5.0 OTHER CEQA-REQUIRED DISCUSSIONS

This section discusses other issues for which CEQA requires analysis in addition to the specific issue areas discussed in Section 4.0, *Environmental Impact Analysis*. These additional issues include: (1) the potential to induce growth; and (2) significant and irreversible impacts on the environment.

5.1 GROWTH INDUCING EFFECTS

5.1.1 Economic and Population Growth

The *CEQA Guidelines* require a discussion of a proposed project's potential to foster economic or population growth, including ways in which a project could remove an obstacle to growth. Growth does not necessarily create significant physical changes to the environment. However, depending upon the type, magnitude, and location of growth, it can result in significant adverse environmental effects. Growth-inducing potential are therefore considered significant if growth could result in significant physical effects in one or more environmental issue areas. The most commonly cited example of how an economic effect might create a physical change is where economic growth in one area could create blight conditions elsewhere by causing existing competitors to go out of business and the buildings to be left vacant for extended periods.

The proposed project involves revisions to the existing Landslide Moratorium Ordinance which would revise the language of this section of the Rancho Palos Verdes Municipal Code to encompass all 47 undeveloped lots in Zone 2, rather than restricting it to only the Monks plaintiffs' lots. This would allow for the future submittal of LMEs for all of these undeveloped lots. Although no specific development is proposed at this time, it is assumed that up to 47 lots in Zone would be developed over a period of at least 10 years from adoption of the ordinance revisions in a manner consistent with the private architectural standards adopted by the Portuguese Bend Community Association and the City's underlying RS-1 and RS-2 zoning regulations.

Development that would be facilitated by the proposed ordinance revisions could include construction of up to 47 residential units and associated landscape, hardscape and accessory structures. This would generate temporary employment opportunities during construction, which would draw workers from the existing regional workforce. Since the project would involve residential development, operation of the project would not increase employment opportunities and therefore would not be growth-inducing with respect to jobs and the economy.

As discussed in Section 4.2, *Air Quality*, using the California State Department of Finance average household size for Rancho Palos Verdes of 2.75 persons, the 47 dwelling units would generate an average resident population of 130 persons (47 units x 2.75 persons/unit). The current City population is approximately 42,893, according to the most recent (January 1, 2010) California Department of Finance estimate. Therefore, the proposed project would result in a total population of 43,023 persons (42,893 + 130). This increase in population is within the City's SCAG projected 2020 population of 43,251. Since the project would be consistent with

the City's SCAG population growth forecasts, growth inducing impacts relating to population growth would be less than significant.

5.1.2 Removal of Obstacles to Growth

The project site is located in an urbanized area that is served by existing infrastructure. Improvements to water, sewer, and circulation systems and drainage connection infrastructure would be needed, but would be sized to specifically serve onsite development. This is primarily because the potential new residences would be built on existing parcels that were part of the original subdivision for the project area, which has the essential infrastructure in place to serve all of the existing lots. Extension of individual services to each potential new residence would therefore not encourage growth beyond that discussed in the EIR (47 new residences on existing lots). As described in Section 4.11, *Utilities and Service Systems*, the design, approval and construction of such wastewater conveyance facilities would be dependent upon the timing of development of the 47 undeveloped lots. As proposals for development of the 47 are submitted to the City of approval, each developer would be required to comply with the City requirements to provide adequate connections for the onsite development. Adherence to City requirements and mitigation measures U-1 through U-5 would ensure impacts to wastewater conveyance would not be significant. Because onsite development would be limited to infrastructure within the 47 undeveloped lots in the project area, project implementation would not remove an obstacle to growth.

5.2 IRREVERSIBLE ENVIRONMENTAL EFFECTS

The *CEQA Guidelines* require that EIRs reveal the significant environmental changes that would occur with project development. CEQA also requires decisionmakers to balance the benefits of a project against its unavoidable environmental risks in determining whether to approve a project. This section addresses non-renewable resources, the commitment of future generations to the proposed uses, and irreversible impacts associated with the project.

The proposed ordinance revisions would result in a long-term commitment of the 47 subject lots to construction of houses and active residential uses. Construction of the new buildings would involve the use of building materials and energy, some of which are non-renewable resources. Consumption of these resources would occur with any development in the area and are not unique to the proposed project.

6.0 ALTERNATIVES

As required by Section 15126.6 of the *CEQA Guidelines*, this EIR examines alternatives to the onsite development analyzed in this document. Included in this analysis are four alternatives that involve different configurations, sizes and intensity of development on the site, including the CEQA-required "no project" alternative. This section also identifies the Environmentally Superior Alternative.

The following alternatives are evaluated in this EIR:

- *Alternative 1: No Project*
- *Alternative 2: Reduced Building Area Alternative*
- *Alternative 3: Subdivision of Larger Lots Alternative*
- *Alternative 4: Reduced Housing Units Alternative*

Table 6-1 provides a summary comparison of the development characteristics of the alternatives. A more detailed description of the alternatives is included in the impact analysis for each alternative.

Table 6-1
Comparison of Project Alternatives' Buildout Characteristics

Characteristic	Proposed Project	Alternatives			
		No Project	Reduced Building Area Alternative	Subdivision of Larger Lots Alternative	Reduced Housing Units Alternative
Number of Residences	47	16	47	93	19
Maximum Living Area Allowed per Lot	4,000 sf	4,000 sf	2,500 sf	4,000 sf	4,000 sf
Maximum Grading Quantity Allowed per Lot	1,000 cubic yards	1,000 cubic yards	500 cubic yards	1,000 cubic yards	1,000 cubic yards
Total Daily Traffic Trips	450	153	450	890	182

Note: sf: square feet

6.1 NO PROJECT ALTERNATIVE

6.1.1 Alternative Description

This alternative assumes that the Landslide Moratorium Ordinance revisions would not be adopted and that only the 16 Monks' lots would be developed. Development potential would not be increased on the other 31 vacant or underdeveloped parcels, and they would remain in

their current condition. Similar to the proposed project, the future potential development assumptions for 16 Monks' lots include the following:

- Sixteen single-story, ranch-style residences with attached or detached three-car garages, with minimum living area of 1,500 square feet and maximum living area of 4,000 square feet or 15% of gross lot area, whichever is less;
- Less than 1,000 cubic yards of grading (cut and fill combined) per lot, with no more than 50 cubic yards of imported fill per lot;
- Maximum 25% (RS-1) or 40% (RS-2) net lot coverage;
- Maximum building height of 16 feet for residences and 12 feet for detached accessory structures;
- Minimum front setbacks of 20 feet, minimum rear setbacks of 15 feet, minimum street-side setbacks of 10 feet, and minimum interior side setbacks of five feet, with setbacks along private street rights-of-way measured from the easement line rather than the property line; and,
- No subdivision of existing lots within Zone 2.

Please note that a project similar to the No Project Alternative was analyzed in a Mitigated Negative Declaration (SCH # 2009021050) as part of the "Zone 2 Moratorium Ordinance Revisions" to allow the development of the 16 undeveloped *Monks* lots. That previous CEQA analysis determined that all potential environmental impacts of the project would be less than significant or would be reduced to a less than significant level with mitigation.

6.1.2 Impact Analysis

Aesthetics

This alternative would result in 31 fewer new residential units constructed in the Zone 2 area compared to the proposed project. As such, the No Project alternative would have incrementally fewer impacts to scenic vistas, visual character, and light and glare than the proposed project. Nevertheless, like the proposed project, impacts related to visual character and light and glare would be reduced to a less than significant with implementation of mitigation measures AES-3 and AES-4. In addition, the development of 16 new residential units in the project area could include the removal of mature trees and vegetation, similar to the proposed project but at a reduced level, resulting in potentially significant impacts to scenic resources. Therefore, like the proposed project, Mitigation Measure AES-2 would apply to this alternative in order to avoid removal of or substantial damage to existing trees and/or to replace trees that are removed. Like the proposed project, with this mitigation measure, impacts to scenic resources would be reduced to a less than significant level.

Air Quality

The duration of construction activities would be shorter under this alternative as the number of new residential units would be reduced from 47 to 16 units. Thus, construction emissions would be incrementally fewer under this alternative than the proposed project. However, this alternative would include grading and other earthwork activities in close proximity (within 50 feet) of sensitive receptors (adjacent residences), similar to the proposed project. As such, under this alternative, temporary air quality impacts related to particulate emissions during construction may exceed LST thresholds, similar to the proposed project. As with the proposed

project, mitigation measures AQ-1(a) and AQ-1(b) would be required to reduce potential construction-generated air quality impacts. As with the proposed project, with implementation of the dust control measures required by Mitigation Measure AQ-1(a) and the construction vehicle parking limitations required under Mitigation Measure AQ-1(b), temporary construction impacts would be reduced to a less than significant level.

