

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

STREAM: Bergsvick Creek (NC-117)  
BASIN: Necanicum River  
SURVEY TYPE: Post-Tx  
DATE: July 25, 1996  
SURVEY CREW: Barry Thom, Matt Rowe  
REPORT PREPARED BY: Paul Jacobsen  
BASIN AREA: 12.1 km<sup>2</sup>  
USGS MAPS: Necanicum Junction  
ECOREGION: Coast Range Sitka Spruce

**GENERAL DESCRIPTION:**

The Bergsvick Creek habitat survey extended 430 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 17.0 (range: 6.0 – 61.0). Land use for the reach was mature (50-90 cm dbh) and young (3-15 cm dbh) trees. The average unit gradient was 1.1 percent. Scour pools (38%) and slackwater (24%) dominated stream habitat. Gravel (41%) and cobble (31%) dominated stream substrate. Wood volume was low at 18.3 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 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: 17.0 range: 6.0-61.0

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	430	1,907	0
Secondary	166	951	2

Channel Dimensions (m)

<u>Wetted</u>		<u>Active</u>		<u>Floodprone</u>	<u>First Terrace</u>
Width	4.2	Width	9.7	0.0	10.9
Depth	0.42	Height	0.6	0.0	0.8
		W:D ratio	16.8	Entrenchment	**.*

Stream Flow Type: LF Water Temp: 0.0-0.0°C  
 Avg. Unit Gradient: 1.1% Habitat Units/100m: 8.1

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	MT	YT
Riparian Vegetation:	M50	G

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding	0%	Reach avg: 77%
Undercut Banks	1%	Range: 31-100

Large Woody Debris

	<u>Total</u>	<u>Total/100m</u>
All pieces ( $\geq 3m \times 0.15m$ )	58	13.5
Volume ( $m^3$ )	79	18.3
Key pieces ( $\geq 10m \times 0.6m$ )	4	0.9

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 <sup>2</sup> )	Large Boulders (>0.5m)	Substrate Percent Wetted Area					
							S/O	Snd	Grvl	Cbbl	Bldr	Bdrk
DRY CHANNEL	2	36	7.5	0.00	282	0	0	0	50	50	0	0
GLIDE	2	47	5.8	0.28	272	0	5	8	63	25	0	0
POOL-ALCOVE	2	52	7.5	0.60	377	0	100	0	0	0	0	0
POOL-BACKWATER	2	5	3.2	0.35	18	0	5	50	30	15	0	0
POOL-BEAVER DAM	1	28	6.8	0.60	192	0	45	45	5	5	0	0
POOL-DAMMED	2	27	3.8	0.70	94	0	13	28	45	15	0	0
POOL-ISOLATED	2	7	1.0	0.29	7	0	40	8	30	23	0	0
POOL-LATERAL SCOUR	15	241	3.8	0.76	1,003	0	12	18	38	29	2	0
POOL-PLUNGE	1	7	3.5	0.65	25	0	5	5	70	20	0	0
POOL-STRAIGHT SCOUR	2	19	3.3	0.80	60	0	5	18	48	30	0	0
RAPID/BOULDERS	2	25	4.6	0.06	166	0	5	5	35	55	0	0
RIFFLE	6	70	2.6	0.14	193	0	1	4	57	38	0	0
STEP/COBBLE	6	30	5.2	0.10	160	0	0	0	42	58	0	0
STEP/LOG	2	2	4.8	0.04	7	0	0	25	65	10	0	0
STEP/STRUCTURE	1	2	3.0	0.08	5	0	45	45	5	5	0	0
<b>Total:</b>	<b>48</b>	<b>595</b>	<b>4.2</b>	<b>0.42</b>	<b>2,858</b>	<b>0</b>	<b>Avg:13</b>	<b>14</b>	<b>41</b>	<b>31</b>	<b>1</b>	<b>0</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	9	118	4.2	0.50	687	24.04	0	0.0
Scour Pools	18	267	3.8	0.76	1,087	38.04	0	0.0
Glides	2	47	5.8	0.28	272	9.52	0	0.0
Riffles	6	70	2.6	0.14	193	6.75	0	0.0
Rapids	2	25	4.6	0.06	166	5.80	0	0.0
Cascades	0	0	-	-	0	0.00	0	0.0
Step/Falls	9	33	4.8	0.08	171	5.99	0	0.0
Dry	2	36	7.5	0.00	282	9.87	0	0.0

POOL SUMMARY

	Total	#/Km
All Pools	27	45.4
Pools ≥1m deep:	4	6.7
Complex pools (LWD pieces ≥3):	5	8.4
Pool Frequency (channel widths/pool):	2.3	
Residual pool depth (avg)	0.61m	

