

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

STREAM: East Humbug Creek (N-225)
BASIN: Nehalem River
SURVEY TYPE: Pre-Tx
DATE: March 18, 2004
SURVEY CREW: Michael Scheu, Carmen Vandyke
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 1,018 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 6.3 (range: 2.5-10.0). Land use for the reach was timber harvest and second growth (15-30 cm dbh) trees. The average unit gradient was 1.0 percent. Scour pools (45%), riffles (21%) and rapids (20%) dominated stream habitat. Cobble (38%) and gravel (32%) dominated stream substrate. Wood volume was high at 24.4 m³/100m.

COMMENTS:

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

The crew noted a great deal of beaver activity, although no beaver ponds 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	6.3	VWI Range:	2.5 - 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	1,018	7,172	0
Secondary	222	554	1

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 8	<u>First Terrace</u> n = 7
Width: 6.3	Width: 13.1	25.5 (13 - 41.5)	28.1 (14 - 45)
Depth: 0.55	Height: 0.6	1.2 (1 - 1.4)	1.5 (1.3 - 1.7)

W:D ratio: 22.3

Stream Flow Type: MF

Avg. Unit Gradient: 1.0%

Entrenchment (ACW:FPW ratio): 2.0

Water temp (°C): 8.0 - 8.0

Habitat Units/100m: 5.3

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	TH	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:		Reach avg:
Undercut Banks:		Range: -

Large Wood Debris

	<u>Total</u>	<u>Total / 100m</u>
All pieces (>=3m x 0.15m):	160	15.7
Volume (m ³):	249	24.4
Key pieces (>=10m x 0.60m):	17	1.7

OREGON DEPARTMENT OF FISH AND WILDLIFE

EAST HUMBUG CREEK PRE-TX (N-225)

HABITAT INVENTORY

Report Date: 6/16/2004

Survey Date:

3/18/2004

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/BOULDERS	2	30	3.2	0.23	89	0	0	5	20	65	10	0	
CULVERT CROSSING	1	13	2.2	0.15	28	0	9	18	27	27	18	0	
POOL-ALCOVE	1	6	1.0	0.20	6	0	33	33	11	22	0	0	
POOL-BACKWATER	2	33	3.5	0.60	124	0	31	22	37	10	0	0	
POOL-DAMMED	1	30	5.8	1.30	175	0	32	32	21	16	0	0	
POOL-LATERAL SCOUR	25	494	6.4	0.94	3,295	0	5	11	30	32	2	20	
POOL-PLUNGE	1	18	10.2	2.50	187	0	0	5	10	14	5	67	
PUDDLED UNIT	1	35	1.2	0.30	42	0	5	15	50	30	0	0	
RAPID/BOULDERS	9	274	6.8	0.24	1,571	0	6	9	29	52	3	1	
RIFFLE	10	240	7.0	0.26	1,624	0	1	5	39	47	2	7	
STEP/BEDROCK	1	4	2.0	0.05	8	0	0	0	0	0	0	100	
STEP/COBBLE	10	60	8.2	0.19	567	0	0	4	46	46	3	1	
STEP/LOG	1	3	3.5	0.15	11	0	20	30	40	10	0	0	
STEP/STRUCTURE	1	1	1.5	0.10	1	0	0	0	0	20	20	60	
Total:	66	1,240	6.3	0.55	7,726	0	Avg: 5	10	32	38	3	12	

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	4	68	3.4	0.68	304	3.94%	0	0.0
Scour Pools	26	512	6.6	1.00	3,482	45.06%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	10	240	7.0	0.26	1,624	21.02%	0	0.0
Rapids	9	274	6.8	0.24	1,571	20.33%	0	0.0
Cascades	2	30	3.2	0.23	89	1.15%	0	0.0
Step/Falls	13	68	6.8	0.17	587	7.59%	0	0.0
Dry	1	35	1.2	0.30	42	0.54%	0	0.0
Culverts	1	13	2.2	0.15	28	0.36%	0	0.0

