

# **APPENDIX G**

---

## **LESA MODEL**

## Memorandum

To	Joseph Finocchiaro and Robert Ferrara, Wistaria Ranch Solar, LLC	Pages 8
CC	Kevin Grant, Ericsson-Grant, Inc. and Dave Black, Imperial County Planning & Development Services Department	
Subject	Responses to Imperial County Planning & Development Services Department Comments on the Wistaria Ranch Solar Energy Center Project Land Assessment	
From	Johanna Falzarano and Jenifer King, AECOM	
Date	January 13, 2014	

Imperial County Planning & Development Services Department (ICPDS) is the lead agency under the California Environmental Quality Act (CEQA) for the Wistaria Ranch Solar Energy Center Project (Project), and EGI is currently preparing an Environmental Impact Report (EIR) for the Project in collaboration with ICPDS. As the Project will be comprised of 17 Conditional Use Permits (CUPs) to be processed by ICPDS, ICPDS has requested that Wistaria Ranch Solar, LLC provide additional information that specifies the Project's impacts to Prime Farmland, Farmland of Statewide Importance, or Unique Farmland, as defined by the California Department of Conservation's (DOC's) Farmland Mapping and Monitoring Program (FMMP). The information in this memorandum serves as a supplement to the *Land Evaluation and Site Assessment [LESA] Models for the Wistaria Ranch Solar Energy Center Project, Imperial County*, which was prepared in January 2013 by AECOM for Wistaria Ranch Solar, LLC in support of the Project. Based on the LESA model for the overall Project site, the Project is considered to have a significant impact on agricultural resources. Therefore, conducting a separate model by CUP would not change the outcome of the overall Project LESA analysis.

Appendix G of the CEQA Guidelines focuses on the conversion of agricultural land on Prime Farmland, Farmland of Statewide Importance, or Unique Farmland. The conversion of these types of farmland is considered an environmental impact under CEQA. Therefore, the following memorandum summarizes the DOC's FMMP definitions of Important Farmland, identifies the Assessor's Parcel Numbers (APNs) that comprise each of the Project's 17 CUPs, provides the total acreage of each CUP, and identifies the acreage of Important Farmland (i.e., Prime Farmland, Farmland of Statewide Importance, and Unique Farmland) within each CUP, based on the Imperial County Important Farmland map, published by DOC's Division of Land Resource Protection.

### Important Farmland Definitions

The DOC's Important Farmland classifications—Prime Farmland, Farmland of Statewide Importance, Unique Farmland, and Farmland of Local Importance—recognize the land's suitability for agricultural production by considering physical and chemical characteristics of the soil, such as soil temperature range, depth of the groundwater table, flooding potential, rock fragment content, and rooting depth. The classifications also consider location, growing season, and moisture available to sustain high-yield crops. According to the FMMP:

- **Prime Farmland**—Land that has the best combination of physical and chemical features able to sustain long-term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the 4 years prior to the mapping date.
- **Farmland of Statewide Importance**—Land 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 irrigated agricultural production at some time during the 4 years prior to the mapping date.
- **Unique Farmland**—Land of lesser quality soil used for the production of the state's leading agricultural cash 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 cropped at some time during the 4 years prior to the mapping date.
- **Farmland of Local Importance**—Land that is of importance to the local agricultural economy, as defined by each county's local advisory committee and adopted by its board of supervisors. Farmland of Local Importance either is currently producing or has the capability to produce, but does not meet the definition of Prime Farmland, Farmland of Statewide Importance, or Unique Farmland.

#### CUP 13-0036

CUP 13-0036 is comprised of 190.6 acres and includes the following APNs:

- 052-210-006
- 052-210-025
- 052-210-026
- 052-210-029

As shown on the table below, approximately 190.5 acres of land within CUP 13-0036 is designated as Important Farmland. Of this total, approximately 2.0 acres of land is designated as Prime Farmland and 188.5 acres of land is designated as Farmland of Statewide Importance.

#### Important Farmland within CUP 13-0036

Important Farmland Category	Acres
Prime Farmland	2.0
Farmland of Statewide Importance	188.5
<b>Important Farmland Total</b>	<b>190.5</b>
Sources: DOC 2010; Data compiled by AECOM in 2014	

#### CUP 13-0037

CUP 13-0037 is comprised of 223.7 acres and includes the following APNs:

- 052-180-028
- 052-180-039

As shown on the table below, approximately 184.1 acres of land within CUP 13-0037 is designated as Farmland of Statewide Importance.

### Important Farmland within CUP 13-0037

Important Farmland Category	Acres
Farmland of Statewide Importance	184.1
<b>Important Farmland Total</b>	<b>184.1</b>
Sources: DOC 2010; Data compiled by AECOM in 2014	

### CUP 13-0038

CUP 13-0038 is comprised of 162.9 acres and includes APN 052-180-045. All of the land within CUP 13-0038 is designated as Farmland of Statewide Importance.

### CUP 13-0039

CUP 13-0039 is comprised of 159.9 acres and includes the following APNs:

- 052-180-034
- 052-180-054

As shown on the table below, all of the land within CUP 13-0039 is designated as Important Farmland. Of this total, approximately 15.1 acres of land is designated as Prime Farmland and 144.8 acres of land is designated as Farmland of Statewide Importance.

### Important Farmland within CUP 13-0039

Important Farmland Category	Acres
Prime Farmland	15.1
Farmland of Statewide Importance	144.8
<b>Important Farmland Total</b>	<b>159.9</b>
Sources: DOC 2010; Data compiled by AECOM in 2014	

### CUP 13-0040

CUP 13-0040 is comprised of 148.5 acres and includes APN 052-180-015. As shown on the table below, all of CUP 13-0040 is designated as Important Farmland. Of this total, approximately 21.5 acres of land is designated as Prime Farmland and approximately 127.0 acres of land is designated as Farmland of Statewide Importance.

### Important Farmland within CUP 13-0040

Important Farmland Category	Acres
Prime Farmland	21.5
Farmland of Statewide Importance	127.0
<b>Important Farmland Total</b>	<b>148.5</b>
Sources: DOC 2010; Data compiled by AECOM in 2014	

### CUP 13-0041

CUP 13-0041 is comprised of 153.6 acres and includes APN 052-180-012. All of the land within CUP 13-0041 is designated as Farmland of Statewide Importance.

### CUP 13-0042

CUP 13-0042 is comprised of 231.3 acres and includes the following APNs:

- 052-180-001
- 052-180-002
- 052-180-011
- 052-180-014
- 052-440-009

As shown on the table below, approximately 206.9 acres of land within CUP 13-0042 is designated as Important Farmland. Of this total, approximately 8.6 acres of land is designated as Prime Farmland and 198.3 acres of land is designated as Farmland of Statewide Importance.

#### **Important Farmland within CUP 13-0042**

<b>Important Farmland Category</b>	<b>Acres</b>
Prime Farmland	8.6
Farmland of Statewide Importance	198.3
<b>Important Farmland Total</b>	<b>206.9</b>
Sources: DOC 2010; Data compiled by AECOM in 2014	

#### **CUP 13-0043**

CUP 13-0043 is comprised of 152.1 acres and includes the following APNs:

- 052-350-021
- 052-350-022

As shown on the table below, all of the land within CUP 13-0043 is designated as Important Farmland. Of this total, approximately 50.4 acres of land is designated as Prime Farmland and 101.7 acres of land is designated as Farmland of Statewide Importance.

#### **Important Farmland within CUP 13-0043**

<b>Important Farmland Category</b>	<b>Acres</b>
Prime Farmland	50.4
Farmland of Statewide Importance	101.7
<b>Important Farmland Total</b>	<b>152.1</b>
Sources: DOC 2010; Data compiled by AECOM in 2014	

#### **CUP 13-0044**

CUP 13-0044 is comprised of 79.8 acres and includes APN 052-440-006. All of the land within CUP 13-0044 is designated as Farmland of Statewide Importance.

#### **CUP 13-0045**

CUP 13-0045 is comprised of 76.7 acres and includes APN 052-350-020. As shown on the table below, approximately 28.5 acres of land within CUP 13-0045 is designated as Important Farmland. Of this total, approximately 25.6 acres of land is designated as Prime Farmland, 22.0 acres of land is designated as Farmland of Statewide Importance, and 0.9 acres of land is designated as Unique Farmland.

**Important Farmland within CUP 13-0045**

<b>Important Farmland Category</b>	<b>Acres</b>
Prime Farmland	25.6
Farmland of Statewide Importance	22.0
Unique Farmland	0.9
<b>Important Farmland Total</b>	<b>28.5</b>
Sources: DOC 2010; Data compiled by AECOM in 2014	

**CUP 13-0046**

CUP 13-0046 is comprised of 202.3 acres and includes the following APNs:

- 052-350-001
- 052-350-002
- 052-350-003
- 052-350-004

As shown on the table below, approximately 189.7 acres of land within CUP 13-0046 is designated as Important Farmland. Of this total, approximately 87.6 acres of land is designated as Prime Farmland, 99.5 acres of land is designated as Farmland of Statewide Importance, and 2.3 acres of land is designated as Unique Farmland.

**Important Farmland within CUP 13-0046**

<b>Important Farmland Category</b>	<b>Acres</b>
Prime Farmland	87.6
Farmland of Statewide Importance	99.5
Unique Farmland	2.3
<b>Important Farmland Total</b>	<b>189.7</b>
Sources: DOC 2010; Data compiled by AECOM in 2014	

**CUP 13-0047**

CUP 13-0047 is comprised of 131.9 acres and includes the following APNs:

- 052-360-008
- 052-360-009
- 052-410-006

As shown on the table below, approximately 47.6 acres of land within CUP 13-0045 is designated as Important Farmland. Of this total, approximately 45.1 acres of land is designated as Prime Farmland, 0.2 acres of land is designated as Farmland of Statewide Importance, and 2.3 acres of land is designated as Unique Farmland.

### Important Farmland within CUP 13-0047

Important Farmland Category	Acres
Prime Farmland	45.1
Farmland of Statewide Importance	0.2
Unique Farmland	2.3
<b>Important Farmland Total</b>	<b>47.6</b>
Sources: DOC 2010; Data compiled by AECOM in 2014	

### CUP 13-0048

CUP 13-0048 is comprised of 160.0 acres and includes APN 052-440-005. All of the land within CUP 13-0044 is designated as Important Farmland. Of this total approximately 10.7 acres of land is designated as Prime Farmland and 149.3 acres of land is designated as Farmland of Statewide Importance.

### Important Farmland within CUP 13-0048

Important Farmland Category	Acres
Prime Farmland	10.7
Farmland of Statewide Importance	149.3
<b>Important Farmland Total</b>	<b>160.0</b>
Sources: DOC 2010; Data compiled by AECOM in 2014	

### CUP 13-0049

CUP 13-0049 is comprised of 159.9 acres and includes the following APNs:

- 052-440-003
- 052-440-004

As shown on the table below, approximately 157.6 acres of land within CUP 13-0045 is designated as Important Farmland. Of this total, approximately 7.9 acres of land is designated as Prime Farmland and 149.7 acres of land is designated as Farmland of Statewide Importance.

