APPENDIX C

LAND EVALUATION AND SITE ASSESSMENT WORKSHEETS

NOTES

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	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-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
BA	830.66	0.374	VIIIe-1	0	0	10	3.74
BP	12.47	0.006	VIIIs-1	0	0	0	0
Chc	378.43	0.170	VIs-1*	20	3.4	38	6.46
Cdc	96573	0.435	IVs-4*	40	17.4	29	12.62
Cob	33.28	0.015	VIIIs-1	0	0	32	0.48
MaB	0.02	9.006×10^{-6} (.0000009)	IIIe-4*	70	0.000063	65	0.0000585
Totals	2220.59	(Must Sum to 1.0)		**LCC Total Score**	20.80	**Storie Index Total Score**	23.30

*These LCC scores are for irrigated soils and are used for the most conservative assumptions.

Site Assessment Worksheet 1.

Project Size Score

	I	J	K
	LCC Class I - II	LCC Class III	LCC Class IV - VIII
			830.66
			12.47
			378.43
			965.73
			33.28
		0.02	
Total Acres	0	0.02	2220.57
Project Size Scores	0	0	100

Highest Project Size Score 100

NOTES

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.

NOTES

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	Irrigated Groundwater	0.007	100	0.7
2	Rainfall (BA/BP)	0.38	0	0
3	Rainfall (non BA/BP)	0.613	45	27.585
4				
5				
6				
		(Must Sum to 1.0)	***Total Water Resource Score***	28.29

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

existing vineyard

rainfall (non BA/BP

rainfall (BA/BP)

NOTES

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						
Total Acres	Acres in Agriculture	Acres of Protected Resource Land	Percent in Agriculture (A/B)	Percent Protected Resource Land (A/C)	Surrounding Agricultural Land Score (From Table)	Surrounding Protected Resource Land Score (From Table)
3940.26	649.38	0	16.5	0	0	0

NOTES

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.)

