

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

STREAM: Bergsvick Creek (NC-116)
BASIN: Necanicum River
SURVEY TYPE: Reference
DATE: July 25, 1996
SURVEY CREW: Barry Thom, Matt Rowe
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 12.1 km²
USGS MAPS: Necanicum Junction
ECOREGION: Coast Range Sitka Spruce

GENERAL DESCRIPTION:

The Bergsvick Creek habitat survey extended 613 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 6.0. Land use for the reach was rural residential and mature (50-90 cm dbh) trees. The average unit gradient was 0.8 percent. Scour pools (57%) dominated stream habitat. Gravel (37%) and cobble (27%) dominated stream substrate. Wood volume was low at 6.4 m³/100m.

COMMENTS:

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

REACH 1

T5N-R9W-S26NE

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: 6.0 range: 6.0-6.0

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	613	2,391	0
Secondary	85	206	5

Channel Dimensions (m)

<u>Wetted</u>		<u>Active</u>		<u>Floodprone</u>	<u>First Terrace</u>
Width	3.7	Width	9.5	0.0	10.9
Depth	0.45	Height	0.6	0.0	1.2
		W:D ratio	15.8	Entrenchment	**.*

Stream Flow Type: LF Water Temp: 0.0-0.0°C
Avg. Unit Gradient: 0.8% Habitat Units/100m: 5.9

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	RR	MT
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: 96%
Undercut Banks	3%	Range: 78-100

Large Woody Debris

	<u>Total</u>	<u>Total/100m</u>
All pieces (≥3m x 0.15m)	26	4.2
Volume (m ³)	39	6.4
Key pieces (≥10m x 0.6m)	2	0.3

REACH 1

T5N-R9W-S26NE

REACH 1

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
DRY CHANNEL	4	61	3.2	0.00	149	0	10	8	38	45	0	0
GLIDE	5	72	3.8	0.37	297	0	1	13	28	27	0	31
POOL-ISOLATED	2	11	1.6	0.40	18	0	40	8	23	18	2	8
POOL-LATERAL SCOUR	15	335	4.1	0.84	1,366	0	6	14	31	18	0	31
POOL-STRAIGHT SCOUR	2	34	3.5	0.76	127	0	10	15	25	5	0	45
PUDDLED CHANNEL	1	13	3.0	0.12	39	0	5	15	60	20	0	0
RAPID/BEDROCK	1	19	3.0	0.20	57	0	0	0	0	0	0	100
RIFFLE	7	126	3.6	0.14	430	0	0	8	53	37	0	2
STEP/COBBLE	4	28	4.1	0.08	114	0	0	0	55	45	0	0
Total:	41	697	3.7	0.45	2,597	0	Avg: 6	10	37	27	0	20

HABITAT SUMMARY

Habitat Group	No. Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area (m ²)	Percent	Large Boulders Number	#/100m ²
Dammed & BW Pools	2	11	1.6	0.40	18	0.70	0	0.0
Scour Pools	17	369	4.1	0.83	1,493	57.49	0	0.0
Glides	5	72	3.8	0.37	297	11.45	0	0.0
Riffles	7	126	3.6	0.14	430	16.54	0	0.0
Rapids	1	19	3.0	0.20	57	2.19	0	0.0
Cascades	0	0	-	-	0	0.00	0	0.0
Step/Falls	4	28	4.1	0.08	114	4.40	0	0.0
Dry	5	74	3.2	0.02	188	7.22	0	0.0

POOL SUMMARY

All Pools	<u>Total</u>	<u>#/Km</u>
	19	27.3
Pools ≥1m deep:	4	5.7
Complex pools (LWD pieces ≥3):	2	2.9
Pool Frequency (channel widths/pool):	3.9	
Residual pool depth (avg)	0.69m	

STREAM SUMMARY

BERGSVICK CREEK 1996 REFERENCE

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	
41	697	3.7	0.45	2,597	6	10	37	27	0	20	0

Wetted Area

Habitat Group	(m ²)	Percent
Scour Pool	1,493	57.5
Backwater Pools	18	0.7
Glide	297	11.4
Riffle	430	16.5
Rapid	57	2.2
Cascade	0	0.0
Step	114	4.4
Dry	188	7.2

REACH 1

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1

Summary of Riparian Zone (0-30m) (1 transects)

Total hardwoods/1000 ft	853
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	1.0	0.0	0.0	0.0	6.0	0.0	7.0
15-30cm	0.0	0.0	0.0	2.0	0.0	1.0	0.0	3.0
30-50cm	0.0	1.0	2.0	2.0	1.0	0.0	3.0	3.0
50-90cm	0.0	0.0	0.0	0.0	0.0	1.0	0.0	1.0
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m ²	0.0	2.0	2.0	4.0	1.0	8.0	1.0	4.7

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10-20 meters		Zone 3 20-30 meters	
	(%)		(%)		(%)	
Canopy closure	83		98		75	
Shrub cover	55		5		20	
Grass/forb cover	45		95		60	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10-20 meters		Zone 3 20-30 meters	
	Hillslope	0		0		0
High terrace	50		50		100	
Low terrace	50		50		0	
Floodplain	0		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	0		0		0	
Riprap	0		0		0	
Surface slope (%)	0		0		0	

Summary of Riparian Zone (0-30m) for all reaches (1 transects)

Summary of riparian zone (0-100ft) extrapolated to 1,000 feet along stream

Total hardwoods/1000 ft	853
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	0.0	7.0
15-30cm	0.0	3.0
30-50cm	3.0	3.0
50-90cm	0.0	1.0
>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	
32	LF	1	LT	0.0	95	40	60	Conifer	0	0	0	0	0	
								Hardwood	0	0	1	0	0	
32	LF	2	LT	0.0	95	0	100	Conifer	0	0	0	0	0	
								Hardwood	0	2	2	0	0	
32	LF	3	HT	0.0	90	0	100	Conifer	0	0	1	0	0	
								Hardwood	2	0	0	1	0	
32	RT	1	HT	0.0	70	70	30	Conifer	0	0	0	0	0	
								Hardwood	1	0	0	0	0	
32	RT	2	HT	0.0	100	10	90	Conifer	0	0	2	0	0	
								Hardwood	0	0	0	0	0	
32	RT	3	HT	0.0	60	40	20	Conifer	0	0	0	0	0	
								Hardwood	4	1	0	0	0	