

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

STREAM: West Fork Ecola Creek (N115)
BASIN: Ecola Creek
SURVEY TYPE: Post-Tx
DATE: February 22, 2002
SURVEY CREW: Sean Allen, Rachel Werner
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 24.3 km²
USGS MAPS: Arch Cape
ECOREGION: Coast Range Sitka Spruce

GENERAL DESCRIPTION:

The West Fork Ecola Creek habitat survey extended 742 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 9.3 (range: 4.5 – 20.0). Land use for the reach was second growth (15-30 cm dbh) trees. The average unit gradient was 1.1 percent. Scour pools (51%) and riffles (46%) dominated stream habitat. Gravel (45%) and cobble (34%) dominated stream substrate. Wood volume was low at 17.8 m³/100m.

COMMENTS:

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

The crew noted several habitat structures and debris jams during the survey.

REACH

T4N-R10W-S5NW

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	100%
Moderate V-shape	0%	Multiple Terraces	0%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	9.3	VWI Range:	4.5 - 20

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	742	7,798	0
Secondary	212	826	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 7.9	Width: 17.1	27.5 (23 - 33.5)	29.6 (25 - 34)
Depth: 0.69	Height: 0.7	1.4 (1.3 - 1.6)	1.6 (1.4 - 1.8)

W:D ratio: 24.3
Stream Flow Type: MF
Average Unit Gradient: 1.1%
Water temperature (°C): -

Entrenchment (ACW:FPW ratio): 1.7
Habitat Units/100m (total channel length): 4.8
Habitat Units/100m (primary channel length): 6.2

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	
Riparian Vegetation:	M15	

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):	134	18.1
Volume (m ³):	132	17.8
Key pieces (>=12m x 0.60m):	8	1.1

OREGON DEPARTMENT OF FISH AND WILDLIFE

WF ECOLA POST-TX (N-115)

HABITAT INVENTORY

Report Date: 11/15/2013

Survey Date:

2/22/2002

REACH		T4N-R10W-S5NW					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
POOL-ALCOVE	1	16	2.5	0.50	40	0	13	63	0	24	1	0
POOL-BACKWATER	4	29	7.1	0.70	164	0	13	25	35	23	5	0
POOL-ISOLATED	2	13	3.4	0.80	45	0	13	30	35	18	5	0
POOL-LATERAL SCOUR	13	348	9.1	1.30	3,336	0	4	11	50	28	3	4
POOL-STRAIGHT SCOUR	4	94	10.6	1.18	1,094	0	4	10	53	30	3	1
RIFFLE	19	393	7.9	0.25	3,500	0	2	7	45	41	3	2
RIFFLE W/ POCKETS	2	61	6.7	0.30	438	0	0	5	45	43	8	0
STEP/COBBLE	1	3	2.8	0.05	7	0	0	5	35	50	10	0
Total:	46	955	7.9	0.69	8,624	0	Avg: 4	12	45	34	4	2

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	7	57	5.4	0.70	249	2.88%	0	0.0
Scour Pools	17	441	9.5	1.27	4,430	51.37%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	21	454	7.8	0.26	3,938	45.66%	0	0.0
Rapids	0	0			0	0.00%	0	0.0
Cascades	0	0			0	0.00%	0	0.0
Step/Falls	1	3	2.8	0.05	7	0.08%	0	0.0
Dry	0	0			0	0.00%	0	0.0
Culverts	0	0			0	0.00%	0	0.0

POOL SUMMARY			
	Total	Total of all Channel Lengths # / Km	Primary Channel Length # / Km
All Pools:	24	25.1	32.3
Pools >=1m deep:	15	15.7	20.2
Complex pools (LWD pieces>=3):	9	9.4	12.1
Pool frequency (channel widths/pool):	2.3		
Residual pool depth (avg):	1.06		

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: 1-NC SITE ID: 115 WF ECOLA POST-TX (N-115)

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
4	RI	01	99.7	TJ/	
5	SC	11	99.7		H = .9
8	LP	01	189.9	TJ/	
12	RI	00	258.3		LWD BURIED IN GRAVEL BAR
13	LP	01	284.3	HS, DJ	
17	LP	00	339.8	HS	
19	RI	01	400	HS	
22	LP	00	429.6	HS	
23	RP	00	466.6		POCKETS WITH LWD
27	LP	01	570	HS, DJ	
29	RP	02	570	/TJ	
34	RI	01	650.4	HS	
38	RI	02	650.4	/TJ	
42	LP	01	683.4	HS	
45	LP	00	724.3	HS	
46	RI	00	742.3		T = 8.5