

AGRICULTURAL RESOURCES
LOCAL AGRICULTURAL RESOURCES ASSESSMENT
(LARA) MODEL RESULTS
for
GRANGER SOLAR
SAN DIEGO COUNTY, CALIFORNIA
PDS2015-MUP-15-019

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1.0 EXECUTIVE SUMMARY

The proposed project is an application for the development and operation of a photovoltaic (PV) solar farm. The PV solar facilities would be installed on a portion of the approximately 40-acre property. The fenced MUP boundary would encompass approximately 27 acres. The total area of disturbance from the solar panel construction is 5.51 acres and the applicant has the option to either mitigate onsite by preserving soil of the same classification (FMMP Statewide Importance Soil) at a 1:1 ratio, or mitigate offsite by purchasing mitigation credits at a 1:1 ratio from the County of San Diego Purchase of Agricultural Conservation Easement (PACE) mitigation bank.

Based on the results of the Local Agricultural Resources Assessment (LARA) Model, the site is considered an important agricultural resource. The site received a high rating for all factors, except for land use consistency, and the results of each LARA model factor rating that contribute to this determination are detailed below.

2.0 LOCAL AGRICULTURAL RESOURCE ASSESSMENT (LARA) MODEL

In determining whether impacts to agricultural resources are significant environmental effects, the CEQA Guidelines references the California Agricultural LESA Model (1997) prepared by the California Department of Conservation (DOC), as an optional methodology that may be used to assess the relative value of agriculture and farmland. In the past, the LESA model has been applied to various agricultural properties throughout the County of San Diego to assess agricultural importance in association with proposed discretionary land use permits. After several years of practical experience with application of the LESA model in San Diego County, the inadequacy of the model in capturing the unique and varied character of San Diego agriculture has become apparent. An alternative approach, referred to as the Local Agricultural Resource Assessment (LARA) model has been developed to assess the relative value of agricultural resources in San Diego County. Specific documentation of the LARA model can be found in the Guidelines for Determining Significance for Agricultural Resources at <http://www.sdcountry.ca.gov/pds/procguid.html#Agricultural Resources>.

The LARA model takes into account the following factors in determining the importance of an agricultural resource:

Required Factors:

- Water
- Climate
- Soil Quality

Complementary Factors:

- Surrounding Land Uses
- Land Use Consistency
- Topography

The following subsections detail the rating assigned to the project site for each of the above factors.

2.1 Water

The water rating is primarily based the site's County Water Authority (CWA) service status, however if the project does not already have imported water service, the underlying groundwater aquifer type and the presence of a groundwater well is also considered (Table 1).

The project site is located within the Valley Center Municipal Water District and the site contains an existing water meter. There is an existing well on site as well, but no groundwater use is being proposed as part of this project. Due to the fact that the site is inside a CWA service area with existing water infrastructure connections and a meter, the site receives a **high** rating for water.

Table 1. Water Rating¹

County Water Authority (CWA) Service Status	Groundwater Aquifer Type and Well Presence	Rating
Inside CWA service area with existing water infrastructure connections and a meter	Any groundwater aquifer type	High

¹ If more than one underlying groundwater aquifer type exists at a site, usually the aquifer type that could produce the most water should be used to obtain the water rating. If it would be more reasonable to apply the rating based on the aquifer that would produce less water, a clear justification and reason for doing so must be provided.

2.2 Climate

Sunset Zones are used as a standard measure of climate suitability due to the variability of microclimate conditions that the Sunset zones take into account. Recognizing that the Sunset Zones were not developed as a tool to determine the suitability for commercial agricultural production, their use is not intended to determine suitability for specific crops, rather they are a measure of overall climate suitability for the typical agricultural commodities produced in San Diego County. The project site is located within Sunset Zone 21, which has a rating of **high**.

Climate (Sunset Zone) Description	Rating
Zone 21 is an air drained thermal belt that is good for citrus and is the mildest zone that gets adequate winter chilling for some plants. Low temperatures range from 23 to 36 degrees F, with temperatures rarely dropping far below 30 degrees.	High

2.3 Soil Quality

The project's soil quality rating is based on the presence of soils that meet the quality criteria for Prime Farmland or Farmland of Statewide Importance as defined by the Farmland Mapping and Monitoring Program (FMMP) that are available for agricultural use and that have been previously used for agriculture.

