

REACH 1

T14S-R2E-S10NW

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

Valley Width Index avg: 5.6 range: 3.5-8.0

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	484	3,415	0
Secondary	214	718	9

Channel Dimensions (m)

	<u>Wetted</u>		<u>Active</u>		<u>Floodprone</u>		<u>First Terrace</u>
Width	5.6	Width	11.6		14.1		16.4
Depth	0.27	Height	0.5		1.0		1.4
		W:D ratio	21.6	Entrenchment	1.2		

Stream Flow Type: LF Water Temp: 14.0-14.0°C
Avg. Unit Gradient: 5.2% Habitat Units/100m: 6.0

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	YT	LG
Riparian Vegetation:	D30	S

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding	2%	Reach avg: 97%
Undercut Banks	3%	Range: 67-100

Large Woody Debris

	<u>Total</u>	<u>Total/100m</u>
All pieces ($\geq 3m \times 0.15m$)	29	6.0
Volume (m ³)	50	10.3
Key pieces ($\geq 10m \times 0.6m$)	0	0.0

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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/BOULDERS	8	160	6.6	0.38	1,008	227	3	9	14	26	47	0
DRY UNITS	3	49	4.0	0.00	144	95	5	13	12	26	44	0
POOL-LATERAL SCOUR	1	15	8.2	0.60	121	14	15	15	30	20	20	0
POOL-PLUNGE	1	10	7.3	0.55	75	5	5	10	15	35	35	0
POOL-STRAIGHT SCOUR	2	29	5.4	0.78	156	9	8	10	23	40	10	10
PUDDLED CHANNEL	6	128	4.3	0.06	547	106	8	9	17	26	37	3
RAPID/BOULDERS	8	171	8.7	0.33	1,499	235	3	9	14	37	37	0
RIFFLE	4	45	1.9	0.11	88	20	34	23	20	12	11	0
RIFFLE W/ POCKETS	4	80	6.0	0.39	459	143	5	10	15	30	41	0
STEP/BOULDERS	5	10	3.8	0.17	38	38	6	7	6	5	76	0
Total:	42	698	5.6	0.27	4,134	892	Avg: 8	11	15	25	40	1

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	4	54	6.6	0.68	352	8.52	28	8.0
Glides	0	0	-	-	0	0.00	0	0.0
Riffles	8	125	3.9	0.25	547	13.23	163	29.8
Rapids	8	171	8.7	0.33	1,499	36.26	235	15.7
Cascades	8	160	6.6	0.38	1,008	24.38	227	22.5
Step/Falls	5	10	3.8	0.17	38	0.91	38	101.3
Dry	9	177	4.2	0.04	691	16.71	201	29.1

POOL SUMMARY

	Total	#/Km
All Pools	4	5.7
Pools ≥1m deep:	0	0.0
Complex pools (LWD pieces ≥3):	0	0.0
Pool Frequency (channel widths/pool):	15.1	
Residual pool depth (avg)	0.60m	

STREAM SUMMARY

LITTLE WILEY CR PRE-TX (#91)

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	
42	698	5.6	0.27	4,134	8	11	15	25	40	1	892

Wetted Area

Habitat Group	(m ²)	Percent
Scour Pool	352	8.5
Backwater Pools	0	0.0
Glide	0	0.0
Riffle	547	13.2
Rapid	1,499	36.3
Cascade	1,008	24.4
Step	38	0.9
Dry	691	16.7

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RIPARIAN ZONE VEGETATION SUMMARY

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

Total hardwoods/1000 ft	1,097
Total conifers/1000 ft	224
Total conifers >20" dbh/1000 ft	20
Total conifers >35" dbh/1000 ft	20

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	0.3	4.0	1.0	4.0	1.0	1.0	2.3	9.0
15-30cm	0.0	4.3	0.0	1.3	0.3	0.0	0.3	5.7
30-50cm	0.0	2.0	0.3	0.3	0.3	0.3	0.7	2.7
50-90cm	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.3
>90cm	0.3	0.0	0.0	0.0	0.0	0.3	0.3	0.3
Total/100m ²	0.7	10.3	1.3	6.0	1.7	1.7	1.2	6.0

Canopy closure and ground cover

	Zone 1 0-10 meters	Zone 2 10-20 meters	Zone 3 20-30 meters
	(%)	(%)	(%)
Canopy closure	55	47	23
Shrub cover	38	27	65
Grass/forb cover	48	31	20

Predominant landform in each zone

	Zone 1 0-10 meters	Zone 2 10-20 meters	Zone 3 20-30 meters
	Hillslope	17	33
High terrace	67	33	17
Low terrace	0	0	0
Floodplain	0	0	0
Wetland/meadow	0	0	0
Stream channel	0	0	0
Roadbed/Railroad	17	33	0
Riprap	0	0	0
Surface slope (%)	13	37	56

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	1,097
Total conifers/1000 ft	224
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	2.3	9.0
15-30cm	0.3	5.7
30-50cm	0.7	2.7
50-90cm	0.0	0.3
>90cm	0.3	0.3

