

Appendix A. California Agricultural LESA Worksheets

Redlands Texas Street Residential Project

The Redlands Texas Street Residential Project is an approximately 13.5 acre site located in the City of Redlands. Two soil types have been identified on the site: Hanford Sandy Loam (HbA), 0 to 2 percent slopes and Psammets, Fluvents and Frequently flooded (Ps) (Refer to Figure 1: Soils at the end of the worksheets). The acreage of each soil type was determined using GIS. There are 11 acres of HbA and 2.5 acres of Ps. The acreage of each soil type is divided by the total Project acreage (13.5 acres) to determine the proportion of each. The LCCs for the four soil types are found in the County Soil Survey and are as follows: HbA is LCC I and Ps is LCC VIIIw-1.

For the LCC Scoring Table the LCC point scores for the four soils are 100 and 0, respectively. The portion of each soil type represented is multiplied by its point score in Column E, and is summed to get a total LCC Score of X points, which is entered in box <1> of the Final LESA Score Sheet.

Storie Index rating for each soil type was determined from the County Soil Survey. HbA has a Storie Index Rating of 95 and Ps has a Storie Index Rating of <10. 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 X points which is then entered in box <2> of the Final LESA Score Sheet.

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-A.
- (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	Ile	IIs,w	IIle	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-A.

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-A.

Land Evaluation Worksheet

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
HbA	11	.81	1	100	81	95	76.95
Ps	2.5	.19	VIIIw-1	0	0	<10	1.71
Totals	13.5	(Must Sum to 1.0)		LCC Total Score	81	Storie Index Total Score	78.65

Site Assessment Worksheet 1.

Project Size Score

I	J	K
LCC Class I - II	LCC Class III	LCC Class IV - VIII
11		
		2.5
Total Acres	11	2.5
Project Size Scores	30	0

**Highest Project
Size Score**

30

LESA Worksheet (cont.)

Column I sums to 11 acres.
 Column J sums to 0 acres.
 Column K sums to 2.5 acres.
 Column I - 11 acres of class I-II soils
 corresponds to a score of 30 points.
 Column J - 0 acres of class III soils
 corresponds to a score of 0 points.
 Column K - 2.5 acres of class IV or lower
 soils corresponds to a score of 0 points.

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

Calculation of the Site Assessment (SA) Score

Part 1. Project Size Score:

- (1) Using **Site Assessment Worksheet 1** provided on page 2-A, 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		

- (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-A.

LESA Worksheet (cont.)

The Project site used to be served by irrigation using groundwater from a neighboring well. However, the irrigation lines were removed in the early 2000s. Therefore, the site is not currently being irrigated and bringing irrigation back to the property in order to use it for agriculture would be expensive. Because there is currently no water serving the project site and the prime soils are based on the ability to irrigate the land for cultivation, this analysis assumes that there are physical and economic restrictions during non-drought years and drought years.

For these reasons, the Water Resource Score for the Site is 65 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-A.

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	Groundwater	1.0	65	65
2				
3				
4				
5				
6				
		(Must Sum to 1.0)	Total Water Resource Score	65

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

LESA Worksheet (cont.)

The ZOI intersects with 266 parcels. The total acreage of the ZOI is the sum of these parcels, which equates to 599 acres (Refer to Figure 2: Zone of Influence, at the end of the worksheets).

Approximately 58 acres (10 percent) of the parcels within the ZOI are under agricultural production (based on FMMP Data). As such, < 40 percent of the ZOI is under agricultural production, therefore the Surrounding Agricultural Land Score equates to 0 points.

The 0 points has been entered in box <5> of the Final LESA Score Sheet.

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

Percent of ZOI in Agriculture	Surrounding Agricultural 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

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

Site Assessment Worksheet 3.

Surrounding Agricultural Land and Surrounding Protected Resource Land

A	B	C	D	E	F	G
Zone of Influence					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)		
599	58	389	10	65		

LESA Worksheet (cont.)

None of the parcels within the ZOI are under a Williamson Act Contract. A portion of the ZOI is located within the Upper Santa Ana River Wash Habitat Conservation Plan area. There are also two parks, Red Park and Beazer Park, adjacent to the east boundary of the project site and within the ZOI.

A total of 389 acres or 65 percent of the ZOI is protected. This equates to a Protected Resource Land Score of 60 points.

60 points have been recorded in box <6> of the Final LESA Score Sheet.

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

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

LESA Worksheet (cont.)

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.

The Final LESA Score for the proposed Project is 57.25 points.

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.

	Factor Scores	Factor Weight	Weighted Factor Scores
LE Factors			
Land Capability Classification	<1> 81	0.25	20.3
Storie Index	<2> 78.65	0.25	19.7
LE Subtotal		0.50	40
SA Factors			
Project Size	<3> 30	0.15	4.5
Water Resource Availability	<4> 65	0.15	9.75
Surrounding Agricultural Land	<5> 0	0.15	0
Protected Resource Land	<6> 60	0.05	3
SA Subtotal		0.50	17.25
Final LESA Score			57.25

A total LESA Score of 40 to 59 Points is Considered Significant only LE and SA subscores are each greater than or equal to 20 points. Based on a Final LESA Score of 57.25 points and an SA subscore of less than 20 points (17.25), the LESA Model concludes that conversion of the Important Farmland on the site to non-agricultural uses would not be considered a significant impact.



