

REACH 1

T232-R10W-7NW

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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: 4.5 range: 1.2-10.0

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	745	4,923	0
Secondary	8	48	0

Channel Dimensions (m)

<u>Wetted</u>		<u>Active</u>	<u>Floodprone</u>	<u>First Terrace</u>
Width	6.1	11.1	14.9	18.4
Depth	0.45	Height 0.4	1.0	3.4
		W:D ratio 27.7	Entrenchment 1.4	

Stream Flow Type: MF Water Temp: 16.0-16.0°C
 Avg. Unit Gradient: 1.3% Habitat Units/100m: 4.7

Riparian, Bank, and Wood Summary

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

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding	0%	Reach avg: 85%
Undercut Banks	3%	Range: 58-100

Large Woody Debris

	<u>Total</u>	<u>Total/100m</u>
All pieces ($\geq 3m \times 0.15m$)	43	5.8
Volume (m ³)	39	5.3
Key pieces ($\geq 10m \times 0.6m$)	1	0.1

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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/BEDROCK	1	19	4.1	0.15	78	0	0	0	0	0	0	100
GLIDE	2	35	6.0	0.18	212	0	0	0	49	17	7	26
POOL-BACKWATER	1	8	6.0	0.60	48	1	9	5	18	9	5	55
POOL-DAMMED	4	189	7.4	0.94	1,685	23	1	5	28	10	6	50
POOL-LATERAL SCOUR	6	120	4.7	0.82	570	9	2	4	18	5	7	65
POOL-STRAIGHT SCOUR	1	19	6.0	1.00	115	2	5	5	18	18	9	46
POOL-TRENCH	3	28	6.7	0.97	165	4	0	0	7	5	2	87
RAPID/BEDROCK	5	86	7.6	0.11	571	19	0	0	7	4	5	84
RAPID/BOULDERS	2	43	4.3	0.13	169	64	0	0	23	25	15	38
RIFFLE	8	200	6.4	0.14	1,333	44	0	1	36	15	11	38
STEP/BEDROCK	2	6	4.5	0.09	26	0	0	0	0	0	0	100
Total:	35	753	6.1	0.45	4,971	166	Avg: 1	2	21	10	7	60

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	5	197	7.1	0.87	1,733	34.87	24	1.4
Scour Pools	10	168	5.4	0.88	849	17.08	15	1.8
Glides	2	35	6.0	0.18	212	4.27	0	0.0
Riffles	8	200	6.4	0.14	1,333	26.82	44	3.3
Rapids	7	128	6.6	0.12	740	14.88	83	11.2
Cascades	1	19	4.1	0.15	78	1.56	0	0.0
Step/Falls	2	6	4.5	0.09	26	0.53	0	0.0
Dry	0	0	-	-	0	0.00	0	0.0

POOL SUMMARY

All Pools	<u>Total</u>	<u>#/Km</u>
	15	19.9
Pools ≥1m deep:	6	8.0
Complex pools (LWD pieces ≥3):	5	6.6
Pool Frequency (channel widths/pool):	4.5	
Residual pool depth (avg)	0.83m	

STREAM SUMMARY

ELK CREEK (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	
35	753	6.1	0.45	4,971	1	2	21	10	7	60	166

Wetted Area

Habitat Group	(m ²)	Percent
Scour Pool	849	17.1
Backwater Pools	1,733	34.9
Glide	212	4.3
Riffle	1,333	26.8
Rapid	740	14.9
Cascade	78	1.6
Step	26	0.5
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	671
Total conifers/1000 ft	163
Total conifers >20" dbh/1000 ft	61
Total conifers >35" dbh/1000 ft	41

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	5.0	0.0	1.7	0.0	1.0	0.0	7.7
15-30cm	0.0	1.3	0.3	0.0	0.0	0.0	0.3	1.3
30-50cm	0.7	1.0	0.3	0.3	0.3	0.7	1.3	2.0
50-90cm	0.0	0.0	0.0	0.0	0.3	0.0	0.3	0.0
>90cm	0.0	0.0	0.3	0.0	0.3	0.0	0.7	0.0
Total/100m ²	0.7	7.3	1.0	2.0	1.0	1.7	0.9	3.7

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10-20 meters		Zone 3 20-30 meters	
	(%)		(%)		(%)	
Canopy closure	66		82		63	
Shrub cover	34		28		28	
Grass/forb cover	58		35		36	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10-20 meters		Zone 3 20-30 meters	
	Hillslope	67		83		67
High terrace	17		0		0	
Low terrace	17		0		0	
Floodplain	0		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	0		17		33	
Riprap	0		0		0	
Surface slope (%)	51		38		37	

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	671
Total conifers/1000 ft	163
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	0.0	7.7
15-30cm	0.3	1.3
30-50cm	1.3	2.0
50-90cm	0.3	0.0
>90cm	0.7	0.0