STREAM SUMMARY

BERGSVICK CREEK 1996 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	
48	595	4.2	0.42	2,858	13	14	41	31	1	0	0

Wetted Area

Habitat Group	(m <sup>2</sup> )	Percent
Scour Pool	1,087	38.0
Backwater Pools	687	24.0
Glide	272	9.5
Riffle	193	6.7
Rapid	166	5.8
Cascade	0	0.0
Step	171	6.0
Dry	282	9.9

REACH 1

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1

Summary of Riparian Zone (0-30m) (2 transects)

Total hardwoods/1000 ft	732
Total conifers/1000 ft	975
Total conifers >20" dbh/1000 ft	30
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	3.0	2.5	5.5	2.5	8.5	6.0
15-30cm	1.0	3.5	1.0	1.5	3.0	0.0	5.0	5.0
30-50cm	2.0	0.5	0.0	0.0	0.0	0.0	2.0	0.5
50-90cm	0.5	0.0	0.0	0.0	0.0	0.5	0.5	0.5
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m <sup>2</sup>	3.5	5.0	4.0	4.0	8.5	3.0	5.3	4.0

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10-20 meters		Zone 3 20-30 meters	
	(%)		(%)		(%)	
Canopy closure	70		48		73	
Shrub cover	13		15		18	
Grass/forb cover	79		85		83	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10-20 meters		Zone 3 20-30 meters	
	Hillslope	25		25		25
High terrace	50		50		50	
Low terrace	25		25		25	
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 (%)	1		3		3	

Summary of Riparian Zone (0-30m) for all reaches ( 2 transects)

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

Total hardwoods/1000 ft	732
Total conifers/1000 ft	975
Total conifers >20" dbh/1000 ft	30

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	8.5	6.0
15-30cm	5.0	5.0
30-50cm	2.0	0.5
50-90cm	0.5	0.5
>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	
60	LF	1	LT	0.0	70	0	100	Conifer	0	0	0	0	0	
								Hardwood	0	3	0	0	0	
60	LF	2	LT	0.0	90	0	100	Conifer	0	0	0	0	0	
								Hardwood	0	2	0	0	0	
60	LF	3	LT	0.0	100	0	100	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	1	0	
60	RT	1	HT	0.0	100	30	70	Conifer	0	0	1	1	0	
								Hardwood	2	2	0	0	0	
60	RT	2	HT	0.0	0	50	50	Conifer	3	0	0	0	0	
								Hardwood	0	0	0	0	0	
60	RT	3	HT	0.0	0	50	50	Conifer	6	0	0	0	0	
								Hardwood	0	0	0	0	0	
90	LF	1	HT	0.0	70	0	65	Conifer	0	2	2	0	0	
								Hardwood	0	2	0	0	0	
90	LF	2	HT	0.0	0	0	100	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
90	LF	3	HT	0.0	90	10	90	Conifer	2	4	0	0	0	
								Hardwood	5	0	0	0	0	
90	RT	1	HS	5.0	40	20	80	Conifer	0	0	1	0	0	
								Hardwood	0	0	1	0	0	
90	RT	2	HS	10.0	100	10	90	Conifer	3	2	0	0	0	
								Hardwood	5	1	0	0	0	
90	RT	3	HS	10.0	100	10	90	Conifer	3	2	0	0	0	
								Hardwood	0	0	0	0	0	

# STREAM HABITAT STATUS SHEET

**STREAM NAME** Bergsvich Cr 1996 Post 7c **CONTRACT** \_\_\_\_\_  
**BASIN** Nelacicum **CREW** B. Thom, M. Rowel

**DATE                      FILENAME                      COMMENTS**

ENTRY			ENTERED BY:
REACH	11/26/06	B0961	HR.DBF <i>[Signature]</i>
UNIT 1			U1.DBF
UNIT 2			U2.DBF
UNIT CHECK			CHK.DBF
RIPARIAN			RP.DBF
WOOD			WD.DBF

ANALYSIS			ANALYZED BY:
CALIBRATION			CAL.DBF
MAP SUMMARY/CORRECTIONS			
WOOD EXPAND			WE.DBF
UNIT LINK			UX.DBF
UNIT LINK WITH WOOD			UX2.DBF
PROFILES + COMMENT SUMMARY			PRO.XLS
HABITAT REPORT LINK			LNK.DBF
RIPARIAN LINK			RLK.DBF

