposed general plan update, residential land uses have been increased by 10 percent, resulting in 63,290 estimated dwelling units, and a subsequent 10 percent increase in population, resulting in approximately 161,790 residents. Nonresidential land uses have been decreased by 10 percent, resulting in approximately 55,947,600 square feet. Projected employment opportunities would be reduced 10 percent, resulting in a forecast of approximately 95,120 jobs and a jobs/housing ratio of 1.50.

7.6.1 Aesthetics

The Increased Residential Land Use Alternative would increase residential uses by 10 percent, and subsequently decrease nonresidential uses by 10 percent. The types of impacts associated with degradation of scenic vistas, decreased visual quality, obstruction/alteration of scenic resources within a state- or locally-designated scenic highway, and increased light and glare would be similar to the proposed project under this alternative, as the overall character of Alternative Land Use Plan buildout would be similar. This alternative does not allow for development in areas currently proposed for open space in the General Plan

Update. Since Torrance is primarily a residential community, an increase in residential uses would not alter the overall aesthetic of the City. As with the General Plan Update, this alternative would not degrade the visual character of the City, as it would still have plans and policies for maintaining and ensuring the aesthetic qualities of the City. This alternative would be considered slightly environmentally superior to the proposed project.

7.6.2 Air Quality

Because commercial uses generally have higher trip rates compared to residential uses, the reduction in nonresidential uses would have a greater impact toward reducing pollutant emissions. Air quality impacts from construction would be similar to the proposed project. Ultimately, due to the increase in residential dwelling units and subsequent decrease in daily trips, this alternative would be considered environmentally superior to the proposed project.

7.6.3 Biological Impacts

Under the Increased Residential Land Use Alternative, development types would be shifted throughout the City, however the areas proposed for development would remain unchanged. Therefore, under this alternative potential impacts on biological resources would be generally the same as with the proposed project. Threatened and endangered species have been observed or are expected to exist within Torrance, as indicated in Section 5.3, *Biological Resources*. However, prior to and during development, projects would be required to follow the regulations of the California and federal Endangered Species Acts, including requirements of the US Fish and Wildlife Service regarding critical habitat.

7.6.4 Cultural Resources

Under the Increased Residential Land Use Alternative, development types would be shifted throughout the City, but the areas proposed for development would remain unchanged. Therefore, under this alternative potential impacts on cultural resources would be generally the same as with the proposed project. Ground-disturbing activities associated with buildout of the Increased Residential Land Use Alternative would continue to occur in order to accommodate new development. Consequently, the potential of encountering fossil-bearing soils and rock formations, destroying below-ground paleontological resources, and affecting archaeological sites and sites of cultural significance to Native Americans would still occur, similar to the proposed project. However, cultural resources are governed on a site-by-site basis and the probability of uncovering new resources or of disturbing known resources are considered in project-level environmental review. Mitigation measures are created for projects that have the potential to disturb cultural resources, to lessen or negate impacts.

7.6.5 Geology and Soils

Since this alternative would shift development types but not reduce the development area, grading volumes associated with the proposed project would be similar. Earthquake hazards would be of similar magnitude under the Increased Residential Land Use Alternative as compared to the proposed project, because future development would still occur throughout the City. Other site-specific geological hazards associated with erosion, loss of topsoil, liquefaction, subsidence, landslides, and expansive soils would also be similar for this alternative relative to the proposed project. New developments under both alternatives would be expected to conform to the most recent California Building Codes, which include strict building specifications to ensure structural and foundational stability. In terms of geologic hazards, this alternative would have a less than significant impact. As a result, potential geological impacts would be the same as the proposed project.



7.6.6 Greenhouse Gas Emissions

Under the Increased Residential Land Use Alternative, residential uses within the City would be increased by 10 percent, while nonresidential land uses would be decreased by 10 percent. Because commercial uses generally have higher trip rates compared to residential uses, a reduction in nonresidential uses would have a greater impact in reducing GHG emissions, however, due to the scale of development activity associated with buildout of this alternative, GHG emissions from construction-related activities would still cumulatively contribute to climate change impacts, however this contribution would remain less than significant.

7.6.7 Hazards and Hazardous Materials

Under this alternative, nonresidential land uses would be decreased while residential uses would increase. Since there would be fewer industrial and commercial uses allowed, and since these land use designations are typically the primary transporters, users, and disposers of hazardous materials, impacts from hazards and hazardous materials would be reduced. However, development under both the proposed project and this alternative would be held to federal, state, and local policies protecting humans and the environment from exposure to hazards. Compliance with the provisions of hazardous material policies in the City's Municipal Code and implementation of the existing regulations related to hazardous materials would reduce this impact to a less-than-significant level. Impacts associated with the Increased Residential Land Use Alternative would be superior the proposed project.

7.6.8 Hydrology and Water Quality

Implementation of the Alternative Land Use Plan would have similar hydrology and water quality impacts to the proposed project. Although nonresidential intensity would be reduced under this alternative, similar alterations to drainage patterns and alterations to hydrological patterns would occur. Similar to the proposed project, runoff would be subject to NPDES permit standards and provisions stipulated in the DAMP. If necessary, treatment would be employed to remove excess pollutants from runoff during the construction and operational phases of development. Policies that offer additional protection from water quality impairment would be adopted, and runoff would be expected to be treated to the maximum extent practicable. In terms of water quality, this alternative would have a less than significant impact, similar to the proposed project. Since designated Open Space areas remain the same, depletion of groundwater and percolation of pollutants into groundwater aguifers would be less than significant, similar to the proposed project. Individual projects would be subject to additional review in order to ensure that they do not exceed the capacity of the storm drain system. It is therefore expected that the net effect would be similar, and individual projects would not exceed the capacity of the storm drain system. These impacts would be less than significant, similar to the proposed project. This alternative would 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, similar to the proposed project (see Section 5.9, Hydrology and Water Quality). Hydrology and water quality impacts overall would be similar for this alternative in comparison to the proposed project.

