

**Appendix B:  
Land Evaluation Site Assessment Model**

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October 22, 2024

Mike Sawley, Principal Planner  
City of Chico  
Community Development Department, Planning Division  
411 Main Street  
Chico, CA 95928

**Subject: Land Evaluation and Site Assessment Model Letter Report for the Barber Yard Specific Plan Project, City of Chico, Butte County, California**

Dear Mr. Sawley:

The attached letter report and exhibits summarize the findings of the Land Evaluation and Site Assessment (LESA) Model for the Barber Yard Specific Plan Project (proposed project) in the City of Chico (as well as a small portion in unincorporated Butte County), California. The results indicated that the development of the proposed project, including the off-site improvements would not have a significant impact on loss of Important Farmland. Please let us know if you have any questions or would like additional information.

Sincerely,

Janna Waligorski, Senior Project Manager  
**FirstCarbon Solutions**  
2999 Oak Road, Suite 250  
Walnut Creek, CA 94597

Enc: Attachment A: Exhibits  
Attachment B: Land Evaluation and Site Assessment Model Scoring Table

## **BARBER YARD SPECIFIC PLAN LAND EVALUATION AND SITE ASSESSMENT MODEL**

### **Project Location**

Collectively, the project site consists of (1) an approximately 133-acre Barber Yard Specific Plan (BYSP) Area in the City of Chico, California; and (2) an approximately 16-acre off-site improvement area located in unincorporated Butte County, California. The BYSP Area is bounded by various individual properties to the northwest; Chestnut Street and Normal Avenue to the northeast; Estes Road to the east; and Union Pacific Railroad (UPRR) to the southwest. To the south, the BYSP Area is bounded by a portion of Butte County that is unincorporated, including a decommissioned UPRR spur. Agricultural and rural residential areas lie to the south and west across the UPRR.

The off-site improvement area is located directly south of the BYSP Area, in unincorporated Butte County, on Assessor's Parcel Number (APN) 039-410-025. The off-site improvement area is bounded by a Pacific Gas and Electric Company (PG&E) parcel to the north; rural residential and agricultural land uses to the east; agricultural land and Comanche Creek to the south; and the UPRR as well as more rural residential and agricultural land uses to the west.

Within the off-site improvement area, a storm drain alignment is proposed to connect the BYSP Area and stormwater basin to a new outfall at the southern tip of APN 039-410-039 at Comanche Creek. There are two options for this alignment, as follows: Alignment Option 1 would travel directly southeast from the stormwater basin to Comanche Creek within APN 039-410-039. Alignment Option 2 would traverse eastward from the stormwater basin to Estes Road, where it would then turn south to Comanche Creek. The Stormwater Alignment Option Areas are bounded by the PG&E parcel to the north; rural residential and agricultural land uses to the east; agricultural land and Comanche Creek to the south; and the UPRR as well as more rural residential and agricultural land uses to the west.

### **Project Summary**

The proposed project consists of the full buildout of the BYSP, including off-site improvements, resulting in a mixed-use community accommodating a diverse range of housing opportunities with a mix of commercial, recreational/open space, and office uses located throughout. The proposed project would include a maximum of 1,250 dwelling units and a total of approximately 210,000 square feet of commercial space is envisioned upon buildout. At full buildout, a variety of potential future park, recreational, and open space amenities are contemplated by the BYSP, including the Barber Pop-up, Social Hub, Diamond at Barber Yard, Athletics Facility, Dog Park, Picnic Grove, Ruins Park, and various neighborhood parks (the Yard), as detailed more fully in the BYSP and Section 2.0, Project Description, of the Draft EIR.

A combination water quality retention/detention basin (stormwater basin) and the selected Stormwater Alignment Option Area, the access drive from Estes Road, and an associated storm drain alignment would be constructed within the off-site improvement area to connect the BYSP Area and stormwater basin to a new outfall to Comanche Creek. Two potential storm drain alignment options are being considered at this time, although only one would ultimately be developed. Alignment Option 1 would travel directly southeast from the stormwater basin to Comanche Creek (located within APN 039-410-039). Alignment Option 2 would traverse eastward from the stormwater basin to Estes Road, where it would then turn south to Comanche Creek. Within the off-site improvement area, there would be a total of approximately 7.1 acres that would be temporarily or permanently impacted by the implementation of off-site stormwater infrastructure as described above. This area will be referred to herein as the “Off-site Stormwater Infrastructure Permanent and Temporary Impact Area.”

