Agricultural Resources Assessment

for the

World Logistics Center Specific Plan
Draft Environmental Impact Report

Original May 2012
Revised September 2014

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Executive Summary

The proposed World Logistics Center Specific Plan (WLCSP) project will develop 2,610 acres of land, most of which is currently dry-farmed, into urban uses within the City of Moreno Valley. To evaluate the potential agricultural impacts associated with the implementation of the WLCSP, impacts of the project were analyzed in accordance with the California Environmental Quality Act (CEQA) and the California Land Evaluation and Site Assessment Model (LESA). This Agricultural Resources Assessment also includes information about crop suitability in the project area and local and state regulations regarding agricultural lands. This assessment was originally prepared in May 2012 but was revised in December 2013 to address comments made on the original assessment as outlined in the Draft Environmental Impact Report (DEIR) for the WLCSP project. The analysis was rerun based on several project changes since the DEIR was circulated for public review. Project changes include a decrease in site area and building square footage. All the references used in this assessment can be found on the internet using the source information in *Section 5. References* or requested from the City.

The original assessment determined potential agricultural impacts of the WLCSP project were significant based largely on the results of the LESA Model. The revised study determined that WLCSP project impacts on agricultural were less than significant.

1 INTRODUCTION

1.1 Location

The World Logistics Center Specific Plan is situated in northwestern Riverside County, in Rancho Belago within the eastern portion of the City of Moreno Valley. The proposed Specific Plan is located south of State Route 60 (SR-60), between Redlands Boulevard and Gilman Springs Road (the easterly City limit), extending to the southerly City Limit. The major roadways that currently provide access to the project area are SR-60, Redlands Boulevard, Alessandro Boulevard, Gilman Springs Road, and Theodore Street. Redlands Boulevard and Theodore Street are north-south collector roadways that intersect with SR-60. Alessandro Boulevard is an east-west thoroughfare that runs through Moreno Valley from Interstate 215 (I-215) on the west to Gilman Springs Road on the east. Gilman Springs Road runs in a northwesterly-southeasterly direction connecting SR-60 to the Hemet-San Jacinto area and beyond. Figure 1 depicts the project vicinity.

There is little development adjacent to the east and south boundaries of the project area. The area easterly of the project is commonly referred to as the Badlands, a rugged area that separates the City of Moreno Valley from San Timoteo Canyon and the City of Beaumont. The area south of the proposed project is the San Jacinto Wildlife Area (SJWA) (which includes the Upland Game Hunting Area), and the Lake Perris State Recreation Area. These lands are state-owned and access to these areas is restricted. Highland Fairview Corporate Park (HFCP), located north and west of the project area between Redlands Boulevard and Theodore Street, is currently under development and the first phase was completed in late 2011. The area north of SR-60 is largely undeveloped with clusters of low-density residential development within the Moreno Valley city limits. Lying to the west of the proposed project is the more developed portion of the City of Moreno Valley. Near the southwest boundary of the proposed project is an existing residential neighborhood at the intersection of Redlands Boulevard and Alessandro Boulevard; a small market and a Post Office are also located near this intersection.

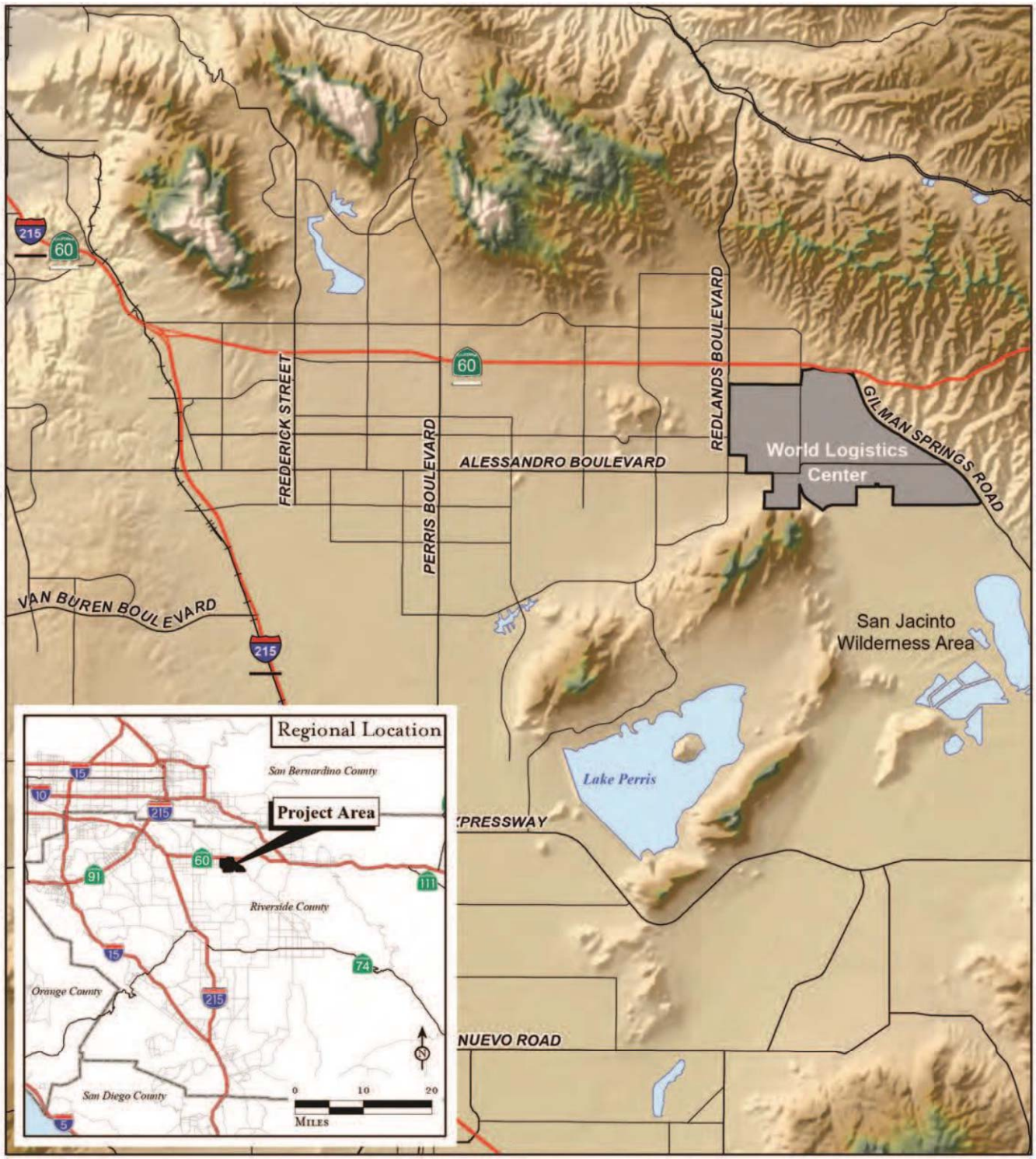
1.2 Project Description

The entitlements necessary for the proposed project includes a General Plan Amendment, adoption of the World Logistics Center Specific Plan, a Zone Change, a development agreement, a parcel map, and annexation of an 85-acre parcel along Gilman Springs Road. The City of Moreno Valley is the Lead Agency for the proposed project. In addition, the proposed project will require other associated actions and approvals by other public entities for construction and operation.

1.2.1 General Plan Amendment

The General Plan Amendment proposes a revision to the City General Plan land use designations for the project area as set forth in the proposed Specific Plan. The General Plan Amendment will also involve

Figure 1: The World Logistics Center Specific Plan Vicinity Map



amendments to several other elements as applicable, including (but not limited to) the Community Development Element, the Parks, Recreation and Open Space Element, the Circulation Element, the Safety Element, the Environmental Safety Element, and the Conservation Element to allow the adoption of the Specific Plan.

1.2.2 Specific Plan

The proposed project includes a Specific Plan to implement the new General Plan Amendment and to set forth comprehensive land use regulations governing the proposed project. The World Logistics Center Specific Plan is a master plan for the development of approximately 40.6 million square feet of modern high-cube logistics warehouse distribution facilities.

