

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

STREAM: Roy Creek (N146)
BASIN: Nehalem River
SURVEY TYPE: Pre-Tx
DATE: January 28, 2002
SURVEY CREW: Sean Allen, Rachel Werner
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 5.8km²
USGS MAPS: Foley Peak
ECOREGION: Coast Range Sitka Spruce

GENERAL DESCRIPTION:

The Roy Creek habitat survey extended 498 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 9.8 (range: 3.0 - 30.0). Land uses for the reach were second growth (15-30 cm dbh) trees and rural residential. The average unit gradient was 1.2 percent. Scour pools (64%) and riffles (33%) dominated stream habitat. Gravel (52%) and sand (25%) dominated stream substrate. Wood volume was low at 5.4 m³/100m.

COMMENTS:

There was a potential barrier to upstream fish migration in the surveyed length. This was in the form of two culverts in poor condition and with a slope of 5% near the beginning of the survey.

The crew noted several habitat structures during the survey.

REACH

T3N-R9W-S31SW

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	9.8	VWI Range:	3 - 30

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	498	2,284	0
Secondary	18	24	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 3
Width: 4.5	Width: 10.5	24.1 (5.2 - 47.2)	16.1 (5.3 - 27)
Depth: 0.63	Height: 0.5	1.0 (0.8 - 1.1)	1.6 (1.3 - 1.8)

W:D ratio: 21.8

Stream Flow Type: MF

Average Unit Gradient: 1.2%

Water temperature (°C): 7.0 - 7.0

Entrenchment (ACW:FPW ratio): 2.2

Habitat Units/100m (total channel length): 5.2

Habitat Units/100m (primary channel length): 5.4

Riparian, Bank, and Wood Summary

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

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):	45	9.0
Volume (m ³):	27	5.4
Key pieces (>=12m x 0.60m):	0	0.0

OREGON DEPARTMENT OF FISH AND WILDLIFE

ROY CREEK PRE-TX (N-146)

HABITAT INVENTORY

Report Date: 11/15/2013

Survey Date:

1/28/2002

REACH		T3N-R9W-S31SW					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	31	1.0	0.30	31	0	10	20	60	5	5	0
POOL-BACKWATER	1	8	2.3	0.30	18	0	20	30	45	5	0	0
POOL-LATERAL SCOUR	15	255	5.3	0.81	1,370	0	7	26	53	14	0	0
POOL-PLUNGE	1	10	4.3	0.90	43	0	25	50	0	13	13	0
POOL-STRAIGHT SCOUR	1	16	4.5	0.60	72	0	5	15	55	25	0	0
RIFFLE	6	158	3.7	0.35	591	0	6	19	61	13	1	0
RIFFLE W/ POCKETS	1	28	6.2	0.45	175	0	5	25	50	20	0	0
STEP/COBBLE	1	10	0.6	0.10	6	0	5	25	30	30	10	0
Total:	27	516	4.5	0.63	2,308	0	Avg: 8	25	52	14	1	0

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	1	8	2.3	0.30	18	0.80%	0	0.0	
Scour Pools	17	281	5.2	0.81	1,486	64.37%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	7	186	4.0	0.36	767	33.23%	0	0.0	
Rapids	0	0			0	0.00%	0	0.0	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	1	10	0.6	0.10	6	0.26%	0	0.0	
Dry	0	0			0	0.00%	0	0.0	
Culverts	1	31	1.0	0.30	31	1.35%	0	0.0	

POOL SUMMARY			
	Total	Total of all Channel Lengths # / Km	Primary Channel Length # / Km
All Pools:	18	34.9	36.2
Pools >=1m deep:	3	5.8	6.0
Complex pools (LWD pieces>=3):	4	7.8	8.0
Pool frequency (channel widths/pool):	2.7		
Residual pool depth (avg):	0.56		

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: 1-NC SITE ID: 146 ROY CREEK PRE-TX (N-146)

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
4	CC	00	77.3	PA	2 BAD CULVERTS, DIA = 1.5
12	LP	00	218.4		RIPRAP W/ TIRES IN STREAM
18	LP	00	342.5	/SS	
26	LP	01	497.8	TJ/	
27	SC	11	497.8		TRIB UNIT, SIGN ALDER LEFT