

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: Post-Tx
DATE: March 16, 2006
SURVEY CREW: Brian Cannon, Jon Nott
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 23.2 km³
USGS MAPS: Vinemaple
ECOREGION: Coast Range Astoria Willapa

GENERAL DESCRIPTION:

The East Humbug Creek habitat survey extended 794 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 4.4 (range: 3.0-5.0). Land use for the reach was second growth (15-30 cm dbh) and large (30-50 cm dbh) trees. The average unit gradient was 2.0 percent. Scour pools (38%) and riffles (34%) dominated stream habitat. Cobble (36%) and gravel (35%) dominated stream substrate. Wood volume was high at 42.0 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

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	0%
Moderate V-shape	0%	Multiple Terraces	100%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	4.4	VWI Range:	3 - 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	794	5,395	0
Secondary Channel	185	492	0
Off-Channel Units	102	153	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 3
Width: 5.5	Width: 11.1	24.9 (17.5 - 32.2)	23.5 (20.5 - 26)
Depth: 0.46	Height: 0.7	1.4 (1.2 - 1.5)	1.9 (1.7 - 2.1)

W:D ratio: 16.5
 Stream Flow Type: MF
 Average Unit Gradient: 2.0%
 Water temperature (°C): 6.0 - 6.0

Entrenchment (ACW:FPW ratio): 2.3
 Habitat Units/100m (total channel length): 6.1
 Habitat Units/100m (primary channel length): 8.3

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	LT
Riparian Vegetation:	D30	D15

Bank Condition and Shade

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

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	183	23.1
Volume (m ³):	334	42.0
Key pieces (>=12m x 0.60m):	21	2.6

HABITAT INVENTORY

Report Date: 12/6/2006

Survey Date:

3/16/2006

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
CASCADE/BEDROCK	1	1	0.4	0.02	0	0	0	0	0	0	0	100
CASCADE/BOULDERS	1	10	1.0	0.20	10	0	20	40	30	10	0	0
POOL-BACKWATER	2	13	3.5	0.60	42	0	23	50	18	10	0	0
POOL-ISOLATED	3	13	2.4	0.35	30	0	65	17	5	13	0	0
POOL-LATERAL SCOUR	23	376	6.1	0.87	2,322	0	2	20	39	31	3	6
RAPID/BOULDERS	8	169	5.2	0.22	852	0	0	4	31	58	7	0
RIFFLE	14	401	4.7	0.23	2,055	0	6	19	41	30	2	1
STEP/COBBLE	13	98	7.2	0.21	720	0	0	4	34	52	10	0
STEP/LOG	1	1	9.0	0.30	9	0	0	20	60	20	0	0
Total:	66	1,081	5.5	0.46	6,040	0	Avg: 6	16	35	36	4	4

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	5	25	2.9	0.45	72	1.19%	0	0.0	
Scour Pools	23	376	6.1	0.87	2,322	38.43%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	14	401	4.7	0.23	2,055	34.02%	0	0.0	
Rapids	8	169	5.2	0.22	852	14.11%	0	0.0	
Cascades	2	11	0.7	0.11	11	0.18%	0	0.0	
Step/Falls	14	99	7.4	0.22	729	12.07%	0	0.0	
Dry	0	0			0	0.00%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

POOL SUMMARY			
	Total of all Channel Lengths		Primary Channel Length
	<u>Total</u>	<u># / Km</u>	<u># / Km</u>
All Pools:	28	25.9	35.3
Pools >=1m deep:	5	4.6	6.3
Complex pools (LWD pieces>=3):	11	10.2	13.9
Pool frequency (channel widths/pool):	3.5		
Residual pool depth (avg):	0.64		

