

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

STREAM: East Humbug Creek (NC-225)
BASIN: Nehalem River
SURVEY TYPE: Post-Tx
DATE: February 14, 2005
SURVEY CREW: Sheila Davis, Brian Bangs
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 984 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 5.6 (range: 3.5-7.0). Land use for the reach was timber harvest and second growth (15-30 cm dbh) trees. The average unit gradient was 1.5 percent. Scour pools (37%) and riffles (35%) dominated stream habitat. Gravel (29%) and cobble (25%) dominated stream substrate. Wood volume was very high at 41.7 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-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	0%
Moderate V-shape	0%	Multiple Terraces	100%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	5.6	VWI Range:	3.5 - 7

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	984	6,502	0
Secondary Channel	298	705	7
Off-Channel Units	234	450	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 4
Width: 4.8	Width: 11.7	28.7 (20.9 - 46)	33.3 (22.1 - 54)
Depth: 0.36	Height: 0.5	1.1 (1 - 1.2)	1.9 (1.3 - 2.5)

W:D ratio: 22.0

Entrenchment (ACW:FPW ratio): 2.5

Stream Flow Type: LF

Habitat Units/100m (total channel length): 6.1

Average Unit Gradient: 1.5%

Habitat Units/100m (primary channel length): 9.5

Water temperature (°C): 2.0 - 2.0

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	TH	ST
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):	434	44.1
Volume (m ³):	411	41.7
Key pieces (>=12m x 0.60m):	15	1.5

OREGON DEPT OF FISH AND WILDLIFE

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

HABITAT INVENTORY

Report Date: 11/29/2005

Survey Date:

2/14/2005

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 ²)	Large Boulders (#>0.5m)	Substrate Percent Wetted Area					
							S/O	Snd	Grvl	Cbl	Bldr	Bdrk
CASCADE/BEDROCK	1	10	1.4	0.05	14	0	0	0	0	0	0	100
CASCADE/BOULDERS	1	8	9.6	0.10	72	0	0	5	10	29	57	0
GLIDE	1	24	4.8	0.35	115	0	0	5	30	60	5	0
POOL-BACKWATER	11	98	1.7	0.20	155	0	27	22	34	10	6	0
POOL-LATERAL SCOUR	29	445	5.6	0.75	2,838	0	12	15	28	22	6	17
PUDDLED UNIT	7	169	1.9	0.14	310	0	70	9	14	6	2	0
RAPID/BOULDERS	12	223	5.7	0.16	1,365	0	3	6	28	42	17	4
RIFFLE	29	529	4.9	0.19	2,701	0	8	13	35	29	5	11
STEP/BOULDERS	1	4	10.5	0.10	44	0	10	5	30	50	5	0
STEP/COBBLE	1	5	8.8	0.20	40	0	0	5	10	75	10	0
Total:	93	1,515	4.8	0.36	7,656	0	Avg: 15	13	29	25	7	10

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	11	98	1.7	0.20	155	2.03%	0	0.0	
Scour Pools	29	445	5.6	0.75	2,838	37.07%	0	0.0	
Glides	1	24	4.8	0.35	115	1.50%	0	0.0	
Riffles	29	529	4.9	0.19	2,701	35.29%	0	0.0	
Rapids	12	223	5.7	0.16	1,365	17.83%	0	0.0	
Cascades	2	18	5.5	0.08	86	1.12%	0	0.0	
Step/Falls	2	9	9.7	0.15	85	1.10%	0	0.0	
Dry	7	169	1.9	0.14	310	4.05%	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:	40	26.4	40.7
Pools >=1m deep:	5	3.3	5.1
Complex pools (LWD pieces>=3):	18	11.9	18.3
Pool frequency (channel widths/pool):	3.2		
Residual pool depth (avg):	0.49		

