

**ODFW AQUATIC INVENTORY PROJECT  
OREGON PLAN FOR SALMON & WATERSHEDS  
STREAM RESTORATION HABITAT REPORT**

STREAM: Little Rock Creek (MC-44)  
BASIN: Siletz River  
SURVEY TYPE: Pre-Tx  
DATE: July 3, 2000  
SURVEY CREW: Lisa Krentz, LaNoah Babcock  
REPORT PREPARED BY: Paul Jacobsen  
BASIN AREA: 4.4 km<sup>2</sup>  
USGS MAPS: Nortons, Summit  
ECOREGION: Coast Range Sedimentary

**GENERAL DESCRIPTION:**

The Little Rock Creek habitat survey extended 547 meters. The channel was unconstrained in a broad valley floor. The average valley width index was 6.8 (range: 5.0 – 10.0). Land use for the reach was young (3-15 cm dbh) trees and light grazing. The average unit gradient was 1.0 percent. Scour pools (60%) and riffles (31%) dominated stream habitat. Gravel (27%) and bedrock (27%) dominated stream substrate. Wood volume was low at 6.0 m<sup>3</sup>/100m.

**COMMENTS:**

There were no potential barriers to upstream fish migration in the surveyed length.

REACH 1

T10S-R8W-S14SE

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: 6.8 range: 5.0-10.0

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	0	Single Channel	100
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	547	1,690	0
Secondary	24	12	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u>	<u>First Terrace</u>
Width 3.1	5.6	14.7	5.9
Depth 0.30	0.5	0.9	0.7
W:D ratio	10.9	Entrenchment	2.6

Stream Flow Type: MF Water Temp: 12.0-12.0°C  
Avg. Unit Gradient: 1.0% Habitat Units/100m: 8.8

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	YT	LG
Riparian Vegetation:	P	S

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding	11%	Reach avg: 40%
Undercut Banks	11%	Range: 25- 72

Large Woody Debris

	<u>Total</u>	<u>Total/100m</u>
All pieces ( $\geq 3m \times 0.15m$ )	33	6.0
Volume (m <sup>3</sup> )	33	6.0
Key pieces ( $\geq 10m \times 0.6m$ )	3	0.5

HABITAT UNIT SUMMARY

REACH 1 T10S-R8W-S14SE REACH 1

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	1	4	0.5	0.10	2	0	100	0	0	0	0	0
POOL-LATERAL SCOUR	22	307	3.1	0.53	978	3	9	18	23	13	1	37
POOL-STRAIGHT SCOUR	1	18	2.8	0.40	49	0	0	20	0	0	0	80
RAPID/BEDROCK	2	20	4.4	0.10	95	0	0	0	3	0	0	98
RAPID/BOULDERS	1	4	2.0	0.10	9	0	0	0	40	60	0	0
RIFFLE	17	212	2.7	0.13	535	10	2	7	42	38	1	11
STEP/BEDROCK	1	1	3.0	0.05	3	0	0	0	0	0	0	100
STEP/COBBLE	2	4	6.8	0.05	23	0	0	0	45	55	0	0
STEP/LOG	3	3	3.4	0.01	9	0	100	0	0	0	0	0
<b>Total:</b>	<b>50</b>	<b>571</b>	<b>3.1</b>	<b>0.30</b>	<b>1,702</b>	<b>13</b>	<b>Avg:13</b>	<b>11</b>	<b>27</b>	<b>22</b>	<b>1</b>	<b>27</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	1	4	0.5	0.10	2	0.12	0	0.0
Scour Pools	23	324	3.0	0.52	1,027	60.33	3	0.3
Glides	0	0	-	-	0	0.00	0	0.0
Riffles	17	212	2.7	0.13	535	31.44	10	1.9
Rapids	3	24	3.6	0.10	104	6.10	0	0.0
Cascades	0	0	-	-	0	0.00	0	0.0
Step/Falls	6	7	4.5	0.03	34	2.00	0	0.0
Dry	0	0	-	-	0	0.00	0	0.0

POOL SUMMARY

All Pools	<u>Total</u>	<u>#/Km</u>
	24	42.0
Pools ≥1m deep:	0	0.0
Complex pools (LWD pieces ≥3):	3	5.3
Pool Frequency (channel widths/pool):	4.3	
Residual pool depth (avg)	0.43m	

