

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

STREAM: East Humbug Creek #2 (N-308)
BASIN: Nehalem River
SURVEY TYPE: Pre-Tx
DATE: July 27, 2005
SURVEY CREW: Scott Young, Ben Walczak
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 23.2 km²
USGS MAPS: Vinemaple
ECOREGION: Coast Range Astoria Willapa

GENERAL DESCRIPTION:

The East Humbug Creek habitat survey extended 806 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 4.8 (range: 4.0-5.0). Land use for the reach was second growth (15-30 cm dbh) trees. The average unit gradient was 2.2 percent. Scour pools (41%), rapids (24%) and riffles (23%) dominated stream habitat. Cobble (36%) and gravel (35%) dominated stream substrate. Wood volume was very low at 8.6 m³/100m.

COMMENTS:

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

REACH 1

T05N-R08W-S12SW

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	4.8	VWI Range:	4 - 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	806	4,108	0
Secondary Channel	211	628	5
Off-Channel Units	26	30	1

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 4.6	Width: 12.0	14.8 (12.6 - 19.9)	17.1 (14.3 - 22)
Depth: 0.31	Height: 0.5	0.9 (0.9 - 1)	1.3 (1.1 - 1.4)

W:D ratio: 25.9

Entrenchment (ACW:FPW ratio): 1.2

Stream Flow Type: MF

Habitat Units/100m (total channel length): 6.6

Average Unit Gradient: 2.2%

Habitat Units/100m (primary channel length): 8.6

Water temperature (°C): -

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	
Riparian Vegetation:	C30	D15

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	4%	Reach avg: 78%
Undercut Banks:	3%	Range: 67 - 89

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	95	11.8
Volume (m ³):	69	8.6
Key pieces (>=12m x 0.60m):	3	0.4

OREGON DEPT OF FISH AND WILDLIFE

EAST HUMBUG CREEK #2 PRE-TX (1-NC, 308)

HABITAT INVENTORY

Report Date: 4/26/2006

Survey Date:

7/27/2005

REACH 1		T05N-R08W-S12SW					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
DRY CHANNEL	2	34	4.0	0.00	136	0	8	37	33	22	0	0
POOL-ISOLATED	3	6	1.1	0.13	8	0	73	15	8	4	0	0
POOL-LATERAL SCOUR	26	367	5.0	0.67	1,964	3	7	26	28	26	0	13
PUDDLED UNIT	4	87	2.1	0.13	155	0	8	9	43	40	0	0
RAPID/BOULDERS	13	243	4.7	0.10	1,142	10	2	11	38	48	1	0
RIFFLE	12	272	3.9	0.10	1,109	0	0	12	42	46	0	0
STEP/COBBLE	9	34	6.7	0.10	252	0	0	5	46	50	0	0
Total:	69	1,044	4.6	0.31	4,765	13	Avg: 7	17	35	36	0	5

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	3	6	1.1	0.13	8	0.16%	0	0.0	
Scour Pools	26	367	5.0	0.67	1,964	41.22%	3	0.2	
Glides	0	0			0	0.00%	0	0.0	
Riffles	12	272	3.9	0.10	1,109	23.27%	0	0.0	
Rapids	13	243	4.7	0.10	1,142	23.97%	10	0.9	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	9	34	6.7	0.10	252	5.29%	0	0.0	
Dry	6	121	2.8	0.08	291	6.10%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

POOL SUMMARY			
	Total of all Channel Lengths		Primary Channel Length
	Total	# / Km	# / Km
All Pools:	29	27.8	36.0
Pools >=1m deep:	3	2.9	3.7
Complex pools (LWD pieces>=3):	7	6.7	8.7
Pool frequency (channel widths/pool):	3.0		
Residual pool depth (avg):	0.58		

