
4

Existing Environmental Setting, Impacts and Mitigation

Section 4.0 provides the description of the affected environment, and analysis for each of the environmental resource areas evaluated. For each environmental impact issue analyzed, the EIR includes a detailed explanation of the existing conditions, thresholds of significance that will be applied to determine whether the project's impacts are significant or less than significant, analysis of the environmental impacts, and a determination of whether the project has a significant impact. A "significant impact" or "significant effect" means "a substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project." (14 Cal. Code of Reg. 15382.) Section 4.0 also includes within each environmental impact analyzed a discussion of the cumulative effects of the project when considered in combination with other projects causing related impacts as required by Section 15130 of the CEQA Guidelines.

4.1 Aesthetics

Aesthetics relates to visual resources, scenic vistas, and visual character. Visual character is generally divided into landforms (i.e., topography and grading), views (i.e., scenic resources), and light and glare (i.e., increases in nighttime illumination).

4.1.1 ENVIRONMENTAL SETTING

Landforms

Planning Areas ("PA") 5B, 8A and 9 consist of flat land. Moderate to steep topography occurs in the northern portion of the project area, within Planning Areas 3 and 6 and Implementation District "P." As shown on previous Exhibit 3-1, ground surface elevations range between approximately 170 feet above mean sea level (MSL) at the westernmost corner of Planning Area 8A to 1,600 feet MSL near the northern perimeter of Planning Area 3. The Project Site consists of a transition area between Lomas de Santiago Hills to the north and the valley floor which comprises most of the City of Irvine. The open space areas are covered by native and non-native vegetation with scattered mixed sage scrub communities.

The northern portion of the project area (Planning Areas 3 and 6 and Implementation District “P”) consists of moderately steep terrain comprised of numerous east-west trending canyons which originate near the top of the dominant north-south trending ridge. The most visually significant areas of the site are located within the open space areas in Planning Area 3. These open space areas are characterized by steep hillside slopes, native vegetation, and distinctive rock outcroppings. Ridge tops are generally covered with grassland vegetation, while hillside slopes offer a mosaic of grassland and coastal sage scrub. The proposed development area is generally concentrated in the flatter southern areas currently used for agricultural purposes, with some development proposed for the lower portions of Planning Area 6.

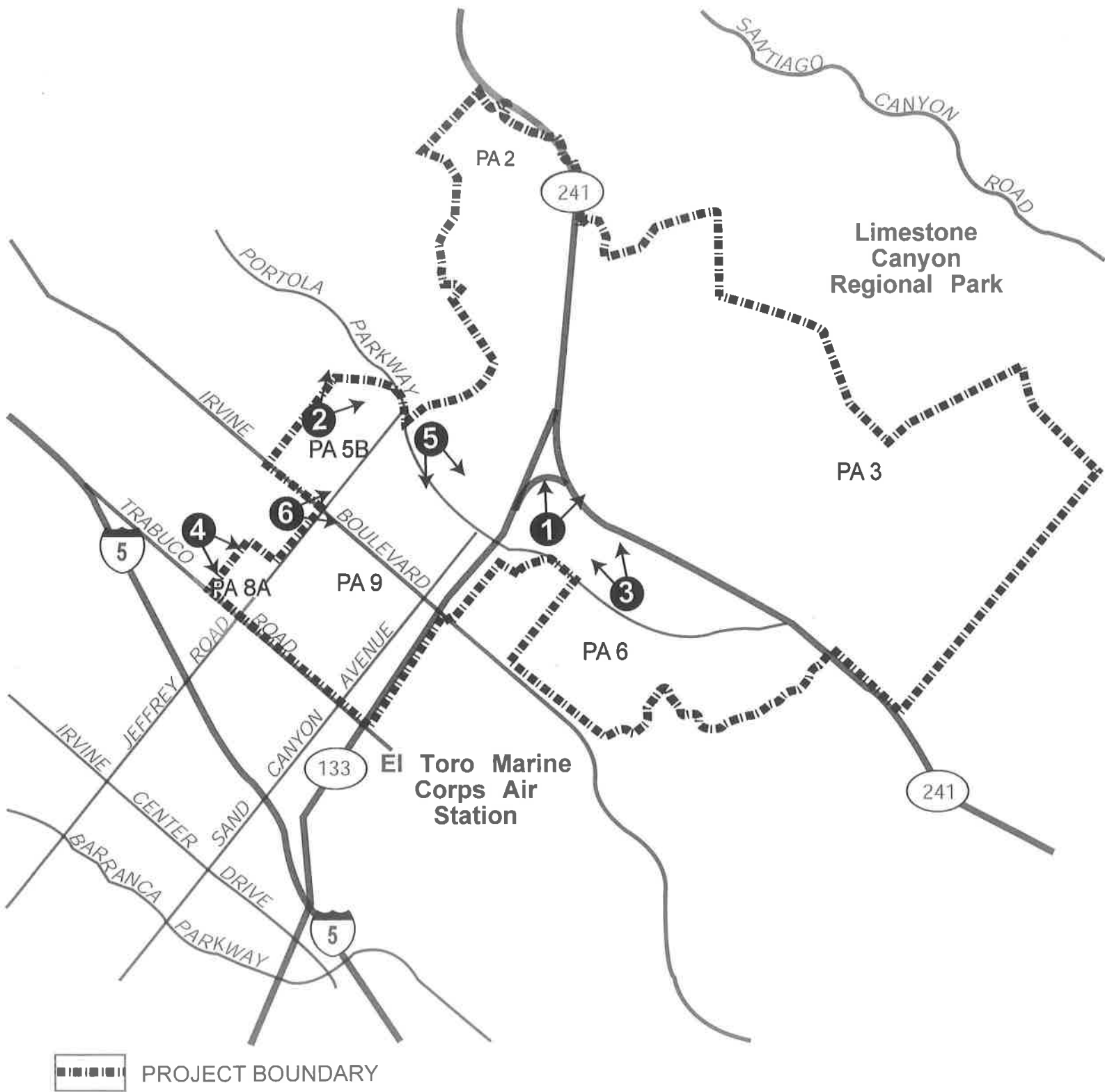
A photograph location key is shown on Exhibit 4-1 and photographs of the site and surrounding area are shown in the following sections.

Planning Area 3 and Implementation District “P”

Planning Area 3 and Implementation District “P” are both located within the Lomas de Santiago Hills, consisting of moderately steep terrain comprised of numerous east-west trending canyons which originate near the top of the dominant north-south trending ridge. They represent the most visually significant portions of the project. The majority of Planning Area 3 and Implementation District “P” consists of open space characterized by steep hillside slopes, native vegetation, and distinctive rock outcroppings. The Frank Bowerman Landfill is located within Planning Area 3 and can be accessed by the Bee Canyon Access Road. Public views of the landfill are generally blocked by the existing hills and ridgeline.



Photo 1: View looking north from Portola Parkway in the vicinity the SR-133 at Planning Area 3.



Northern Sphere Area EIR

Exhibit 4-1 PHOTOGRAPH LOCATION KEY



TEMPLETON PLANNING GROUP

0 0.5mi 1.0mi



Planning Area 5B

The ground surface elevation within Planning Area 5B is sloping gently from northeast to southwest. Elevations vary from approximately 335 feet (at the northeast end) to 230 feet (at the southwest end). The Planning Area is currently being utilized by agricultural fields (row crops), Hines Nursery and supporting structures. These structures are comprised of office buildings for the Hines Nursery and various greenhouses. There is a small concrete reservoir in the southwest corner, which collects surface water drainage from the Hines Nursery to the north. A row of eucalyptus trees runs across the southern portion of the site, separating the row crops in the south from the nursery to the north. A second row of eucalyptus runs from east to west, halfway across the property at the entrance to the nursery. There is an IRWD pipeline running northwest to southeast from Hicks Canyon Wash to the entrance of the Hines Nursery.



Photo 2: View looking northeast from the rear of the existing Northwood neighborhood at Planning Area 5B.

Planning Area 6

Planning Area 6 is irregular in shape, consisting of approximately 2,300 acres. The Planning Area extends from the Tustin Plain in the south, up into the foothills of the Santa Ana Mountains in the north. The northern and eastern portions of Planning Area 6 consist of moderately to gently sloping hillside terrain, with flatlands in the south-southwest. There are several southwest-trending canyons bisecting the site with gradients toward the southwest, including Bee and Round Canyons, and Agua Chion Wash. These canyons become relatively narrow and steep to the north (up canyon). Generally, the hillside slopes range from 4:1 (horizontal to vertical) to as steep as 1.5:1 within the proposed development area. The total topographic relief within the Project Site is approximately 440 feet, ranging from a high elevation of 774 feet in the northeast corner of the site to a low elevation of 334 feet in the southwest corner at the intersection of the Eastern (SR-241) Transportation Corridor and Irvine Boulevard.

Portions of Planning Area 6 are currently being utilized for agriculture and nurseries and can be divided into several agriculture regimes. The southern portion, with relatively flat ground, is currently being utilized as a nursery site or for row crops. Avocado and citrus groves are predominate in the hillside terrain portions of the site, with large eucalyptus tree windrows between the orchards. Additionally, a green waste plant and a mulching plant are present in the southeast corner of the Planning Area. Implementation Districts “Q” and “R” are located in Planning Area 6, and represent the most visually significant portions of Planning Area 6.



Photo 3: View looking north from Portola Parkway near the Eastern (SR-241) Transportation Corridor.

There are several old, abandoned irrigation and drainage structures (i.e., berms) and channels in the canyon areas, apparently built for agricultural irrigation and drainage in the past. There is an old abandoned reservoir (the Lambert Reservoir) in the central portion of the site. This reservoir has an earthen dam that was built in the 1930's. It was used for water storage for agricultural irrigation water. The reservoir was taken out of service in the mid to late 1990's and does not have water in it today. It was taken out of service as a result of changing agricultural irrigation practices no longer requiring such storage, and because up stream improvements to flood control facilities and development of Portola Parkway and the toll road significantly impeded the ability to direct water to the site for storage. However, in the winter of 1999, a large water pipeline broke along Portola Parkway and the reservoir was partially filled with water for a short time. Recently, the State Division of Safety of Dams (DSOD) approved the decommissioning of the reservoir and dam. Accordingly, the property owner, after consultation with ACOE and CDFG (regarding the non-jurisdictional nature of the reservoir) will commence work necessary to decommission the dam. Such work consists of removing a section of one of the berms and re-establishing a drainage channel connection through the Lambert Reservoir to down-stream drainages.

Planning Area 8A

Planning Area 8A is relatively flat with onsite elevations ranging between 170 and 210 feet. The Planning Area is currently used for agricultural production consisting of a variety of row crops. The site is bisected by a eucalyptus windrow.



Photo 4: View looking east at Planning Area 8A from Blue Gum Park.