LSA

 Project Site

Soils

 HbA - Hanford sandy loam, 0 to 2 percent slopes (10.989 acres)

 Ps - Psamments, Fluvents and Frequently flooded soils (2.547 acres)



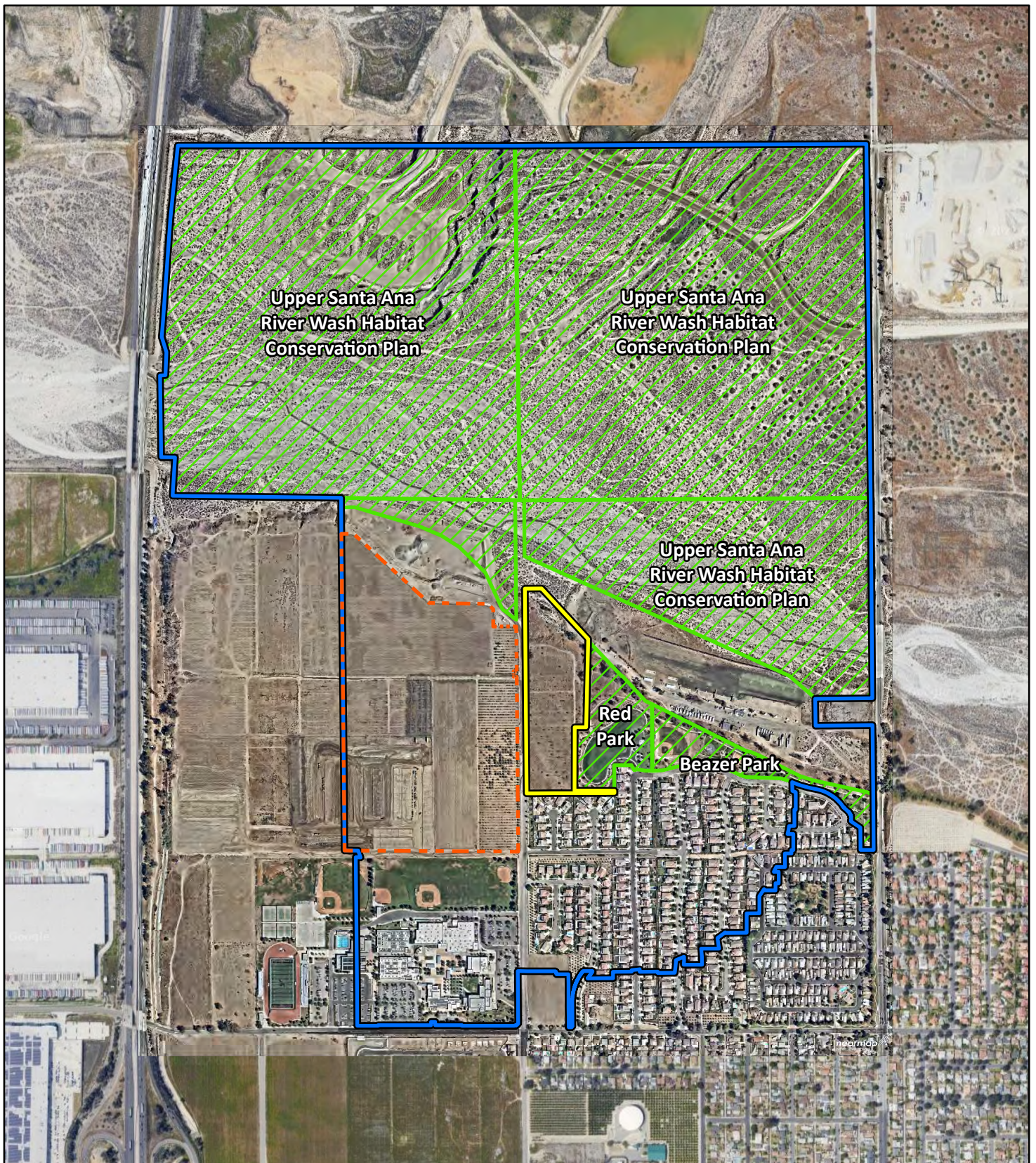
0 100 200
FEET

FIGURE 1

Texas Street Residential Project
Soils

SOURCE: Google Imagery (2021), Soil Survey Geographic Database (SSURGO), National Resources Conservation Service, December 2021

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LSA



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- Project Site
- Zone of Influence (266 parcels, 598.853 acres)
- Protected Areas (65.160%)
- Agricultural Areas (58.009 acres)

FIGURE 2

Texas Street Residential Project
Zone of Influence

SOURCE: Google Imagery (2021), Nearmap (2022)

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