

5.2 AGRICULTURAL RESOURCES

This section of the DSSEIR describes the impacts of the 2012 Modified Project on existing farmland as compared to the 2011 Approved Project. The information in this section is based on the 2011 Certified EIR, field reconnaissance, review of the Proposed Project Site, aerial photographs, farmland maps, and soils maps.

5.2.1 Environmental Setting

Agricultural Classifications and Uses within the Project Area

The California Department of Conservation, through the Farmland Mapping and Monitoring Program (FMMP) of the Division of Land Resource Protection classifies agricultural land as follows.¹ The latest mapping date for the FMMP maps is 2010.

Prime Farmland: Land which has 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 four years prior to the mapping date.

Farmland of Statewide Importance: Similar to Prime Farmland, this land 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 four years prior to the mapping date.

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 used for production of crops at some time during the four years prior to the mapping date.

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. The Orange County Board of Supervisors has not designated any farmland as being of "Local Importance."

Grazing Land: Land on which the existing vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen's Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities.

Urban and Built-up Land: Land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. Common examples include residential, industrial, commercial, institutional facilities, cemeteries, airports, golf courses, sanitary landfills, and sewage treatment and water control structures.

¹ See http://www.conservation.ca.gov/dlrp/fmmp/mccu/Pages/map_categories.aspx.

5. Environmental Analysis

AGRICULTURAL RESOURCES

Other Land: Land not included in any other mapping category. Common examples include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing; confined livestock, poultry or aquaculture facilities; strip mines or borrow pits; and water bodies smaller than 40 acres. Vacant and nonagricultural land greater than 40 acres and surrounded on all sides by urban development is mapped as Other Land.

Land Committed to Nonagricultural Use: This optional designation is an overlay to the standard farmland categories described above and represents existing farmland and grazing land, and vacant areas that have a permanent commitment for development. Examples of Land Committed to Nonagricultural Use would include an area undergoing permanent infrastructure installation or for which bonds or assessments have been issued for public utilities. Such lands represent planning areas where there are commitments for future nonagricultural development that are not reversible by a simple majority vote by a city council or board of supervisors.

FMMP Designations and Land Uses

Based on information provided through the California Department of Conservation's FMMP, land within the Proposed Project Site falls into the six of these agricultural land use designations. These designations and their respective acreages are shown in Table 5.2-1, *FMMP Land Use Designations and Acreages*. The locations of the lands with these land classifications are identified in Figure 5.2 1, *Farmland Map*.

*Table 5.2-1
FMMP Land Use Designations and Acreages
Within the Proposed Project Site*

<i>Designation</i>	<i>Acrees</i>
Prime Farmland	313
Farmland of Statewide Importance	86
Unique Farmland	264
Grazing Land	6
Urban and Built-Up Land	1,412
Other Land	375

