

REACH 1

T22S-R10W-S8SE

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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: 1.8 range: 1.0-3.0

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	454	3,063	0
Secondary	0	0	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u>	<u>First Terrace</u>
Width 6.4	Width 10.9	13.2	13.9
Depth 0.46	Height 0.7	1.4	1.6
	W:D ratio 15.5	Entrenchment 1.2	

Stream Flow Type: LF Water Temp: 11.5-11.5°C
 Avg. Unit Gradient: 0.7% Habitat Units/100m: 5.3

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	MT	TH
Riparian Vegetation:	D30	S

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding	12%	Reach avg: 81%
Undercut Banks	0%	Range: 72- 94

Large Woody Debris

	<u>Total</u>	<u>Total/100m</u>
All pieces (≥3m x 0.15m)	27	5.9
Volume (m ³)	134	29.5
Key pieces (≥10m x 0.6m)	6	1.3

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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	3	52	6.7	0.23	362	9	0	13	43	20	2	22
POOL-LATERAL SCOUR	6	131	6.0	0.98	825	7	6	18	42	17	0	17
POOL-STRAIGHT SCOUR	2	63	8.5	0.70	579	4	7	15	24	3	3	49
POOL-TRENCH	1	5	10.0	1.00	48	1	5	10	15	5	10	55
RAPID/BOULDERS	1	18	6.0	0.20	108	5	0	5	11	32	53	0
RIFFLE	8	170	6.1	0.19	1,069	44	0	9	35	40	16	0
STEP/COBBLE	3	15	5.0	0.10	73	3	0	7	36	38	9	11
Total:	24	454	6.4	0.46	3,063	73	Avg: 2	12	35	27	10	15

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	0	0	-	-	0	0.00	0	0.0
Scour Pools	9	199	7.0	0.92	1,452	47.39	12	0.8
Glides	3	52	6.7	0.23	362	11.83	9	2.5
Riffles	8	170	6.1	0.19	1,069	34.89	44	4.1
Rapids	1	18	6.0	0.20	108	3.53	5	4.6
Cascades	0	0	-	-	0	0.00	0	0.0
Step/Falls	3	15	5.0	0.10	73	2.37	3	4.1
Dry	0	0	-	-	0	0.00	0	0.0

POOL SUMMARY

	<u>Total</u>	<u>#/Km</u>
All Pools	9	19.8
Pools ≥1m deep:	3	6.6
Complex pools (LWD pieces ≥3):	2	4.4
Pool Frequency (channel widths/pool):	4.6	
Residual pool depth (avg)	0.78m	

STREAM SUMMARY

WF MILLICOMA UP #1 PRE-TX (64)

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	
24	454	6.4	0.46	3,063	2	12	35	27	10	15	73

Wetted Area

Habitat Group	(m ²)	Percent
Scour Pool	1,452	47.4
Backwater Pools	0	0.0
Glide	362	11.8
Riffle	1,069	34.9
Rapid	108	3.5
Cascade	0	0.0
Step	73	2.4
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	366
Total conifers/1000 ft	41
Total conifers >20" dbh/1000 ft	20
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	0.3	0.0	0.3	0.0	0.0	0.0	0.7
15-30cm	0.0	0.0	0.3	1.3	0.0	1.0	0.3	2.3
30-50cm	0.0	0.7	0.0	0.7	0.0	0.3	0.0	1.7
50-90cm	0.0	0.3	0.0	0.3	0.3	0.3	0.3	1.0
>90cm	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.3
Total/100m ²	0.0	1.3	0.3	3.0	0.3	1.7	0.2	2.0

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10-20 meters		Zone 3 20-30 meters	
	(%)		(%)		(%)	
Canopy closure	48		58		53	
Shrub cover	53		34		11	
Grass/forb cover	24		37		33	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10-20 meters		Zone 3 20-30 meters	
Hillslope	83		100		67	
High terrace	17		0		0	
Low terrace	0		0		0	
Floodplain	0		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	0		0		33	
Riprap	0		0		0	
Surface slope (%)	36		46		28	

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	366
Total conifers/1000 ft	41
Total conifers >20" dbh/1000 ft	20

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	0.7
15-30cm	0.3	2.3
30-50cm	0.0	1.7
50-90cm	0.3	1.0
>90cm	0.0	0.3