Planning Area 9

Planning Area 9 is relatively flat with onsite elevations ranging between 190 and 360 feet. The Planning Area is currently used for agricultural production consisting of a variety of row crops. The site is bisected by two eucalyptus windrows. The Valencia Growers packing house is located on the east side of Jeffrey Road between Bryan Avenue and Irvine Boulevard. In addition, a golf driving range/flood retention facility is located on the southwest corner of Planning Area 9.



Photo 5: View looking south from Portola Parkway at Planning Area 9.



Photo 6: View looking east near the intersection of Jeffrey Road and Irvine Boulevard at Planning Area 9.

Light and Glare

Due to the undeveloped nature of the site, existing light levels are determined by surrounding land uses and fluorescent streetlights. Nearby streets, residential communities, the former MCAS El Toro, the Eastern (SR-133) Transportation Corridor, and the Foothill (SR-241) Transportation Corridor account for most of the existing nighttime light levels. None of the existing on-site agricultural facilities are constructed with reflective building materials. As a result, the site does not currently produce any significant light or glare impacts.

General Plan and Zoning

General Plan Amendment 16

As part of the General Municipal Election of June 7, 1988, the voters of the City of Irvine enacted Initiative Resolution 88-1, entitled “An Initiative Resolution of the City of Irvine Directing the Amendment of the Conservation and Open Space Element and the Land Use Element of the Irvine General Plan” (“Open Space Initiative”). The intent of the Open Space Initiative and subsequent General Plan Amendment 16 is to preserve important conservation and open space resources through a program that consolidates large, contiguous open space areas under public ownership. This occurs by permitting development to occur in other areas of the City deemed to be of lesser open space value, rather than by pursuing stringent, localized, isolated open space preservation policies.

Following voter approval of Initiative Resolution 88-1, a Memorandum of Understanding (MOU) was executed by the City and The Irvine Company to implement the open space program and to document the understandings reached concerning the components of the Phased Dedication Program and the Compensating Development Opportunities Program. The portions of the City directly involved in this dedication/development program have been divided into separately lettered “Districts” containing both open space lands for ultimate conveyance to the City and corresponding development areas. The Northern Sphere Area also includes approximately 3,867 acres of open space (consisting of Implementation Districts “Q” and “R” in PA 6, and Implementation Districts C-F in PA 3). The project also proposes dedication of 748 acres in Implementation District “P” which are located outside of the Northern Sphere Area, but will be dedicated as part of the Northern Sphere Area project in accordance with the requirements of the Protocol Agreement between the City and The Irvine Company, and Irvine Zoning Code Chapter 2-21. Please refer to Section 2.3.2, “Project Components,” for a more detailed discussion of these Implementation Districts.

Jeffrey Open Space Spine S-4

The Conservation and Open Space Element of the Irvine General Plan designates the east side of Jeffrey Road within the proposed project as the Jeffrey Open Space Spine S-4. The Jeffrey Open Space Spine (Spine) consists of a continuous open space edge of variable width along the eastern side of the ultimate alignment of Jeffrey Road from Trabuco Road to the Lomas Ridge, which will be dedicated to the City of Irvine as a result of the development of the Northern Sphere Area. The Spine shall be the equivalent of three hundred twenty five (325) feet in width which may vary depending upon amount of improvements made within the Spine, however the Spine will not be less than the minimum dimension included in the zoning for Planning Areas 6 and 9 as measured from the Jeffrey Road curb face (approximately 117 acres).

“Rural or Natural Character” Roadway Major Views

Sand Canyon Avenue and Jeffrey Road, along with Culver Drive and Laguna Canyon Road, are designated on Figure A-4 (Scenic Highways) of the Land Use Element of the City’s General Plan as roads important for “Rural or Natural Character” major views. Figure A-4 also identifies the “major views” supporting that designation for each of these roadways. For Sand Canyon Avenue and Jeffrey Road, as with Culver Drive, the “major views” are the views of the Lomas de Santiago Hills to the north, and of the coastal foothills to the south. The County of Orange does not designate any of the roadways within the project area as “Scenic Highways.”

Lomas de Santiago Hills Hillside Overlay District

All of Planning Area 3 and Implementation District “P” and a portion of Planning Area 6, north of the Foothill (SR-241) Transportation Corridor are classified by the Irvine Zoning Code as a Hillside Overlay District, as shown in Exhibit 4-2. The purpose of this overlay district is to provide regulations for land development that ensure that the natural character of this area is maintained, and environmental and aesthetic values are preserved. Regulations for the Hillside Overlay District involve special planning procedures and specific application requirements for the various stages of project planning, starting with zone change and master plan applications such as this project, and continuing with subsequent tentative subdivision maps, master plans, and grading and building permits. The areas of the Project Site and Implementation District “P” located within the Lomas de Santiago Hills Hillside Overlay District are designated for permanent open space and no development is proposed. Therefore, no special site planning, grading, architectural, and/or landscaping techniques are required.

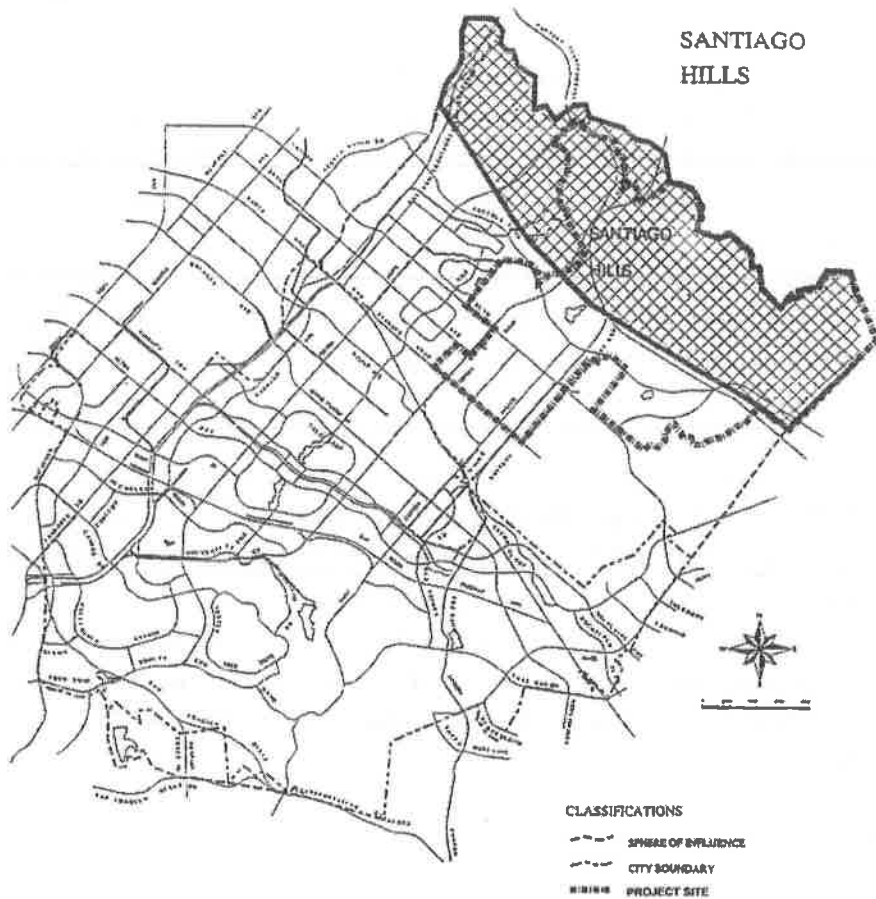


Exhibit 4-2

Hillside Overlay District

4.1.2 ENVIRONMENTAL IMPACTS

Thresholds of Significance

According to Appendix G of the California Environmental Quality Act (CEQA) Guidelines, a project will normally have a significant adverse environmental impact on aesthetics if it will:

- Have a substantial adverse effect on a scenic vista.
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway.
- Substantially degrade the existing visual character or quality of the site and its surroundings.

-
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

Effects on Scenic Vistas

As seen from the surrounding roadways, the dominant northwest-southeast trending ridgeline and hillsides located north of the Foothill (SR-241) Transportation Corridor are the most prominent natural features on the site. Since the Project Site encompasses some of the highest elevations in the area, the steeper portions of the site can be seen from almost anywhere in the surrounding area. However, these steeper areas are preserved as permanent open space.

Implementation Districts “C,” through “F” within Planning Area 3 have already been offered for dedication. The proposed project requires that the land owner dedicate in favor of the City for proposed Implementation Districts “P,” “Q,” and “R.” Approximately 4,600 acres will be left in a natural condition as open space preservation areas (Implementation Districts “C,” through “F,” “P,” “Q,” and “R”). With the preservation of landforms in Implementation Districts “C,” through “F,” “P,” “Q,” and “R,” resulting in a substantial open space preservation area, and the mitigation measures described in Section 4.1.3, potential impacts to scenic vistas have been reduced to a level of insignificance.

Scenic Highways

Sand Canyon Avenue and Jeffrey Road, along with Culver Drive and Laguna Canyon Road, are designated on Figure A-4 (Scenic Highways) of the Land Use Element of the City’s General Plan as roads important for “Rural or Natural Character” major views. Figure A-4 also identifies the “major views” supporting that designation for each of these roadways. For Sand Canyon Avenue and Jeffrey Road, as with Culver Drive, the “major views” are the views of the Lomas de Santiago Hills to the north, and of the coastal foothills to the south. Preservation of Planning Area 3 and Implementation District “P” will protect the “major views” from these designated roadways, consistent with Figure A-4 of the City’s General Plan. However, as part of the General Plan Amendment, the City will consider designation of Sand Canyon Avenue and Jeffrey Road as “Urban Character” Scenic Highways. The County of Orange does not designate any of the roadways within the project area as “Scenic Highways.” Therefore, the project does not have the potential to substantially damage scenic resources within a state scenic highway.

Visual Character/Landform

Planning Area 3/Implementation District “P”

Implementation Districts “C,” through “F” within Planning Area 3 have already been offered for dedication. The proposed project requires that the land owner dedicate in favor of the City for proposed

Implementation Districts “P,” “Q,” and “R.” Approximately 4,600 acres will be left in a natural condition as open space preservation areas (Implementation Districts “C,” through “F,” “P,” “Q,” and “R”). As a result, no changes to the existing visual character within these areas will occur as part of project implementation and no impacts are anticipated.

Planning Areas 5B, 8A and 9

The proposed development areas are generally concentrated within the flatter portions of the project area, within Planning Areas 5B, 8A, and 9. As a result, the height of cut and fills in the lower elevations in these planning areas will be limited, and primarily related to soils compaction and remediation. These Planning Areas will be mass graded in development phases to produce large flat pad areas for development. These areas are generally at the same grade as the existing neighborhoods within Northwood and Northwood Point and will continue to be so at the conclusion of grading. Implementation of the proposed project in Planning Areas 5B, 8A, and 9, will not require a significant amount of landform alteration, and accordingly there will be no significant landform impacts from grading of these planning areas.

