

REACH 1

T15S-R3E-23SE

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: 3.7 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	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	567	2,981	0
Secondary	361	830	2

Channel Dimensions (m)

<u>Wetted</u>		<u>Active</u>		<u>Floodprone</u>	<u>First Terrace</u>
Width	4.0	Width	12.1	27.6	17.5
Depth	0.36	Height	0.7	1.4	1.1
		W:D ratio	18.3	Entrenchment	2.3

Stream Flow Type: LF Water Temp: 11.5-11.5°C  
Avg. Unit Gradient: 4.0% Habitat Units/100m: 7.3

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	LT
Riparian Vegetation:	D15	G

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding	1%	Reach avg: 86%
Undercut Banks	7%	Range: 58-100

Large Woody Debris

	<u>Total</u>	<u>Total/100m</u>
All pieces (≥3m x 0.15m)	479	84.4
Volume (m <sup>3</sup> )	359	63.2
Key pieces (≥10m x 0.6m)	3	0.5

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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
CASCADE/BOULDERS	5	128	4.4	0.44	576	49	2	9	16	29	42	2
GLIDE	1	8	2.8	0.25	23	0	5	20	15	35	25	0
POOL-BACKWATER	2	6	1.9	0.68	12	0	8	47	38	8	0	0
POOL-DAMMED	2	10	5.8	0.60	50	0	5	38	44	10	3	0
POOL-LATERAL SCOUR	2	27	5.7	0.70	159	0	0	10	35	40	5	10
POOL-PLUNGE	5	21	4.9	0.61	114	7	3	28	23	22	20	3
POOL-STRAIGHT SCOUR	7	54	4.3	0.65	226	7	4	21	25	32	17	1
PUDDLED CHANNEL	2	37	0.5	0.28	19	14	33	24	10	21	12	0
RAPID/BOULDERS	19	401	4.8	0.33	1,920	86	1	11	23	39	26	1
RIFFLE	8	154	2.8	0.22	449	15	4	14	22	40	19	1
RIFFLE W/ POCKETS	1	30	2.1	0.15	62	0	11	16	26	37	11	0
STEP/BOULDERS	1	5	5.7	0.40	29	10	0	5	10	25	60	0
STEP/COBBLE	5	35	3.7	0.19	150	2	0	9	26	51	14	0
STEP/LOG	7	1	3.3	0.04	4	2	8	24	24	39	5	0
STEP/STRUCTURE	1	11	1.7	0.20	18	2	5	10	20	45	20	0
<b>Total:</b>	<b>68</b>	<b>928</b>	<b>4.0</b>	<b>0.36</b>	<b>3,810</b>	<b>194</b>	<b>Avg: 4</b>	<b>17</b>	<b>23</b>	<b>35</b>	<b>20</b>	<b>1</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	Boulders #/100m <sup>2</sup>
Dammed & BW Pools	4	17	3.8	0.64	62	1.63	0	0.0
Scour Pools	14	102	4.7	0.64	499	13.10	14	2.8
Glides	1	8	2.8	0.25	23	0.61	0	0.0
Riffles	9	184	2.7	0.21	511	13.42	15	2.9
Rapids	19	401	4.8	0.33	1,920	50.39	86	4.5
Cascades	5	128	4.4	0.44	576	15.11	49	8.5
Step/Falls	14	52	3.5	0.13	201	5.27	16	8.0
Dry	2	37	0.5	0.28	19	0.49	14	75.7

POOL SUMMARY

	<u>Total</u>	<u>#/Km</u>
All Pools	18	19.4
Pools ≥1m deep:	0	0.0
Complex pools (LWD pieces ≥3):	9	9.7
Pool Frequency (channel widths/pool):	4.3	
Residual pool depth (avg)	0.46m	

STREAM SUMMARY

NORTH FORK CALAPOOIA (POST-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
68	928	4.0	0.36	3,810	4	17	23	35	20	1	194