Source: FMMP 2011

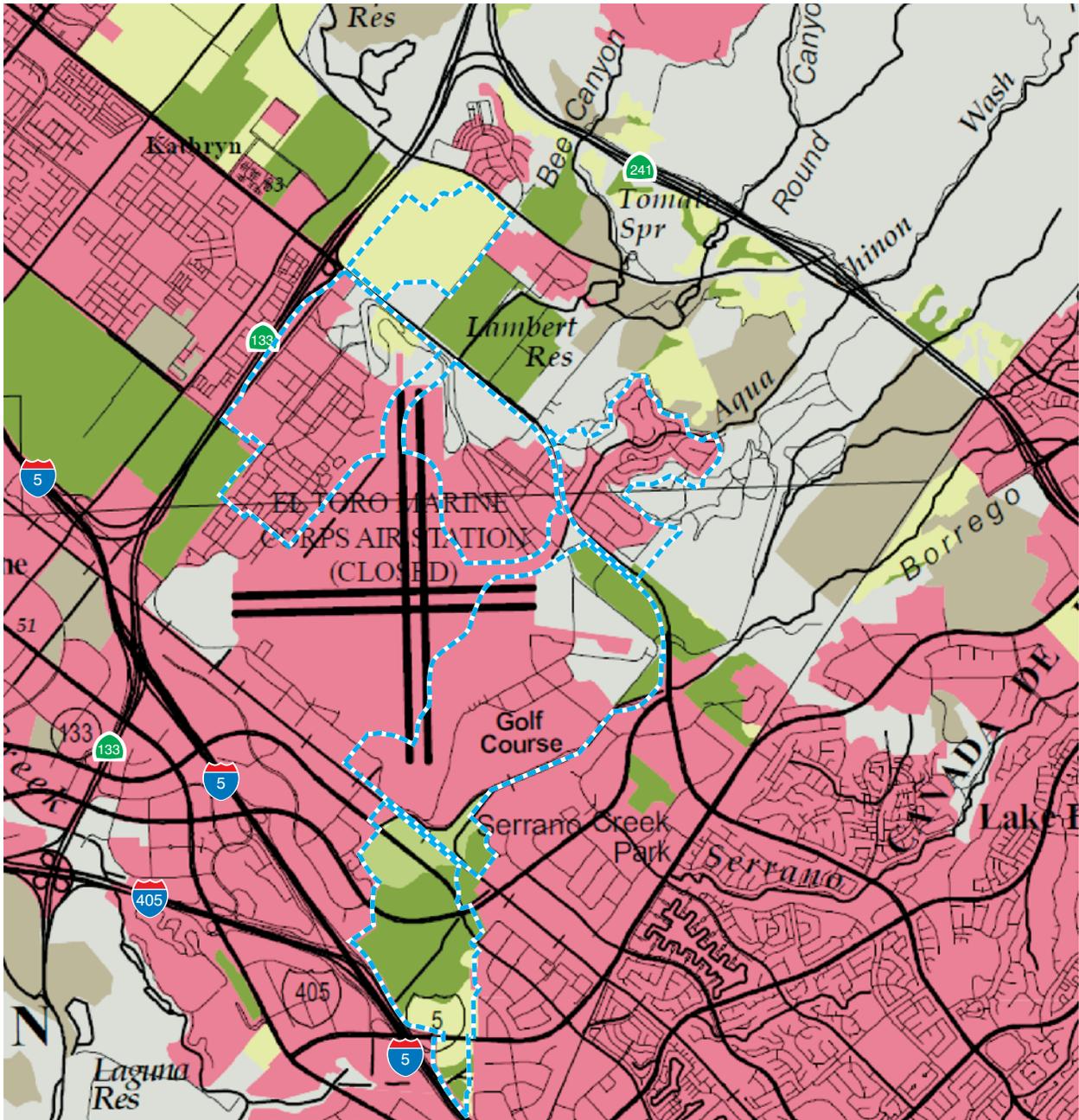
Although portions of the Proposed Project Site are currently designated Prime Farmland, Farmland of Statewide Importance and Unique Farmland, with the exception of 13-acres in District 6, the entire Proposed Project Site has been committed to non-agricultural uses through the existing entitlements granted between 2003 and 2011. Therefore, the appropriate FMMP designation for the Proposed Project Site, with the exception of the 13-acres in District 6, should be "Land Committed to Nonagricultural Use." The City has indicated that it will provide the Department of Conservation with this information during the next update to the FMMP, which is expected to occur in 2013.

Williamson Act

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 vicinity of or within the Proposed Project Site (FMMP 2004).

5. Environmental Analysis

Farmland Map



- | | |
|----------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
|  Prime Farmland |  Grazing Land |
|  Farmland of Statewide Importance |  Other Land |
|  Unique Farmland |  Urban and Built-up Land |

 Project Boundary

0 5,000
Scale (Feet)



Source: DLRP 2011

Heritage Fields Project 2012 GPA/ZC SSEIR

City of Irvine • **Figure 5.2-1**

5. Environmental Analysis

AGRICULTURAL RESOURCES

Orange County Agricultural Conversion

Changes in acreages of farmland categories in Orange County between 2008 and 2010 are shown below in Table 5.2-2, *Orange County Farmland Conversion, 2008-2010*.

*Table 5.2-2
Orange County Farmland Conversion, 2008-2010*

<i>Land Category</i>	<i>Total Acreage Mapped</i>		<i>2008-2010 Acreage Change</i>			
	<i>2008</i>	<i>2010</i>	<i>Acres Lost (-)</i>	<i>Acres Gained (+)</i>	<i>Net Change, Acres</i>	<i>Percent Net Change, Acres</i>
Prime Farmland	3,772	3,243	663	134	-529	-14.0%
Farmland of Statewide Importance	441	367	77	3	-74	-16.8%
Unique Farmland	4,209	3,654	650	95	-555	-13.2%
Farmland of Local Importance	0	0	0	0	0	0
<i>Important Farmland Subtotal</i>	<i>8,422</i>	<i>7,264</i>	<i>1,390</i>	<i>232</i>	<i>-1,158</i>	<i>-13.7%</i>
Grazing Land	37,554	37,639	474	559	+85	+0.2%
<i>Agricultural Land Subtotal</i>	<i>45,976</i>	<i>44,903</i>	<i>1,864</i>	<i>791</i>	<i>-1,073</i>	<i>-2.3%</i>
Urban and Built-Up Land	287,924	289,172	75	1,324	+1,249	+0.4%
Other Land	174,843	174,667	990	814	-176	-0.1%
Water Area	972	972	0	0	0	0
Total Area Mapped	509,714	509,714	2,929	2,929	0	0