### Important Farmland within CUP 13-0049

Important Farmland Category	Acres
Prime Farmland	7.9
Farmland of Statewide Importance	149.7
<b>Important Farmland Total</b>	<b>157.6</b>
Sources: DOC 2010; Data compiled by AECOM in 2014	

### CUP 13-0050

CUP 13-0050 is comprised of 123.5 acres and includes APN 052-210-019. As shown on the table below, approximately 121.5 acres of land within CUP 13-0045 is designated as Important Farmland. Of this total, approximately 120.3 acres of land is designated as Prime Farmland and 1.2 acres of land is designated as Farmland of Statewide Importance.

**Important Farmland within CUP 13-0050**

<b>Important Farmland Category</b>	<b>Acres</b>
Prime Farmland	120.3
Farmland of Statewide Importance	1.2
<b>Important Farmland Total</b>	<b>121.5</b>
Sources: DOC 2010; Data compiled by AECOM in 2014	

**CUP 13-0051**

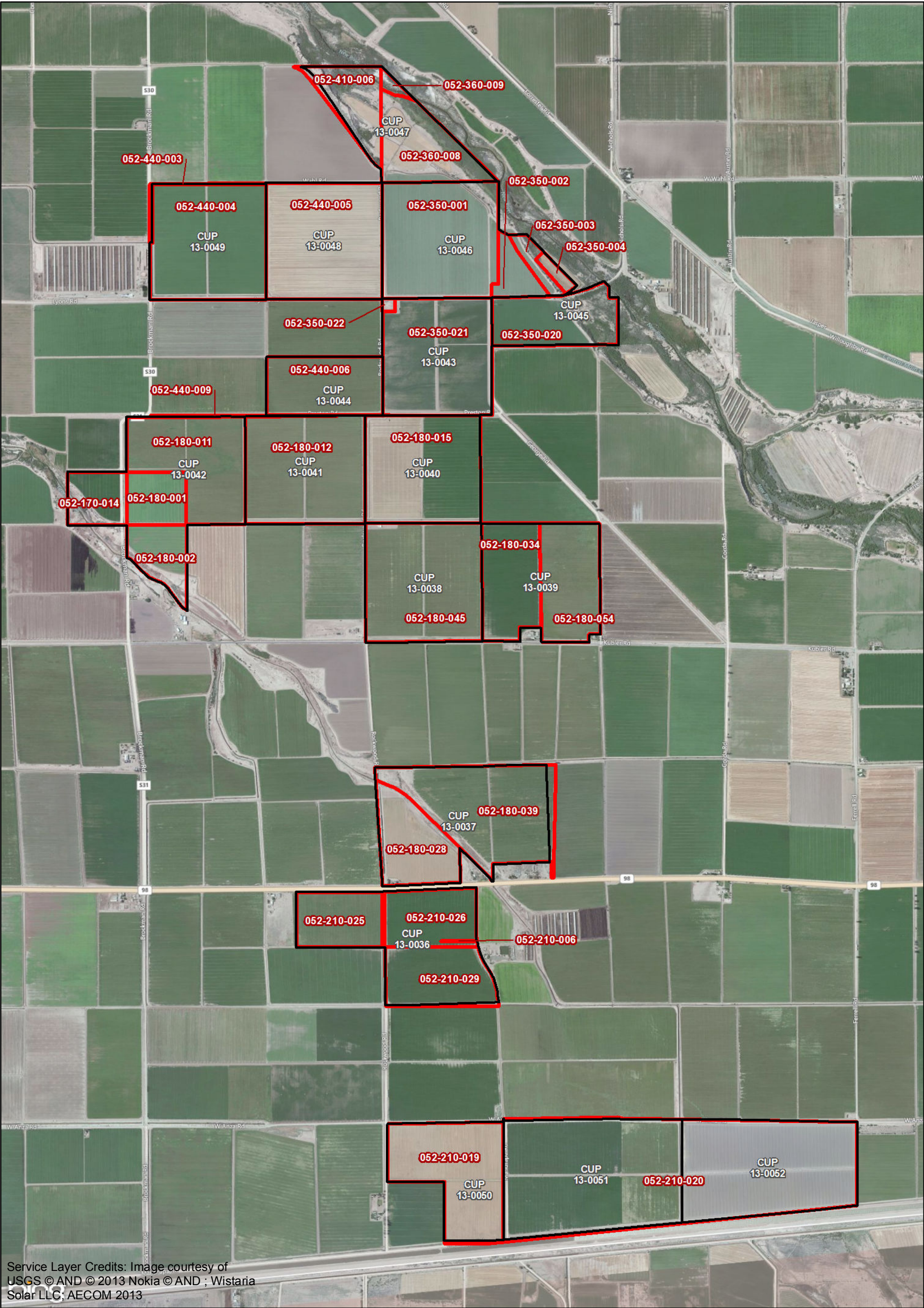
CUP 13-0051 is comprised of 241.9 acres and includes a portion of APN 052-210-020. Approximately 236.0 acres of CUP 13-0051 is designated as Farmland of Statewide Importance.

**CUP 13-0052**

CUP 13-0052 is comprised of 194.1 acres and includes the remaining portion of APN 052-210-020. Approximately 190.1 acres of CUP 13-0052 is designated as Farmland of Statewide Importance.

Should you have any questions or need additional information, please contact Johanna Falzarano (805-764-4019).

*Attachment: Project Parcels and CUP Figure*



Service Layer Credits: Image courtesy of  
USGS © AND © 2013 Nokia © AND ; Wistaria  
Solar LLC; AECOM 2013

0 1,000 2,000  
Feet  
1:24,000 1 inch = 2,000 feet

**Legend:**  
 Project Parcels  
 Conditional Use Permit (CUP) Area

Wistaria Ranch Solar Energy Center

Project Parcels and 71 Dg

Project Number: 60250473 Date: 1/13/2014

Project Name: Wistaria Ranch Solar  
Projection: NAD 83 CA State Plane Zone 6

Path: P:\2012\60250473\06GIS\6.3\_Layout\ESAL ESA\_analysis.mxd



Environment

Prepared for:  
Wistaria Ranch Solar, LLC  
Omaha, Nebraska

Prepared by:  
AECOM  
Camarillo, CA  
60250473  
January 2013

# **Land Evaluation and Site Assessment Models for the Wistaria Ranch Solar Energy Center Project**

## **Imperial County, California**



THIS PAGE INTENTIONALLY LEFT BLANK.

# Land Evaluation and Site Assessment Models for the Wistaria Ranch Solar Energy Center Project

## Imperial County, California



Prepared By Jenifer King



Reviewed By Jeff Goldman

THIS PAGE INTENTIONALLY LEFT BLANK.

# Contents

<b>Executive Summary .....</b>	<b>1</b>
<b>1.0 Introduction.....</b>	<b>1-1</b>
<b>2.0 Project Description.....</b>	<b>2-1</b>
2.1 Project Site .....	2-1
2.1.1 Wistaria Ranch Site .....	2-1
2.1.2 Wistaria Ranch 560-Acre Site .....	2-2
2.2 Project Facilities .....	2-3
<b>3.0 Land Evaluation and Site Assessment Evaluation .....</b>	<b>3-1</b>
3.1 Land Evaluation .....	3-1
3.1.1 Explanation of Acreage Estimation .....	3-1
3.1.2 Land Capability Class System.....	3-2
3.1.3 Storie Index Rating .....	3-3
3.1.4 Project Site Soil Conditions .....	3-5
3.1.5 Land Capability Classification and Storie Index Scores for the Project.....	3-6
3.2 Site Assessment Factors .....	3-9
3.2.1 Project Size Rating .....	3-9
3.2.2 Water Resources Availability Rating .....	3-12
3.2.3 Surrounding Agricultural Land Rating .....	3-12
3.2.4 Surrounding Protected Resource Land Rating .....	3-13
<b>4.0 Summary .....</b>	<b>4-1</b>
4.1 Final LESA Score Summary for the Project.....	4-1
4.2 California LESA Model Scoring Thresholds.....	4-3
<b>5.0 Conclusion .....</b>	<b>5-1</b>
<b>6.0 References .....</b>	<b>6-1</b>

## List of Tables

Table 2.1-1 Wistaria Ranch Site Parcels.....	2-1
Table 3.1-1 Land Capability Classification of Soils .....	3-2
Table 3.1-2 Land Capability Subclassification of Soils .....	3-3
Table 3.1-3 Storie Index Rating System.....	3-4
Table 3.1-4 Soil Suitability on the Wistaria Ranch and Wistaria Ranch 560-Acre Sites .....	3-5
Table 3.1-5 Numeric Conversion of Land Capability Classifications.....	3-6
Table 3.1-6 Land Capability Classification and Storie Index Score for Soils on the Wistaria Ranch and Wistaria Ranch 560-Acre Sites.....	3-7
Table 3.2-1 Project Size Scoring .....	3-10
Table 3.2-2 Land Capability Classification Score for Soils on the Wistaria Ranch Site .....	3-10
Table 3.2-3 Land Capability Classification Score for Soils on the Wistaria Ranch 560-Acre Site .....	3-11
Table 3.2-4 Water Resources Availability for the Wistaria Ranch and Wistaria Ranch 560-Acre Sites .....	3-12
Table 3.2-5 Surrounding Agricultural Land and Surrounding Protected Resource Land for the Project.....	3-14
Table 4.1-1 Final LESA Score Summary for the Wistaria Ranch Site .....	4-1
Table 4.1-2 Final LESA Score Summary for the Wistaria Ranch 560-Acre Site .....	4-2
Table 4.2-1 California LESA Model Scoring Threshold .....	4-3

## List of Figures

- Figure 1 Wistaria Ranch Project Location
- Figure 2 Wistaria Ranch Site Soils Map
- Figure 3 Wistaria Ranch 560-Acre Site Soils Map
- Figure 4 Wistaria Ranch Site Zone of Influence
- Figure 5 Wistaria Ranch 560-Acre Site Zone of Influence

## Executive Summary

The Land Evaluation and Site Assessment (LESA) Model is an approach for rating the relative quality of land resources based upon specific measurable features. The formulation of the California LESA Model is intended to provide Lead Agencies, under the California Environmental Quality Act (CEQA), with an optional methodology to ensure that significant effects on the environment of agricultural land conversions are quantitatively and consistently considered in the environmental review process.

The following LESA analysis has been prepared for Wistaria Ranch Solar, LLC to assess the agricultural significance of lands on the Wistaria Ranch Solar Energy Center Project (Project) site, which is comprised of the Wistaria Ranch and Wistaria Ranch 560-Acre sites. Each site is evaluated separately in the following analysis. Collectively, the Project site consists of 3,223.32 acres of privately owned agricultural land in Imperial County, California.