## Existing Conditions

The BYSP Area is generally flat and is fenced to prevent public access. The BYSP Area was the home of a factory operated by the Diamond Match Company in the early twentieth century. The factory closed in 1975. The Louisiana Pacific Corporation purchased the BYSP Area in 1984 and operated its Finished Wood Product Division and a remanufacturing facility until 1989. The BYSP Area was used by other owners for various industrial uses until all such uses terminated in 2004. Currently, uses consist primarily of abandoned structures and roadways in various states of disrepair, as well as existing Recreational Vehicle (RV) storage.

The off-site improvement area is largely cleared and undeveloped within areas of a former almond orchard. The proposed storm drain alignments would be located within or along areas of former and existing orchard lands, rural residences on Estes Road, and/or in Estes Road, depending on which alignment option is ultimately selected. For purposes of a conservative analysis, both Stormwater Alignment Option Areas are studied in this LESA Model.

The California Department of Conservation Farmland Mapping and Monitoring Program (FMMP) Important Farmland Finder identifies the entire BYSP Area as “Other Land.” The Off-site Stormwater Infrastructure Permanent and Temporary Impact Area contains approximately 6.6 acres of “Prime Farmland” and approximately 0.5 acre of “Other Land” (Exhibit 1). Prime Farmland is defined as irrigated land with the best combination of physical and chemical features able to sustain long-term production of agricultural crops. Land designated as Prime Farmland must have been used for production of irrigated crops at some time during the 4 years prior to the FMMP mapping date. It should be noted that, based on a review of aerial photographs, the northern portion of the Off-site Stormwater Infrastructure Permanent and Temporary Impact Area (where the stormwater basin would be located) has not been used for agricultural purposes since 2018 when the on-site orchard was removed and, therefore, has not been used for production of irrigated crops for 5 years. As such, portions of the Off-site Stormwater Infrastructure Permanent and Temporary Impact Area may no longer qualify as “Prime Farmland” but, for the purposes of a conservative analysis and to be consistent with existing designations, are considered as such herein.

According to the United States Department of Agriculture (USDA) Web Soil Survey, the BYSP Area, the off-site improvement area, and Stormwater Alignment Option Area surface soils are mapped as “Chico loam, 0 to 1 percent slopes” and are considered “Prime Farmland when irrigated” (Exhibit 2).

Pursuant to the California Environmental Quality Act (CEQA), Appendix G Checklist, a LESA Model was prepared to determine the significance of the conversion of the off-site improvement area, designated as Prime Farmland, to nonagricultural use associated with the proposed water quality basin .<sup>1</sup>

## LESA Model Findings

The LESA Model is divided into two components: the Land Evaluation and the Site Assessment. The following narrative describes the model inputs. The weighting factor for each input is shown in parenthesis.

### Land Evaluation (50 percent)

#### Land Capability Classification (25 percent)

The Off-site Stormwater Infrastructure Permanent and Temporary Impact Area contains approximately 7.1 acres of Chico loam, 0-1 percent slopes (Land Capability Classification [LCC] I) (Exhibit 2). Chico loam, 0-1 percent slopes is considered Prime Farmland if irrigated. Because Chico loam, 0-1 percent slopes make up 100 percent of the Off-site Stormwater Infrastructure Permanent and Temporary Impact Area and has a high LCC, the overall LCC score is **100**.

#### Storie Index Rating (25 percent)

The Storie Index is a quantitative rating of the agricultural value of the soils (0 to 100). The higher the score, the better the soil. Chico loam, 0-1 percent slopes, has a Storie Index of 95. Because Chico loam, 0-1 percent slopes, makes up 100 percent of Off-site Stormwater Infrastructure Permanent and Temporary Impact Area and has a high Storie Index, the overall Storie Index score is **95**.