POOL SUMMARY			
	<u>Total</u>	<u># / Km</u>	
All Pools:	30	24.2	222
Pools >=1m deep:	14	11.3	
Complex pools (LWD pieces>=3):	11	8.9	
Pool frequency (channel widths/pool):	3.2		
Residual pool depth (avg):	0.78		

STREAM SUMMARY

EAST HUMBUG CREEK PRE-TX (N-225)

Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m ²)	Substrate						Large Boulders (#>0.5m)
					Percent Wetted Area						
					S/O	Snd	Grvl	Cbl	Bldr	Bdrk	
66	1,240	6.3	0.55	7,726	5	10	32	38	3	12	

Habitat Group	Wetted Area	
	(m ²)	Percent
Dammed & BW Pools	304	3.94%
Scour Pools	3,482	45.06%
Glides	0	0.00%
Riffles	1,624	21.02%
Rapids	1,571	20.33%
Cascades	89	1.15%
Step/Falls	587	7.59%
Dry	42	0.54%
Culverts	28	0.36%

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: **1-NC** SITE ID: **225** EAST HUMBUG CREEK PRE-TX (N-2)

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	LP	00	16.2	/SS	T=8C, 6" TROUT	
4	LP	00	101.4	BD, WL	ELK PRINTS	
6	LP	00	141	BV		
7	RB	00	161.6	BV		
8	LP	01	194.9	BV	TROUT	
9	SR	11	194.9		H=11M	
11	LP	00	234.3		ELK TRACKS	
12	RB	00	249.9	BV,WL	ELK TRACKS	
17	LP	01	297.9		SG=4M, ELK TRACKS	
18	RB	01	326.1	BV		
19	BW	10	326.1		ELK	
20	RI	02	326.1	BV		
22	SL	02	326.1		H=.4M	
23	DP	00	356.3	BV	ELK TRACKS	
24	RI	00	370.1	BV		
25	LP	00	394.2	BV		
28	RI	00	440.1	BV		
29	LP	00	456.9	BV		
30	RI	00	481.9	BV		
31	RI	00	503.3	BV		
32	LP	00	513.1	BV		

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: **1-NC** SITE ID: **225** EAST HUMBUG CREEK PRE-TX (N-2)