The final LESA scores are 73.52 for the Wistaria Ranch site and 75.45 for the Wistaria Ranch 560-Acre site. As described in the following LESA analysis, a final LESA score between 60 and 79 points is considered significant unless either the Land Evaluation (LE) or the Site Assessment (SA) subscore is less than 20 points. However, both the LE and SA subscores for the Wistaria Ranch and Wistaria Ranch 560-Acre sites are greater than 20 points; therefore, the Project is considered to have a significant impact on agricultural resources.

THIS PAGE INTENTIONALLY LEFT BLANK.

## 1.0 Introduction

The Land Evaluation and Site Assessment (LESA) Model is an approach for rating the relative quality of land resources based upon specific measurable features. The LESA Model was first developed by the Federal Natural Resources Conservation Service (NRCS) in 1981. It was subsequently adapted in 1990 by the California Department of Conservation to evaluate land use decisions that affect the conversion of agriculture lands in California. The formulation of the California LESA Model is intended to provide Lead Agencies, under the California Environmental Quality Act (CEQA), with an optional methodology to ensure that significant effects on the environment of agricultural land conversions are quantitatively and consistently considered in the environmental review process. The Public Resources Code Section 21061.2 specifies that the use of the California LESA Model is sufficient to provide substantial evidence of the significance of farmland, the conversion of which to urban uses, would be a significant impact.

For determining the potential CEQA significance resulting from the conversion of agricultural lands to some other purpose, the California LESA Model includes scoring thresholds comprised of two Land Evaluation (LE) factors (Land Capability Classification [LCC] Rating and Storie Index Rating) and four Site Assessment (SA) factors (Project Size Rating, Water Resource Availability Rating, Surrounding Agricultural Land Rating, and Surrounding Protected Land Rating). For a given project, each of these factors is separately rated on a 100-point scale, and the total points determine whether agricultural land is significant. These LESA Scores do not take into consideration any proposed mitigation measures or other factors that might affect a Lead Agency's determination of the significance of the agricultural lands conversion impact under CEQA.

This LESA assessment is based on information obtained from the Soil Survey of Imperial County (NRCS 1981), the *California Agricultural Land Evaluation and Site Assessment Handbook* (California Department of Conservation 1997), and data obtained from Wistaria Ranch Solar, LLC (Project Proponent).

This LESA analysis is organized according to the following sections:

- Section 1.0, "Introduction," provides an overview of the LESA Model and describes the methodology used in the LESA analysis.
- Section 2.0, "Project Description," identifies the purpose of the Project, describes the location of the Wistaria Ranch and Wistaria Ranch 560-Acre sites, and describes the Project facilities.
- Section 3.0, "Land Evaluation and Site Assessment Evaluation," describes the two Land Evaluation factors (Land Capability Classification [LCC] Rating and Storie Index Rating) and four Site Assessment (SA) factors used in determining the significance of agricultural lands. This section defines the LCC system and Storie Index Ratings, identifies the soil conditions on the Wistaria Ranch and Wistaria Ranch 560-Acre sites based on the Soil Survey of Imperial County, and provides the LCC Ratings and Subclass Ratings associated with soils on the Project site when irrigated. In addition, this section defines these four SA factors (Project Size Rating, Water Resource Availability Rating, Surrounding Agricultural Land Rating, and Surrounding Protected Land Rating) and provides the Wistaria Ranch and Wistaria Ranch 560-Acre sites scores for these factors.

- Section 4.0, "Summary," presents the final LESA scores for the Wistaria Ranch and Wistaria Ranch 560-Acre sites and defines the California LESA Model scoring thresholds.
- Section 5, "Conclusion," summarizes the final LESA scores for the Wistaria Ranch and Wistaria Ranch 560-Acre sites and determines the agricultural significance of lands on the sites based on the California LESA Model scoring thresholds.

## 2.0 Project Description

The Project is the construction of a solar photovoltaic (PV) energy-generating facility up to 250 megawatts in size. The Project will use PV technology to convert sunlight directly into direct current electricity using PV cells that make up PV modules (environmentally sealed collections of PV cells), which are wired together to form a PV array.

The Project area consists of 3,223.32 acres of privately owned agricultural in Imperial County, California,<sup>1</sup> and is generally located north of the U.S.-Mexico border, south of Wahl Road, east of Brockman and Rockwood Roads, and west of Ferrell and Corda Roads. Greeson Wash is located along the southwest border of the Project and New River abuts the northeast border of the Project. Figure 1 shows the location of the Project. The Project site is comprised of two sites that are evaluated separately in this analysis: the approximately 2,664-acre Wistaria Ranch site and the Wistaria Ranch 560-Acre site. These sites are described in detail below.

The Project is being developed by the Project Proponent to sell its electricity and all renewable and environmental attributes to an electric utility purchaser under a long-term contract to help meet California Renewable Portfolio Standards goals.

### 2.1 Project Site

#### 2.1.1 Wistaria Ranch Site

The Wistaria Ranch site encompasses 2,663.75 acres on 35 parcels of privately-owned land located north of an unnamed, private road (located approximately ½ mile south of State Route 98), northeast of Greeson Wash, southeast of New River, east of Brockman Road, and west of Corda Road (Figure 1). The site is approximately 1 mile north of the United States-Mexico border and 5 miles west of Calexico, California. Table 2.1-1 shows the Assessor's Parcel Numbers (APNs) and approximate acreage of the parcels within the site.

The Wistaria Ranch site includes active and fallow agricultural fields, paved and unpaved roadways, and irrigation canals/laterals. One rural residence is located on 5 acres within APN 052-180-034. These 5 acres will be retained by the landowner as an agricultural homesite and are not included in the Project's total acreage estimates. The land surrounding the site also includes active and fallow agricultural fields, scattered rural residences and agricultural outbuildings, paved and unpaved access roadways, and irrigation canals/laterals.

**Table 2.1-1 Wistaria Ranch Site Parcels**

APN	Acres	APN	Acres
052-170-014	36.98	052-350-002	23.20
052-180-001	36.56	052-350-003	12.90

<sup>1</sup> Source: Imperial County Assessor's parcel data.

**Table 2.1-1 Wistaria Ranch Site Parcels**

<b>APN</b>	<b>Acres</b>	<b>APN</b>	<b>Acres</b>
052-180-002	40.42	052-350-004	6.57
052-180-011	115.26	052-350-017	2.93
052-180-012	153.62	052-350-020	76.65
052-180-015	148.54	052-350-021	150.12
052-180-018	346.31	052-350-022	2.01
052-180-028	71.25	052-350-029	65.99
052-180-034	77.16 <sup>1</sup>	052-350-030	14.89
052-180-039	152.43	052-360-008	75.54
052-180-045	162.93	052-360-009	4.83
052-180-054	82.72	052-410-006	51.54
052-210-006	0.38	052-440-003	3.05
052-210-025	55.54	052-440-004	156.85
052-210-026	61.38	052-440-005	160.00
052-210-029	73.33	052-440-006	79.82
052-340-017	0.36	052-440-009	2.10
052-350-001	159.59	<b>Total</b>	<b>2,663.75</b>
Source: Parcel data and area estimates made available to AECOM by Wistaria Ranch Solar, LLC, provided by the Imperial County Assessor's Office. Notes: APN = Assessor's Parcel Number <sup>1</sup> The acreage of APN 052-180-034 is 82.16 acres; however, 5 acres will be retained by the landowner as an agricultural homesite and are not included in the total parcel or Project site acreage estimates.			

## 2.1.2 Wistaria Ranch 560-Acre Site

The Wistaria Ranch 560-Acre site consists of two parcels (APNs 052-210-019, at 123.54 acres and 052-210-020 at 436.03 acres, for a total of 559.57 acres). This site is located north of the United States-Mexico border, southeast of the intersection of Rockwood and Anza Roads, and approximately 4.5 miles west of Calexico, California (Figure 1).

The Wistaria Ranch 560-Acre site includes active and fallow agricultural fields, paved and unpaved roadways, and irrigation canals/laterals. The land surrounding the site also includes active and fallow agricultural fields, scattered rural residences and agricultural outbuildings, paved and unpaved access roadways, and irrigation canals/laterals.

## 2.2 Project Facilities

The Project will use conventional PV modules (either crystalline or thin-film) or concentrated PV modules; fixed-tilt, single, or dual-axis tracking structures; inverter stations; pad-mounted transformers; and a substation. Disconnect switches, fuses, circuit breakers, and other miscellaneous equipment will be installed throughout the system for electrical protection and operations and maintenance purposes. In addition to the structures associated with the solar field, the Project will include an operations and maintenance building(s) and may also include additional auxiliary facilities, such as raw water/fire water storage, treated water storage, evaporation ponds, water filtration buildings and equipment, equipment control buildings, septic system(s), and parking.

The Project will also include construction of a generation interconnection (gen-tie) transmission line. The gen-tie transmission line will begin at the intersection of Preston Road and Rockwood Road within the Wistaria Ranch site and will extend south along Rockwood Road, to a point where it will intercept previously-approved interconnection facilities (associated with the Mount Signal Solar Project) in the vicinity of the Project, and then continue south to Anza Road, where it will terminate at the Wistaria Ranch 560-Acre site. From the intersection of Rockwood Road and the Woodbine Lateral 2 canal (approximately ½ mile south of State Route 98) the Project will hang its conductors on poles built by the Mount Signal Solar Project that extend west towards the northeastern edge of the Imperial Solar Energy Center South (ISECS) site. The gen-tie will ultimately connect to the ISECS switchyard. If Mount Signal Solar does not build this gen-tie first, then the Project will build the gen-tie to accommodate itself and the Mount Signal Solar Project. Project components associated with the gen-tie transmission line that may be located outside the boundaries of the Project site are not expected to permanently remove adjacent agricultural land from agricultural production and are not considered in this LESA analysis.

THIS PAGE INTENTIONALLY LEFT BLANK.

## 3.0 Land Evaluation and Site Assessment Evaluation

As discussed above, the California LESA Model is created by defining and measuring two separate sets of factors:

- The LE factor measures the inherent soil-based qualities of land as they relate to agricultural suitability.
- The SA factor measures social, economic, and geographic attributes that also contribute to the overall value of agricultural land.

The following section describes the two LE factors (LCC Rating and Storie Index Rating) and four SA factors (Project Size Rating, Water Resource Availability Rating, Surrounding Agricultural Land Rating, and Surrounding Protected Land Rating) for the Wistaria Ranch and Wistaria Ranch 560-Acre sites. The Surrounding Agricultural Land Rating is designed to provide a measurement of the level of agricultural land use for lands within the Zone of Influence (ZOI). The ZOI is defined as the amount of surrounding lands up to at least one-quarter mile from the Project site boundary including parcels that are intersected by the quarter-mile buffer, which are included in their entirety.