The Specific Plan establishes the master plan of development for the project area, including development standards and use regulations, a master plan for circulation and infrastructure, architectural, landscape, and design guidelines and sustainability goals, all of which will be applicable to all development within the project area.

Within the Specific Plan the primary land use category will be Logistics Development, this use will provide for high-cube logistics warehouse space consisting of buildings of 500,000 square feet or greater, with ceiling heights of 25 feet or greater. Warehousing and logistics activities consistent with the storage and processing of manufactured goods and materials prior to their distribution to other facilities and retail outlets will be permitted within this category. Ancillary office and maintenance space will be permitted, along with the outdoor storage of trucks, trailers, and shipping containers.

Table 1 depicts the land area associated with the proposed Logistics Development, Light Logistics, and Open Space Uses within the proposed project.

Table 1: The World Logistics Center Specific Plan Land Use Summary

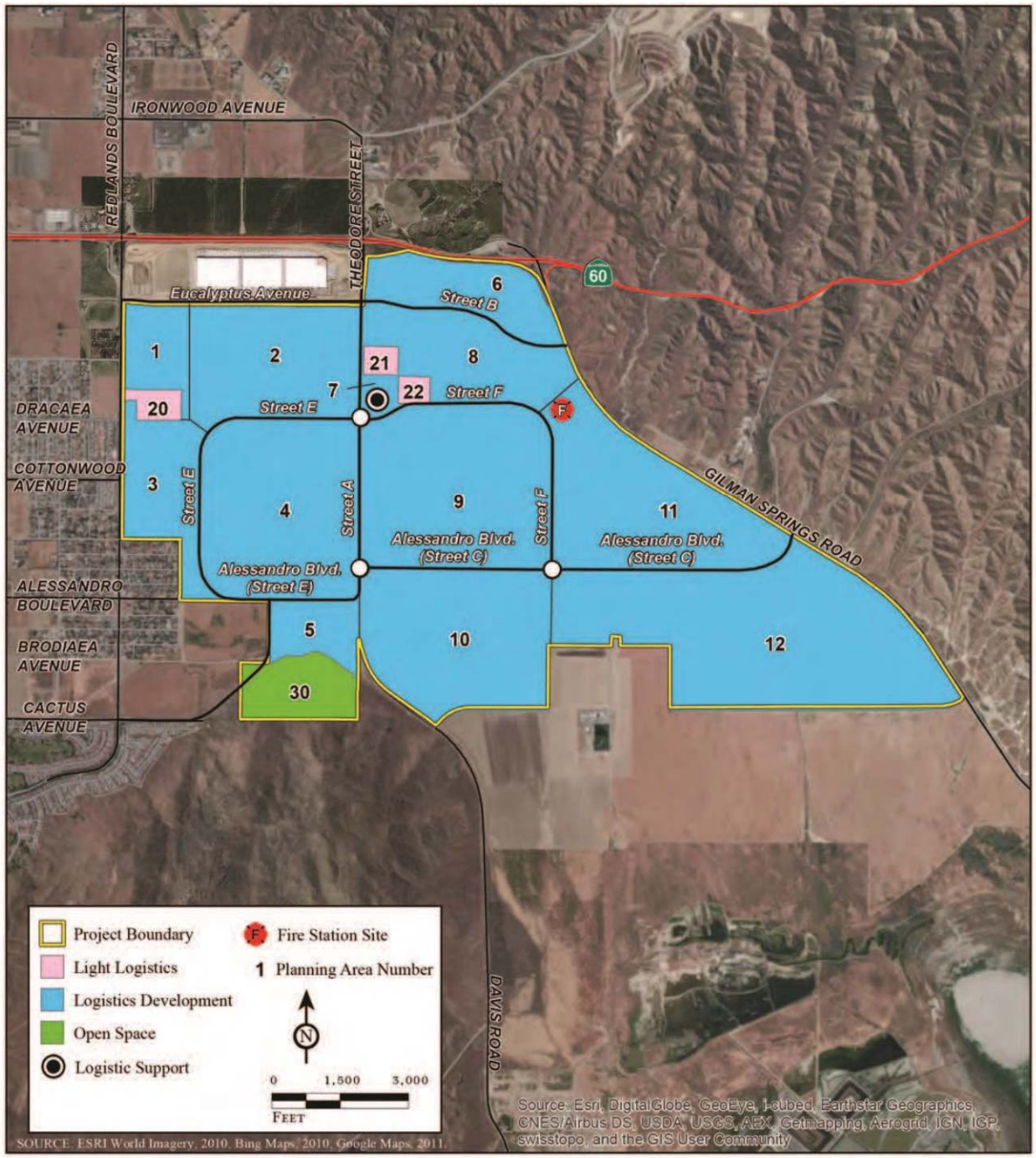
Land Use	Acreage
Logistics Development	2,383
Light Logistics	37
Open Space	74
Right of Way	116
Total	**2,610**

Figure 2 depicts the proposed Land Use Plan.

1.2.3 Change of Zone

The Change of Zone will establish the World Logistics Center Specific Plan, which will replace most of the Moreno Highlands Specific Plan and rezone several other properties. The new Specific Plan will become the regulatory land use document for the entire project area.

Figure 2: The World Logistics Center Specific Plan Planning Map



1.2.4 Development Agreement

The project will include a Development Agreement between the property owner, Highland Fairview, (and related entities) and the City of Moreno Valley in order to provide certainty for the future development of the project for those parcels owned by Highland Fairview

1.2.5 Tentative Parcel Map

The Tentative Parcel Map (for financing purposes only) proposes the subdivision of a portion of the project site into large parcels for purposes of financial transactions or further subdivision of the land prior to development. This map conveys no development rights.

1.2.6 Annexation

The project includes the annexation by the City of a triangular 85-acre parcel located on the north side of Alessandro Boulevard at Gilman Springs Road. This parcel is already with the City's Sphere of Influence. The proposed project includes pre-annexation General Plan land use designations and zoning for this parcel, and the EIR will be the environmental documentation used by the Local Agency Formation Commission (LAFCO) to complete the annexation process. The County's land use designation currently applicable to this parcel is W-2-2½. The W-2 area allows single-family residential and light agriculture (the suffix indicates minimum parcel size in acres) and the City's current General Plan land use designation for the site is Business Park (BP). This project proposes to incorporate this property into the World Logistics Center Specific Plan.

1.3 Methods

This report assesses potential agricultural impacts related to the development of the project site from an undeveloped area to a master planned logistics park. Project-related agricultural impacts were assessed using the following methods:

1. California Land Evaluation and Site Assessment (LESA) Model.
2. Evaluation of direct impacts to California Department of Conservation (CDC) Important Farmlands and U.S. Natural Resources Conservation Service (NRCS) Prime Farmlands soils within the state.
3. Assessment of indirect impacts to and from the proposed project.
4. Evaluation of cumulative impacts, including effects from the potential loss of regional (countywide) agricultural production and resources, as well as the combined effects of the project and identified projects within the cumulative study area.

Information for this report was gathered from official sources cited throughout the report and in the references section.

1.4 Crop History

Historically, the most abundant and important crop in the region was irrigated citrus fruit. The unique climate and soil in the area produced good quality and profitable citrus (Holtz 2007). However, over the

past 30 years, the high cost of land and irrigation water in the Riverside and Los Angeles basins gradually moved the agricultural production of citrus to Central California (AIS 2008).

In the City of Moreno Valley, open space that is primarily devoted to agriculture encompasses only a minor portion of the total land area in the City. Over the years, the area devoted to agricultural production has decreased over time because of urban development replacing agricultural lands. According to the City of Moreno Valley's General Plan EIR, agricultural land in the City is generally leased to farm operators and there are few farms within the city that are owner-operated. There are five major types of agriculture are being produced in Moreno Valley: grazing, fruit orchards, dry grain farming, potato and fruit crop farming and poultry production.

