

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

STREAM: Salmonberry Creek (U-99)  
BASIN: Smith River  
SURVEY TYPE: Pre-Tx  
DATE: July 18, 2001  
SURVEY CREW: Loren Stucker, LaNoah Babcock  
REPORT PREPARED BY: Paul Jacobsen  
BASIN AREA: 4.5 km<sup>2</sup>  
USGS MAPS: Beaver Creek  
ECOREGION: Coast Range Sedimentary

**GENERAL DESCRIPTION:**

The Salmonberry Creek habitat survey extended 534 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 8.0 (range: 7.0 – 10.0). Land use for the reach was second growth (15-30 cm dbh) and large (30-50 cm dbh) trees. The average unit gradient was 2.1 percent. Scour pools (61%) and riffles (38%) dominated stream habitat. Gravel (43%) and fines (27%) dominated stream substrate. Wood volume was low at 3.8 m<sup>3</sup>/100m.

**COMMENTS:**

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

REACH 1

T20-R7W-S25SE

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

Valley Width Index avg: 8.0 range: 7.0-10.0

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	534	894	0
Secondary	24	21	1

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u>	<u>First Terrace</u>
Width 1.6	Width 4.5	13.0	9.0
Depth 0.26	Height 0.3	0.6	1.1
	W:D ratio 14.5	Entrenchment 2.9	

Stream Flow Type: LF Water Temp: 12.5-12.5°C  
 Avg. Unit Gradient: 2.1% Habitat Units/100m: 9.3

Riparian, Bank, and Wood Summary

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

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding	2%	Reach avg: 98%
Undercut Banks	34%	Range: 78-100

Large Woody Debris

	<u>Total</u>	<u>Total/100m</u>
All pieces ( $\geq 3m \times 0.15m$ )	40	7.5
Volume ( $m^3$ )	20	3.8
Key pieces ( $\geq 10m \times 0.6m$ )	1	0.2

REACH 1

T20-R7W-S25SE

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	2.0	0.50	8	0	75	20	5	0	0	0
POOL-LATERAL SCOUR	25	270	1.9	0.40	511	0	34	29	34	3	0	0
POOL-PLUNGE	1	10	4.3	1.00	43	0	60	20	15	5	0	0
PUDDLED CHANNEL	1	6	0.5	0.02	3	0	75	20	5	0	0	0
RIFFLE	22	246	1.2	0.07	310	0	15	20	61	4	0	0
RIFFLE W/ POCKETS	1	22	1.8	0.40	40	0	20	30	45	5	0	0
STEP/BEDROCK	1	0	0.6	0.01	0	0	0	0	0	0	0	100
<b>Total:</b>	<b>52</b>	<b>558</b>	<b>1.6</b>	<b>0.26</b>	<b>916</b>	<b>0</b>	<b>Avg:27</b>	<b>24</b>	<b>43</b>	<b>3</b>	<b>0</b>	<b>2</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	2.0	0.50	8	0.87	0	0.0
Scour Pools	26	280	2.0	0.42	554	60.54	0	0.0
Glides	0	0	-	-	0	0.00	0	0.0
Riffles	23	268	1.2	0.09	350	38.23	0	0.0
Rapids	0	0	-	-	0	0.00	0	0.0
Cascades	0	0	-	-	0	0.00	0	0.0
Step/Falls	1	0	0.6	0.01	0	0.02	0	0.0
Dry	1	6	0.5	0.02	3	0.33	0	0.0

POOL SUMMARY

All Pools	<u>Total</u>	<u>#/Km</u>
	27	48.4
Pools ≥1m deep:	1	1.8
Complex pools (LWD pieces ≥3):	1	1.8
Pool Frequency (channel widths/pool):	4.6	
Residual pool depth (avg)	0.38m	

STREAM SUMMARY

SALMONBERRY CREEK PRE-TX (#99)

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	
52	558	1.6	0.26	916	27	24	43	3	0	2	0