Transportation emissions would be reduced under this alternative compared to the proposed project since the overall number of new residences would only be 16 units compared to the proposed project's 47 units. In addition, long-term air quality impacts would be incrementally lower since reducing the number of residential units would have fewer emissions associated with energy (electricity and natural gas) and area sources (i.e., landscape maintenance equipment, hearth/fireplaces, consumer products and architectural coating). Like the proposed project, the emissions associated with vehicle trips and stationary emissions under this alternative would not exceed SCAQMD thresholds and long-term air quality impacts would be less than significant. Further, like the proposed project, impacts related to carbon monoxide concentrations would not be significant and this alternative would not exceed any population projections upon which the Air Quality Management Plan (AQMP) are based. As such, like the proposed project, impacts from this alternative related to carbon monoxide and consistency with the AQMP would be less than significant.

Biological Resources

Although under this alternative the 16 Monks' lots would be developed with residences, this alternative would result in 31 fewer residential units in the project area compared to the proposed project. The No Project alternative would involve less alteration of land and disturbance of vegetation, and so would have incrementally fewer impacts to sensitive status species than the proposed project. In addition, like the proposed project, this alternative would not conflict with local policies related to protecting biological resources and would not conflict with any adopted habitat-related plans.

Although this alternative would have fewer residential units, the development of 16 new residential units could have an impact on existing or regrown Coastal Sage Scrub (CSS) habitat, similar to the proposed project. Therefore, like the proposed project, Mitigation Measure BIO-2 would apply to this alternative in order to reduce impacts to possible stands of CSS vegetation and to maintain consistency with the NCCP Subarea Plan and local ordinances. In addition, because a number of the Monks' lots are near Altamira Canyon, like the proposed project, development of these lots may affect jurisdictional areas. Mitigation measures BIO-3(a-b) would be required to reduce impacts related to jurisdictional drainages near Altamira Canyon. And, although this alternative would likely result in removal of fewer trees than the proposed project since only 16 lots would be developed compared to 47 under the proposed project, tree removal associated with construction activities under this alternative could affect nesting birds. Like the proposed project, with Mitigation Measure BIO-4, impacts to nesting birds would be reduced to a less than significant level.

Cultural and Historic Resources

As with the proposed project, grading activities associated with construction of 16 new units under this alternative could damage unrecorded, buried archaeological resources. Implementation of Mitigation Measure CR-1 would be required under this alternative and

would reduce this alternative's impacts to archaeological resources to a less than significant level. This alternative would result in less overall grading than the proposed project, since only 16 lots would be developed compared to 47 lots under the proposed project. As such, this alternative would have incrementally fewer impacts related to the potential to disturb paleontological resources and/or human remains. Nevertheless, as for the proposed project, impacts would be less than significant.

Geology

Although there would only be 16 new residential structures under this alternative compared to 47 residences under the proposed project, the new structures and people in the project area under this alternative could be exposed to seismically induced groundshaking. Nevertheless, like the proposed project, mandatory compliance with applicable CBC requirements would reduce impacts to a less than significant level.

Because this alternative would involve development of up to 16 residential units, 31 fewer than the proposed project, the potential to cause or accelerate erosion, such that slope failure could occur or potentially cause or accelerate downstream erosion would be incrementally reduced under this alternative. However, during construction of individual lots, topsoil would be exposed and potentially removed from individual properties which, like the proposed project, could cause accelerated erosion in the project area. In addition, because development under this alternative would increase the amount of impermeable surface in the project area, adverse surface drainage could cause or accelerate erosion, which could undermine proposed structures and lead to surficial slope failures on either manufactured or natural slopes. Therefore, like the proposed project, Mitigation Measure HWQ-1, as identified in Section 4.8, *Hydrology and Water Quality*, would be required to reduce erosion during construction to a less than significant level and Mitigation Measure HWQ-4 in Section 4.8, *Hydrology and Water Quality*, would be required to reduce impacts related to erosion during the operational phase of this alternative. Like the proposed project, with implementation of these mitigation measures, impacts related to erosion during both the construction and operational phase of this alternative would be reduced to a less than significant level.

Although this alternative would have fewer residences than the proposed project, like the proposed project, the project area is located on a geologic unit that could be unstable or could potentially become unstable as a result of development facilitated by this alternative. In addition, the project area is also located in an area subject to earthquake induced landslides and the potential for expansive soils. Therefore, like the proposed project, mitigation measures GEO-3(a) and GEO-3(b) would be required to reduce impacts related to soil instability, landslides and expansive soils to below a level of significance under CEQA.

Like the proposed project, because the project area is not susceptible to liquefaction, ground lurching, lateral spreading or seismic settlement, this alternative would result in less than significant impacts related to these issues.

Greenhouse Gases

Because this alternative would only involve development of up to 16 residential units, 31 fewer than the proposed project, greenhouse gas emissions associated with construction, transportation, energy, area sources, water use, and solid waste would be incrementally

reduced. In addition, like the proposed project, this alternative would be consistent with the GHG reduction strategies set forth by the 2006 CAT Report as well as the 2008 Attorney General's Greenhouse Gas Reduction Measures. Therefore, like the proposed project, impacts to greenhouse gas emissions under this alternative would be less than significant.

Fire Protection

This alternative would have incrementally fewer impacts related to fire hazards as it would have fewer residential units (16) compared to the proposed project (47 units). However, the new structures under this alternative would be subject to the same potential fire hazards as the proposed project. Like the proposed project, the residential structures under this alternative would be located in a Very High Fire Hazard Severity Zone. As such, like the proposed project, new residences constructed as a result of adoption of this alternative could expose people or structures to risks associated with wildland fires. Therefore, under this alternative, as for the proposed project, applicants would be required to implement mitigation measures FIRE-1(a) and FIRE-1(b) in order to reduce fire hazard impacts to a less than significant level.

Hydrology and Water Quality

Because this alternative would have fewer residential units (16) compared to the proposed project (47 units), this alternative would have incrementally fewer impacts related to water quality during construction activities than the proposed project. However, excavation and grading for each of the individual residential units developed under this alternative, like the proposed project, could result in erosion of soils and sedimentation, which may cause temporary impacts to surface water quality. As such, like the proposed project, implementation of Mitigation Measure HWQ-1 which would require each applicant to prepare a Construction Erosion Control and Water Quality Plan would be required for this alternative in order to reduce impacts related to water quality during construction activities to a less than significant level.

For operational impacts, the overall amount of impermeable surface under this alternative would be incrementally less than the proposed project since only 16 units would be developed compared to 47 units under the proposed project. In addition, the total amount of new landscaping under this alternative would be reduced compared to the proposed project, thereby reducing the amount of pollutants such as pesticides and herbicides that could potentially affect surface water quality. Therefore, this alternative would have incrementally fewer impacts related to surface water quality and to groundwater recharge than the proposed project. Nevertheless, like the proposed project, impacts related to operational surface water quality would be significant but mitigable with implementation of Mitigation Measure HWQ-2. In addition, impacts related to groundwater recharge would be less than significant, similar to the proposed project.

Although the amount of impermeable surface would be reduced under this alternative compared to the proposed project, like the proposed project, because this alternative would develop on sites that are currently vacant, this alternative would increase the amount of impermeable surface in the project area, which may increase storm water flows and create localized flooding. In addition, because several of the 16 single-family homes under this alternative could be constructed in an area in which there is a potential for flood hazards to exist, flooding could occur, which could cause damage to structures and could be hazardous to

humans during a storm event. Impacts related to localized flooding and to the potential for flood hazards, like the proposed project, would be potentially significant. As such, like the proposed project, mitigation measures HWQ-4, and HWQ-5 would be required for this alternative to reduce impacts to a less than significant level.

Noise

Temporary noise and vibration impacts due to construction activities under this alternative would be similar to those resulting from the anticipated development as the construction equipment used onsite would be similar. However, fewer sensitive receptors would be exposed to this temporary impact, as fewer lots would be developed. As with the proposed project, temporary vibration impacts and temporary noise impacts would be reduced to a less than significant level with implementation of Mitigation Measure N-1 which would ensure compliance with the Rancho Palos Verdes Municipal Code's restrictions on the hours and days of construction.