STREAM SUMMARY

LITTLE ROCK CREEK (PRE-TX)

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	
50	571	3.1	0.30	1,702	13	11	27	22	1	27	13

Habitat Group	Wetted Area	
	(m <sup>2</sup> )	Percent
Scour Pool	1,027	60.3
Backwater Pools	2	0.1
Glide	0	0.0
Riffle	535	31.4
Rapid	104	6.1
Cascade	0	0.0
Step	34	2.0
Dry	0	0.0

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REACH 1

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1

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

Total hardwoods/1000 ft	406
Total conifers/1000 ft	61
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	1.0	0.3	3.0	0.0	2.7	0.3	6.7
15-30cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
30-50cm	0.0	0.0	0.0	0.0	0.3	0.0	0.3	0.0
50-90cm	0.0	0.0	0.3	0.0	0.0	0.0	0.3	0.0
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m <sup>2</sup>	0.0	1.0	0.7	3.0	0.3	2.7	0.3	2.2

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10-20 meters		Zone 3 20-30 meters	
	(%)		(%)		(%)	
Canopy closure	2		27		23	
Shrub cover	9		35		44	
Grass/forb cover	91		65		46	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10-20 meters		Zone 3 20-30 meters	
	Hillslope	0		50		33
High terrace	0		0		0	
Low terrace	100		50		50	
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 (%)	0		13		15	

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	406
Total conifers/1000 ft	61
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	0.3	6.7
15-30cm	0.0	0.0
30-50cm	0.3	0.0
50-90cm	0.3	0.0
>90cm	0.0	0.0

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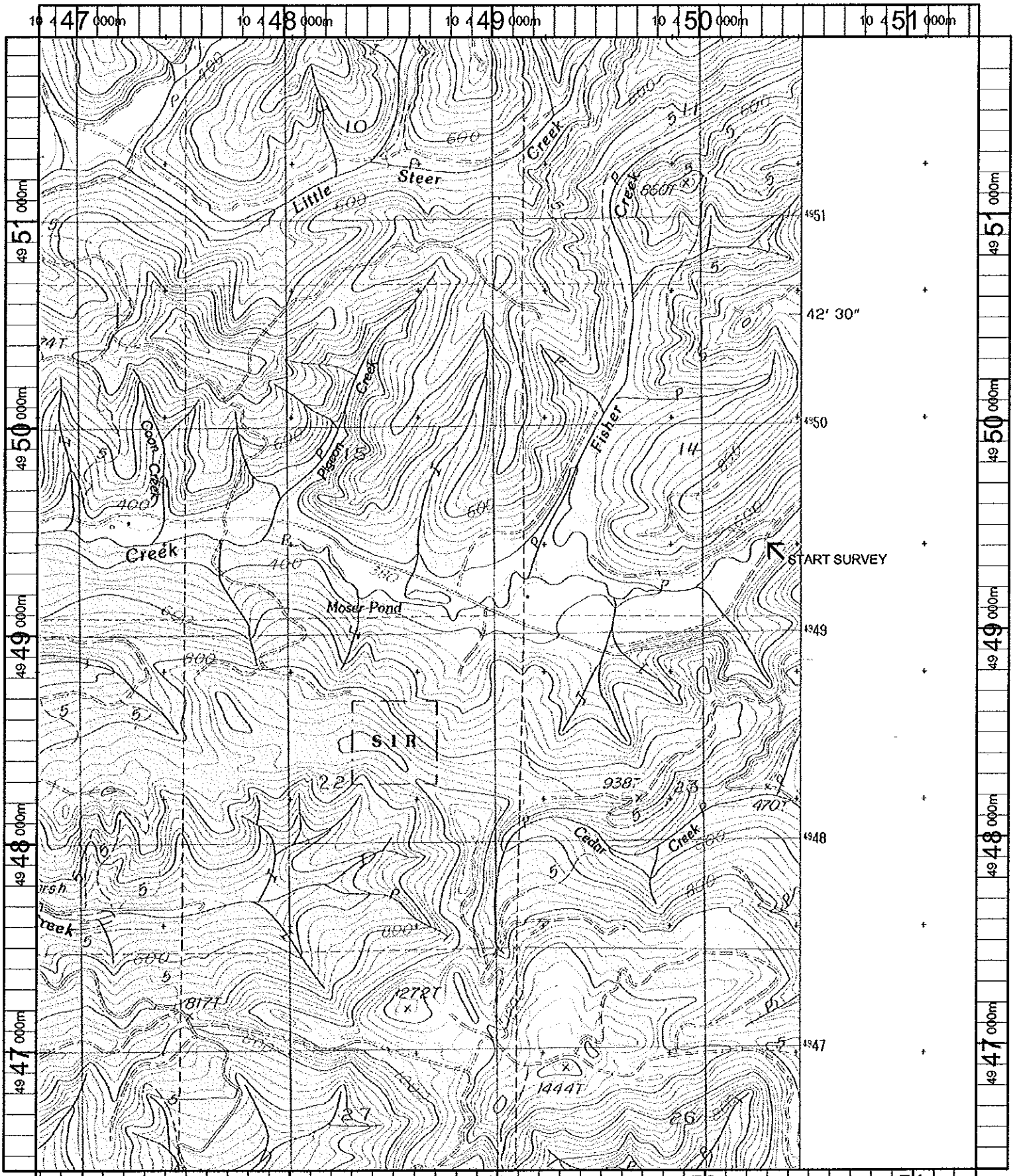
RIPARIAN ZONE VEGETATION