The site contains approximately 2.62 acres of Placentia sandy loam 2 to 9 percent slopes (PeC), 26.08 acres of Vista coarse sandy loam 5 to 9 percent slopes (VsC), 8.74 acres of Metamorphic rock land (MrG), and 2.54 acres of Fallbrook Vista sandy loams 15 to 30 percent slopes (FvE). Both Pec and VsC are soil types that meeting the soil quality criteria for the State Farmland of Statewide Importance Soils. The site is approximately 40 acres in size and 96% of the area is available for agricultural use. Therefore the project's soil quality score is **0.71**, as detailed in Table 2, Soil Quality Matrix. The project receives a **high** rating for soil quality based on this score.

Figure 1. Soil Types

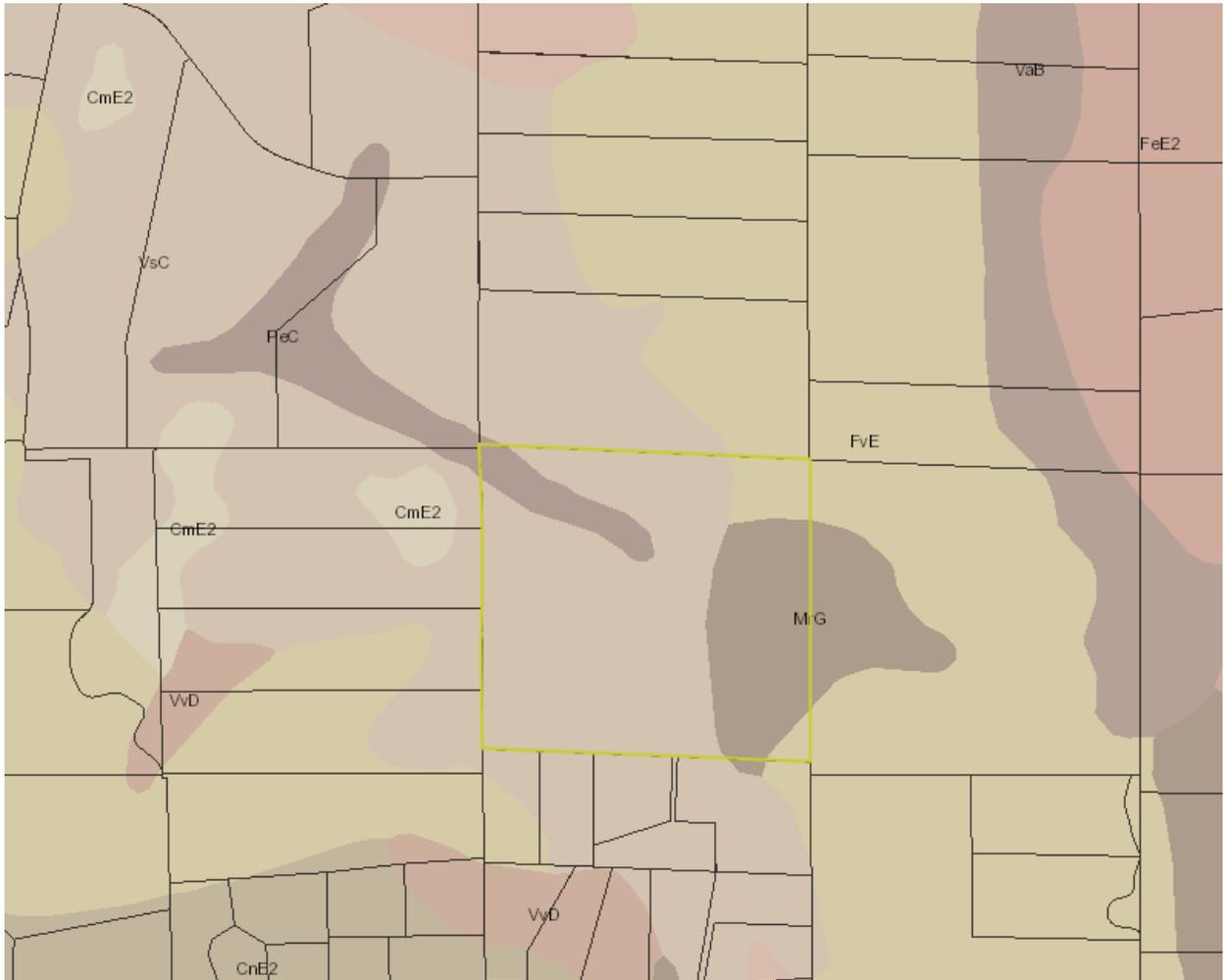


Table 2. Soil Quality Matrix

	Column A	Column B	Column C	Column D	Column E	Column F	Column G
	Soil Type	Size of project site contains this soil type (acreage)	Unavailable for agricultural use	Available for agricultural use	Proportion of project site	Is soil candidate for prime farmland or farmland of statewide significance? (Yes = 1, No = 0)	Multiply Column E x Column F
Row 1	PeC (Placentia sandy loam, 2 to 9 percent slopes)	2.62	0	2.62	0.07	1	0.07
