

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

STREAM: Pugh Creek (MC-304)
BASIN: Siuslaw River
SURVEY TYPE: Pre-Tx
DATE: January 26, 2005
SURVEY CREW: Brain Bangs, Sheila Davis
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 3.9 km²
USGS MAPS: Clay Creek
ECOREGION: Coast Range Mid-Coastal Sedimentary

GENERAL DESCRIPTION:

The Pugh Creek habitat survey extended 1,312 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 4.0 (range: 1.2-8.0). Land use for the reach was large (30-50 cm dbh) and second growth (15-30 cm dbh) trees. The average unit gradient was 2.2 percent. Scour pools (44%) and riffles (37%) dominated stream habitat. Gravel (30%) and sand (21%) dominated stream substrate. Wood volume was low at 17.3 m³/100m.

COMMENTS:

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

The crew noted several habitat structures during the survey.

REACH 1

T19S-R08W-S11SE

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	0%
Moderate V-shape	0%	Multiple Terraces	100%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	4.0	VWI Range:	1.2 - 8

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 Channel	1,312	3,909	0
Secondary Channel	0	0	0
Off-Channel Units	46	62	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 2.8	Width: 4.9	9.5 (4.4 - 19.5)	14.3 (4.4 - 28.1)
Depth: 0.24	Height: 0.5	0.9 (0.6 - 1)	2.5 (1.1 - 4.5)

W:D ratio: 11.3
 Stream Flow Type: LF
 Average Unit Gradient: 2.2%
 Water temperature (°C): 8.0 - 8.0

Entrenchment (ACW:FPW ratio): 1.9
 Habitat Units/100m (total channel length): 11.0
 Habitat Units/100m (primary channel length): 11.4

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	LT	ST
Riparian Vegetation:	D30	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):	273	20.8
Volume (m ³):	228	17.3
Key pieces (>=12m x 0.60m):	3	0.2

OREGON DEPT OF FISH AND WILDLIFE

PUGH CREEK PRE-TX (2-MC, 304)

HABITAT INVENTORY

Report Date: 11/29/2005

Survey Date:

1/26/2005

REACH 1

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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
CASCADE/BEDROCK	2	15	0.9	0.10	14	0	3	8	8	3	0	80
CULVERT CROSSING	3	37	1.3	0.12	52	0	1	17	51	15	13	3
GLIDE	1	5	4.5	0.05	20	0	5	5	0	0	0	90
POOL-BACKWATER	4	15	1.6	0.23	22	0	44	40	12	4	0	0
POOL-LATERAL SCOUR	58	482	3.2	0.37	1,587	0	12	33	26	10	10	10
POOL-PLUNGE	5	14	3.4	0.50	51	0	6	25	27	8	12	22
POOL-STRAIGHT SCOUR	4	23	3.8	0.40	93	0	5	18	10	5	10	53
RAPID/BEDROCK	7	78	2.8	0.11	220	0	1	9	4	4	8	73
RAPID/BOULDERS	9	130	2.8	0.12	393	0	3	9	16	16	39	16
RIFFLE	46	530	2.6	0.13	1,409	0	5	14	47	18	12	4
RIFFLE W/ POCKETS	1	10	4.4	0.20	42	0	10	20	20	20	10	20
STEP/BEDROCK	1	6	3.4	0.10	20	0	0	5	5	0	20	70
STEP/BOULDERS	3	1	0.7	0.18	1	0	0	10	13	3	73	0
STEP/COBBLE	4	12	3.5	0.10	44	0	1	9	33	29	21	8
STEP/LOG	1	0	2.0	0.15	1	0	80	20	0	0	0	0
STEP/STRUCTURE	1	1	3.2	0.15	2	0	0	0	10	0	90	0
Total:	150	1,358	2.8	0.24	3,971	0	Avg: 8	21	30	12	14	14

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	15	1.6	0.23	22	0.56%	0	0.0
Scour Pools	67	520	3.2	0.38	1,731	43.58%	0	0.0
Glides	1	5	4.5	0.05	20	0.51%	0	0.0
Riffles	47	540	2.6	0.13	1,452	36.56%	0	0.0
Rapids	16	208	2.8	0.12	612	15.42%	0	0.0
Cascades	2	15	0.9	0.10	14	0.36%	0	0.0
Step/Falls	10	20	2.5	0.14	67	1.69%	0	0.0
Dry	0	0			0	0.00%	0	0.0
Culverts	3	37	1.3	0.12	52	1.31%	0	0.0

REACH 1

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POOL SUMMARY

	<u>Total</u>	Total of all Channel Lengths <u># / Km</u>	Primary Channel Length <u># / Km</u>
All Pools:	71	52.3	54.1
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	18	13.3	13.7
Pool frequency (channel widths/pool):	3.9		
Residual pool depth (avg):	0.24		

Comment Summary

Restoration Monitoring Sites 2005

MONITORING AREA: **2-MC** SITE ID: **304** PUGH CREEK PRE-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	RI	00	3		CT CT G D3 YT	
2	CC	00	22.5	CC	D:4.8 H:1.95 SIUSLAW R RD	
7	LP	00	75.6	HS		
8	SB	00	76		H=0.4m	
9	RI	00	84	HS	LONG GROUPS OF CONNECTED LOGS	
13	RI	00	123.9	HS		
15	SB	00	129.2		H=0.25m	
17	SL	00	130.8		H=0.3m	
19	RI	00	151.6	HS		
20	LP	00	160.5	HS		
22	LP	00	185.2	HS		
24	LP	00	216.1	HS		
25	SB	00	216.4		H=0.45m	
26	LP	01	222.3	/TJ		
30	RR	00	253.5	HS	CT MT D30 S LT	
31	CC	00	255.9	CC		
32	LP	00	265.7	HS		
33	LP	00	282.4	HS, DJ		
36	RI	00	305.6	HS		
38	LP	00	327.9	DJ		
41	RI	00	347.7	DJ		