Planning Area 6

Planning Area 6, consisting of moderate topography within the proposed development areas, will require more extensive landform modifications to accommodate the proposed project. This includes grading which will be required to remedy small existing on-site landslides and other geotechnical hazards. Much of this disturbance will result from grading for the road right-of-way and building pads. Within Planning Area 6, cut-and-fill mass grading activities are proposed to create future building pads, and contour the site for proper drainage. Cut-and-fill slopes are proposed at a slope ratio of 2:1 (horizontal:vertical) or flatter. Although landform modifications within Planning Area 6 may be visible, the proposed development areas are located approximately one mile away from the existing Northwood neighborhoods. The portions of Planning Area 6 proposed for development are outside of the Lomas de Santiago Hills Hillside Overlay District, which delineates areas requiring special treatment to protect important aesthetic values.

As seen from the surrounding roadways, the dominant northwest-southeast trending ridgeline and hillsides located north of the Foothill (SR-241) Transportation Corridor are the most prominent natural features in the Northern Sphere area, encompassing some of the highest elevations in the area. These steeper areas are preserved as permanent open space. Implementation Districts “C,” through “F” within Planning Area 3 have already been offered for dedication. The proposed project includes further dedication/preservation of Implementation District “P” in Planning Area 2, and Implementation Districts “Q” and “R” in Planning Area 6. Approximately 4,615 acres will be left in a natural condition as open space preservation. As a result, the proposed topographic changes as viewed from Northwood, Northwood Point, and Oak Creek, and from Jeffrey Road and Sand Canyon Avenue, are not considered significant.

Visual Character/Views

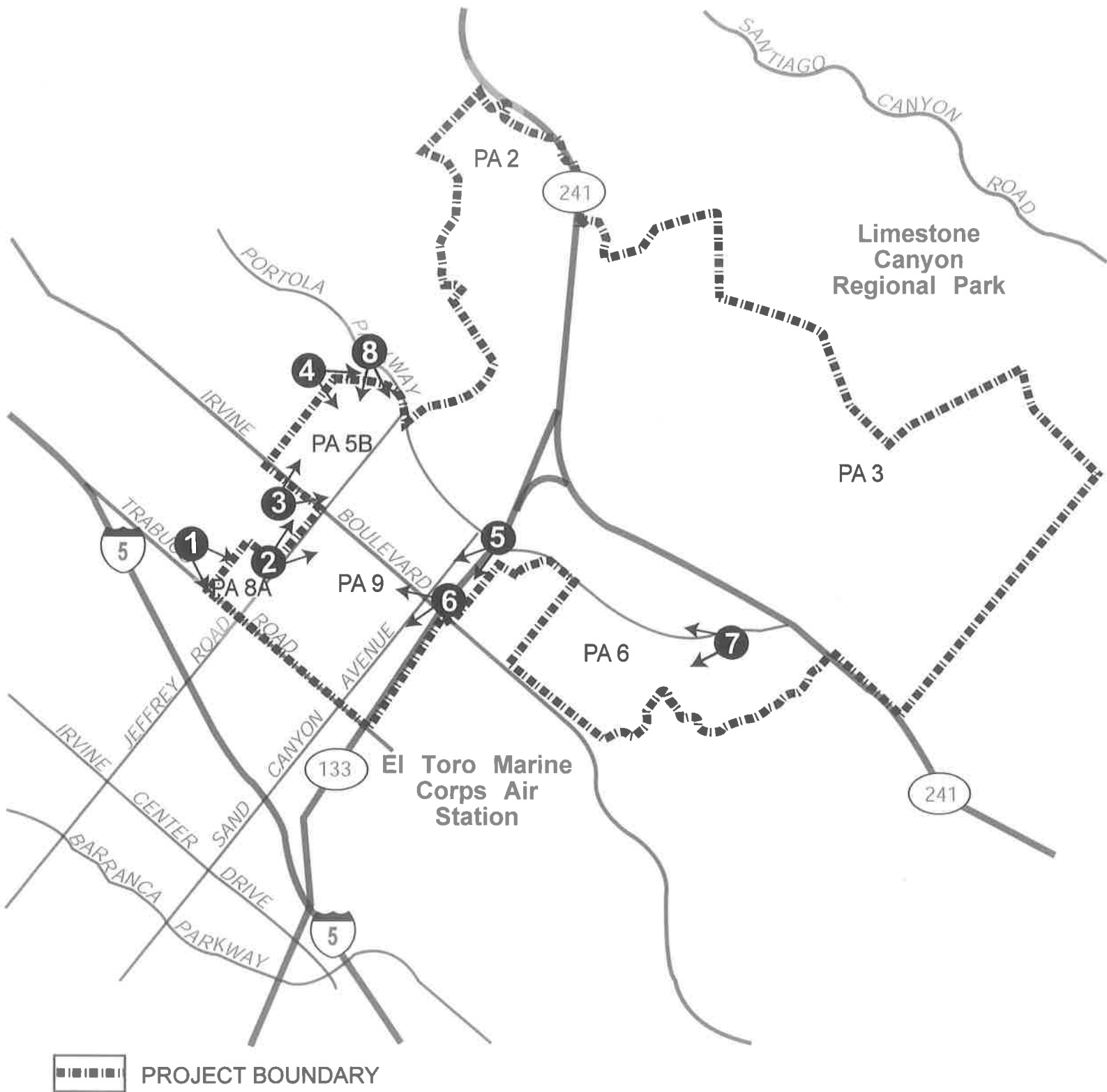
The evaluation of aesthetic impacts is by nature a subjective exercise due to widely varying personal perceptions. Within the lower elevations of the site, implementation of the proposed project would substantially alter the existing viewsheds and visual character of the site from the surrounding areas. Most significantly, the construction of residential, commercial, and medical and science uses would change views from Jeffrey Road, Sand Canyon Avenue, Trabuco Road, Irvine Boulevard, Portola Parkway, the Eastern (SR-133) Transportation Corridor, the Foothill (SR-241) Transportation Corridor, and the San Diego (I-5) Freeway as well as existing land uses adjacent to the Project Site. Views of this portion of the site would change from that of predominately agriculture to that of an urbanized setting of residential and non-residential development. The higher, more visible elevations of the site generally north of the Foothill (SR-241) Toll Road will be preserved as permanent open space.

The proposed project will be visually compatible with the existing residential uses located east of Jeffrey Road. The developed communities of Northwood and Northwood Point are composed of a mixture of single family detached and attached housing units, at a variety of Low, Medium, and Medium-High densities. Proposed zoning within Planning Areas 5B, 8A, and 9 adjacent to existing residential development is Medium Density Residential. This is consistent with the existing residential neighborhoods located within Northwood and Northwood Point. In addition, the Jeffrey Open Space Spine will provide a continuous open space, landscaped edge of variable width along the eastern side of the ultimate alignment of Jeffrey Road from Trabuco Road to the Lomas Ridge. This will provide additional visual relief and will shield views of future homes within Planning Areas 6 and 9. As a result, the proposed development is considered visually compatible with the adjacent communities of Northwood and Northwood Point.

Existing zoning for homes in Northwood Point in Planning Area 5 adjacent to the Northern Sphere area consists of Low-Density Residential with a height limit of 35 feet and Medium-Density Residential with a height limit of 40 feet. Zoning for Northwood in Planning Area 8 adjacent to the Project Site includes a height limit of 35 feet for homes within Low-Density Residential areas with Neighborhood and Community Commercial northeast and south of Planning Area 8A. Proposed zoning within Planning Areas 5B and 8A adjacent to existing residential development is Medium Density Residential with a height limit of 50 feet. The viewers most affected by the development of homes in Northwood and Northwood Point are those residents of homes immediately adjacent to Planning Areas 5B, 8A, and 9. Development may be visible from the second stories of existing homes. However, the proposed residences will be consistent with type and scale of development currently located within Northwood and Northwood Point. In addition, existing views of Lomas de Santiago Hills, a significant aesthetic resource, will be preserved. Therefore, dedication of Implementation Districts "C" through "F," "P," "Q," and "R" will mitigate potential impacts to a level of insignificance.

Potential viewers of the Project Site include existing residents, recreationalists using parks and bike trails, local travelers, and freeway commuters and the residents of Northwood and Northwood Point. However, views of the Project Site from Northwood and Northwood Point are limited because of the lack of topography and the future development of the Jeffrey Open Space Spine. People traveling along Jeffrey Road, Sand Canyon Avenue, Trabuco Road, Irvine Boulevard, Portola Parkway, and the Foothill (SR-241) Transportation Corridor will also have clear views of the project, including noise walls and future homes. Travelers along the Eastern (SR-133) Transportation Corridor will not have direct views of the site because the roadway is predominately depressed. A number of visual simulations to illustrate the visual impact of the proposed project were completed, as shown on Exhibit 4-3. These simulations, conceptual in nature, are shown in Exhibits 4-4 through 4-11, and illustrate pre- and post-development views, including a 5-10 year simulation of landscaping.

To summarize view simulations, Exhibit 4-4 shows that future two-story homes within Planning Area 8A will be visible from Blue Gum Park. As shown on Exhibit 4-5, the future Jeffrey Open Space Spine will shield views of future homes from Jeffrey Road within Planning Area 9. Exhibit 4-6 shows the existing and proposed views across Irvine Boulevard from the exit of the The Groves Mobile Home Park. Exhibits 4-7 and 4-8 show existing and proposed views from the existing terminus of Hicks Canyon Road with and without a through connection into Planning Area 5B. As shown on Exhibit 4-9, future Medical and Science uses will be visible from the Eastern (SR-133) Transportation Corridor in the vicinity of Portola Parkway. Exhibit 4-10 shows the proposed Community Commercial and Medical and Science uses at the intersection of Sand Canyon Avenue and Irvine Boulevard. Exhibit 4-11 shows the proposed residential uses along Portola Parkway, south of the Foothill (SR-241) Transportation Corridor. Exhibit 4-12 simulates the change of views from the existing Planning Area 5 neighborhood into the development proposed for Planning Area 5B. As these simulations demonstrate, although the agricultural character of the development area will change, the resulting urban development is consistent with the existing neighborhoods within Northwood and Northwood Point.

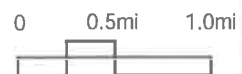


Northern Sphere Area EIR



TEMPLETON PLANNING GROUP

Exhibit 4-3 VIEWPOINT LOCATION MAP



A photograph of a large, gnarled tree trunk in the foreground, with a dense forest of tall, thin trees in the background. The ground is covered in green grass and fallen leaves.

 Northern Sphere Area EIR



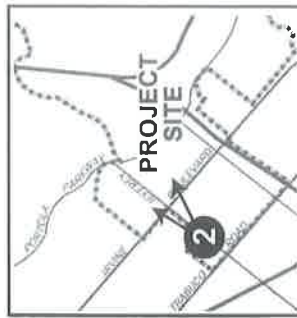
Photograph 2:
View looking north from
Jeffrey Road at
Planning Area 9.



