

## Appendix B. California LESA Project Scoring Example

### UPLANDS ESTATES EXAMPLE

*Uplands Estates is a fictitious 200 acre proposed project. Four soil mapping units have been identified on the site: Cc, LI, Si and Lt. Using an electronic planimeter, the acreage of each was found to be 30, 120, 10 and 40 acres, respectively.*

*The acreage of each soil type is divided by the total project acreage, 200 acres, to determine the proportion of each.*

*The LCCs for the four soil types are found in the County Soil Survey to be: Cc-Class IVe, LI-Class I, Si-Class IIle and Lt-Class IIe.*

*From the LCC Scoring Table the LCC point scores for the four soils are found to be 40, 100, 70 and 90, respectively. The proportion of each soil type represented is multiplied by its point score in Column F, and is summed to get a total LCC Score of 87.5 points, which is then entered in box <1> of the Final LESA Score Sheet.*

*Storie Index ratings for each soil type, 34, 86, 66 and 75, were determined from the County Soil Survey. The Storie Index ratings are multiplied by the proportion for each soil type and Column H is summed to get a total Storie Index Score of 75 points, which is then entered in box <2> of the Final LESA Score Sheet*

## California LESA Model - Worksheet for Scoring

### Calculation of the Land Evaluation (LE) Score

#### **Part 1. Land Capability Classification (LCC) Score:**

- (1) Determine the total acreage of the project.
- (2) Determine the soil types within the project area and enter them in **Column A** of the **Land Evaluation Worksheet** provided on page 2-B.
- (3) Calculate the total acres of each soil type and enter the amounts in **Column B**.
- (4) Divide the acres of each soil type (**Column B**) by the total acreage to determine the proportion of each soil type present. Enter the proportion of each soil type in **Column C**.
- (5) Determine the LCC for each soil type from the applicable Soil Survey and enter it in **Column D**.
- (6) From the LCC Scoring Table below, determine the point rating corresponding to the LCC for each soil type and enter it in **Column E**.

LCC Scoring Table

LCC Class	I	IIe	IIs,w	IIIe	IIIs,w	IVe	IVs,w	V	VI	VII	VIII
Points	100	90	80	70	60	50	40	30	20	10	0

- (7) Multiply the proportion of each soil type (**Column C**) by the point score (**Column E**) and enter the resulting scores in **Column F**.
- (8) Sum the LCC scores in **Column F**.
- (9) Enter the LCC score in box <1> of the **Final LESA Score Sheet** on page 10-B.

#### **Part 2. Storie Index Score:**

- (1) Determine the Storie Index rating for each soil type and enter it in **Column G**.
- (2) Multiply the proportion of each soil type (**Column C**) by the Storie Index rating (**Column G**) and enter the scores in **Column H**.
- (3) Sum the Storie Index scores in **Column H** to gain the Storie Index Score.
- (4) Enter the Storie Index Score in box <2> of the **Final LESA Score Sheet** on page 10-B.

**Land Evaluation Worksheet - Uplands Estates Example**

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

A	B	C	D	E	F	G	H
Soil Map Unit	Project Acres	Proportion of Project Area	LCC	LCC Rating	LCC Score	Storie Index	Storie Index Score
Cc	30	0.15	IVs	40	6	34	5.1
LI	120	0.6	I	100	60	86	51.6
Si	10	0.05	IIIe	70	3.5	66	3.3
Lt	40	0.2	Ile	90	18	75	15
<b>Totals</b>	200	(Must Sum to 1.0)		<b>LCC Total Score</b>	87.5	<b>Storie Index Total Score</b>	75

**Site Assessment Worksheet 1.**

**Project Size Score**

	I	J	K
LCC Class	LCC Class I - II	LCC Class III	LCC Class IV - VIII
			30
	120		
		10	
	40		
<b>Total Acres</b>	160	10	30
<b>Project Size Scores</b>	100	10	0
<b>Highest Project Size Score</b>	<b>100</b>		

UPLANDS ESTATES EXAMPLE (cont.)

Column I sums to 160 acres,  
Column J sums to 10 acres, and  
Column K sums to 30 acres.

Column I - 160 acres of class I-II soils  
corresponds to a score of 100 points.

Column J - 10 acres of class III soils in  
corresponds to a score of 10 points.

Column K - 30 acres of class IV or  
lower soils corresponds to a score of 0  
points.

The highest score is for column I; 100  
points.

