

REACH SUMMARY

REACH 0

T23-R10-S8SE

REACH 0

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	100
Moderate V-shape	0	Multiple Terraces	0
Open V-shape	0	Wide Floodplain	0

Valley Width Index avg: 10.0 range: 10.0-10.0

Channel Morphology (Percent Reach Length)

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

Channel Characteristics

<u>Type</u>	<u>Length(m)</u>	<u>Area (m2)</u>	<u>Dry Units</u>
Primary	762	2,576	0
Secondary	3	3	0

Channel Dimensions (m)

<u>Wetted</u>		<u>Active</u>		<u>Floodprone</u>		<u>First Terrace</u>	
Width	3.0	Width	5.0		6.1		7.5
Depth	0.30	Height	0.8		1.6		2.2
		W:D ratio	6.5	Entrenchment	1.2		

Stream Flow Type: MF Water Temp: 12.5-12.5°C
Avg. Unit Gradient: 1.9% Habitat Units/100m: 5.0

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	LT
Riparian Vegetation:	D15	M30

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding	5%	Reach avg: 90%
Undercut Banks	6%	Range: 14-100

Large Woody Debris

	<u>Total</u>	<u>Total/100m</u>
All pieces ($\geq 3m \times 0.15m$)	74	9.7
Volume (m ³)	191	25.1

HABITAT UNIT SUMMARY

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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
GLIDE	1	11	2.2	0.47	24	0	5	5	48	14	0	29
POOL-BACKWATER	1	3	1.2	0.70	3	0	5	15	40	5	5	30
POOL-LATERAL SCOUR	25	613	3.1	0.29	2,134	0	3	7	56	16	1	18
POOL-STRAIGHT SCOUR	1	8	2.8	0.60	21	0	5	5	60	30	0	0
RAPID/BOULDERS	2	25	2.8	0.10	68	0	0	0	50	20	5	25
RIFFLE	7	103	2.9	0.30	321	0	2	7	60	19	1	11
STEP/LOG	1	3	3.0	0.08	8	0	0	0	50	50	0	0
Total:	38	764	3.0	0.30	2,579	0	Avg: 3	7	56	18	1	17

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	3	1.2	0.70	3	0.12	0	0.0
Scour Pools	26	620	3.1	0.31	2,155	83.57	0	0.0
Glides	1	11	2.2	0.47	24	0.94	0	0.0
Riffles	7	103	2.9	0.30	321	12.43	0	0.0
Rapids	2	25	2.8	0.10	68	2.64	0	0.0
Cascades	0	0	-	-	0	0.00	0	0.0
Step/Falls	1	3	3.0	0.08	8	0.30	0	0.0
Dry	0	0	-	-	0	0.00	0	0.0

POOL SUMMARY

	<u>Total</u>	<u>#/Km</u>
All Pools	27	35.3
Pools ≥1m deep:	1	1.3
Complex pools (LWD pieces ≥3):	8	10.5
Pool Frequency (channel widths/pool):	5.7	
Residual pool depth (avg)	0.46m	

STREAM SUMMARY

COUGAR CREEK

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	
38	764	3.0	0.30	2,579	3	7	56	18	1	17	0

Habitat Group	Wetted Area	
	(m ²)	Percent
Scour Pool	2,155	83.6
Backwater Pools	3	0.1
Glide	24	0.9
Riffle	321	12.4
Rapid	68	2.6
Cascade	0	0.0
Step	8	0.3
Dry	0	0.0

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RIPARIAN ZONE VEGETATION SUMMARY

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Summary of Riparian Zone (0-30m) (2 transects)

Total hardwoods/1000 ft	884
Total conifers/1000 ft	274
Total conifers >20" dbh/1000 ft	61
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	3.5	0.5	6.5	0.0	1.0	0.5	11.0
15-30cm	0.0	1.0	1.0	0.5	1.5	0.0	2.5	1.5
30-50cm	0.0	1.5	0.5	0.5	0.0	0.0	0.5	2.0
50-90cm	0.0	0.0	0.0	0.0	1.0	0.0	1.0	0.0
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m ²	0.0	6.0	2.0	7.5	2.5	1.0	1.5	4.8

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10-20 meters		Zone 3 20-30 meters	
	(%)		(%)		(%)	
Canopy closure	70		80		88	
Shrub cover	18		30		33	
Grass/forb cover	48		58		35	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10-20 meters		Zone 3 20-30 meters	
	Hillslope	25		75		75
High terrace	25		25		0	
Low terrace	25		0		0	
Floodplain	0		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	25		0		25	
Riprap	0		0		0	
Surface slope (%)	13		40		53	

Summary of Riparian Zone (0-30m) for all reaches (2 transects)

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

Total hardwoods/1000 ft	884
Total conifers/1000 ft	274
Total conifers >20" dbh/1000 ft	61

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	0.5	11.0
15-30cm	2.5	1.5
30-50cm	0.5	2.0
50-90cm	1.0	0.0
>90cm	0.0	0.0