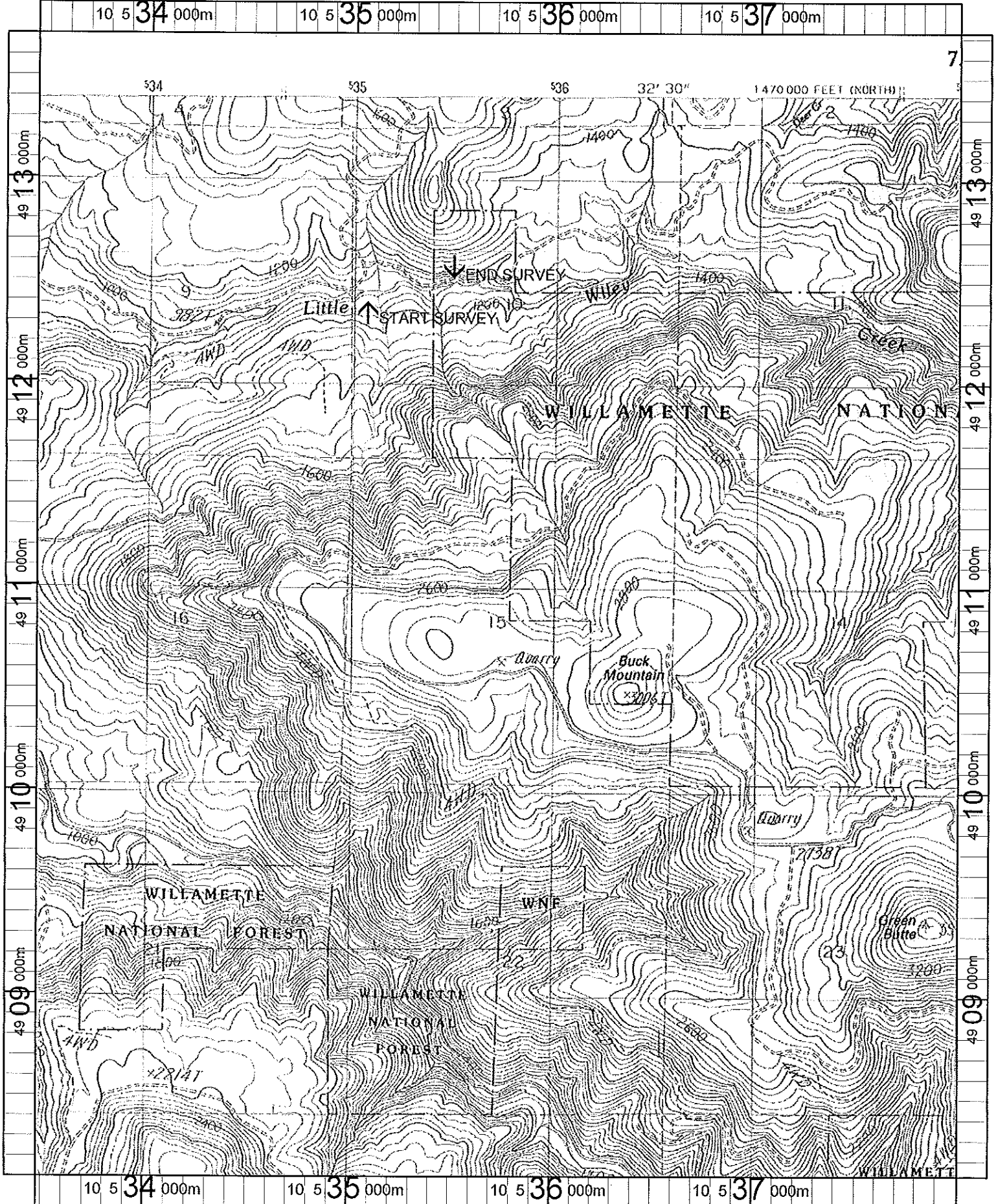
RIPARIAN ZONE VEGETATION

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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	
14	LF	1	HT	0.0	70	60	40	Conifer	0	0	0	0	0	
								Hardwood	2	2	0	0	0	
14	LF	2	RB	0.0	60	0	25	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
14	LF	3	HS	70.0	85	15	20	Conifer	1	1	1	0	0	
								Hardwood	2	0	1	0	0	
14	RT	1	HT	0.0	60	55	40	Conifer	0	0	0	0	0	
								Hardwood	5	2	1	0	0	
14	RT	2	HT	0.0	55	40	30	Conifer	0	0	0	0	0	
								Hardwood	0	2	1	0	0	VINE MAPLE, DEVILS
14	RT	3	HS	50.0	35	40	35	Conifer	1	0	0	0	0	
								Hardwood	0	0	0	0	1	
26	LF	1	RB	0.0	10	15	20	Conifer	0	0	0	0	0	
								Hardwood	2	0	0	0	0	
26	LF	2	HS	120.0	5	95	5	Conifer	0	0	0	0	0	
								Hardwood	2	0	0	0	0	
26	LF	3	HS	70.0	0	85	15	Conifer	1	0	0	0	0	
								Hardwood	1	0	0	0	0	
26	RT	1	HT	0.0	90	50	50	Conifer	0	0	0	0	0	
								Hardwood	2	1	4	0	0	
26	RT	2	HT	0.0	90	0	25	Conifer	3	0	0	0	0	
								Hardwood	0	1	0	1	0	
26	RT	3	HT	0.0	20	90	10	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
32	LF	1	HT	0.0	15	20	80	Conifer	1	0	0	0	1	
								Hardwood	0	0	0	0	0	
32	LF	2	RB	0.0	0	10	25	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	CLEARCUT
32	LF	3	HS	75.0	0	80	20	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
32	RT	1	HS	75.0	85	25	60	Conifer	0	0	0	0	0	
								Hardwood	1	8	1	0	0	
32	RT	2	HS	100.0	70	15	75	Conifer	0	0	1	0	0	
								Hardwood	10	1	0	0	0	
32	RT	3	HS	70.0	0	80	20	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	CLEARCUT



Name: FARMERS BUTTE
 Date: 1/10/2002
 Scale: 1 inch equals 2000 feet

Location: 10 535728 E 4910914 N
 Caption: LITTLE WILEY CREEK RESTORATION SITE - S.
 SANTIAM BASIN