Source: FMMP 2011

Long-Term Viability of Large Scale Agricultural Production in Orange County

The long-term viability of large-scale agricultural production in Orange County, in general, continues to deteriorate. Factors that impact the viability of such 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. (City of Irvine, 2006)

- **Land Cost:** Land prices in Orange County for raw land in the vicinity of the 2012 Modified Project exceed \$2,000,000 per acre, depending upon variables such as location, intended uses, existing infrastructure, existing land use entitlements, land constraints, and other issues. Commercial agricultural production is not considered economically viable on any parcel valued at more than \$50,000–\$60,000 per acre, since a reasonable rent based on these land values would be prohibitive to a profitable agricultural operation.
- **Water Costs:** Water cost is a major component in determining the viability of agricultural operations. Water for agricultural irrigation in the local area is substantially more expensive than in competing agricultural regions such as the Central Coast (including Oxnard and Santa Maria).
- **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,

5. Environmental Analysis

AGRICULTURAL RESOURCES

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.

- **Property Taxes:** Land in Orange County, including the Proposed Project Site, is increasing in value. Therefore, subject to the constraints of Proposition 13, these areas are subject to high property taxes, making it difficult to obtain a sufficient economic return on the land from agricultural operations. Even with higher taxes, the constraints noted elsewhere do not off-set the economic (tax) benefit of restricting use of the land for the time required by the Williamson Act. The City has no mechanism to require that a property owner participate in the Williamson Act program.
- **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 setbacks from adjacent nonagricultural uses, air quality issues and cleanup required due to the use of farm equipment on public roads.
- **Competition:** Increasingly, areas in California with lower production costs, such as Santa Maria and Oxnard, are shifting to high value 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 considerably. 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 regulatory requirements that exist in California.
- **Environmental Regulation:** The regulation of agricultural activities involves an increasingly significant cost for agricultural operations. Both the Clean Water Act and Clean Air Act, as administered through state agency regulations, increasingly affect agriculture, particularly field crops, in nonattainment areas and areas impacting important waterways. For example, under the Clean Air Act, the PM₁₀ rule controls the amount of suspended particulates that can be emitted from a field, just as that regulation applies to a construction project. Also, the Clean Water Act requires states to adopt and implement water quality standards protecting water bodies in the state. The watershed within which the Proposed Project Site lies drains into San Diego Creek and ultimately into the Upper and Lower Newport Bay. These water bodies have been classified as “impaired” under Section 303(d) of the Clean Water Act. Accordingly, the Regional Water 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 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. As agricultural activities must be modified in light of new and/or more stringent environmental regulations requiring staff training/certification, changes in agricultural practices, and changes in agricultural chemicals, there are new increased costs that must be borne by the operator.

Regulatory Setting

Local regulations, plans, and guidelines that are potentially applicable to the 2012 Modified Project are summarized below.

City of Irvine Agricultural Legacy Program

The purpose of the Agricultural Legacy Program outlined in City of Irvine General Plan Open Space and Conservation Element Objective L-10 is to mitigate the conversion of agricultural land to nonagricultural uses citywide by facilitating limited-scale agricultural operations and programs on public lands within Irvine. As part of the Agricultural Legacy Program, specific sites in Irvine will be identified and made available for metro-farming within the five year period 2003 to 2008. Metro-farming generally includes small-scale agricultural operations and activities that can be accommodated in an urban environment. Such activities could include, but would not be limited to, small-scale specialty farming, model farming, heritage farming, and community service/educational farming. One example of a metro-farming operation is an Edible Landscape Program, a heritage farming operation involving Southern California Edison easements, where produce is grown within the public easements and sold by the farmer. There are currently farming operations within the Great Park, including the Great Park Farm and Food Lab.

The Agricultural Legacy Program was initially implemented in conjunction with the Northern Sphere project and initially required the identification of 300 acres to be used for agricultural uses. However, since the Northern Sphere project was approved, the Agricultural Legacy Program has identified land conducive to agricultural operations in excess of this 300-acre requirement. As a result of General Plan Objective L-10, described above, and in accordance with the mitigation measures contained in the Northern Sphere Area Final Program EIR, several areas were considered as potentially viable for agricultural operations such as those described above. These conceptual sites include:

- **Site 1:** A 92-acre parcel located in the southern portion of Irvine, generally southeast of the Jeffrey Road interchange at I-405.
- **Site 2:** A 207-acre parcel located generally northeast of Site 1.
- **Site 3:** A 144-acre parcel located south of the I-405/SR-133 interchange.
- **Site 4:** A 7-acre parcel located along the east side of Jeffrey Road south of I-5.
- **Site 6:** A 64-acre parcel located in Irvine's northern Sphere of Influence generally southeast of the transition between the Eastern Transportation Corridor and the Foothill Transportation Corridor (FTC).
- **Site 7:** A 26-acre narrow parcel that extends southeast from Site 6 along a pipeline easement for a distance of approximately one mile.
- **Site 8:** An 18-acre parcel that lies near the eastern end of Site 7, approximately midway between the FTC to the north and Irvine Boulevard to the south.
- **SCE Easements/Properties:** There are several SCE easements/properties where agricultural operations occur below high-voltage transmission lines.

