

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

STREAM: Roaring River Tributary (W-56)  
BASIN: South Santiam River  
SURVEY TYPE: Pre-Tx  
DATE: June 19, 2000  
SURVEY CREW: David Mann, Talley Fisher  
REPORT PREPARED BY: Paul Jacobsen  
BASIN AREA: 4.4 km<sup>2</sup>  
USGS MAPS: Jordan  
ECOREGION: Willamette Valley Foothills

**GENERAL DESCRIPTION:**

The Roaring River Tributary habitat survey extended 504 meters. The channel was unconstrained in a broad valley floor. The average valley width index was 9.4 (range: 5.0 – 15.0). Land use for the reach was large (30-50 cm dbh) and mature (50-90 cm dbh) trees. The average unit gradient was 2.8 percent. Rapids (62%) and riffles (28%) dominated stream habitat. Cobble (29%) and gravel (26%) dominated stream substrate. Wood volume was moderate at 21.4 m<sup>3</sup>/100m.

**COMMENTS:**

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

REACH 1

T11-R1E-5SE

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: 9.4 range: 5.0-15.0

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	504	1,671	0
Secondary	101	199	0

Channel Dimensions (m)

<u>Wetted</u>		<u>Active</u>		<u>Floodprone</u>	<u>First Terrace</u>
Width	3.0	Width	4.9	14.8	9.6
Depth	0.18	Height	0.4	0.8	0.7
W:D ratio		11.4	Entrenchment	3.1	

Stream Flow Type: LF Water Temp: 13.0-13.0°C  
 Avg. Unit Gradient: 2.8% Habitat Units/100m: 7.4

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	LF	MT
Riparian Vegetation:	M30	S

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding	0%	Reach avg: 94%
Undercut Banks	12%	Range: 67-100

Large Woody Debris

	<u>Total</u>	<u>Total/100m</u>
All pieces ( $\geq 3m \times 0.15m$ )	85	16.9
Volume (m <sup>3</sup> )	108	21.4
Key pieces ( $\geq 10m \times 0.6m$ )	4	0.8

REACH 1

T11-R1E-5SE

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
CULVERT CROSSING	1	12	0.9	0.20	11	0	19	10	52	19	0	0
POOL-DAMMED	4	22	3.0	0.41	64	2	11	33	26	19	11	0
POOL-STRAIGHT SCOUR	6	39	2.7	0.38	109	4	7	17	28	24	12	12
RAPID/BEDROCK	1	25	4.2	0.10	107	0	4	8	4	13	4	67
RAPID/BOULDERS	16	309	3.5	0.11	1,047	49	4	18	25	35	15	4
RIFFLE	12	172	2.3	0.13	423	1	8	23	31	34	5	0
RIFFLE W/ POCKETS	1	25	4.2	0.30	103	3	6	17	22	44	1.1	0
STEP/LOG	4	1	3.7	0.07	6	3	43	9	10	16	21	0
<b>Total:</b>	<b>45</b>	<b>606</b>	<b>3.0</b>	<b>0.18</b>	<b>1,870</b>	<b>62</b>	<b>Avg:10</b>	<b>19</b>	<b>26</b>	<b>29</b>	<b>12</b>	<b>4</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	22	3.0	0.41	64	3.43	2	3.1
Scour Pools	6	39	2.7	0.38	109	5.83	4	3.7
Glides	0	0	-	-	0	0.00	0	0.0
Riffles	13	196	2.4	0.14	527	28.16	4	0.8
Rapids	17	335	3.5	0.11	1,153	61.69	49	4.2
Cascades	0	0	-	-	0	0.00	0	0.0
Step/Falls	4	1	3.7	0.07	6	0.29	3	54.5
Dry	0	0	-	-	0	0.00	0	0.0

POOL SUMMARY

	Total	#/Km
All Pools	10	16.5
Pools ≥1m deep:	0	0.0
Complex pools (LWD pieces≥3):	2	3.3
Pool Frequency (channel widths/pool):	12.4	
Residual pool depth (avg)	0.30m	

STREAM SUMMARY

ROARING RIVER TRIB (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	
45	606	3.0	0.18	1,870	10	19	26	29	12	4	62

