

**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: Post-Tx  
DATE: January 31, 2001  
SURVEY CREW: Eric Brown, Joe Zuccarello  
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 526 meters. The channel was unconstrained in a broad valley floor. The average valley width index was 6.5 (range: 2.0 – 10.0). Land use for the reach was timber harvest and large (30-50 cm dbh) trees. The average unit gradient was 3.4 percent. Riffles (59%) and rapids (22%) dominated stream habitat. Gravel (31%), sand (24%) and cobble (22%) dominated stream substrate. Wood volume was high at 30.0 m<sup>3</sup>/100m.

**COMMENTS:**

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

The crew noted several habitat structures during the survey.

REACH SUMMARY

REACH 1

T11S-R1E-S5SE

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: 6.5 range: 2.0-10.0

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	0	Single Channel	0
Bedrock	0	Multiple Channel	100
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	526	2,282	0
Secondary	126	236	1

Channel Dimensions (m)

<u>Wetted</u>		<u>Active</u>		<u>Floodprone</u>	<u>First Terrace</u>
Width	3.9	Width	6.8	21.0	9.0
Depth	0.20	Height	0.5	0.9	0.7
		W:D ratio	15.3	Entrenchment	3.4

Stream Flow Type: MF Water Temp: 5.0-5.0°C  
 Avg. Unit Gradient: 3.4% Habitat Units/100m: 6.0

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	TH	LT
Riparian Vegetation:	D30	S

Bank Condition and Shade

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

Large Woody Debris

	<u>Total</u>	<u>Total/100m</u>
All pieces (≥3m x 0.15m)	104	19.8
Volume (m <sup>3</sup> )	158	30.0
Key pieces (≥10m x 0.6m)	2	0.4

HABITAT UNIT SUMMARY

REACH 1	T11S-R1E-S5SE											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	13	0.9	0.25	12	0	9	46	46	0	0	0
GLIDE	4	37	2.8	0.24	101	0	21	27	41	8	1	1
POOL-DAMMED	1	13	5.4	0.60	70	0	35	50	10	5	0	0
POOL-LATERAL SCOUR	3	26	3.0	0.37	76	0	15	37	27	18	3	0
POOL-STRAIGHT SCOUR	2	21	4.8	0.50	101	0	23	18	33	25	3	0
PUDDLED CHANNEL	1	18	2.5	0.01	45	0	0	10	50	25	15	0
RAPID/BOULDERS	5	100	5.6	0.18	543	0	8	26	26	23	10	7
RIFFLE	15	293	3.5	0.14	1,126	0	6	20	31	27	11	4
RIFFLE W/ POCKETS	4	118	3.7	0.15	368	0	6	30	24	25	15	0
STEP/BEDROCK	1	6	4.5	0.10	28	0	0	0	0	3	2	95
STEP/LOG	1	5	6.0	0.10	30	0	10	10	25	30	25	0
STEP/STRUCTURE	1	2	9.0	0.05	17	0	10	10	60	20	0	0
<b>Total:</b>	<b>39</b>	<b>652</b>	<b>3.9</b>	<b>0.20</b>	<b>2,518</b>	<b>0</b>	<b>Avg:10</b>	<b>24</b>	<b>31</b>	<b>22</b>	<b>9</b>	<b>5</b>

HABITAT SUMMARY

Habitat Group	No. Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area (m <sup>2</sup> )	Percent Area	Large Boulders Number	#/100m <sup>2</sup>
Dammed & BW Pools	1	13	5.4	0.60	70	2.79	0	0.0
Scour Pools	5	48	3.7	0.42	177	7.02	0	0.0
Glides	4	37	2.8	0.24	101	4.02	0	0.0
Riffles	19	411	3.5	0.14	1,494	59.35	0	0.0
Rapids	5	100	5.6	0.18	543	21.57	0	0.0
Cascades	0	0	-	-	0	0.00	0	0.0
Step/Falls	3	13	6.5	0.08	76	3.00	0	0.0
Dry	1	18	2.5	0.01	45	1.78	0	0.0

POOL SUMMARY

	Total	#/Km
All Pools	6	9.2
Pools ≥1m deep:	0	0.0
Complex pools (LWD pieces ≥3):	2	3.1
Pool Frequency (channel widths/pool):	15.9	
Residual pool depth (avg)	0.16m	