Wetted Area

Habitat Group	(m <sup>2</sup> )	Percent
Scour Pool	554	60.5
Backwater Pools	8	0.9
Glide	0	0.0
Riffle	350	38.2
Rapid	0	0.0
Cascade	0	0.0
Step	0	**.*
Dry	3	0.3

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REACH 1

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1

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

Total hardwoods/1000 ft	1,422
Total conifers/1000 ft	183
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	0.0	2.7	0.0	4.0	0.7	4.3	0.7	11.0
15-30cm	0.0	2.7	0.3	2.0	1.0	1.7	1.3	6.3
30-50cm	0.0	3.0	0.7	1.7	0.3	1.3	1.0	6.0
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>	0.0	8.3	1.0	7.7	2.0	7.3	1.0	7.8

Canopy closure and ground cover

	Zone 1 0-10 meters (%)	Zone 2 10-20 meters (%)	Zone 3 20-30 meters (%)
Canopy closure	84	74	65
Shrub cover	58	31	31
Grass/forb cover	33	54	43

Predominant landform in each zone

	Zone 1 0-10 meters	Zone 2 10-20 meters	Zone 3 20-30 meters
Hillslope	33	50	67
High terrace	33	33	17
Low terrace	0	0	0
Floodplain	33	17	17
Wetland/meadow	0	0	0
Stream channel	0	0	0
Roadbed/Railroad	0	0	0
Riprap	0	0	0
Surface slope (%)	15	20	23

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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	1,422
Total conifers/1000 ft	183
Total conifers >20" dbh/1000 ft	0

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	0.7	11.0
15-30cm	1.3	6.3
30-50cm	1.0	6.0
50-90cm	0.0	0.0
>90cm	0.0	0.0

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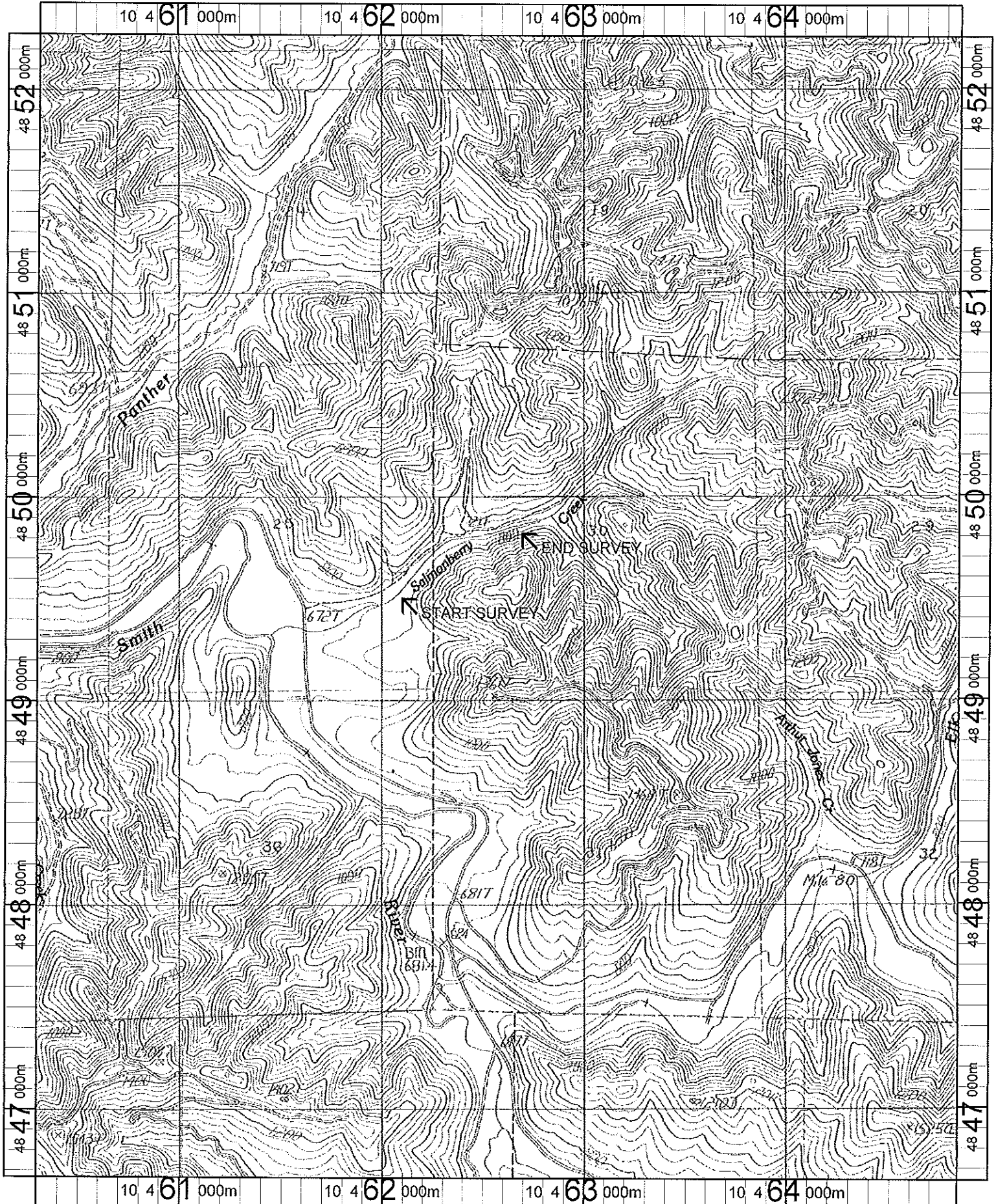
RIPARIAN ZONE VEGETATION