**Calculation of the Site Assessment (SA) Score**

**Part 1. Project Size Score:**

- (1) Using **Site Assessment Worksheet 1** provided on page 2-B, enter the acreage of each soil type from **Column B** in the **Column - I, J or K** - that corresponds to the LCC for that soil. (Note: While the Project Size Score is a component of the Site Assessment calculations, the score sheet is an extension of data collected in the Land Evaluation Worksheet, and is therefore displayed beside it).
- (2) Sum **Column I** to determine the total amount of class I and II soils on the project site.
- (3) Sum **Column J** to determine the total amount of class III soils on the project site.
- (4) Sum **Column K** to determine the total amount of class IV and lower soils on the project site.
- (5) Compare the total score for each LCC group in the Project Size Scoring Table below and determine which group receives the highest score.

Project Size Scoring Table

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

100 points is entered in box <3> of the  
Final LESA Score Sheet.

(6) Enter the **Project Size Score** (the highest score from the three LCC categories) in box <3> of the  
**Final LESA Score Sheet** on page 10-B.

UPLANDS ESTATES EXAMPLE (cont.)

There are two types of irrigation on the site; groundwater and water district water. The site is divided into three portions according to irrigation availability:

Portion I - both irrigation district and groundwater -- 50% of the site;

Portion II - irrigation district only - 25% of the site; and

Portion III - unirrigated - 25% of the site.

Portion I - While irrigation is always feasible, economic and physical restrictions become evident in drought years (Option 5) yielding a score of 80 points.

Portion II - While irrigation is always feasible, economic restrictions become evident during drought years (Option 2) yielding a score of 95 points.

Portion III - irrigation is not feasible and dryland farming is only feasible in non-drought years (Option 13), yielding a score of 20 points.; subtract 75 points. Dryland farming is not feasible in non-drought years; subtract 5 points.

Portion I - (80 points)(0.5) = 40.0 points

Portion II - (95 points)(0.25) = 23.7 points

Portion III - (20 points)(0.25) = 5.0 points

Portion I + Portion II + Portion III = 68.7 points, which is entered in box <4> of the Final LESA Score Sheet.

**Part 2. Water Resource Availability Score:**

(1) Determine the type(s) of irrigation present on the project site, including a determination of whether there is dryland agricultural activity as well.

(2) Divide the site into portions according to the type or types of irrigation or dryland cropping that is available in each portion. Enter this information in **Column B** of **Site Assessment Worksheet 2. - Water Resources Availability**.

(3) Determine the proportion of the total site represented for each portion identified and enter this information in **Column C**.

(4) Using the Water Resources Availability Scoring Table, identify the option that is most applicable for each portion, based upon the feasibility of irrigation in drought and non-drought years, and whether physical or economic restrictions are likely to exist. Enter the applicable Water Resource Availability Score into **Column D**.

(5) Multiply the Water Resource Availability Score for each portion by the proportion of the project area it represents to determine the weighted score for each portion in **Column E**.

(6) Sum the scores for all portions to determine the project's total Water Resources Availability Score

(7) Enter the Water Resource Availability Score in box <4> of the **Final LESA Score Sheet** on page 10-B.

**Site Assessment Worksheet 2. - Water Resources Availability**

A	B	C	D	E
Project Portion	Water Source	Proportion of Project Area	Water Availability Score	Weighted Availability Score (C x D)
1	Irrigation district and groundwater	.50	80	40
2	Irrigation district only	.25	95	23.7
3	not irrigated	.25	20	5.0
4				
5				
6				
		(Must Sum to 1.0)	<b>Total Water Resource Score</b>	68.7

**Water Resource Availability Scoring Table**

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

UPLANDS ESTATES EXAMPLE (cont.)

*Upland Estates is surrounded by 4 parcels: parcels W, X, Y and Z, 200, 180, 150 and 100 acres, respectively. The total acreage of the ZOI is the sum of these parcels or 630 acres.*

*Parcels W, X, and Y are in agriculture. The amount of the ZOI in agriculture is 530 acres. The percent of the ZOI in agriculture is 530 acres divided by 630 acres, or 84%. Eighty-four percent of the ZOI in agriculture corresponds to a score of 90 points.*

**Part 3. Surrounding Agricultural Land Use Score:**

- (1) Calculate the project's Zone of Influence (ZOI) as follows:
  - (a) a rectangle is drawn around the project such that the rectangle is the smallest that can completely encompass the project area.
  - (b) a second rectangle is then drawn which extends one quarter mile on all sides beyond the first rectangle.
  - (c) The ZOI includes all parcels that are contained within or are intersected by the second rectangle, less the area of the project itself.
- (2) Sum the area of all parcels to determine the total acreage of the ZOI.
- (3) Determine which parcels are in agricultural use and sum the areas of these parcels
  
- (4) Divide the area in agriculture found in step (3) by the total area of the ZOI found in step (2) to determine the percent of the ZOI that is in agricultural use.
- (5) Determine the Surrounding Agricultural Land Score utilizing the Surrounding Agricultural Land Scoring Table below.