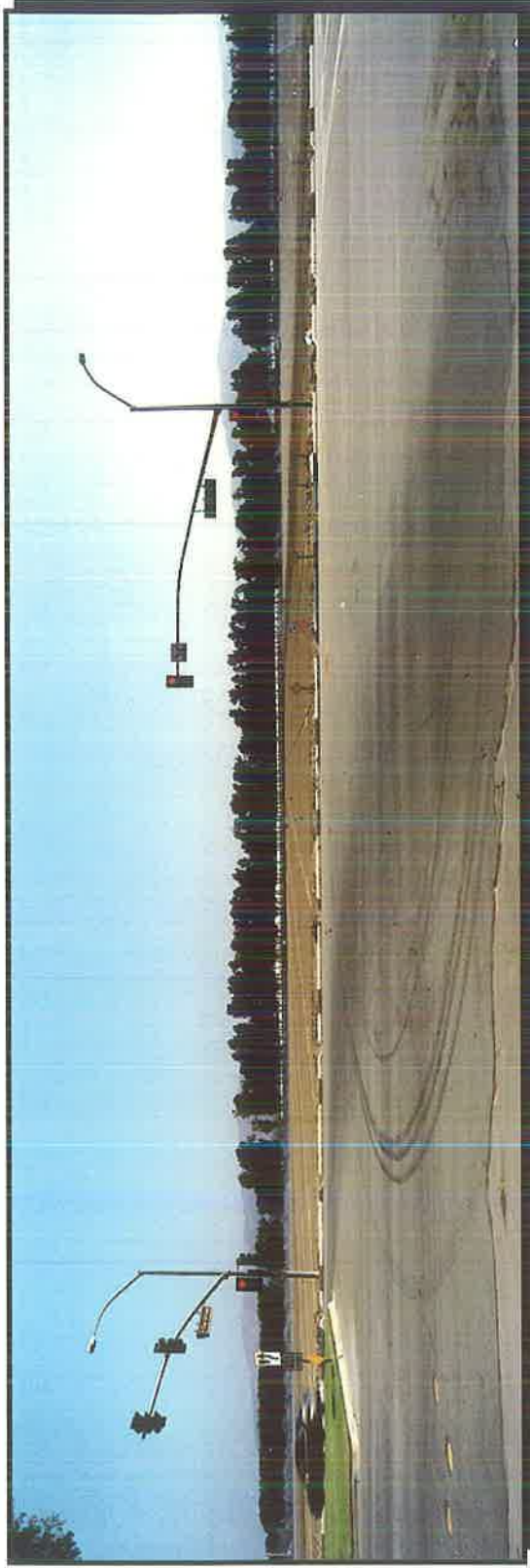
Existing



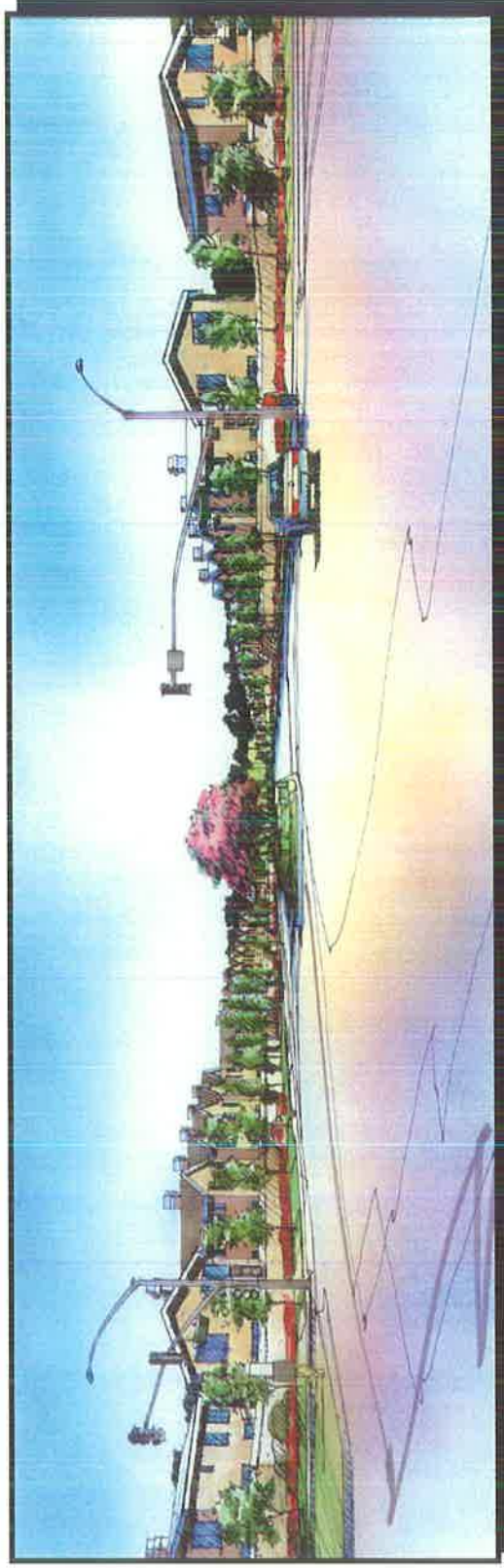
Proposed



Photograph 3:
View looking north from
The Groves Mobile Home
Park at Planning Area 5B.



Existing



Proposed



Exhibit 4-6
THE GROVES/PA 5B

Photograph 4a:
View looking east from
the existing terminus of
Hicks Canyon Road, with
no thru connection to
Planning Area 5B.



Existing



Proposed

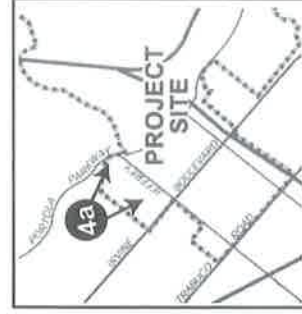


Exhibit 4-7
HICKS CANYON ROAD
(NO CONNECTION)/PA 5B



Photograph 4b:
View looking east from
the existing terminus
of Hicks Canyon Road,
with a thru connection
to Planning Area 5B.



Existing



Proposed

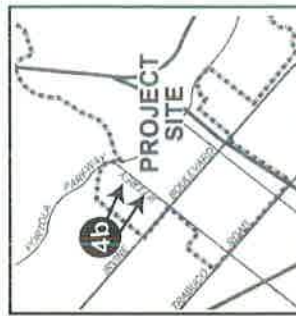


Exhibit 4-8
HICKS CANYON
ROAD (CONNECTED)/PA 5B

Photograph 5:

View looking southwest at Planning Area 9 from the SR-133 near Portola Parkway.



Existing



Proposed



Northern Sphere Area EIR

Exhibit 4-9
SR-133/PORTOLA PARKWAY/PA 9



TEMPLETON PLANNING GROUP

NO SCALE



Photograph 6:

View looking west at Planning Area 9 near the intersection of Sand Canyon Avenue and Irvine Boulevard.



Existing



Proposed



Exhibit 4-10

**SAND CANYON AVENUE/
IRVINE BOULEVARD/PA 9**

Northern Sphere Area EIR



NO SCALE



Photograph 7:

View looking west at Planning Area 6 from Portola Parkway south of the SR-241.



Existing



Proposed



Photograph 8:
View looking south from
Northwood Point in the
direction of Hicks
Canyon Trail and
Planning Area 5B.



Existing



Proposed



Exhibit 4-12
NORTHWOOD POINT/PA 5B

Light and Glare

Additional lighting will be needed to provide nighttime street and building illumination for the proposed project. Other sources of light include security lighting, nighttime traffic, and light associated with the nighttime use of the residences, Community Commercial, Multi-Use, and Medical and Science uses. Although most lights associated with project development will be directed inward towards the interior of the site, individuals living in Northwood and Northwood Point west of the site may experience an increase in nighttime illumination. However, lighting within the proposed development area will not be readily visible by existing residents due to its relatively low elevation and the intervening Jeffrey Open Space Spine. In addition, street lighting will be the minimum necessary consistent with the Irvine Uniform Security Code and therefore, will not cause a significant impact. Lighting within Planning Area 6 will be the most visible to Northwood residents; however, this impact is not considered significant considering the distance of over a mile from the Jeffrey Road boundary of Planning Area 6 and the existing amount of light and glare currently being generated by the Foothill and Eastern Transportation Corridors.

A proposed community park may be located within Planning Areas 6 and/or 9. It may also include lighted facilities for possible baseball/softball and soccer fields, but is not expected to be highly visible from Northwood and Northwood Point due to the significant distance of over a mile between the two uses. Although lighting levels from the park could potentially be adverse to future homes within Planning Area 5B and 9 located adjacent to the community park, this impact will be mitigated by conformance with the adopted City of Irvine Community Services Lighting Standards for Public Facilities, which limit the maximum footcandle level on the property line of park facility to 1.5 footcandles. In addition, the City requires that a numerical lighting model showing compliance with these standards be submitted with lighting plans for recreational athletic fields. As a result, no significant light and glare impacts are anticipated.

The proposed neighborhood parks may also result in an increase in nighttime illumination. Although project planning is not yet at a level that would permit submission of detailed park plans, private neighborhood parks are likely to include various private recreational amenities such as a pool, clubhouse, and tennis courts, which could also include some night lighting. Nighttime security lighting will be limited to the minimum necessary for public safety (see Section 4.1.3, "Mitigation Measures"). Future lighted facilities of significant size within portions of the Northern Sphere Area within reasonable proximity to existing residential uses would be visible from the surrounding future residences. In order to reduce potential light and glare impacts in public and private neighborhood parks to insignificant levels, park plans will be reviewed for compliance with the City of Irvine Community Services Athletic Field and Court Standards. A conceptual park plan will be discussed further in Section 4.13, Recreation.

Cumulative Impacts

Cumulative development in accordance with the General Plan will continue to convert undeveloped land to urban uses. Other projects located within the vicinity of the project area include Planning Areas 40 and 51 (Millennium Plan II or OCX), and Spectrum Housing. None of those developments involve identified significant scenic resources. No significant adverse cumulative aesthetic impacts result from the development of those other projects in conjunction with the Northern Sphere Area project. Future development proposed in Planning Areas 1 and 2 could impact the identified scenic resources of Lomas Ridge. However, the impact of these future developments will be mitigated by adherence to the requirements of the Hillside Overlay District, the City's Hillside Grading Manual, and the continued dedication of open space lands in accordance with GPA 16 and the MOU between the City of Irvine and project applicant, which will provide for the eventual public ownership of approximately 12,000 acres of open space. In addition, establishment of The Nature Reserve of Orange County will permanently preserve over 37,000 acres, providing for preservation of the aesthetic backdrop to the City as well as regional biological and open space benefits which would be unlikely to occur with a piecemeal conservation strategy. As a result, cumulative aesthetic impacts are not considered significant.