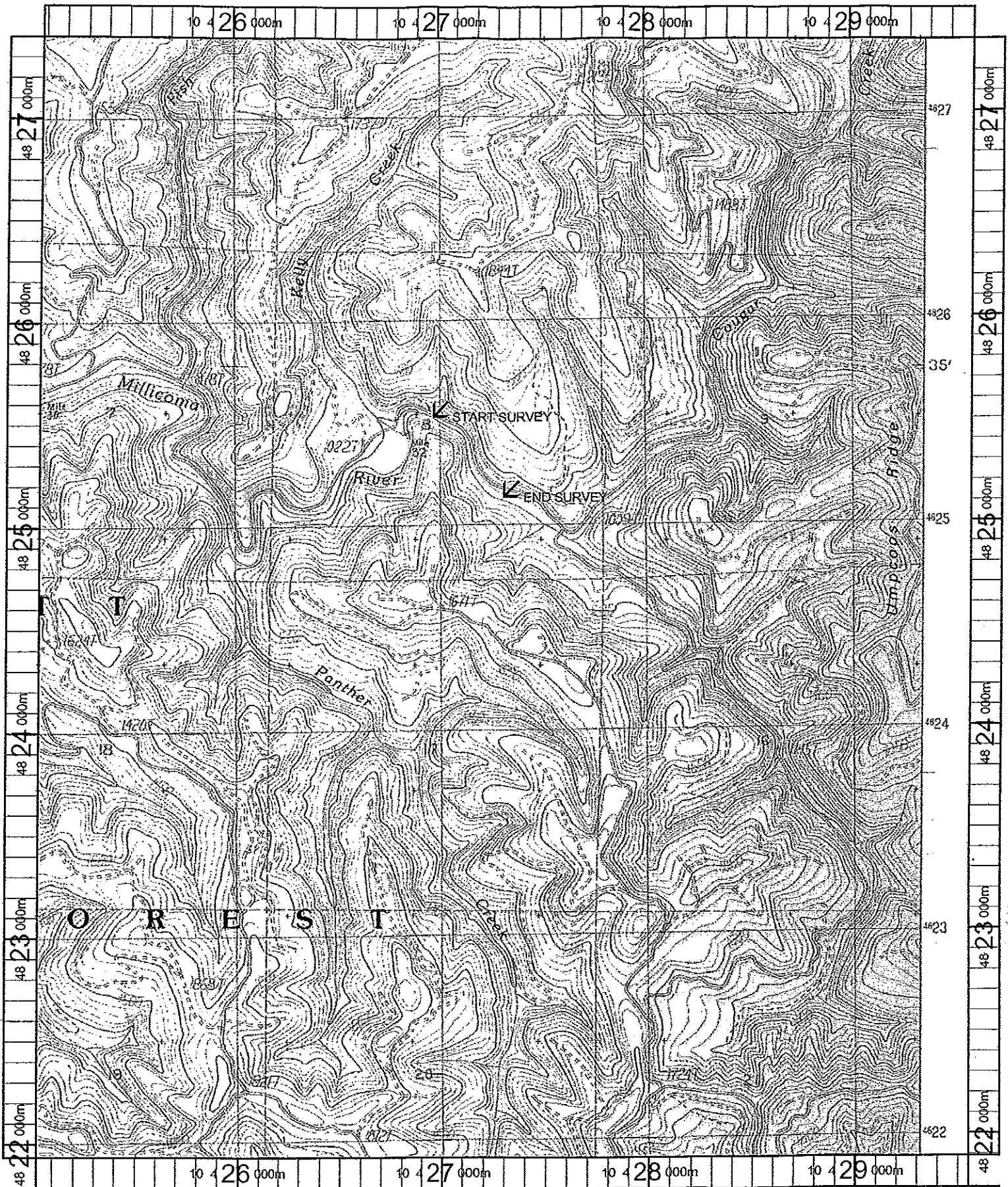
RIPARIAN ZONE VEGETATION

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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	
5	LF	1	HS	20.0	50	50	20	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
5	LF	2	HS	60.0	60	20	30	Conifer	0	0	0	0	0	
								Hardwood	0	0	1	0	1	
5	LF	3	RB	0.0	20	5	20	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
5	RT	1	HS	65.0	60	60	30	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	1	0	
5	RT	2	HS	35.0	60	10	60	Conifer	0	0	0	0	0	
								Hardwood	0	2	0	0	0	
5	RT	3	HS	50.0	75	0	50	Conifer	0	0	0	0	0	
								Hardwood	0	1	0	0	0	
9	LF	1	HS	65.0	40	10	30	Conifer	0	0	0	0	0	
								Hardwood	0	0	2	0	0	
9	LF	2	HS	60.0	70	40	30	Conifer	0	1	0	0	0	
								Hardwood	0	0	1	1	0	
9	LF	3	RB	0.0	30	10	10	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
9	RT	1	HT	15.0	30	70	25	Conifer	0	0	0	0	0	
								Hardwood	1	0	0	0	0	
9	RT	2	HS	65.0	30	60	40	Conifer	0	0	0	0	0	
								Hardwood	0	2	0	0	0	
9	RT	3	HS	60.0	65	20	30	Conifer	0	0	0	1	0	
								Hardwood	0	0	0	0	0	
16	LF	1	HS	10.0	70	60	20	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
16	LF	2	HS	10.0	80	10	50	Conifer	0	0	0	0	0	
								Hardwood	1	0	0	0	0	
16	LF	3	HS	10.0	60	10	50	Conifer	0	0	0	0	0	
								Hardwood	0	1	0	1	0	
16	RT	1	HS	40.0	40	65	20	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
16	RT	2	HS	45.0	50	65	10	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
16	RT	3	HS	45.0	65	20	40	Conifer	0	0	0	0	0	
								Hardwood	0	1	1	0	0	



Name: ELK PEAK
 Date: 10/17/100
 Scale: 1 inch equals 2000 feet

Location: 10 427213 E 4824628 N
 Caption: WF MILLICOMA UPPER #1 RESTORATION SITE - MILLICOMA BASIN