**Surrounding Agricultural Land Scoring Table**

<b>Percent of ZOI in Agriculture</b>	<b>Surrounding Agricultural Land Score</b>
90-100	100
80-89	90
75-79	80
70-74	70
65-69	60
60-64	50
55-59	40
50-54	30
45-49	20
40-44	10
<40	0

*90 points is entered in box <5> of the Final LESA Score Sheet.*

(5) Enter the Surrounding Agricultural Land Score in box <5> of the **Final LESA Score Sheet** on page 10-B.

**Site Assessment Worksheet 3.**

**Surrounding Agricultural Land and Surrounding Protected Resource Land**

A	B	C	D	E	F	G
<b>Zone of Influence</b>					Surrounding Agricultural Land Score (From Table)	Surrounding Protected Resource Land Score (From Table)
Total Acres	Acres in Agriculture	Acres of Protected Resource Land	Percent in Agriculture (A/B)	Percent Protected Resource Land (A/C)		
630	530	380	84	60	90	50

UPLANDS ESTATES EXAMPLE (cont.)

Parcels W and X are under Williamson Act contract. The sum of these parcels' areas is 380 acres. The area under protection divided by the total acreage of the ZOI (380/630 acres) gives the percent of the surrounding area under protection, or 60%,

corresponding to a Protected Resource Land Score of 50 points.

**Part 4. Protected Resource Lands Score:**

The Protected Resource Lands scoring relies upon the same Zone of Influence information gathered in Part 3, and figures are entered in Site Assessment Worksheet 3, which combines the surrounding agricultural and protected lands calculations.

- (1) Use the total area of the ZOI calculated in Part 3. for the Surrounding Agricultural Land Use score.
- (2) Sum the area of those parcels within the ZOI that are protected resource lands, as defined in the California Agricultural LESA Guidelines.
- (3) Divide the area that is determined to be protected in Step (2) by the total acreage of the ZOI to determine the percentage of the surrounding area that is under resource protection.
- (4) Determine the Surrounding Protected Resource Land Score utilizing the Surrounding Protected Resource Land Scoring Table below.

**Surrounding Protected Resource Land Scoring Table**

Percent of ZOI Protected	Protected Resource Land Score
90-100	100
80-89	90
75-79	80
70-74	70
65-69	60
60-64	50
55-59	40
50-54	30
45-49	20
40-44	10
<40	0

50 points is entered in box <6> of the Final LESA Score Sheet.

- (5) Enter the Protected Resource Land score in box <6> of the **Final LESA Score Sheet** on page 10-B.

## Final LESA Score Sheet

### Calculation of the Final LESA Score:

- (1) Multiply each factor score by the factor weight to determine the weighted score and enter in Weighted Factor Scores column.
- (2) Sum the weighted factor scores for the LE factors to determine the total LE score for the project.
- (3) Sum the weighted factor scores for the SA factors to determine the total SA score for the project.
- (4) Sum the total LE and SA scores to determine the Final LESA Score for the project.

The component LE and SA factors have been entered into the Final LESA Score Sheet.

The LE factor scores are multiplied by the factor weights to determine the weighted score for each.

The weighted LE factor scores are summed to determine the LE portion of the Final LESA score

The SA factor scores are multiplied by the factor weights to determine the weighted score for each.

The weighted SA factor scores are summed to determine the SA portion of the Final LESA score

The LE and SA subtotals are summed to determine the Final LESA score

	Factor Scores	Factor Weight	Weighted Factor Scores
<b><u>LE Factors</u></b>			
Land Capability Classification	<1> 87.5	0.25	21.9
Storie Index	<2> 75.0	0.25	18.7
<i>LE Subtotal</i>		<b>0.50</b>	<b>40.6</b>
<b><u>SA Factors</u></b>			
Project Size	<3> 100.0	0.15	15.0
Water Resource Availability	<4> 68.7	0.15	10.3
Surrounding Agricultural Land	<5> 90.0	0.15	13.5
Surrounding Protected Resource Land	<6> 50.0	0.05	2.5
<i>SA Subtotal</i>		<b>0.50</b>	<b>41.3</b>
<b>Final LESA Score</b>			<b>81.9</b>

Because the Uplands Estates example attained a score above the 80 point threshold, the project would automatically be determined to be significant without a further review of the Land Evaluation or Site Assessment subscores. For further information on the scoring thresholds under the California Agricultural LESA Model, consult Section 4 of the Instruction Manual.