

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

STREAM: East Humbug Creek Tributary A (N-314)
BASIN: Nehalem River
SURVEY TYPE: Pre-Tx
DATE: July 27, 2005
SURVEY CREW: Ben Walczak, Scott Young
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 3.3 km²
USGS MAPS: Vinemaple, Saddle Mountain
ECOREGION: Coast Range Astoria Willapa

GENERAL DESCRIPTION:

The East Humbug Creek Tributary A habitat survey extended 1,094 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 3.1 (range: 1.5-5.0). Land use for the reach was second growth (15-30 cm dbh) trees. The average unit gradient was 3.0 percent. Rapids (57%) and scour pools (22%) dominated stream habitat. Gravel (30%) and cobble (29%) dominated stream substrate. Wood volume was low at 16.5 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	3.1	VWI Range:	1.5 - 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	1,094	3,604	0
Secondary Channel	24	41	2
Off-Channel Units	10	8	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 6	<u>First Terrace</u> n = 4
Width: 3.5	Width: 5.2	7.0 (3.6 - 9.3)	9.7 (8.3 - 11.8)
Depth: 0.24	Height: 0.3	0.6 (0.3 - 0.7)	1.1 (1 - 1.3)

W:D ratio: 17.2
 Stream Flow Type: MF
 Average Unit Gradient: 3.0%
 Water temperature (°C): -

Entrenchment (ACW:FPW ratio): 1.4
 Habitat Units/100m (total channel length): 7.2
 Habitat Units/100m (primary channel length): 7.4

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	
Riparian Vegetation:	D15	C15

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	3%	Reach avg: 73%
Undercut Banks:	1%	Range: 56 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	138	12.6
Volume (m ³):	180	16.5
Key pieces (>=12m x 0.60m):	6	0.5

OREGON DEPT OF FISH AND WILDLIFE

EAST HUMBUG TRIB A PRE-TX (1-NC, 314)

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
CULVERT CROSSING	1	17	2.2	0.10	37	0	0	10	40	50	0	0
POOL-DAMMED	3	44	3.1	0.37	137	0	42	24	27	7	0	0
POOL-LATERAL SCOUR	23	202	3.5	0.41	714	0	16	31	14	18	0	20
POOL-PLUNGE	6	21	4.8	0.61	101	0	23	37	10	8	0	23
PUDDLED UNIT	2	24	1.8	0.10	41	0	6	16	43	32	0	3
RAPID/BOULDERS	26	665	3.1	0.11	2,065	0	0	12	37	43	0	9
RIFFLE	7	123	3.3	0.11	401	0	0	10	46	40	0	4
STEP/COBBLE	4	13	3.6	0.10	47	0	1	10	43	45	0	0
STEP/LOG	8	19	5.7	0.10	110	0	3	40	39	18	0	0
STEP/STRUCTURE	1	1	1.0	0.10	1	0	0	10	40	50	0	0
Total:	81	1,128	3.5	0.24	3,652	0	Avg: 8	22	30	29	0	11

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	44	3.1	0.37	137	3.74%	0	0.0	
Scour Pools	29	222	3.7	0.45	815	22.31%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	7	123	3.3	0.11	401	10.98%	0	0.0	
Rapids	26	665	3.1	0.11	2,065	56.52%	0	0.0	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	13	32	4.7	0.10	157	4.31%	0	0.0	
Dry	2	24	1.8	0.10	41	1.12%	0	0.0	
Culverts	1	17	2.2	0.10	37	1.02%	0	0.0	

POOL SUMMARY			
	<u>Total</u>	Total of all Channel Lengths	
		<u># / Km</u>	Primary Channel Length <u># / Km</u>
All Pools:	32	28.4	29.3
Pools >=1m deep:	1	0.9	0.9
Complex pools (LWD pieces>=3):	7	6.2	6.4
Pool frequency (channel widths/pool):	6.7		
Residual pool depth (avg):	0.35		

