

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	
R	Rainfall	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
	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
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	

REC
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

T= 1, 1, 2

USER: DAS

DATE: 2-May-19

# /ACRES:	Transect	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					
R	Rainfall	69	69	69	69	69					
K	Soil Erosiveness	0.243 T=1.65 (seg)	0.10 T=1	0.10 T=1	0.10 T=1	0.10 T=1					
S	Slope length (ft)	350	535	490	476	152					
	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	0.036 segmented	0.058 segmented	0.061 segmented	0.073 segmented	0.027					
P	Practice	1 vertical	1 vertical	1 vertical	1 vertical	1 vertical					
A	Soil loss, tons/acre	3.50	2.45	2.32	2.51	0.78					
	Soil loss, tons	7.35	8.57	10.21	10.81	1.25					

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

Total Soil Loss This Sheet: 36.95 Tons

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

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

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

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

Transect II	Segmented LS	1	2 Use
Segments		536	536
Length			

Transect III	Segmented LS	1	2 Use
Segments		490	490
Length			

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)						
C	0.028	0.027	0.056	0.090		
Factor	0.12	0.23	0.3	0.35		
Product	0.003	0.006	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				4.992

Transsect III	Segmented C				
Segments	1	2	3	4	5 Use
Length	98	98	98	98	98
Table 5	7	7	8	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"

- 175% Low Brush; 70% cover: 30 G, 70 W
- 250% Low Brush; 70% cover: 70 G, 30 W
- 350% Low Brush; 70% cover: 80 G, 40 W
- 450% Low Brush; 80% cover: 50 G, 50 W
- 525% Low Brush; 60% cover: 80 G, 40 W
- 650% Low Brush; 40% cover: 50 G, 50 W
- 75% Low Brush; 70% cover: 0 G, 100 W
- 875% High Brush; 60% cover: 0 G, 100W
- 975% High Brush; 70% cover: 0 G, 100W
- 1075% High Brush; 50% cover: 0 G, 100W
- 1175% Low Brush; 80% cover: 0 G, 100 W