Long-term traffic-generated noise impacts under this alternative would be incrementally lower than the proposed project as there would be approximately 34% fewer vehicle trips generated under this alternative. As with the proposed project, noise generated by traffic would be less than significant under this alternative.

Transportation and Circulation

This alternative would only include 16 new residential units within the project area compared to the proposed project which would allow up to 47 new residential units. As such, this alternative would have incrementally fewer trips in the AM and PM peak period as compared to the proposed project. Based on a sensitivity analysis performed by LLG Engineers, the addition of 16 residential units in Portuguese Bend would not likely result in a significant project or cumulative impact at any of the study area intersections. As such, this alternative would avoid the proposed project's significant cumulative impacts at the following intersections:

- *Hawthorne Boulevard/Via Rivera*
- *Seahill Drive-Tramonto Drive/Palos Verdes Drive South*
- *Forrestal Drive/Palos Verdes Drive South*

Therefore, project and cumulative impacts under this alternative would be less than significant and no mitigation would be required.

Because overall vehicle trips would be reduced under this alternative, impacts related to roadway segments, CMP-identified freeway monitoring segments and arterial intersections, emergency access, and public transportation policies would be incrementally reduced. Like the proposed project, impacts related to roadway segments, CMP identified freeway monitoring segments and arterial intersections, emergency access, and public transportation policies would be less than significant. In addition, because the number of residential units under this alternative would be reduced from 47 units to 16 units, construction trips would also be reduced under this alternative, thereby incrementally reducing temporary construction traffic. Further, because fewer residential units would be developed within the project area, impacts

related to emergency access would also be incrementally reduced. Like the proposed project, impacts related to construction traffic and emergency access would be less than significant.

Utilities

The overall number of new residential units (16 units) under this alternative would be reduced compared to the proposed project (47 units). As such, the generation of wastewater would be commensurately lower under this alternative than the proposed project. As discussed in Section 4.11, *Utilities and Service Systems*, wastewater conveyance facilities currently provide service to the 64 developed lots but not to the 47 undeveloped lots (including the 16 Monks' lots that would be developed under this alternative). Without the extension of the Abalone Cover Sewer System conveyance infrastructure to the 16 lots, this alternative, like the proposed project, would have a potentially significant impact. However, like the proposed project, adherence to City requirements and mitigation measures U-1 through U-5 would ensure impacts to wastewater conveyance under this alternative would not be significant.

6.2 REDUCED BUILDING AREA ALTERNATIVE

6.2.1 Alternative Description

Similar to the proposed project, this alternative assumes that the proposed ordinance revisions would potentially allow up to 47 LME requests which would permit individual property owners to then apply for individual entitlements to develop their lots. However, under this alternative the ordinance revisions would further restrict allowable development on each lot so that the overall building area would be reduced by approximately 38%. Development assumptions for this alternative would include the following:

- Forty-seven single-story, ranch-style residences with attached or detached three-car garages, with minimum living area of 1,500 square feet and maximum living area of 2,500 square feet or 15% of gross lot area, whichever is less;
- Less than 500 cubic yards of grading (cut and fill combined) per lot, with no more than 50 cubic yards of imported fill per lot;
- Maximum 25% (RS-1) or 40% (RS-2) net lot coverage;
- Maximum building height of 16 feet for residences and 12 feet for detached accessory structures;
- Minimum front setbacks of 20 feet, minimum rear setbacks of 15 feet, minimum street-side setbacks of 10 feet, and minimum interior side setbacks of five feet, with setbacks along private street rights-of-way measured from the easement line rather than the property line; and,
- No subdivision of existing lots within Zone 2.

6.2.2 Impact Analysis

Aesthetics

Although this alternative would result in the same number of residential units as the proposed project (47 total), the maximum allowed building size for each lot (2,500 square feet) under this alternative would be reduced by approximately 38% compared to the proposed project

(maximum of 4,000 square feet). As such the Reduced Building Area Alternative would have incrementally fewer impacts to scenic vistas, visual character, and light and glare than the proposed project. Nevertheless, like the proposed project, impacts related to visual character and light and glare would be reduced to a less than significant with implementation of mitigation measures AES-3 and AES-4. In addition, although this alternative would have less overall building area, the development of 47 new residential units in the project area could involve the removal of mature trees and vegetation like the proposed project. Therefore, like the proposed project, Mitigation Measure AES-2 would apply to this alternative in order to avoid removal of or substantial damage to existing trees and/or to replace trees that are removed. Like the proposed project, with this mitigation measure, impacts to scenic resources would be reduced to a less than significant level.

Air Quality

The duration of construction activities would be incrementally shorter under this alternative since the overall building area would be reduced by approximately 38% compared to the proposed project. In addition, the amount of grading would be reduced under this alternative since up to only 500 cubic yards of grading would be allowed compared to the proposed project which would allow up to 1,000 cubic yards of combined cut/fill per lot. However, because maximum daily construction emissions would be generally the same under this alternative, temporary air quality impacts during construction would be similar to those resulting from the proposed project. Thus, as with the proposed project, mitigation measures AQ-1(a) and AQ-1(b) would be required to reduce potential construction-generated air quality impacts. As with the proposed project, with implementation of the dust control measures required by Mitigation Measure AQ-1(a) and the construction vehicle parking limitations required under Mitigation Measure AQ-1(b), temporary construction impacts would be reduced to a less than significant level.

Although transportation emissions would be similar under this alternative to the proposed project since the overall number of new residences and vehicle trips would be the same, long-term air quality impacts would be incrementally lower since smaller building areas for each lot would have fewer emissions associated with energy (electricity and natural gas) and area sources (i.e., landscape maintenance equipment, hearth/fireplaces, consumer products and architectural coating). Like the proposed project, the emissions associated with vehicle trips and stationary emissions under this alternative would not exceed SCAQMD thresholds and long-term air quality impacts would be less than significant. Further, like the proposed project, this alternative would not create carbon monoxide concentrations that would exceed any state or federal standards and this alternative would not exceed any population projections upon which the Air Quality Management Plan (AQMP) are based. As such, like the proposed project, impacts from this alternative related to carbon monoxide and consistency with the AQMP would be less than significant.

Biological Resources

Although this alternative would result in the same number of residential units as the proposed project (47 total), the total building area of each lot (maximum of 2,500 square feet) under this alternative would be reduced by approximately 38% compared to the proposed project (maximum of 4,000 square feet). Thus it is expected that the area that would be disturbed on each lot as well as required fire clearance would be reduced, and the Reduced Building Area

alternative would have incrementally fewer impacts to sensitive status species. In addition, like the proposed project, this alternative would not conflict with local policies related to protecting biological resources and would not conflict with any adopted habitat-related plans.

Although this alternative would have less overall building area, the development of up to 47 new residential units in the project area could have an impact on existing or regrown Coastal Sage Scrub habitat, similar to the proposed project. Therefore, like the proposed project, Mitigation Measure BIO-2 would apply to this alternative in order to reduce impacts to possible stands of CSS vegetation and to maintain consistency with the NCCP Subarea Plan and local ordinances. In addition, because this alternative would involve development on lots near Altamira Canyon, like the proposed project, development of these lots may affect jurisdictional areas. Mitigation measures BIO-3(a-b) would be required to reduce impacts related to jurisdictional drainages near Altamira Canyon. Furthermore, although this alternative would likely result in removal of fewer trees than the proposed project since the overall building area would be reduced under this alternative, tree removal associated with construction activities under this alternative could affect nesting birds. Like the proposed project, with Mitigation Measure BIO-4, impacts to nesting birds would be reduced to a less than significant level.

Cultural and Historic Resources

Although this alternative would result in less overall building area compared to the proposed project, activities associated with construction of this alternative could similarly expose previously unknown, buried archaeological resources. Mitigation Measure CR-1 would be required under this alternative and would reduce this alternative's impacts to archaeological resources to a less than significant level. This alternative would result in fewer amounts of grading in the project area since only 500 cubic yards of grading would be allowed under this alternative compared to the proposed project which would allow up to 1,000 cubic yards of combined cut/fill per lot. Thus this alternative would have incrementally fewer impacts related to the potential to disturb paleontological resources and/or human remains. Like the proposed project, impacts would be less than significant.

Geology

Although the overall building area under this alternative would be reduced compared to the proposed project, the new structures and people in the project area under this alternative could be exposed to seismically induced groundshaking. Nevertheless, like the proposed project, mandatory compliance with applicable CBC requirements would reduce impacts to a less than significant level.

