

REACH 1

T23S-R11W-S14E

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Valley and Channel Summary

Valley Characteristics (Percent Reach Length)

<u>Narrow Valley Floor</u>		<u>Broad Valley Floor</u>	
Steep V-shape	0	Constraining Terraces	0
Moderate V-shape	100	Multiple Terraces	0
Open V-shape	0	Wide Floodplain	0

Valley Width Index avg: 2.2 range: 1.5-3.0

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	100	Single Channel	0
Bedrock	0	Multiple Channel	0
Terrace	0	Braided Channel	0
Alt. Terrace/Hill	0		
Landuse	0		

Channel Characteristics

<u>Type</u>	<u>Length(m)</u>	<u>Area (m2)</u>	<u>Dry Units</u>
Primary	1,121	19,475	0
Secondary	26	62	0

Channel Dimensions (m)

<u>Wetted</u>		<u>Active</u>		<u>Floodprone</u>	<u>First Terrace</u>
Width	16.6	Width	24.4	27.3	31.1
Depth	0.42	Height	0.6	1.2	1.7
		W:D ratio	41.7	Entrenchment	1.1

Stream Flow Type: MF Water Temp: 17.0-17.0°C
 Avg. Unit Gradient: 3.9% Habitat Units/100m: 2.5

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	MT	LT
Riparian Vegetation:	C50	M30

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding	3%	Reach avg: 81%
Undercut Banks	1%	Range: 61-100

Large Woody Debris

	<u>Total</u>	<u>Total/100m</u>
All pieces (≥3m x 0.15m)	67	6.0
Volume (m ³)	19	1.7
Key pieces (≥10m x 0.6m)	0	0.0

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HABITAT DETAIL

Habitat Type	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m ²)	Large Boulders (#>0.5m)	Substrate Percent Wetted Area					
							S/O	Snd	Grvl	Cbbl	Bldr	Bdrk
CASCADE/BOULDERS	1	8	2.0	0.10	16	0	0	0	70	30	0	0
GLIDE	9	434	16.4	0.31	7,189	17	2	10	39	10	4	35
POOL-ISOLATED	1	18	2.5	0.40	46	0	50	50	0	0	0	0
POOL-LATERAL SCOUR	3	148	25.3	1.40	3,718	14	3	13	38	13	7	26
POOL-STRAIGHT SCOUR	2	53	16.5	1.08	867	0	8	17	50	16	7	4
RAPID/BEDROCK	2	66	11.4	0.25	561	8	0	0	3	3	10	85
RIFFLE	7	329	15.6	0.21	5,171	17	1	5	17	8	3	65
RIFFLE W/ POCKETS	1	50	20.0	0.18	1,000	15	0	0	20	10	10	60
STEP/BEDROCK	3	43	22.2	0.16	970	4	0	0	9	9	3	78
Total:	29	1,147	16.6	0.42	19,537	75	Avg: 4	8	28	10	5	46

HABITAT SUMMARY

Habitat Group	No. Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area (m ²)	Percent	Large Boulders Number	Boulders #/100m ²
Dammed & BW Pools	1	18	2.5	0.40	46	0.23	0	0.0
Scour Pools	5	201	21.8	1.27	4,585	23.47	14	0.3
Glides	9	434	16.4	0.31	7,189	36.80	17	0.2
Riffles	8	379	16.2	0.21	6,171	31.59	32	0.5
Rapids	2	66	11.4	0.25	561	2.87	8	1.4
Cascades	1	8	2.0	0.10	16	0.08	0	0.0
Step/Falls	3	43	22.2	0.16	970	4.97	4	0.4
Dry	0	0	-	-	0	0.00	0	0.0

POOL SUMMARY

	Total	#/Km
All Pools	6	5.2
Pools ≥1m deep:	4	3.5
Complex pools (LWD pieces ≥3):	4	3.5
Pool Frequency (channel widths/pool):	7.8	
Residual pool depth (avg)	1.13m	

STREAM SUMMARY

W FK MILLICOMA (LOWER) PRE-TX

Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m ²)	Substrate Percent Wetted Area						Total Large Boulder
					S/O	Sand	Grvl	Cbbl	Bldr	Bdrk	
29	1,147	16.6	0.42	19,537	4	8	28	10	5	46	75