1.4.1 Dry Land Crops

Historically, dry land agricultural production, such as oats, barley and wheat, have been very important to the economy in California. Today, dry land crop production has moved to other parts of the United States due to better climate and lower land costs than in California. The risk of loss with dry land crops is very high in drought years and an abundance of the crop needs to be produced before any farming operations can break even.

1.4.2 Irrigated Crops

The cost of irrigation water makes the production of irrigated crops economically infeasible in the Moreno Valley area. The cost of recycled agricultural water is $55 per acre foot in the winter and $97 per acre foot in the summer, in many cases even these reduced water prices (compared to drinking water at $600 per acre foot) can exceed the revenues generated by most types of irrigated crops. Commonly, in a low-rainfall area like Moreno Valley, a crop requires three acre feet of water per year and the profit from a majority of crops in California ranges from $0 to $500 per acre year. Even the lower price of recycled water does not eliminate the financial constraint to the long-term agricultural profitability and viability of irrigated crops (AIS 2008). In addition, imported water from EMWD may be interrupted (EMWD 2011) and so it is less reliable than agricultural water derived from local groundwater sources.

The project site contains one or more existing agricultural wells. However, the EMWD has indicated this source of water is not to be used for crop irrigation due to the high salinity (salt content). Both EMWD and the Regional Water Quality Control Board have expressed concern that continued use of agricultural well water in this area would contribute to even higher salinity in the groundwater. Therefore, use of ag well water for crop irrigation on the site or in the surrounding area is not considered feasible at this time

2. EXISTING CONDITIONS

2.1 General Setting

2.1.1 Existing Conditions

The land within the Specific Plan is largely undeveloped and has been used sporadically for a variety of agriculture including dry farming since the area was first settled in the early 1900s (Holtz 2007). Dry farming is based on crop production without irrigation on lands with low levels of annual rainfall. In the 1920s several farm buildings and related houses were constructed, and in the 1940s a stock farm operated on a portion of the site which was later expanded into a commercial horse farm and training facility that operated until the mid-1990s. A dairy was also started on a portion of the project site, but the dairy was never operational and the main structures have since been demolished. In the 1960's a chicken ranch on approximately 75 acres of the project site began operation. The chicken ranch was operated by Sunnymead Poultry and is currently in the process of being demolished.

Currently, the project area consists of mostly undeveloped lands with few paved roadways, a few residential structures and utility facilities. There are seven existing single-family residential homes within the project area. In addition, several structures associated with water and natural gas conveyance are located within the project area and include several high-pressure natural gas pipelines and a large Metropolitan Water District (MWD) waterline (i.e., Inland Feeder Line).

2.1.2 Topography

The project area is located at the northern section of the San Jacinto and Moreno Valleys, northeast of Mt. Russell, and southwest of the Badlands. The San Jacinto Wildlife Area is located south of the project boundaries and east of the Lake Perris State Recreation Area. The project area slopes north to south, with an elevation range from approximately 1,760 feet above mean sea level to 1,480 feet above mean sea level at the most southerly boundary. The southwestern corner of the project site drains to the western side of Mt. Russell and the eastern portion of the project site flows to the east side of Mt. Russell (MBA 2011).

2.2 Crop Suitability

2.2.1. Weather

The City of Moreno Valley is located in a semi-arid region of western Riverside County, southerly of the San Bernardino Mountains and San Gabriel Mountains and westerly of the San Jacinto Mountains. The average high temperature is 76 degrees and average low is 49 degrees. The average rainfall in the region is 9.93 inches (CMV 2013). Nearly 70 percent of the average annual precipitation occurs between the months of December and March.

Winters in Moreno Valley are generally mild with highs in the middle 60s and lows dipping into the upper 30s to lower 40s. Occasionally there are warm spells with highs jumping into the upper 70s and low 80s due to warm winds that descend the mountains from the north and the east. But there are also cold spells in winter when high temperatures reach only into the 50s and nighttime temperatures can reach freezing. The summers in Moreno Valley are sunny, with very warm to hot days and clear mild nights. The hottest months of July and August have average daily temperatures in the middle 90s during the day and with nights in the lower and middle 60s.

With the annual rainfall at approximately 9.9 inches, the number of crops that can be grown without irrigation is limited, especially given the intense heat in the summer months. Other climatic factors that affect agricultural production include spring frost and Santa Ana winds. Frost is a risk factor in most major citrus-growing areas of California. The risk in Moreno Valley is considered about average (severe frost every 10 years). From the months of October through March, Santa Ana winds blow through Moreno Valley and the surrounding region. These strong, gusty winds blow from the north and northeast and occur between five to ten times a season (typically between October through April), and present a significant risk to agricultural crops.

2.2.2 Water Supply

The City of Moreno Valley lies within two primary watersheds, the Santa Ana River and the San Jacinto watersheds. There are a few small ponds and lakes scattered throughout the City.

Groundwater Basins

Portions of the project area lie on the Perris North Groundwater Basin and the San Jacinto Groundwater Basin. Groundwater depth ranges from approximately 100 feet to 150 feet below the ground surface. The California State Department of Water Resources has estimated the groundwater basins in the vicinity of Moreno Valley have the capacity to store approximately one million acre-feet of water. It is estimated that the Perris North Groundwater Basin and the San Jacinto Groundwater basin currently store approximately 620,000 acre-feet of water. Agricultural lands have historically used the groundwater basins as a water source. Other sources of water supply include the Santa Ana River, Lake Perris and the Railroad Canyon Reservoir (CDC 2006).

Irrigation Water

Historically, the lack of reliable irrigation water has been a major obstacle to intensive agricultural development in Moreno Valley. The problem continues today and it is compounded by urban growth in the greater Los Angeles Basin and an increasing demand for urban water delivered from the Metropolitan Water District (MWD). Western Riverside County is served by the Eastern Municipal Water District (EMWD), which was formed in 1950 to secure additional water for the growing region. The major sources of water for EMWD are: 49 percent imported from the MWD via the State Water Project; 16 percent local groundwater wells and desalters; and 35 percent recycled water. The water demand is 55 percent residential, 9 percent landscape, 7 percent commercial, 4 percent wholesale, 2 percent agriculture, and 23 percent recycled.

The cost of potable water from EMWD is delivered on a tiered basis, with a minimum cost of over $600 per acre-foot, which makes it one of the most expensive agricultural waters in California. The price of water can also fluctuate annually due to adjustments by the Board of Directors (MBA 2008).

Recycled Water

An alternative source of water for irrigation is recycled water. EMWD has been treating wastewater (sewer) within its service area since the 1960s and in 1991 received funding through the U.S Bureau of Reclamation to develop a recycled water backbone transmission system, which greatly expanded the ability to deliver recycled water to a growing customer base. EMWD plans to continue extending the distribution infrastructure for recycled water. In 2011, EMWD delivered 28,926 acre-feet of recycled water to local governments and agriculture. The delivery of recycled water is subject to pipelines already being in place, and can be negotiated for agricultural use. Assuming the pipelines are already present in the area, the cost of recycled water varies from $38 per acre-foot to over $250 per acre-foot. If additional pipelines are needed, as they would be to serve the entire project site, the cost would increase to well over $100 per acre-foot. These increased costs for water could exceed expected revenues from irrigated crops. In addition, it is also important to note that there are strict regulations regarding the use of recycled water to food crops (EMWD 2011), which might limit its use on the WLCSP project site.

2.2.3 Soils

Soils within the project site and vicinity have been mapped by the U.S. Department of Agriculture Natural Resources Conservation Service (formerly the U.S. Soil Conservation Service [SCS] 1973). The World Logistics Center Specific Plan Site includes 10 distinct soil series and 19 individual soil types, as shown in Figure 3. A soil series is a group of soils with similar profiles; these profiles include similar thickness, arrangement, and other distinct characteristics.