Because this alternative would reduce the overall building area and incrementally reduce the overall amount of impermeable surface compared to the proposed project, the potential to cause or accelerate erosion, such that slope failure could occur or potentially cause or accelerate downstream erosion would be incrementally reduced under this alternative. However, during construction of individual lots, topsoil would be exposed and potentially removed from individual properties which, like the proposed project, could cause accelerated erosion on the project site. In addition, because development under this alternative would increase the amount of impermeable surface in the project area compared to existing conditions, adverse surface drainage could cause or accelerate erosion, which could undermine proposed structures and lead to surficial slope failures on either manufactured or natural slopes. Therefore, like the

proposed project, Mitigation Measure HWQ-1, as identified in Section 4.8, *Hydrology and Water Quality*, would be required to reduce erosion during construction to a less than significant level and Mitigation Measure HWQ-4 in Section 4.8, *Hydrology and Water Quality*, would be required to reduce impacts related to erosion during the operational phase of this alternative. Like the proposed project, with implementation of these mitigation measures, impacts related to erosion during both the construction and operational phase of this alternative would be reduced to a less than significant level.

Although this alternative would result in less overall building area than the proposed project, like the proposed project, the project area is located on a geologic unit that could be unstable or could potentially become unstable as a result of development facilitated by this alternative. In addition, the project area is also located in an area subject to earthquake induced landslides and the potential for expansive soils. Therefore like the proposed project, mitigation measure GEO-3(a) and GEO-3(b) would be required to reduce impacts related to soil instability, landslides and expansive soils to below a level of significance under CEQA.

Like the proposed project, because the project area is not susceptible to liquefaction, ground lurching, lateral spreading or seismic settlement, this alternative would also result in less than significant impacts related to these issues.

Greenhouse Gases

Since this alternative would result in approximately 38% less building area compared to the proposed project, greenhouse gas emissions associated with construction, energy, area sources, water use, and solid waste would be incrementally reduced in comparison. Transportation emissions would be the same as the proposed project since both would provide 47 single-family residences within the project area. Nevertheless, because the total building area would be reduced under this alternative, this alternative would have incrementally fewer greenhouse gas emissions. In addition, like the proposed project, this alternative would be consistent with the GHG reduction strategies set forth by the 2006 CAT Report as well as the 2008 Attorney General's Greenhouse Gas Reduction Measures. Therefore, like the proposed project, impacts to greenhouse gas emissions under this alternative would be less than significant.

Fire Protection

Although the overall building area under this alternative would be reduced compared to the proposed project, the new structures under this alternative would be subject to the same potential fire hazards as the proposed project. Like the proposed project, the residential structures under this alternative would be located in a Very High Fire Hazard Severity Zone. As such, like the proposed project, new residences constructed as a result of adoption of this alternative could expose people or structures to risks associated with wildland fires. Therefore, this alternative, like the proposed project, would be required to implement mitigation measures FIRE-1(a) and FIRE-1(b) in order to reduce fire hazard impacts to a less than significant level.

Hydrology and Water Quality

Because this alternative would have less overall building area compared to the proposed project, this alternative would have incrementally fewer impacts related to water quality during construction activities compared to the proposed project. However, excavation and grading for each of the individual residential units developed under this alternative, like the proposed

project, could result in erosion of soils and sedimentation, which may cause temporary impacts to surface water quality. As such, like the proposed project, implementation of Mitigation Measure HWQ-1 which would require each applicant to prepare a Construction Erosion Control and Water Quality Plan would be required for this alternative in order to reduce impacts related to water quality during construction activities to a less than significant level.

For operational impacts, the building footprint under this alternative would be reduced by approximately 38% compared to the proposed project. In addition, the total amount of new landscaping under this alternative would be reduced compared to the proposed project, thereby reducing the amount of pollutants such as pesticides and herbicides that could potentially affect surface water quality. Therefore, this alternative would have incrementally fewer impacts related to surface water quality and to groundwater recharge than the proposed project. Nevertheless, like the proposed project, impacts related to operational surface water quality would be significant but mitigable with implementation of Mitigation Measure HWQ-2. In addition, impacts related to groundwater recharge would be less than significant, similar to the proposed project.

Although the amount of impermeable surface would be reduced under this alternative compared to the proposed project, like the proposed project, because this alternative would develop on sites that are currently vacant, this alternative would increase the amount of impermeable surface in the project area which may increase storm water flows and create localized flooding. In addition, because several of the single-family homes under this alternative could be constructed in an area in which there is a potential for flood hazards to exist, flooding could occur, which could cause damage to structures and could be hazardous to humans during a storm event. Impacts related to localized flooding and to the potential for flood hazards, like the proposed project, would be potentially significant. As such, like the proposed project, mitigation measures HWQ-4, and HWQ-5 would be required for this alternative to reduce impacts to a less than significant level.

Noise

Temporary noise and vibration impacts due to construction activities under this alternative would be generally similar to those resulting from the anticipated development as the construction equipment used onsite would be similar. As with the proposed project, temporary vibration impacts and temporary noise impacts would be reduced to a less than significant level with implementation of Mitigation Measure N-1 which would ensure compliance with the Rancho Palos Verdes Municipal Code's restrictions on the hours and days of construction.

Long-term traffic-generated noise impacts under this alternative would be the same as the proposed project since this alternative would result in the same number of vehicle trips as the proposed project. As with anticipated onsite development, noise generated by traffic would be less than significant under this alternative.

Transportation and Circulation

This alternative would reduce the overall building area compared to the proposed project. However, like the proposed project, this alternative includes 47 residential units. Therefore, this alternative would result in the same number of vehicle trips in the AM and PM peak

period as the proposed project. As such, this alternative would have the same impacts as the proposed project including significant cumulative impacts at the following intersections:

- *Hawthorne Boulevard/Via Rivera*
- *Seahill Drive-Tramonto Drive/Palos Verdes Drive South*
- *Forrestal Drive/Palos Verdes Drive South*

Therefore, this alternative would be required to implement mitigation measures T-1(a-c) in order to reduce cumulative impacts. Mitigation Measure T-1(a) would reduce the potentially significant project-related impact to the intersection of Hawthorne Boulevard/Via Rivera to a less than significant level. However, mitigation measures T-1(b-c) were found to be infeasible. Therefore, like the proposed project, impacts to the Seahill Drive-Tramonto Drive/Palos Verdes Drive South intersection and the Forrestal Drive/Palos Verdes Drive South intersection would be significant and unavoidable.

Because overall vehicle trips would be the same under this alternative, impacts related to roadway segments, CMP identified freeway monitoring segments and arterial intersections, emergency access, and public transportation policies would also be the same as the proposed project. Like the proposed project, impacts related to roadway segments, CMP identified freeway monitoring segments and arterial intersections, emergency access, and public transportation policies would be less than significant. Because less construction and grading would be allowed under this alternative, construction traffic impacts would be reduced in comparison, particularly as the amount of soil that would be hauled out of the area could be reduced by up to nearly 50%. However, because the same number of residential units as the proposed project would be developed within the project area, impacts related to emergency access would be the same as the proposed project. Nevertheless, like the proposed project, impacts related to construction traffic and emergency access would be less than significant.

Utilities

The overall building area under this alternative would be reduced compared to the proposed project. However, because this alternative would involve development of the same number of residential units as the proposed project (47 units), the generation of wastewater would be similar to the proposed project. As discussed in Section 4.11, *Utilities and Service Systems*, currently wastewater conveyance facilities provide service to the 64 developed lots but not to the 47 undeveloped lots. Without the extension of the Abalone Cover Sewer System conveyance infrastructure to the 47 undeveloped lots, this alternative, like the proposed project, would have a potentially significant impact. However, like the proposed project, adherence to City requirements and mitigation measures U-1 through U-5 would ensure impacts to wastewater conveyance under this alternative would not be significant.

6.3 SUBDIVISION OF LARGER LOTS ALTERNATIVE

6.3.1 Alternative Description

This alternative would include subdivision of the 47 subject undeveloped or underdeveloped lots in the project area that are divisible to the minimum lot sizes allowed under their respective zoning designations. Of the 47 lots considered, 16 lots are potentially divisible according to the

existing RS-1 and RS-2 zone standards. Based on preliminary analysis, this alternative assumes that these 16 divisible lots can be divided into 62 lots (net increase of 46 lots). Thus, under this alternative the potential number of new residences in the project area would be approximately 93 compared to the 47 residences considered by the proposed project (46 + 47).