Wetted Area

Habitat Group	(m ²)	Percent
Scour Pool	4,585	23.5
Backwater Pools	46	0.2
Glide	7,189	36.8
Riffle	6,171	31.6
Rapid	561	2.9
Cascade	16	0.1
Step	970	5.0
Dry	0	0.0

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RIPARIAN ZONE VEGETATION SUMMARY

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Summary of Riparian Zone (0-30m) (3 transects)

Total hardwoods/1000 ft	406
Total conifers/1000 ft	142
Total conifers >20" dbh/1000 ft	41
Total conifers >35" dbh/1000 ft	0

Average number of trees in a 5-meter wide band

Diameter class (cm)	Zone 1 0-10 meters		Zone 2 10-20 meters		Zone 3 20-30 meters		Zones 1-3 0-30 meters	
	Conifer	Hardwood	Conifer	Hardwood	Conifer	Hardwood	Conifer	Hardwood
3-15cm	0.0	3.0	0.0	0.0	0.0	0.7	0.0	3.7
15-30cm	0.7	1.7	0.0	0.3	0.3	0.0	1.0	2.0
30-50cm	0.0	0.3	0.3	0.7	0.3	0.0	0.7	1.0
50-90cm	0.3	0.0	0.3	0.0	0.0	0.0	0.7	0.0
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m ²	1.0	5.0	0.7	1.0	0.7	0.7	0.8	2.2

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10-20 meters		Zone 3 20-30 meters	
	(%)		(%)		(%)	
Canopy closure	70		83		83	
Shrub cover	72		70		71	
Grass/forb cover	22		21		18	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10-20 meters		Zone 3 20-30 meters	
	Hillslope	83		50		50
High terrace	17		50		50	
Low terrace	0		0		0	
Floodplain	0		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	0		0		0	
Riprap	0		0		0	
Surface slope (%)	53		46		52	

Summary of Riparian Zone (0-30m) for all reaches (3 transects)

Summary of riparian zone (0-100ft) extrapolated to 1,000 feet along stream

Total hardwoods/1000 ft	406
Total conifers/1000 ft	142
Total conifers >20" dbh/1000 ft	41

Average number of trees in a 5-meter wide band

<u>Diameter</u> <u>class (cm)</u>	<u>Zones 1-3</u>	
	<u>Conifer</u>	<u>Hardwood</u>
3-15cm	0.0	3.7
15-30cm	1.0	2.0
30-50cm	0.7	1.0
50-90cm	0.7	0.0
>90cm	0.0	0.0