Survey Date 7/27/2005

RIPARIAN ZONE

Report Date: 4/26/2006

VEGETATION SUMMARY

REACH 1

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

Total hardwoods/1000	325
Total conifers/1000 ft	224
Total conifers >20" dbh/1000 ft	0
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	0.7	1.0	0.0	0.0	0.0	1.0	0.7
15-30cm	0.3	2.0	0.7	0.7	1.0	1.0	2.0	3.7
30-50cm	0.0	0.7	0.0	0.0	0.7	0.3	0.7	1.0
50-90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	0.3	3.3	1.7	0.7	1.7	1.3	1.2	1.8

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	79		65		71	
Shrub cover	23		18		19	
Grass/forb cover	161		75		81	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	67		50		83	
High terrace	33		17		17	
Low terrace	0		0		0	
Floodplain	0		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	0		33		0	
Riprap	0		0		0	
Surface slope (%)	25		19		34	

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	325
Total conifers/1000 ft	224
Total conifers >20" dbh/1000 ft	0
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	2.0	3.7
30-50cm	0.7	1.0
50-90cm	0.0	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		
18	RT	2	RB	0	50	25	75	Conifer		1					
								Hardwood							
18	RT	3	HS	30	70	20	80	Conifer		1					
								Hardwood		1					
18	RT	1	HS	30	80	15	85	Conifer						2D	
								Hardwood		2	1			0451636/50860	
18	LF	3	HS	65	65	5	95	Conifer		1				21	
								Hardwood							
18	LF	1	HT	0	80	20	580	Conifer							
								Hardwood	1						
18	LF	2	HS	65	80	5	95	Conifer	2						
								Hardwood		1					
36	LF	1	HS	15	80	20	80	Conifer						3D	
								Hardwood			1			0451532/50862	
36	LF	2	HS	20	80	10	90	Conifer						29	
								Hardwood							
36	LF	3	HS	30	80	10	90	Conifer							
								Hardwood	1	1					
36	RT	1	HT	0	80	20	80	Conifer							
								Hardwood		1					
36	RT	2	HT	0	60	40	60	Conifer							
								Hardwood		1					
36	RT	3	HT	0	60	30	70	Conifer				1			
								Hardwood							
59	LF	2	HS	30	80	20	80	Conifer							
								Hardwood		1					
59	RT	3	HS	50	70	30	70	Conifer			1				
								Hardwood							
59	RT	2	RB	0	40	10	50	Conifer	1	1				40 PCT	
								Hardwood						GRAVEL	
59	LF	1	HS	90	85	30	70	Conifer			1			2D	
								Hardwood			1			0451405/50864	
59	RT	1	HS	15	70	30	70	Conifer						41	
								Hardwood	1	2					
59	LF	3	HS	30	80	20	80	Conifer				1			
								Hardwood				1			

