E P D SOLUTIONS, INC

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Subject:	Land Evaluation and Site Assessment for the Redlands RHNA Rezone Project

1. Executive Finding

EPD Solutions Inc., (EPD) evaluated the agricultural value of the property proposed for rezoning by the Redlands RHNA Rezone Project (Project). The analysis is based on the California Agricultural Land Evaluation and Site Assessment (LESA) model and concludes that the conversion of the Project site's agricultural land, as allowed by the proposed Project, to potential residential uses would result in a significant loss of Farmland.

2. Introduction

According to Public Resources Code (PRC) § 21060.1, "agricultural land" is prime farmland, farmland of statewide importance, or unique farmland, as defined by the U.S. Department of Agriculture land inventory and monitoring criteria. In California, the LESA model is the primary approach for rating the relative quality of agricultural land resources based upon specific measurable features. The LESA model is intended to provide a methodology to ensure that significant effects on the environment of agricultural land conversions are quantitatively and consistently considered in the environmental review process (PRC § 21095). It is also intended to provide lead agencies under the California Environmental Quality Act (CEQA) with a process to determine the significance of converting agricultural properties to urban land uses.

3. Project Overview

Environmental Setting and Location

The Project site consists of 23 sites from the City of Redlands Housing Element sites inventory totaling approximately 109.25 acres that were identified as requiring future rezone (rezone sites). The sites to be rezoned (including Site 24, collectively the "Project site", "sites"), encompasses approximately 116.19 acres. Site 24 is not identified in the Housing Element but is proposed for rezoning as part of the Project in order to conform with the existing onsite school use and achieve land use compatibility with the surrounding proposed residential designations. The 24 sites are broken up into two distinct areas.

- Sites 1 through 16A and 24 are in the western portion of the City, approximately 0.75 miles south of the I-10, bordered to the north by Citrus Avenue, the south by Orange Avenue, the west by New Jersey Street, and the east by Kansas Street. These sites are within the East Valley Corridor Specific Plan (EVCSP) which aims to strengthen the local economy, attract major businesses, and result in the orderly and aesthetic development of industrial, commercial, and residential areas.
- Sites 17 through 23 are centrally located in the City, approximately 1.25 miles northeast of Sites 1 through 16A and 0.32 miles east of SR-210, south of San Bernardino Avenue. The sites are located in North Redlands north of I-10 and Downtown Redlands.

The California Department of Conservation Farmland Mapping and Monitoring Program designates 44.67 acres of the site as Prime Farmland as shown on Figure 2, *Farmland Locations*. For the purpose of this report, only Sites 1, 3, 8, 9, 10, 13, 14, 15, 15A, and 24 (50.13 acres) will be analyzed as they are the only parcels with Farmland present.

All of the sites are relatively flat and are utilized for farming activities with some single-family residences present, with the exception of Site 24 which has a school onsite. All of the parcels are currently zoned as Commercial/Industrial within the East Valley Corridor Specific Plan and have a General Plan land use designation of Commercial/Industrial. Surrounding land uses consist of industrial land uses to the north, Heritage Park and residential development to the south, vacant land and residences to the west, and schools residences to the east.

Project Description for Proposed Project

The City of Redlands is proposing to rezone 24 sites within the City to allow residential development, which includes an application for a General Plan Amendment (GPA) to change the land use designations of the sites to allow for residential development, a Specific Plan Amendment (SPA) in order to remove 15 of the Rezone Sites out of the EVCSP, and a zone change to allow for medium and high-density residential development within the rezone sites.

The Housing Element identifies the Rezone Sites as having a capacity of up to 2,435 housing units and assumes that implementation of residential development within the Project Sites would occur through the year 2035.

Future development based on the Project could result in the conversion of approximately 44.67 acres of Prime Farmland to non-agricultural use on Rezone Sites 1, 3, 8, 9, 10, 13, 14, 15, 15A, and 24 i.e., the focus of this technical memorandum.