Similar to the proposed project, the future potential development assumptions for the 93 lots include the following:

- 93 single-story, ranch-style residences with attached or detached three-car garages, with minimum living area of 1,500 square feet and maximum living area of 4,000 square feet or 15% of gross lot area, whichever is less;
- Less than 1,000 cubic yards of grading (cut and fill combined) per lot, with no more than 50 cubic yards of imported fill per lot;
- Maximum 25% (RS-1) or 40% (RS-2) net lot coverage;
- Maximum building height of 16 feet for residences and 12 feet for detached accessory structures;
- Minimum front setbacks of 20 feet, minimum rear setbacks of 15 feet, minimum street-side setbacks of 10 feet, and minimum interior side setbacks of five feet, with setbacks along private street rights-of-way measured from the easement line rather than the property line; and,

6.3.2 Impact Analysis

Aesthetics

This alternative would result in 46 more residential units than the proposed project. As such the Subdivision Alternative would have incrementally greater impacts to scenic vistas, visual character, and light and glare than the proposed project. Like the proposed project, impacts related to visual character and light and glare would be reduced with implementation of mitigation measures AES-3 and AES-4. However, this alternative may require additional mitigation measures in order to reduce impacts to a less than significant level. Such mitigation measures could include additional design standards and special landscaping requirements to ensure that the new structures retain the area's semi-rural character. In addition, this alternative would likely involve in the removal of more mature trees and vegetation than the proposed project. Therefore, like the proposed project, Mitigation Measure AES-2, at a minimum, would apply to this alternative in order to avoid removal of or substantial damage to existing trees and/or to replace trees that are removed. Like the proposed project, with this mitigation measure, impacts to scenic resources under this alternative could potentially be reduced to a less than significant level.

Air Quality

The duration of construction activities would likely be longer under this alternative since this alternative would accommodate 46 more residential units than the proposed project. The amount of grading would also be increased under this alternative. Because maximum daily construction emissions would be greater than the proposed project under this alternative, temporary air quality impacts during construction would be incrementally greater to those resulting from the proposed project. As with the proposed project, mitigation measures AQ-1(a) and AQ-1(b) would be required to reduce potential construction-generated air quality

impacts related to particulate emissions. As with the proposed project, with implementation of the dust control measures required by Mitigation Measure AQ-1(a) and the construction vehicle parking limitations required under Mitigation Measure AQ-1(b), temporary construction impacts would be reduced to a less than significant level.

Transportation emissions would be greater than the proposed project since the overall number of new residences and vehicle trips would be roughly double the proposed project. In addition, long-term air quality impacts would be greater than the proposed project since additional residences would result in more emissions associated with energy (electricity and natural gas) and area sources (i.e., landscape maintenance equipment, consumer products and architectural coating). Although the overall emissions would increase under this alternative compared to the proposed project, the additional emissions associated with vehicle trips and stationary emissions under this alternative would not likely exceed any SCAQMD thresholds and therefore, like the proposed project, long-term air quality impacts would be less than significant and would not require any mitigation measures.

Like the proposed project, this alternative would not be expected to result in carbon monoxide concentrations primarily related to vehicle emissions that would exceed any state or federal standards since the change in volume to capacity ratio as a result of this alternative would not likely increase by 0.02 at any of the intersections that currently operate at LOS D or worse. Further, the population increase under this alternative (approximately 256 new residents) would be within the City's 2020 population projection (43,251). Therefore, this alternative would not exceed any population projections upon which the Air Quality Management Plan (AQMP) is based. As such, like the proposed project, impacts from this alternative related to carbon monoxide and consistency with the AQMP would be less than significant.

Biological Resources

This alternative would result in 46 more residential units than the proposed project. Due to the larger likely area of disturbance and required fire clearance zones, the Subdivision Alternative would have incrementally greater impacts to sensitive status species and may require additional mitigation measures in order to reduce impacts to a less than significant level. In addition, although this alternative would nearly double the amount of new residential units in the project area compared to the proposed project, the additional development would be in the same location, within the same lots as the proposed project. Therefore, like the proposed project, this alternative would not conflict with local policies related to protecting biological resources or with adopted habitat-related plans and therefore, like the proposed project, impacts would be less than significant.

The development of up to 93 new residential units in the project area could have a greater impact to existing or regrown Coastal Sage Scrub habitat compared to the proposed project. Therefore, like the proposed project, Mitigation Measure BIO-2 would apply to this alternative in order to reduce impacts to possible stands of CSS vegetation and to maintain consistency with the NCCP Subarea Plan and local ordinances. In addition, because this alternative, like the proposed project, would involve development on lots near Altamira Canyon, like the proposed project, development of these lots may affect jurisdictional areas. Mitigation measures BIO-3(a-b) would be required to reduce impacts related to jurisdictional drainages near Altamira Canyon. And, this alternative would result in more tree removal than the proposed project since the number of new residential units (93) would essentially double

compared to the proposed project (47 units). As such, tree removal associated with construction activities under this alternative would have a greater potential to impact nesting birds than the proposed project. Like the proposed project, with Mitigation Measure BIO-4, impacts to nesting birds would likely be reduced to a less than significant level.

Cultural and Historic Resources

Activities associated with construction of this alternative could expose previously unknown, buried archaeological resources. Because this alternative would increase the amount of new residences by approximately 46 units compared to the proposed project, impacts may be greater than the proposed project. Implementation of Mitigation Measure CR-1 would be required under this alternative and would reduce this alternative's impacts to archaeological resources to a less than significant level. This alternative would result in a greater amount of grading as well. As such, this alternative would have potentially greater impacts related to the potential to disturb paleontological resources and/or human remains. Due to the low potential for paleontological resources and state laws protecting human remains, however, impacts would be less than significant, as with the proposed project.

Geology

Since 93 residences would be developed rather than 47, this alternative could expose more people and structures in the project area to seismically induced groundshaking. Nevertheless, like the proposed project, mandatory compliance with applicable CBC requirements would reduce impacts to a less than significant level.

Since this alternative would result in nearly double the number of new residences and thus would incrementally increase the amount of impermeable surface in the project area, the potential to cause or accelerate erosion, such that slope failure could occur or potentially cause or accelerate downstream erosion would be incrementally increased under this alternative. During construction of individual lots, topsoil would be exposed and potentially removed from individual properties which, like the proposed project, could cause accelerated erosion on the project site. In addition, because development under this alternative would increase the amount of impermeable surface in the project area compared to existing conditions and compared to the proposed project, adverse surface drainage could cause or accelerate erosion, which could undermine proposed structures and lead to surficial slope failures on either manufactured or natural slopes. Nevertheless, like the proposed project, Mitigation Measure HWQ-1, as identified in Section 4.8, *Hydrology and Water Quality*, would be required to reduce erosion during construction to a less than significant level and Mitigation Measure HWQ-4 in Section 4.8, *Hydrology and Water Quality*, would be required to reduce impacts related to erosion during the operational phase of this alternative. Like the proposed project, with implementation of these mitigation measures, impacts related to erosion during both the construction and operational phase of this alternative would be reduced to a less than significant level.

Because this alternative would nearly double the number of new residences compared to the proposed project, development under this alternative may have incrementally greater impacts related to slope stability. The project area is located on a geologic unit that could be unstable or could potentially become unstable as a result of development facilitated by this alternative. In addition, the project area is also located in an area subject to earthquake induced landslides

and the potential for expansive soils. Nevertheless, like the proposed project, mitigation measures GEO-3(a) and GEO-3(b) would be required to reduce impacts related to soil instability, landslides and expansive soils to below a level of significance under CEQA.

Like the proposed project, because the project area is not susceptible to liquefaction, ground lurching, lateral spreading or seismic settlement, this alternative would also result in less than significant impacts related to these issues.

Greenhouse Gases

Since this alternative would result in almost double the amount of single family residences as the proposed project, greenhouse gas emissions associated with construction, energy, area sources, water use, and solid waste would be greater than the proposed project. However, assuming emissions under this alternative would be approximately double the greenhouse gas emissions of the proposed project (1,060 metric tons CO_2e per year), the estimated GHG emissions under this alternative (approximately 2,120 metric tons CO_2e per year) would not exceed the 3,000 metric tons CO_2e per year threshold. In addition, like the proposed project, this alternative would be consistent with the GHG reduction strategies set forth by the 2006 CAT Report as well as the 2008 Attorney General's Greenhouse Gas Reduction Measures. Therefore, like the proposed project, impacts to greenhouse gas emissions under this alternative would be less than significant.

