

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: July 28, 2005
SURVEY CREW: Andy Livesay, Jennifer Jacobs
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 1,314 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 8.4 (range: 5.0-13.0). Land use for the reach was second growth (15-30 cm dbh) trees. The average unit gradient was 2.0 percent. Scour pools (50%) and riffles (31%) dominated stream habitat. Sand (31%) and gravel (30%) dominated stream substrate. Wood volume was low at 12.3 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.

OREGON DEPT OF FISH AND WILDLIFE

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

HABITAT INVENTORY

Report Date: 4/26/2006

Survey Date:

7/28/2005

REACH 1

T19S-R08W-S11NE

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	17	0.9	0.01	14	5	0	10	7	0	5	78
CASCADE/BOULDERS	2	24	1.2	0.09	30	10	0	19	19	34	15	12
CULVERT CROSSING	2	35	1.0	0.07	35	0	0	38	55	8	0	0
DRY UNIT	1	5	4.2	0.00	21	3	0	20	60	10	10	0
POOL-BACKWATER	1	1	1.1	0.15	1	0	40	60	0	0	0	0
POOL-ISOLATED	2	4	1.4	0.03	5	0	40	60	0	0	0	0
POOL-LATERAL SCOUR	51	443	2.4	0.32	1,167	115	5	44	25	3	4	19
POOL-PLUNGE	1	3	1.8	0.40	6	2	0	5	5	0	5	86
POOL-STRAIGHT SCOUR	10	70	3.1	0.34	217	12	3	27	16	1	9	45
PUDDLED UNIT	1	10	0.3	0.01	3	0	0	30	70	0	0	0
RAPID/BEDROCK	5	99	2.0	0.02	196	25	0	10	8	9	24	49
RAPID/BOULDERS	5	71	1.3	0.05	102	23	1	7	30	32	15	16
RIFFLE	35	518	1.5	0.06	864	78	1	24	44	17	4	10
STEP/BEAVER DAM	1	0	1.2	0.01	0	0	0	90	5	0	5	0
STEP/BEDROCK	4	16	1.6	0.02	30	1	0	9	6	2	0	83
STEP/BOULDERS	2	2	1.5	0.01	2	14	0	10	5	0	85	0
STEP/COBBLE	12	41	1.5	0.03	64	5	0	21	55	19	1	3
Total:	137	1,358	2.0	0.17	2,756	293	Avg: 3	31	30	10	6	20

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	3	5	1.3	0.07	7	0.24%	0	0.0
Scour Pools	62	516	2.5	0.32	1,390	50.43%	129	9.3
Glides	0	0			0	0.00%	0	0.0
Riffles	35	518	1.5	0.06	864	31.34%	78	9.0
Rapids	10	170	1.6	0.03	298	10.80%	48	16.1
Cascades	4	41	1.0	0.05	43	1.57%	15	34.7
Step/Falls	19	59	1.5	0.02	97	3.51%	20	20.7
Dry	2	15	2.2	0.01	24	0.87%	3	12.5
Culverts	2	35	1.0	0.07	35	1.25%	0	0.0

REACH 1

T19S-R08W-S11NE

REACH 1

POOL SUMMARY

	<u>Total</u>	Total of all Channel Lengths <u># / Km</u>	Primary Channel Length <u># / Km</u>
All Pools:	65	47.9	49.5
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	11	8.1	8.4
Pool frequency (channel widths/pool):	4.8		
Residual pool depth (avg):	0.28		

OREGON DEPARTMENT OF FISH AND WILDLIFE
HABITAT INVENTORY

PUGH CREEK PRE-TX
GCG: 2-MC SITE ID: 304

Survey Date 7/28/2005
Report Date: 4/26/2006

RIPARIAN ZONE
VEGETATION SUMMARY

REACH 1

Summary of Riparian Zone (0-30m) 4 transects

Total hardwoods/1000	1097
Total conifers/1000 ft	533
Total conifers >20" dbh/1000 ft	0
Total conifers >35" dbh/1000 ft	0

Average number of trees in a 5-meter wide band

Diameter class (cm)	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters		Zones 1-3 0-30 meters	
	Conifer	Hardwood	Conifer	Hardwood	Conifer	Hardwood	Conifer	Hardwood
3-15cm	0.0	2.3	3.0	1.5	0.3	1.8	3.3	5.5
15-30cm	0.5	4.8	2.5	2.8	1.3	2.8	4.3	10.3
30-50cm	0.0	1.0	0.8	0.8	0.5	0.5	1.3	2.3
50-90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	0.5	8.0	6.3	5.0	2.0	5.0	2.9	6.0

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	60		59		61	
Shrub cover	38		34		28	
Grass/forb cover	31		34		31	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	13		38		38	
High terrace	63		50		38	
Low terrace	0		0		0	
Floodplain	13		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	13		13		25	
Riprap	0		0		0	
Surface slope (%)	3		18		17	

