

**APPENDIX B.**  
**LAND EVALUATION AND SITE ASSESSMENT (LESA) MODEL**

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**Appendix A. California Agricultural LESA 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	Ile	Ils,w	IIle	IIls,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
GtC	101	.43	IIIe	70	30.1	97	41.71
ShF	89	.38	VII	10	3.8	57	21.66
SoC	5	.02	VI	20	0.4	57	1.14
TvC	41	.17	IVe	50	8.5	57	9.69
<b>Totals</b>	<b>236</b>	(Must Sum to 1.0)		<b>LCC Total Score</b>	<b>42.8</b>	<b>Storie Index Total Score</b>	<b>74.2</b>

**Site Assessment Worksheet 1.**

**Project Size Score**

	I	J	K
LCC Class	LCC Class I - II	LCC Class III	LCC Class IV - VIII
	0	101	89
			5
			41
<b>Total Acres</b>	<b>0</b>	<b>101</b>	<b>135</b>
<b>Project Size Scores</b>	<b>0</b>	<b>80</b>	<b>40</b>

**Highest Project Size Score**

**80**

**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**

<b>Class I or II</b>		<b>Class III</b>		<b>Class IV or Lower</b>	
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	Groundwater	1	100	100
2				
3				
4				
5				
6				
		(Must Sum to 1.0)	<b>Total Water Resource Score</b>	100

**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

**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
<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)		
868	651	14	75	2	80	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**

<b>Percent of ZOI Protected</b>	<b>Protected Resource 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

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

**NOTES**

**Final LESA Score Sheet**

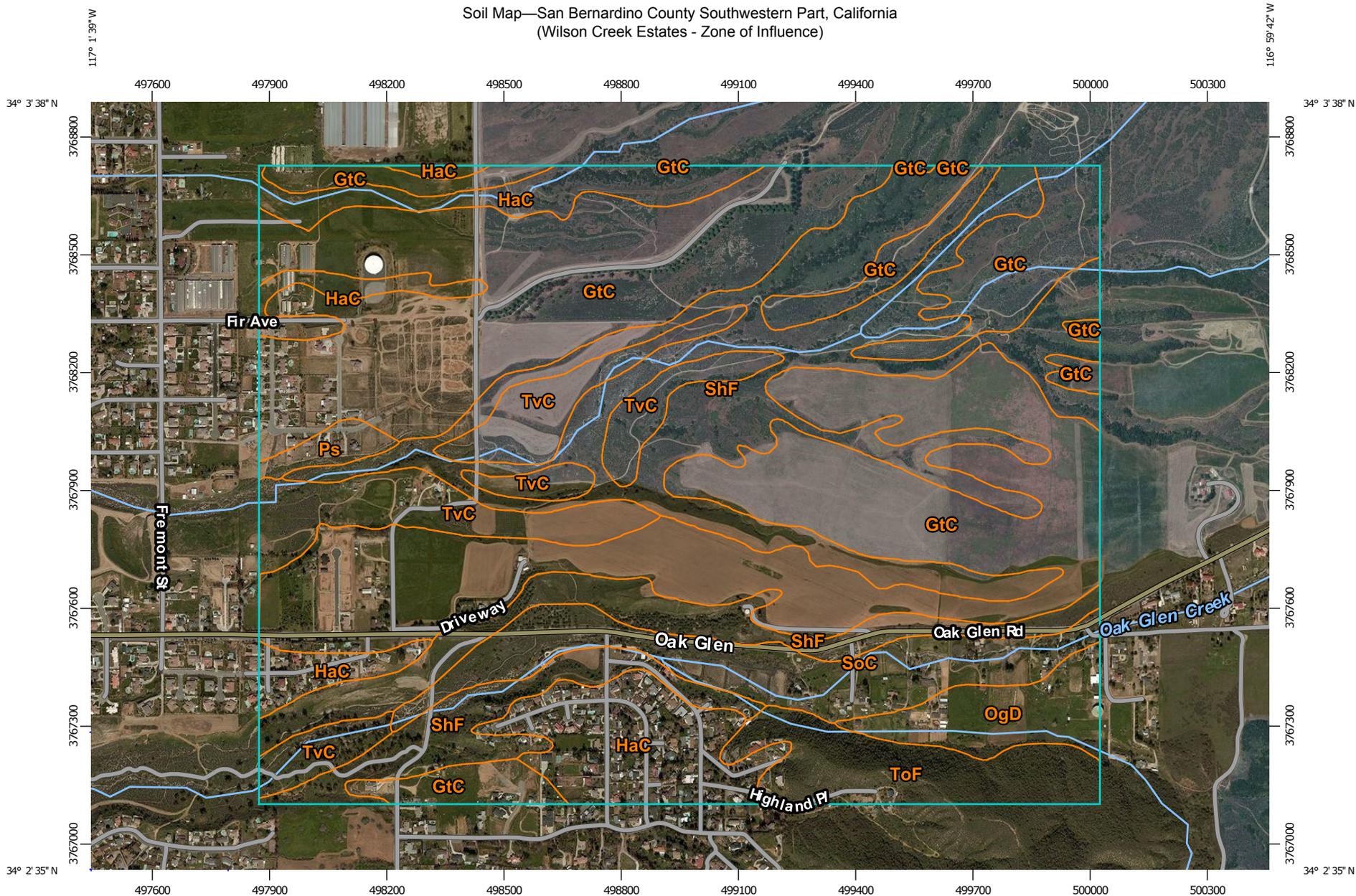
**Calculation of the Final LESA Score:**

- (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.