Row 2	VsC (Vista coarse sandy loam, 5 to 9 percent slopes)	26.08	1.43	24.65	0.64	1	0.64
Row 3	MrG (Metamorphic rock land)	8.74	0.16	8.58	0.22	0	0.22
Row 4	FvE (Fallbrook Vista sandy loams, 15 to 30 percent slopes)	2.54	0	2.54	0.07	0	0.07
	Total	39.98	Total	38.39			
Soil Quality Matrix Score							0.71

Table 3. Soil Quality Matrix Interpretation

Soil Quality Matrix Score	Soil Quality Rating
The site has a Soil Quality Matrix score ranging from 0.66 to 1.0 and has a minimum of 10 acres of contiguous Prime Farmland or Statewide Importance Soils	High

2.4 Surrounding Land Use

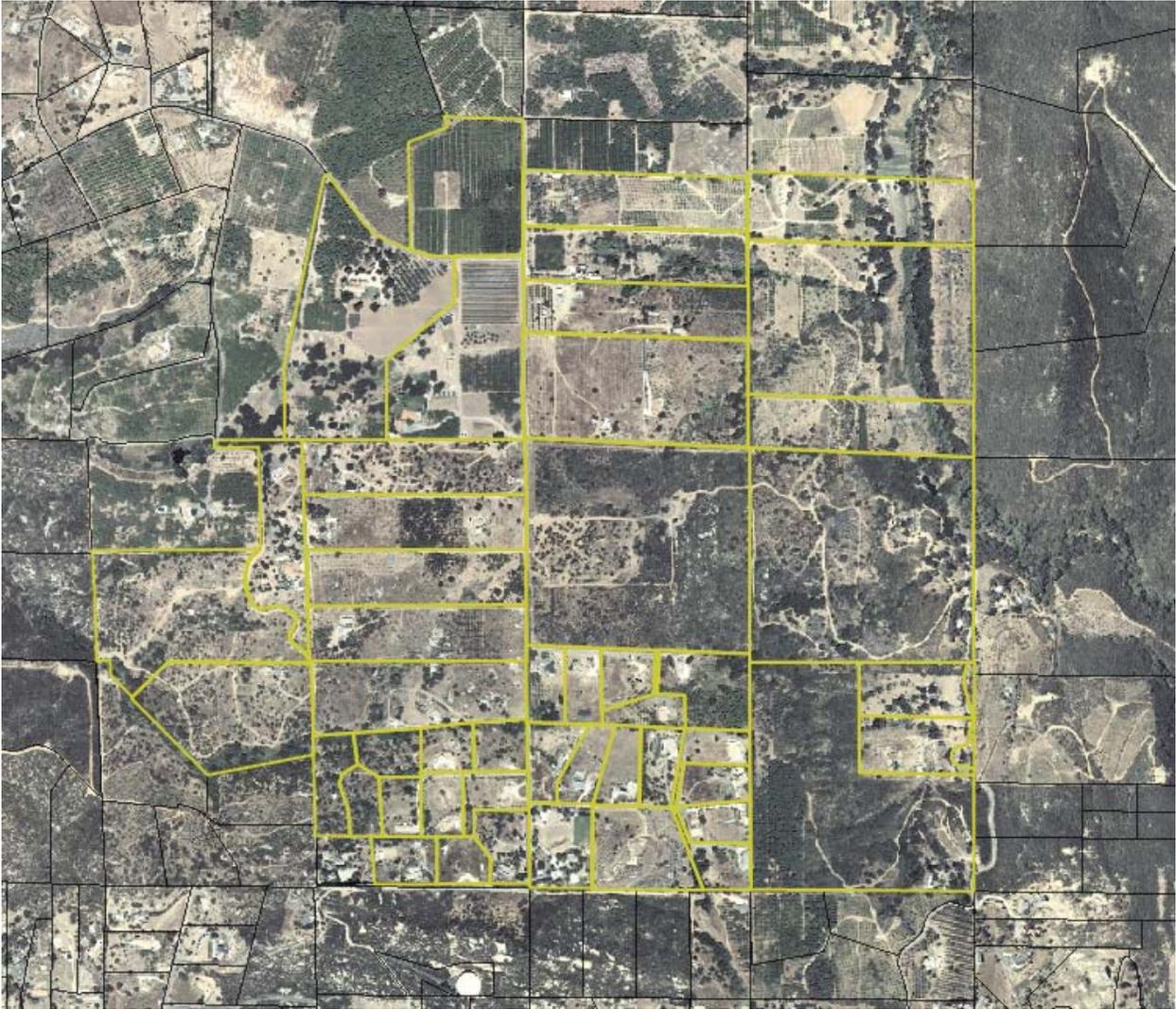
Surrounding land use is a factor in determining the importance of an agricultural resource because surrounding land uses that are compatible with agriculture make a site more attractive for agricultural use due to lower expectations of nuisance issues and other potential impacts from non-farm neighbors. This factor also accounts for the degree to which an area is primarily agricultural, assigning a higher rating to areas dominated by agricultural uses than an area dominated by higher density, urban development.