The project area is dominated by the San Emigidio loam (SgA and SgC) and the San Emigdio fine sandy loam (SeC2). These soils are characterized as very deep and well drained soils that form dominantly on alluvial fans. The soils can be used for dry land grain and pasture, irrigated citrus, walnuts, alfalfa, apricots, and truck crops. They are also suitable for home sites and other non-agricultural uses (AIS 2008). The San Emigdio fine sandy loam (SeC2) and the San Emigdio loam (SgA and SgC) are primarily Class II soils. These soils and topography are suitable for irrigated crops, but in a dry land environment, the soils only have average water-holding capacity and in a drought year, would yield a minimal or failed crop (AIS2008).

Smaller amounts of soils in the project area include Arbuckle loam (AkC), Badland (BaG), Gorgonio loamy sand (GhC,), Greenfield sandy loam (GyC2, GyD2)Hanford coarse sandy loam (HcC and HcD2), Metz loamy sand (MdC and MeD), Metz loamy fine sand (MfA), Metz gravelly sandy loam (MID), Ramona sandy loam (RdD2), Rockland (RtF), San Emigdio fine sandy loam (SeA and), and San Timoteo loam (SmE2). The composition of soils within the project area is shown in Figure 3 and Table 2 presents a summary of soil types in the project area.

Figure 3: Project Area Soil Map

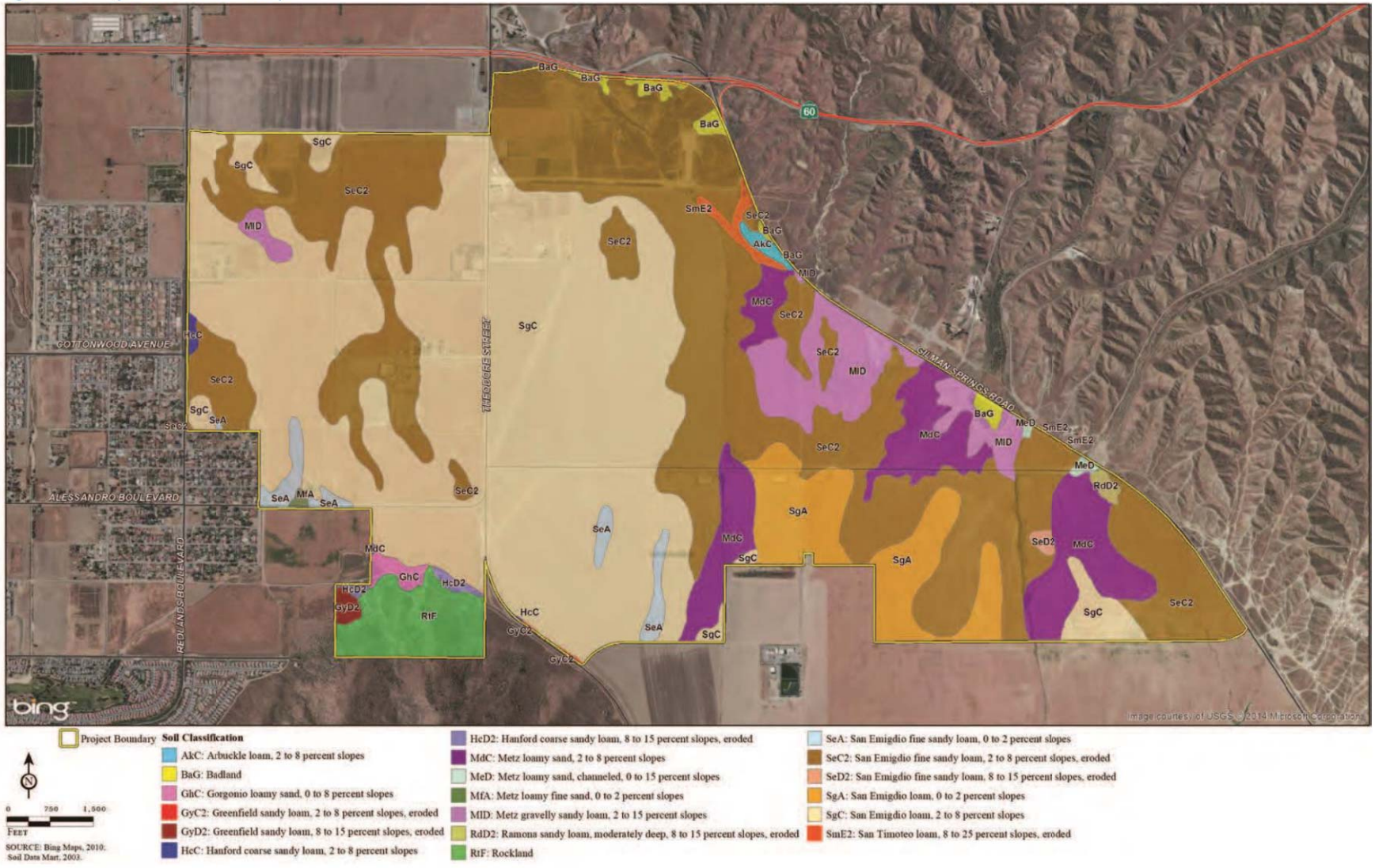


Table 2: Project Area Soil Legend

Soil Symbol	Soil Name	Acres in Project Area	Percentage of Project Area
AkC	Arbuckle loam, 2 to 8 percent slopes	5.2	0.2%
BaG	Badlands	15.7	0.6%
GhC	Gorgonio loamy sand, 0 to 8 percent slopes	8.1	0.3%
GyC2	Greenfield sandy loam, 2 to 8 percent slopes, eroded	0.2	0.0%
GuD2	Greenfield sandy loam, 8 to 15 percent slopes, eroded	5.0	0.2%
HcC	Hanford coarse sandy loam, 2 to 8 percent slopes	2.3	0.1%
HcD2	Hanford coarse sandy loam, 8 to 15 percent slopes, eroded	5.1	0.2%
MdC	Metz loamy sand, 2 to 8 percent slopes	180.1	6.9%
MeD	Metz loamy sand, channeled, 0 to 15 percent slopes	3.5	0.1%
MfA	Metz loamy fine sand, 0 to 2 percent slopes	1.8	0.1%
MID	Metz gravelly sandy loam, 2 to 15 percent slopes	109.9	4.2%
RdD2	Ramona sandy loam, moderately deep, 8 to 15 percent slopes, eroded	4.5	0.2%
RtF	Rockland	67.8	2.6%
SeA	San Emigdio fine sandy loam, 0 to 2 percent slopes	30.8	1.2%
SeC2	San Emigdio fine sandy loam, 2 to 8 percent slopes, eroded	901.7	34.5%
SeD2	San Emigdio fine sandy loam, 8 to 15 percent slopes, eroded	3.5	0.1%
SgA	San Emigdio loam, 0 to 2 percent slopes	134.4	5.2%
SgC	San Emigdio loam, 2 to 8 percent slopes	1,121.6	43.0%
SmE2	San Timoteo loam, 8 to 25 percent slopes, eroded	8.9	0.3%
Total		2,610.0	100.0%

Source: USDA Natural Resources Conservation Service (NRCS), 2012

2.2.4 Important Farmland Map Categories

The California Department of Conservation (CDC) is responsible for the Farmland Mapping and Monitoring Program (FMMP), which produces maps and statistical data to be used to analyze impacts to agricultural resources in California. The maps are updated every two years using aerial photographs, computer mapping systems, public review and field reconnaissance. The lasts FMMP maps were produced in 2010. Updated 2012 maps will not be available until 2014. The maps divide lands into the eight categories shown in Table 3.

