

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

STREAM: East Humbug Creek (N-225)  
BASIN: Nehalem River  
SURVEY TYPE: Post-Tx  
DATE: August 20, 2005  
SURVEY CREW: Scott Young, Ben Walczak  
REPORT PREPARED BY: Paul Jacobsen  
BASIN AREA: 23.2 km<sup>2</sup>  
USGS MAPS: Vinemaple  
ECOREGION: Coast Range Astoria Willapa

**GENERAL DESCRIPTION:**

The East Humbug Creek habitat survey extended 968 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 3.5 (range: 1.1-5.0). Land use for the reach was second growth trees. The average unit gradient was 1.1 percent. Riffles (44%) and scour pools (38%) dominated stream habitat. Cobble (34%) and gravel (28%) dominated stream substrate. Wood volume was low at 16.4 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

T05N-R08W-S13NW

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	3.5	VWI Range:	1.1 - 5

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	968	5,497	0
Secondary Channel	77	310	2
Off-Channel Units	58	128	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 6	<u>First Terrace</u> n = 5
Width: 5.3	Width: 9.5	12.1 ( 3 - 16.3 )	16.5 ( 13.7 - 19.4 )
Depth: 0.38	Height: 0.4	0.9 ( 0.2 - 1 )	1.5 ( 1.3 - 1.7 )

W:D ratio: 21.7  
 Stream Flow Type: LF  
 Average Unit Gradient: 1.1%  
 Water temperature (°C): -

Entrenchment (ACW:FPW ratio): 1.3  
 Habitat Units/100m (total channel length): 4.0  
 Habitat Units/100m (primary channel length): 4.5

**Riparian, Bank, and Wood Summary**

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

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	5%	Reach avg: 58%
Undercut Banks:	0%	Range: 47 - 78

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	158	16.3
Volume (m <sup>3</sup> ):	158	16.4
Key pieces (>=12m x 0.60m):	4	0.4

OREGON DEPT OF FISH AND WILDLIFE

EAST HUMBUG CREEK POST-TX (1-NC, 225)

HABITAT INVENTORY

Report Date: 4/26/2006

Survey Date:

8/20/2005

REACH 1		T05N-R08W-S13NW					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	Cbl	Bldr	Bdrk
DRY CHANNEL	1	15	4.0	0.00	62	0	0	5	21	74	0	0
POOL-ALCOVE	1	12	2.0	0.10	24	0	28	56	11	6	0	0
POOL-BACKWATER	1	19	3.0	0.20	56	0	90	10	0	0	0	0
POOL-ISOLATED	1	7	1.5	0.20	11	0	29	59	12	0	0	0
POOL-LATERAL SCOUR	18	411	5.4	0.75	2,260	0	17	26	20	23	0	14
PUDDLED UNIT	1	62	4.0	0.10	248	0	6	12	41	41	0	0
RAPID/BOULDERS	2	65	4.5	0.15	360	0	3	13	42	42	0	0
RIFFLE	16	481	5.3	0.13	2,606	0	0	11	37	45	0	7
STEP/COBBLE	3	31	9.3	0.10	308	0	0	9	40	51	0	0
<b>Total:</b>	<b>44</b>	<b>1,103</b>	<b>5.3</b>	<b>0.38</b>	<b>5,935</b>	<b>0</b>	<b>Avg: 11</b>	<b>19</b>	<b>28</b>	<b>34</b>	<b>0</b>	<b>8</b>

HABITAT SUMMARY									
Habitat Group	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area		Large Boulders		
					(m <sup>2</sup> )	Percent	Number	(# / 100m <sup>2</sup> )	
Dammed & BW Pools	3	38	2.2	0.17	91	1.53%	0	0.0	
Scour Pools	18	411	5.4	0.75	2,260	38.07%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	16	481	5.3	0.13	2,606	43.92%	0	0.0	
Rapids	2	65	4.5	0.15	360	6.07%	0	0.0	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	3	31	9.3	0.10	308	5.20%	0	0.0	
Dry	2	77	4.0	0.05	310	5.22%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