Comment Summary

Restoration Monitoring Sites 2005

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

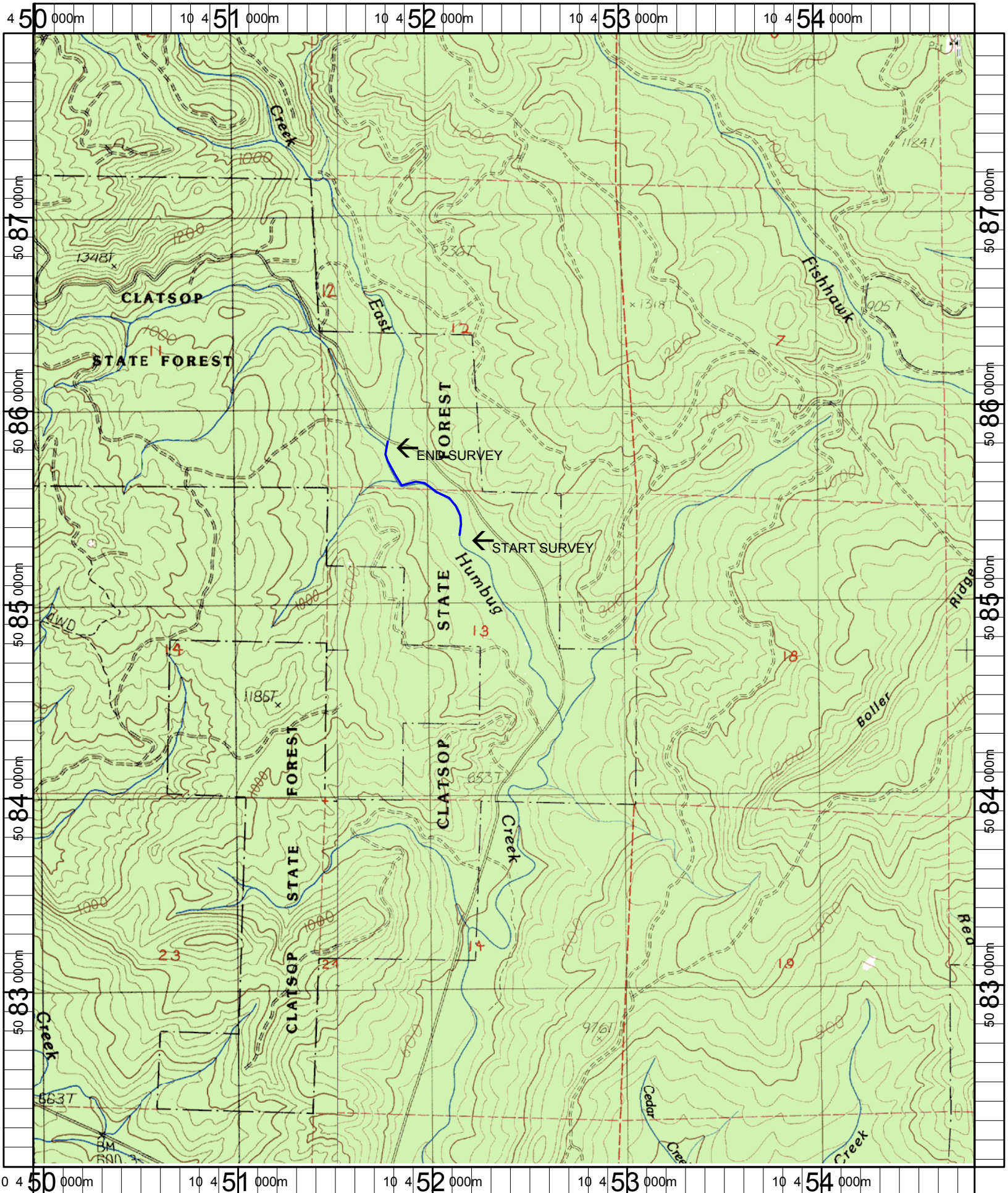
UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	RI	00	9.5	WL	CT MT D50 M30 ST LT, ELK	
2	LP	00	22.1	BV	DIPPERS	
3	RI	01	48.9	BV WL	ELK	
4	BW	10	48.9	BV		
10	LP	00	159	/SS		
12	LP	00	205.6	BV		
15	LP	00	245.9	WL	ELK	
16	RI	00	262.4		CT MT D30 M15 ST LT	
18	RI	01	290.9	DJ		
19	LP	01	304	BV		
21	LP	01	321.1	WL DJ	ELK	
27	RI	03	354.8	WL	ELK	
30	BW	10	354.8	WL	ELK	
31	RI	02	354.8	DJ		
32	LP	02	354.8	BV		
33	LP	02	354.8	WL, DJ	ELK	
36	RB	05	354.8	DJ		
37	LP	05	354.8	DJ		
39	RI	00	388	WL		
48	RI	01	515.8		CT MT D30 G TH LT	
53	LP	00	550.3	LA, DJ		

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
58	PD	02	586.4	DJ		
60	LP	00	622.7	DJ		
62	LP	00	668.1	LS BV DJ		
63	RI	00	676.7	LI		
64	LP	00	702.9	BV		
66	RI	00	754.6	DJ		
69	LP	02	794.5	DJ		
70	PD	02	794.5	DJ		
71	PD	03	794.5		CHANNEL ENDS, NOT CONNECTED	
72	PD	03	794.5		AT CURRENT FLOW, UNABLE TO LOCA	
73	PD	03	794.5		CONTINUED CHANNEL, HYPORHEIC	
74	LP	01	817	WL, DJ		
76	PD	02	843.8	LA, DJ, HS		
77	PD	02	843.8	WL, DJ	CT MT C50 D15 TH MT, ELK	
79	RI	00	868.8	WL, DJ, HS		
85	CB	00	947.2	HS		
90	LP	00	974.9		CARCASS	
91	RB	01	983.5	DJ, HS	CA MT D15 C15 ST	
92	RB	11	983.5	HS, DJ		
93	RI	11	983.5	LA, HS		



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