4. California LESA Model Evaluation

The below evaluation mirrors the steps outlined in the California Agricultural Land Evaluation and Site Assessment Model Instruction Manual. The tables below are those provided in Appendix A of the LESA Instruction Manual, included as Attachment A to this memorandum.

4a. Land Evaluation Factors

The Land Evaluation portion of the LESA Model considers two features that are separately rated:

- The Land Capability Classification (LCC) Rating: The LCC 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.
- The Storie Index Rating: The Storie Index 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. The rating is based on four soil characteristics: degree of soil profile development, surface texture, slope, and other soil and landscape conditions including drainage, alkalinity, nutrient level, acidity, erosion, and microrelief.

Table A details the LCC and Storie Index rating for the only soil present on the Rezone Sites designated as Prime Farmland. As shown in Figure 3, Onsite Soils, the 50.13 acres of within the Rezone Sites are comprised entirely of Hanford coarse sandy loam (2 to 9 percent slopes)

A	В	C	D	E	F	G	Н
Soil Type	Project Acres	Portion of Project Area	LCC1	LCC Rating ²	LCC Score (C x E)	Storie Index ³	Storie Index Score (C x G)
Hanford coarse sandy loam (2 to 9 percent slopes) (HaC)	50.13	1.0	lle	90	90	73	73

Table A. Land Capability Classification (LCC) and Storie Index Scores

Total:	50.13	1.0	LCC Total Score:	90	Storie	73
					Index	
					Total	
					Score:	

- 1. United States Department of Natural Resources Conservation Service. Agriculture, Custom Soil Resource Report for Western Riverside Area, California. March 19, 2024.
- 2. California Agricultural Land Evaluation and Site Assessment Model. Table 2. Numeric Conversion of Land Capability Classification Units
- 3. https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

4b. Site Assessment Factors

The LESA Model includes four Site Assessment factors that are separately rated and are as follow:

- Project Size Rating
- Water Resources Availability Rating
- Surrounding Agricultural Land Rating
- Surrounding Protected Resource Land Rating

Project Size Rating

Project Size Rating recognizes the role that farm size plays in the viability of commercial agricultural operations. In general, larger farming operations can provide greater flexibility in farm management and marketing decisions and tend to have greater impacts upon the local economy through direct employment (California Department of Conservation, 1997).

In terms of 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 diversity in crop selection and the potential for greater economic return per acre unit. The Project Size rating is determined by summing the acres in a project that fall within one of three consolidated LCC categories. The Rezone Sites contain 50.13 acres of LCC Class I-II soils. Based on LESA Instruction Manual Table 3, which states that the highest score generated across all the columns becomes the overall Project Size score, a Project Size score of 80 is applicable to the site.

	l	J	К					
	LCC Class I-II	LCC Class III	LCC Class IV-VIII					
Hanford coarse sandy loam (2 to 9	50.13	0	0					
percent slopes) (HaC)								
Total	50.13	0	0					
Project Size Scores	80	0	0					
Highest Project Size Score ¹		80						

Table B.	Proj	ect	Size	Score
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1. Project Size Score was determined from the Project Size Scoring Table from the LESA Instruction Manual (California Department of Conservation 1997)

Water Resources Availability Rating

The Water Resources Availability Rating is based on the water sources that supply the agricultural site and then determining whether different restrictions in supply would take place in years characterized as being periods of drought and non-drought. The agriculture sites are irrigated with water purveyed by the City of Redlands via waterlines under the adjacent roads. According to the Redlands Urban Water Management Plan (UWMP), the City of Redlands estimates that it will have sufficient water supplies to accommodate the planned uses of its service area through 2035 both in historic single-dry years and multiple-dry years.

Therefore, during non-drought years, it is unlikely that there would be physical or economic restrictions with water availability at the site. During drought years, while it is unlikely there would be a physical barrier to water access, it is possible that the cost of water could increase and/or restrictions could be set in place for conservation purposes. Consequently, based on the scoring criteria provided in the LESA Manual, Table 5, Water Resource Availability Scoring, the site receives a water resource score of 95 of 100 points (Table C).