NOTES

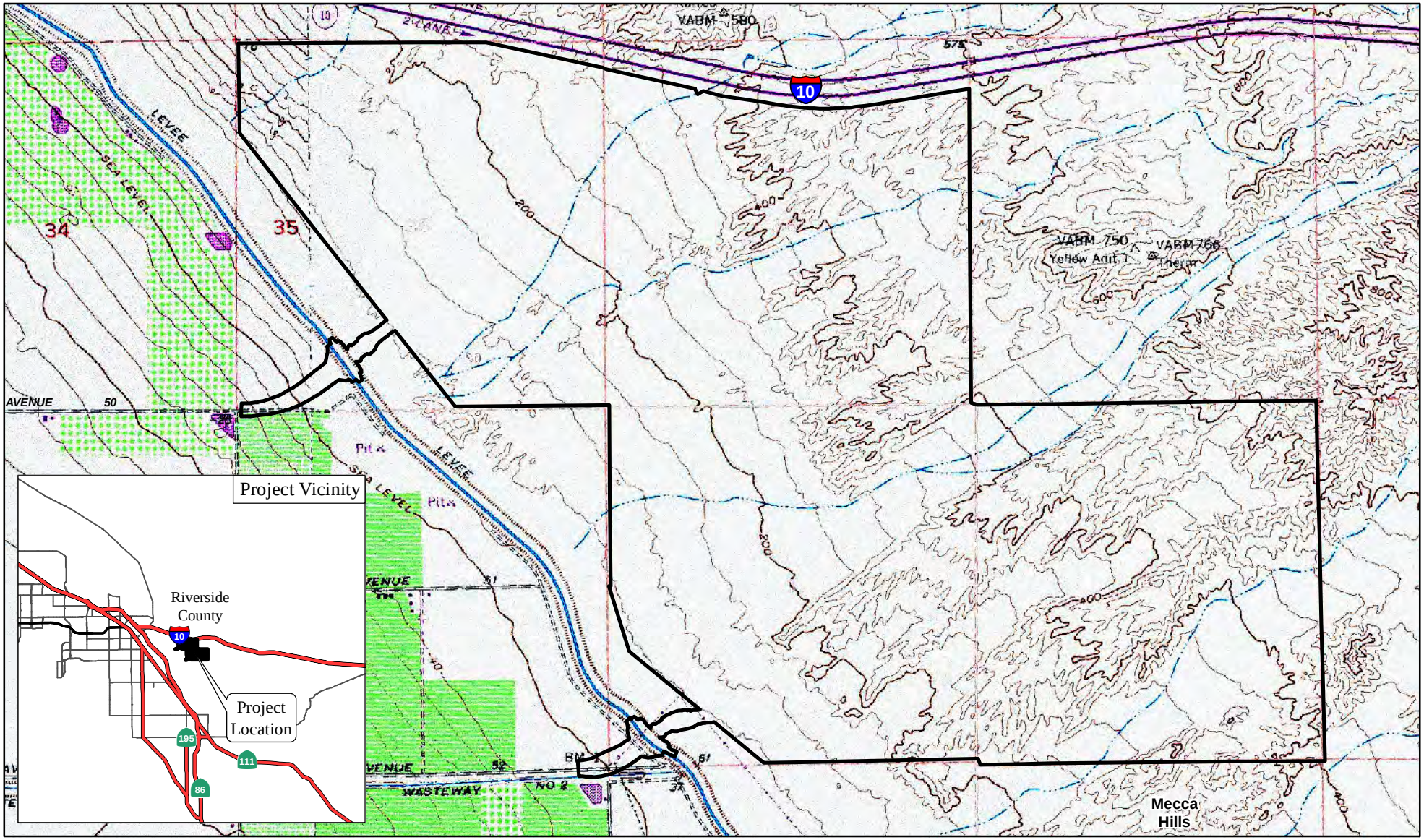
Final LESA Score Sheet

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> 20.80	0.25	5.2
Storie Index	<2> 23.30	0.25	5.8
LE Subtotal		***0.50***	11
SA Factors			
Project Size	<3> 100	0.15	15
Water Resource Availability	<4> 28.29	0.15	4.2
Surrounding Agricultural Land	<5> Ø	0.15	0
Protected Resource Land	<6> Ø	0.05	0
SA Subtotal		***0.50***	19.2
		Final LESA Score	30.2

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



LSA

LEGEND

Project Location

FIGURE 1

N

0 1000 2000

FEET

La Entrada Specific Plan
Land Evaluation and Site Assessment (LESA) Analysis

Project Location

SOURCE: USGS 7.5' Quad. (Indio, 1972; Thermal Canyon, 1972)

