

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

STREAM: Deer Creek (N121)
BASIN: Nehalem River
SURVEY TYPE: Post-Tx
DATE: February 5, 2002
SURVEY CREW: Sean Allen, Rachel Werner
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 32.8 km²
USGS MAPS: Birkenfeld
ECOREGION: Coast Range Astoria Willapa

GENERAL DESCRIPTION:

The Deer Creek habitat survey extended 1,036 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 3.7 (range: 3.0-5.0). Land use for the reach was young (3-15 cm dbh) trees. The average unit gradient was 0.5 percent. Scour pools (69%) dominated stream habitat. Gravel (66%) and sand (19%) dominated stream substrate. Wood volume was high at 34.7 m³/100m.

COMMENTS:

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

The crew noted several habitat structures as well as evidence of beaver activity during the survey.

REACH

T5N-R5W-S15NE

REACH

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	3.7	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	100%	Braided Channel	0%
Alt. Terrace/Hill	0%		
Landuse	0%		

Channel Characteristics

<u>Type</u>	<u>Length (m)</u>	<u>Area (m2)</u>	<u>Dry Units</u>
Primary	1,036	3,935	0
Secondary	38	84	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 3
Width: 3.7	Width: 8.0	17.6 (6 - 30.3)	12.2 (7 - 21)
Depth: 0.62	Height: 0.5	0.9 (0.9 - 1)	1.1 (1.1 - 1.2)

W:D ratio: 16.9

Entrenchment (ACW:FPW ratio): 2.2

Stream Flow Type: MF

Habitat Units/100m (total channel length): 7.2

Average Unit Gradient: 0.5%

Habitat Units/100m (primary channel length): 7.4

Water temperature (°C): 5.0 - 5.0

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	YT	
Riparian Vegetation:	D3	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):	232	22.4
Volume (m ³):	357	34.5
Key pieces (>=12m x 0.60m):	19	1.8

OREGON DEPARTMENT OF FISH AND WILDLIFE

DEER CR POST-TX (N121)

HABITAT INVENTORY

Report Date: 11/15/2013

Survey Date:

2/5/2002

REACH	T5N-R5W-S15NE						REACH					
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	14	1.0	0.20	14	0	2	18	80	0	0	0
POOL-BEAVER DAM	2	56	7.8	1.20	440	0	13	25	45	0	0	18
POOL-DAMMED	1	23	4.3	0.80	98	0	5	10	60	5	0	20
POOL-ISOLATED	1	7	5.2	0.50	38	0	30	70	0	0	0	0
POOL-LATERAL SCOUR	36	576	3.6	0.78	2,128	0	7	17	72	0	0	4
POOL-PLUNGE	6	38	4.6	1.15	156	0	8	16	62	2	0	13
POOL-STRAIGHT SCOUR	7	115	4.9	0.70	502	0	7	25	66	0	0	1
RIFFLE	14	216	2.6	0.18	528	0	4	15	72	2	0	8
RIFFLE W/ POCKETS	1	14	4.6	0.35	65	0	5	10	85	0	0	0
STEP/BEAVER DAM	3	5	3.0	0.07	13	0	13	30	37	0	0	20
STEP/BEDROCK	1	1	1.8	0.05	1	0	0	20	20	0	0	60
STEP/LOG	4	9	3.7	0.10	36	0	8	31	46	0	0	15
Total:	77	1,074	3.7	0.62	4,019	0	Avg: 7	19	66	1	0	7

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	87	6.3	0.93	576	14.34%	0	0.0
Scour Pools	49	728	3.9	0.82	2,786	69.33%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	15	230	2.7	0.19	593	14.75%	0	0.0
Rapids	0	0			0	0.00%	0	0.0
Cascades	0	0			0	0.00%	0	0.0
Step/Falls	8	15	3.2	0.08	49	1.23%	0	0.0
Dry	0	0			0	0.00%	0	0.0
Culverts	1	14	1.0	0.20	14	0.35%	0	0.0

POOL SUMMARY			
	Total	Total of all Channel Lengths # / Km	Primary Channel Length # / Km
All Pools:	53	49.4	51.2
Pools >=1m deep:	12	11.2	11.6
Complex pools (LWD pieces>=3):	27	25.2	26.1
Pool frequency (channel widths/pool):	2.5		
Residual pool depth (avg):	0.71		

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: 1-NC SITE ID: 121 DEER CR POST-TX (N121)

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
2	CC	00	23	CC	DIA = 1.2, NO DROP, METAL
5	LP	00	59.8	HS	LOGS, SITE 2A
8	LP	00	105.7	HS	LOGS
11	RI	00	154.8	HS	LOGS
13	SL	00	161	HS	H = .6, LOGS
15	IP	10	175.9	HS	LOGS
20	LP	01	245.7	HS	LOGS
23	LP	00	279.5	HS	LOGS
25	LP	00	316	HS	LOGS
28	LP	00	366.3	SS/	
33	LP	00	439.9	HS	LOGS
37	SD	01	471.9	BD	H = .8
38	SR	02	471.9		H = .7
40	BP	00	500.8	BV	BEAVER LODGE
43	PP	00	565.9		COHO CARCASS
44	SL	00	566.2		H = .3
47	LP	00	625.6	SS/	
49	SD	00	637.7		H = .3
54	LP	00	749.2		COHO CARCASS
57	SL	00	761.4		H = .2
61	SD	00	793.5	BD	H = .8

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: 1-NC SITE ID: 121 DEER CR POST-TX (N121)

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
62	BP	00	821	BV	BV CUTTINGS
64	SP	00	852.5		COHO CARCASS
71	LP	00	942.9	BV	BV CUTTINGS
72	LP	00	955.6	BV	
75	SL	00	989.8		H = .5
77	RI	00	1035.6	SS/SS	