Wetted Area

Habitat Group	(m <sup>2</sup> )	Percent
Scour Pool	109	5.8
Backwater Pools	64	3.4
Glide	0	0.0
Riffle	527	28.2
Rapid	1,153	61.7
Cascade	0	0.0
Step	6	0.3
Dry	0	0.0

---

REACH 1

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1

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

Total hardwoods/1000 ft	955
Total conifers/1000 ft	305
Total conifers >20" dbh/1000 ft	41
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	2.7	0.7	6.0	0.3	0.0	1.0	8.7
15-30cm	0.3	0.7	0.7	0.7	1.0	1.3	2.0	2.7
30-50cm	0.7	2.0	0.0	1.0	0.7	1.0	1.3	4.0
50-90cm	0.3	0.3	0.0	0.0	0.3	0.0	0.7	0.3
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m <sup>2</sup>	1.3	5.7	1.3	7.7	2.3	2.3	1.7	5.2

Canopy closure and ground cover

	Zone 1 0-10 meters	Zone 2 10-20 meters	Zone 3 20-30 meters
	(%)	(%)	(%)
Canopy closure	85	83	83
Shrub cover	78	69	46
Grass/forb cover	21	26	33

Predominant landform in each zone

	Zone 1 0-10 meters	Zone 2 10-20 meters	Zone 3 20-30 meters
	Hillslope	17	67
High terrace	0	0	0
Low terrace	67	33	33
Floodplain	17	0	0
Wetland/meadow	0	0	0
Stream channel	0	0	0
Roadbed/Railroad	0	0	17
Riprap	0	0	0
Surface slope (%)	7	15	17

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	955
Total conifers/1000 ft	305
Total conifers >20" dbh/1000 ft	41

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	1.0	8.7
15-30cm	2.0	2.7
30-50cm	1.3	4.0
50-90cm	0.7	0.3
>90cm	0.0	0.0