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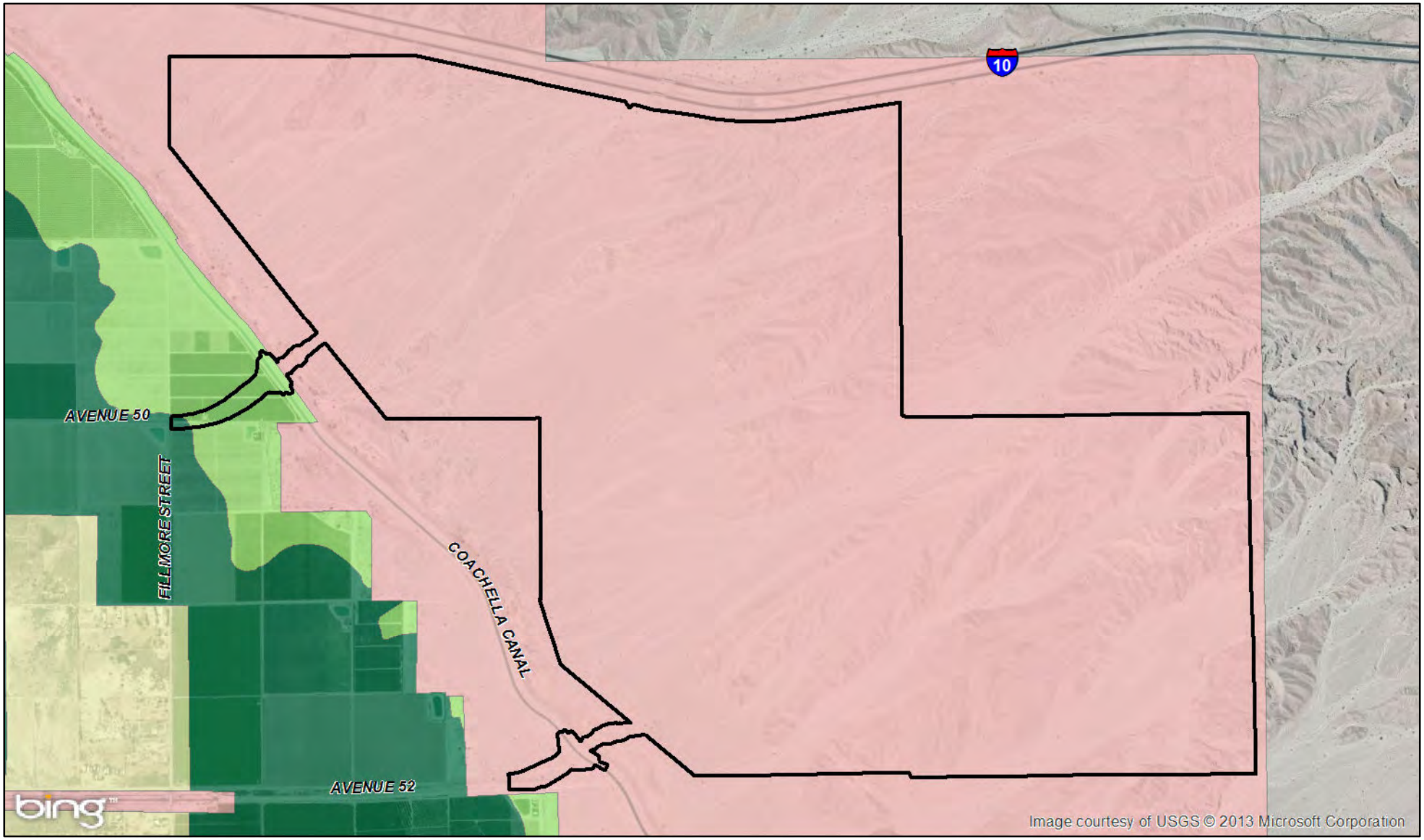

LSA

FIGURE 2

LEGEND

Project Location

Farmland Designations

Prime Farmland (P)

Unique Farmland (U)

Farmland of Local Importance (L)

Other Land (X)

Not Surveyed (Z)

N

0 1000 2000

FEET

La Entrada Specific Plan
Land Evaluation and Site Assessment (LESA) Analysis

Farmland Designations

SOURCE: Bing (c.2012); California Department of Conservation - Farmlands Monitoring and Mapping Program (2010)