Comment Summary

Restoration Monitoring Sites 2005

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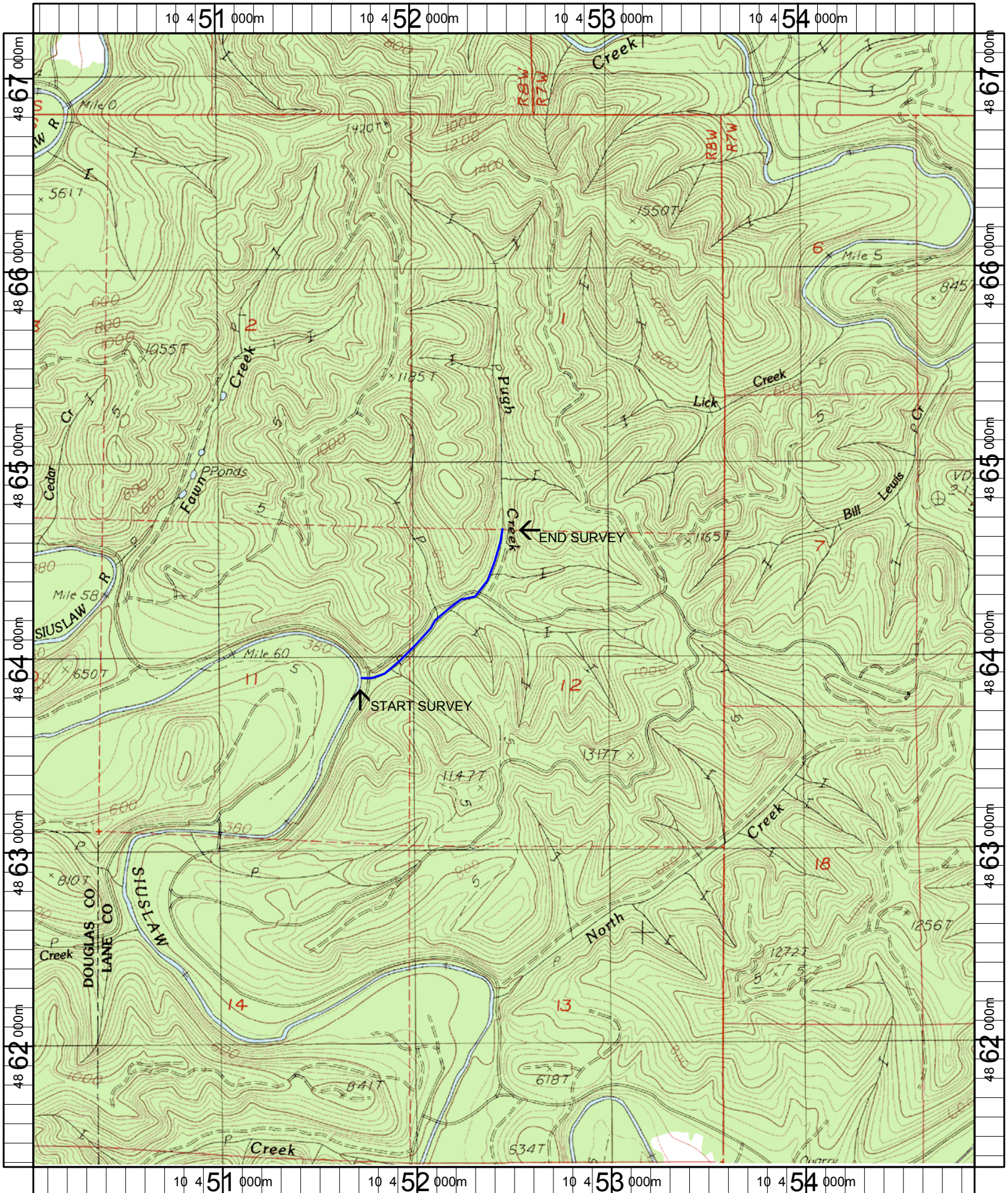
UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
43	LP	00	368.6	HS	LIVE JUV FISH	
47	SS	00	413.2		H = 0.45	
50	LP	00	439.5		JUV FISH	
55	RI	00	504.5		US MT D30 D15 LT JUV FISH	
66	SP	01	630.3	TJ/		
76	RI	00	701.7	DJ		
80	BW	10	735.1	DJ		
82	RR	00	746.4		CH MV D30 S LT	
96	CC	00	853.1	CC		
98	LP	00	868.3	DJ		
102	LP	00	913.7	SS/		
111	LP	01	1005.4	/TJ		
117	RB	01	1044.5	DJ		
119	LP	00	1050.9	DJ		
120	RI	00	1053.4	DJ		
122	RI	00	1070.1	DJ, /SS		
123	LP	00	1075.8	DJ		
125	PP	00	1087.9	DJ		
131	RR	00	1159.5	DJ		
132	LP	00	1163.9	DJ		
134	LP	00	1185.8	DJ		

Comment Summary

Restoration Monitoring Sites 2005

MONITORING AREA: 2-MC SITE ID: 304 PUGH CREEK 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>
138	PP	00	1209.5	/SS		
139	RB	00	1216.3		OLD CULVERT RIGHT SIDE	
142	LP	00	1244.6	DJ		
150	LP	00	1312.2		CH MV D30 S LT	



Name: CLAY CREEK
 Date: 1/21/2005
 Scale: 1 inch equals 2000 feet

Location: 10 452466 E 4864288 N
 Caption: PUGH CREEK RESTORATION SITE - SIUSLAW BASIN