Reach 1

Reach 1

VEGETATION DETAIL

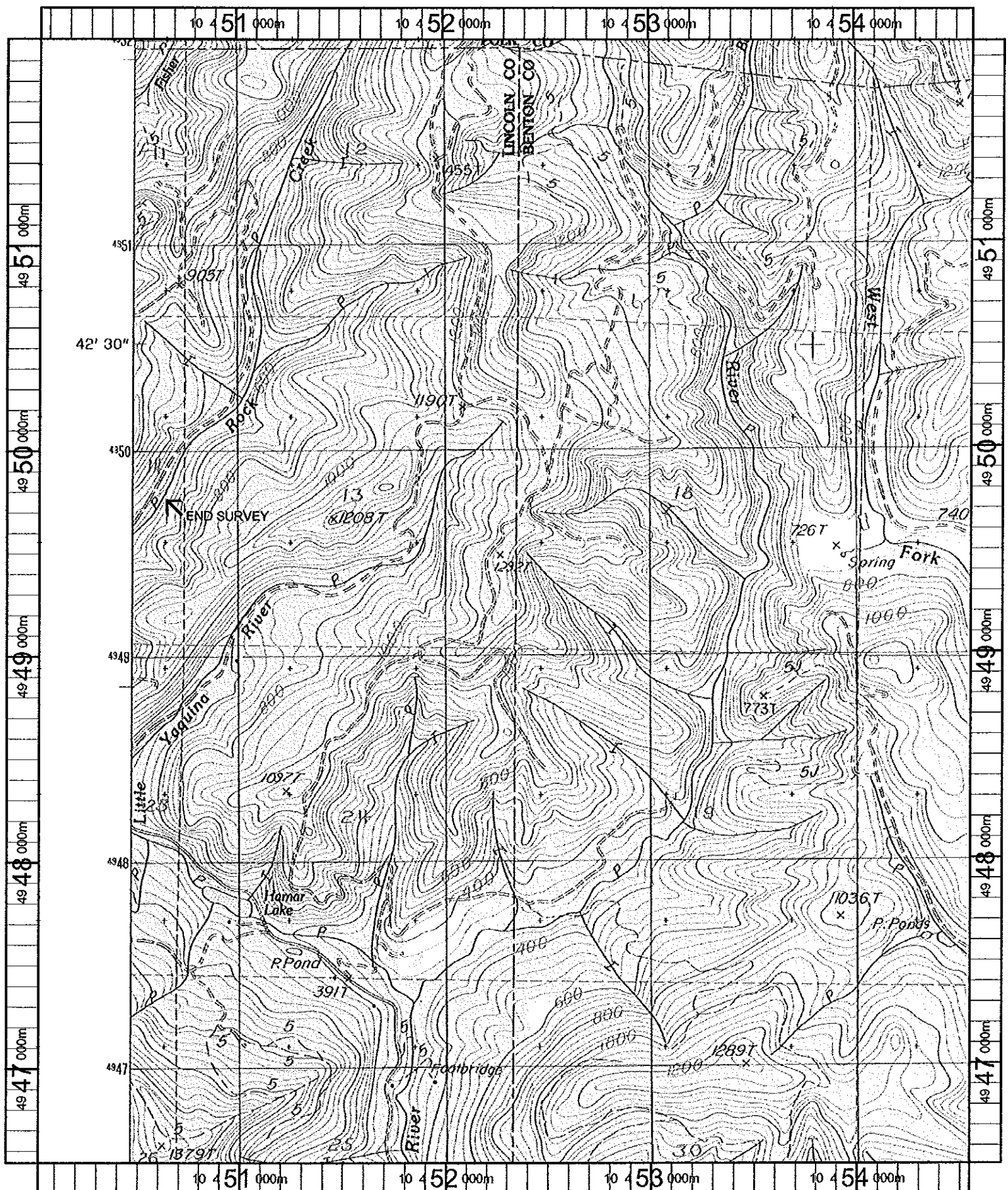
Unit	Side	Zone	Surface	Slope	Cover (percent)					Diameter class (cm)					Notes
					Canopy	Shrub	Grass			3-15	15-30	30-50	50-90	>90	
11	LF	1	LT	0.0	0	0	100	Conifer	0	0	0	0	0		
								Hardwood	0	0	0	0	0		
11	LF	2	LT	0.0	30	30	70	Conifer	1	0	0	0	0		
								Hardwood	2	0	0	0	0	DOUG FIR, VINE MAPL	
11	LF	3	LT	0.0	100	90	10	Conifer	0	0	0	0	0		
								Hardwood	5	0	0	0	0		
11	RT	1	LT	0.0	0	0	100	Conifer	0	0	0	0	0		
								Hardwood	0	0	0	0	0	NO TREES	
11	RT	2	HS	55.0	20	50	50	Conifer	0	0	0	0	0		
								Hardwood	4	0	0	0	0	LOW TERRACE HERE TO	
11	RT	3	HS	55.0	10	30	70	Conifer	0	0	0	0	0		
								Hardwood	0	0	0	0	0		
21	LF	1	LT	0.0	10	30	70	Conifer	0	0	0	0	0		
								Hardwood	0	0	0	0	0		
21	LF	2	HS	15.0	70	30	70	Conifer	0	0	0	1	0		
								Hardwood	0	0	0	0	0	DOUGLAS FIR	
21	LF	3	RB	0.0	10	0	40	Conifer	0	0	0	0	0		
								Hardwood	0	0	0	0	0	ROADBED	
21	RT	1	LT	0.0	0	5	95	Conifer	0	0	0	0	0		