4.1.3 MITIGATION MEASURES

Existing Regulations and Standard Conditions

- 1.1 This development includes land that encompasses or lies within an Open Space Implementation Action Program District as shown on the City's General Plan and Zoning Ordinance. Prior to the release of a final map by the City, the applicant shall submit an irrevocable offer of dedication for the preservation open space lot and/or easement, as required by the City's Phased Dedication and Compensating Development Opportunities Program. A copy of the irrevocable offer shall be submitted to both the City Engineer and the Director of Community Development. The irrevocable offer of dedication for the preservation open space lot and/or easement shall be prepared to the satisfaction of the Director of Community Development, the City Engineer, and the City Attorney. The offer shall be recorded with filing of the final map (Standard Condition 1.7).
- 1.2 The City of Irvine has a number of existing codes and policies which are implemented through the regular subdivision process which will serve to mitigate the impacts of the proposed project. Current codes and policies relating to aesthetics are as follows:
 - Lighting for public recreational facilities within the project shall be in conformance with the City of Irvine Community Services Lighting Standards for Public Facilities.

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- 1.3 Prior to the issuance of building permits, the [landowner or subsequent project] applicant shall demonstrate through the submittal of an electrical engineer's photometric survey, prepared to the satisfaction of the Director of Community Development, that lighting requirements as set forth in the Irvine Uniform Security Code are met (Standard Condition 3.2).

Project Design Features/Special Development Requirements

No project design features or special development requirements related to aesthetics are proposed. Dedication of the Jeffrey Spine, together with the dedications of Implementation Districts P, Q, and R, are integral components of the project, and may appropriately be considered project design features. However, the aesthetic benefits achieved by those dedications will be part of the project implementation, and as required by Standard Condition 1.7 (Mitigation Measure 1.1) above.

Additional Mitigation Measures

- 1.4 Prior to the approval of each Street Improvement Plan within Planning Area 6, the landowner or subsequent project applicant shall submit a street lighting plan for review and approval by the Department of Public Works. The plan shall include the amount, location, height and intensity of street lighting limited to the minimum necessary for public safety in order to maintain the hillside character of the community and reduce nighttime glare.
- 1.5 Prior to the issuance of building permits for public park facilities, the landowner or subsequent project applicant shall submit a lighting plan for review and approval by the Director of Community Services.

4.1.4 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Adherence to the existing City policies, standard conditions of approval, and the mitigation measures listed above will reduce any potential impacts on landforms, aesthetics, and light and glare to a level of insignificance. Potential cumulative impacts are reduced to a level of insignificance through the on-going Phased Dedication Program and the Compensating Development Opportunities Program and adherence to the City's Hillside Overlay District and Grading Ordinance.

4.2 Agricultural Resources

Appendix G of the CEQA Guidelines requires an EIR to analyze impacts to agricultural resources when a project has the potential to convert prime farmland, unique farmland, or farmland of statewide significance to non-agricultural uses, potentially conflicts with existing zoning for agricultural use or with a Williamson Act contract, or involves other changes in the existing environment which, due to their location or nature, would result in the conversion of certain farmland to non-agricultural use.

4.2.1 ENVIRONMENTAL SETTING

Farmland Classifications

In considering impacts on agricultural resources, CEQA focuses on prime farmland, farmland of statewide importance and unique farmland (collectively referred to as “Significant Farmland”) as identified through the California Department of Conservation’s Farmland Mapping and Monitoring Program (the “FMMP”) which includes a record of significant agricultural lands within the State of California and monitors the conversion of these lands to other uses. The California Department of Conservation classifies farmland as follows:

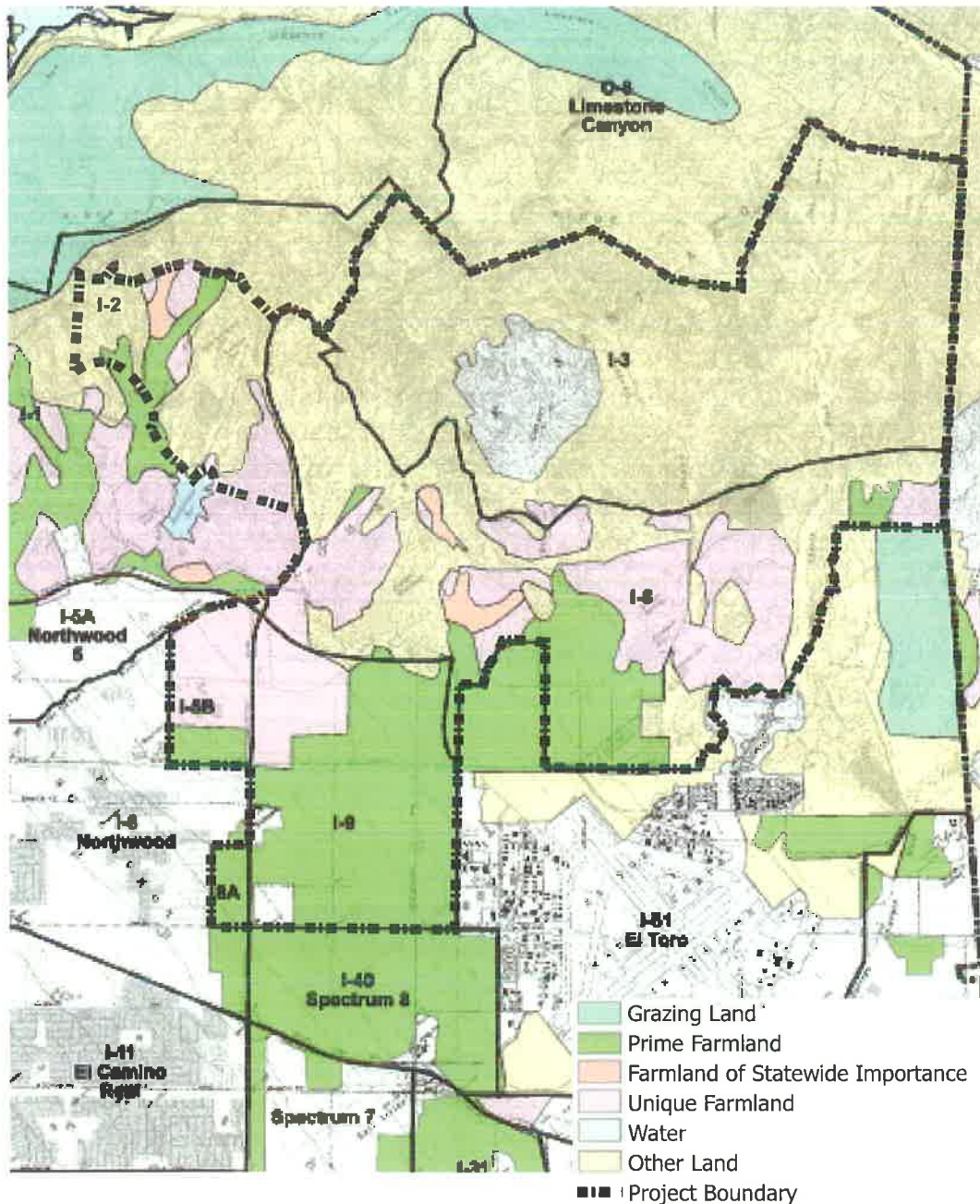
- **Prime Farmland:** Land with the best combination of physical and chemical features able to sustain long term production of agricultural crops. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for production of irrigated crops at some time during the two previous map updates.
- **Farmland of Statewide Importance:** Land similar to Prime Farmland that has a good combination of physical and chemical features able to sustain long term production of agricultural crops. This land has minor shortcomings, such as greater slopes or less ability to store soil moisture than Prime Farmland. Land must have been used for production of irrigated crops at some time during the two previous map updates.
- **Unique Farmland:** Lesser quality soils used for the production of the state’s leading agricultural crops. This land is usually irrigated, but may include non-irrigated orchards or vineyards as found in some climatic zones in California. This land is used for the production of specific high economic value crops such as oranges, olives, avocados, rice, grapes or cut flowers. Land must have been cropped at some time during the two previous map updates.
- **Farmland of Local Importance:** Land of importance to the local agricultural economy as determined by each county’s board of supervisors and a local advisory committee.

-
- **Other Land:** Land which does not meet the criteria of any other category.

As shown in Exhibit 4-13, the FMMP has identified classified farmland within the Northern Sphere Area and Implementation District “P.” Farmlands within the Northern Sphere Area are classified as prime farmland, farmland of statewide importance, unique farmland, and other land. In general the areas classified as prime farmland, occupy the southern portion of the Project Site, other land occupies the north portion of the Northern Sphere Area and farmland of statewide importance and unique farmlands are scattered throughout the middle portions of the Northern Sphere Area.

In 1998, the Department of Conservation determined that there were 4,315,886 acres of prime farmland, 2,062,777 acres of farmland of statewide importance and 1,074,796 acres of unique farmland in the State. These figures do not include other lands committed to agricultural production in the state such as grazing land and lands for which modern soils surveys are not available but are nonetheless in agricultural production. The acreage of these three types of Significant Farmland in Orange County was 11,099 acres (prime farmland), 842 acres (farmland of statewide importance), and 6,259 acres (unique farmland). Significant Farmlands in Implementation District “P” are classified as prime farmland, farmland of statewide significance and unique farmland. Orange County represents approximately one quarter of one percent (.25 of 1%) of the prime farmland in the state, less than five one hundredths of one percent (.05 of 1%) of the farmland of statewide importance, and less than six tenths of one percent (.6 of 1%) of the unique farmland. Since 1998, prime farmland in Orange County has been reduced to 10,127 acres, farmland of statewide importance has been reduced to 763 acres, and unique farmland has been reduced to 6,063 acres.

The Northern Sphere Area and Implementation District “P” includes approximately 1,785.5 acres of land that are designated prime farmlands, 104.4 acres of farmland of statewide importance, and 1,713.9 acres of unique farmland, as shown in Table 4-1. Of these lands, approximately 1,128 acres are currently under cultivation for irrigated row crops, primarily strawberries, tomatoes, celery and beans; approximately 584 acres cultivated for orchard crops, primarily avocados; and approximately 799 acres are cultivated for nursery stock.