Summary of Riparian Zone (0-30m) for all reaches

4 transects

Summary of riparian zone (0-100 feet) extrapolated to 1,000 feet along stream

Total hardwoods/1000	1097
Total conifers/1000 ft	533
Total conifers >20" dbh/1000 ft	0
Total conifers >35" dbh/1000 ft	0

Average number of trees in a 5-m wide band

Diameter class (cm)	Zones 1-3	
	<u>0-30 meters</u>	
	<u>Conifer</u>	<u>Hardwood</u>
3-15cm	3.3	5.5
15-30cm	4.3	10.3
30-50cm	1.3	2.3
50-90cm	0.0	0.0
>90cm	0.0	0.0

RIPARIAN ZONE VEGETATION

Reach 1

Reach 1

Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes	
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90		
25	LF	2	RB	0	0	0	0	Conifer							
								Hardwood							
25	LF	1	RB	0	30	20	10	Conifer							CAMPSITE/GR
								Hardwood		3	1				AVEL
25	RT	1	HT	3	60	60	20	Conifer							STOCKPILE
								Hardwood	2	2					
25	RT	2	HT	1	70	60	30	Conifer	3						
								Hardwood	1	1					
25	RT	3	HT	1	70	60	30	Conifer							
								Hardwood	1	2					
25	LF	3	RB	0	0	0	0	Conifer							
								Hardwood							
47	RT	2	HS	80	20	35	50	Conifer							
								Hardwood	1	2					
47	RT	3	HS	75	30	20	65	Conifer							
								Hardwood		5	1				
47	RT	1	HT	0	0	50	40	Conifer							
								Hardwood		3					
47	LF	1	HT	0	80	40	30	Conifer							
								Hardwood	1	2	1				
47	LF	2	HT	1	75	30	40	Conifer							
								Hardwood	2	1	3				
47	LF	3	HT	2	80	45	45	Conifer							
								Hardwood	1	1	1				
70	LF	3	RB	0	65	5	40	Conifer			1	1			
								Hardwood							
70	RT	3	HS	15	85	30	40	Conifer							
								Hardwood	5	3					
70	LF	1	HT	5	75	50	30	Conifer							
								Hardwood	2	7					
70	RT	1	HS	15	80	20	50	Conifer							
								Hardwood	2		2				
70	LF	2	HT	3	70	50	55	Conifer	2	3					
								Hardwood	2	6					
70	RT	2	HS	15	80	30	60	Conifer	6	2	2				
								Hardwood							

110	LF	1	FP	0	75	25	40	Conifer			
								Hardwood	1		
110	RT	3	HT	1	80	30	20	Conifer	1	3	
								Hardwood			
110	LF	3	HS	45	80	30	10	Conifer		1	1
								Hardwood			
110	RT	1	HT	1	80	40	30	Conifer		2	
								Hardwood	1	2	
110	RT	2	HT	0	75	30	30	Conifer	1	2	
								Hardwood		1	
110	LF	2	HS	45	80	40	10	Conifer		3	1
								Hardwood			

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	SC	00	5.9			START AT MOUTH
2	CC	00	25	CC		3.7M DIA, METAL, OPEN BOT
3	LP	00	40	CS		
6	LP	00	77	HS		FRY PRESENT; PLACED BO
7	DU	00	82.1		UNDERGROUND FLOW	
8	SC	00	86.6	HS		CABLED
10	SC	00	100.9			TEMP 14C
11	LP	00	116.4	HS		PLACED BOULDERS
13	LP	00	135.4			CREATED BY PLACED BOUL
14	SD	00	135.6	BV, BD	H=2.25M	
15	RI	00	155.9	HS		
16	LP	00	166.2			CABLED TO LOGS
17	RI	00	175.3	HS		PLACED BOULDERS
19	SC	00	190.9	HS		CRAYFISH
20	LP	00	216.2	HS		
21	SB	00	216.7	HS	H=0.25M	PLACED BOULDERS
22	RB	01	230.7	/TJ, HS		PLACED BOULDERS
25	RR	00	258.9	HS		RIPARIAN 1
28	RI	00	288.5	HS		
29	LP	00	302	HS		PLACED BOULDERS
30	RI	00	327.3	HS		CABLED WOOD, PLACED BO