Α	В	С	D	E
Project Proportion	Water Source	Proportion of Project Area	Water Availability Score ¹	Weighted Availability Score (C X D)
1	Irrigation	1.0	95	95
	95			

Table	С.	Water	Resources	Availability
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1. Water Resources Score was determined from the Water Resources Availability Scoring Table from the LESA Instruction Manual (California Department of Conservation 1997)

Surrounding Agricultural Land Rating

The Surrounding Agricultural Land Rating factor evaluates the possibility that surrounding agricultural land use is likely to influence and be influenced by the Project's agricultural land. It identifies the level of agricultural land use within a one-quarter mile radius, zone of influence (ZOI) of the Project site. Parcels that are intersected by the 0.25-mile buffer are included in their entirety. Based upon 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 (California Department of Conservation, 1997).

Figure 5, Zone of Influence Surrounding Agricultural Land, shows the area one-quarter mile from the site with areas in agricultural production highlighted: 126 acres of Prime Farmland. As shown on Figure 6, only about 21.69 acres designated as Prime Farmland are currently in agricultural production. Table D summarizes the findings for the Project's Surrounding Agricultural Land Rating evaluation.

Surrounding Protected Resource Land Rating

The Surrounding Protected Resource Land Rating is 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
- Lands with agricultural, wildlife habitat, open space, or other natural resource easements that restrict the conversion of such land to urban or industrial uses.

As shown in Figure 4, Zone of Influence, there are a total of 433.70 acres within the Project's zone of influence. Of those 433.70 acres, there are currently 21.69 acres of land being used for agricultural production. As such, the Project's agricultural land zone of influence contains a total of 21.69 acres that are both currently being used for agricultural production and that are classified as Prime Farmland, which are located north, northwest, and south of the Rezone Sites.

Further, there are 16.28 acres of total protected resource land in the zone of influence (433.70 acres). Protected resource land in the zone of influence is comprised of the Zanja Channel which falls under the

federal jurisdiction of the U.S. Army Core of Engineers as waters of the US and is subject to the federal Clean Water Act.

Based on the Department of Conservation's LESA Instruction Manual, a project with a percent less than 40 within the zone of influence in agricultural use is given a score of 0. Further, a project with a percentage below 40 within the zone of influence that is protected is given a score of 0. Therefore, the Project would have a surrounding agricultural land score of 0 and a surrounding protected resource land score of 0.

Α	В	С	D	E	F	G	
		Surrounding	Surrounding				
Total Acres	Acres in Agriculture	Acres of Protected Resource Land	Percent in Agriculture (B/A)	Percent Protected Resource Land (C/A)	Agricultural Land Score ¹	Protected Resource Land Score ¹	
433.70	21.69	16.28	5.05%	3.79%	0	0	

Table D. Surrounding Agricultural and Protected Resources Land

 The Surrounding Agricultural and Protected Resources Land Score was determined using the Surrounding Agricultural Land Rating Scoring Table and Surrounding Protected Resource Land Rating from the LESA Instruction Manual (California Department of Conservation 1997)

5. Weighting of Factors and Final LESA Scoring

The final project scoring is based on a scale of 100 points, with a given project being capable of deriving a maximum of 50 points from the Land Evaluation factors and 50 points from the Site Assessment factors. Scoring thresholds are based upon the total LESA score as well as the component Land Evaluation and Site Assessment subscores. Table E shows the Final LESA score of the Project's agriculture sites.

	Factor Scores	Factor Weight	Weighted Factor Scores					
Land Evaluation Factors								
Land Capability Classification	90	0.25	22.5					
Storie Index Rating	73	0.25	18.25					
		Land Evaluation Subtotal	40.75					
Site Assessment Factors								
Project Size	80	0.15	12					
Water Resource Availability	95	0.15	14.25					
Surrounding Agricultural Land	0	0.15	0					
Protected Resource Land	0	0.05	0					
		Site Assessment Subtotal	26.25					
		Final LESA Score	67.0					