### Site Assessment (50 percent)

#### Project Size (15 percent)

The Off-site Stormwater Infrastructure Permanent and Temporary Impact Area consists of approximately 7.1 acres of LCC I soil (Exhibit 2). The LESA Model assigns 0 points for areas that are fewer than 10 acres regardless of soil quality. The Off-site Stormwater Infrastructure Permanent and Temporary Impact Area is approximately 7.1 acres, 2.9 acres below the minimum, and therefore the score is **0**.

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<sup>1</sup> While the LESA Model considers construction of the stormwater detention basin and alignment options, agricultural use would not be prohibited within the drainage alignment area after construction. Therefore, the conclusions of the LESA Model are conservative.

### **Water Availability (15 percent)**

While the BYSP Area would receive water services from the California Water Service (Cal Water) to serve the proposed project, the Off-site Stormwater Infrastructure Permanent and Temporary Impact Area is outside of the Cal Water service boundaries and the proposed project does not anticipate annexing these lands into the Cal Water service boundaries. The Off-site Stormwater Infrastructure Permanent and Temporary Impact Area is also outside the service boundaries of any water provider/irrigation district listed in the Butte County General Plan. Historic aerials show evidence of orchards within the Off-site Stormwater Infrastructure Permanent and Temporary Impact Area no earlier than 1941, with evidence of agricultural uses until at least 2018. Thus, it was conservatively assumed that the Off-site Stormwater Infrastructure Permanent and Temporary Impact Area had access to groundwater with no physical or economic restrictions during non-drought years and only physical restrictions in drought years. The water availability score is **85**.

### **Surrounding Agricultural Lands (15 percent)**

The LESA Model assigns points when Important Farmland accounts for 40 percent or more of surrounding land uses. Properties within 0.25-mile of the project site total approximately 481.4 acres. There are approximately 237.3 acres of Prime Farmland, 79.5 acres of Urban and Built-up Land, 26.9 acres of Grazing Land, and 137.7 acres designated as Other Land; refer to Exhibit 3. In total, Important Farmland represents approximately 49 percent of the surrounding acreage. The remaining 51 percent of the surrounding acreage consists of non-Important Farmland designations (e.g., Urban and Built-up Land and Grazing Land). Because between 45 and 49 percent of the surrounding acreage consists of Important Farmland, the surrounding agricultural land score is **20**.

### **Protected Resource Lands (5 percent)**

The LESA Model assigns points when Protected Resource Lands accounts for 40 percent or more of surrounding land uses. Protected resource lands are those with active Williamson Act Contracts for which Notices of Non-Renewal have not been filed. There are no active Williamson Act Contracts within the Zone of Influence (ZOI); the ZOI is the area of land that is up to 0.25 mile from the project site and is used to evaluate the potential impact of the proposed project on surrounding agricultural land. The Protected Resource Lands score is **0**.

## **Conclusions**

When the weighting factors are applied, the project site yields a LESA Model score of **64.5**. For projects that score between 60 and 79 points, LESA Model significance criteria indicates that this is not a significant impact if *either* the Land Evaluation *or* Site Assessment sub-score is less than 20 points. In this case, the Land Evaluation sub-score is **48.8** points, and the Site Assessment sub-score is **15.8** points. Therefore, the proposed project's conversion of agricultural land to nonagricultural use is considered less than significant for the purposes of CEQA.



**Attachment A:  
Exhibits**



Source: Bing Aerial Imagery. California Department of Conservation, Farmland Mapping and Data.