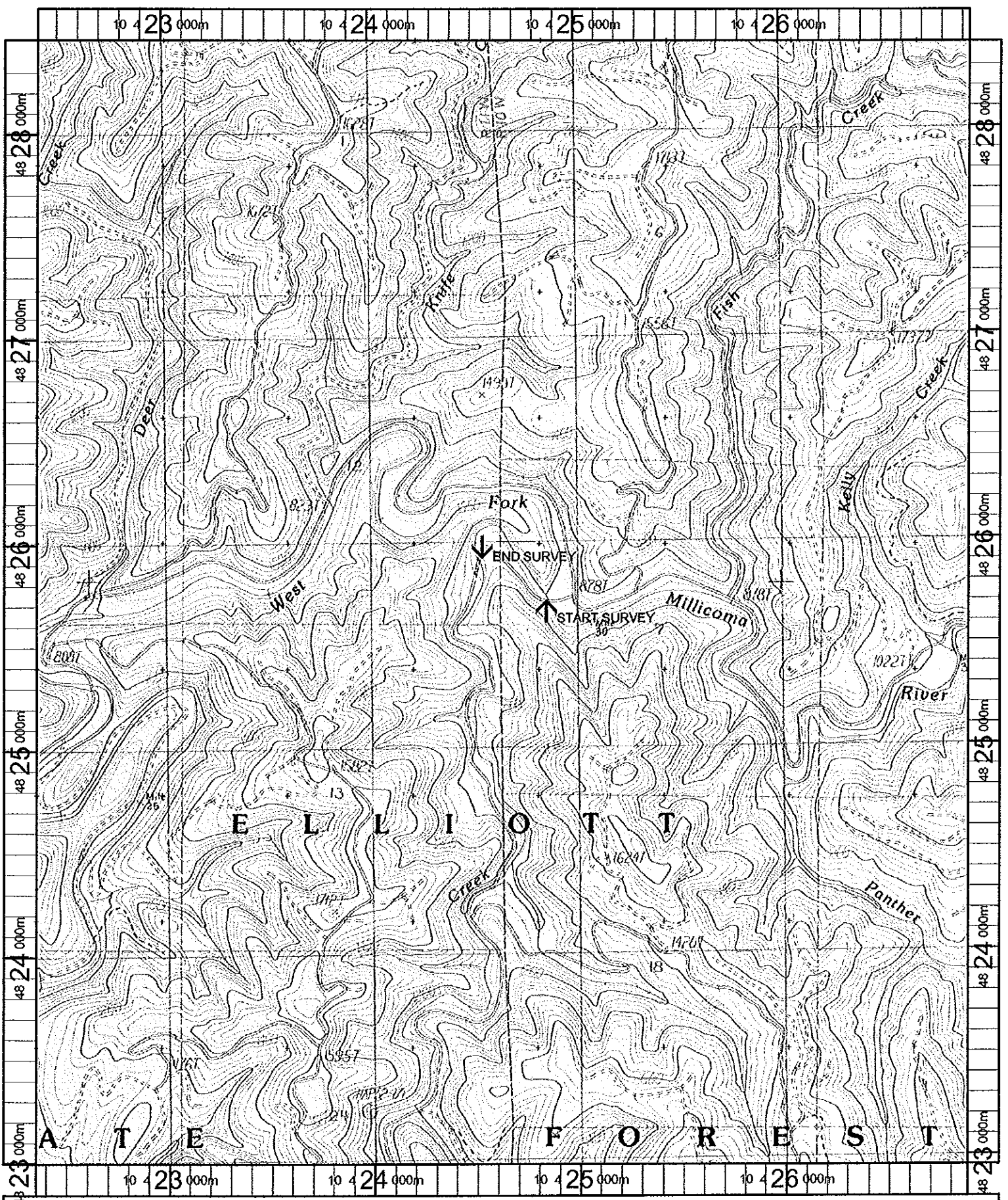
RIPARIAN ZONE VEGETATION

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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	
10	LF	1	HS	40.0	40	10	60	Conifer	0	0	0	0	0	
								Hardwood	0	0	1	0	0	
10	LF	2	HS	50.0	60	0	50	Conifer	0	1	0	0	0	
								Hardwood	0	0	1	0	0	ALDER
10	LF	3	RB	0.0	60	10	20	Conifer	0	0	0	0	0	
								Hardwood	0	0	1	0	0	ALDER
10	RT	1	HS	40.0	60	0	80	Conifer	0	0	1	0	0	
								Hardwood	3	0	0	0	0	
10	RT	2	HS	40.0	90	0	60	Conifer	0	0	1	0	0	
								Hardwood	0	0	0	0	0	
10	RT	3	HS	30.0	40	0	80	Conifer	0	0	1	0	0	
								Hardwood	0	0	0	0	0	
13	LF	1	HS	150.0	90	25	75	Conifer	0	0	0	0	0	
								Hardwood	1	3	0	0	0	ALDER
13	LF	2	RB	0.0	60	10	15	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
13	LF	3	HS	50.0	70	35	45	Conifer	0	0	0	0	0	
								Hardwood	0	0	1	0	0	ALDER
13	RT	1	LT	10.0	50	20	80	Conifer	0	0	0	0	0	
								Hardwood	0	0	2	0	0	ALDER
13	RT	2	HS	35.0	90	50	40	Conifer	0	0	0	0	1	
								Hardwood	0	0	0	0	0	DOUG FIR
13	RT	3	HS	40.0	90	40	40	Conifer	0	0	0	0	1	
								Hardwood	0	0	0	0	0	DOUG FIR
21	LF	1	HT	5.0	75	70	30	Conifer	0	0	1	0	0	
								Hardwood	5	0	0	0	0	VINE MAPLES
21	LF	2	HS	25.0	90	60	20	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
21	LF	3	RB	0.0	75	10	10	Conifer	0	0	0	1	0	
								Hardwood	0	0	0	0	0	DOUG FIR
21	RT	1	HS	60.0	80	80	20	Conifer	0	0	0	0	0	
								Hardwood	6	1	0	0	0	ALDER, VINE MAPLE
21	RT	2	HS	75.0	100	50	25	Conifer	0	0	0	0	0	
								Hardwood	5	0	0	0	0	ALDER, VINE MAPLE
21	RT	3	HS	100.0	40	75	20	Conifer	0	0	0	0	0	
								Hardwood	3	0	0	0	0	VINE MAPLE



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

Location: 10 424542 E 4825690 N
Caption: ELK CREEK RESTORATION SITE - MILLICOMA BASIN