FINAL REPORT			COMPLETED BY:
BAR GRAPHS			BAR.XLS
COVER + REPORT			COV.DOC
PHOTOS			
REPORT MAPS			
REACH ENTRY			

**COMMENTS / NOTES**

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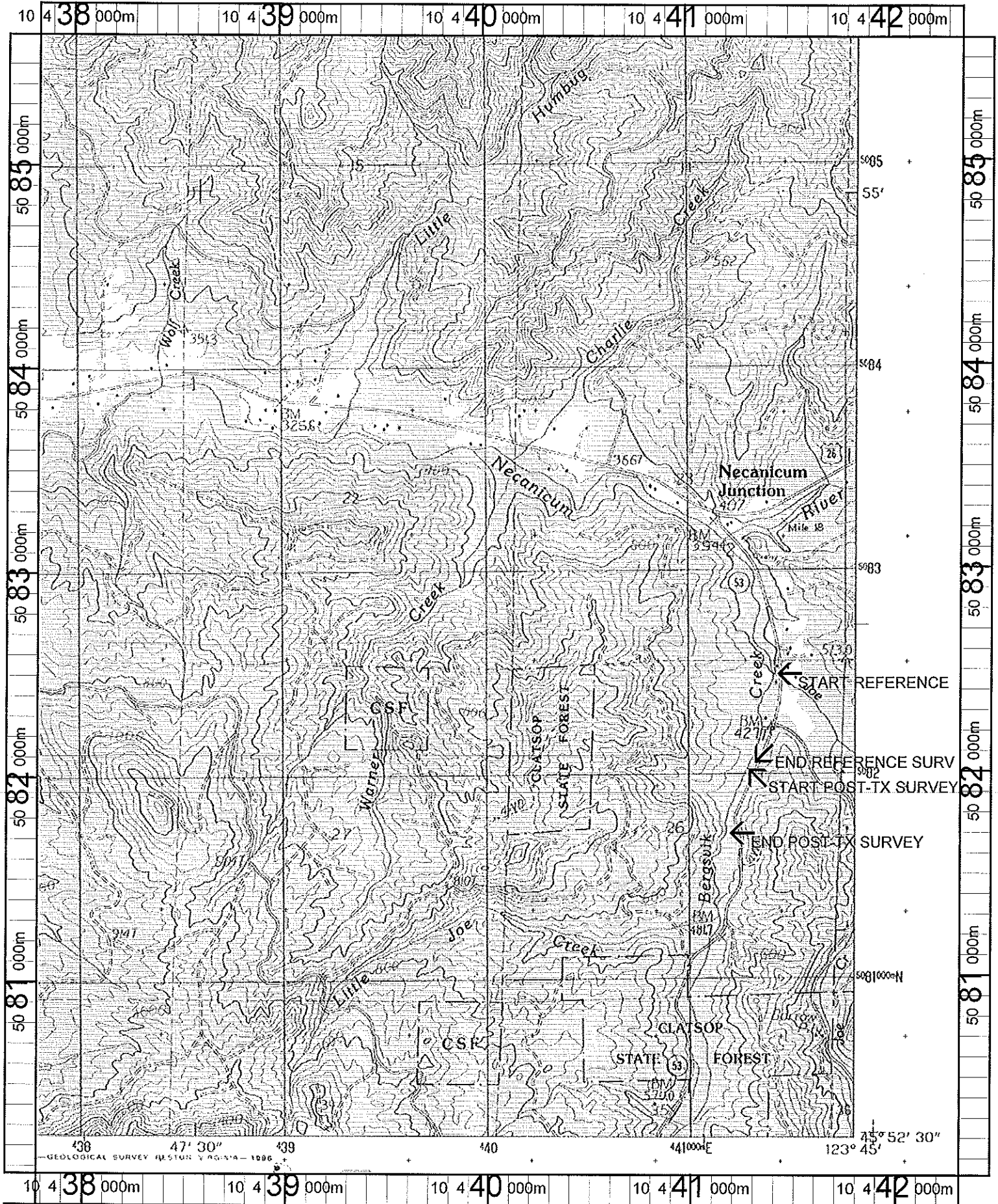
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OREGON PLAN / REFERENCE SURVEYS			
BASIN AREA	BEAVER DAMS	# 1	MAJOR FAILURES #
STREAM ORDER	BEAVER ACTIVITY	# 3	DEBRIS JAMS #
JAMS FROM WOOD SHEETS # 5	CULVERT CROSSINGS	#	HABITAT STRUCTURES # 5





Name: NECANICUM JUNCTION  
 Date: 5/30/101  
 Scale: 1 inch equals 2000 feet

Location: 10 439976 E 5082813 N  
 Caption: 4 - 6 YEAR POST-TX AND REFERENCE SURVEY -  
 BERGSVIK CREEK - NECANICUM BASIN