Fire Protection

Although the overall number residential units would increase to 93 units compared to the proposed project (47 units), the new structures under this alternative would be subject to the same potential fire hazards as the proposed project. Like the proposed project, the residential structures under this alternative would be located in a Very High Fire Hazard Severity Zone. The higher number of new residences introduced to this zone would equate to incrementally greater potential impacts. As with the proposed project, new residences constructed as a result of adoption of this alternative could expose people or structures to risks associated with wildland fires. Therefore, this alternative, like the proposed project, would be required to implement mitigation measures FIRE-1(a) and FIRE-1(b) in order to reduce fire hazard impacts to a less than significant level.

Hydrology and Water Quality

Because the Subdivision Alternative would result in a greater amount of building area in Zone 2 compared to the proposed project, this alternative would have incrementally greater impacts related to water quality during construction activities than the proposed project. Like the proposed project, excavation and grading for each of the individual residential units developed under this alternative could result in erosion of soils and sedimentation, which may cause temporary impacts to surface water quality. As such, like the proposed project, implementation of Mitigation Measure HWQ-1 which would require each applicant to prepare a Construction Erosion Control and Water Quality Plan would be required for this alternative in order to reduce impacts related to water quality during construction activities to a less than significant level.

For operational impacts, the overall amount of impermeable surface under this alternative would be would be greater than the proposed project since this alternative would develop up

to 46 additional residential units in the project area (93 total single family homes). In addition, the total amount of new landscaping under this alternative would be increased compared to the proposed project, thereby increasing the amount of pollutants such as pesticides and herbicides that could potentially affect surface water quality. Therefore, this alternative would have incrementally greater impacts related to surface water quality and to groundwater recharge than the proposed project. Nevertheless, like the proposed project, impacts related to operational surface water quality would be significant but mitigable with implementation of Mitigation Measure HWQ-2. In addition, impacts related to groundwater recharge would be less than significant, similar to the proposed project.

Like the proposed project, because this alternative would develop residences on sites that are currently vacant, this alternative would increase the amount of impermeable surface in the project area which may increase storm water flows and create localized flooding. In addition, because several of the single-family homes under this alternative could be constructed in an area in which there is a potential for flood hazards to exist, flooding could occur, which could cause damage to structures and could be hazardous to humans during a storm event. Impacts related to localized flooding and to the potential for flood hazards would be greater than those of the proposed project. As such, like the proposed project, mitigation measures HWQ-4 and HWQ-5 would be required for this alternative. Because the number of homes in the project area would be increased beyond what the drainage system was designed for by approximately 46 (nearly 40% more than the 111 lots originally designed for), additional mitigation may be required for this alternative, including upgrades to the drainage system. Such upgrades could in turn have secondary effects related to water quality, biological resources, aesthetics and other issue areas from any necessary expansion, replacement or reconfiguration of existing infrastructure or roadways.

Noise

Temporary noise and vibration impacts due to construction activities under this alternative would be greater than the proposed project since up to 93 new residences would be developed under this alternative compared to the proposed project which would develop up to 47 residences. Nevertheless, as with the proposed project, vibration and construction noise impacts would be temporary in nature and would be required to adhere to existing City regulations pertaining to the allowable timing of construction activities as required by Mitigation Measure N-1. Therefore, impacts would be reduced to a less than significant level.

Long-term traffic-generated noise impacts under this alternative would be the greater than proposed project since this alternative would result in approximately double the vehicle trips as the proposed project. However, the increase in noise associated with vehicle traffic under this alternative would not exceed the 7 dB threshold as discussed in Section 4.9, *Noise*. Therefore, like the proposed project, noise associated with vehicle traffic under this alternative would be less than significant.

Transportation and Circulation

This alternative would nearly double the amount of new residential units allowed in the project area compared to the proposed project. Therefore, this alternative would result in a greater number of vehicle trips in the AM and PM peak period than the proposed project. As such, this

alternative would have greater impacts related to traffic, including but not limited to increased impacts at affected intersections.

Because overall vehicle trips would be greater under this alternative than the proposed project, impacts related to roadway segments, CMP identified freeway monitoring segments and arterial intersections, emergency access, and public transportation policies would also be greater.

In addition, this alternative would result in more construction trips than the proposed project. However, like the proposed project, the temporary increase of construction traffic under this alternative (approximately 16 material delivery trucks per hour or 8 trucks per access gate per hour) would not result in any significant impacts based on the City's significance criteria. In addition, this temporary level of trip generation would not exceed the CMP threshold of 50 or more vehicle trips during either the AM or PM peak hours. Since more residential units would be developed within the project area under this alternative compared to the proposed project, impacts related to evacuation time would be incrementally increased compared to the proposed project, which may require mitigation measures, including but not limited to signage on certain roads and prohibition of street parking in certain areas. However, although this alternative would nearly double the number of new residences in the project area, like the proposed project, since the Portuguese Bend community has been constructed with two exit roads and a total of 118 and 93 total households are forecast to exit the Narcissa Drive and Peppertree Drive gateways, respectively, the design of the roadway system with respect to number of exit roadways and number of households per exit under this alternative would be adequate for emergency evacuation purposes since less than 150 total households would utilize each exit. As such, although this alternative would have incrementally greater construction traffic and emergency access/evacuation related impacts than the proposed project, like the proposed project, impacts related construction traffic and emergency access/evacuation would be less than significant.

Utilities

The number of residential units under this alternative would be increased by approximately 46 units compared to the proposed project. Thus, the generation of wastewater would be greater than the proposed project under this alternative. As discussed in Section 4.11, *Utilities and Service Systems*, currently wastewater conveyance facilities provide service to the 64 developed lots but not to the 47 undeveloped lots. Without the extension of the Abalone Cover Sewer System conveyance infrastructure to the 47 undeveloped lots, this alternative, like the proposed project, would have a potentially significant impact. Like the proposed project, adherence to City requirements and mitigation measures U-1 through U-5 would reduce impacts to a less than significant level. Because the number of homes in the project area would be increased beyond what the drainage system was designed for by approximately 46 (nearly 40% more than the 111 lots originally designed for), wastewater generation would be greater and could exceed the capacity of the conveyance system. Additional mitigation may be required for this alternative, including upgrades to the sewer conveyance system. Such upgrades could in turn have secondary effects related to water quality, biological resources, aesthetics and other issue areas from any necessary expansion, replacement or reconfiguration of existing infrastructure.

6.4 REDUCED HOUSING UNITS ALTERNATIVE

6.4.1 Alternative Description

This alternative assumes that the Landslide Moratorium Ordinance revisions would allow up to 19 new residential units within the project area. Development potential would not be increased on the other 28 vacant or underdeveloped parcels, and they would remain in their current condition. Similar to the proposed project, the future potential development assumptions for these 19 lots includes the following:

- Nineteen single-story, ranch-style residences with attached or detached three-car garages, with minimum living area of 1,500 square feet and maximum living area of 4,000 square feet or 15% of gross lot area, whichever is less;
- Less than 1,000 cubic yards of grading (cut and fill combined) per lot, with no more than 50 cubic yards of imported fill per lot;
- Maximum 25% (RS-1) or 40% (RS-2) net lot coverage;
- Maximum building height of 16 feet for residences and 12 feet for detached accessory structures;
- Minimum front setbacks of 20 feet, minimum rear setbacks of 15 feet, minimum street-side setbacks of 10 feet, and minimum interior side setbacks of five feet, with setbacks along private street rights-of-way measured from the easement line rather than the property line; and,
- No subdivision of existing lots within Zone 2.

This allowed number of new residences (19) under this alternative was determined from a sensitivity analysis performed by LLG Engineers which found that 19 residential units is the approximate maximum allowed number of units that would avoid the significant and unavoidable traffic impacts at the Seahill Drive-Tramonto Drive/Palos Verdes Drive South intersection and the Forrestal Drive/Palos Verdes Drive South intersection. However, it should be noted that this alternative is not considered feasible as it would only allow three of the 31 vacant or underdeveloped lots (besides the Monks' lots) to be developed with residential units, and there is no equitable approach to determine which three of the 31 lots would be permitted to develop. This could lead to additional litigation against the City. In addition, this alternative would not achieve the City's objective for the proposed project as stated in Section 2.0, *Project Description*.