Survey Date 7/27/2005
Report Date: 4/26/2006

**RIPARIAN ZONE
VEGETATION SUMMARY**

REACH 1

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

Total hardwoods/1000	183
Total conifers/1000 ft	386
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	0.7	0.7	0.3	0.0	0.0	0.0	1.0	0.7
15-30cm	1.3	0.3	2.0	1.0	1.3	0.7	4.7	2.0
30-50cm	0.3	0.3	0.0	0.0	0.0	0.0	0.3	0.3
50-90cm	0.0	0.0	0.0	0.0	0.3	0.0	0.3	0.0
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	2.3	1.3	2.3	1.0	1.7	0.7	2.1	1.0

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	74		76		75	
Shrub cover	6		7		7	
Grass/forb cover	94		75		65	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	50		50		50	
High terrace	50		50		50	
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 (%)	23		19		19	

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	183
Total conifers/1000 ft	386
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	1.0	0.7
15-30cm	4.7	2.0
30-50cm	0.3	0.3
50-90cm	0.3	0.0
>90cm	0.0	0.0

RIPARIAN ZONE VEGETATION

Reach 1

Reach 1

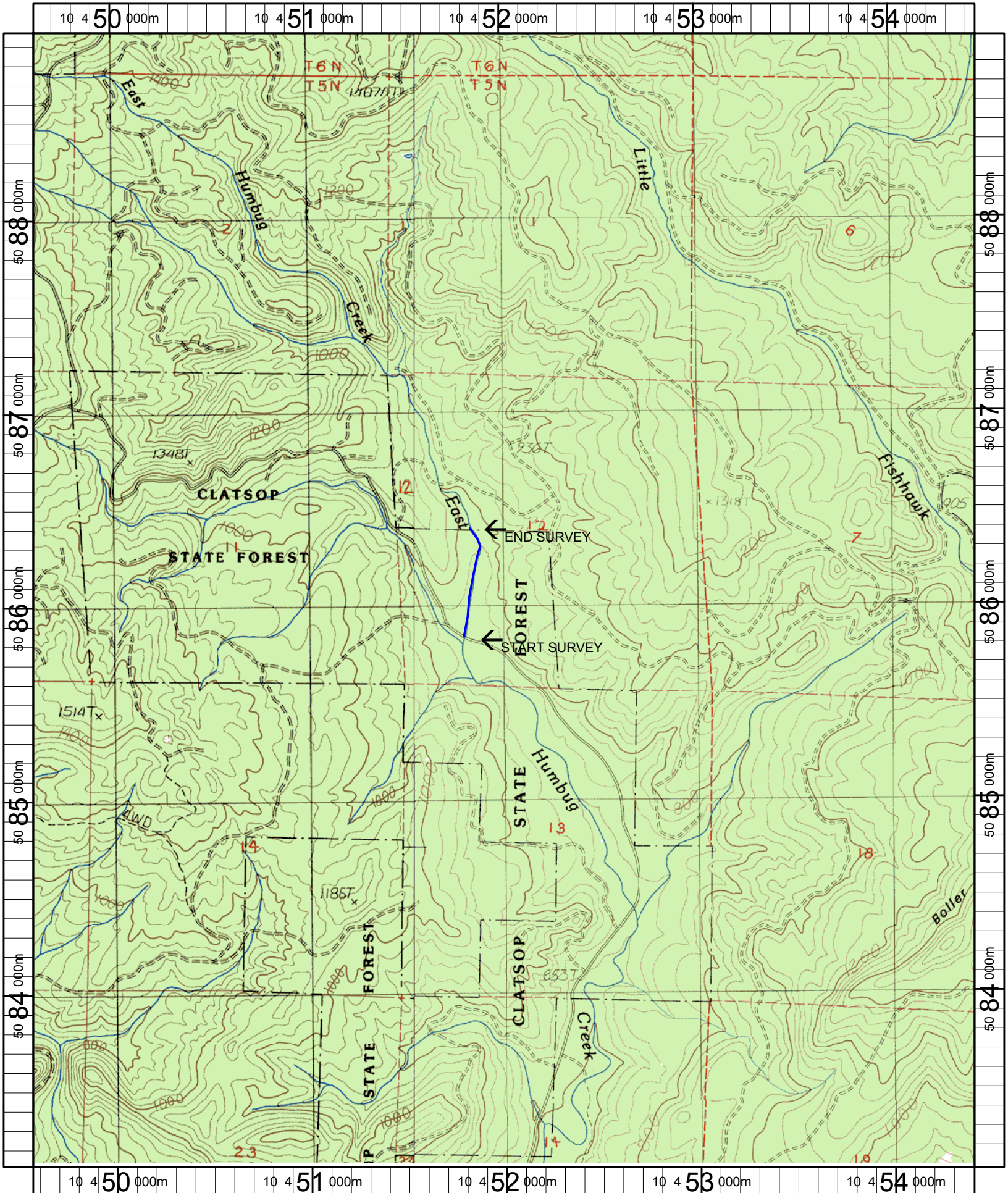
Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes	
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90		
25	RT	3	HS	30	70	10	30	Conifer		1					BARE SOIL
								Hardwood							
25	RT	2	HS	30	60	10	90	Conifer		1					
								Hardwood		1					
25	RT	1	HS	50	60	5	95	Conifer	1						
								Hardwood		1					
25	LF	3	HT	0	75	5	20	Conifer		1					BARE SOIL
								Hardwood							
25	LF	2	HT	0	75	5	20	Conifer	1	1					BARE SOIL
								Hardwood							
25	LF	1	HT	0	65	10	90	Conifer	1	1					2D 0451895/50859 76