For the purposes of this analysis, the amount of agricultural land that will be affected by the Project (both on site and within the ZOI) excludes existing public roads, ditches and canals, but includes unnamed dirt access roads within the agricultural fields.

### 3.1 Land Evaluation

The LE portion of the California LESA Model focuses on two main components that are separately rated:

- The LCC Rating indicates the suitability of soils for most kinds of crops. Soils are rated on a scale from Class I to Class VIII. Soils having the fewest limitations receive the highest rating (Class I) and those with most limitations the lowest (Class VIII).
- The Storie Index Rating provides a numeric rating (based on a 100-point scale) of the relative degree of suitability or value of a given soil for intensive agriculture use. This rating is based on soil characteristics only. Soils most suited for agricultural use receive the highest rating.

This section defines the LCC Rating and Storie Index Rating, identifies the soil conditions on the Wistaria Ranch and Wistaria Ranch 560-Acre sites based on the Soil Survey of Imperial County, and provides the LCC Ratings and Subclass Ratings associated with soils on the Project site when irrigated.

#### 3.1.1 Explanation of Acreage Estimation

The parcel list from Imperial County Assessor's office shows parcel acreages rounded to the nearest hundredth of an acre. This is the source of the acreage estimates provided in Sections 2.0 and 2.1 of this report. The acreage estimates are used to demonstrate consistency with the estimates included in the Conditional Use Permit Application for the Project, which was submitted to Imperial County Planning and Development Services in August 2012 by the Project Proponent. However, the

Geographic Information System (GIS) software used to prepare this LESA analysis calculates acreage estimates to the closest millionth of an acre (using data from the same source), which are then rounded when creating tables for analysis. Therefore, using spatial analysis to sum features over 37 parcels and 3,323.32 acres will result in slight discrepancies between acreage estimates. However, such minor discrepancies do not substantially affect the final LESA scores and conclusions of this analysis. The site acreage for the Wistaria Ranch site, according to GIS spatial analysis, is 2,663.74 acres, rather than the 2663.75 acres estimated from County parcel data. (As described previously, 5 acres for a homesite on parcel 052-180-034 is omitted from these estimates.) Further, the Soil Survey of Imperial County identifies 6.22 acres of the Wistaria Ranch site as Water, and therefore, the following LE scores for the Wistaria Ranch site are calculated using a total of 2,657.52 acres (i.e., 2,663.74 acres less 6.22 acres). This is in addition to 559.57 acres for the Wistaria Ranch 560-Acre site.

### 3.1.2 Land Capability Class System

The LCC reflects the soil's ability to support common crops and pasture plants without compromising the soil's quality over the long term. As noted previously, the LCC system uses eight LCCs (I through VIII) to rank soils. Generally, yields and profits from agricultural uses are more difficult to obtain as the ratings of the capability classification system increases. Prime farmlands generally correspond to Land Capability Ratings of Class I or Class II. Class III soils are considered "good," and Class IV soils are considered "fairly good" for agricultural use. Soils in Classes V through VIII are generally unsuited for agriculture, although these soils may be used for range, watershed, wildlife, and other non-intensive agricultural uses. A description of soil classification, as defined by the NRCS, is provided in Table 3.1-1.

**Table 3.1-1 Land Capability Classification of Soils**

<b>Class</b>	<b>Definition</b>
I	Soils have few limitations that restrict their use.
II	Soils have moderate limitations that reduce the choice of plants, or that require special conservation practices.
III	Soils have severe limitations that reduce the choice of plants, require conservation practices, or both.
IV	Soils have very severe limitations that reduce the choice of plants, require very careful management, or both.
V	Soils are not likely to erode but have other limitations; impractical to remove that limits their use largely to pasture or range, woodland, or wildlife habitat.
VI	Soils have severe limitations that make them generally unsuited to cultivation and limit their use largely to pasture, or range, woodland, or wildlife habitat.
VII	Soils have very severe limitations that make them unsuited to cultivation and that restrict their use largely to pasture or range, woodland, or wildlife habitat.

**Table 3.1-1 Land Capability Classification of Soils**

<b>Class</b>	<b>Definition</b>
VIII	Soils and landforms have limitation that preclude their use for commercial plant production and restrict their use to recreation, wildlife habitat, or water supply, or to aesthetic purposes.
Source: NRCS 2001	

Capability Subclass is the second category in the LCC system, which are designated by adding a Subclass (denoted by a small letter e, w, s, or c) to the Class numeral. A description of soil subclassification, as defined by the NRCS, is provided in Table 3.1-2.

**Table 3.1-2 Land Capability Subclassification of Soils**

<b>Subclass</b>	<b>Definition</b>
e	Soils for which the susceptibility to erosion is the dominant problem or hazard affecting their use.
w	Soils for which excess water is the dominant hazard or limitation affecting their use, such as poor soil drainage, wetness, a high water table, and overflow.
s	Soils that have soil limitations within the rooting zone, such as shallowness of the rooting zone, stones, low moisture-holding capacity, low fertility that is difficult to correct, and salinity or sodium content.
c	Soils for which the climate (the temperature or lack of moisture) is the major hazard or limitation affecting their use.
Source: NRCS 2001	

Within a capability Class, where the limitation types are essentially equal, the Subclasses have the following order: e, w, s, and c. In Class I, there are no Subclasses, because the soils of this Class have few limitations. Class V contains only Subclasses w, s, or c, because the soils in Class V are subject to little or no erosion. They have other limitations (such as poor soil drainage, low moisture-holding capacity, low fertility, and salinity or sodium content) that restrict their use to pasture, rangeland, forestland, or wildlife habitat (NRCS 2001).

Section 3.1.4 provides the LCC Ratings and Subclass Ratings associated with soils on the Wistaria Ranch and Wistaria Ranch 560-Acre sites when irrigated.

### 3.1.3 Storie Index Rating

The NRCS also assigns Storie Index Ratings, which rank soil characteristics according to their suitability for agriculture from Grade 1 soils, which have few or no limitations for agricultural

production, to Grade 6 soils, which are not suitable for agriculture. Under this system, soils identified as less than prime can function as prime soils when limitations (such as poor drainage, slopes, or soil nutrient deficiencies) are partially or completely addressed. The six grades and definition of the grades for the Project site soils, based on NRCS and Storie Index Rating systems, are described in Table 3.1-3.

**Table 3.1-3 Storie Index Rating System**

Grade	Index Rating	Definition
1—Excellent	80 to 100	Soils are well suited to intensive use for growing irrigated crops that are climatically suited to the region.
2—Good	60 to 79	Soils are good agricultural soils, although they may not be so desirable as Grade 1 because of moderately coarse, coarse, or gravelly surface soil texture; somewhat less permeable subsoil; lower plant available water holding capacity, fair fertility; less well-drained conditions, or slight to moderate flood hazards, all acting separately or in combination.
3—Fair	40 to 59	Soils are only fairly well suited to general agricultural use and are limited in their use because of moderate slopes; moderate soil depths; less permeable subsoil; fine, moderately fine or gravelly surface soil textures; poor drainage; moderate flood hazards; or fair to poor fertility levels, all acting alone or in combination.
4—Poor	20 to 39	Soils are poorly suited. They are severely limited in their agricultural potential because of shallow soil depths, less permeable subsoil, steeper slopes, or more clayey or gravelly surface soil textures than Grade 3 soils, as well as poor drainage, greater flood hazards, hummocky micro-relief, salinity, or fair to poor fertility levels, all acting alone or in combination.
5—Very poor	10 to 19	Soils are very poorly suited for agriculture, are seldom cultivated, and are more commonly used for range, pasture, or woodland.
6—Nonagricultural	Less than 10	Soils are not suited for agriculture at all because of very severe to extreme physical limitations, or because of urbanization.
Source: NRCS 1981		

Section 3.1.4 identifies the Storie Index Ratings for soils on the Wistaria Ranch and Wistaria Ranch 560-Acre sites.

### 3.1.4 Project Site Soil Conditions

The Soil Survey of Imperial County identified 14 soil types on the Wistaria Ranch site and six soil types on the Wistaria Ranch 560-Acre site. Table 3.1-4 details the varieties of soils found on each site, along with their LCC and Storie Index Ratings. The Soil Survey of Imperial County identifies the LCC and Storie Index Rating shown in Table 3.1-4 for soils on the sites. Figure 2 shows the distribution of soil types on the Wistaria Ranch site and Figure 3 shows the distribution of soil types on the Wistaria Ranch 560-Acre site.

**Table 3.1-4 Soil Suitability on the Wistaria Ranch and Wistaria Ranch 560-Acre Sites**

Map Symbol	Soil Map Unit	Land Capability Classification	Storie Index Rating
<b>Wistaria Ranch Site</b>			
102	Badland	VIIIe	N/A <sup>1</sup>
104	Fluvaquents, saline	N/A <sup>2</sup>	N/A <sup>1</sup>
106	Glenbar clay loam, wet	IIw	72
109	Holtville silty clay	IIIs	50
110	Holtville silty clay, wet	IIw	45
112	Imperial silty clay	IIIw	27
114	Imperial silty clay, wet	IIIw	42
115	Imperial-Glenbar silty clay loams, wet 0-2 percent slopes	IIIw	72
116	Imperial-Glenbar silty clay loams, 2-5 percent slopes	IIIe	84
117	Indio Loam	I	96
118	Indio Loam, wet	IIw	86
119	Indio-Vint complex	IIIs	96
142	Vint loamy very fine sand, wet	IIw	72
144	Vint and Indio very fine sandy loams, wet	IIw	50
<b>Wistaria Ranch 560-Acre Site</b>			
110	Holtville silty clay, wet	IIw	45
114	Imperial silty clay, wet	IIIw	42
115	Imperial-Glenbar silty clay loams, wet 0-2 percent slopes	IIIw	72
118	Indio Loam, wet	IIw	86
122	Meloland very fine sandy loam, wet	IIIw	44
123	Meloland and Holtville loams, wet	IIIw	75

**Table 3.1-4 Soil Suitability on the Wistaria Ranch and Wistaria Ranch 560-Acre Sites**

Map Symbol	Soil Map Unit	Land Capability Classification	Storie Index Rating
Source: NRCS 1981; data compiled by AECOM in 2012			
Notes:			
<sup>1</sup> The Soil Survey of Imperial County does not provide Storie Index Rating for the Badland and Fluvaquents soil unit.			
<sup>2</sup> The Soil Survey of Imperial County does not provide LCC Rating for the Fluvaquents soil unit.			

### 3.1.5 Land Capability Classification and Storie Index Scores for the Project

The LE score is calculated based on the LCC and Storie Index Ratings identified by the Soil Survey of Imperial County and shown above in Table 3.1-4. The LESA Model assigns numeric ratings to each LCC classification and the numeric conversions of LCC classifications to LCC Ratings are shown in Table 3.1-5.

