

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

STREAM: Beerman Creek (N-6)
BASIN: Necanicum River
SURVEY TYPE: Post-Tx
DATE: August 13, 2007
SURVEY CREW: Trevor Diemer, Nathan Wilson
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 6.6 km²
USGS MAPS: Tillamook Head
ECOREGION: Coast Range Coastal Uplands

GENERAL DESCRIPTION:

The Beerman Creek habitat survey extended 558 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 8.6 (range: 3.0-10.0). Land use for the reach was mature (50-90 cm dbh) and second growth (15-30 cm dbh) trees. The average unit gradient was 3.0 percent. Rapids (54%) and scour pools (37%) dominated stream habitat. Gravel (39%) and cobble (38%) dominated stream substrate. Wood volume was moderate at 22.0 m³/100m.

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

T06N-R10W-S34NE

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	8.6	VWI Range:	3 - 10

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	0%	Single Channel	0%
Bedrock	0%	Multiple Channel	0%
Terrace	0%	Braided Channel	0%
Alt. Terrace/Hill	100%		
Landuse	0%		

Channel Characteristics

<u>Type</u>	<u>Length (m)</u>	<u>Area (m2)</u>	<u>Dry Units</u>
Primary Channel	558	2,778	0
Secondary Channel	0	0	0
Off-Channel Units	12	7	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 4.7	Width: 5.9	7.3 (6 - 8.5)	9.0 (7 - 12)
Depth: 0.35	Height: 0.4	0.9 (0.8 - 0.9)	1.3 (1.1 - 1.5)

W:D ratio: 13.4
 Stream Flow Type: LF
 Average Unit Gradient: 3.0%
 Water temperature (°C): 13.0 - 13.0

Entrenchment (ACW:FPW ratio): 1.2
 Habitat Units/100m (total channel length): 7.7
 Habitat Units/100m (primary channel length): 7.9

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	MT	ST
Riparian Vegetation:	M30	D15

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	3%	Reach avg: 99%
Undercut Banks:	8%	Range: 78 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	107	19.2
Volume (m ³):	123	22.0
Key pieces (>=12m x 0.60m):	2	0.4

HABITAT INVENTORY

Report Date: 11/14/2007

Survey Date:

8/13/2007

REACH 1		T06N-R10W-S34NE					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	Cbl	Bldr	Bdrk
POOL-BACKWATER	1	2	1.0	0.15	2	0	15	30	40	15	0	0
POOL-LATERAL SCOUR	19	193	5.1	0.72	1,018	11	3	12	38	34	10	2
RAPID/BOULDERS	20	310	4.5	0.06	1,499	66	0	4	40	43	13	0
RIFFLE	1	19	3.0	0.07	57	0	0	5	35	50	10	0
RIFFLE W/ POCKETS	1	40	4.5	0.15	180	2	5	15	35	35	10	0
STEP/COBBLE	1	5	5.0	0.07	23	2	0	0	40	45	15	0
STEP/LOG	1	1	7.0	0.05	7	2	0	10	50	30	10	0
Total:	44	570	4.7	0.35	2,785	83	Avg: 2	9	39	38	11	1

HABITAT SUMMARY									
Habitat Group	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area		Large Boulders		
					(m ²)	Percent	Number	(# / 100m ²)	
Dammed & BW Pools	1	2	1.0	0.15	2	0.07%	0	0.0	
Scour Pools	19	193	5.1	0.72	1,018	36.54%	11	1.1	
Glides	0	0			0	0.00%	0	0.0	
Riffles	2	59	3.8	0.11	237	8.51%	2	0.8	
Rapids	20	310	4.5	0.06	1,499	53.82%	66	4.4	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	2	6	6.0	0.06	30	1.06%	4	13.6	
Dry	0	0			0	0.00%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

POOL SUMMARY			
	Total	Total of all Channel Lengths # / Km	Primary Channel Length # / Km
All Pools:	20	35.1	35.9
Pools >=1m deep:	4	7.0	7.2
Complex pools (LWD pieces>=3):	8	14.0	14.3
Pool frequency (channel widths/pool):	4.8		
Residual pool depth (avg):	0.67		