Comment Summary

Restoration Monitoring Sites 2006

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

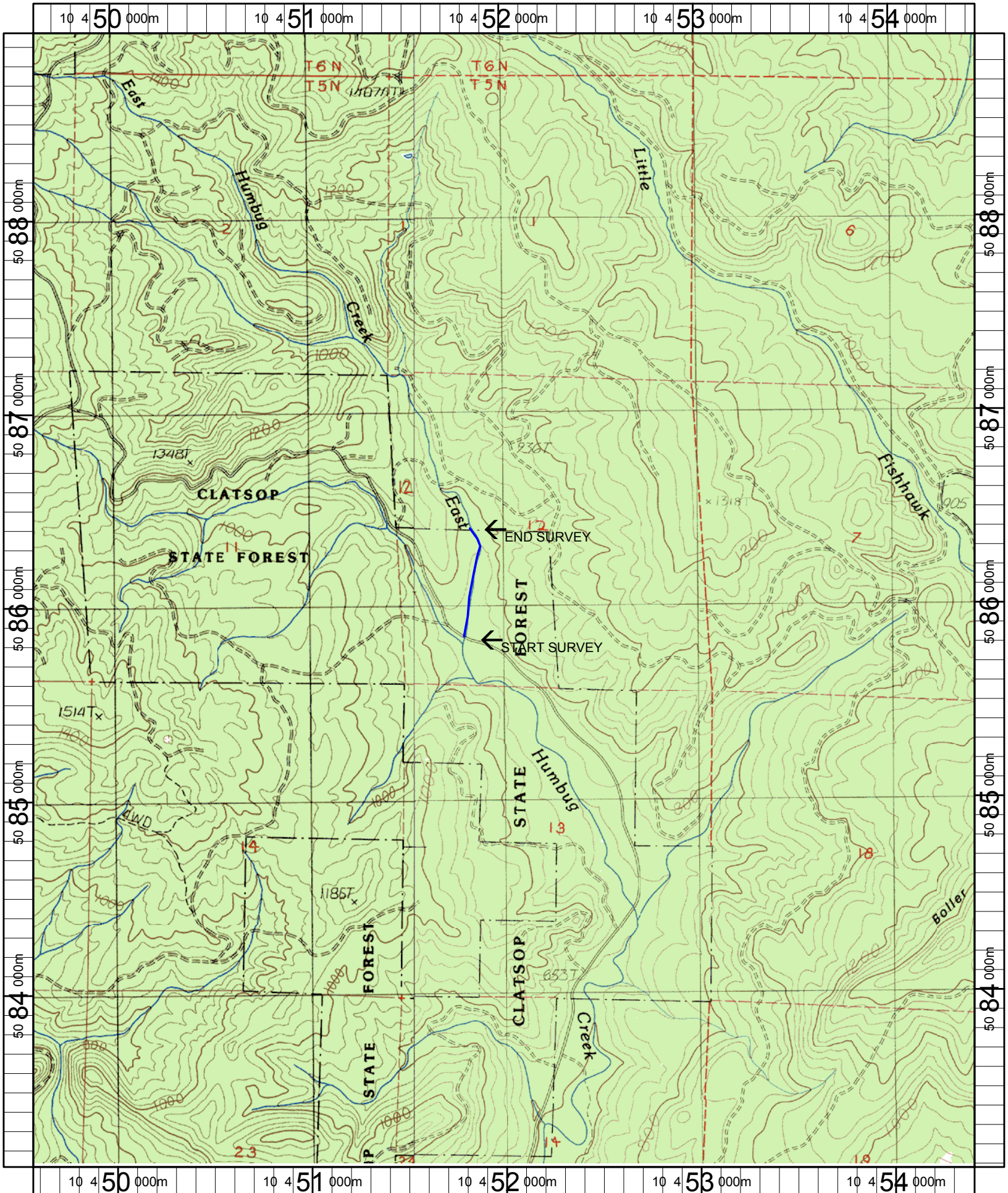
UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	RB	01	43.5	/TJ	T=6.0	
2	CB	11	43.5		ACW = 2.0 m, T = 7.0	
9	SC	01	77.7	HS	5 LOGS, SITE 1	
12	RB	02	77.7	/SS		
14	RI	00	137.2	HS	4 LOGS, 2 ALDERS	
17	SL	01	192.9	HS	6 LOGS, H = 0.5 m	
24	LP	00	294.1		FRESH REDD	
26	LP	00	320.6	HS	2 LOGS	
27	SC	00	325.2	HS	1 LOG	
28	RI	01	365.3	HS, /TJ	3 LOGS	
29	RI	11	365.3		ACW = 1.1 m	
32	LP	00	384.4	HS	4 LOGS	
35	BW	10	403.5	SS/		
44	LP	01	512.3	HS	3 LOGS, 4 ALDERS	
49	RI	01	542.4	/TJ		
50	RI	11	542.4		ACW = 1.5 m	
52	RI	00	582.5	HS	2 LOGS	
53	LP	00	596.2	HS	3 LOGS	
55	LP	00	623.1	HS, DJ	4 LOGS	
57	LP	01	658.2	HS, /TJ	4 LOGS	
58	RI	11	658.2		ACW = 2.3	

Comment Summary

Restoration Monitoring Sites 2006

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

<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
63	RI	00	728	HS	4 LOGS	
64	LP	00	747.9	HS	4 LOGS	
65	RI	01	793.9	/TJ		
66	CR	11	793.9		H = 2.2 m, ACW = 0.9 m	



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