Source: Department of Conservation's Division of Land Resource Protection

Exhibit 4-13
FMMP'S 1998
ORANGE COUNTY
SIGNIFICANT FARMLAND MAP



Northern Sphere Area EIR



TEMPLETON PLANNING GROUP

NO SCALE



Table 4-1
Northern Sphere Area Significant Farmland Acreage

Planning Area	Acreage	General Plan Designation	Zoning Designation
PA 2 Implementation District "P"			
Prime Farmland	90	Preservation	Development Reserve (1.2)
Farmland of Statewide Importance	30	Preservation	Development Reserve (1.2)
Unique Farmland	163	Preservation	Development Reserve (1.2)
Total:	283		
PA 3			
Unique Farmland	14.4	Preservation	Conservation/Open Space Reserve (1.3)
PA 5B			
Prime Farmland	69	Agriculture	Exclusive Agriculture (1.1)
Unique Farmland	229.9	Agriculture	Exclusive Agriculture (1.1)
Total:	298.9		
PA 6			
Prime Farmland	551.1 (breakdown)	Agriculture Residential Estate	Conservation and Open Space Reserve (1.3) Development Reserve (1.2)
Farmland of Statewide Importance	74.4	Agriculture	Conservation and Open Space Reserve (1.3)
Unique Farmland	1,068.6	Agriculture	Conservation and Open Space Reserve (1.3)
Total:	1,694.1		
PA 8A			
Prime Farmland	73	Agriculture	Conservation and Open Space Reserve (1.3)
PA 9			
Prime Farmland	1,002.4	Agriculture	Conservation and Open Space Reserve (1.3)
Unique Farmland	238	Agriculture	Conservation and Open Space Reserve (1.3)
Total:	1,240.4		
Northern Sphere Area Total			
Prime Farmland	1,785.5		
Farmland of Statewide Importance	104.4		
Unique Farmland	1,713.9		
Total:	3,601.9		
<i>Northern Sphere Area and Implementation District "P" totals.</i>			

Williamson Act

In 1965, the State enacted the California Land Conservation Act, more commonly known as the Williamson Act (Government Code Section 51230 *et seq.*). The Williamson Act provides tax incentives for landowners who enter into contracts with the local government for long term use restrictions on agricultural and open space land for qualifying properties. There are no Williamson Act contracts on any lands within the Northern Sphere Area. Portions of the property were originally enrolled in the Williamson Act program pursuant to an agreement between The Irvine Company and the County of Orange dated February 18, 1969. The Irvine Company removed all of the property from the Williamson Act contract in three steps, filing notices of non-renewal on September 27, 1984, September 29, 1987 and September 29, 1989. By January 1, 1999 all of the property had been removed from the Williamson Act contract and the contract had expired.

Existing City General Plan and Zoning

The proposed project includes land designated as Agricultural and Preservation by the General Plan of the City of Irvine. The corresponding zoning designations include Exclusive Agriculture, Development Reserve and Conservation/Open Space Reserve. Table 4-1 depicts the acreage of prime farmland, farmland of statewide importance and unique farmland and the respective general plan and zoning designations.

All of the land designated for Agricultural use under the General Plan and zoned Exclusive Agriculture and Conservation/Open Space Reserve within the Northern Sphere Area is currently in agricultural production. The balance of the Northern Sphere Area currently in agricultural production is located within the Preservation designation of the General Plan and is zoned Conservation/Open Space Reserve. All the Significant Farmland in Implementation District "P" is currently in agricultural production. A discussion of the City's General Plan policies with respect to agricultural land use is provided below.

Long Term Viability of Large Scale Agricultural Production in Orange County

Even apart from the perceived potential for the conversion of agricultural uses to other uses due to development pressure, the long-term viability of large scale agricultural production in Orange County in general continues to deteriorate. Factors which impact the viability of agricultural uses include (1) the cost of land; (2) the cost of water; (3) the cost of labor; (4) property taxes; (5) the impact of urbanization; (6) competition; and (7) the impact of environmental regulation.

Land Value: Land prices in Orange County for raw land in the vicinity of the proposed project range from about \$600,000 to \$1,000,000 per acre, depending upon variables, such as location, intended uses, existing infrastructure, existing land use entitlements, land constraints and other issues. Agricultural production is considered not to be viable on any parcel valued at more than \$30,000-35,000 per acre,

since a reasonable rent based on these land values (\$3000-3500 per acre per year) would be prohibitive to a profitable agricultural operation. (See Trends in Agricultural Land & Lease Values - 2001, California Chapter of the American Society of Farm Managers and Rural Appraisers. www.calasfmra.com)

Water Costs: Irrigation water cost is a major component in determining the viability of agricultural operations. Irrigation water for existing agricultural tenants within the Northern Sphere Area is approximately \$290 per acre foot. This water includes water purchased from the Irvine Ranch Water District and water transported from deep wells which produce water of sufficient quality for agricultural operations located in the western portion of the City and transported to the agricultural areas in the northeast part of the City through a system of pipes and lift stations. This contrasts with water costs for growers in the major comparable growing areas in the Central Coast area, which includes Oxnard and Santa Maria, where the weighted average cost of agricultural surface water is \$128 per acre foot. On a regional basis, the South Coast Region, which includes Orange County, has by far the highest weighted average cost of agricultural water in the state at \$373 per acre foot. (California Department of Water Resources, California Water Plan, Bulletin 160-98, Appendix 4A.)

Labor Costs: In general, an adequate labor supply is available for Irvine growers. The cost of labor is actually slightly lower for Irvine growers than in Oxnard and Santa Maria. Recently, however, growers have reported that agricultural workers are moving from the fields to higher paying warehouse, factory and other support service jobs which are becoming more plentiful as surrounding areas develop. Even so, the cost of labor for Irvine growers is higher than in competitive markets outside of California where the minimum wage is lower. (United States Department of Labor, Minimum Wage Laws in the States. DOL.gov)

Property Taxes: Since none of the agricultural areas are subject to Williamson Act contracts, property taxes in areas considered likely to convert to other uses reflect increasingly higher property values, subject to the constraints of Proposition 13.

Urbanization: As land surrounding the current agricultural operations continues to develop, operational and economic constraints increase. These constraints include limitations on hours of operation, limits on chemical (pesticide and fertilizer) applications, required set backs from adjacent nonagricultural uses, and clean up required due to the use of farm equipment on public roads. Growers also experience increasing acts of vandalism and crop theft due to adjacent urbanization. (Personal communication, Dr. Daniel Hagillhi, South Coast Research and Extension Center (SCREC))

Competition: Increasingly, Oregon and other areas with lower production costs, such as Santa Maria and Oxnard, are also shifting to high cash crops. This shift has impacted the ability of Orange County farmers to overcome the high cost of agricultural activities in Orange County in the competitive market. In addition, competition from foreign growers is increasing dramatically. Produce grown in Mexico, Chile, Argentina and the Dominican Republic can be produced at dramatically lower costs due to cheap labor, availability

of land and resources, a farm friendly environment and the lack of the regulatory requirements found in California. The North American Free Trade Agreement (NAFTA), which calls for the gradual removal of tariffs and trade barriers, is resulting in the easing of restrictions on the import of agricultural products, such as avocados, which will result in even greater competition. Mexico, for example, is by far the largest producer of avocados in the world. (Food and Agriculture Organization of the United Nations, Statistical Data Base, Year 2000 Data)

Environmental Regulation: The regulation of agricultural activities is an increasingly significant cost for agricultural operations. Both the Clean Water Act and the Clean Air Act, as administered through state agency regulations, increasingly affect agriculture, and particularly field crops. By way of example, under the Clean Air Act, the PM10 rule affects the amount of suspended particulates from a field, just as that regulation applies to a construction project. Also by way of example, the Clean Water Act requires states to adopt and implement water quality standards for water bodies in the state. The watershed within the Northern Sphere Area and Implementation District "P" drains into San Diego Creek and ultimately to Upper Newport Bay. Both of these water bodies have been classified as "impaired" under Section 303(d) of the Clean Water Act. Accordingly, the Regional Quality Control Board must adopt a Total Maximum Daily Load ("TMDL") for these water bodies. The TMDLs must then be allocated between current and future dischargers into those bodies. TMDLs have currently been adopted for nutrients, sediment and pathogens and agricultural operators have been allocated TMDLs for these items. An additional TMDL is currently under development for toxicity which will include agricultural chemicals. (See discussion of water quality regulation in Section 4.8)

Existing County of Orange Policies

General Plan

The General Plan for the County of Orange designates the property as "1B" Suburban Residential Communities (.5-18 DU/AC), "4" Public Facilities (LS) Landfill Overlay, and "5" Open Space. The County General Plan recognizes that the encroachment of urban uses create pressures for the conversion of agricultural uses to urban uses, and that "the rising costs of irrigation water, agricultural land tax rates, labor costs and damage from vandalism have increased production costs making it more difficult to have a successful agricultural operation." (Orange County General Plan, Resources Element at page VI-9). The County's zoning classification for agricultural uses, the A-1 zone, recognizes that the zoning designation may represent an interim use of the land for areas designated for more intense urban uses in the future.

The Resources Element of the Orange County General Plan includes a Goal to "promote the wise management of agricultural and mineral resources in order to protect these resources for existing and future needs." (Orange County General Plan, Resources Element, Goal 2, page VI-31). This Goal is accompanied by the Objective "to enhance the conservation of agricultural resources through sound

management of local agricultural lands.” (Orange County General Plan, Resources Element, Goal 2, Objective 2.2, page VI-31) In furtherance of this Goal and Objective, the General Plan includes the policy:

“To encourage to the extent feasible the preservation and utilization of agricultural resources as a natural resource and economic asset.” (Orange County General Plan, Resources Element, Policy 2, at page VI-31.)

Implicit in the County’s General Plan Goals and Policies is the recognition that due to the factors discussed in the Long Term Viability of Large Scale Agricultural Production in Orange County Section above, the feasibility of continued agricultural operations in certain portions of the County is an issue to be addressed.

Among the implementing programs for the Natural Resources Component of the General Plan, the County is evaluating the establishment of an Agricultural Preservation Program. (Orange County General Plan, Resources Element, Implementation Programs, 2. Agricultural Preservation Program, at page VI-32-33). This program would utilize funds generated from the cancellation of agricultural preserves to fund grants, loans, research and other programs relating to agricultural resources in an effort to mitigate the long term impact of Williamson Act contract cancellations and to provide economic and technical support to County agricultural activities. The County has not implemented this program and there are currently no plans at the County to implement such a program in the immediate future. Moreover, since the project does not involve Williamson Act contract cancellations, this program, even if implemented, would not have received funding from the project.

Concurrently, the recently adopted update of the Housing Element of the County’s General Plan acknowledges the County’s obligation to provide its fair share of regional housing needs as established by the Southern California Association of Governments (“SCAG”). According to SCAG, the County’s fair share of projected new housing demand between 1998 and 2005 is 22,687 units. (Orange County Housing Element, Table III-10) Of the 204,000 acres of unincorporated land in the County only about 27,356.6 acres are available for development in the County taking into account environmental constraints, public ownership of parks and open space and agricultural preserves. Of this acreage, 20,401.5 acres are agricultural lands not in agricultural preserves. (Orange County Housing Element, Table IV-15) Given the County’s fair share allocation of housing needs and the limited resources available to the County in terms of developable land, the conversion of some agricultural lands not in preserves may be required if the County is to meet the goals and objectives of its Housing Element.

