

REACH 1

T05N-R10W-S13SW

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

Valley Width Index avg: 11.0 range: 10.0-13.0

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	0	Single Channel	0
Bedrock	0	Multiple Channel	0
Terrace	100	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	558	3,382	0
Secondary	188	482	4

Channel Dimensions (m)

<u>Wetted</u>		<u>Active</u>		<u>Floodprone</u>	<u>First Terrace</u>
Width	5.0	Width	9.3	17.4	23.2
Depth	0.34	Height	0.5	1.0	1.3
		W:D ratio	19.1	Entrenchment	1.9

Stream Flow Type: LF Water Temp: 12.0-12.0°C  
 Avg. Unit Gradient: 2.0% Habitat Units/100m: 6.4

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	
Riparian Vegetation:	M30	M15

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding	30%	Reach avg: 87%
Undercut Banks	15%	Range: 61- 97

Large Woody Debris

	<u>Total</u>	<u>Total/100m</u>
All pieces ( $\geq 3m \times 0.15m$ )	144	25.8
Volume (m <sup>3</sup> )	108	19.3
Key pieces ( $\geq 10m \times 0.6m$ )	1	0.2

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HABITAT DETAIL

Habitat Type	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m <sup>2</sup> )	Large Boulders (>0.5m)	Substrate Percent Wetted Area					
							S/O	Snd	Grvl	Cbbl	Bldr	Bdrk
POOL-BACKWATER	5	24	4.2	0.38	85	0	34	18	10	34	4	0
POOL-ISOLATED	2	6	4.0	0.35	24	0	35	40	20	5	0	0
POOL-LATERAL SCOUR	13	198	5.2	0.64	1,062	0	19	12	13	46	10	0
POOL-STRAIGHT SCOUR	3	38	4.7	0.48	193	0	28	20	14	34	4	0
PUDDLED CHANNEL	4	105	2.9	0.06	293	0	5	5	10	60	20	0
RAPID/BOULDERS	4	112	7.8	0.18	872	5	10	10	13	53	15	0
RIFFLE	12	225	4.7	0.20	1,076	0	14	12	16	42	16	0
RIFFLE W/ POCKETS	1	25	7.4	0.20	186	0	5	5	10	60	20	0
STEP/COBBLE	4	13	5.7	0.15	75	0	11	8	10	45	26	0
<b>Total:</b>	<b>48</b>	<b>746</b>	<b>5.0</b>	<b>0.34</b>	<b>3,864</b>	<b>5</b>	<b>Avg:18</b>	<b>13</b>	<b>13</b>	<b>43</b>	<b>13</b>	<b>0</b>

HABITAT SUMMARY

Habitat Group	No. Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area (m <sup>2</sup> )	Percent	Large Boulders Number	#/100m <sup>2</sup>
Dammed & BW Pools	7	30	4.1	0.37	109	2.81	0	0.0
Scour Pools	16	236	5.1	0.61	1,255	32.46	0	0.0
Glides	0	0	-	-	0	0.00	0	0.0
Riffles	13	250	4.9	0.20	1,262	32.65	0	0.0
Rapids	4	112	7.8	0.18	872	22.57	5	0.6
Cascades	0	0	-	-	0	0.00	0	0.0
Step/Falls	4	13	5.7	0.15	75	1.94	0	0.0
Dry	4	105	2.9	0.06	293	7.57	0	0.0

POOL SUMMARY

All Pools	<u>Total</u>	<u>#/Km</u>
	23	30.8
Pools ≥1m deep:	1	1.3
Complex pools (LWD pieces ≥3):	4	5.4
Pool Frequency (channel widths/pool):	3.5	
Residual pool depth (avg)	0.43m	

STREAM SUMMARY

KLOOTCHIE CK (PRE SUM 99)

Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m <sup>2</sup> )	Substrate Percent Wetted Area					Total Large Boulder	
					S/O	Sand	Grvl	Cbbl	Bldr		Bdrk
48	746	5.0	0.34	3,864	18	13	13	43	13	0	5

Habitat Group	Wetted Area	
	(m <sup>2</sup> )	Percent
Scour Pool	1,255	32.5
Backwater Pools	109	2.8
Glide	0	0.0
Riffle	1,262	32.6
Rapid	872	22.6
Cascade	0	0.0
Step	75	1.9
Dry	293	7.6

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RIPARIAN ZONE VEGETATION SUMMARY

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

Total hardwoods/1000 ft	366
Total conifers/1000 ft	610
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	0.5	1.5	0.5	1.5	1.0	0.0	2.0	3.0
15-30cm	0.0	2.5	0.5	0.0	1.5	0.0	2.0	2.5
30-50cm	1.0	0.0	2.5	0.0	1.5	0.5	5.0	0.5
50-90cm	0.0	0.0	1.0	0.0	0.0	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 <sup>2</sup>	1.5	4.0	4.5	1.5	4.0	0.5	3.3	2.0

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10-20 meters		Zone 3 20-30 meters	
	(%)		(%)		(%)	
Canopy closure	63		71		58	
Shrub cover	14		18		29	
Grass/forb cover	55		64		59	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10-20 meters		Zone 3 20-30 meters	
	Hillslope	0		0		0
High terrace	50		100		100	
Low terrace	25		0		0	
Floodplain	0		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	25		0		0	
Riprap	0		0		0	
Surface slope (%)	1		2		-1	

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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	366
Total conifers/1000 ft	610
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	2.0	3.0
15-30cm	2.0	2.5
30-50cm	5.0	0.5
50-90cm	1.0	0.0
>90cm	0.0	0.0