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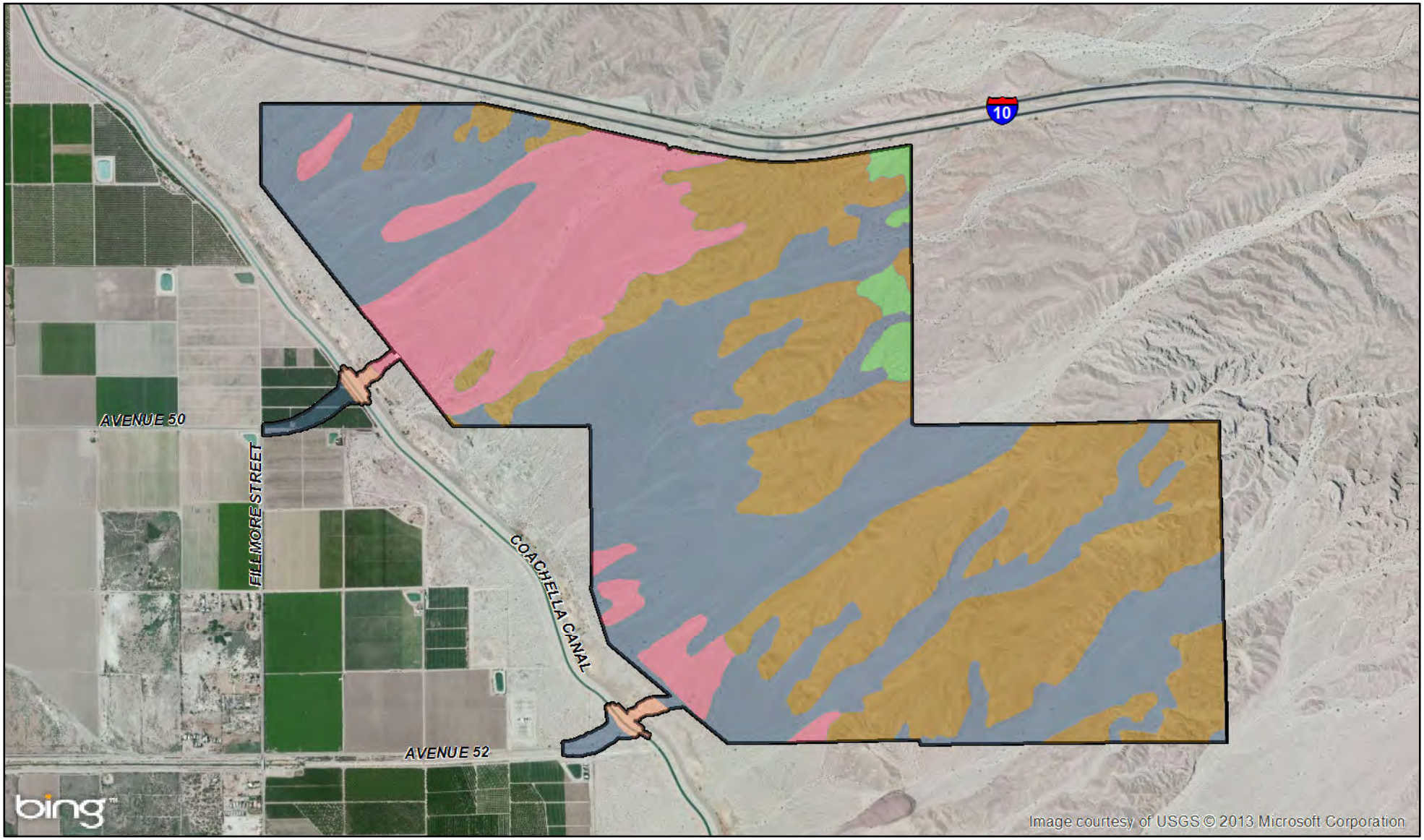

LSA

FIGURE 3

Project Location
Study Area

Soils

BA - Badland
BP - Borrow Pits
Chc - Carsitas cobbly sand, 2 to 9 percent slopes
Cdc - Carsitas gravelly sand, 0 to 9 percent slopes
Cob - Chuckawalla very gravelly sandy clay loam, 2 to 5 percent slopes
MaB - Myoma fine sand, 0 to 5 percent slopes

N

0 1125 2250
FEET

La Entrada Specific Plan
Land Evalution and Site Assessment (LESA) Analysis

Project Site Soils

SOURCE: Bing (c.2012); USDA-NRCS (2010)