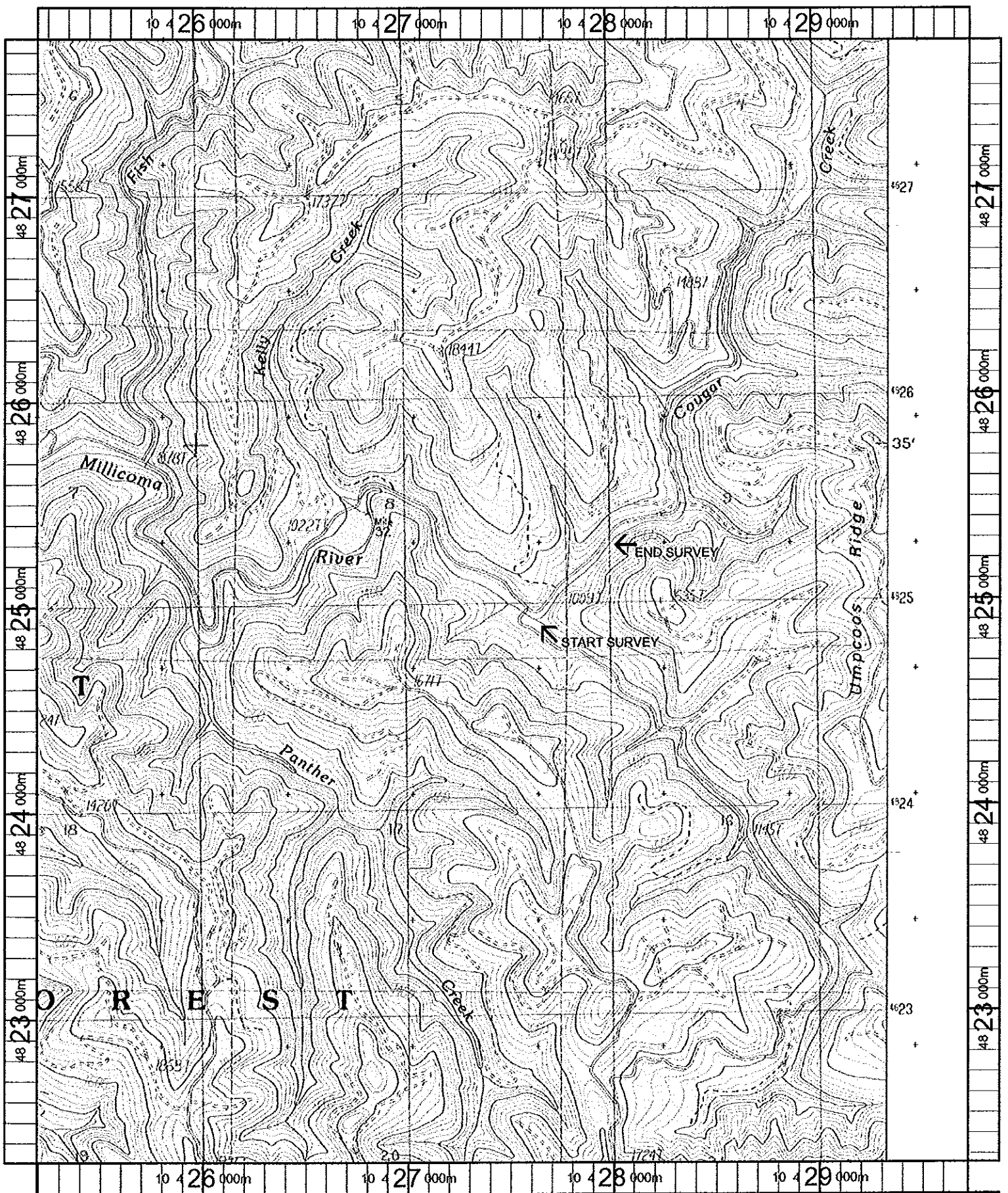
RIPARIAN ZONE VEGETATION

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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	
11	LF	1	RB	0.0	70	20	10	Conifer	0	0	0	0	0	
								Hardwood	0	0	1	0	0	
11	LF	2	HS	70.0	70	30	50	Conifer	0	0	0	0	0	
								Hardwood	6	0	1	0	0	
11	LF	3	HS	60.0	100	50	40	Conifer	0	1	0	1	0	
								Hardwood	0	0	0	0	0	
11	RT	1	LT	0.0	70	0	40	Conifer	0	0	0	0	0	
								Hardwood	0	0	1	0	0	
11	RT	2	HS	60.0	100	30	60	Conifer	1	2	1	0	0	
								Hardwood	2	0	0	0	0	
11	RT	3	HS	100.0	100	40	40	Conifer	0	1	0	1	0	
								Hardwood	2	0	0	0	0	
22	LF	1	HT	10.0	80	30	60	Conifer	0	0	0	0	0	
								Hardwood	7	2	0	0	0	
22	LF	2	HT	10.0	70	20	60	Conifer	0	0	0	0	0	
								Hardwood	5	1	0	0	0	
22	LF	3	RB	0.0	50	10	10	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
22	RT	1	HS	40.0	60	20	80	Conifer	0	0	0	0	0	
								Hardwood	0	0	1	0	0	
22	RT	2	HS	20.0	80	40	60	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
22	RT	3	HS	50.0	100	30	50	Conifer	0	1	0	0	0	
								Hardwood	0	0	0	0	0	



Name: ELK PEAK
 Date: 11/8/100
 Scale: 1 inch equals 2000 feet

Location: 10 427381 E 4824998 N
 Caption: COUGAR CREEK RESTORATION SITE - MILLICOMA BASIN