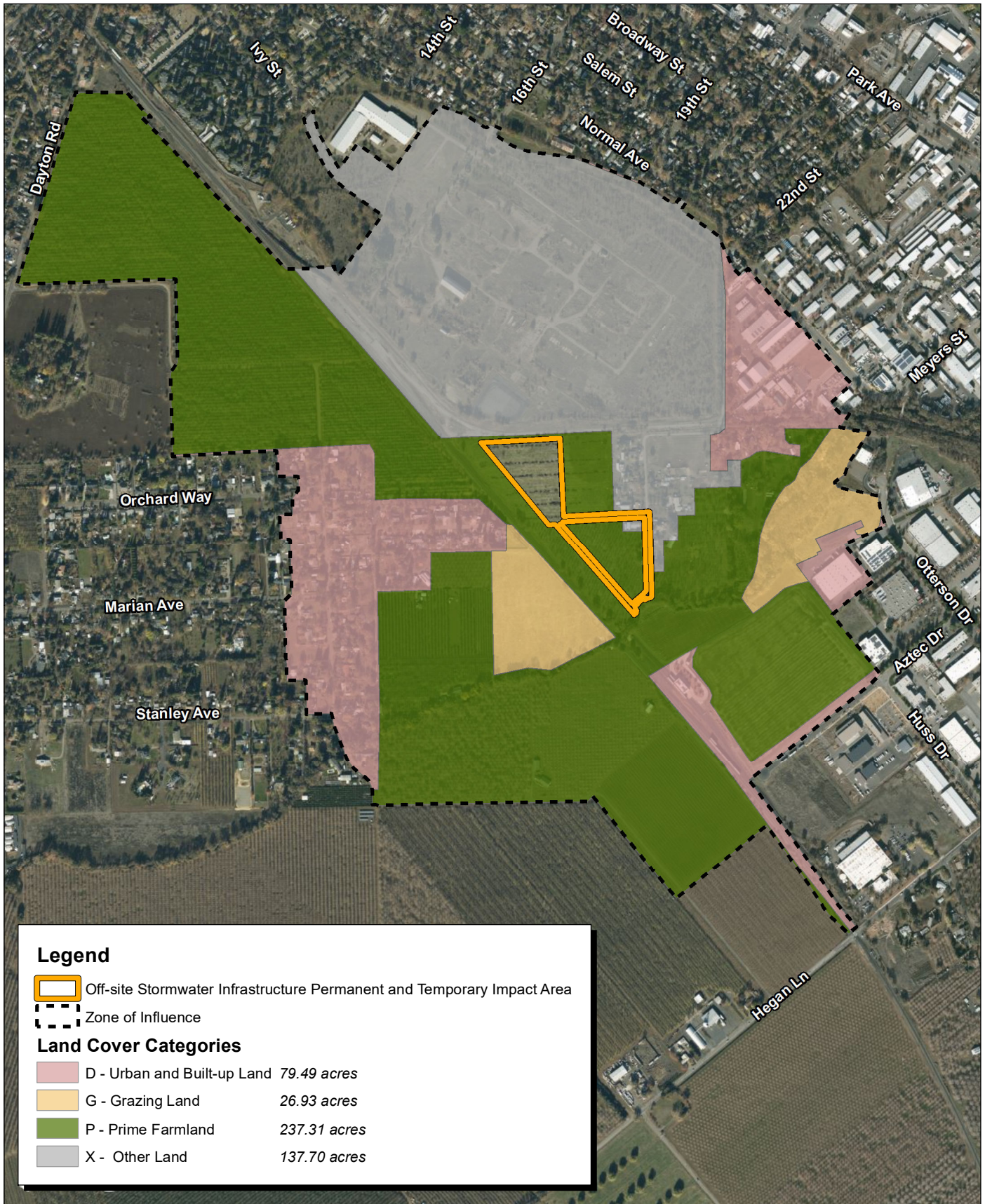


## Exhibit 1 Important Farmland Map





Source: Bing Aerial Imagery. USDA Web Soil Survey, Butte County Soils. California Department of Conservation, Farmland Mapping and Data.









**Legend**

-  Off-site Stormwater Infrastructure Permanent and Temporary Impact Area
-  Zone of Influence

**Land Cover Categories**

	D - Urban and Built-up Land	79.49 acres
	G - Grazing Land	26.93 acres
	P - Prime Farmland	237.31 acres
	X - Other Land	137.70 acres

Source: Bing Aerial Imagery. California Department of Conservation Farmland Mapping and Data, 2020.