Other County Plans and Projections

In addition to the General Plan, the County also relies upon forecast documents in order to help plan for infrastructure needs and project population growth in the County. One such projection used by the County is traffic forecast numbers from the Orange County Transportation Analysis Model (OCTAM), a widely-

used transportation planning tool prepared and maintained by the Orange County Transportation Authority. The OCTAM numbers are used, among other things, to assist in preparing updated traffic forecasting models for central and south Orange County. The OCTAM numbers for the project area reflect projections which assume future urban development for the project area.

The conversion of agricultural lands to developed lands as proposed is also consistent with OCP-2000 projections which are prepared pursuant to a Memorandum of Understanding between SCAG and the Orange County Council of Governments and identify the regional projections on which population, housing and job forecasts are established. The forecasted figures in the OCP-2000 also reflect local plans and policies. The OCP-2000 projections also anticipate the development of urban uses within the Project Site but not at the same level of intensity as addressed in this Draft Environmental Impact Report (DEIR). Please refer Section 4.11 for a detailed discussion of OCP-2000.

City of Irvine Policies

General Plan

The City of Irvine General Plan provides policies for agricultural land uses in its Conservation and Open Space and Land Use Elements. The Land Use Element includes areas specifically identified for agricultural uses. The distribution of land use categories throughout the City and its Sphere of Influence is illustrated on Figure A-3 of the General Plan. The Northern Sphere Area includes approximately 2,728 acres designated as Agriculture and 3,867 acres designated as Preservation. In addition, Implementation District "P" includes 748 acres designated as Preservation.

The Conservation and Open Space Element addresses agriculture uses in Objective L-10. This objective states:

Protect and preserve agriculture as a viable land use within areas designated agriculture on the Conservation and Open Space Element and Land Use Element diagrams.

The following General Plan Policies support Objective L-10

Policy (a): *Encourage the maintenance of agriculture in those areas of the City designated for permanent agriculture use and in other areas until the time of development.*

Policy (b): *Preserve range lands, with high quality soils for forage production, and Class I and II soils in parcels of sufficient size to permit efficient utilization of best available technology, crop diversity to minimize risk of dependency on few crops, double cropping, and high yield crops.*

Policy (f): Maintain agriculture usage throughout the City and its Sphere of Influence as much as practicable.

Policy (h): Encourage and support federal and state legislation proposed for the purpose of preserving agricultural lands which are compatible with the City's goals and objectives.

Policy (i): Encourage agricultural uses on an interim basis for land that is designated for development by the General Plan, using the California Land Conservation Act of 1965 (Williamson Act).

Policy (j): Permit agriculture uses within the open space spine network.

Policy (k): Resolve any phased dedication and compensating development opportunities program involving land in the agriculture land use category at the time of annexation.

(Policies c, d, e, and g in support of Objective L-10 are not listed because they do not apply to the project or the Project Site or Implementation District "P.")

The Conservation and Open Space Element contains a Phased Dedication and Compensating Development Opportunities Program which provides for permanent protection of significant, large scale conservation and open space areas by placing these areas in public ownership in exchange for development entitlement on other property within the City's Sphere of Influence. At the time of the adoption of the Compensating Development Opportunities Program except for Planning Area 6, the Northern Sphere Area was excluded from consideration as the property was not within the jurisdictional limits of the City and the development potential for the Northern Sphere Area had not been determined. Policy (k) was adopted to reflect the fact that the intensity of development in the Northern Sphere Area and the areas to be dedicated as permanent open space in conjunction with that development were to be resolved at the time the Northern Sphere Area was to be annexed to the City.

In July of 2000, the City and The Irvine Company entered into an agreement which constituted the City of Irvine's plan for addressing the land use planning and phased annexation of the Northern Sphere Area as contemplated by Policy (k)(the "Protocol Agreement"). The proposed project, in that it contemplates the annexation and the dedication of open space in association with development within the Northern Sphere Area, is the mechanism whereby Policy (k) is to be implemented in accordance with the Protocol Agreement.

In light of the foregoing and other City General Plan policies, the Protocol Agreement and other City agreements and memoranda of understanding (the "City Open Space Agreement"), appropriate

implementation of Policy (k) necessarily results in changing the existing agricultural and open space uses within the Northern Sphere Area to urban land use designations for several reasons.

First, the Protocol Agreement provides for the allocation of development units to the Northern Sphere Area, as well as the dedication of land in conjunction with the annexation and development of the project, in furtherance of the NCCP Facilitation Agreement entered into between The Irvine Company and the City on July 24, 1996.

Second, the proposed project allocates existing General Plan residential development to the Northern Sphere Area so that housing needs can be met in accordance with other existing General Plan policies. The Protocol Agreement provides that there will be no net increase in residential development in the City beyond the levels contained in the General Plan as a result of development of the Northern Sphere Area. Specifically, the Protocol Agreement provides that the only residential development that will be permitted in the Northern Sphere Area will be unused residential development currently allowed under the General Plan in other areas of the City reallocated to the Northern Sphere Area. This transfer of existing, allowable residential development facilitates the City's efforts to meet its jobs and housing balance objective as set forth in the General Plan in a fiscally-sound manner. While the residential units proposed for allocation to the Northern Sphere Area could be constructed elsewhere in the City, the City would, at a minimum, have to rezone existing developed areas to accommodate the higher density that would be required to utilize these units to achieve the City's General Plan housing objectives. Actions to provide for additional intensity in areas of existing development, however, would be inconsistent with the City's General Plan objectives relating to the permitted intensity of development. Allocating these units to the Northern Sphere Area in accordance with the proposed project avoids inconsistency with these General Plan objectives.

In light of these competing policies, the proper implementation of Policy (k), which always recognized that development would occur in the Northern Sphere Area, involves dedication of open space consistent with the Protocol, the NCCP and City Open Space Agreements, policies and objectives. Policy (k) defines the development opportunities within the Northern Sphere Area as primarily housing development with the addition of some employment related land uses in areas of the City that constitute an employment center near transportation corridors in satisfaction of other City policies and needs.

4.2.2 ENVIRONMENTAL IMPACTS

Thresholds of Significance

According to Appendix G of the California Environmental Quality Act (CEQA) Guidelines, a project will normally have a significant adverse environmental impact on agriculture if it will:

-
- Convert Prime Farmland, Unique Farmland, or Farmland of State wide Importance ([Significant] Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.
 - Conflict with existing zoning for agricultural use, or a Williamson Act contract.
 - Involve other changes in the existing environment which, due to their location or nature, could result in conversion of [Significant] Farmland, to non-agricultural use.

CEQA (in Section 21060.1) defines “prime agricultural land” as Prime Farmland, Farmland of Statewide Importance, or Unique Farmland, as described above.

Project Impacts

Conversion of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.

The proposed project will result in the conversion of approximately 3,100 acres of prime farmland, farmland of statewide importance, and unique farmland to non-agricultural uses which is considered a significant unavoidable adverse impact. Approximately 200 acres of unique farmland and farmland of statewide importance within Planning Area 6, however, will be dedicated to the City in accordance with the NCCP Facilitation Agreement. These lands will not be converted to urban uses but will remain as open space as described in the NCCP. Agricultural operations may continue so long as they are consistent with the NCCP. An additional 283 acres of Significant Farmland within Implementation District “P” will be dedicated to the City pursuant to the Compensating Development Opportunities Program.

The conversion of 3,100 acres of classified agricultural lands is significant under the CEQA thresholds. However, this significant effect should be considered in context.

First, the project is being proposed under the General Plan Conservation and Open Space Element Objective L-10, Policy (k) which anticipated the eventual development of areas within the City’s Sphere of Influence, including the Northern Sphere Area, and the conversion of those areas from agricultural to non-agricultural uses.

Second, although the project will result in the conversion of agricultural lands to urban uses, the long-term viability of large scale agricultural operations continuing on those lands is questionable due to the many factors affecting the economics of long term, large scale agricultural operations in Orange County. Therefore, although the conversion of these lands is considered significant, the landowner’s and City’s ability to sustain economically viable long term, large scale, agricultural uses in the Northern Sphere Area is questionable.

Third, while the conversion of these Significant Farmlands is significant in terms of the Significant Farmlands remaining in the City's sphere, because agricultural land and production is not specifically a local issue, the conversion of these acres should also be considered in the context of regional and statewide land and agricultural production. As discussed in the Environmental Setting section above, Orange County represents approximately one quarter of one percent (.25 of 1%) of the prime farmland in the state, less than five one hundredths of one percent (.05 of 1%) of the farmland of statewide importance, and less than six tenths of one percent (.6 of 1%) of the unique farmland. Since 1998, Orange County's percentage of these soil classifications has been reduced even further. When compared to the statewide acreage of Significant Farmland, the conversion of the project Significant Farmland acreage constitutes an extremely small percentage of loss. For example, the percentage of prime farmland in the project area lost when compared to the acreage of prime farmland in the State is four-one hundredths of one percent (.04 of 1%). Therefore, while the conversion of Significant Farmland within the City's sphere is significant at the local level, the percent reduction resulting from the conversion of these lands when compared to the amount throughout the remainder of the State is not substantial.

In this regard it should be noted that the common perception that there is severe pressure to convert agricultural lands throughout the state to urban uses may not be valid. As noted in the UC/AIC Quarterly (Vol. 13, No. 4 1999), a publication of the University of California Agricultural Issues Center, it is a common misperception that intense pressure for urbanization of farmlands is resulting in the conversion of a substantial amount of agricultural lands to other uses in California. According to the UC Agricultural Issues Center, the reality is that on a statewide basis few farmers will have the option of selling their land to urban developers because relatively little farmland is located close to urban fringes. The fact is that, while the amount of agricultural lands has been reduced somewhat, California produces more food today than ever before. Even so, California depends on imports from other states and countries for basic food needs while shipping much of its production elsewhere. The researchers concluded that, on a statewide basis, the conversion of agricultural lands to urban use to date has not adversely affected the state's agricultural production or the agricultural sector of the state's economy due to higher yields and crop values. In this context, while the project technically meets the CEQA threshold of a significant adverse impact with respect to the conversion of Significant Farmland to other uses, these impacts are likely not meaningful to the state's agricultural production or the agricultural sector of the economy in general.

Conflicts with Existing Zoning/Williamson Act

Portions of the Project Site and Implementation District "P" were once enrolled in Williamson Act contracts, but were later withdrawn in the mid- to late 90's in anticipation of future development. No part of the Project Site or Implementation District "P" is currently enrolled in Williamson Act contracts. Therefore, no conflicts with a Williamson Act contract would occur, and this is not considered a significant impact of the project.

The proposed project would conflict with existing City of Irvine zoning designations for agricultural uses on approximately 300 acres of the project. In addition, the proposed project would conflict with the City's General Plan and Zoning designation for agricultural uses on approximately 1,484 acres of the Project Site. The proposed project is not consistent with the existing General Plan designations for the site. However, areas which are proposed to be converted from agricultural uses to urban uses are in accordance with the Protocol Agreement which was entered into in furtherance of Policy (k) of Objective L-10 of the Conservation and Open Space Element. The Protocol Agreement and proposed project maintain the level of residential development provided for in the General Plan and assist the City in meeting its jobs to housing balance objectives without sacrificing the City's standards for the intensity of development.