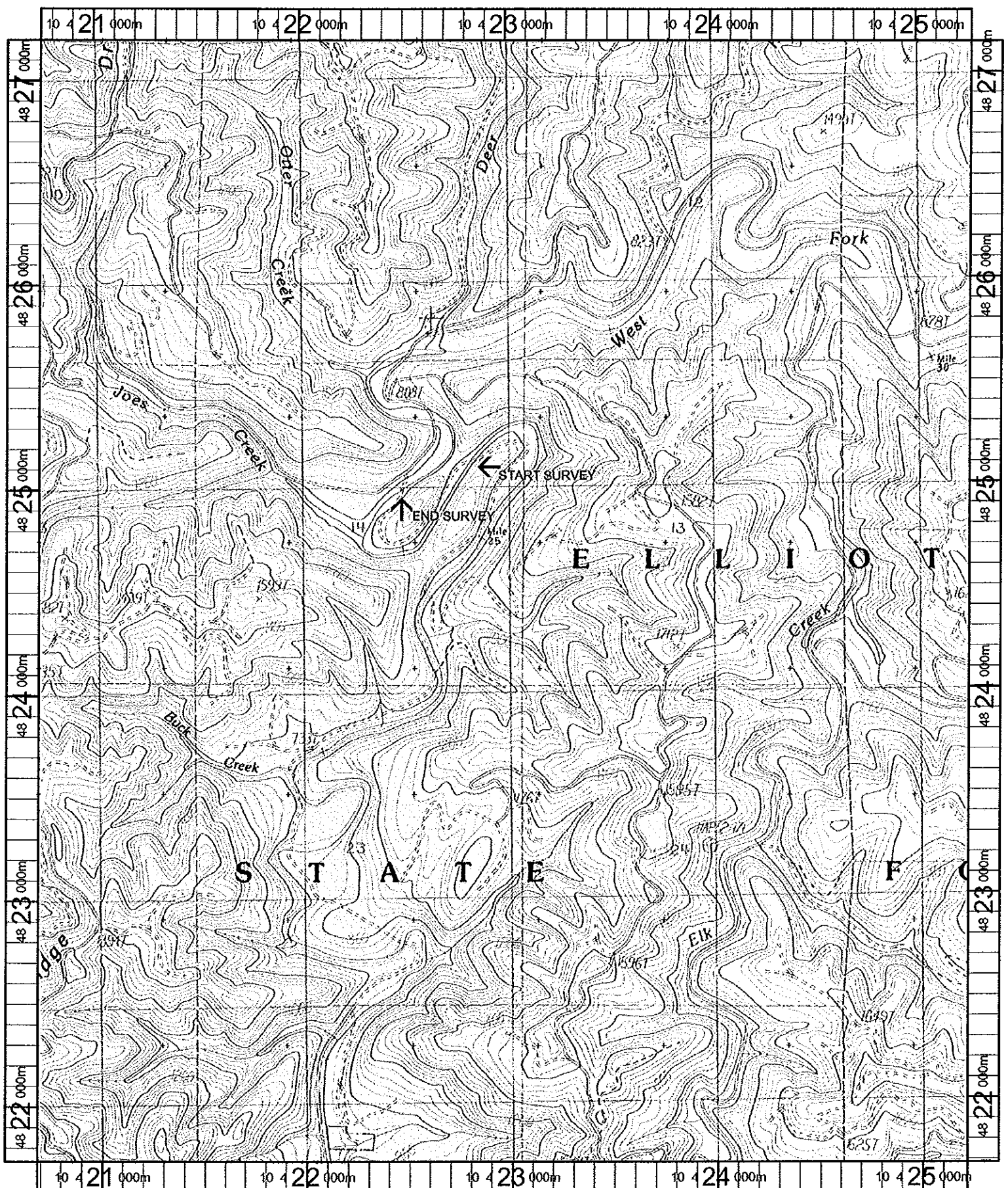
RIPARIAN ZONE VEGETATION

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VEGETATION DETAIL

Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90	
4	LF	1	HS	85.0	70	60	30	Conifer	0	0	0	0	0	
								Hardwood	2	2	0	0	0	
4	LF	2	HS	100.0	85	40	50	Conifer	0	0	0	1	0	
								Hardwood	0	0	0	0	0	
4	LF	3	HS	100.0	100	15	50	Conifer	0	1	1	0	0	
								Hardwood	2	0	0	0	0	
4	RT	1	HS	40.0	60	80	15	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
4	RT	2	HT	0.0	30	90	5	Conifer	0	0	1	0	0	
								Hardwood	0	0	0	0	0	DOUG FIR
4	RT	3	HT	0.0	50	80	10	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
7	LF	1	HS	80.0	70	100	0	Conifer	0	0	0	0	0	
								Hardwood	0	2	0	0	0	
7	LF	2	HS	70.0	100	80	20	Conifer	0	0	0	0	0	
								Hardwood	0	0	1	0	0	
7	LF	3	HS	110.0	100	80	20	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
7	RT	1	HS	30.0	60	50	50	Conifer	0	1	0	1	0	
								Hardwood	0	0	0	0	0	
7	RT	2	HT	0.0	85	90	10	Conifer	0	0	0	0	0	
								Hardwood	0	0	1	0	0	
7	RT	3	HT	0.0	80	90	10	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
12	LF	1	HS	80.0	70	70	15	Conifer	0	0	0	0	0	
								Hardwood	7	0	0	0	0	
12	LF	2	HS	100.0	100	30	30	Conifer	0	0	0	0	0	
								Hardwood	0	1	0	0	0	
12	LF	3	HS	100.0	80	60	20	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
12	RT	1	HT	5.0	90	70	20	Conifer	0	1	0	0	0	
								Hardwood	0	1	1	0	0	
12	RT	2	HT	5.0	100	90	10	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
12	RT	3	HT	0.0	85	100	0	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	



Name: ELK PEAK
 Date: 11/7/100
 Scale: 1 Inch equals 2000 feet

Location: 10 422876 E 4824426 N
 Caption: W FK MILLICOMA (LOWER) RESTORATION SITE - MILLICOMA BASIN