Wetted Area

Habitat Group	(m <sup>2</sup> )	Percent
Scour Pool	499	13.1
Backwater Pools	62	1.6
Glide	23	0.6
Riffle	511	13.4
Rapid	1,920	50.4
Cascade	576	15.1
Step	201	5.3
Dry	19	0.5

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RIPARIAN ZONE VEGETATION SUMMARY

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

Total hardwoods/1000 ft	1,300
Total conifers/1000 ft	163
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	1.3	7.3	1.0	1.7	0.0	2.0	2.3	11.0
15-30cm	0.3	6.3	0.0	3.0	0.0	0.0	0.3	9.3
30-50cm	0.0	0.7	0.0	0.0	0.0	0.3	0.0	1.0
50-90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m <sup>2</sup>	1.7	14.3	1.0	4.7	0.0	2.3	0.9	7.1

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10-20 meters		Zone 3 20-30 meters	
	(%)		(%)		(%)	
Canopy closure	83		86		89	
Shrub cover	7		13		14	
Grass/forb cover	73		58		62	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10-20 meters		Zone 3 20-30 meters	
	Hillslope	50		67		67
High terrace	0		0		17	
Low terrace	50		17		17	
Floodplain	0		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		17		0	
Roadbed/Railroad	0		0		0	
Riprap	0		0		0	
Surface slope (%)	34		41		41	

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	1,300
Total conifers/1000 ft	163
Total conifers >20" dbh/1000 ft	0

Average number of trees in a 5-meter wide band

Diameter class (cm)	Zones 1-3	
	Conifer	Hardwood
3-15cm	2.3	11.0
15-30cm	0.3	9.3
30-50cm	0.0	1.0
50-90cm	0.0	0.0
>90cm	0.0	0.0

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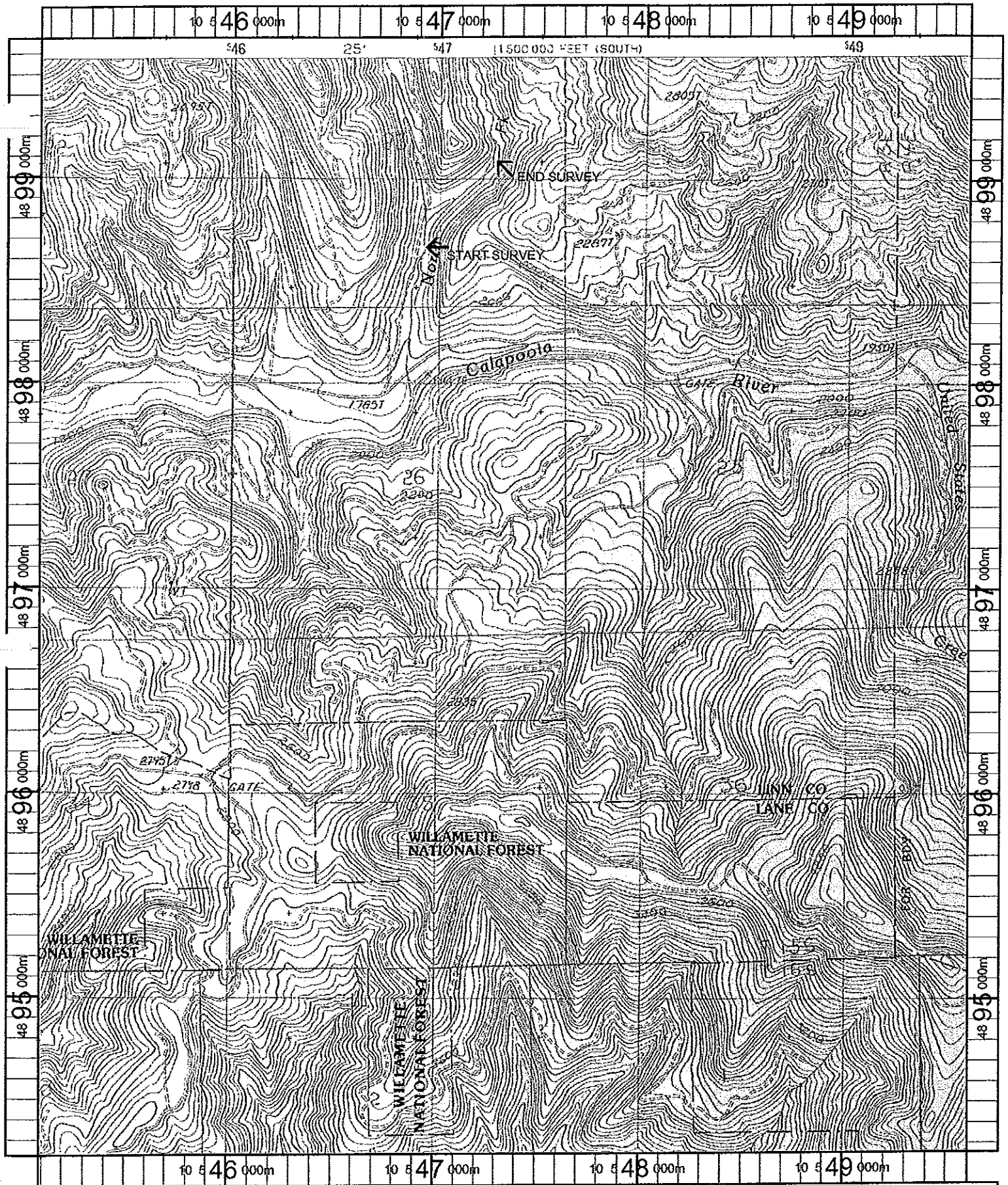
RIPARIAN ZONE VEGETATION