7.6.9 Land Use and Relevant Planning

Under the Increased Residential Land Use Alternative, residential uses would increase by 10 percent, while nonresidential uses throughout the project site would be reduced by approximately 10 percent. However, since the development areas would be generally similar to the proposed project, land use impacts would remain the same.

7.6.10 Mineral Resources

Under the Increased Residential Land Use Alternative, residential uses would increase by 10 percent, while nonresidential uses throughout the project site would be reduced by approximately 10 percent. However, since the development areas would be generally similar to the proposed project, mineral resource impacts would remain the same.

7.6.11 Noise

Construction noise impacts would generally be similar to the proposed project. However, due to the scale of development activity associated with buildout of this alternative, construction activities associated with any individual development that may still occur near existing noise-sensitive receptors, and noise disturbances that may occur for prolonged periods of time, construction noise impacts from buildout of this alternative would remain significant and unavoidable. Consequently, this alternative would substantially reduce but not eliminate the project's significant and unavoidable construction noise and vibration impacts.

Because commercial uses generally have higher trip rates compared to residential uses, a reduction in nonresidential uses would have a greater impact in reducing traffic noise on local roadways. However, since there would be a subsequent increase in residential dwelling units as compared to the Proposed Land Use Plan, long-term noise impacts from their development would be the same.

7.6.12 Population and Housing

Buildout under the Increased Residential Land Use Alternative would result in 5,754 more residential dwelling units, 14,708 more persons, and 10,569 fewer jobs than buildout conditions under the proposed project, resulting in a jobs/housing ratio of 1.50. This alternative provides a more closely balanced jobs/housing ratio than the proposed project; therefore, the Increased Residential Land Use Alternative is considered environmentally superior to the proposed project.



7.6.13 Public Services

Under the Increased Residential Land Use Alternative, the demand for public services and facilities, including schools, libraries, police and fire services, and other public services, would be increased by approximately 10 percent. This would possibly increase the amount of infrastructure necessary to serve future growth in accordance with the proposed general plan update. Therefore, the Increased Residential Land Use Alternative is considered environmentally inferior to the proposed project with regard to public services.

7.6.14 Recreation

Buildout under the Increased Residential Land Use Alternative would result in 5,754 more residential dwelling units, 14,708 more persons, and 10,569 fewer jobs than buildout conditions under the proposed project. This would increase demands on existing recreational facilities by approximately 10 percent. As a result, more parkland would be required to serve the projected population. Therefore, the Increased Residential Land Use Alternative is considered environmentally inferior to the proposed project with regard to recreational services.

7.6.15 Transportation and Traffic

Buildout under the Increased Residential Land Use Alternative would result in 5,754 more residential dwelling units, 14,708 more persons, and 10,569 fewer jobs than buildout conditions under the proposed project. The increase in residential dwelling units would result in an increase of approximately 57,540 daily trips, however,

because commercial uses generally have higher trip rates compared to residential uses, the reduction in nonresidential uses would compensate for the increase in trips caused by the additional residential uses. Therefore, this alternative is considered environmentally superior to the proposed project.

7.6.16 Utilities and Service Systems

This alternative would result in an increase of 5,754 residential dwelling units and 14,708 persons in comparison with the proposed general plan. Because the vast majority of water demand is associated with landscape irrigation, the reduced amount of nonresidential development under this alternative would result in more water demand and wastewater treatment requirements. Additionally, this alternative would increase demand for utilities and service systems, including electricity, natural gas, and solid waste. Therefore, this alternative is considered environmentally inferior to the proposed project.

7.6.17 Conclusion

The Increased Residential Land Use Alternative would be considered environmentally superior to the proposed project in the areas of aesthetics, air quality, hazards and hazardous materials, population and housing, and traffic and transportation. This alternative would be considered environmentally inferior to the proposed project in the areas of public services, recreation, and utilities and service systems.

The adoption of the Increased Residential Land Use Alternative would be compatible with most of the goals and objectives identified by City for growth through 2030. However it would not accomplish all of the project objectives in the City's vision. Significant air quality and noise impacts would still remain.

7.7 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires a lead agency to identify the "environmentally superior alternative" and, in cases where the "No Project" Alternative is environmentally superior to the proposed project, the environmentally superior development alternative must be identified. One alternative has been identified as "environmentally superior" to the proposed project:

Mixed-Use Development Alternative

Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: i) failure to meet most of the basic project objectives, (ii) infeasibility, (iii) inability to avoid significant environmental impacts [Guidelines 15126.6(c)].

The Mixed-Use Development has been identified as the environmentally superior alternative. This alternative would have the greatest effect on reducing the significant air quality and noise impacts associated with the project, however, it would not reduce them to a less than significant level. Impacts to public services, recreation, and utilities and service systems would be slightly increased due to the small increase in population. The remaining impacts are generally the same as the proposed project.