Comment Summary

Restoration Monitoring Sites 2005

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

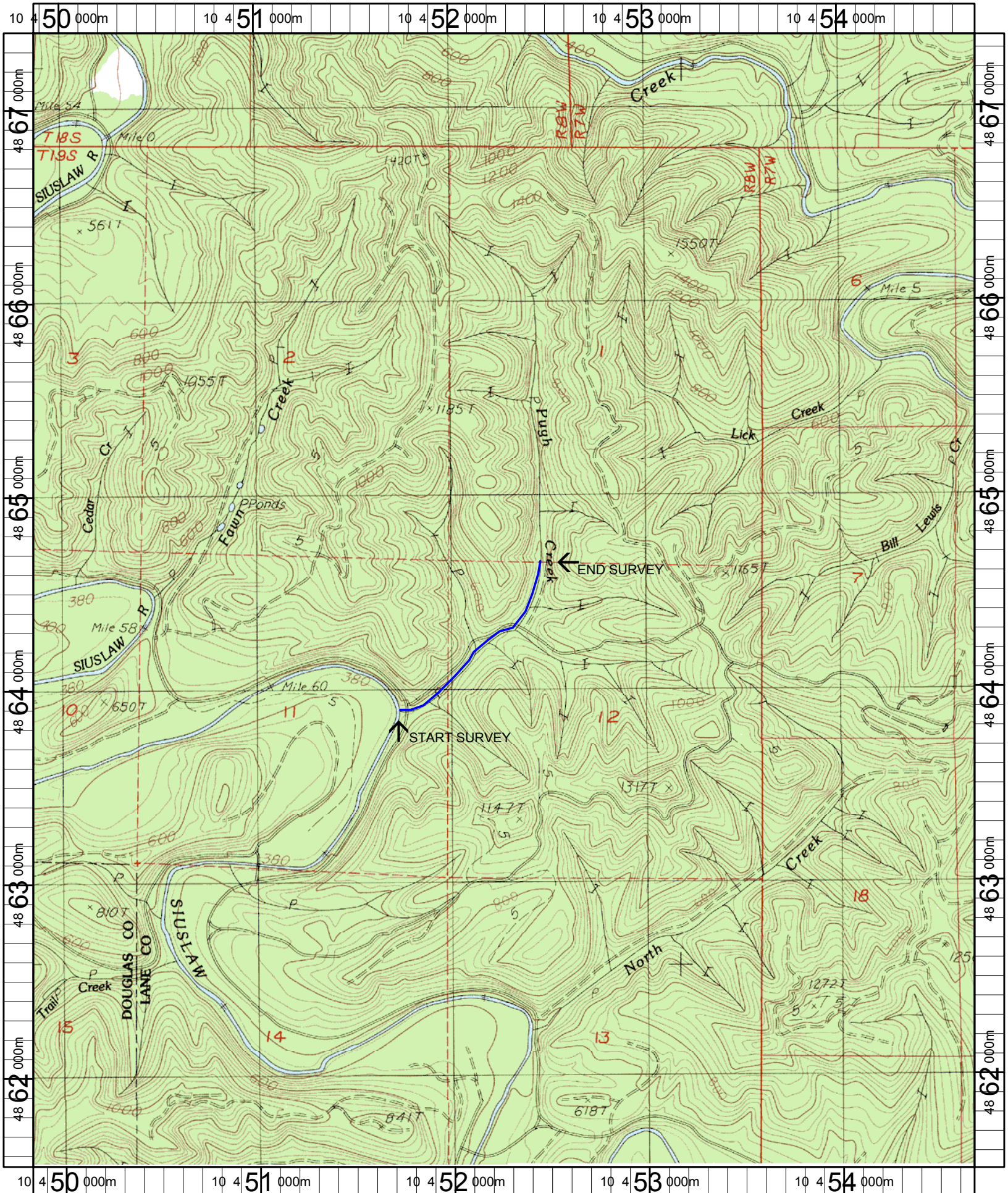
UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
33	LP	00	345.2			PLACED BOULDERS
34	RI	00	352.7	CS		BOULDERS
35	SP	00	360.9	CS		
36	RI	00	387.4	HS		
38	RI	00	416.1	SS, HS		
39	SB	00	417.5	HS	H=0.25M	PLACED BOULDERS
47	RR	00	532.7			RIPARIAN 2
53	RI	00	616.5	TJ/		
57	LP	00	637.2	DJ		
70	CB	00	785.8			RIPARIAN 3, 0452232 / 48642
73	IP	10	798		WET MUD, LITTLE WATE	PUDDLED
77	RI	00	830.5			CRAYFISH
78	SP	01	840.3	/TJ		
80	CC	00	855.7	CC, DJ		1.2M DIA, CONCRETE, BROK
82	LP	00	861.7			SPAWNING SURVEY SIGN
91	LP	00	940			FRY PRESENT
92	SR	00	941	DJ	H=0.2M	
95	RI	00	959			VERY BRUSHY
100	LP	01	1006.6	/TJ		
105	LP	00	1041.7	DJ		
106	SC	00	1046.4	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>
107	LP	00	1052.4	DJ		
108	SC	00	1053.4		H=0.2M	POSSIBLE ACTIVE FOREST
110	LP	00	1082			RIPARIAN 4
112	LP	00	1093.7	DJ		
115	RI	00	1140.1	DJ		
124	SP	00	1212.4	WL		PACIFIC GIANT SALAMANDE
130	LP	00	1245.7	DJ		
133	RI	01	1284.7		COHO FRY	
137	SP	00	1313.6			END, 2D 0452481 / 4864670



Name: CLAY CREEK
 Date: 6/13/2005
 Scale: 1 inch equals 2000 feet

Location: 10 452270 E 4864456 N
 Caption: PUGH CREEK RESTORATION SITE - SIUSLAW BASIN