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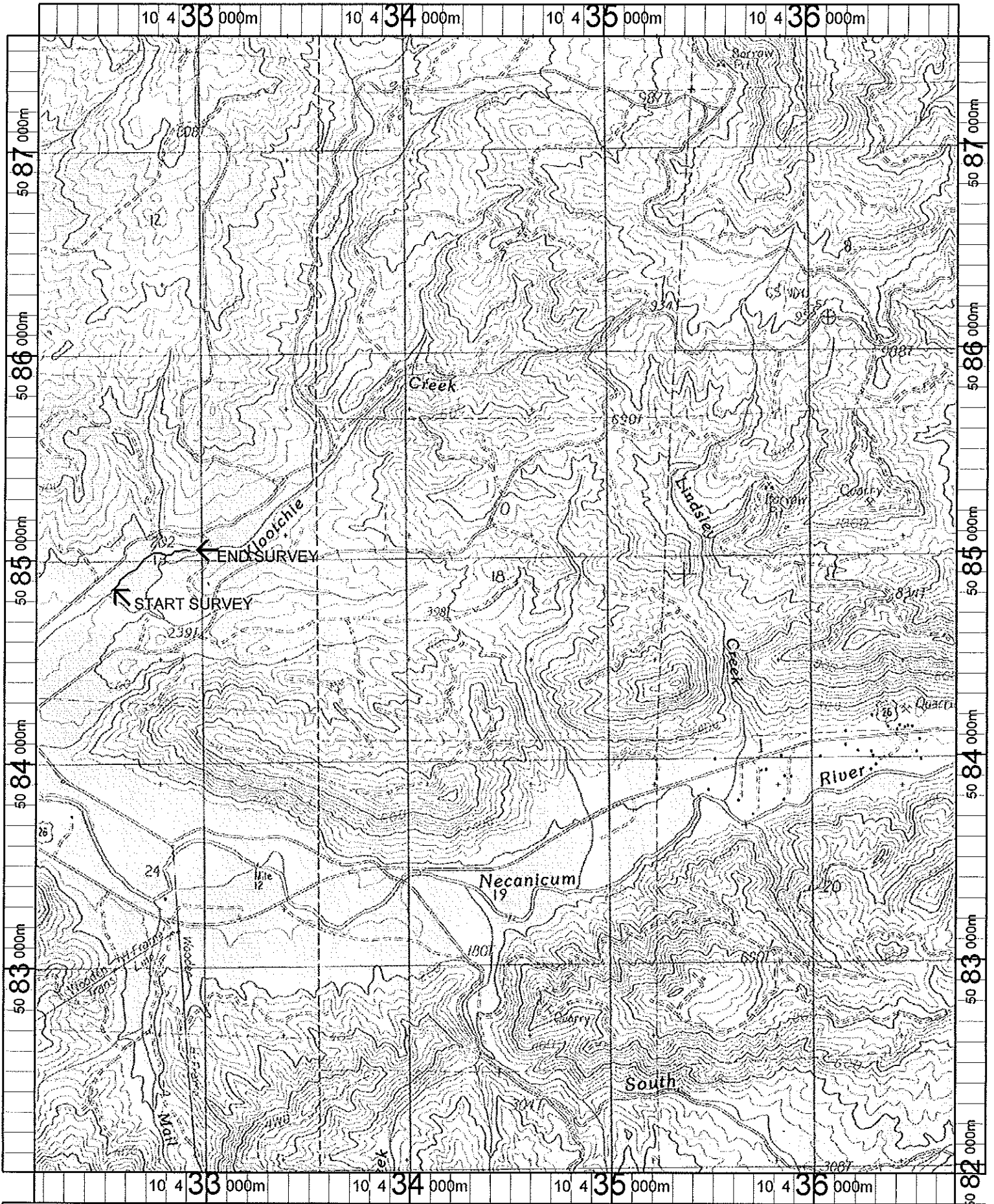
RIPARIAN ZONE VEGETATION

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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	
1	LF	1	RB	0.0	30	0	5	Conifer	0	0	0	0	0	
								Hardwood	0	2	0	0	0	
1	LF	2	HT	3.0	75	0	75	Conifer	0	1	0	0	0	
								Hardwood	1	0	0	0	0	
1	LF	3	HT	1.0	10	10	75	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
1	RT	1	HT	0.0	90	0	70	Conifer	1	0	2	0	0	
								Hardwood	0	0	0	0	0	
1	RT	2	HT	2.0	90	0	50	Conifer	1	0	4	0	0	
								Hardwood	0	0	0	0	0	
1	RT	3	HT	-3.0	90	0	65	Conifer	0	3	0	0	0	
								Hardwood	0	0	0	0	0	
33	LF	1	LT	1.0	60	30	70	Conifer	0	0	0	0	0	
								Hardwood	0	3	0	0	0	
33	LF	2	HT	3.0	65	30	70	Conifer	0	0	0	2	0	
								Hardwood	0	0	0	0	0	
33	LF	3	HT	0.0	70	40	60	Conifer	1	0	3	0	0	
								Hardwood	0	0	0	0	0	
33	RT	1	HT	3.0	70	25	75	Conifer	0	0	0	0	0	
								Hardwood	3	0	0	0	0	
33	RT	2	HT	0.0	55	40	60	Conifer	0	0	1	0	0	
								Hardwood	2	0	0	0	0	
33	RT	3	HT	-2.0	60	65	35	Conifer	1	0	0	0	0	
								Hardwood	0	0	1	0	0	



Name: NECANICUM JUNCTION  
 Date: 4/25/100  
 Scale: 1 inch equals 2000 feet

Location: 10 434354 E 5084746 N  
 Caption: KLOOTCHIE CREEK  
 RESTORATION SITE  
 ODFW 1999