6.4.2 Impact Analysis

Aesthetics

Although under this alternative 19 lots would be developed with residences, this alternative would result in 28 fewer residential units in the project area compared to the proposed project. As such Reduced Housing Units Alternative would have incrementally fewer impacts to scenic vistas, visual character, and light and glare than the proposed project. Nevertheless, like the proposed project, impacts related to visual character and light and glare would be reduced to a less than significant with implementation of mitigation measures AES-3 and AES-4. In addition, although this alternative would have fewer residential units, the development of 19 new residential units in the project area would likely result in the removal of mature trees and

vegetation like the proposed project. Therefore, like the proposed project, Mitigation Measure AES-2 would apply to this alternative in order to avoid removal of or substantial damage to existing trees and/or to replace trees that are removed. Like the proposed project, with this mitigation measures, impacts to scenic resources would be reduced to a less than significant level.

Air Quality

The duration of construction activities would be shorter under this alternative as the number of residential units would be reduced from 47 to 19 units in the project area. Thus, construction emissions would be incrementally fewer under this alternative than the proposed project. However, this alternative would include grading and other earthwork activities in close proximity (within 50 feet) of sensitive receptors (adjacent residences). Under this alternative, temporary air quality impacts related to particulate emissions during construction may exceed LST thresholds, similar to the proposed project. As such, as with the proposed project, mitigation measures AQ-1(a) and AQ-1(b) would be required to reduce potential construction-generated air quality impacts. As with the proposed project, with implementation of the dust control measures required by Mitigation Measure AQ-1(a) and the construction vehicle parking limitations required under Mitigation Measure AQ-1(b), temporary construction impacts would be reduced to a less than significant level.

Transportation emissions would be reduced under this alternative compared to the proposed project since the overall number of new residences would only be 19 units compared to the proposed project's 47 units. In addition, long-term air quality impacts would be incrementally lower since reducing the number of residential units would have fewer emissions associated with energy (electricity and natural gas) and area sources (i.e., landscape maintenance equipment, hearth/fireplaces, consumer products and architectural coating). Like the proposed project, the emissions associated with vehicle trips and stationary emissions under this alternative would not exceed SCAQMD thresholds and long-term air quality impacts would be less than significant. Further, like the proposed project, impacts related to carbon monoxide concentrations would not be significant and this alternative would not exceed any population projections upon which the Air Quality Management Plan (AQMP) are based. As such, like the proposed project, impacts from this alternative related to carbon monoxide and consistency with the AQMP would be less than significant.

Biological Resources

Although under this alternative 19 lots would be developed with residences, this alternative would result in 28 fewer residential units in the project area compared to the proposed project. The Reduced Housing Units alternative would involve less alteration of land and disturbance of vegetation, and so would have incrementally fewer impacts to sensitive status species than the proposed project. In addition, like the proposed project, this alternative would not conflict with local policies related to protecting biological resources and would not conflict with any adopted habitat-related plans.

Although this alternative would have fewer residential units, the development of 19 new residential units could have an impact on existing or regrown Coastal Sage Scrub (CSS) habitat, similar to the proposed project. Therefore, like the proposed project, Mitigation Measure BIO-2 would apply to this alternative in order to reduce impacts to possible stands of CSS vegetation

and to maintain consistency with the NCCP Subarea Plan and local ordinances. In addition, because a number of the lots are near Altamira Canyon, like the proposed project, development of these lots may affect jurisdictional areas. Mitigation measures BIO-3(a-b) would be required to reduce impacts related to jurisdictional drainages near Altamira Canyon. And, although this alternative would likely result in removal of fewer trees than the proposed project since only 19 lots would be developed compared to 47 lots under the proposed project, tree removal associated with construction activities could affect nesting birds. Like the proposed project, with Mitigation Measure BIO-4, impacts to nesting birds would be reduced to a less than significant level.

Cultural and Historic Resources

As with the proposed project, grading activities associated with construction of 19 new units under this alternative could damage unrecorded, buried archaeological resources. Implementation of Mitigation Measure CR-1 would be required under this alternative and would reduce this alternative's impacts to archaeological resources to a less than significant level. This alternative would result in less overall grading than the proposed project, since only 19 lots would be developed compared to 47 lots under the proposed project. As such, this alternative would have incrementally fewer impacts related to the potential to disturb paleontological resources and/or human remains. Nevertheless, as for the proposed project, impacts would be less than significant.

Geology

Although there would only be 19 new residential structures under this alternative compared to 47 residences under the proposed project, the new structures and people in the project area under this alternative could be exposed to seismically induced groundshaking. Nevertheless, like the proposed project, mandatory compliance with applicable CBC requirements would reduce impacts to a less than significant level.

Because this alternative would only involve development of up to 19 residential units, 28 fewer than the proposed project, the potential to cause or accelerate erosion, such that slope failure could occur or potentially cause or accelerate downstream erosion would be incrementally reduced under this alternative. However, during construction of individual lots, topsoil would be exposed and potentially removed from individual properties which, like the proposed project, could cause accelerated erosion on the project site. In addition, because development under this alternative would increase the amount of impermeable surface in the project area compared to existing conditions, adverse surface drainage could cause or accelerate erosion, which could undermine proposed structures and lead to surficial slope failures on either manufactured or natural slopes. Therefore, like the proposed project, Mitigation Measure HWQ-1, as identified in Section 4.8, *Hydrology and Water Quality*, would be required to reduce erosion during construction to a less than significant level and Mitigation Measure HWQ-4 in Section 4.8, *Hydrology and Water Quality*, would be required to reduce impacts related to erosion during the operational phase of this alternative. Like the proposed project, with implementation of these mitigation measures, impacts related to erosion during both the construction and operational phase of this alternative would be reduced to a less than significant level.

Although this alternative would have fewer residences than the proposed project, like the proposed project, the project area is located on a geologic unit that could be unstable or could potentially become unstable as a result of development facilitated by this alternative. In addition, the project area is also located in an area subject to earthquake induced landslides and the potential for expansive soils. Therefore like the proposed project, mitigation measures GEO-3(a) and GEO-3(b) would be required to reduce impacts related to soil instability, landslides and expansive soils to a less than significant level under CEQA.

Like the proposed project, because the project area is not susceptible to liquefaction, ground lurching, lateral spreading or seismic settlement, this alternative would also result in less than significant impacts related to these issues.

Greenhouse Gases

Because this alternative would only involve development of up to 19 residential units, 28 fewer than the proposed project, greenhouse gas emissions associated with construction, transportation, energy, area sources, water use, and solid waste would be incrementally reduced. In addition, like the proposed project, this alternative would be consistent with the GHG reduction strategies set forth by the 2006 CAT Report as well as the 2008 Attorney General's Greenhouse Gas Reduction Measures. Therefore, like the proposed project, impacts to greenhouse gas emissions under this alternative would be less than significant.

Fire Protection

This alternative would have incrementally fewer impacts related to fire hazards as it would have fewer residential units (19) compared to the proposed project (47 units). However, the new structures under this alternative would be subject to the same potential fire hazards as the proposed project. Like the proposed project, the residential structures under this alternative would be located in a Very High Fire Hazard Severity Zone. As such, like the proposed project, new residences constructed as a result of adoption of this alternative could expose people or structures to risks associated with wildland fires. Therefore, under this alternative, as for the proposed project, applicants would be required to implement mitigation measures FIRE-1(a) and FIRE-1(b) in order to reduce fire hazard impacts to a less than significant level.

Hydrology and Water Quality

Because this alternative would have fewer residential units (19) compared to the proposed project (47 units), this alternative would have incrementally fewer impacts related to water quality during construction activities than the proposed project. However, excavation and grading for each of the individual residential units developed under this alternative, like the proposed project, could result in erosion of soils and sedimentation, which may cause temporary impacts to surface water quality. As such, like the proposed project, implementation of Mitigation Measure HWQ-1 which would require each applicant to prepare a Construction Erosion Control and Water Quality Plan would be required for this alternative in order to reduce impacts related to water quality during construction activities to a less than significant level.

For operational impacts, the overall amount of impermeable surface under this alternative would be incrementally less than the proposed project since only 19 units would be developed

compared to 47 units under the proposed project. In addition, the total amount of new landscaping under this alternative would be reduced compared to the proposed project, thereby reducing the amount of pollutants such as pesticides and herbicides that could potentially affect surface water quality. Therefore, this alternative would have incrementally fewer impacts related to surface water quality and to groundwater recharge than the proposed project. Nevertheless, like the proposed project, impacts related to operational surface water quality would be significant but mitigable with implementation of Mitigation Measure HWQ-2. In addition, impacts related to groundwater recharge would be less than significant, similar to the proposed project.