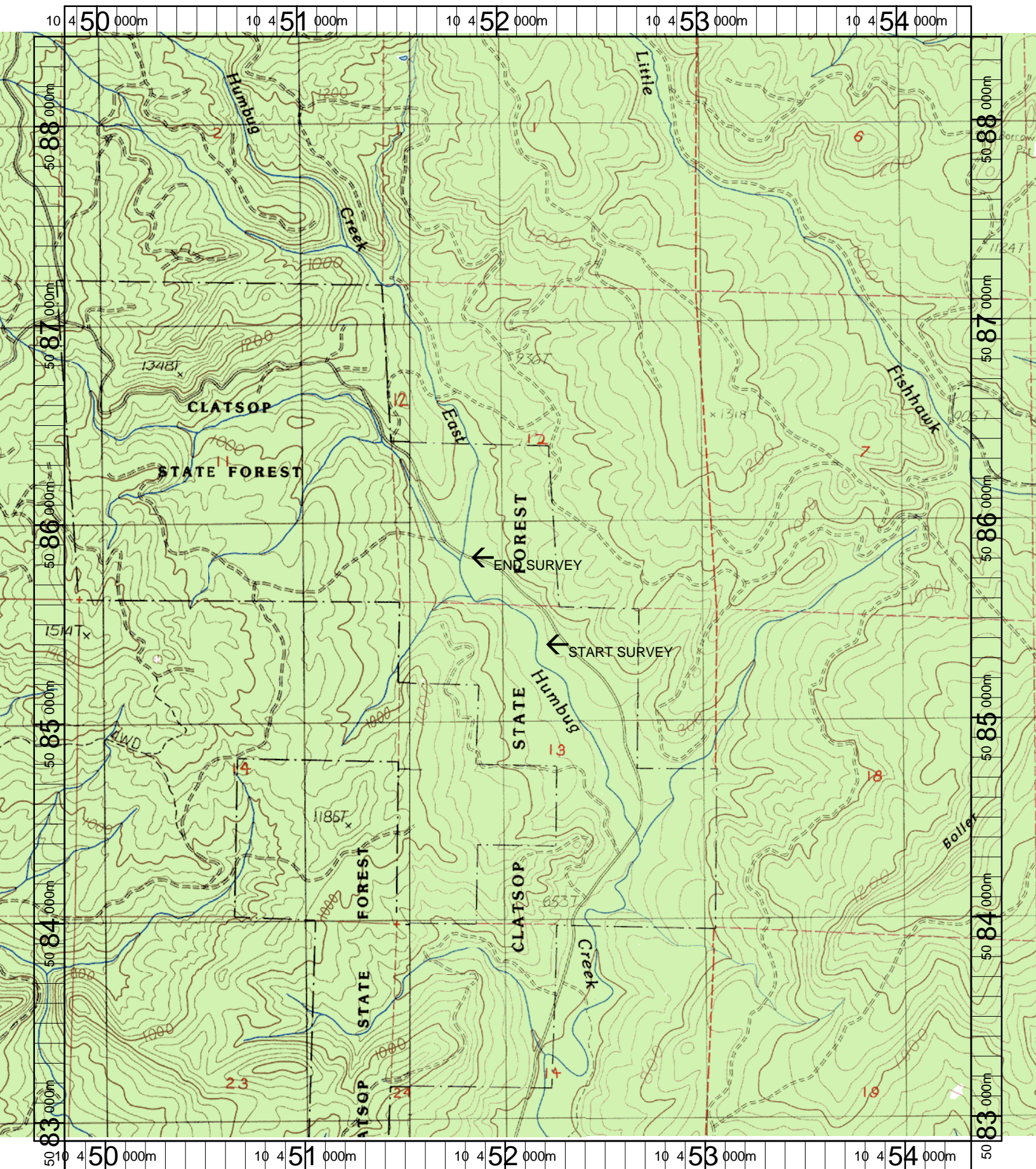
UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
33	SC	00	518.6	BV		
34	LP	00	538.9	BV		
36	LP	01	574.5	BV		
37	RI	01	597.8	BV		
39	LP	00	610.1		SG=4M	
40	RB	00	626.5		SG=4M	
41	LP	00	659.1	BV, /LA	BIG LA	
42	SC	00	663.1	BV		
43	LP	00	687.3	BV	SG=6M, REDD	
44	RI	00	734.8	BV		
47	LP	01	804.4	BV	ELK TRACKS, SG=5M	
48	BW	10	804.4	LA/		
49	RB	01	848.9	BV		
51	RB	02	848.9	WL	ELK TRACKS	
52	LP	00	861.5	BV	FISH	
54	LP	01	884.1		SG=4M	
56	SC	11	884.1		ACW=3M, T=6C	
57	RB	00	910.7	BV	T=6C	
58	LP	00	934.3	BV	BV DEN	
59	SC	00	948.4	SS/		
61	CB	11	965.7		T=6C, ACW=18.4M	

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: 1-NC SITE ID: 225 EAST HUMBUG CREEK PRE-TX (N-2)

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
62	SC	00	974.9		SPAWNING SIGN, OR PL	
63	PP	00	993.2		SG=6M	
64	SS	00	993.8		H=.3M	
65	CC	00	1006.4	CC	STEEL CULVERT 3.7*2.2	
66	CB	00	1018.2	CS/CS		



Name: VINEMAPLE
 Date: 1/22/2004
 Scale: 1 inch equals 2000 feet

Location: 10 452080 E 5085663 N
 Caption: EAST HUMBUG CREEK RESTORATION SITE - NEHALEM BASIN