	Total of all Channel Lengths		Primary Channel Length
	<u>Total</u>	<u># / Km</u>	<u># / Km</u>
All Pools:	21	19.0	21.7
Pools >=1m deep:	4	3.6	4.1
Complex pools (LWD pieces>=3):	8	7.3	8.3
Pool frequency (channel widths/pool):	5.5		
Residual pool depth (avg):	0.65		

OREGON DEPARTMENT OF FISH AND WILDLIFE  
HABITAT INVENTORY

EAST HUMBUG CREEK POST-TX  
GCG: 1-NC SITE ID: 225

Survey Date 8/20/2005

RIPARIAN ZONE

Report Date: 4/26/2006

VEGETATION SUMMARY

REACH 1

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

Total hardwoods/1000	386
Total conifers/1000 ft	81
Total conifers >20" dbh/1000 ft	20
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15-30cm	0.0	1.3	0.3	1.7	0.7	1.3	1.0	4.3
30-50cm	0.0	0.3	0.0	0.0	0.0	1.0	0.0	1.3
50-90cm	0.0	0.3	0.0	0.3	0.3	0.0	0.3	0.7
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	0.0	2.0	0.3	2.0	1.0	2.3	0.4	2.1

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	63		63		63	
Shrub cover	13		21		18	
Grass/forb cover	87		79		82	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	17		33		33	
High terrace	83		67		67	
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 (%)	3		8		13	

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

**3 transects**

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

Total hardwoods/1000	386
Total conifers/1000 ft	81
Total conifers >20" dbh/1000 ft	20
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	0.0	0.0
15-30cm	1.0	4.3
30-50cm	0.0	1.3
50-90cm	0.3	0.7
>90cm	0.0	0.0