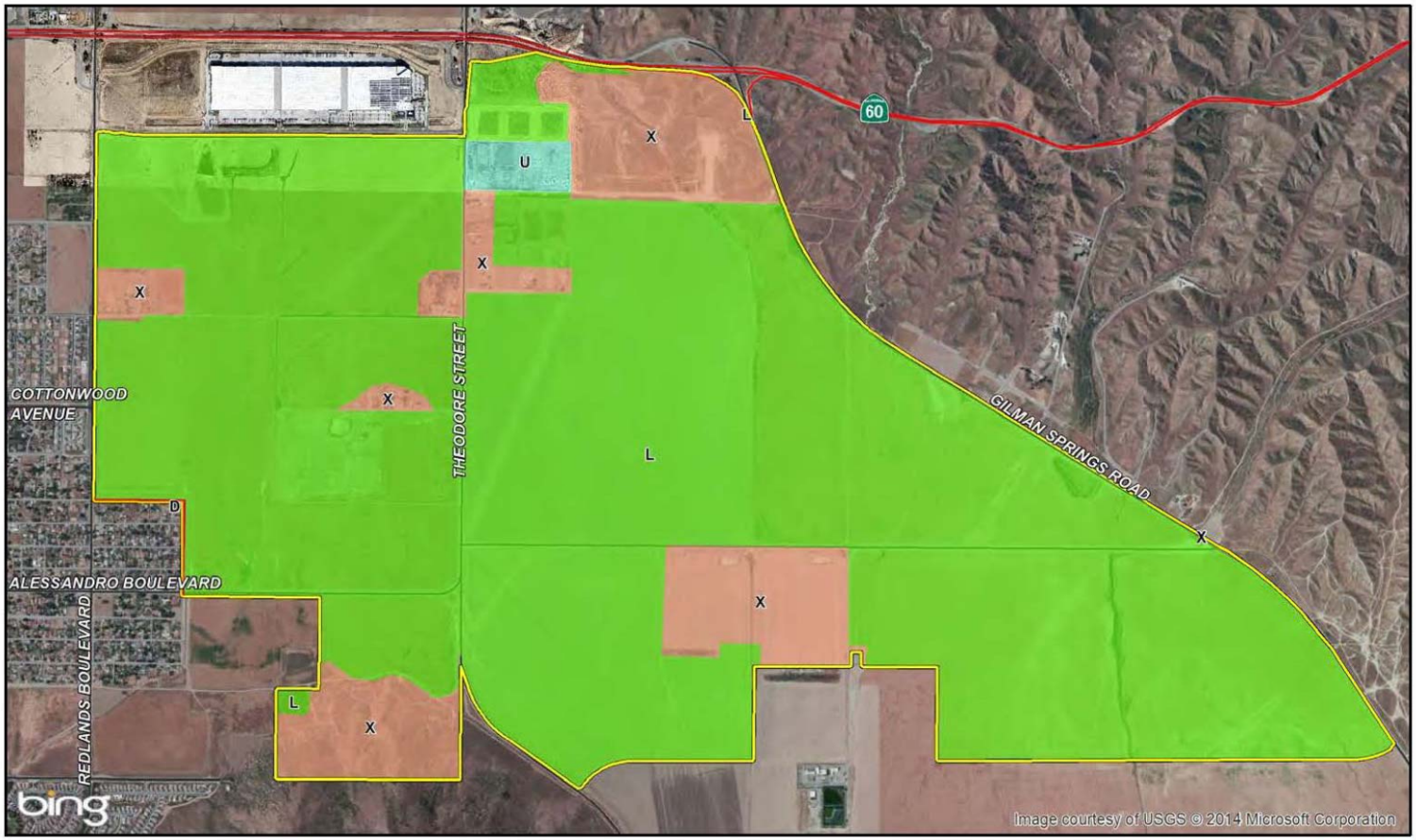
Table 3: Farmland Mapping and Monitoring Program Categories

Farmland Category	Description
Prime Farmland (P)	Farmland 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 update cycles prior to the mapping date.
Farmland of Statewide Importance (S)	Farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for production of irrigated crops at some time during the two update cycles prior to the mapping date.
Unique Farmland (U)	Farmland of 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. Land must have been used for crops within the two update cycles prior to the mapping date.
Farmland of Local Importance (L)	Land of importance to the local agricultural economy as determined by each county's Board of Supervisors and a local advisory committee. Also lands that are currently irrigated pasture, but have the potential to be cultivated for row/field crop use. In Riverside County, this includes lands with soils that would be classified as Prime Farmland and/or Statewide Importance but lack available irrigation water. Also includes dairy land, pasture, milking facilities, and hay and manure storage areas if accompanied with permanent pasture or hay land (CMV 2008).
Grazing Land (G)	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. The minimum mapping unit for Grazing Land is 40 acres.
Non-Farmland Categories	**Description**
Urban and Built Up Land (U)	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.
Other (X)	Land that does not meet the criteria of any other category.
Water (W)	Water areas with an extent of at least 40 acres.

Source: USDA-NRCS, 2001

Based on the FMMP maps (CDC 2012), the project site contains approximately 25 acres designated as Unique Farmland, and approximately 2,232 acres designated as Farmland of Local Importance. No Prime Farmland is designated on the project site. Figure 4 illustrates the farmland designations in the project area.

Figure 4: World Logistics Center Specific Plan Farmlands Map



SOURCE: Bing Maps, 2010; Google Earth, 2012; Department of Conservation, Farmland Mapping & Monitoring Program (FMMP), 2010.

2.3 California Agricultural Land Evaluation and Site Assessment

The Land Evaluation and Site Assessment (LESA) model is a point-based approach that is generally used for rating the relative value of agricultural resources (CDC, 1997), using two scoring thresholds: a land evaluation (LE) and a site assessment (SA).

The LE factors used in the LESA Model to determine whether a project would have significant impacts on agricultural resources are:

- Land Capability Classification Rating; and
- Storie Index Rating.

The site assessment (SA) factors that are used measure social, economic, and geographic attributes that contribute to the overall value of the agricultural lands. These factors are:

- Project Sizing Rating;
- Water Resources Availability Rating;
- Surrounding Agricultural Land Rating; and
- Surrounding Protected Resource Land Rating.

For a proposed project, each of these factors is calculated and then weighted and summed up to a final score. According to the LESA Model, a total score of 0 to 39 points is considered significant; 40 to 59 points is considered significant only if the LE and SA sub-scores are each greater than or equal to 20 points; 60 to 79 points is considered significant unless either LE or SA sub-score is less than 20 points; and scores totaling 80 or more is considered significant.

2.4 Williamson Act

According to the California Department of Conservation, the California Land Conservation Act of 1965—commonly referred to as the Williamson Act—enables local governments to enter into contracts with private landowners for the purpose of restricting specific parcels of land to agricultural or related open space use. In return, landowners receive property tax assessments that are much lower than normal because they are based upon farming and open spaces uses as opposed to full market value. Landowners enter into a contract to retain the land for agricultural uses for at least 10 years. Once a "Notice of Nonrenewal" is filed, it is ten years until the contract expires. In the past, when the City of Moreno Valley's first General Plan was adopted, there were hundreds of acres of agricultural lands under the Williamson Act. However, there is no land within the project area or anywhere within the City that is currently under a Williamson Act contract.

2.5 Local Plans and Policies

The City of Moreno Valley's General Plan policies support agriculture as an interim use; however, no land in the City is designated for agricultural production or preservation. To support the interim use of land for agricultural purposes, the City identifies agricultural crops as a permitted use in all of its zoning categories. In addition, the City's General Plan, Parks, Recreation and Open Space Element contain the following objective:

- Objective 4.1: Retain agricultural open space as long as agricultural activities can be economically conducted, and are desired by agricultural interests (with some agriculture retained in long-term use), and provide for an orderly transition of agricultural lands to other urban and rural uses.

To support this objective of the General Plan, the City identifies in the following policies that grazing and crop production are encouraged as a compatible part of a rural residential environment.

4.1.1 Encourage grazing and crop production as a compatible part of a rural residential atmosphere.

Additionally, where practical, the City desires to incorporate existing groves into the design of proposed development projects, which will allow the City to maintain the agricultural character of the area as well as provide a buffer between different types of land uses (CMV 2006).

3. PROJECT IMPACTS

3.1 Thresholds of Significance

3.1.1 California Environmental Quality Act

According to the CEQA Guidelines Appendix G, Environmental Checklist, to determine whether impacts to agricultural resources are significant environmental effects, the following questions are analyzed and evaluated:

a) Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?
b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?
c) Would the project 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))?
d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?
e) Would the project 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?