5. Environmental Analysis

AGRICULTURAL RESOURCES

After the Northern Sphere project was approved and the Agricultural Legacy Program was adopted, the 2003 OCGP EIR was certified with further mitigation measures that strengthened the Agricultural Legacy Program. Specifically, the 2003 OCGP EIR contained mitigation measures encouraging heritage and community service/educational farming operations within utility easements and other lands.

The PA 1/PA 2/PA 9 General Plan Amendment and Zone Change (GPA/ZC) Project, approved by the City in June 2005, nearly tripled the amount of land eligible for the Agricultural Legacy Program by zoning approximately 508 acres of existing agricultural area previously planned for residential development as Exclusive Agriculture and proposing the 508 acres for inclusion in the City's Agricultural Legacy Program. The PA 1/PA 2/PA 9 project also included mitigation measures to reduce the potential impacts of having housing adjacent to agricultural uses to below a level of significance.

In sum, the Agricultural Legacy Program, which was intended to mitigate the impacts of the conversion of agricultural lands to nonagricultural uses citywide, has been implemented more quickly, and on a larger scale, than was initially anticipated. As currently constituted, the Agricultural Legacy Program will ensure that over 800 acres of land will be preserved and can be used for small-scale specialty farming, model farming, heritage farming, and community service/educational farming within Irvine.

City of Irvine Policies and Programs

Continued build-out of Irvine and its Sphere of Influence in accordance with the General Plan would result in the conversion of undeveloped land, including agricultural land, to urban use. In the past few years the City has considered conversion of agricultural lands in undeveloped areas of Irvine and its Sphere of Influence – specifically, PAs 1, 2, 5, 6, 8, 9, 18, 30 39, 40, and 51. In the context of the first of these projects (the Northern Sphere project), the City balanced the impacts attendant to the loss of agricultural lands with both (i) the need to put those lands to other uses – specifically the provision of additional housing and jobs opportunities, and (ii) the practical limitations on the continuation of large scale agricultural operations in Orange County's continually urbanizing environment. That balancing effort, and the policy decision flowing from the balancing effort, was memorialized in the adoption – concurrent with the Northern Sphere approvals – of a revised General Plan Policy L-10. As revised, that General Plan Policy states as follows:

Objective L-10: Agriculture “Encourage the maintenance of agriculture in undeveloped areas of the City until the time of development, and in areas not available for development.”

Policy (a): Provide for farming opportunities in the community, where feasible and appropriate, through an Agricultural Legacy Program facilitating limited scale agricultural operations and programs on public lands. The program may include components such as edible landscape, metro-farming, heritage farming, model farming, education and community service farming and other farm or farm market programs. Locations for implementation of the Agricultural Legacy Program to be considered should, at a minimum, include:

- Designated open space spine network
- Designated open space areas not subject to the Natural Community Conservation Plan (NCCP)

5. Environmental Analysis

AGRICULTURAL RESOURCES

- Other appropriate publicly owned lands

Policy (b): Consider creating a “working model” farm to act as a center for education and enjoyment of all age groups pursuant to the Agricultural Legacy Program in conjunction with the City’s planning efforts concerning the reuse of MCAS El Toro, or with the South Coast Research Extension owned by UC Regents.

Policy (c): Permit agricultural use of land that is unsuitable for building because it is within flood plains, or is subject to hazards to public health, safety, and welfare or similar constraints precluding development. Conversion from agricultural use may be allowed where the identified hazard conditions have been eliminated.

Policy (d): Permit agriculture uses, on an interim basis, on land designated for development, and consider agricultural uses as part of the City’s planning efforts for the re-use of MCAS El Toro.

Policy (e): Encourage and support federal and state legislation proposed for the purpose of preservation of agricultural lands that are compatible with the City’s goals and objectives.

Policy (f): Allow for conversion of interim and permanent agricultural uses to development to provide land for the construction of housing units consistent with the Land Use and Housing Elements, and the development of commercial and industrial buildings consistent with the provision of job opportunities as described in the Land Use Element, where such conversion does not conflict with other L-10 policies.

Policy (g): Pursue the open space policies contained in the Conservation and Open Space Element and address any open space or aesthetic impacts from the conversion of interim and permanent agricultural uses to development as part of the City’s existing policies for the preservation of open space and existing policies for mitigation of views and aesthetic impacts under the policies in the Conversation and Open Space Element.