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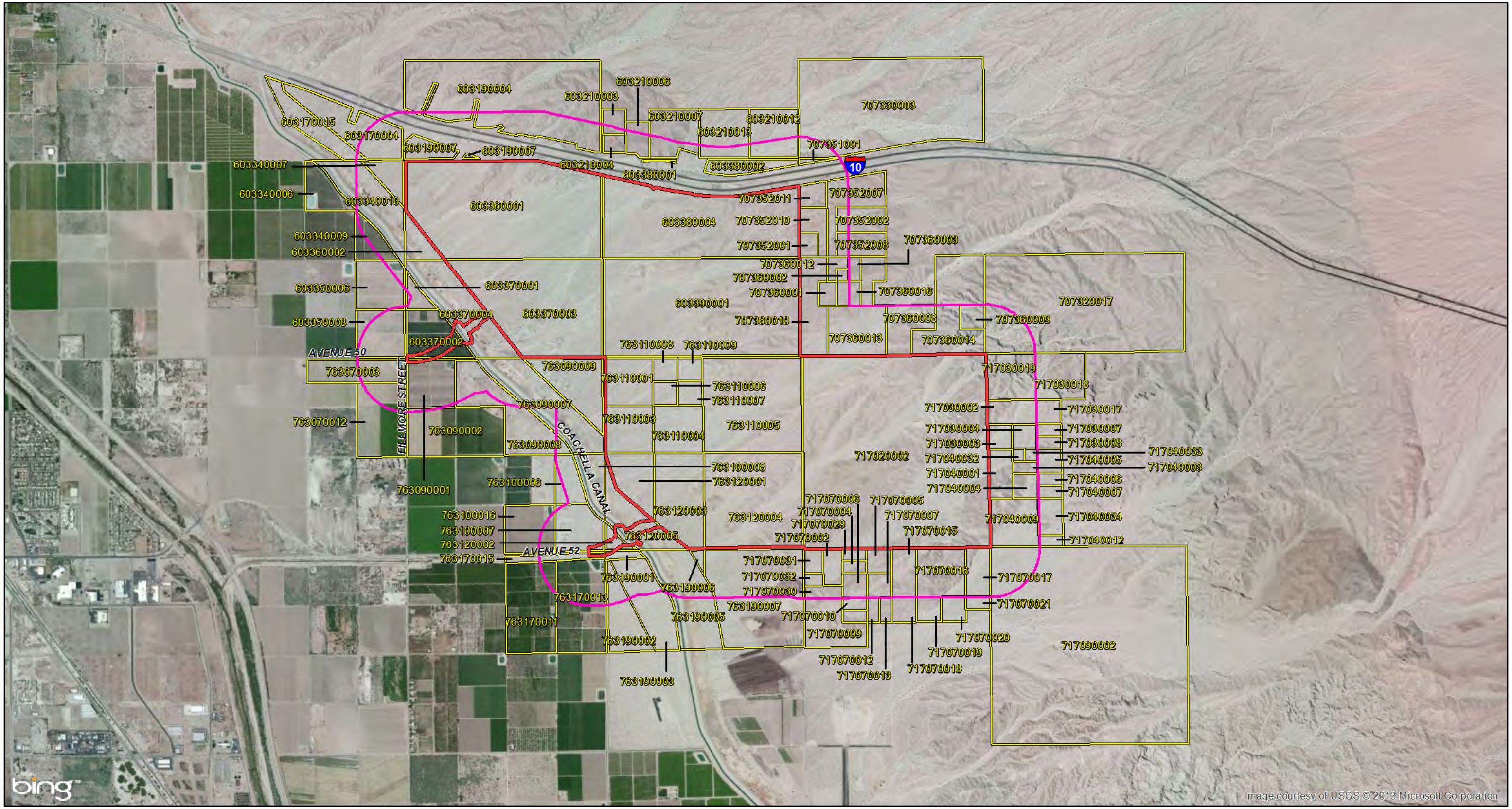

LSA

LEGEND

- Project Boundary
- 1/4 Mile Buffer of Project (ZOI)
- LESA Parcels

0 1250 2500
FEET

SOURCE: Bing (c.2012); USDA-NRCS (2010)

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FIGURE 4

La Entrada Specific Plan
Land Evaluation and Site Assessment (LESA) Analysis

Zone of Influence (ZOI)