

REACH 1

T23S-R10W-8SE

REACH 1

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: 3.8 range: 3.0-5.0

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	527	1,815	0
Secondary	5	2	0

Channel Dimensions (m)

<u>Wetted</u>		<u>Active</u>	<u>Floodprone</u>	<u>First Terrace</u>
Width 3.1	Width	10.6	13.9	19.0
Depth 0.53	Height	0.7	1.4	2.0
	W:D ratio	15.5	Entrenchment 1.3	

Stream Flow Type: MF Water Temp: 15.0-15.0°C
 Avg. Unit Gradient: 0.7% Habitat Units/100m: 4.5

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	MT	
Riparian Vegetation:	D15	C30

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding	5%	Reach avg: 98%
Undercut Banks	3%	Range: 83-100

Large Woody Debris

	<u>Total</u>	<u>Total/100m</u>
All pieces ($\geq 3m \times 0.15m$)	23	4.4
Volume (m ³)	28	5.4
Key pieces ($\geq 10m \times 0.6m$)	3	0.6

REACH 1 T23S-R10W-8SE REACH 1

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
POOL-ISOLATED	1	5	0.4	0.20	2	0	10	0	90	0	0	0
POOL-LATERAL SCOUR	12	296	3.8	0.86	1,210	11	1	2	60	19	4	14
POOL-STRAIGHT SCOUR	1	22	5.8	0.90	128	8	5	5	40	20	20	10
RIFFLE	10	209	2.2	0.12	478	28	0	0	62	27	9	2
Total:	24	533	3.1	0.53	1,817	47	Avg: 1	1	61	21	7	8

HABITAT SUMMARY

Habitat Group	No. Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area (m ²)	Percent	Large Boulders Number	#/100m ²
Dammed & BW Pools	1	5	0.4	0.20	2	0.12	0	0.0
Scour Pools	13	318	4.0	0.87	1,337	73.58	19	1.4
Glides	0	0	-	-	0	0.00	0	0.0
Riffles	10	209	2.2	0.12	478	26.31	28	5.9
Rapids	0	0	-	-	0	0.00	0	0.0
Cascades	0	0	-	-	0	0.00	0	0.0
Step/Falls	0	0	-	-	0	0.00	0	0.0
Dry	0	0	-	-	0	0.00	0	0.0

POOL SUMMARY

All Pools	<u>Total</u>	<u>#/Km</u>
	14	26.3
Pools ≥1m deep:	4	7.5
Complex pools (LWD pieces ≥3):	1	1.9
Pool Frequency (channel widths/pool):	3.6	
Residual pool depth (avg)	0.80m	

STREAM SUMMARY

WF MILLICOMA UPPER #1 (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	
24	533	3.1	0.53	1,817	1	1	61	21	7	8	47

Wetted Area

Habitat Group	(m ²)	Percent
Scour Pool	1,337	73.6
Backwater Pools	2	0.1
Glide	0	0.0
Riffle	478	26.3
Rapid	0	0.0
Cascade	0	0.0
Step	0	0.0
Dry	0	0.0

REACH 1

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1

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

Total hardwoods/1000 ft	691
Total conifers/1000 ft	0
Total conifers >20" dbh/1000 ft	0
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	2.0	0.0	2.0	0.0	2.3	0.0	6.3
15-30cm	0.0	0.0	0.0	0.7	0.0	0.7	0.0	1.3
30-50cm	0.0	1.3	0.0	1.3	0.0	0.3	0.0	3.0
50-90cm	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.7
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m ²	0.0	4.0	0.0	4.0	0.0	3.3	0.0	3.8

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10-20 meters		Zone 3 20-30 meters	
	(%)		(%)		(%)	
Canopy closure	87		82		75	
Shrub cover	57		58		31	
Grass/forb cover	35		42		49	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10-20 meters		Zone 3 20-30 meters	
	Hillslope	50		50		67
High terrace	50		50		17	
Low terrace	0		0		0	
Floodplain	0		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	0		0		17	
Riprap	0		0		0	
Surface slope (%)	48		19		38	

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	691
Total conifers/1000 ft	
Total conifers >20" dbh/1000 ft	0

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	6.3
15-30cm	0.0	1.3
30-50cm	0.0	3.0
50-90cm	0.0	0.7
>90cm	0.0	0.0