**Table 3.1-5 Numeric Conversion of Land Capability Classifications**

LCC Classification	LCC Rating
I	100
Ile	90
Ils,w	80
IIle	70
IIls,w	60
IVe	50
IVs,w	40
V	30
VI	20
VII	10
VIII	0
Source: California Department of Conservation 1997:10	

The LCC score is calculated by multiplying the proportion of the Project in each soil type by the soil type's LCC Rating (Column C x Column E = Column F). A Storie Index score is calculated by multiplying the proportion of the Project in each soil type by the soil type's Storie Index Rating (Column C x Column G = Column H).

Table 3.1-6 provides a summary of the LCC score and Storie Index score for the Wistaria Ranch and Wistaria Ranch 560-Acre sites. The LCC score and Storie Index score for the Wistaria Ranch site are 61.35 and 58.72, respectively, and the LCC score and Storie Index score for the Wistaria Ranch 560-Acre site are 62.98 and 58.78, respectively. The LCC and Storie Index scores shown on Table 3.1-6 are entered into the Final LESA Score Sheets to calculate the final LE subscores (see Tables 4.1-1 and 4.1-2 in Section 4.0, "Summary").

**Table 3.1-6 Land Capability Classification and Storie Index Score for Soils on the Wistaria Ranch and Wistaria Ranch 560-Acre Sites**

A	B	C	D	E	F	G	H
Soil Name	Acres	Proportion of Project Site	LCC (Irrigated) <sup>1</sup>	LCC Rating (Irrigated) <sup>2</sup>	LCC Score (C x E)	Storie Index Rating <sup>3</sup>	Storie Index Score (C x G)
<b>Wistaria Ranch Site</b>							
102 Badland	44.46	0.017	VIII	0	0	N/A <sup>4</sup>	--
104 Fluvaquents, saline	54.37	0.020	N/A	N/A <sup>5</sup>	--	N/A <sup>4</sup>	--
106 Glenbar clay loam, wet	13.32	0.005	IIw	80	0.40	72	0.36
109 Holtville silty clay	28.40	0.011	IIs	80	0.88	50	0.55
110 Holtville silty clay, wet	260.41	0.098	IIw	80	7.84	45	4.41
112 Imperial silty clay	4.03	0.002	IIIw	60	0.12	27	0.05
114 Imperial silty clay, wet	1,129.81	0.425	IIIw	60	25.50	42	17.85
115 Imperial-Glenbar silty clay loams, wet 0-2 percent slopes	936.42	0.352	IIIw	60	21.12	84	29.57
116 Imperial-Glenbar silty clay loams, 2-5 percent slopes	23.16	0.009	IIle	70	0.63	72	0.65
117 Indio Loam	18.59	0.007	I	100	0.70	96	0.67

**Table 3.1-6 Land Capability Classification and Storie Index Score for Soils on the Wistaria Ranch and Wistaria Ranch 560-Acre Sites**

A	B	C	D	E	F	G	H
Soil Name	Acres	Proportion of Project Site	LCC (Irrigated) <sup>1</sup>	LCC Rating (Irrigated) <sup>2</sup>	LCC Score (C x E)	Storie Index Rating <sup>3</sup>	Storie Index Score (C x G)
118 Indio Loam, wet	63.79	0.024	IIw	80	1.92	86	2.06
119 Indio-Vint complex	58.23	0.022	IIs	80	1.76	96	2.11
142 Vint loamy very fine sand, wet	16.73	0.002	IIw	60	0.12	72	0.14
144 Vint and Indio very fine sandy loams, wet	5.80	0.006	IIw	60	0.36	50	0.30
<b>Total</b>	<b>2,657.52<sup>6</sup></b>	<b>1.00</b>	--	--	<b>61.35</b>	--	<b>58.72</b>
<b>Wistaria Ranch 560-Acre Site</b>							
110 Holtville silty clay, wet	45.90	0.082	IIw	80	6.56	45	3.69
114 Imperial silty clay, wet	226.57	0.405	IIIw	60	24.30	42	17.01
115 Imperial-Glenbar silty clay loams, wet 0-2 percent slopes	210.32	0.376	IIIw	60	22.56	72	27.07
118 Indio Loam, wet	37.58	0.067	IIw	80	5.36	86	5.76
122 Meloland very fine sandy loam, wet	0.01	0.0 <sup>7</sup>	IIIw	60	0.0	44	0.0
123 Meloland and Holtville loams, wet	39.19	0.070	IIIw	60	4.20	75	5.25
<b>Total</b>	<b>559.57</b>	<b>1.00</b>	--	--	<b>62.98</b>	--	<b>58.78</b>
Source: NRCS 1981; data compiled by AECOM in 2012 Notes: <sup>1</sup> The Soil Survey of Imperial County identifies the LCC Rating for soils on the Project site. <sup>2</sup> The LCC Scores for the soils on the Project site are shown on Table 3.1-5.							

**Table 3.1-6 Land Capability Classification and Storie Index Score for Soils on the Wistaria Ranch and Wistaria Ranch 560-Acre Sites**

A	B	C	D	E	F	G	H
Soil Name	Acres	Proportion of Project Site	LCC (Irrigated) <sup>1</sup>	LCC Rating (Irrigated) <sup>2</sup>	LCC Score (C x E)	Storie Index Rating <sup>3</sup>	Storie Index Score (C x G)
<sup>3</sup> The Soil Survey of Imperial County identifies the Storie Index Rating for soils on the Project site. <sup>4</sup> The Soil Survey of Imperial County does not provide Storie Index Rating for the Badland and Fluvaquents soil unit. <sup>5</sup> The Soil Survey of Imperial County does not provide LCC Rating for the Fluvaquents soil unit. <sup>6</sup> The total acreage for the Wistaria Ranch site excludes 6.22 acres of land identified by Soil Survey of Imperial County as Water, and therefore, is not included in the total Wistaria Ranch site acreage. <sup>7</sup> The proportion of the Wistaria Ranch 560-Acre site that is identified by the Soil Survey of Imperial County as Meloloand very fine sandy loam, wet, comprises less than a hundred thousandth of an acre; therefore the total proportion is assumed to be 0 acre.							

## 3.2 Site Assessment Factors

The California LESA Model includes four SA factors that are separately rated: Project Size Rating, Water Resources Availability Rating, Surrounding Agricultural Land Rating, and Surrounding Protected Resource Land Rating. This section defines these four SA factors and provides the Wistaria Ranch and Wistaria Ranch 560-Acre sites scores for these factors.

### 3.2.1 Project Size Rating

The Project Size Rating recognizes the role of farm size in determining the viability of commercial agricultural operations. With the exception of very high value crops, larger farming operations provide greater flexibility in farm management and marketing decisions. In addition, larger operations that involve crops with significant labor demands for harvesting and processing tend to have greater impacts upon the local economy through direct employment, as well as impacts upon supporting industries and food processing industries.

With regard to agricultural productivity, the size of the farming operation can be considered not just from its total acreage, but the acreage of different quality lands that comprise the operation. Lands with higher quality soils lend themselves to greater management and cropping flexibility and have the potential to provide greater economic return per acre unit. For a given project, instead of relying on a single acreage figure in the Project Size Rating, the project is divided into three acreage groupings (Classes I and II, Class III, and Classes IV – VIII) based upon the LCC Classes that were previously identified in Table 3.1-6 under Section 3.1, “Land Evaluation.”

Under the Project Size Rating, relatively fewer acres of high-quality soils are required to achieve a maximum Project Size Score. Alternatively, a maximum score on lesser quality soils could also achieve a maximum Project Size Score. The Project Size Score is determined first by adding the acreage of each soil type on the Project site using the three acreage groupings (Classes I and II, Class III, and Classes IV – VIII) then applying the appropriate score shown on Table 3.2-1. Tables 3.2-2 and 3.2-3 summarize the Project Size Scores for the Wistaria Ranch and Wistaria Ranch 560-Acre sites, respectively.

**Table 3.2-1 Project Size Scoring**

LCC Class I or II Soils		LCC Class III Soils		LCC Class IV- VIII Soils	
Acres	Score	Acres	Score	Acres	Score
80 or above	100	160 or above	100	320 or above	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
Less than 10	0	20-39	30	Less than 40	0
		10-19	10		
		Less than 10	0		
Source: California Department of Conservation 1997:14; data compiled by AECOM in 2012					

**Table 3.2-2 Land Capability Classification Score for Soils on the Wistaria Ranch Site**

Soil Name	Acres	Irrigated LCC <sup>1</sup>	LLC Class I or II	LCC Class III	LCC Class IV-VIII
Badland	44.46	VIII	--	--	44.46
Fluvaquents, saline	54.37	N/A <sup>2</sup>	--	--	--
Glenbar clay loam, wet	13.32	IIw	13.32	--	--
Holtville silty clay	28.40	IIs	28.40	--	--
Holtville silty clay, wet	260.41	IIw	260.41	--	--
Imperial silty clay	4.03	IIIw	--	4.03	--
Imperial silty clay, wet	1,129.81	IIIw	--	1,129.81	--
Imperial-Glenbar silty clay loams, wet 0-2 percent slopes	936.42	IIIw	--	936.42	--
Imperial-Glenbar silty clay loams, 2-5 percent slopes	23.16	IIIe	--	23.16	--
Indio Loam	18.59	I	18.59	--	--
Indio Loam, wet	63.79	IIw	63.79	--	--
Indio-Vint complex	58.23	IIs	58.23	--	--
Vint loamy very fine sand, wet	16.73	IIw	16.73	--	--

**Table 3.2-2 Land Capability Classification Score for Soils on the Wistaria Ranch Site**

Soil Name	Acres	Irrigated LCC <sup>i</sup>	LLC Class I or II	LCC Class III	LCC Class IV-VIII
Vint and Indio very fine sandy loams, wet	5.80	IIw	5.80	--	--
<b>Total Acres<sup>3</sup></b>	<b>2,657.52<sup>4</sup></b>	--	<b>465.27</b>	<b>2,093.42</b>	<b>44.46</b>
<b>Project Size Score<sup>5</sup></b>			<b>100</b>	<b>100</b>	<b>20</b>
<b>Highest Score</b>			<b>100</b>		

Source: California Department of Conservation 1997:14; data compiled by AECOM in 2012

Notes:

<sup>1</sup>The LCC for soils on the Project site is shown on Table 3.1-6.

<sup>2</sup>The Soil Survey of Imperial County does not provide LCC Rating for the Fluvaquents soil unit.

<sup>3</sup>The LLC Class I or II, Class III, and Class IV-VII do not total 2,657.52 acres, as there is no LLC Class for the Fluvaquents soil unit.

<sup>4</sup>The total acreage for the Wistaria Ranch site excludes 6.22 acres of land identified by Soil Survey of Imperial County as Water and, therefore, is not included in the total Wistaria Ranch site acreage.

<sup>5</sup>The Project Size Score was determined based on scores shown on Table 3.2-1.