								Hardwood							
43	RT	2	HS	70	80	5	60	Conifer		2					35 PCT BARE SOIL
								Hardwood							
43	LF	2	HT	0	80	5	95	Conifer							
								Hardwood		2					
43	RT	1	HS	80	80	5	95	Conifer		1					
								Hardwood							
43	RT	3	HS	70	80	5	60	Conifer				1			35 PCT BARE SOIL
								Hardwood							
43	LF	3	HT	0	65	5	95	Conifer		1					
								Hardwood							
43	LF	1	HT	0	80	5	95	Conifer			1				POOR GPS COVERAGE
								Hardwood	2						
59	RT	2	HS	15	80	10	90	Conifer							
								Hardwood							
59	RT	3	HS	15	80	10	90	Conifer		1					
								Hardwood							
59	RT	1	HS	10	80	5	95	Conifer		1	1				
								Hardwood							
59	LF	3	HT	0	80	5	95	Conifer							
								Hardwood		2					
59	LF	2	HT	0	80	5	95	Conifer		2					
								Hardwood							
59	LF	1	HT	0	80	5	95	Conifer							0451846/50863 20
								Hardwood		1					

Comment Summary

Restoration Monitoring Sites 2005

MONITORING AREA: 1-NC SITE ID: 308 EAST HUMBUG CREEK #2 PRE-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	SC	00	5		START AT CONFLUENCE	
3	RB	01	59.8	BC, /CS		
5	SC	01	73.1		H=0.35M	
7	SC	01	89.7		H=0.3M	
10	SC	02	89.7		H=0.25M	
11	LP	02	89.7	/TJ		
25	RI	00	218.2		RIPARIAN 1	
27	SC	01	241.25		H=0.25M	
42	SC	00	422.95		H=0.25M	
43	LP	01	442.75		RIPARIAN 2	
56	SC	00	625.15		H=0.4M	
58	SC	00	644.55		H=0.4M	
59	LP	01	669.35	/TJ	RIPARIAN 3, PHOTO	
60	RI	11	669.35		ACW 1.5	
67	SC	00	768.55		H=0.2M	
69	RB	00	806.35		END ALDER LEFT	END SURVEY



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

Location: 10 452006 E 5086026 N
 Caption: EAST HUMBUG CREEK #2 RESTORATION SITE - NEHALEM BASIN