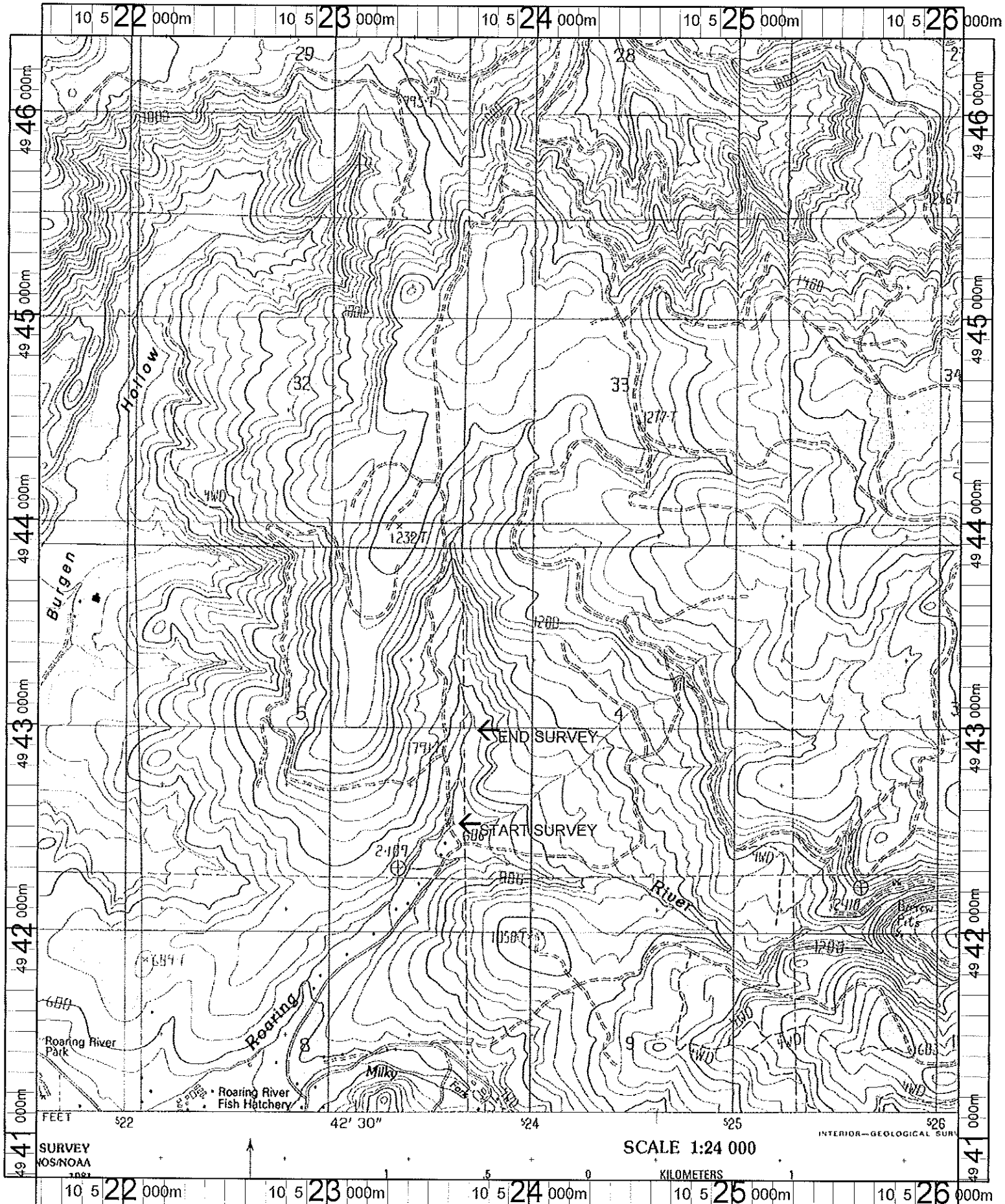
**STREAM SUMMARY**

**ROARING RIVER TRIB 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
39	652	3.9	0.20	2,518	10	24	31	22	9	5	0

Habitat Group	Wetted Area	
	(m <sup>2</sup> )	Percent
Scour Pool	177	7.0
Backwater Pools	70	2.8
Glide	101	4.0
Riffle	1,494	59.3
Rapid	543	21.6
Cascade	0	0.0
Step	76	3.0
Dry	45	1.8

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Name: JORDAN  
 Date: 10/3/101  
 Scale: 1 inch equals 2000 feet

Location: 10 523738 E 4943560 N  
 Caption: ROARING RIVER TRIBUTARY RESTORATION SITE -  
 SOUTH SANTIAM BASIN