								Hardwood	0	0	0	0	0		
21	RT	2	LT	0.0	20	10	90	Conifer	0	0	0	0	0		
								Hardwood	3	0	0	0	0	ASH	
21	RT	3	LT	0.0	0	30	70	Conifer	0	0	0	0	0		
								Hardwood	3	0	0	0	0	ASH, VINE MAPLE	
32	LF	1	LT	0.0	0	20	80	Conifer	0	0	0	0	0		
								Hardwood	2	0	0	0	0	ASH	
32	LF	2	LT	0.0	20	40	60	Conifer	0	0	0	0	0		
								Hardwood	0	0	0	0	0		
32	LF	3	LT	0.0	20	20	80	Conifer	0	0	1	0	0		
								Hardwood	0	0	0	0	0	DOUGLAS FIR	
32	RT	1	LT	0.0	0	0	100	Conifer	0	0	0	0	0		
								Hardwood	1	0	0	0	0		
32	RT	2	HS	10.0	0	50	50	Conifer	0	0	0	0	0		
								Hardwood	0	0	0	0	0		
32	RT	3	HS	35.0	0	95	5	Conifer	0	0	0	0	0		
								Hardwood	0	0	0	0	0	SLOPE ESTIMATED, BL	



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

Location: 10 448964 E 4949127 N  
 Caption: LITTLE ROCK CREEK RESTORATION SITE - SILETZ BASIN





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

Location: 10 452201 E 4949244 N  
 Caption: LITTLE ROCK CREEK RESTORATION SITE - SILETZ BASIN