## Exhibit 3 Zone of Influence



**Attachment B:  
Land Evaluation and Site Assessment Model Scoring Table**

**Project Size Score**

LCC Class I-II	LCC Class III	LCC Class IV-VIII	N/A

Total Acres	7.1	0	0	
Project Size Scores	0	0	0	0

Highest Project Size Score

Total Acres 7.1  
Score 0

TOTAL PROJECT SIZE RATING= 0

Table 3-Proj. Size Scoring

LCC Class I-II		LCC Class III		LCC Class IV-VIII	
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
fewer than 10	0	20-39	30	fewer than 40	0
		10-19.	10		
		fewer than 10	0		

Total Class I	Total Class II	Total Class III	Total Class IV	Total Class V

**Land Capability Classification (LCC) and Storie Index Scores**

Soil Map Unit	Project Acres	Proportion of Project Area	LCC	LCC Rating	LCC Score	Storie Index	Storie Index Score
445	7.1	1.00	I	100	100.00	Grade I	95.00

TOTAL	7.1	1		100			95.00
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Total Acres

Total Class I	Total Class II	Total Class III	Total Class IV	Total Class V
7.1				

Project Portion	Water Source	Proportion	Water Availability Score	Weighted Availability Score (C x D)
	1 Irrigation District Water Only			0
	2 Groundwater only	1	85	85
	3 Both irrigation and ground			0
	4 Not irrigated at all			0
	Total	1	Total water resource score	85

**Table 5. Water Resource Availability Scoring**

Option	Non-Drought Years			Drought Years			WATER RESOURCE SCORE
	RESTRICTIONS			RESTRICTIONS			
	Irrigated Production Feasible?	Physical Restrictions ?	Economic Restrictions ?	Irrigated Production Feasible?	Physical Restrictions ?	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 dryland production in both drought and non-drought years						25
13	Irrigated production not feasible, but rainfall adequate for dryland production in non-drought years (but not in drought years)						20
14	Neither irrigated nor dryland production feasible						0

**Table 6: Surrounding Ag Land Rating**

Percent of Project's Zone of Influence	Surround Ag Land Score
90-100%	100 points
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

**Table 7: Surrounding Protected Resource Land Score**

Percent of Project's Zone of Influence	Surround Ag Land Score
90-100%	100 points
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

### Section III. Weighting of Factors and Final LESA Scoring

The California LESA Model is weighted so that 50 percent of the total LESA score of a given project is derived from the Land Evaluation factors, and 50 percent from the Site Assessment factors. Individual factor weights are listed below, with the sum of the factor weights required to equal 100 percent.

#### Land Evaluation Factors

Land Capability Classification	25%
Storie Index Rating	25%
<b>Land Evaluation Subtotal</b>	<b>50%</b>

#### Site Assessment Factors

Project Size	15%
Water Resource Availability	15%
Surrounding Agricultural Lands	15%
Surrounding Protected Resource Lands	5%
<b>Site Assessment Subtotal</b>	<b>50%</b>

<b>Total LESA Factor Weighting</b>	<b>100%</b>
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Each factor is measured separately (each on 100 point scale) and entered in the appropriate line in **Column B** of the **Final LESA Scoresheet** (Table 8). Each factor's score is then multiplied by its respective factor weight, resulting in a weighted factor score in **Column D** as indicated in Table 8. The weighted factor scores are summed, yielding a Total LESA Score (100 points maximum ) for a given project, which is entered in **Line 7** of **Column D**.

Factor Name	Factor Rating (0-100 points)	X	Factor Weighting (Total=1.0)	=	Weighted Factor Rating
<b>Land Evaluation</b>					
1. Land Capability Classification	100		0.25		25.0
2. Storie Index Rating	95		0.25		23.8
	<b>Subtotal</b>		0.5		48.8
<b>Site Assessment</b>					
1. Project Size	0		0.15		0.0
2. Water Resource Availability	85		0.15		12.8
3. Surrounding Agricultural Lands	20		0.15		3.0
4. Protected Resource Lands	0		0.05		0.0
	<b>Subtotal</b>		0.5		15.8
				TOTAL	64.5

**Table 9. California LESA Model Scoring Thresholds**

<b>Total LESA Score</b>	<b>Scoring Decision</b>
0 to 39 Points	Not Considered Significant
40 to 59 Points	Considered Significant <u>only</u> if LE <u>and</u> 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