Table E. Final LESA Score Sheet

Table F. LESA Model Significance Determination

Total LESA Score	Scoring Decision
0-39 Points	Not considered significant
40-59 Points	Considered significant <u>only</u> if LE <u>and</u> SA subscores are each <u>greater</u> than or equal to 20
	points
60-70 Points	Considered significant unless either LE or SA subscore is less than 20 points
80-100 Points	Considered significant

Table F provides the LESA Model Significance thresholds. Sites receiving a total LESA score between 60 and 70 points are considered significant *unless* either the Land Evaluation or Site Assessment weighted factor subscores are less than 20 points. As identified in Table E, both the Land Evaluation and Site Assessment subscores exceed 20 points. Therefore, pursuant to the LESA model, the potential conversion of the sites from agriculture to non-agricultural uses would be considered significant.

Project Site



Agriculture Technical Study - Redlands RHNA Rezone Project City of Redlands

Farmland Classifications



Onsite Soils



Agriculture Technical Study - Redlands RHNA Rezone Project City of Redlands

Project Zone of Influence



Project Zone of Influence Surrounding Agricultural Land



Agriculture Technical Study - Redlands RHNA Rezone Project City of Redlands

Project Zone of Influence Surrounding Agricultural Operations



Agriculture Technical Study - Redlands RHNA Rezone Project City of Redlands

6. References

- California Department of Conservation (DOC). California Important Farmland Finder. 2022. Accessed from: https://maps.conservation.ca.gov/DLRP/CIFF/
- California Department of Conservation (DOC). Office of Land Conservation. California Agricultural Land Evaluation and Site Assessment Model, Instruction Manual. 1997. Accessed from: <u>https://www.conservation.ca.gov/dlrp/Pages/qh_lesa.aspx</u>
- City of Redlands, 2020 Retail Urban Water Management Plan 2020. Accessed: <u>https://www.cityofredlands.org/sites/main/files/file-</u> <u>attachments/part 2 chapter 4 redlands 2020 uwmp.pdf?1622145365</u>
- U.S. Department of Agriculture. Natural Resources Conservation Service (NRCS). Web Soil Survey. Accessed from: https://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx

Attachment A. California Agricultural Land Evaluation and Site Assessment Model Instructions Manual

<u>NOTES</u>

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 <u>LCC Scoring Table</u> 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	lle	lls,w	llle	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

Site Assessment Worksheet 1.



LESA Worksheet (cont.)

<u>NOTES</u>

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		Clas	s 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.

<u>NOTES</u>

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 <u>Water Resources Availability Scoring Table</u>, 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

А	В	С	D	E
			Water	Weighted
Project	Water	Proportion of	Availability	Availability
Portion	Source	Project Area	Score	Score
				(C x D)
1				
2				
3				
4				
5				
6				
		(Must Sum	Total Water	
		to 1.0)	Resource	
			Score	

Updated 2011

Water Resource Availability Scoring Table

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

<u>NOTES</u>

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 <u>one quarter mile</u> 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 <u>Surrounding Agricultural Land Scoring</u> <u>Table</u> 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	В	С	D	E	F	G
Zone of Influence					Surrounding	
Total Acres	Acres in	Acres of Protoctod	Percent in	Percent Protoctod	Surrounding	Protected
	Agriculture	Protected	Agriculture	Protected Pacourco Land	Ayricultural	
		Resource			Lanu Score	
		Land	(А/В)	(A/C)	(From Table)	(From Table)

<u>NOTES</u>

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 <u>Surrounding Protected Resource</u> Land Scoring Table below.

Surrounding Protected Resource Land Scoring Table

Percent of ZOI	Protected Resource
Protected	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.)

<u>NOTES</u>

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>	0.25	
Storie Index	<2>	0.25	
LE Subtotal		0.50	
SA Factors			
Project Size	<3>	0.15	
Water Resource Availability	<4>	0.15	
Surrounding Agricultural Land	<5>	0.15	
Protected	<6>	0.05	
Resource Land			
SA Subtotal		0.50	
		Final LESA Score	

For further information on the scoring thresholds under the California Agricultural LESA Model, consult Section 4 of the Instruction Manual.