ODFW AQUATIC INVENTORY PROJECT

OREGON PLAN FOR SALMON & WATERSHEDS

STREAM RESTORATION HABITAT REPORT

STREAM:	West Fork Ecola Creek (NC-114)
BASIN:	Ecola Creek
SURVEY TYPE:	Reference
DATE:	September 18, 1996
SURVEY CREW:	Barry Thom, Chris Mease
REPORT PREPARED BY:	Paul Jacobsen
BASIN AREA:	24.3 km^2
USGS MAPS:	Arch Cape
ECOREGION:	Coast Range Astoria Willapa

GENERAL DESCRIPTION:

The West Fork Ecola Creek habitat survey extended 331 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 5.3 (range: 3.5 – 7.0). Land use for the reach was second growth (15-30 cm dbh) trees. The average unit gradient was 0.9 percent. Scour pools (56%) dominated stream habitat. Gravel (43%) and cobble (28%) dominated stream substrate. Wood volume was low at 19.2 m^3/100m.

COMMENTS:

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

REACH 1 T5N-R10W-S6NE REACH 1

Valley and Channel Summary

Valley Characteristics (Percent Reach Length)

Narrow Valley Floor		Broad Valley Floor	
Steep V-shape	0	Constraining Terraces	0
Moderate V-shape	0	Multiple Terraces	100
Open V-shape	0	Wide Floodplain	0

Valley Width Index avg: 5.3 range: 3.5-7.0

Channel Morphology (Percent Reach Length)

Constrained		Unconstrained	
Hillslope	0	Single Channel	0
Bedrock	0	Multiple Channel	0
Terrace	0	Braided Channel	0
Alt. Terrace/Hill	100		
Landuse	0		

Channel Characteristics

Type	Length(m)	Area (m2)	Dry Units
Primary	331	2,462	0
Secondary	120	85	0

Channel Dimensions(m)

Wetted		Active		Floodprone	First Terrace
Width	6.6	Width	13.0	0.0	16.8
Depth	0.53	Height	0.8	0.0	1.8
		W:D ratio	16.2	Entrenchment **.*	

Stream Flow Type: LF Water Temp: 0.0-0.0°C
Avg. Unit Gradient: 0.9% Habitat Units/100m: 3.6

Riparian, Bank, and Wood Summary

	Primary	Secondary
Land Use:	ST	
Riparian Vegetation:	D30	G

Bank Condition and Shade

Bank Status	Percent Reach Length	Shade (% of 180)
Actively Eroding	0%	Reach avg: 89%
Undercut Banks	3%	Range: 78-100

Large Woody Debris

	Total	Total/100m
All pieces (≥3m x 0.15m)	30	9.1
Volume (m^3)	63	19.2
Key pieces (≥10m x 0.6m)	1	0.3

OREGON DEPT. FISH AND WILDLIFE
HABITAT INVENTORY Report Date: 11/23/01

WF ECOLA CREEK 1996 REFERENCE
Survey Date: 09/18/96

REACH 1 T5N-R10W-S6NE 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	Cbbl	Bldr	Bdrk
GLIDE	1	22	4.5	0.13	99	1	5	10	45	35	5	0
POOL-ALCOVE	2	120	0.8	0.15	85	0	75	25	0	0	0	0
POOL-LATERAL SCOUR	7	199	6.7	1.07	1,415	9	5	15	53	21	6	0
RAPID/BOULDERS	3	47	9.7	0.09	471	6	1	5	45	41	8	0
RIFFLE	2	60	7.8	0.08	457	0	0	5	40	53	3	0
STEP/COBBLE	1	3	7.5	0.07	20	0	0	0	60	40	0	0
Total:	16	451	6.6	0.53	2,547	16	**Avg:** 12	12	43	28	5	0

HABITAT SUMMARY

Habitat Group	No. Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area (m^2)	Wetted Area Percent	Large Boulders Number	Large Boulders #/100m^2
Dammed & BW Pools	2	120	0.8	0.15	85	3.34	0	0.0
Scour Pools	7	199	6.7	1.07	1,415	55.54	9	0.6
Glides	1	22	4.5	0.13	99	3.89	1	1.0
Riffles	2	60	7.8	0.08	457	17.94	0	0.0
Rapids	3	47	9.7	0.09	471	18.49	6	1.3
Cascades	0	0	-	-	0	0.00	0	0.0
Step/Falls	1	3	7.5	0.07	20	0.80	0	0.0
Dry	0	0	-	-	0	0.00	0	0.0

POOL SUMMARY

	Total	#/Km
All Pools	9	20.0
Pools ≥1m deep:	4	8.9
Complex pools (LWD pieces≥3):	2	4.4
Pool Frequency (channel widths/pool):	3.9	
Residual pool depth (avg)	0.92m	

STREAM SUMMARY **WF ECOLA CREEK 1996 REFERENCE**

Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m^2)	Substrate Percent Wetted Area S/O	Sand	Grvl	Cbbl	Bldr	Bdrk	Total Large Boulder
16	451	6.6	0.53	2,547	12	12	43	28	5	0	16

Habitat Group	Wetted Area (m^2)	Percent
Scour Pool	1,415	55.5
Backwater Pools	85	3.3
Glide	99	3.9
Riffle	457	17.9
Rapid	471	18.5
Cascade	0	0.0
Step	20	0.8
Dry	0	0.0