Figure 2 identifies the ¼ mile area surrounding the project site that defines the project’s Zone of Influence (ZOI). Based on a review of the land uses within the ZOI, there are no incompatible land uses in the surrounding area, the site is surrounded by existing agricultural land, scattered single family residences, and vacant land. Based on an aerial review of the existing land use within the ZOI, at least 50% of the properties within it are compatible with agricultural use. Therefore, the site receives a **high** rating for surrounding land use.

Table 4. Surrounding Land Use Rating

Percentage of Land within ZOI that is Compatible with Agriculture	Surrounding Land Use Rating
50% or greater	High

Figure 2. Project Zone of Influence



2.5 Land Use Consistency

The median parcel size associated with the project site compared to the median parcel size of parcels located within the ZOI is a complementary factor used in the LARA model.

The project consists of one single site, measures approximately 40 acres in size. The range of parcel sizes in the ZOI is 0.8 acres to 42.66 acres, with the median parcel size of 4.88 acres. Therefore, since the project parcel size is larger than the median parcel size within the ZOI by more than ten acres, the project receives a **low** land use consistency rating.

Table 5. Land Use Consistency Rating

Project's median parcel size compared to ZOI median parcel size	Land Use Consistency Rating
The project's median parcel size is larger than the median parcel size within the project's ZOI by ten acres or more	Low

2.6 Slope

The Slope Rating for the site is based on the average slope for the area of the site that is available for agricultural use, as identified the Soil Quality Rating Matrix. Approximately 27.27 acres are in the 0-15% slope range; 2.54 acres are in the 15-25% slope range; and 8.58 acres are above 25% slope. Therefore, the average slope for the site falls in the Less than 15% slope category, resulting in a **high** rating for slope.

Table 6. Slope Rating

Average Slope	Topography Rating
Less than 15% slope	High

3.0 LARA MODEL RESULTS

The ratings for each LARA model factor for the project site are as follows:

Required Factors

Water = High
 Climate = High
 Soil Quality = High

Complementary Factors

Surrounding land use = High
 Land use consistency rating = Low
 Slope = High

Table 7. Interpretation of LARA Model Results

LARA Model Results			LARA Model Interpretation
Possible Scenarios	Required Factors	Complementary Factors	
Scenario 1	All three factors rated high	At least one factor rated high or moderate	The site is an important agricultural resource
Scenario 2	Two factors rated high, one factor rated moderate	At least two factors rated high or moderate	
Scenario 3	One factor rated high, two factors rated moderate	At least two factors rated high	
Scenario 4	All factors rated moderate	All factors rated high	
Scenario 5	At least one factor rated low importance	N/A	The site is <i>not</i> an important agricultural resource
Scenario 6	All other model results		

Based on the site conditions, the project’s LARA model scoring falls under Scenario 1, indicating that the site is an important agricultural resource.