3.1.2 Land Evaluation and Site Assessment

The LESA system is a point-based approach that uses a Land Evaluation (LE) scoring threshold and a Site Assessment (SA) scoring threshold to rate the value of agricultural land resources. It is an optional model for the assessment of agriculture and farmland allowed by the CEQA Guidelines. Table 4 describes the scoring thresholds.

Table 4: California LESA Model Scoring Thresholds

Total LESA Score	Scoring Decision
0 to 39 points	Not considered significant
40 to 59 points	Considered significant only if LE and SA sub-scores are each greater than or equal to 20 points
60 to 79 points	Considered significant unless either LE or SA sub-score is less than 20 points
80 to 100 points	Considered significant

Source: CDC 1997

3.2 Direct Agriculture Impacts

3.2.1 Conversion of On-site Important Farmland and Prime Farmlands Soils

Based on the most current available CDC data, the project site contains approximately 25 acres designated as Unique Farmland and approximately 2,232 acres designated as Farmland of Local Importance (CDC 2012). There are no areas designated as Prime Farmland or Farmland of Statewide Importance within the project site. The proposed project will convert 25 acres of Unique Farmland to logistics developments; therefore, the impact will be significant. Although Unique Farmland will be converted to non-agricultural uses, the area is already designated for non-agricultural use in the City General Plan. According to the Moreno Valley General Plan Final Program EIR, the conversion of farmland (i.e., land being farmed, whether or not it is designated by the State as some type of important farmland) to non-agricultural uses is considered a significant but unavoidable impact. The General Plan policies support agriculture as an interim use; however, no land in the project site is designated for agricultural production or preservation. The City General Plan supports the conversion of agricultural lands into non-agricultural uses to accommodate the growing population and urban development. Even though the conservation of agricultural lands is a General Plan policy, there will be significant but unavoidable impacts from the conversion of farmlands to non-agricultural uses from implementation of the proposed project.

3.2.2 Conflict with Existing Agricultural Zoning and/or Williamson Act Contracts

As discussed above in Section 2.4, no Williamson Act contract lands or agricultural preserves are located within the project site. The site is planned and zoned for development and the surrounding lands are similarly designated. Accordingly, no associated impacts would occur from implementation of the proposed project.

3.2.3 Conflict with Existing Zoning for Forest Land or Timberland

According to the California Department of Forestry and Fire Protection, there are no areas designated as forest land or timberland in the project site. Therefore, no impacts will occur.

3.2.4 Loss of Forest Land or Conversion of Forest Land to Non-Forest Use

As discussed above, there are no areas in the project site designated as forest land. Therefore, no impacts will occur.

3.2.5 Changes to Existing Environment and Conversion of Farmland to Non-Agricultural Uses

The conversion of farmland could increase development pressure and accelerate the loss of the remainder of the existing agricultural land on site (inholdings) in the surrounding area. A decrease in farmland has an effect on agricultural production costs, like transportation and labor. Agricultural activities can often be incompatible with urban and suburban neighbors, because of factors such as dust, odors, pesticides, and machinery noise (Moreno Valley FEIR, 2006). However, historically, the project site and the adjacent lands have been used for dry land farming, and there are seven rural residences on the project site, some of which conduct limited agricultural activities. Areas to the east and to the south of the project site are

designated as residential and there are existing residential homes to west of the project site. Additionally, the City's General Plan has designated the surrounding area and the project site for urban uses (e.g., Moreno Highlands Specific Plan). The City's General Plan concludes that conversion of agricultural land (i.e., land that supports agricultural activities, not necessarily land that is designated as prime or has some other state farmland designation) is a significant environmental impact of development. Loss of agricultural land on the Highland Fairview Corporate Park (i.e., Skechers) was determined to be significant based on that General Plan policy guidance.

3.2.6 LESA Evaluation

To analyze agricultural impacts, the LESA model is based on land evaluation and site assessment factors as described below:

Land Evaluation

The land evaluation (LE) component of the LESA model consists of two factors to assess soil suitability: the Land Capability Classification (LCC) and the Storie Index. The LCC rates the suitability of soils for most kinds of crops, while the Storie Index rates the relative degree of suitability for intensive agriculture (CDC, 1997). The calculations for this report rely solely on the LCC rating system, which is allowed under the LESA Model (CDC 1997). To rate soil suitability without the Storie Index, the LCC rating is weighted more heavily and accounts for 50 percent of the total LESA calculation.

Site Assessment

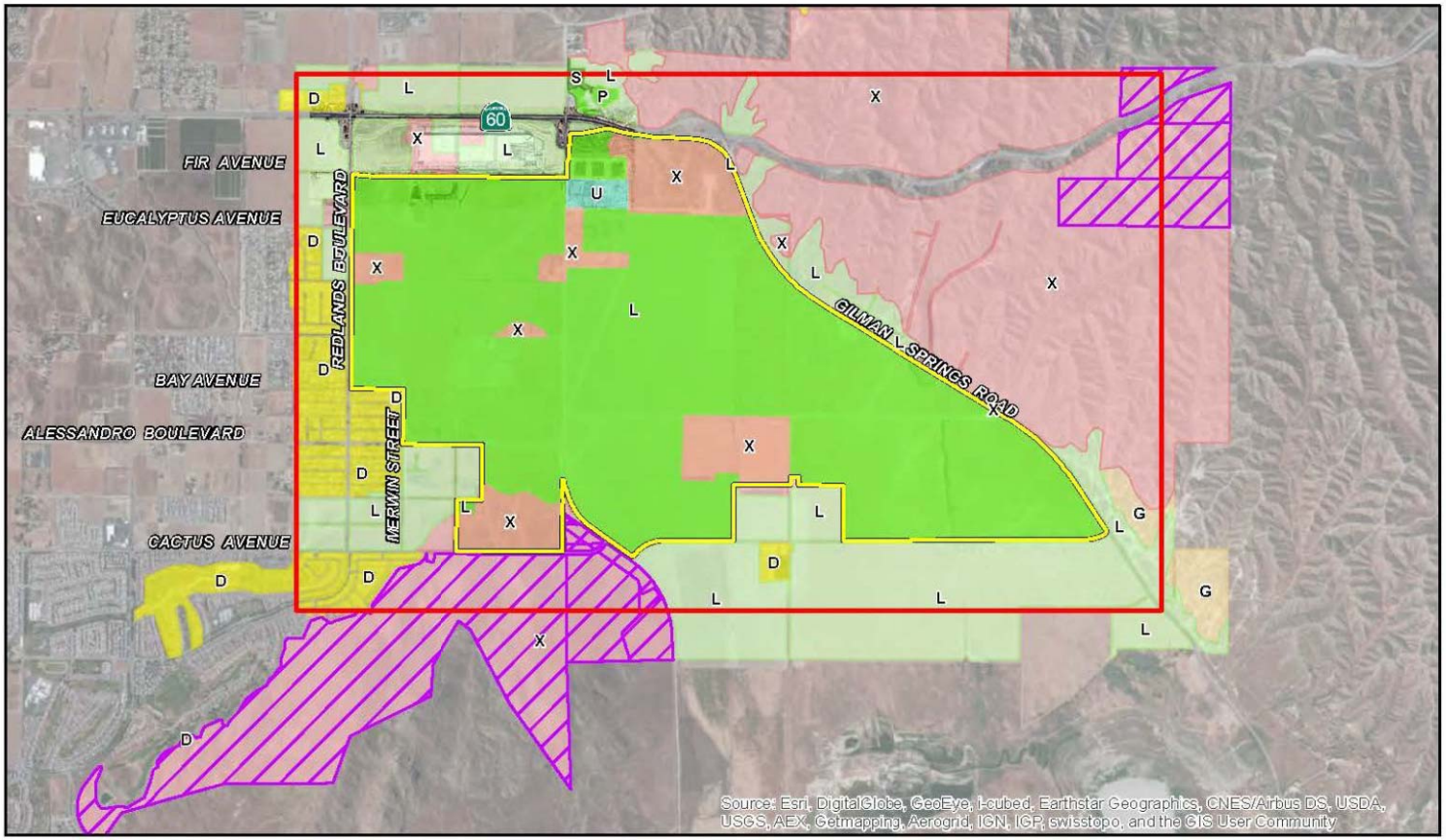
The site assessment (SA) component of the LESA Model is evaluated using four separate factors: (1) Project Size; (2) Water Resources Availability; (3) Surrounding Agricultural Land; and (4) Surrounding Protected Resource Land. Each factor is described in more detail in Appendix A.