Although the amount of impermeable surface would be reduced under this alternative compared to the proposed project, like the proposed project, because this alternative would develop on sites that are currently vacant, this alternative would increase the amount of impermeable surface in the project area which may increase storm water flows and create localized flooding. In addition, because several of the 19 single-family homes under this alternative could be constructed in an area in which there is a potential for flood hazards to exist, flooding could occur, which could cause damage to structures and could be hazardous to humans during a storm event. Impacts related to localized flooding and to the potential for flood hazards, like the proposed project, would be potentially significant. As such, like the proposed project, mitigation measures HWQ-4, and HWQ-5 would be required for this alternative to reduce impacts to a less than significant level.

Noise

Temporary noise and vibration impacts due to construction activities under this alternative would be similar to those resulting from the anticipated development as the construction equipment used onsite would be similar. However, fewer sensitive receptors would be exposed to this temporary impact, as fewer lots would be developed. As with the proposed project, temporary vibration impacts and temporary noise impacts would be reduced to a less than significant level with implementation of Mitigation Measure N-1 which would ensure compliance with the Rancho Palos Verdes Municipal Code's restrictions on the hours and days of construction.

Long-term traffic-generated noise impacts under this alternative would be incrementally lower than the proposed project as there would be approximately 40% fewer vehicle trips generated under this alternative. As with the proposed project, noise generated by traffic would be less than significant under this alternative.

Transportation and Circulation

This alternative would only include 19 new residential units within the project area compared to the proposed project which would allow up to 47 new residential units. As such, this alternative would have incrementally fewer trips in the AM and PM peak period as compared to the proposed project. Based on sensitivity analysis performed by LLG Engineers, the addition of 19 residential units in Portuguese Bend would result in a significant impact at the Hawthorne/Via Rivera intersection. Mitigation Measure T-1(a) as described in Section 4.10, *Traffic and Circulation*, would be required under this alternative. Like the proposed project, with implementation of this measure, impacts at the Hawthorne/Via Rivera intersection would be reduced to a less than significant level. In addition, because this alternative would reduce

the overall number of vehicle trips compared to the proposed project, this alternative would avoid the proposed project's significant cumulative impacts at the following intersections:

- *Seahill Drive-Tramonto Drive/Palos Verdes Drive South*
- *Forrestal Drive/Palos Verdes Drive South*

Thus this alternative would avoid the proposed project's significant and unavoidable impacts at these two intersections and no mitigation measures would be required.

Because overall vehicle trips would be reduced under this alternative, impacts related to roadway segments, CMP identified freeway monitoring segments and arterial intersections, emergency access, and public transportation policies would be incrementally reduced. Like the proposed project, impacts related to roadway segments, CMP identified freeway monitoring segments and arterial intersections, emergency access, and public transportation policies would be less than significant. In addition, because the number of residential units under this alternative would be reduced from 47 units to 19 units, construction trips would also be reduced under this alternative, thereby incrementally reducing temporary construction traffic. Further, because fewer residential units would be developed within the project area, impacts related to emergency access would also be incrementally reduced. Like the proposed project, impacts related to construction traffic and emergency access would be less than significant.

Utilities

The overall number of new residential units (19 units) under this alternative would be reduced compared to the proposed project (47 units). As such, the generation of wastewater would be commensurately lower under this alternative than the proposed project. As discussed in Section 4.11, *Utilities and Service Systems*, wastewater conveyance facilities currently provide service to the 64 developed lots but not to the 47 undeveloped lots (including the 19 lots that would be developed under this alternative). Without the extension of the Abalone Cover Sewer System conveyance infrastructure to the 19 lots, this alternative, like the proposed project, would have a potentially significant impact. However, like the proposed project, adherence to City requirements and mitigation measures U-1 through U-5 would ensure impacts to wastewater conveyance under this alternative would not be significant.

6.5 ALTERNATIVES CONSIDERED, BUT REJECTED

As required by Section 15126.6 (c) of the *CEQA Guidelines,* this subsection identifies those alternatives that were considered but rejected by the lead agency because they either did not meet the objectives of the project, were considered infeasible, or could not avoid or substantially lessen one or more of the significant effects. Five alternatives were considered that were rejected. Each is listed below along with a brief description and reason for being rejected.

- *Rejected Alternative 1: This alternative would include the merging of any sub-standard lots with adjacent, contiguous parcels owned by the same property owner. The new merged lots would be allowed one residential unit per lot and would therefore reduce the total number of new residences allowed by the project. This alternative was rejected because it would not avoid the significant cumulative impacts at the Seahill Drive-Tramonto Drive/Palos Verdes*

Drive South intersection and the Forrestal Drive/Palos Verdes Drive South intersection during the peak hour period based on preliminary analyses. In addition, this alternative would require the property owners to merge parcels, which could lead to litigation against the City.

- *Rejected Alternative 2: This alternative would involve requiring property owners that propose development of individual lots to collectively fund service upgrades related to the drainage system. The purpose of this alternative would be to avoid the proposed project's less than significant impacts related to drainage to Altamira Canyon. This alternative was rejected because it would not avoid the significant cumulative impacts at the Seahill Drive-Tramonto Drive/Palos Verdes Drive South intersection and the Forrestal Drive/Palos Verdes Drive South intersection during the peak hour period based on preliminary analyses. Further, this alternative was determined to be infeasible since the collectively funded service upgrades may not allow the City to fully implement the upgrades absent of other funding resources since only a portion of the overall funding would be collected from the project applicants.*

- *Rejected Alternative 3: Under this alternative, groups of contiguous lots would be merged and multi-family buildings or grouped single-family residences would be constructed instead of single family residences in a "cluster development" configuration to protect open space. This alternative would reduce aesthetic impacts, drainage and other impacts by concentrating development. However, this alternative was determined to be infeasible as it would require a zone change to allow for multi-family residences which is not consistent with the General Plan Land Use designations and would not necessarily avoid the traffic impacts at the three potentially significant intersections. Further, this alternative was considered infeasible since it would require the property owners to agree to merging parcels, thus reducing the economic value of their property, potentially leading to litigation against the City.*

- *Rejected Alternative 4: This alternative would require the City to meter the issuance of building permits (similar to a growth management ordinance) such that growth in the project area would occur over a longer period of time than the proposed project, which assumes that full development of all 47 lots would be developed over a maximum of approximately ten years. This alternative was deemed infeasible as it could lead to litigation against the City, and may not avoid the project's significant traffic impacts.*

6.6 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Table 6-2 on the following page compares the impacts for each of the alternatives to the impacts of the anticipated onsite development.

The No Project Alternative would be the overall environmentally superior alternative as it would generally have slightly superior impacts than the proposed project and would also avoid the significant and unavoidable traffic impacts. However, the No Project Alternative would not achieve the basic project objectives as stated in Section 2.0, *Project Description*.

Among the development options, the Reduced Housing Units Alternative would be the environmentally superior alternative. This alternative would avoid the proposed project's

significant and unavoidable traffic impacts and would have slightly reduced impacts related to aesthetics, air quality, biological resources, cultural resources, geology, greenhouse gases, fire protection, hydrology and water quality, noise and utilities. However, this alternative would not achieve the basic project objectives as stated in Section 2.0, *Project Description,* and is infeasible.

Table 6-2
Impact Comparison of Alternatives

Issue	Proposed Project	Alternatives			
		No Project	Reduced Building Area Alternative	Subdivision of Larger Lots Alternative	Reduced Housing Units Alternative
Aesthetics	=	=/+	=/+	-	=/+
Air Quality	=	=/+	=/+	=/-	=/+
Biological Resources	=	=/+	=/+	=/-	=/+
Cultural Resources	=	=/+	=/+	=/-	=/+
Geology	=	=/+	=/+	=	=/+
Greenhouse Gases	=	=/+	=/+	=/-	=/+
Fire Protection	=	=/+	=	=	=/+
Hydrology and Water Quality	=	=/+	=/+	=/-	=/+
Noise	=	=/+	=	=/-	=/+
Traffic	**=**	+	**=**	**-**	+
Utilities	=	=/+	=	=/-	=/+

Bold type indicates a significant and unavoidable impact

+ Superior to the proposed project analyzed in the EIR (reduced level of impact)
- Inferior to the proposed project analyzed in the EIR (increased level of impact)
= /+ slightly superior to the proposed project analyzed in the EIR in one or more aspects, but not significantly superior
= /- slightly inferior to the proposed project analyzed in the EIR in one or more aspects, but not significantly inferior
= Similar level of impact to the proposed project analyzed in the EIR

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7.1 REFERENCES

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