

# EXHIBIT E-2

## DAVID A. STEINER, CPESC, CPSWQ

USLE LAYOUT AND PRACTICE ALTERNATIVES

A=(R)(K)(LS)(C)(P)

FOR: Long Ranch

Post-project

SOIL TYPE: 176 (152), 154, 178

T= 1, 1, 2

USER: DAS

DATE: 2-May-19

		Transect I		II		III		IV		V	
# /ACRES:		2.1		3.5		4.4		4.3		1.6	
FACTOR:	DESCRIPTION	#1 /Describe	#2 /Describe	#3 /Describe	#4 /Describe	#5 /Describe	#1 /Describe	#2 /Describe	#3 /Describe	#4 /Describe	#5 /Describe
R	Rainfall	69	69	69	69	69	69	69	69	69	69
K	Soil Erosiveness	0.24 T=1.65 (seg)	0.10 T=1	0.10 T=1	0.10 T=1	0.10 T=1	0.10 T=1	0.10 T=1	0.10 T=1	0.10 T=1	0.10 T=1
	Slope length (ft)	350	535	490	476	152					
S	Gradient	18.9	17.2	13.9	12.2	19.7					
LS	Calculated LS	5.80 segmented	6.12 segmented	5.52 segmented	4.99 segmented	4.21					
C	Cover	0.022 80%, no-till	0.022 80%, no-till	0.022 80%, no-till	0.022 80%, no-till	0.022 80%, no-till	0.022 80%, no-till				
P	Practice	1 vertical	1 vertical	1 vertical	1 vertical	0.67 cross, no-till					
A	Soil loss, tons/acre	2.14	0.93	0.84	0.76	0.43					
	Soil loss, tons	4.49	3.25	3.68	3.26	0.68					

A=(R)(K)(LS)(C)(P)

Total Soil Loss This Sheet: **14.69** Tons

Transect I	Segmented LS		
Segments	1	2	Use
Length	350	350	
Gradient	20.6	17.1	
LS	6.77	5.28	
Factor	0.35	0.65	
Product	2.370	3.432	5.802

Transect I	Segmented K		
Segments	1	2	Use
Length	175	175	
Gradient			
K	0.10	0.32	
Factor	0.35	0.65	
Product	0.035	0.208	0.243

Transect I	Segmented T		
Segments	1	2	Use
Length	175	175	

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5-20-2019

Gradient			
T	1.00	2.00	
Factor	0.35	0.65	
Product	0.350	1.300	1.650

Transect II	Segmented LS		
Segments	1	2	Use
Length	536	536	
Gradient	19.3	14.6	
LS	7.68	5.28	
Factor	0.35	0.65	
Product	2.688	3.432	6.120

Transect III	Segmented LS		
Segments	1	2	Use
Length	490	490	
Gradient	9.0	18.8	
LS	2.59	7.09	
Factor	0.35	0.65	
Product	0.907	4.609	5.515

Transect IV	Segmented LS		
Segments	1	2	Use
Length	476	476	
Gradient	6.3	18.5	
LS	1.56	6.84	
Factor	0.35	0.65	
Product	0.546	4.446	4.992

**DAVID A. STEINER, CPESC, CPSWQ**  
 USLE LAYOUT AND PRACTICE ALTERNATIVES A=(R)(K)(LS)(C)(P)

FOR: Long Ranch  
 Pre-project  
 SOIL TYPE: 176 (152), 178  
 USER: DAS  
 DATE: 2-May-19