The current zoning of the Northern Sphere Area is A-1 under the County Zoning Ordinance. The proposed development of Residential, Multi-use, Community Commercial, Commercial Recreation, Medical and Science, and Institutional uses appears to conflict with the County zoning for agricultural uses. However, as noted above, the designation of property as A-1 under the County zoning ordinance includes a recognition that, in many instances, the A-1 zoning designation represents an interim use of land for areas designated for more intense urban uses in the future. Based upon projections in County planning models and plan, such as the OCTAM and OCP-2000, the Northern Sphere Area is an area ultimately contemplated for urban development rather than agricultural uses. Therefore, because of the recognition in the County's zoning ordinance of the interim nature of the agricultural use and the development assumptions reflected in adopted County projections, the proposed project's conflict with the County zoning for agricultural use would not be considered a significant impact.

Other Changes to the Existing Environment Causing the Conversion of Agricultural Uses

A substantial amount of new development is allowed throughout the City and its Sphere of Influence under the existing General Plan. The development of the Northern Sphere Area for the uses that would be permitted under the proposed General Plan amendment and zone change will alter the current pattern of land uses within the City's sphere but will not increase the amount of residential development permitted by the City's General Plan. This change in the pattern of land uses should not result in the conversion of other Significant Farmland to non-agricultural uses. Portions of the project area as well as land to the north of the project are to be preserved as open space as part of the NCCP Program, the NCCP Facilitation Agreement, and the City's Phased Dedication and Compensating Development Opportunities Program. The land to the south of the project has already been approved for conversion from agricultural uses. The land to the west of the project has been developed for non-agricultural uses. The land to the east is within the planning area of the former MCAS El Toro and will be developed in accordance with the land use plans now under consideration notwithstanding the proposed project.

A portion of the project area surrounds the SCREC which is owned by the University of California. This 200-acre site was established by the University as a representative site for agricultural research in

California's south coastal plain-temperate climate zone. The SCREC is already in an urbanizing area and may be further impacted by the development proposed for adjoining areas within the project due to the operational constraints imposed by urbanization discussed above; however, the SCREC has indicated that its location in an urban and urbanizing area affords it an unique opportunity to analyze public policy issues in the agriculture-urban interface debate and new research at the Center will be directed to elucidate impacts of production practices on air and water quality and land use. Since the project proposes no changes to the SCREC operations, and this land is owned by the University of California, and its research mission includes the agriculture-urban interface, the proposed project should not result in the conversion of this agricultural use to non-agricultural uses. For these reasons, the potential for the project to result in the conversion of other Significant Farmland to non-agricultural uses is not considered a significant impact of the project.

Infeasible Mitigation Measures Considered

CEQA requires that "each public agency shall mitigate or avoid the significant effects on the environment of project it carries out or approves whenever it is feasible to do so." Public Resources Code Section 21002.1(b). The term "feasible" is defined in CEQA to mean "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, social, and technological factors." Public Resources Code Section 21061.1.

A number of mitigation measures were considered for mitigating or avoiding the impact of the conversion of agricultural lands to other uses, however, no feasible mitigation measures are available which would reduce the impact to a less-than-significant impact. Potential mitigation measures considered include the retention of agricultural land onsite, the purchase, set-aside, or transfer of development rights to preserve agricultural land elsewhere in the City or region, and agricultural impact fees. The following is a brief discussion of the mitigation measures considered to attempt to reduce the impacts of the project to a less-than-significant impact and their infeasibility.

Retention of Agricultural Uses on the Site

The retention of a portion of the site in agricultural use is considered to be infeasible due to the constraints on the continued long term viability of large scale agriculture noted above. These constraints, particularly the economic constraints and constraints due to increased environmental regulation, will become greater and greater over time. The retention of agricultural land use designations on the site will not, therefore, necessarily result in the continuation of agricultural uses. Moreover, a reduction in the development of the site would impede the City from achieving its General Plan goals and objectives for housing and improving the existing jobs/housing imbalance in the City in a fiscally sound manner. The retention of an agricultural zoning classification for a portion of the Northern Sphere Area is more fully discussed in Section 6.3

“Alternatives Selected for Future Analysis.” As also concluded in that Section, the retention of agricultural zoning designations does not assure long term viability of large scale agricultural operations.

As noted above, agricultural uses may continue on the site as an interim use until such time that development is to occur. Some of the existing agricultural leases are not due to expire for up to ten years. Limited agricultural activities may also be permitted within the preservation areas identified in the Northern Sphere Area, to the extent that it is consistent with the NCCP and the City’s General Plan, as well as within Implementation District “P.” These interim uses, however, do not mitigate the significant long-term impacts of the conversion of these lands to urban uses under CEQA.

Preservation of Agricultural Uses Offsite

The Irvine General Plan and the Phased Dedication and Compensating Development Opportunities Program will already result in the preservation of approximately 500 acres of land which has the soil quality and growing season which would otherwise qualify it as Significant Farmland.

Agricultural uses will continue on the SCREC site which is owned by the University of California and is therefor not subject to many of the constraints on continued agricultural operations noted above. Land uses immediately adjacent to this facility should be planned with the continued agricultural operations at this facility in mind. In addition, as noted above, agricultural operations are currently occurring on open space areas or lands owned by utilities whose operations are compatible with continuing agricultural activities, such as utility corridors.

There are no other areas of Significant Farmland within the City which are planned for agricultural uses in the Irvine General Plan. The restriction of these lands within the City for permanent and exclusive agricultural uses would be inconsistent with the goals and objectives of the Irvine General Plan. In addition, the same constraints on the continued viability of long term, large scale, agricultural production noted above with respect to the onsite preservation of agriculture uses would apply to these lands as well regardless of the land use designation. The mere designation of these lands for agricultural land uses will not assure long-term agricultural operations.

Finally, even if it were feasible to preserve existing agricultural uses elsewhere in the City, the preservation of such uses would not result in the replacement of the agricultural land converted by the project. There is a finite amount of land suitable for agricultural production and there would be still be a net reduction in Significant Farmland. The acquisition of fee title or conservation easements over off-site parcels would not, therefore, avoid, reduce or compensate for the conversion of Significant Farmland to non-agricultural uses as a result of the implementation of the project. At most the acquisition might prevent the conversion of other Significant Farmland as a result of other hypothetical future projects. This does not meet the CEQA requirement of a feasible mitigation measure as defined above.

Agriculture Impact Fees

It has been suggested that agriculture impact mitigation fees could be assessed against the project and utilized to purchase development rights in other areas so as to assure that permanent agriculture will be maintained within the state. There are several programs that might be funded by impact fees.

The State Department of Conservation operates the California Farmland Conservancy Program which provides grants to qualifying agencies for the acquisition of agricultural conservation easements. Establishing agricultural conservation easements involves purchasing deed restrictions on prime agricultural lands that preclude their use for development or non-agricultural purposes. The deed restriction would be permanent unless otherwise negotiated. The land under an easement remains in private ownership and use. Typically, restrictions imposed by an agricultural conservation easement limit residential, non-farm commercial, industrial and extractive (e.g., surface mining) uses of the land. Deeds often allow construction of facilities for the production and processing of agricultural products. This program does accept private contributions. Applications, however, must be made by public agencies such as a county or a city, or certain qualifying not for profit entities. The County of Orange and the City of Irvine have not participated in this program. No other agencies in Orange County have been identified which participate in this program.

Also, the General Plan of the County of Orange County contemplates an evaluation of the establishment of an Agricultural Preservation Program which would utilize funds generated from the cancellation of agricultural preserves to fund grants, loans, research and other programs relating to agricultural resources in an effort to mitigate the long term impact of Williamson Act contract cancellations and to provide economic and technical support to County agricultural activities. The County has not yet initiated the evaluation of such a program and has no plans to implement such a program. (Personal communication, Ronald Tippetts, County of Orange.)

Neither the City of Irvine nor the County of Orange has a fee mitigation program, nor have any specific local programs been identified which might be funded by such an impact fee. To be successful such a program would have to be implemented on a regional basis. In the view of the lack of a regional fee mitigation program or any program for the acquisition of development easements in the vicinity of the project, the imposition of a mitigation fee on a project by project basis is not considered to be feasible mitigation in that it would not be capable of being accomplished within a reasonable period of time. Also, as is the case with the preservation of off-site agricultural resources, the preservation of existing agricultural resources by the acquisition of agricultural conservation easements would not prevent the net loss of Significant Farmlands and would not, therefore, mitigate the direct adverse effects of the project.

Finally, as noted above, the preservation of agricultural uses in the City of Irvine or even the County of Orange will not have a measurable impact on the availability of agricultural resources or agricultural production on a statewide or regional basis.

Cumulative Impacts

The encroachment of urban areas on agricultural lands is a long and continuing trend in Orange County. Though it is difficult to quantify the amount of agricultural land that is under development pressure within the County, it is evident that such pressure exists and will continue to with or without implementation of the project. The rising costs of irrigation water, increased land values, labor costs and damage from vandalism have made it difficult to maintain a successful large scale agricultural operation. The conversion of agricultural land to urban uses is an important policy decision that is ultimately left to each local jurisdiction. While the loss of agricultural land in Orange County is considered cumulatively significant impact at the local level, as noted above, farmlands converted do not represent a meaningful portion of the agricultural resources within the state.

4.2.4 MITIGATION MEASURES

Existing Regulations and Standard Conditions

Within the City of Irvine currently, there are small areas of land which are used for agricultural production. Examples include the edible landscaping project along a bike path on land owned by a public power utility within the City, and other small areas, including property leased from water districts, on which limited agricultural operations are conducted. These operations are not generally long-term in nature in that they operate on annual leases and are dependent upon the timing and implementation of other uses by the underlying landowner, e.g., water facility operations. Areas within the Northern Sphere Area and other areas in the City may be susceptible to multi-use functions, such as compatible open space areas and utility corridors, and may be made available for such continued agricultural operations.

The following mitigation measure is proposed to reduce the impact on the conversion of agricultural uses to urban uses even though it will not serve to mitigate that impact to a less-than-significant level.

- 2.1 The City shall permit agricultural uses within the Northern Sphere Area until the time of development. (Objective L-10, Policy (a))

Project Design Features/Special Development Requirements

No project design features or special development requirements related to agricultural resources are proposed.

Additional Mitigation Measures

- 2.2 The landowner shall coordinate with the City to identify areas within the City and the City's sphere of influence that may be appropriate for continued small scale, specialty, heritage or multi-use agricultural operations.

4.2.4 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts remain significant and unmitigable because no feasible mitigation measures are available to mitigate the conversion of agricultural land to urban uses to a less-than-significant level.