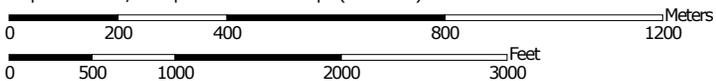
	<b>Factor Scores</b>	<b>Factor Weight</b>	<b>Weighted Factor Scores</b>
<b>LE Factors</b>			
Land Capability Classification	<1> 42.8	0.25	107
Storie Index	<2> 74.2	0.25	18.55
<i>LE Subtotal</i>		<b>0.50</b>	<b>29.25</b>
<b>SA Factors</b>			
Project Size	<3> 236	0.15	35.4
Water Resource Availability	<4> 100	0.15	15
Surrounding Agricultural Land	<5> 80	0.15	12
Protected Resource Land	<6> 0	0.05	0
<i>SA Subtotal</i>		<b>0.50</b>	<b>62.4</b>
<b>Final LESA Score</b>			<b>91.65</b>

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

Soil Map—San Bernardino County Southwestern Part, California  
(Wilson Creek Estates - Zone of Influence)



Map Scale: 1:13,800 if printed on A landscape (11" x 8.5") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

Soil Map—San Bernardino County Southwestern Part, California  
(Wilson Creek Estates - Zone of Influence)

### MAP LEGEND

**Area of Interest (AOI)**

 Area of Interest (AOI)

**Soils**

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

**Special Point Features**

-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot

-  Spoil Area
-  Stony Spot
-  Very Stony Spot
-  Wet Spot
-  Other
-  Special Line Features

**Water Features**

 Streams and Canals

**Transportation**

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

**Background**

 Aerial Photography

### MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>  
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: San Bernardino County Southwestern Part, California  
Survey Area Data: Version 6, Sep 26, 2014

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 25, 2010—Mar 5, 2015

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

San Bernardino County Southwestern Part, California (CA677)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
GtC	Greenfield sandy loam, 2 to 9 percent slopes	383.6	44.2%
HaC	Hanford coarse sandy loam, 2 to 9 percent slopes	84.3	9.7%
OgD	Oak glen gravelly sandy loam, 9 to 15 percent slopes	23.9	2.8%
Ps	Psamments, Fluvents and Frequently flooded soils	6.4	0.7%
ShF	Saugus sandy loam, 30 to 50 percent slopes	205.8	23.7%
SoC	Soboba gravelly loamy sand, 0 to 9 percent slopes	53.7	6.2%
ToF	Tollhouse sandy loam, 30 to 50 percent slopes	37.2	4.3%
TvC	Tujunga gravelly loamy sand, 0 to 9 percent slopes	73.1	8.4%
<b>Totals for Area of Interest</b>		<b>868.1</b>	<b>100.0%</b>



Soil Map—San Bernardino County Southwestern Part, California  
(Wilson Creek Estates - Soils)



Map Scale: 1:4,730 if printed on B landscape (17" x 11") sheet.

0 50 100 200 300 Meters

0 200 400 800 1200 Feet

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84



Natural Resources  
Conservation Service

Web Soil Survey  
National Cooperative Soil Survey

9/15/2015  
Page 1 of 3



Soil Map—San Bernardino County Southwestern Part, California  
(Wilson Creek Estates - Soils)

### MAP LEGEND

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 Area of Interest (AOI)

**Soils**

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 Soil Map Unit Lines

 Soil Map Unit Points

**Special Point Features**

-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot

-  Spoil Area
-  Stony Spot
-  Very Stony Spot
-  Wet Spot
-  Other
-  Special Line Features

**Water Features**

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-  Rails
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Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

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## Map Unit Legend

San Bernardino County Southwestern Part, California (CA677)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
GtC	Greenfield sandy loam, 2 to 9 percent slopes	110.9	45.1%
ShF	Saugus sandy loam, 30 to 50 percent slopes	89.3	36.3%
SoC	Soboba gravelly loamy sand, 0 to 9 percent slopes	4.7	1.9%
TvC	Tujunga gravelly loamy sand, 0 to 9 percent slopes	40.8	16.6%
<b>Totals for Area of Interest</b>		<b>245.8</b>	<b>100.0%</b>