**Table 3.2-3 Land Capability Classification Score for Soils on the Wistaria Ranch 560-Acre Site**

Soil Name	Acres	Irrigated LCC <sup>1</sup>	LLC Class I or II	LCC Class III	LCC Class IV-VIII
Holtville silty clay, wet	45.90	IIw	45.90	--	--
Imperial silty clay, wet	226.57	IIIw	--	226.57	--
Imperial-Glenbar silty clay loams, wet 0-2 percent slopes	210.32	IIIw	--	210.32	--
Indio Loam, wet	37.58	IIw	37.58	--	--
Meloland very fine sandy loam, wet	0.01	IIIw	--	0.01	--
Meloland and Holtville loams, wet	39.19	IIIw	--	39.19	--
<b>Total Acres</b>	<b>559.57</b>	--	<b>83.48</b>	<b>476.09</b>	<b>0</b>
<b>Project Size Scores<sup>2</sup></b>			<b>100</b>	<b>100</b>	<b>0</b>
<b>Highest Score</b>			<b>100</b>		
Source: California Department of Conservation 1997:14; data compiled by AECOM in 2012					
<sup>1</sup> The LCC for soils on the Project site is shown on Table 3.1-6.					
<sup>2</sup> The Project Size Score was determined based on scores shown on Table 3.2-1.					

### 3.2.2 Water Resources Availability Rating

The Water Resource Availability Rating is based on 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 drought and non-drought. The Project is completely served by irrigation water provided by the Imperial Irrigation District (IID). IID holds senior water rights to Colorado River water, and IID has determined that reliable water supplies are available to meet demand even in dry and multiple-dry water years (IID 2009). Therefore, the Project has no physical or economic restrictions that may alter water resource supply during either drought or non-drought years. Table 3.2-4 summarizes the Water Resources Availability score for the Wistaria Ranch and Wistaria Ranch 560-Acre sites.

**Table 3.2-4 Water Resources Availability for the Wistaria Ranch and Wistaria Ranch 560-Acre Sites**

Project Portion	Water Source	Proportion of the Project Site	Water Availability Score	Weighted Availability Score
<b>Wistaria Ranch Site</b>				
1	Irrigation Water	100%	100	100
<b>Total Water Resources Score</b>				<b>100</b>
<b>Wistaria Ranch 560-Acre Site</b>				
1	Irrigation Water	100%	100	100
<b>Total Water Resources Score</b>				<b>100</b>
Source: California Department of Conservation 1997:16; IID 2009				

### 3.2.3 Surrounding Agricultural Land Rating

The Surrounding Agricultural Land Rating is designed to provide a measurement of the level of agricultural land use for lands within the ZOI of the Project site. The ZOI is the amount of surrounding lands up to at least one-quarter mile from the Project site boundary. Parcels that are intersected by the quarter-mile buffer are included in their entirety. Based on the percentage of agricultural land in the ZOI, the Project site is assigned a "Surrounding Agricultural Land" score.

The LESA Model rates the potential significance of the conversion of an agricultural parcel that has a large proportion of surrounding land in agricultural production more highly than one that has a relatively small percentage of surrounding land in agricultural production. Figures 4 and 5 depict the distribution and amount of land used for agricultural uses within a quarter-mile of the Wistaria Ranch and Wistaria Ranch 560-Acre sites. Lands used for agricultural production surround the Wistaria Ranch site and lands used for agricultural production are located adjacent to the Wistaria Ranch 560-Acre site to the north, east, and west<sup>2</sup>. Irrigated production is feasible and there are not physical or

<sup>2</sup> The southern boundary of the 560-Acre Project site is adjacent to the U.S.-Mexican border.

economic restrictions in drought years or non-drought years; therefore, the Water Resource Score given for surrounding lands is the highest possible score as determined by the California Department of Conservation.

The Surrounding Agricultural Land scores for the Wistaria Ranch and Wistaria Ranch 560-Acre sites are provided in Table 3.2-5.

### 3.2.4 Surrounding Protected Resource Land Rating

The Surrounding Protected Resource Land Rating is essentially an extension of the Surrounding Agricultural Land Rating and is scored in a similar manner. Protected resource lands are those lands with long-term use restrictions that are compatible with or supportive of agricultural uses of land. Included among them are the following:

- Williamson Act contracted land;
- 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 land to urban or industrial uses.

There are no publicly owned lands maintained as park, forest, or watershed resources or lands with agricultural, wildlife habitat, open space, or other natural resource easements within the ZOI. Land under Williamson Act contracts are located within the ZOI for the Wistaria Ranch and Wistaria Ranch 560-Acre sites. The Surrounding Protected Resource Land scores for the Wistaria Ranch and Wistaria Ranch 560-Acre sites are provided in Table 3.2-5.

The Wistaria Ranch site ZOI includes 1,663 acres of lands under Williamson Act contracts. These contracts are located on the following Assessor's Parcel Numbers:

- |               |               |
|---------------|---------------|
| • 052-180-030 | • 052-360-021 |
| • 052-180-037 | • 052-360-028 |
| • 052-210-001 | • 052-360-029 |
| • 052-350-005 | • 052-410-007 |
| • 052-350-006 | • 052-410-008 |
| • 052-350-007 | • 052-410-010 |
| • 052-350-033 | • 052-440-001 |
| • 052-360-015 | • 052-440-011 |
| • 052-360-020 |               |

The Wistaria Ranch 560-Acre site ZOI includes 104 acres of land under a Williamson Act contract on Assessor's Parcel Number 052-210-039.

**Table 3.2-5 Surrounding Agricultural Land and Surrounding Protected Resource Land for the Project**

A	B	C	D	E	F	G
ZOI					Surrounding Agricultural Land Score	Surrounding Protected Resources Land Score
Total Acres <sup>1</sup>	Acres in Agricultural Production <sup>2</sup>	Acres of Protected Resource Land <sup>3</sup>	Percent in Agriculture (B/A)	Percent Protected Resource Land (C/A)		
Wistaria Ranch Site ZOI						
6,307	5,063	1,663	80	26	90	0
Wistaria Ranch 560-Acre Site ZOI						
1,322	1,199	104	90	8	100	0
Source: Department of Conservation 1997:24 and 25; data compiled by AECOM in 2012						
Notes:						
<sup>1</sup> The total acres include the gross acreage of all parcels within the ZOI.						
<sup>2</sup> The acres in agricultural production include parcels where agricultural production is feasible and excludes existing public roads, ditches, and canals.						
<sup>3</sup> The acres of protected resource land include land within the ZOI under Williamson Act contracts.						

## 4.0 Summary

This section presents the final LESA scores for the Wistaria Ranch and Wistaria Ranch 560-Acre sites, defines the California LESA Model scoring thresholds, and determines the significance of agricultural lands on the Wistaria Ranch and Wistaria Ranch 560-Acre sites based on the final LESA scores and California LESA Model scoring thresholds.

### 4.1 Final LESA Score Summary for the Project

A single LESA score is generated for a given project after all of the individual LE and SA factors have been scored and weighted. The California LESA Model is weighted so that 50 percent of the total LESA score of a given project is derived from the LE factors, and 50 percent from the SA factors. Individual factor weights are listed below in Table 4.1-1, with the sum of the factor weights required to equal 100 percent.

Table 4.1-1 presents the final LESA score for the Wistaria Ranch site and Table 4.1-2 presents the final LESA score for the Wistaria Ranch 560-Acre site. As shown in Table 4.1-1, the Wistaria Ranch site has a LE subscore of 30.02 and a SA subscore of 43.50; therefore, the final LESA score for the Wistaria Ranch site is 73.52. As shown in Table 4.1-2, the Wistaria Ranch 560-Acre site has a LE subscore of 30.45 and an SA subscore of 45.0; therefore, the final LESA score for the Wistaria Ranch 560-Acre site is 75.45.

**Table 4.1-1 Final LESA Score Summary for the Wistaria Ranch Site**

	<b>Factor Rating (1- 100 Points)</b>	<b>Factor Weighting<sup>1</sup></b>	<b>Weighted Factor Rating</b>
<b>Land Evaluation (LE)<sup>2</sup></b>			
Land Capability Classification (LCC) Rating	61.35	0.25	15.34
Storie Index	58.72	0.25	14.68
LE Subtotal		0.50	30.02
<b>Site Assessment (SA)<sup>3</sup></b>			
Project Size Rating	100	0.15	15
Water Resources Availability Rating	100	0.15	15
Surrounding Agricultural Land Rating	90	0.15	13.5
Surrounding Protected Resources Lands Rating	0	0.05	0

**Table 4.1-1 Final LESA Score Summary for the Wistaria Ranch Site**

SA Subtotal	0.50	43.50
<b>Total</b>		<b>73.52</b>
Source: Data compiled by AECOM in 2012 Notes: <sup>1</sup> The LE and SA factor weights are shown on page 29 of the LESA instruction manual (California Department of Conservation 1997) <sup>2</sup> The LCC score is shown in column F and the Storie Index score is shown in column H on Table 3.1-6. <sup>3</sup> The Project Size Rating is shown in Table 3.2-2, Water Resources Availability Rating is shown in Table 3.2-4, Surrounding Agricultural Land Rating and Protected Resource Land Ratings are shown in Table 3.2-5.		

**Table 4.1-2 Final LESA Score Summary for the Wistaria Ranch 560-Acre Site**

	<b>Factor Rating (1-100 Points)</b>	<b>Factor Weighting<sup>1</sup></b>	<b>Weighted Factor Rating</b>
<b>Land Evaluation (LE)<sup>2</sup></b>			
LCC Rating	62.98	0.25	15.75
Storie Index Rating	58.78	0.25	14.70
LE Subtotal		0.50	30.45
<b>Site Assessment (SA)<sup>3</sup></b>			
Project Size Rating	100	0.15	15
Water Resources Availability Rating	100	0.15	15
Surrounding Agricultural Land Rating	100	0.15	15
Surrounding Protected Resources Lands Rating	0	0.05	0
SA Subtotal		0.50	45.00
<b>Total</b>			<b>75.45</b>
Source: Data compiled by AECOM in 2012 Notes: <sup>1</sup> The LE and SA factor weights are shown on page 30 of the LESA instruction manual (California Department of Conservation 1997) <sup>2</sup> The LCC score is shown in column F and the Storie Index score is shown in column H on Table 3.1-6. <sup>3</sup> The Project Size Rating is shown in Table 3.2-3, Water Resources Availability Rating is shown in Table 3.2-4, Surrounding Agricultural Land Rating and Protected Resource Land Ratings are shown in Table 3.2-5.			

## 4.2 California LESA Model Scoring Thresholds

Scoring thresholds are based on the total LESA score as well as the component LE and SA subscores. In this manner, the scoring thresholds are dependent on the attainment of a minimum score for the LE and SA subscores so that a single threshold is not the result of heavily skewed subscores (i.e., a site with a very high LE score, but a very low SA score, or vice versa). Table 4.2-1 presents the California LESA Model scoring thresholds.