T= 1, 1, 2

# /ACRES:	Transsect									
	2.1	I	3.5	II	4.4	III	4.3	IV	1.6	V
FACTOR:	DESCRIPTION	#1 /Describe	#2 /Describe	#3 /Describe	#4 /Describe	#5 /Describe	#6 /Describe	#7 /Describe	#8 /Describe	#9 /Describe
R	Rainfall	69	69	69	69	69	69	69	69	69
K	Soil Erosiveness	0.243 T=1.65 (seg)	0.10 T=1							
S	Slope length (ft)	350	535	490	476	476	476	476	476	476
	Gradient	18.9	17.2	13.9	12.2	12.2	12.2	12.2	12.2	12.2
LS	Calculated LS	5.80 segmented	6.12 segmented	5.52 segmented	4.99 segmented					
C	Cover	0.036 segmented	0.058 segmented	0.061 segmented	0.073 segmented					
P	Practice	1 vertical	1 vertical	1 vertical	1 vertical	1 vertical	1 vertical	1 vertical	1 vertical	1 vertical
A	Soil loss, tons/acre	3.50	2.45	2.32	2.51	2.51	2.51	2.51	2.51	2.51
	Soil loss, tons	7.35	8.57	10.21	10.81	10.81	10.81	10.81	10.81	10.81

A=(R)(K)(LS)(C)(P)

Total Soil Loss This Sheet: **36.95 Tons**

Transsect I	Segmented LS	1	2 Use
Segments	Length	350	350
	Gradient	20.6	17.1
	LS	6.77	5.28
	Factor	0.35	0.65
	Product	2.370	3.432
			5.802

Transsect I	Segmented K	1	2 Use
Segments	Length	175	175
	Gradient	0.10	0.32
	K	0.35	0.65
	Factor	0.035	0.208
	Product		0.243

Transsect I	Segmented T	1	2 Use
Segments	Length	175	175
	Gradient	1.00	2.00
	T	0.35	0.65
	Factor	0.350	1.300
	Product		1.650

Transsect I	Segmented C	1	2	3	Use
Segments	Length	117	117	117	
	Table 5 (footnotes)				2
	C	0.044	0.034	0.034	
	Factor	0.19	0.35	0.46	
	Product	0.008	0.012	0.016	0.036

Transsect II	Segmented LS	1	2 Use
Segments	Length	536	536

Transsect III	Segmented LS	1	2 Use
Segments	Length	490	490

m: #1 0.5 #2 0.5 #3 0.5 #4 0.5 #5 0.5

Gradient	19.3	14.6	
LS	7.68	5.28	
Factor	0.35	0.65	
Product	2.688	3.432	6.120

Transect II		Segmented C					
Segments	1	2	3	4	Use		
Length	134	134	134	134			
Table 5 (above)	3	4	5	6			
C	0.028	0.027	0.056	0.090			
Factor	0.12	0.23	0.3	0.35			
Product	0.003	0.066	0.017	0.032			0.058

Gradient	9.0	18.8
LS	2.59	7.09
Factor	0.35	0.65
Product	0.907	4.609
		5.515

Transect IV Segmented LS			
Segments	1	2	Use
Length	476	476	
Gradient	6.3	18.5	
LS	1.56	6.84	
Factor	0.35	0.65	
Product	0.546	4.446	4.982

Transsect III	Segmented C				
Segments	1	2	3	4	5 Use
Length	98	98	98	98	98
Table 5	7	8	9	9	9
C	0.053	0.053	0.078	0.059	0.059
Factor	0.09	0.16	0.21	0.25	0.28
Product	0.005	0.008	0.016	0.015	0.017
					0.061

Transsect IV	Segmented C			
Segments	1	2	3	4 Use
Length	119	119	119	119
Table 5	10	8	10	11
C	0.099	0.078	0.089	0.038
Factor	0.12	0.23	0.3	0.35
Product	0.012	0.018	0.030	0.013
				0.073

FROM TABLE 5, "Special Applications FOR Napa County"

- 1 75% Low Brush; 70% cover: 30 G, 70 W
- 2 50% Low Brush; 70% cover: 70 G, 30 W
- 3 50% Low Brush; 70% cover: 60 G, 40 W
- 4 50% Low Brush; 80% cover: 50 G, 50 W
- 5 25% Low Brush; 60% cover: 60 G, 40 W
- 6 50% Low Brush; 40% cover: 50 G, 50 W
- 7 75% Low Brush; 70% cover: 0 G, 100 W
- 8 75% High Brush; 60% cover: 0 G, 100W
- 9 75% High Brush; 70% cover: 0 G, 100W
- 10 75% High Brush; 50% cover: 0 G, 100W
- 11 75% Low Brush; 80% cover: 0 G, 100 W