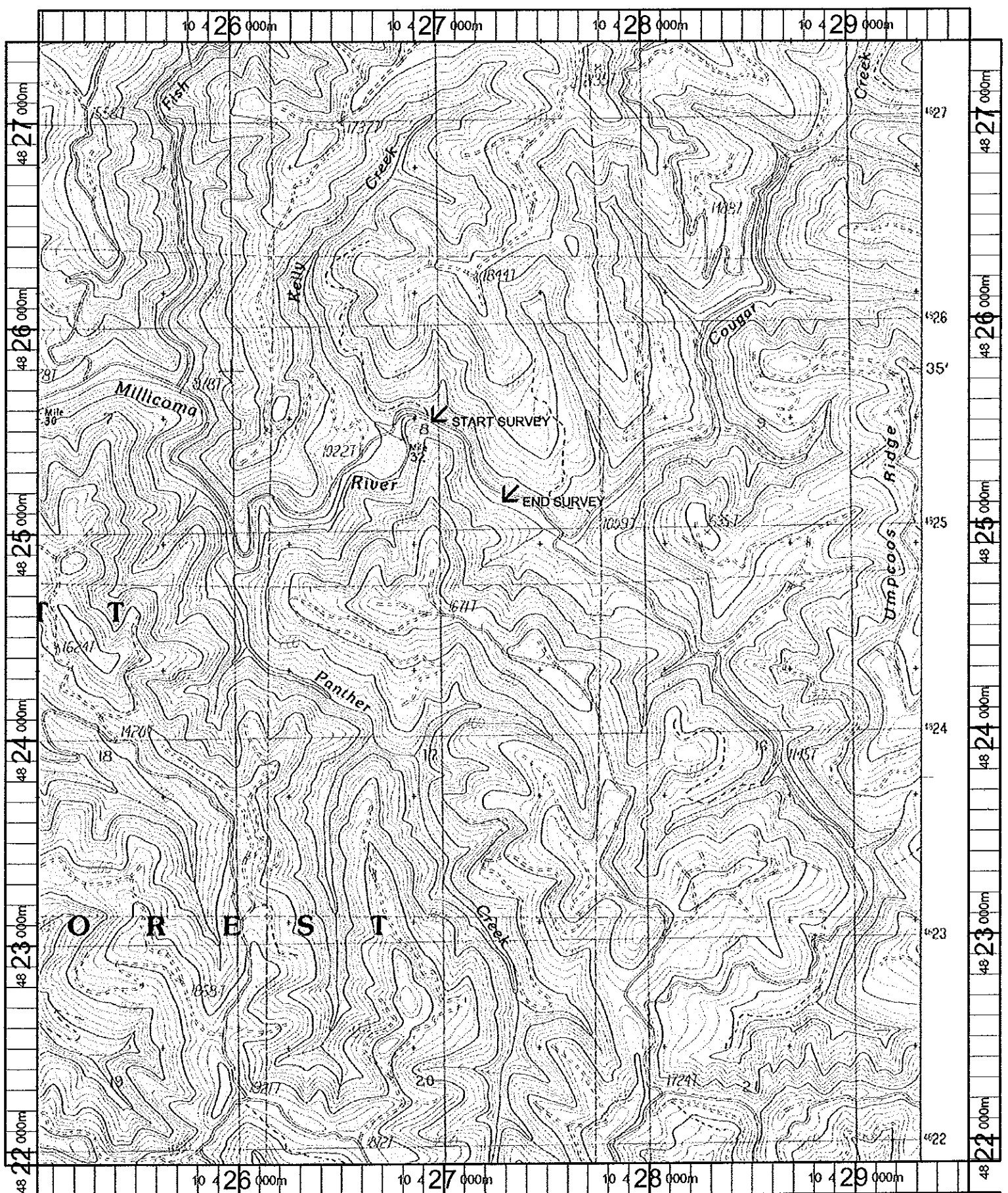
RIPARIAN ZONE VEGETATION

Reach 1

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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	40.0	80	90	10	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
5	LF	2	HS	40.0	60	90	10	Conifer	0	0	0	0	0	
								Hardwood	0	2	1	0	0	ALDER
5	LF	3	RB	0.0	60	20	20	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
5	RT	1	HT	20.0	100	90	10	Conifer	0	0	0	0	0	
								Hardwood	6	0	0	0	0	VINE MAPLE
5	RT	2	HT	0.0	100	90	10	Conifer	0	0	0	0	0	
								Hardwood	0	0	1	0	0	ALDER
5	RT	3	HS	45.0	100	20	80	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
13	LF	1	HT	0.0	80	20	80	Conifer	0	0	0	0	0	
								Hardwood	0	0	1	1	0	
13	LF	2	HT	0.0	80	40	60	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
13	LF	3	HS	50.0	60	30	40	Conifer	0	0	0	0	0	
								Hardwood	0	0	1	0	0	ALDER
13	RT	1	HS	80.0	80	50	50	Conifer	0	0	0	0	0	
								Hardwood	0	0	1	0	0	ALDER
13	RT	2	HS	8.0	80	50	50	Conifer	0	0	0	0	0	
								Hardwood	0	0	2	0	0	ALDER
13	RT	3	HS	70.0	60	20	50	Conifer	0	0	0	0	0	
								Hardwood	0	1	0	0	0	ALDER
18	LF	1	HT	0.0	80	70	30	Conifer	0	0	0	0	0	
								Hardwood	0	0	1	1	0	ALDER
18	LF	2	HT	5.0	70	10	90	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
18	LF	3	HT	5.0	80	25	75	Conifer	0	0	0	0	0	
								Hardwood	7	0	0	0	0	ALDER
18	RT	1	HS	150.0	100	20	30	Conifer	0	0	0	0	0	
								Hardwood	0	0	1	0	0	BIG LEAF MAPLE
18	RT	2	HS	60.0	100	70	30	Conifer	0	0	0	0	0	
								Hardwood	6	0	0	0	0	VINE MAPLE
18	RT	3	HS	60.0	90	70	30	Conifer	0	0	0	0	0	
								Hardwood	0	1	0	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