Final LESA Score

A single LESA score is generated after the LE and SA components have been scored and weighted. Scores are based on a scale of a maximum 100 points. A step-by-step guide to the LESA model analysis and worksheets can be found in Appendix A. In calculating the final score, it was discovered that the project area consists of primarily Class II (soils with moderate limitations on agricultural uses) soils, which significantly increased the LCC and therefore the LE component of the score. The LCC and the Storie Index are the most important factors in the final score.

When a project size is scored, if the area is larger than 80 acres, then the project receives a score of 100 out of 100. This project received a maximum score of 100 because it is based on 2,234.0 acres of soils in LCC Class I and Class II. The LESA water resource availability scoring table asks a series of questions regarding restrictions to the project area during drought years and non-drought years to determine the score. During non-drought years irrigation production is feasible but there are physical and economic restrictions. Also, during drought years irrigation production is not feasible. Therefore, the water resource availability rating was determined to be 30. The surrounding agricultural land rating was determined by utilizing Geographic Information Systems (GIS) to calculate the "Zone of Influence" (ZOI) around the project area (Figure 5).

Figure 5: Agricultural Lands and Protected Resources in the Zone of Influence



SOURCE: Google Earth, 2012; ESRI World Imagery, 2010; County of Riverside, 2013; Dept of Conservation, Farmland Mapping & Monitoring Program, 2010.

Figure 5 shows the ZOI and State Farmland Designations as recorded by the Department of Conservation Farmland Mapping and Monitoring Program (FMMP). The FMMP data has not been updated to include the Highland Fairview Corporate Park located in the northwest corner of the ZOI. The FMMP data shows this area as Farmland of Local Importance although it has recently been developed. In the revised LESA calculations the Highland Fairview Corporate Park was not calculated as Farmland of Local Importance, and was instead calculated under the category of Other Land. The agricultural land within the zone of influence was calculated to be 31 percent of ZOI, which is a score of 0. Also, the surrounding protected land resource in the ZOI was determined to be 22 percent, which also translates into a score of 0 under the rating system.

In the Revised Agricultural Resources Assessment, the final LESA score for this project is 60.4. According to the threshold, the proposed project has a total project score between 60 to 79 points. The LE subtotal score is greater than 20 points (LE is 40.9; however, the SA score subtotal is under 20 points (SA 19.5). Based upon the LESA Model significance thresholds, the proposed project would not have a significant impact on agricultural resources. Factors that affect the LESA model include water resource availability and the inclusion of protected resource land. The LESA model does not place a higher value on water resource availability and cost, which is an important factor of economic vitality and profitability of agriculture in Moreno Valley. In addition, in the ZOI, a portion of the area is considered protected resource land. The Lake Perris Recreation Park comprises less than 25 percent of the project area's zone of influence, which also affected the final SA score. More detailed information about the LESA model analysis and worksheets can be found in Appendix A.

3.3 Indirect Impacts

Land uses included in the ZOI are: urban built-up lands, grazing lands, prime farmland, and farmland of local and statewide importance. The state conservation area south of the specific plan is currently being used for agriculture. Because this area is owned by the State, it is anticipated that it will continue to be used for agriculture for the foreseeable future. Therefore, the project will have less than significant indirect impacts on existing offsite farmland.

3.4 Cumulative Impacts

The loss of 25 acres of Unique Farmland and 2,232 acres of Farmland of Local Importance represents a substantial contribution to a significant cumulative impact relative to the regional loss of agricultural land in western Riverside County. The project area is already designated for non-agricultural uses and the City General Plan policies support the conversion of agricultural lands into urban uses. Also, the rising costs of land and irrigated water provide a financial constraint to the profitability and vitality of agricultural production in the project area and western Riverside County as a whole. Therefore, the loss of agricultural land on the WLCSP site, plus the gradual loss of agricultural land in surrounding communities and in western Riverside County as a whole, constitutes a cumulatively considerable environmental impact under CEQA.

3.5 Conclusion

The Agricultural Resources Assessment was revised due to changes in the World Logistics Center Specific Plan . The project's area changed from 3,814 acres to 2,610 acres because the original Agricultural Resources Assessment included over 1,000 acres that were part of the State conservation area south of the WLCSP site and were not within the planned development area and will remain unchanged. The new LESA Model calculations are based on the smaller acreage that excluded the State conservation area. The size of the project area was reduced by over 1,000 acres in the Revised Agricultural Resources Assessment, causing the conclusions of the revised assessment to be different than the original assessment. The Final LESA Score changed from 63.5 points to 60.5 points. Both the original and revised assessments show that the total project score is between 60 to 79 points, which is considered significant unless either LE or SA sub-score is less than 20 points. However, the SA sub-score in the original assessment was 20.5 points and in the revised assessment it was 19.5. Based upon the LESA Model significance thresholds, the proposed project would not have a significant impact on agricultural resources based on the revised assessment. The revised project would have a "less than significant impact" relative to agricultural resources under CEQA.

4. Preparers

This technical report was prepared by Parsons Brinckerhoff for the project applicant, Highland Fairview. Updates were made to the original report by Kent Norton, AICP with LSA Associates, Inc. in response to comments on the Draft EIR and original assessment.

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5. References

All documents sited within this assessment can be found on the internet using the following source information or requested from the City.

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Appendix A: LESA Model Worksheets

The USDA Land Capability Classification (LCC)

The LCC indicates the suitability of soil for most types of crops. Groupings are made according to limitations of the soils when used to grow crops and the risk of damage to soils when they are used in agriculture. Soils are rated from Class I to Class VIII, with the soils with the fewest limitations receiving the highest rating (Class I). Specific subclasses are also utilized to further characterize soils (CDC 1997).

Table 1 – Numeric Conversions of Land Capability Classification Units

Land Capability Classification	LCC Point Rating
I	100
IIe	90
IIs, w	80
IIIe	70
IIIs, w	60
IVe	50
IVs, w	40
V	30
VI	20
VII	10
VIII	0

Project Size Rating

The Project Size Rating is based on the LCC acreage figures tabulated under the Land Evaluation portion and identifying acreage figures for three separate groupings of soil classes within the project site and then determining which grouping generates the highest Project Size Score. This score is a function of the quality of the soil in the project area and vicinity for potential agricultural production.

Table 2 – Project Size Scoring

LCC Class I or II Soils		LCC Class III Soils		LCC Class IV or Lower	
Acres	Score	Acres	Score	Acres	Score
>80	100	>160	100	>320	100
60-79	90	120-159	90	240-319	80
40-59	80	80-119	80	160-239	60
20-39	50	60-79	70	100-159	40
10-19	30	40-59	60	40-99	20
<10	0	20-39	30	<40	0
		10-19	10		
		<10	0		

Water Resource Availability Rating

The Water Resources Availability Rating is based upon identifying the various water sources that may supply a given property and then determining whether different restrictions in supply are likely to take place in years that are characterized as being periods of drought and non-drought (CDC 1997).

Water is currently supplied to the project site (via wells); however water availability is expected to be restricted during non-drought years and typically unavailable during drought years. Indeed, the majority

of agricultural use in the project area was dry land farming. Based on Table 3, it was determined that irrigated production is feasible during non-drought years, but there would be physical and economic restrictions to agricultural production and unavailable during drought years (MBA 2008).