Survey Date 8/13/2007
Report Date: 11/7/2007

**RIPARIAN ZONE
VEGETATION SUMMARY**

REACH 1

Summary of Riparian Zone (0-30m) 5 transects

Total hardwoods/1000	524
Total conifers/1000 ft	975
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	0.2	0.4	1.2	0.6	0.8	0.0	2.2	1.0
15-30cm	1.0	5.6	3.0	1.0	4.8	0.2	8.8	6.8
30-50cm	0.4	0.6	1.8	0.2	2.8	0.0	5.0	0.8
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/100m2	1.6	6.6	6.0	1.8	8.4	0.2	5.3	2.9

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	81		80		81	
Shrub cover	25		21		13	
Grass/forb cover	72		68		70	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	30		50		60	
High terrace	70		50		40	
Low terrace	0		0		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 (%)	22		10		13	

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

5 transects

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

Total hardwoods/1000	524
Total conifers/1000 ft	975
Total conifers >20" dbh/1000 ft	0
Total conifers >35" dbh/1000 ft	0

Average number of trees in a 5-m wide band

Diameter class (cm)	Zones 1-3	
	<u>0-30 meters</u>	
	<u>Conifer</u>	<u>Hardwood</u>
3-15cm	2.2	1.0
15-30cm	8.8	6.8
30-50cm	5.0	0.8
50-90cm	0.0	0.0
>90cm	0.0	0.0