In summary, these General Plan policies recognize that permanent retention of existing agricultural land throughout Irvine would conflict with the General Plan’s goals of providing sufficient housing to meet the City’s identified housing needs, retaining areas in Irvine for biological habitat and open space, and achieving fiscal balance as the community builds out.

The City also examined in the Northern Sphere EIR the combined or cumulative impact of the conversion of agricultural lands, and also examined potential locations for agricultural land to be preserved as mitigation for some or all of the conversions of agricultural land considered in these areas. To that same end, the City also examined potential citywide mitigation and fee programs for all of these conversions. The City concluded that it is not appropriate or feasible to preserve large-scale agricultural operations, or to adopt a fee program designed to generate revenue to acquire agricultural lands elsewhere. As a result, the City determined that conversion of mapped farmland to non-agricultural uses due to development of the Northern Sphere Area was a significant and unavoidable impact and a statement of overriding considerations was adopted.

5. Environmental Analysis

AGRICULTURAL RESOURCES

5.2.2 Thresholds of Significance

Based on Appendix G of the CEQA Guidelines, the City has determined that a project would normally have a significant effect on the environment if the project would:

- AG-1 Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to nonagricultural use?
- AG-2 Conflict with existing zoning for agricultural use, or a Williamson Act contract?
- AG-3 Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?
- AG-4 Result in the loss of forest land or conversion of forest land to non-forest use?
- AG-5 Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

Chapter 8, *Impacts Found Not to Be Significant*, substantiates the City's determination in the Initial Study for the 2012 Modified Project (Appendix A to this DSSEIR), that the following impacts of the 2012 Modified Project, as compared to the 2011 Approved Project, would be less than significant: AG-3, AG-4, and AG-5. Therefore, these impacts will not be addressed in the following analysis.

5.2.3 The 2011 Approved Project

Development of the 2011 Approved Project would not convert any farmland, forest land, or timberland, to non-agricultural uses, other than land that was originally approved for conversion in the 2003 OCGP EIR. No impact to agricultural resources was identified in the 2011 Certified EIR.

The City of Irvine, through certification of the 2003 OCGP EIR, approved the conversion of 802 acres of designated farmland to non-agricultural uses, including: 651 acres of Prime Farmland, 63 acres of Unique Farmland, and 88 acres of Farmland of Statewide Importance. Mitigation Measures Ag-1 through Ag-3 were included in the 2003 OCGP EIR to reduce impacts to agricultural resources; however, even with imposition of those mitigation measures, such impacts remained significant and unavoidable.

However, as Addendum 5 stated, the City's General Plan Objective L-10 establishes the Irvine Agricultural Legacy Program to mitigate the loss of existing agricultural land throughout Irvine where development under the General Plan is designated to occur. Therefore, Addendum 5 concluded that the impact was no longer significant. Addendum 5 further stated that the loss of the 173 acres of Prime Farmland in Planning Area Zone 1 (PAZ 1), now identified as District 8, would not be a significant impact because none of the acreage was being used to grow crops (i.e., the land was used to grow potted nursery plants rather than active farming) and due to the Legacy Program. In addition, the 2008 Farmland Mitigation Mapping Program showed the 2011 Approved Project's Project Site, which is included in the Proposed Project Site, either as Urban and Built-Up Land or as Land Committed to Non-Agricultural Use.

5.2.4 Environmental Impacts of the 2012 Modified Project

The 2012 Modified Project would rezone a 13-acre area in District 6 that is currently zoned 1.1 Exclusive Agriculture to 1.4, Preservation. The 2011 Approved Project includes 117 acres of agriculture in Existing PA 51 in addition to the 13 acres in Existing PA 30, for a total of 130 acres of agriculture. All of the other farmland within Existing PAs 30 and 51 have already been approved for conversion to non-agricultural uses by the 2011 Approved Project – as described above in Section 5.2.3 – and thus do not constitute an impact of the 2012 Modified Project.

Conversion of the 13 acres zoned 1.1 Exclusive Agriculture to 1.4, Preservation, is proposed to allow for the Relocated Wildlife Corridor Feature.

Existing Plans, Programs, and Policies

The following measures are existing plans, programs, or policies (“PPPs”) that apply to the 2012 Modified Project and that will help to reduce and avoid potential impacts related to agricultural resources

PPP 2-1 The City shall continue to implement the Agricultural Legacy Program outlined in City of Irvine General Plan Open Space and Conservation Element. Objective L-10 is intended to mitigate the conversion of agricultural land to nonagricultural uses citywide by facilitating limited-scale agricultural operations and programs on public lands within Irvine. As part of the Agricultural Legacy Program, specific sites in Irvine will be identified and made available for metro-farming within five years. Metro-farming generally includes small-scale agricultural operations and activities that can be accommodated in an urban environment. Such activities could include, but not be limited to, small-scale specialty farming, model farming, heritage farming, and community service/educational farming.