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	
12	LF	1	HT	0.0	85	70	25	Conifer	0	0	0	0	0	
								Hardwood	0	1	3	0	0	
12	LF	2	HT	0.0	95	10	80	Conifer	0	0	0	0	0	
								Hardwood	0	0	2	0	0	
12	LF	3	HT	0.0	100	10	80	Conifer	0	0	0	0	0	
								Hardwood	2	2	2	0	0	
12	RT	1	FP	0.0	95	30	50	Conifer	0	0	0	0	0	
								Hardwood	0	1	0	0	0	
12	RT	2	HS	55.0	85	5	80	Conifer	0	1	2	0	0	
								Hardwood	0	1	0	0	0	
12	RT	3	HS	50.0	90	10	70	Conifer	1	3	1	0	0	
								Hardwood	1	0	0	0	0	
23	LF	1	HS	40.0	70	70	25	Conifer	0	0	0	0	0	
								Hardwood	8	3	4	0	0	
23	LF	2	HS	5.0	5	5	95	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
23	LF	3	HS	0.0	0	40	10	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
23	RT	1	FP	0.0	85	90	5	Conifer	0	0	0	0	0	
								Hardwood	0	1	1	0	0	
23	RT	2	FP	0.0	80	90	0	Conifer	0	0	0	0	0	
								Hardwood	0	3	2	0	0	
23	RT	3	FP	0.0	80	60	30	Conifer	0	0	0	0	0	
								Hardwood	3	0	0	0	0	
42	LF	1	HT	0.0	90	60	30	Conifer	0	0	0	0	0	
								Hardwood	0	1	1	0	0	
42	LF	2	HT	0.0	90	45	30	Conifer	0	0	0	0	0	
								Hardwood	2	2	1	0	0	
42	LF	3	HS	20.0	30	50	25	Conifer	1	0	0	0	0	
								Hardwood	3	0	0	0	0	
42	RT	1	HS	50.0	80	25	60	Conifer	0	0	0	0	0	
								Hardwood	0	1	0	0	0	
42	RT	2	HS	60.0	90	30	40	Conifer	0	0	0	0	0	
								Hardwood	10	0	0	0	0	
42	RT	3	HS	65.0	90	15	40	Conifer	0	0	0	0	0	
								Hardwood	4	3	2	0	0	



Name: BEAVER CREEK  
 Date: 1/10/2002  
 Scale: 1 inch equals 2000 feet

Location: 10 462581 E 4849458 N  
 Caption: SALMONBERRY CREEK RESTORATION SITE -  
 SMITH BASIN