RIPARIAN ZONE VEGETATION

Reach 1

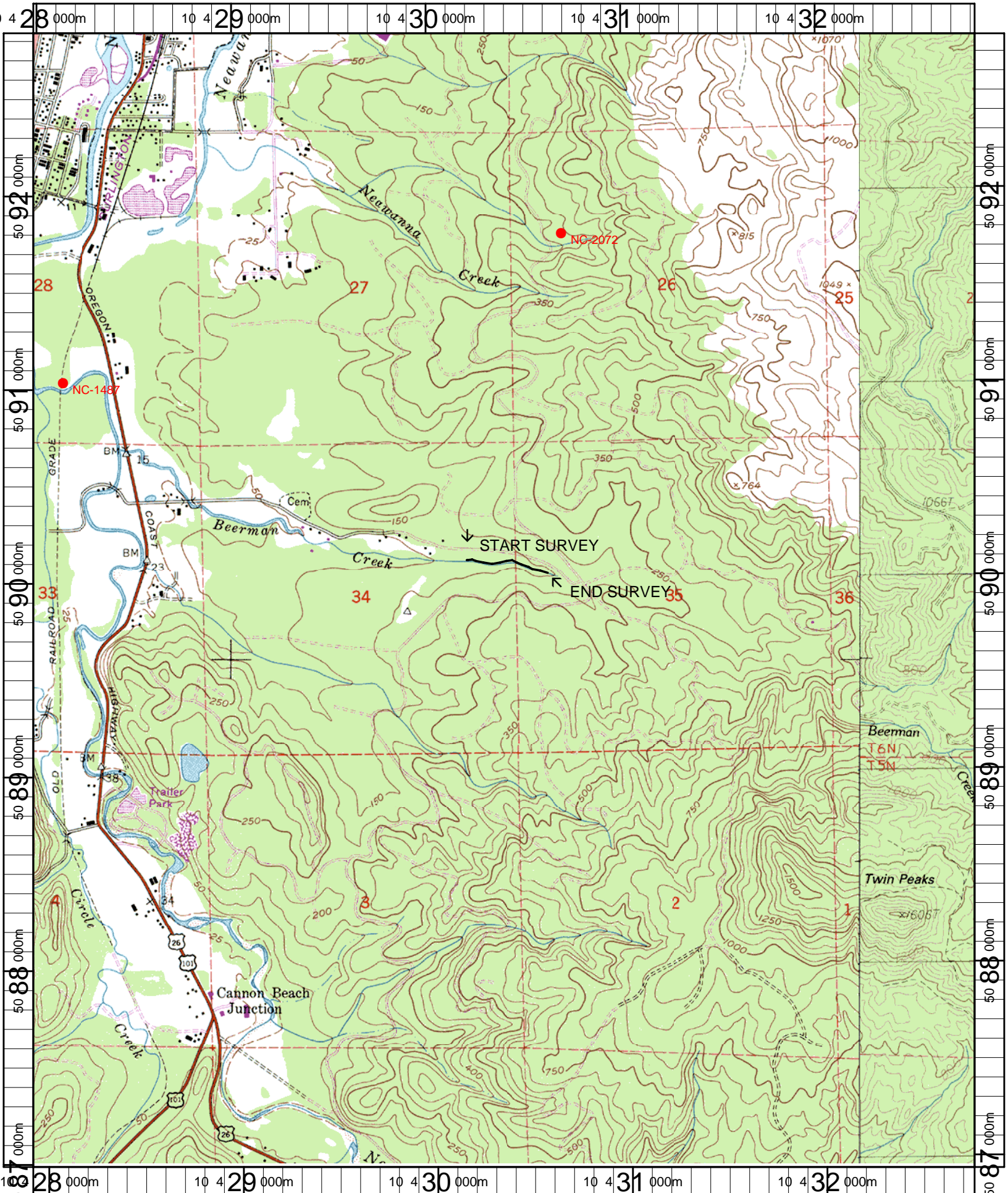
Reach 1

Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes	
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90		
1	LT	1	HT	0	85	25	75	Conifer							
								Hardwood		2					
1	LT	2	HT	0	90	40	60	Conifer	2	1					
								Hardwood	2	1					
1	LT	3	HS	25	95	25	75	Conifer			4				ROAD BED
								Hardwood		1					
1	RT	1	HT	0	90	40	60	Conifer							
								Hardwood		4	1				
1	RT	2	HS	15	90	30	70	Conifer							
								Hardwood		1	1				
1	RT	3	HS	15	95	10	90	Conifer				3			
								Hardwood							
12	LT	1	HT	0	90	15	85	Conifer				1			GPS
								Hardwood		4					0430301
12	LT	2	HT	0	90	10	90	Conifer	1			2			5090068
								Hardwood							
12	LT	3	HT	0	90	10	90	Conifer			3	1			
								Hardwood							
12	RT	1	HS	75	90	10	90	Conifer							
								Hardwood		5					
12	RT	2	HS	10	90	0	60	Conifer		4	3				40% DUFF
								Hardwood							
12	RT	3	HS	15	90	0	50	Conifer		4	2				50% DUFF
								Hardwood							
19	LT	1	HT	0	85	15	85	Conifer		1					0430409
								Hardwood							5090051
19	LT	2	HT	0	90	0	100	Conifer		1	2				2D
								Hardwood							
19	LT	3	HT	0	90	0	100	Conifer		1	3				
								Hardwood							
19	RT	1	HS	75	90	10	90	Conifer				1			
								Hardwood		3					
19	RT	2	HS	10	90	0	60	Conifer	2	5					40%DUFF
								Hardwood	0	0					
19	RT	3	HS	10	90	0	40	Conifer	2	4	1				60%DUFF
								Hardwood							

COMMENT SUMMARY

MONITORING AREA: 1-NC SITE ID: 6 STREAM: BEERMAN CREEK POST-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	LP	00	7	HS	
3	LP	00	38	HS	
5	LP	01	57	/TJ	
7	RB	00	79	HS	
8	LP	00	93	HS	
10	LP	00	111	HS	
11	RB	00	133	HS	
15	LP	00	186	HS	
16	RB	00	220	HS	
17	LP	00	236	HS	
24	RB	00	298.5	/SS	
25	LP	00	307.5	HS	
29	RP	00	371.5	HS, WL	SITE 8, SMALL POOLS SHORTER THAN ACTIVE, SAW BLACK BEAR RAN SOUTH
31	LP	00	399.5	HS	
34	LP	01	428.5	HS	
41	LP	00	502.5	HS	
42	RB	00	512.5	HS	
43	LP	00	521.5	HS	



Name: TILLAMOOK HEAD
 Date: 4/25/2007
 Scale: 1 inch equals 2000 feet

Location: 10 0430369 E 5089888 N
 Caption: BEERMAN CREEK RESTORATION SITE - NECANICUM BASIN