Project Design Features

There are no project design features incorporated into the 2012 Modified Project specifically intended to reduce or avoid potential impacts to agricultural resources.

The following impact analysis addresses the 2012 Modified Project's potential impacts on agricultural resources, as compared to the 2011 Approved Project. The applicable potential impacts are identified in brackets after the impact statement.

IMPACT 5.2-1 DEVELOPMENT PURSUANT TO THE 2012 MODIFIED PROJECT WOULD CONVERT 13 ACRES OF PRIME FARMLAND TO ZONING DESIGNATION 1.4 PRESERVATION. [IMPACT AG-1]

The Land Evaluation and Site Assessment (“LESA”) Model (CDC 1997) was used to evaluate the potential impacts of conversion of 13 acres of District 6 (formerly District 9) within the Proposed Project Site from agricultural to preservation uses. The 13-acre area is shown in Figure 5.2-2, *Farmland Area to be Converted to Preservation*.

There are two soil types in the 13-acre area mapped on the Web Soil Survey by the Natural Resources Conservation Service (NRCS 2012), as shown on Figure 5.2-3, *Soils Map*.

5. Environmental Analysis

AGRICULTURAL RESOURCES

- Myford Sandy Loam, thick surface, 2 to 9 percent slopes (soil map symbol 179). Myford Sandy Loam has a land capability classification of 3e, indicating that it has severe limitations that reduce the choice of plants or that require special conservation practices, or both; and that the main hazard to soil from intensive agriculture is erosion, unless close-growing plant cover is maintained.
- Sorrento Clay Loam, 0 to 2 percent slopes; the land capability classification of this soil type is 1, indicating that it has few limitations restricting its use.

Land Evaluation and Site Assessment (LESA) Analysis

The LESA Model consists of a Land Evaluation portion evaluating the capacity of the area studied for intensive agriculture; and a Site Assessment portion evaluating factors such as the size of the area; water availability; and the proportion of the surrounding area that is either agricultural land or land protected, such as with easements, for agriculture or for uses compatible with future agricultural use such as open space.

Land Evaluation Score

The Land Evaluation Score is based on two evaluations of suitability of soil for intensive agriculture: the Land Capability Classification (LCC) and the Storie Index. Storie indices for the soil types in the area are not provided in the Web Soil Survey maintained by the US Department of Agriculture. The LESA Model allows use of the LCC for the entire Land Evaluation score, 50 out of the 100 points of the total LESA score, where the Storie Index is not available. LCC scores were used in such manner here, yielding a Land Evaluation Score of 92.1, as shown on Table 5.2-3, *Land Evaluation Score*.

*Table 5.2-3
Land Evaluation Score*

<i>Soil Map Unit</i>	<i>Acres of Soil Unit on Site</i>	<i>Proportion of Site</i>	<i>LCC</i>	<i>LCC Rating</i>	<i>LCC Score</i>
179	3.4	0.26	3e	70	18.3
208	9.6	0.74	1	100	73.8
			LCC Total Score and Land Evaluation Score		92.1

Sources: NRCS 2012; FMMP 2011

Farmland Area to Be Converted to Preservation



-  Project Boundary
-  Farmland Area to be Converted to Preservation

0  1,000
Scale (Feet)



Soils Map



Farmland Area to Be Converted to Preservation

208 Sorrento Clay Loam, 0 to 2 Percent Slopes

179 Myford Sandy Loam, Thick Surface, 2 to 9 Percent Slopes



Source: NRCS 2012

Site Assessment Score

Project Site Size

The project site size scores are assigned to various project site sizes according to the LCCs of the soils onsite. For example, the project site size score for a 40-acre site with LCC 1 to 2 soils is 80; with LCC 3 soils is 60; and with LCC 4 to 8 soils is 20. The project site size score is calculated for each soil type on a site; the highest score is then assigned to the entire site. The area studied includes 3.4 acres of soil with LCC 3e (type 179) and 9.6 acres of soil with LCC 1 (type 208). Areas smaller than 10 acres of either LCC 1 or LCC 3 soils are assigned project site size scores of zero; thus, the project site size score for the 13-acre area studied is zero.