Table 3 – Water Resource Availability Scoring

Option	Non-Drought Years			Drought Years			Water Resource Score
	Restrictions			Restrictions			
	Irrigated Production Feasible?	Physical Restriction?	Economic Restrictions?	Irrigated Production Feasible?	Physical Restriction?	Economic Restrictions?	
1	YES	NO	NO	YES	NO	NO	100
2	YES	NO	NO	YES	NO	YES	95
3	YES	NO	YES	YES	NO	YES	90
4	YES	NO	NO	YES	YES	NO	85
5	YES	NO	NO	YES	YES	YES	80
6	YES	YES	NO	YES	YES	NO	75
7	YES	YES	YES	YES	YES	YES	65
8	YES	NO	NO	NO	—	—	50
9	YES	NO	YES	NO	—	—	45
10	YES	YES	NO	NO	—	—	35
11	YES	YES	YES	NO	—	—	30
12	Irrigated production not feasible, but rainfall adequate for dry land production in both drought and non-drought years						25
13	Irrigated production not feasible, but rainfall adequate for dry land production in non-drought years (but not in drought years)						20
14	Neither irrigated nor dry land production feasible						0

Surrounding Agricultural Land Rating

Determination of this rating is based upon identifying the project's Zone of Influence (ZOI), which is defined as that land near a given project that is likely to influence, and be influenced by, the agricultural land use of the subject project site. The ZOI is determined by creating the smallest rectangle that will completely contain the project site, then creating a second rectangle that extends 0.25 mile beyond the first rectangle and including each parcel that is completely or partially within the 0.25-mile buffer.

For this report, Geographic Information Systems (GIS) was utilized to calculate the ZOI. The percentage of total land within this area (minus the project site) that is under agricultural production is then determined. The total acreage of the project's ZOI is approximately 5021.5 acres (excluding the project site). Approximately 1,572.7 acres in the ZOI are currently under agricultural production. This results in a score of zero.

Table 4 – Surrounding Agricultural Land Rating

Percentage of Project's Zone of Influence in Agricultural Use	Surrounding Agricultural Land Score
90-100%	100
80-89	90
75-79	80

Table 4 – Surrounding Agricultural Land Rating

Percentage of Project's Zone of Influence in Agricultural Use	Surrounding Agricultural Land Score
70-74	70
65-69	60
60-64	50
55-59	40
50-54	30
45-49	20
40-44	10
<40	0

Surrounding Protected Resource Land Rating

This rating is scored in a similar manner to the surrounding agricultural land rating. Protected Resource Lands are those with long-term restrictions that are compatible with or supportive of agricultural uses of land and include the following:

- Williamson Act contracted lands;
- Publicly owned lands maintained as park, forest, or watershed resources; and
- Lands with agricultural, wildlife habitat, open space or other natural resource easements that restrict the conversion of such lands to urban industrial uses.

There is approximately 1,089.8 acres, about 22 percent, in the ZOI considered protected resource land (Lake Perris State recreation Area); therefore, the score results in zero.

Table 5 – Surrounding Protected Resource Land Rating

Percent of Project's Zone Defined as Protected	Surrounding Protected Resource Land Score
90-100%	100
80-89	90
75-79	80
70-74	70
65-69	60
60-64	50
55-59	40
50-54	30
45-49	20
40-44	10
<40	0

Final LESA Score

A single LESA score is then generated for a given project after all the Land Evaluation and Site Assessment factors have been scored and weighted. Scores are based on a scale of a maximum 100 points.

Table 6 – California LESA Model Scoring Thresholds

Total LESA Score	Scoring Decision
0 to 39 points	Not considered significant
40 to 59 points	Considered significant only if LE and SA sub-scores are each greater than or equal to 20 points
60 to 79 points	Considered significant unless either LE or SA subscore is less than 20 points
80 to 100 points	Considered significant

Source: CDC 1997

LESA Worksheets

Table 7A – Land Evaluation Worksheet: Land Capability Classification (LCC)

Soil Map Unit	Project Acres	Proportion of Project Area	LCC (Irrigated)	LCC Rating	LCC Score
AkC	5.2	0.002	2e	90	0.18
BaG	15.7	0.006	8	0	0.00
GhC	8.1	0.003	3s	60	0.19
GyC2	0.2	0.000	2e	90	0.01
GyD2	5.0	0.002	3e	70	0.13
HcC	2.3	0.001	2e	90	0.08
HcD2	5.1	0.002	3e	70	0.14
MdC	180.1	0.069	3s	60	4.14
MeD	3.5	0.001	7w	10	0.01
MfA	1.8	0.001	3s	60	0.04
MID	109.9	0.042	3s	60	2.53
RdD2	4.5	0.002	4e	50	0.09
RtF	67.8	0.026	8	0	0.00
SeA	30.8	0.012	1	100	1.18
SeC2	901.7	0.345	2e	90	31.09
SeD2	3.5	0.001	3e	70	0.09
SgA	134.4	0.052	1	100	5.15
SgC	1,121.6	0.430	2e	90	38.67
SmE2	8.9	0.003	4e	50	0.17
Totals	2610.0	1.0	***LCC Total***		83.89

Table 7B – Land Evaluation Worksheet: Storie Index Rating

Soil Map Unit	Project Acres	Proportion of Project Area	Storie Index Rating	Storie Score
AkC	5.2	0.002	77	0.15
BaG	15.7	0.006	5	0.03
GhC	8.1	0.003	57	0.18
GyC2	0.2	0.000	81	0
GyD2	5.0	0.002	73	0.15
HcC	2.3	0.001	86	0.08
HcD2	5.1	0.002	65	0.13
MdC	180.1	0.069	58	4.00
MeD	3.5	0.001	29	0.04
MfA	1.8	0.001	77	0.05
MID	109.9	0.042	42	1.77

Table 7B – Land Evaluation Worksheet: Storie Index Rating

Soil Map Unit	Project Acres	Proportion of Project Area	Storie Index Rating	Storie Score
RdD2	4.5	0.002	54	0.09
RtF	67.8	0.026	0	0.00
SeA	30.8	0.012	86	1.02
SeC2	901.7	0.345	86	29.71
SeD2	3.5	0.001	77	0.10
SgA	134.4	0.052	95	4.89
SgC	1,121.6	0.430	86	36.96
SmE2	8.9	0.003	41	0.14
Totals	2610.0	1.0	***Storie Index Total 79.49***	

Table 8 – Site Assessment Worksheet

Soils	LCC Class I-II	LCC Class III	LCC Class IV-VIII
AkC	5.4		
BaG			16.2
GhC		7.8	
GyC2	0.2		
GyD2		5	
HcC	2.3		
HcD2		4.4	
MdC		113.2	
MeD			2.2
MfA		181.6	
MID		3.6	
RdD2			4.6
RtF			29.8
SeA	31.1		
SeC2	928.6		
SeD2		3.6	
SgA	127.8		
SgC	1138.6		
SmE2			9.2
Total Acres	2234.0	319.2	62
Project Size Scores	100	100	20

Table 9 – Water Resource Availability Worksheet

Project Portion	Water Source	Proportion of Project Area	Water Availability Score	Weighted Availability Score
1	Irrigated	1.0	30	30
2				
3				
4				
5				
	Totals:	1.0	**Total Water Resource Score**	30

Table 10 – Surrounding Agricultural Land Rating Worksheet

Zone of Influence in Agricultural Use		
Total Acres	**Acres in Agriculture**	**Percentage in Agriculture**
5,021.5	1,572.7	31%

Table 11 – Surrounding Protected Resource Land Rating Worksheet

Zone of Influence in Protected Resource Land		
Total Acres	**Acres of Protected Resource Land**	**Percentage Protected Resource Land**
5,021.5	1,089.8	22%

Table 12 – Final LESA Score Worksheet

Factor Name	Factor Scores	Factor Weight	Weighted Factor Scores
Land Evaluation			
Land Capability Classification	83.89	0.25	21.0
Storie Index	79.49	0.25	19.9
		LE Subtotal	40.9
Site Assessment			
Project Size	100	0.15	15.0
Water Resource Availability	30	0.15	4.5
Surrounding Agricultural Lands	0	0.15	0
Protected Resource Lands	0	0.05	0
		SA Subtotal	19.5
		Final LESA Score	60.4