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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	
20	LF	1	LT	6.0	60	5	85	Conifer	0	0	0	0	0	
								Hardwood	4	8	0	0	0	ALDER
20	LF	2	LT	4.0	100	15	85	Conifer	0	0	0	0	0	
								Hardwood	2	5	0	0	0	LARGE DOWNED DEBRIS
20	LF	3	LT	0.0	100	35	65	Conifer	0	0	0	0	0	
								Hardwood	0	0	1	0	0	DOWNED LARGE CEDAR
20	RT	1	HS	80.0	60	15	80	Conifer	0	0	0	0	0	
								Hardwood	2	0	0	0	0	STEEP HILLSLOPE
20	RT	2	HS	80.0	60	15	80	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
20	RT	3	HS	80.0	60	15	80	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
32	LF	1	LT	0.0	100	5	80	Conifer	0	0	0	0	0	
								Hardwood	4	4	0	0	0	LARGE WOODY DEBRIS
32	LF	2	SC	0.0	75	25	20	Conifer	0	0	0	0	0	
								Hardwood	2	1	0	0	0	
32	LF	3	HT	4.5	95	15	60	Conifer	0	0	0	0	0	
								Hardwood	6	0	0	0	0	LARGE DOWN LOGS
32	RT	1	HS	75.0	100	0	50	Conifer	4	1	0	0	0	
								Hardwood	3	2	0	0	0	
32	RT	2	HS	75.0	100	0	50	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
32	RT	3	HS	75.0	100	0	50	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
53	LF	1	LT	0.0	100	5	60	Conifer	0	0	0	0	0	
								Hardwood	6	4	2	0	0	
53	LF	2	HS	40.0	100	10	30	Conifer	3	0	0	0	0	
								Hardwood	1	3	0	0	0	
53	LF	3	HS	40.0	100	10	30	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
53	RT	1	HS	45.0	80	10	85	Conifer	0	0	0	0	0	
								Hardwood	3	1	0	0	0	
53	RT	2	HS	45.0	80	10	85	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
53	RT	3	HS	45.0	80	10	85	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	



Name: MT HAGAN  
 Date: 11/1/100  
 Scale: 1 inch equals 2000 feet

Location: 10 547234 E 4896951 N  
 Caption: NORTH FORK CALAPOOIA RESTORATION SITE - WILLAMETTE  
 BASIN