Comment Summary

Restoration Monitoring Sites 2005

MONITORING AREA: 1-NC SITE ID: 314 EAST HUMBUG TRIB A PRE-TX

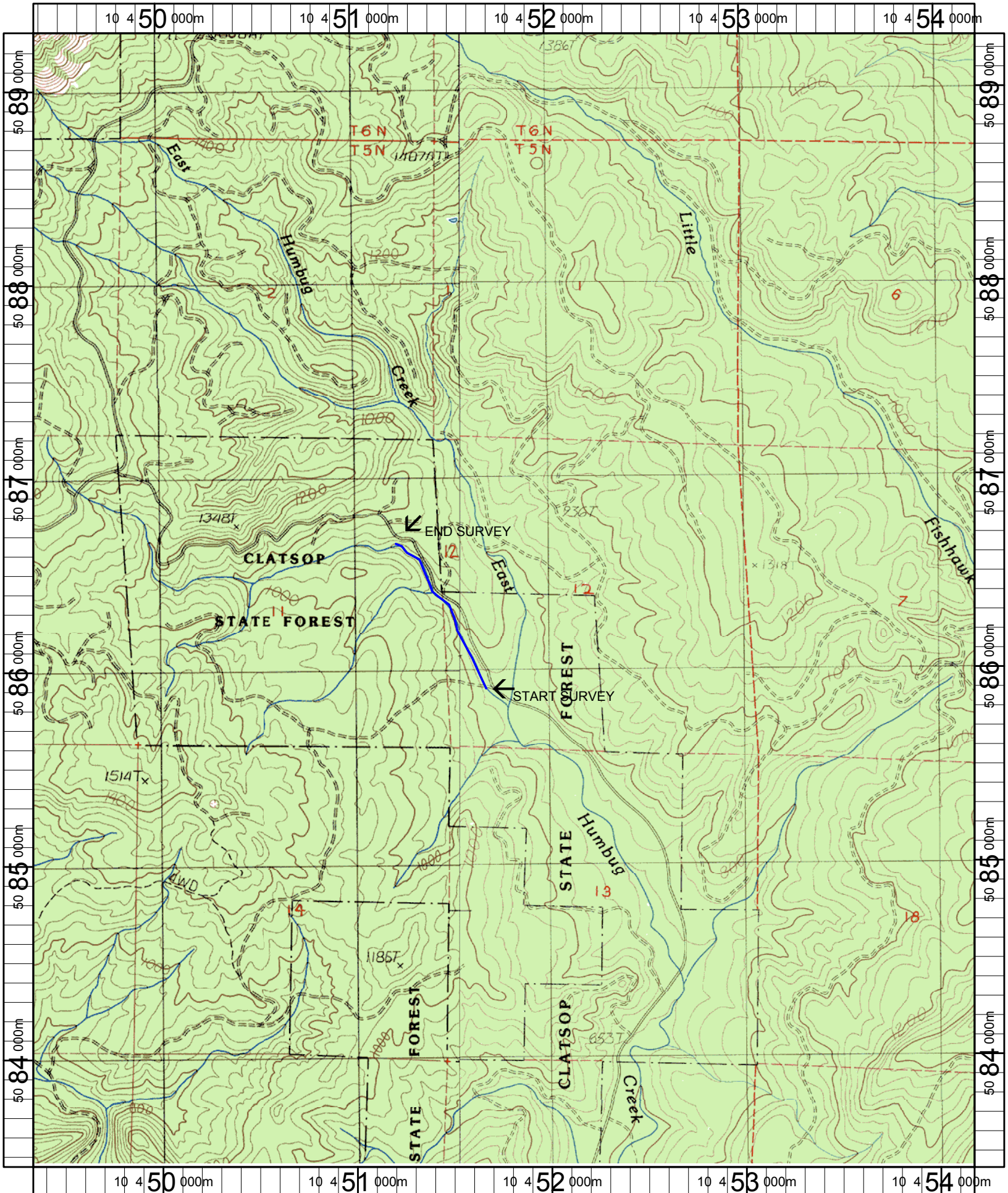
UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	RB	00	39.3	HS	START AT SPAWNING SU	OLD PLACEMENT WOOD
2	LP	00	57.9	HS		OLD PLACEMENT
4	LP	00	75.9	BC		
5	SC	00	78.65		H=0.3M	
10	SS	00	135.75		H=0.4M	
11	CC	00	152.75	CC	OVAL GALVANIZED	
18	RB	00	261.85		RIPARIAN 1	
20	SC	00	272.45		H=0.3M	
24	SL	00	296.75		H=0.55M	
36	RB	00	532.65		RIPARIAN 2, PHOTO 40	
47	SL	00	714.75		H=0.6M	
50	LP	00	747.75			CREATED BY LOG
53	SL	00	770.15		H=0.25M	
55	SL	00	785.55		H=0.4M	
58	SC	00	810.25		H=0.3M	
59	RB	01	857.65	TJ/	RIPARIAN 3	
66	SL	00	935.85		H=0.75M	
70	SC	00	986.35		H=0.3M	
73	SL	00	1022.15		H=0.4M	
76	SL	00	1041.65		H=0.5M	
79	SL	00	1079.25		H=0.5M	

Comment Summary

Restoration Monitoring Sites 2005

MONITORING AREA: 1-NC SITE ID: 314 EAST HUMBUG TRIB A PRE-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>
81	LP	00	1093.75		END AT ALDER RIGHT	END SURVEY



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

Location: 10 451773 E 5086359 N
 Caption: EAST HUMBUG CREEK TRIB A RESTORATION SITE -
 NEHALEM BASIN