Water Availability

Water is provided to the area studied by the Irvine Ranch Water District (IRWD). In 2010 IRWD provided 6,904 acre-feet (af) of recycled water for agricultural use in its service area through 61 metered accounts. IRWD expects its agricultural irrigation water deliveries to decrease to 2,314 af per year (afy) by 2035. Total IRWD recycled water supplies were 46,935 acre-feet per year (afy) in 2012, and are expected to increase to a maximum supply capability of 57,035 afy with supplies under development by 2032. Total demands for IRWD recycled water were 28,985 afy in 2012, with a reserve supply of 28,050 afy; and are forecast to gradually rise to 30,296 afy in 2032, with expected surpluses from 2015 through 2032 (IRWD 2012). IRWD has adequate recycled water supply to supply projected agricultural irrigation demands in its service area through 2032, and water availability is not expected to be a constraint on agricultural production on the area studied. Adequate supply of recycled water for agricultural use without constraints on agricultural production due to water supply or water quality was confirmed by Amy McNulty, IRWD Water Efficiency Supervisor. The nearest existing recycled water main to the 13-acre area is at Barranca Parkway (Herr 2012) about 1,200 feet south of the affected area; thus, location of recycled water mains is not a constraint to agricultural production onsite. The area was assigned a water availability score of 100, meaning that water supply is not a physical or economic restriction on agricultural production in the area during either drought or non-drought years.

Surrounding Agricultural Land

The Site Assessment Score includes two scores based on land within a zone approximately 0.25 mile wide surrounding the area studied, called the Zone of Interest (ZOI). The ZOI for the 13-acre area is 406 acres. Land in agricultural production in the ZOI was identified through two steps:

1. Land mapped as Important Farmland on the Orange County Important Farmland 2010 Map (DLRP 2011).
2. Aerial photographs of land identified in Step 1 were examined; any mapped Important Farmland within the ZOI developed with non-agricultural land uses was deducted from the acreage identified in Step 1.

Mapped farmland in the ZOI totaled 134 acres, or 33 percent of the ZOI. None of the mapped farmland was shown in aerial photographs to have been converted to non-agricultural land uses. A Surrounding Agricultural Land Score of zero is assigned when surrounding agricultural land is less than 40 percent of the area of the ZOI.

5. Environmental Analysis

AGRICULTURAL RESOURCES

Protected Agricultural Land

There are no Williamson Act contracts in effect on land within the ZOI (FMMP 2004). All land within the ZOI is planned for urban uses, with the exception of the Relocated Wildlife Corridor Feature, which cannot be used for agricultural uses. Therefore, the protected agricultural land score is zero.

Site Assessment Subscore

The Site Assessment subscore is shown below in Table 5.2-4, *Final LESA Score*.

Table 5.2-4
Final LESA Score

	Factor Scores	Factor Weight	Weighted Factor Scores
LE Factors			
Land Capability Classification (LCC) Score	92.15	0.5	46.08
<i>LE Subtotal</i>	<i>Not applicable</i>	<i>Not applicable</i>	46.08
SA Factors			
Project Size	0	0.15	0
Water Resource Availability	100	0.15	15
Surrounding Agricultural Land	0	0.15	0
Protected Agricultural land	0	0.05	0
<i>SA Subtotal</i>	<i>Not applicable</i>	<i>Not applicable</i>	15
		Final LESA Score	61.08

Factor weights are provided in the LESA Model (CDC 1997). All other data in this table are introduced in text above or are calculated from data in previous tables in this Section.

The LESA Model is considered to indicate a significant impact if the LE subscore and SA subscore are each 20 or greater.² As the SA subscore here is 15, and the LE subscore is 46.08, the conversion of the 13 acres of Prime Farmland to preservation uses under the 2012 Modified Project is considered to be a less than significant impact.

Mitigation Program and Net Impact

No additional mitigation measures are required as impacts on mapped farmland would be less than significant without additional mitigation.

² The LESA Model Instruction Manual (CDC 1997) contains a set of four rules for determining significance based on LESA scores:

1. Total LESA Score 0 to 39 points: Less than Significant.
2. Total LESA Score 40 to 59 points: Significant only if LE and SA subscores are each greater than or equal to 20 points.
3. Total LESA Score 60 to 79 points: Significant unless either LE or SA subscores are less than 20 points.
4. Total LESA Score 80 to 100 points: Significant.

The above four rules simplify down to the rule stated above in the text.

IMPACT 5.2-2 WITH THE APPROVAL OF THE PROPOSED ZONE CHANGE, DEVELOPMENT PURSUANT TO THE 2012 MODIFIED PROJECT WOULD NOT CONFLICT WITH EXISTING ZONING OF THE 13 ACRES WITHIN THE PROPOSED PROJECT SITE. [IMPACT AG-2]

Location of Proposed Land Uses

The existing zoning designation on the 13-acre area studied under Impact 5.2-1 above is 1.1, Exclusive Agriculture. However, in order to use that 13-acre area for the Relocated Wildlife Corridor Feature, the 2012 Modified Project includes an application for a zone change on the 13-acre area to 1.4 Preservation. If the requested zone change is approved by the City of Irvine, the proposed use of the 13 acres under the 2012 Modified Project would not conflict with the zoning designation for the area, and no adverse impact would occur. In addition, use of the 13-acres for the Relocated Wildlife Corridor Feature would not affect any other agricultural land since the 13-acre site is surrounded by existing or planned urban uses.