**Table 4.2-1 California LESA Model Scoring Threshold**

Total LESA Score	Scoring Decision
0 to 39 Points	Not considered significant.
40 to 59 Points	Considered significant <u>only</u> if Land Evaluation (LE) <u>and</u> Site Assessment (SA) subscores are each <u>greater</u> than or equal to 20 points.
60 to 79 Points	Considered significant <u>unless</u> either LE <u>or</u> SA subscore is <u>less</u> than 20 points.
80 to 100 Points	Considered significant.
Source: California Department of Conservation 1997:31	

THIS PAGE INTENTIONALLY LEFT BLANK.

## 5.0 Conclusion

The final LESA score for the Wistaria Ranch site is 73.52, and both the LE and SA subscores are greater than 20 points (Table 4.2-1). The final LESA score for the Wistaria Ranch 560-Acre site is 75.45, and both the LE and SA subscores are greater than 20 points (Table 4.2-2).

As shown in Table 4.2-1, a final LESA score between 60 and 79 points is considered significant unless either the LE or the SA subscore is less than 20 points. Both the LE and SA subscores for the Wistaria Ranch and Wistaria Ranch 560-Acre sites are greater than 20 points. The total LESA score is between 60 and 79 points and the individual subscores (LE and SA) for both sites are greater than 20 points; therefore, the Project is considered to have a significant impact on agricultural resources.

## 6.0 References

California Department of Conservation. 1997. California Agricultural Land Evaluation and Site Assessment Handbook. Available at [http://www.consrv.ca.gov/dlrp/Pages/qh\\_lesa.aspx](http://www.consrv.ca.gov/dlrp/Pages/qh_lesa.aspx). Accessed October 8, 2012.

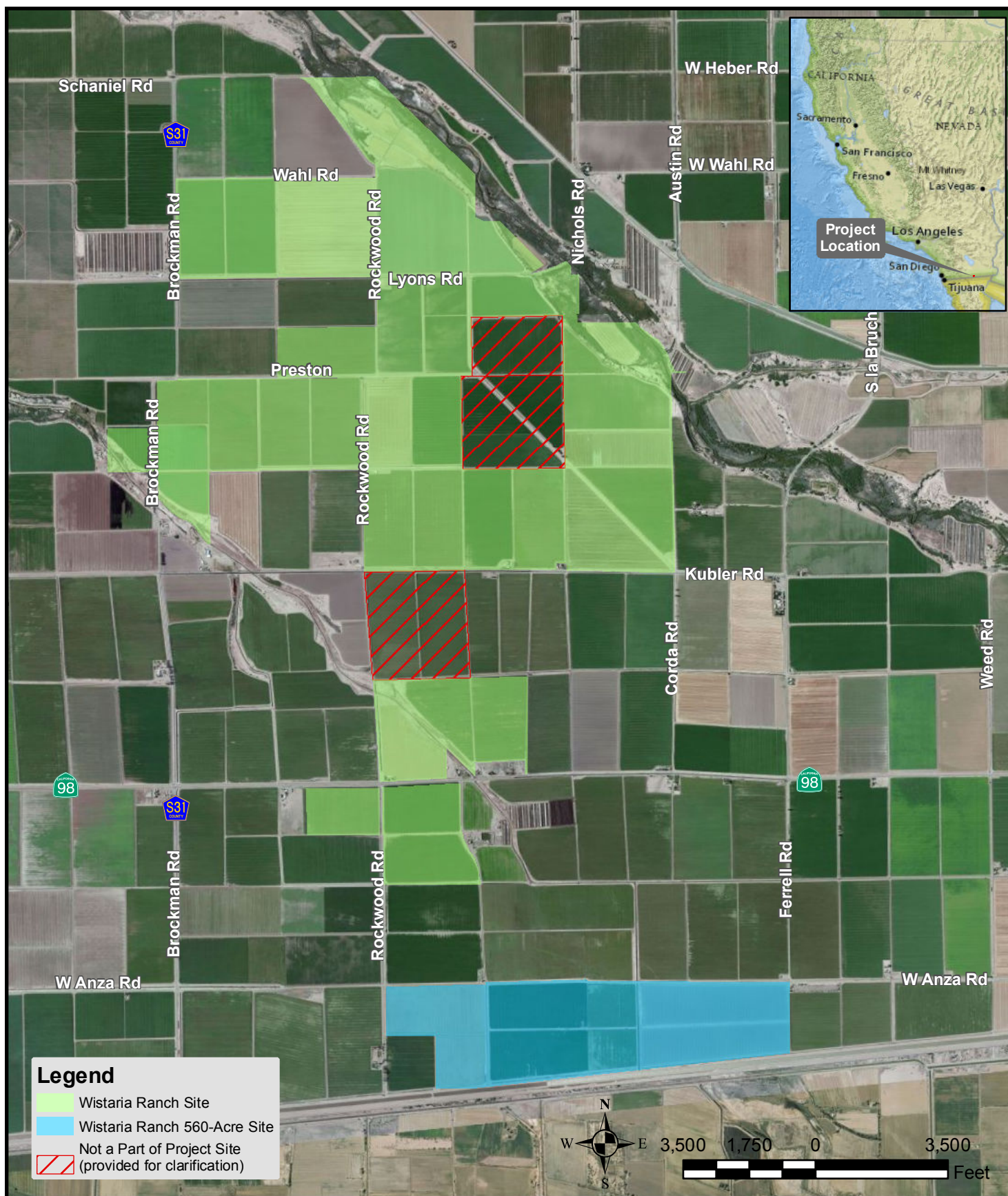
Finocchiaro, Joseph. Environmental Program Manager, Wistaria Ranch Solar, LLC. Assessor's Parcel Numbers and data acquired from the Wistaria Ranch Solar Energy Center Project Conditional Use Permit Application and Project Description, submitted to Imperial County Planning and Development Services on August 29 and 30, 2012.

Imperial Irrigation District. 2009 (September). Imperial Irrigation District Integrated Water Resources Management Plan. Available at <http://www.iid.com/index.aspx?page=120>. Accessed October 9, 2012.

Natural Resources Conservation Service. 2001 (May). Land Capability Class, by State, 1997. Definitions. Available at [http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/technical/nra/nri/?&cid=nrcs143\\_014040](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/technical/nra/nri/?&cid=nrcs143_014040). Accessed October 8, 2012.

Natural Resources Conservation Service. 1981. Soil Survey of Imperial County California, Imperial Valley Area (CA683). Prepared by the United States Department of Agriculture Soil Conservation Service in cooperation with the University of California Agricultural Experiment Station and Imperial Irrigation District. Issued October 1981.

## Figures



**AECOM ENVIRONMENT**  
 1220 AVENIDA ACASO  
 CAMARILLO, CALIFORNIA 93012  
 PHONE: 805.388.3775  
 FAX: 805.388.3577  
 WEB: [HTTP://WWW.AECOM.COM](http://www.aecom.com)

## Wistaria Ranch Project Location

Wistaria Ranch Solar Energy Center  
 Wistaria Ranch Solar, LLC  
 Imperial County, California

FIGURE NUMBER:

1

SHEET NUMBER:

1 of 1

DRAWN BY:

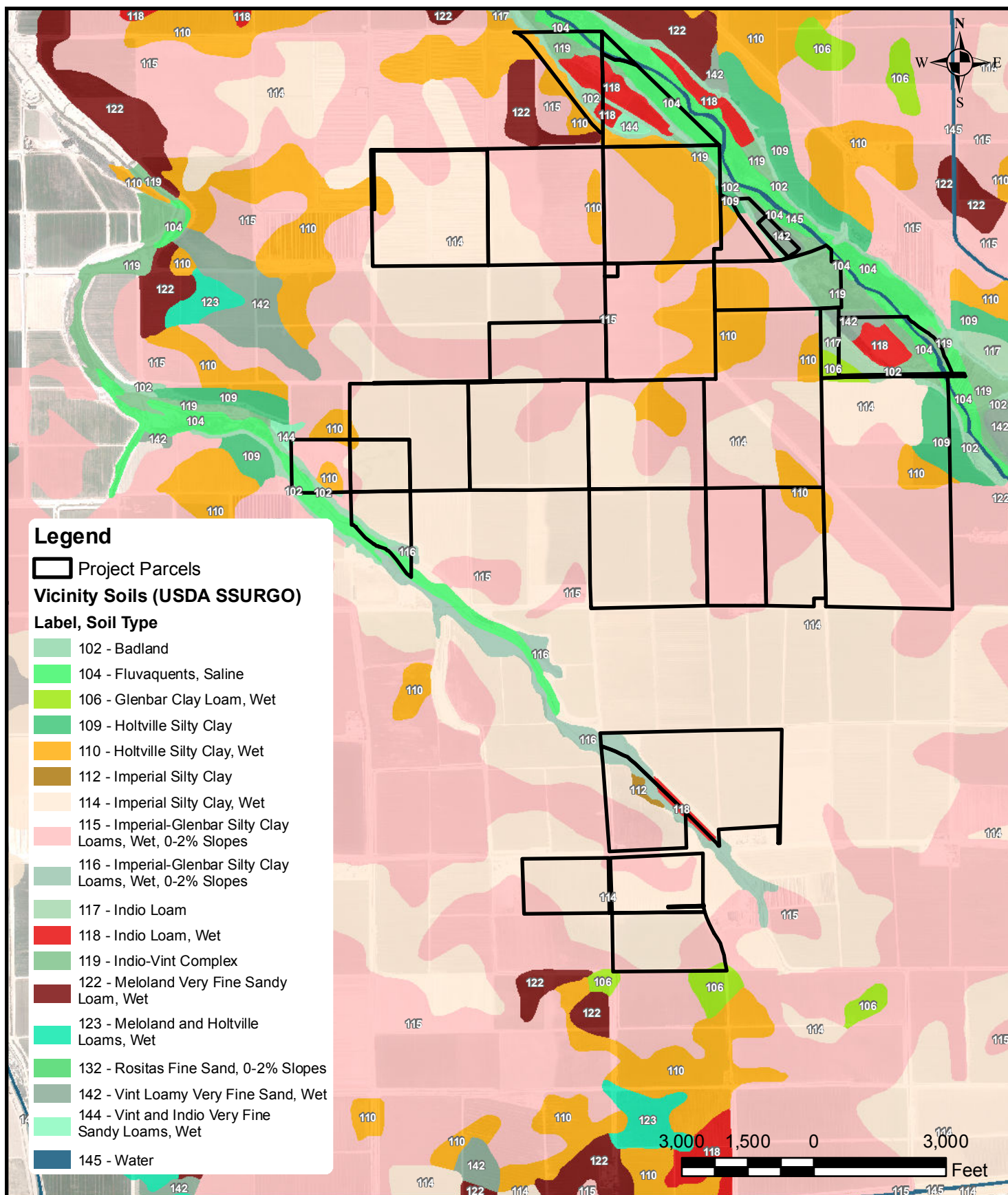
Brad Stein

DATE:

10/17/2012

PROJECT NUMBER:

60250473



**AECOM ENVIRONMENT**  
 1220 AVENIDA ACASO  
 CAMARILLO, CALIFORNIA 93012  
 PHONE: 805.388.3775  
 FAX: 805.388.3577  
 WEB: [HTTP://WWW.AECOM.COM](http://www.aecom.com)

## Wistaria Ranch Site Soils Map

Wistaria Ranch Solar Energy Center  
 Wistaria Ranch Solar, LLC  
 Imperial County, California

FIGURE NUMBER:

2

DRAWN BY:

Brad Stein

DATE:

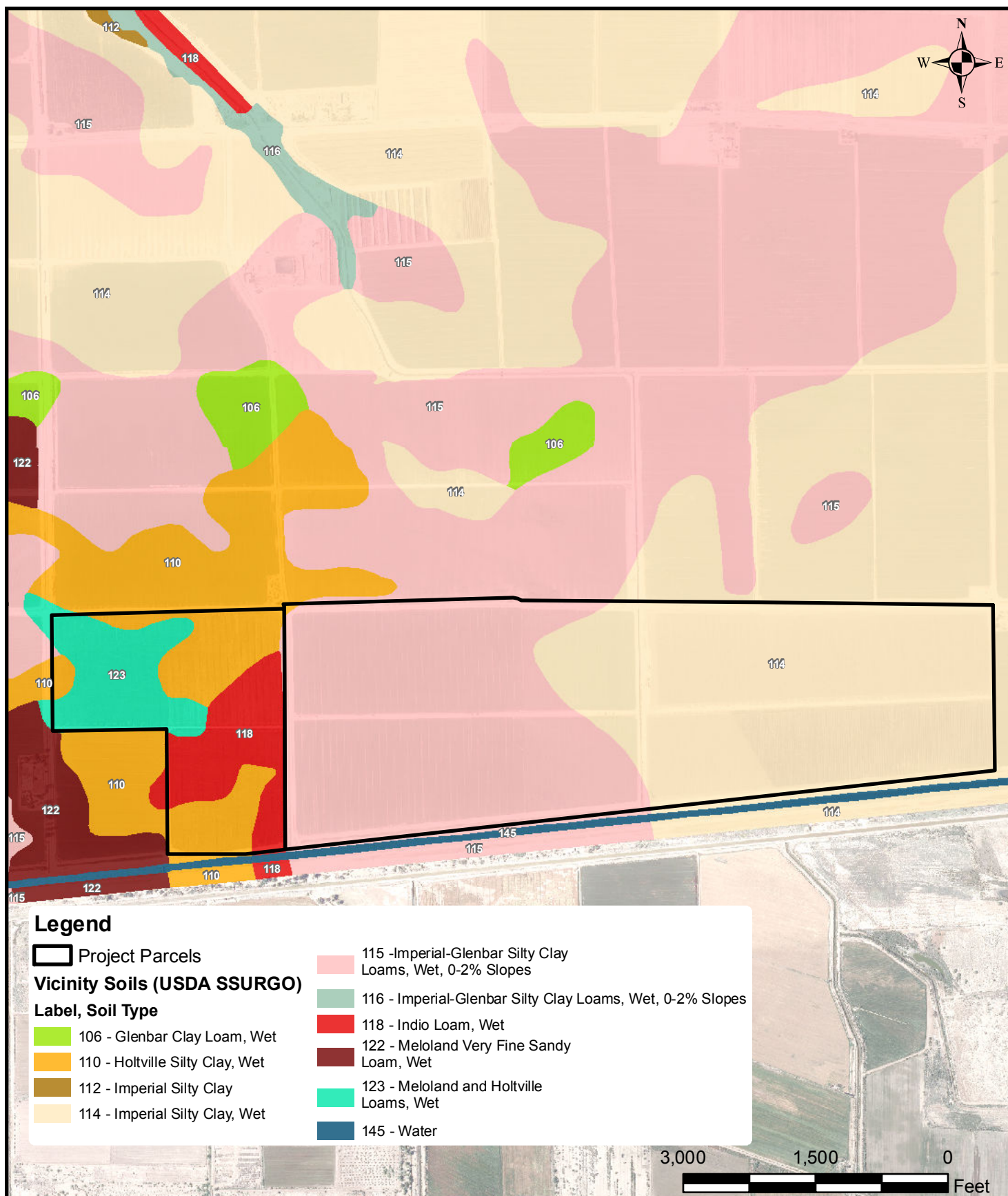
10/9/2012

PROJECT NUMBER:

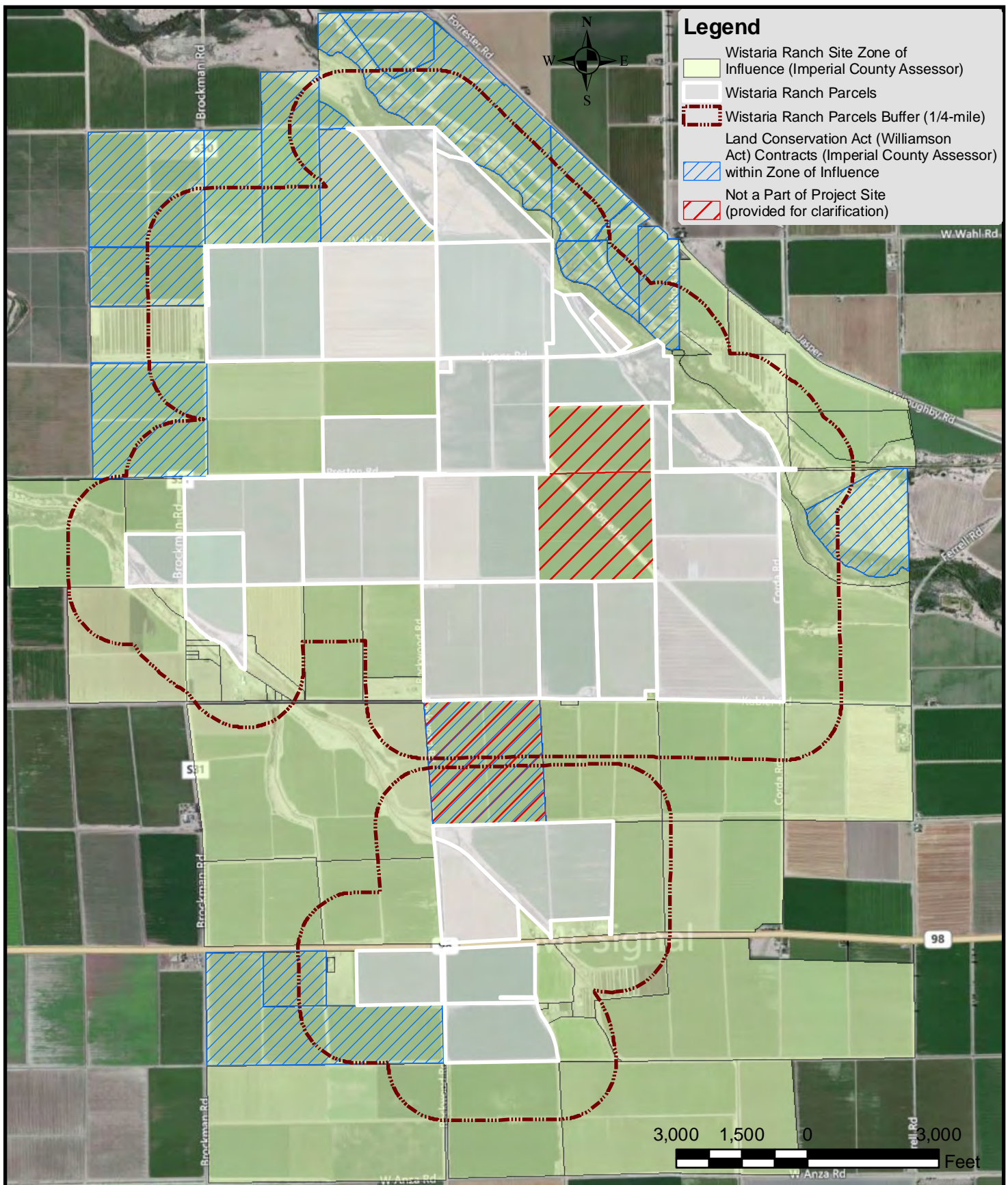
60250473

SHEET NUMBER:

1 of 1



<p><b>AECOM</b></p> <p><b>AECOM ENVIRONMENT</b>  1220 AVENIDA ACASO  CAMARILLO, CALIFORNIA 93012  PHONE: 805.388.3775  FAX: 805.388.3577  WEB: <a href="http://www.aecom.com">HTTP://WWW.AECOM.COM</a></p>	<p><b>Wistaria Ranch 560-Acre Site Soils Map</b></p> <p>Wistaria Ranch Solar Energy Center  Wistaria Ranch Solar, LLC  Imperial County, California</p>			<p>FIGURE NUMBER:</p> <p><b>3</b></p>
	<p>DRAWN BY:</p> <p>Brad Stein</p>	<p>DATE:</p> <p>10/9/2012</p>	<p>PROJECT NUMBER:</p> <p>60250473</p>	<p>SHEET NUMBER:</p> <p>1 of 1</p>
	<p>Path: P:\2012\60250473\06GIS\6.3_Layout\LESAIF3_ISEC_Soils.mxd, 10/9/2012, steinb</p>			



**AECOM ENVIRONMENT**  
 1220 AVENIDA ACASO  
 CAMARILLO, CALIFORNIA 93012  
 PHONE: 805.388.3775  
 FAX: 805.388.3577  
 WEB: [HTTP://WWW.AECOM.COM](http://www.aecom.com)

## Wistaria Ranch Site Zone of Influence

Wistaria Ranch Solar Energy Center  
 Wistaria Ranch Solar, LLC  
 Imperial County, California

FIGURE NUMBER:

4

SHEET NUMBER:

1 of 1

DRAWN BY:

Brad Stein

DATE:

12/19/2012

PROJECT NUMBER:

60250473



**AECOM**

**AECOM ENVIRONMENT**  
 1220 AVENIDA ACASO  
 CAMARILLO, CALIFORNIA 93012  
 PHONE: 805.388.3775  
 FAX: 805.388.3577  
 WEB: [HTTP://WWW.AECOM.COM](http://www.aecom.com)

## Wistaria Ranch 560-Acre Site Zone of Influence

Wistaria Ranch Solar Energy Center  
 Wistaria Ranch Solar, LLC  
 Imperial County, California

FIGURE NUMBER:

**5**

SHEET NUMBER:

**1 of 1**

DRAWN BY:

Brad Stein

DATE:

12/19/2012

PROJECT NUMBER:

60250473