**RIPARIAN ZONE VEGETATION**

Reach 1

Reach 1

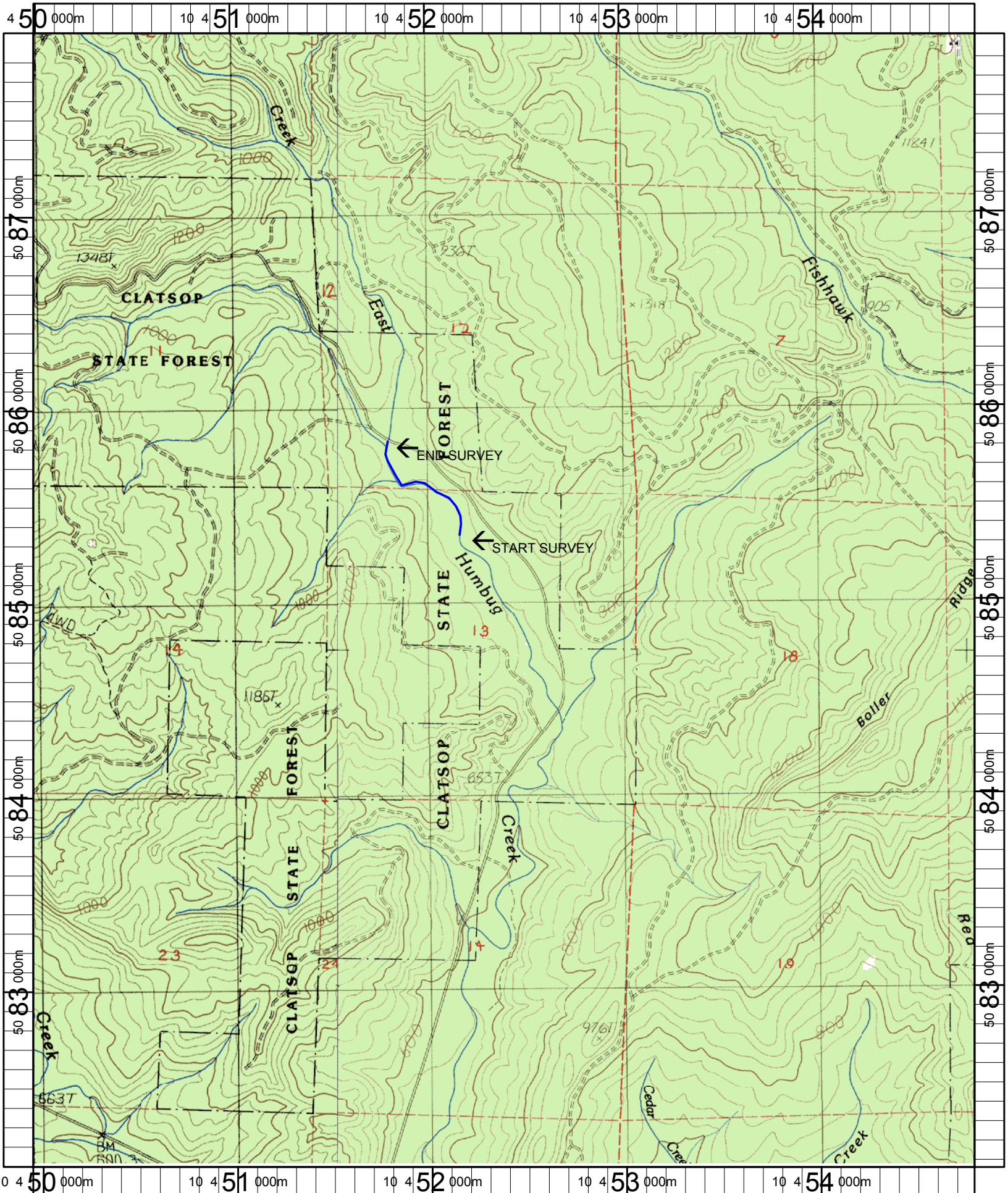
Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes	
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90		
11	RT	3	HT	0	60	15	85	Conifer		1					
								Hardwood			1				
11	RT	2	HT	0	50	15	85	Conifer							
								Hardwood		2					
11	RT	1	HT	0	60	15	85	Conifer							0452094/50855 41
								Hardwood							
11	LF	3	HT	0	80	10	90	Conifer		1					
								Hardwood			1				
11	LF	2	HT	0	80	15	85	Conifer		1					
								Hardwood		1					
11	LF	1	HT	0	80	15	85	Conifer							
								Hardwood		1		1			
25	LF	3	HT	0	80	10	90	Conifer					1		
								Hardwood		2					
25	RT	1	HT	0	70	15	85	Conifer							
								Hardwood		3					
25	RT	2	HS	15	80	30	70	Conifer							
								Hardwood		1					
25	RT	3	HS	40	80	10	90	Conifer							
								Hardwood			1				
25	LF	1	HT	0	80	10	90	Conifer							0451943/50856 22
								Hardwood							
25	LF	2	HT	0	80	10	90	Conifer							
								Hardwood				1			
37	RT	1	HT	0	50	5	95	Conifer							
								Hardwood			1				
37	RT	2	HT	0	50	5	95	Conifer							
								Hardwood		1					
37	LF	3	HS	35	30	60	40	Conifer							
								Hardwood							
37	LF	2	HS	35	40	50	50	Conifer							
								Hardwood							
37	LF	1	HS	15	40	20	80	Conifer							CLEARCUT, POOR GPS
								Hardwood							
37	RT	3	HT	0	50	5	95	Conifer							
								Hardwood		2					

# Comment Summary

## Restoration Monitoring Sites 2005

MONITORING AREA: 1-NC      SITE ID: 225      EAST HUMBUG CREEK POST-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
10	SC	00	245.4		H=0.35M	
11	LP	01	273		RIPARIAN 1	
25	LP	00	590.3		RIPARIAN 2	
28	SC	00	642.6		H=0.35M	
29	LP	00	675.8	LI/		
30	SC	00	679.8		H=0.25M	
34	DC	02	775.8	HS		
35	LP	01	800.8	HS		
36	BW	10	800.8	HS		
37	RI	00	855.8		RIPARIAN 3	
38	LP	01	874.2	HS		
39	RI	11	874.2			TRIB UNIT
42	RI	00	947.5	HS		
43	LP	01	967.5	TJ/, HS	END AT CONFLUENCE	END SURVEY
44	RB	11	967.5			TRIB UNIT



Name: VINEMAPLE  
 Date: 6/9/2005  
 Scale: 1 inch equals 2000 feet

Location: 10 452388 E 5085006 N  
 Caption: EAST HUMBUG CREEK RESTORATION SITE - NEHALEM BASIN