Mitigation Program and Net Impact

No additional mitigation measures are required as impacts to agricultural resources would be less than significant without additional mitigation.

5.2.5 Cumulative Impacts

Most of the mapped Important Farmland in Orange County is concentrated in three areas:

- In, around, and north of the Proposed Project Site, extending northward through the western foothills of the Santa Ana Mountains to near the north boundary of Irvine; this concentration is entirely within Irvine.
- In the San Juan Creek valley in unincorporated Orange County east of San Juan Capistrano.
- On part of the Seal Beach Naval Weapons Station.

There were 8,420 acres of important farmland mapped in Orange County in 2008 by the Farmland Mapping and Monitoring Program (FMMP). In the two-year period from 2006-2008 alone, 29 percent, or 3,495, of the acres of Important Farmland mapped in Orange County in 2006 were converted to non-agricultural uses.

Intensive agriculture in Orange County is declining in viability, for reasons listed above in Section 5.2.1. Only one of the seven reasons, urbanization, is among the reasons for proposed development of the affected farmland within the Proposed Project Site. The 2012 Modified Project would convert 13 acres of Prime Farmland to residential use to provide additional housing needed near a large employment center, Irvine Spectrum, and near additional proposed job-generating land uses included in the 2012 Modified Project. In addition, this proposed housing would be 0.5 mile southeast of the Irvine Station; thus, development of housing on the affected farmland would conform to City, State, and regional policies supporting alternative transportation. The LESA model evaluates land within 0.25 mile of the Proposed Project Site, and thus involves a partial analysis of cumulative impacts on conversion of farmland to non-agricultural uses. In light of the establishment and implementation of the City's Agricultural Legacy

5. Environmental Analysis

AGRICULTURAL RESOURCES

Program, the use of 13 acres of prime farmland for preservation uses by the 2012 Modified Project would not be cumulatively considerable.

5.2.6 Applicable Mitigation Measures from the 2011 Certified EIR

Each mitigation measure specified in the 2011 Certified EIR and associated MMRP is set forth below. The mitigation measures shall apply to the 2012 Modified Project. This DSSEIR proposes to make certain modifications to the mitigation measures adopted by the City for the 2011 Approved Project. Modifications to the original mitigation measure are identified in ~~strikeout~~ text to indicate deletions and underlined to signify additions. The proposed changes to Mitigation Measure AG1 eliminates obsolete references to prior Standard Conditions. The proposed changes to Mitigation Measure AG1 would not change its substantive operation.

AG1 In order to encourage agriculture as an interim land use pending development on the project site by warning future residents that they are buying or renting a house adjacent to existing agricultural operations, ~~City Of Irvine Standard Discretionary Case Condition 8.4 and City Of Irvine Standard Subdivision Condition 3.4~~ regarding disclosure statements shall be amended to include the following for subdivisions proposed adjacent to existing agricultural operations:

Prior to issuance of building permits, the applicant shall submit, and the Director of Community Development shall have approved, a completed occupancy disclosure form for the project. The approved disclosure form, along with its attachments, shall be included as part of the rental/lease agreement and as part of the sales literature for the project. The disclosure statement shall include the following information:

Continuation of agricultural operations adjacent to the site and their potential effects (spraying of pesticides, noise, dust, odor, etc.) on future residents or tenants.

AG2 Heritage and community service/educational farming operations shall be encouraged within utility easements and other lands. Heritage farming is defined as small-scale specialty farming operations that can be accommodated in an urban environment. An example would be the Edible Landscape project located adjacent to Harvard Avenue within the Edison right-of-way.

AG3 Future landowners and the City shall work cooperatively with farmers to minimize conflicts between agricultural operation and adjacent urban uses.

5.2.7 Level of Significance Before Additional Mitigation

Upon the continued implementation of regulatory requirements and mitigation measures previously adopted by the MMRP for the 2011 Approved Project, the following impacts of the 2012 Modified Project, as compared to the 2011 Approved Project, would be less than significant: 5.2-1 and 5.2-2.

5. Environmental Analysis

AGRICULTURAL RESOURCES

5.2.8 Additional Mitigation Measures for the 2012 Modified Project

No mitigation measures are required for the 2012 Modified Project because no significant impacts to agricultural resources are identified in this DSSEIR. The mitigation measures identified in the Certified EIR and associated MMRP for the 2011 Approved Project will reduce impacts on agricultural resources to a level of less than significant.

5.2.9 Level of Significance After Additional Mitigation

With implementation of the PPPs and mitigation measures outlined above, no new significant impacts to agricultural resources would occur beyond those identified in the 2011 Certified EIR.

5. Environmental Analysis

AGRICULTURAL RESOURCES

This page intentionally left blank.