---

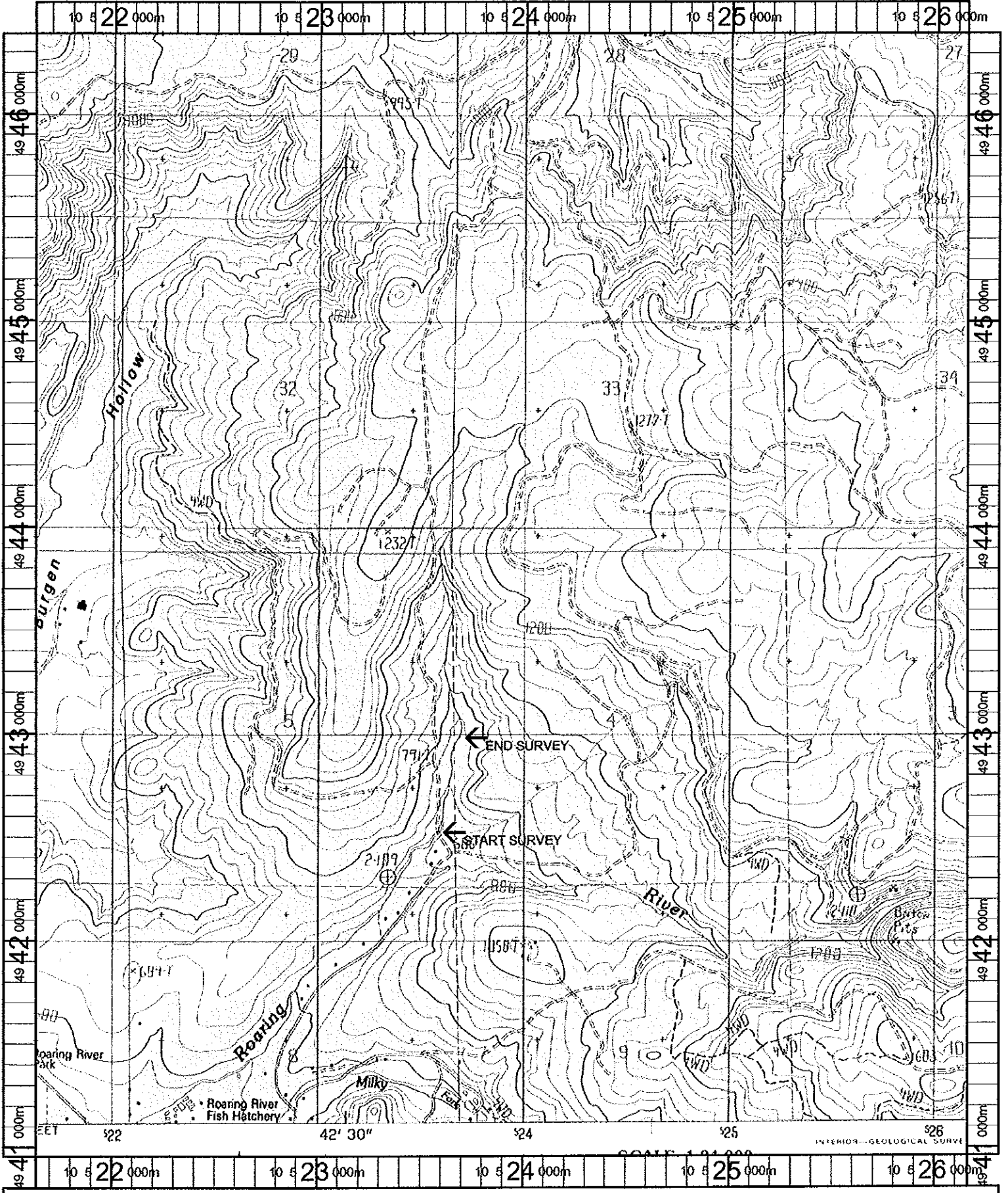
RIPARIAN ZONE VEGETATION

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	
13	LF	1	FP	0.0	90	90	10	Conifer	0	0	0	0	0	
								Hardwood	0	1	0	0	0	BIG LEAF MAPLE, .8M
13	LF	2	HS	35.0	95	90	10	Conifer	0	0	0	0	0	
								Hardwood	0	1	3	0	0	ALDER
13	LF	3	RB	0.0	70	0	0	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
13	RT	1	LT	0.0	85	95	5	Conifer	0	0	0	0	0	
								Hardwood	3	0	0	0	0	MAPLES, DOWNED LOGS
13	RT	2	LT	0.0	85	95	5	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
13	RT	3	LT	0.0	85	95	5	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
27	LF	1	LT	3.0	75	85	15	Conifer	0	0	0	0	0	
								Hardwood	0	0	2	0	0	ALDER
27	LF	2	HS	21.0	95	35	50	Conifer	2	1	0	0	0	
								Hardwood	0	0	0	0	0	LARGE WOOD DEBRIS,
27	LF	3	HS	37.0	100	50	40	Conifer	0	1	0	0	0	
								Hardwood	0	4	3	0	0	BIGLEAF MAPLE
27	RT	1	LT	0.0	90	95	5	Conifer	0	0	0	0	0	
								Hardwood	0	1	1	0	0	ALDER
27	RT	2	HS	20.0	90	80	20	Conifer	0	0	0	0	0	
								Hardwood	8	0	0	0	0	
27	RT	3	HS	35.0	100	10	85	Conifer	0	0	1	1	0	
								Hardwood	0	0	0	0	0	CEDAR, FIR
40	LF	1	HS	40.0	85	15	80	Conifer	0	1	2	1	0	
								Hardwood	2	0	0	0	0	HEMLOCK, V. MAPLE,
40	LF	2	HS	12.0	95	15	70	Conifer	0	1	0	0	0	
								Hardwood	0	1	0	0	0	
40	LF	3	HS	28.0	100	20	65	Conifer	1	2	1	0	0	
								Hardwood	0	0	0	0	0	
40	RT	1	LT	0.0	85	90	10	Conifer	0	0	0	0	0	
								Hardwood	3	0	3	1	0	ALDER, BIG LEAF MAP
40	RT	2	LT	1.0	40	100	0	Conifer	0	0	0	0	0	
								Hardwood	10	0	0	0	0	VINE MAPLE
40	RT	3	LT	1.0	40	100	0	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	OVERGROWN W/ BLACKB



Name: JORDAN  
 Date: 10/23/100  
 Scale: 1 inch equals 2000 feet

Location: 10 523791 E 4943659 N  
 Caption: ROARING RIVER TRIBUTARY RESTORATION SITE - SOUTH  
 SANTIAM BASIN