

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

STREAM: Pistol River Tributary (SC-396)
BASIN: Pistol River
SURVEY TYPE: Pre-Tx
DATE: March 4, 2008
SURVEY CREW: Kyle Brachter, Bobby Gomez
REPORT PREPARED BY: Sharon Tippery
BASIN AREA: 1.8 km²
USGS MAPS: Cape Sebastian
ECOREGION: Coast Range Coastal Lowlands

GENERAL DESCRIPTION:

The Pistol River Tributary habitat survey extended 516 meters. The channel was constrained by hillslopes in a moderate V-shaped valley. The average valley width index was 4.9 (range: 1-20). Land use for the reach was second growth timber (15-30cm dbh) and rural residential. The average unit gradient was 3.9 percent. Riffles (32%), scour pools (26%) and rapids (25%) dominated stream habitat. Gravel (46%) and sand (29%) dominated stream substrate. Wood volume was 3.7m³/100m.

COMMENTS:

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

The crew noted one debris jam and juvenile salmonids during the survey.

**OREGON DEPARTMENT OF FISH AND WILDLIFE
HABITAT INVENTORY**

**PISTOL RIVER TRIBUTARY
GCG: 5-SC SITE ID: 396**

Survey Date: 3/4/2008

Report Date: 5/8/2008

T38S-R14W-S29NW

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	100%	Multiple Terraces	0%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	4.9	VWI Range:	1 - 20

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	100%	Single Channel	0%
Bedrock	0%	Multiple Channel	0%
Terrace	0%	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	516	1,042	0
Secondary	17	18	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 1
Width: 2.2	Width: 3.7	6.0 (3 - 8.5)	9.7 (9.7 - 9.7)
Depth: 0.27	Height: 0.4	0.8 (0.7 - 1)	1.0 (1 - 1)

W:D ratio: 8.7 Entrenchment (ACW:FPW ratio): 1.7
 Stream Flow Type: MF Habitat Units/100m (total channel length): 9.0
 Average Unit Gradient: 3.9% Habitat Units/100m (primary channel length): 9.3
 Water temperature (°C): 9.0 - 9.0

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	RR
Riparian Vegetation:	M15	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	8.7
Volume (m ³):	19	3.7
Key pieces (>=12m x 0.60m):	0	0.0

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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/BOULDERS	3	37	1.6	0.12	67	0	0	10	50	28	12	0
CULVERT CROSSING	1	34	2.0	0.15	68	0	0	0	0	0	0	100
POOL-BACKWATER	1	4	2.2	0.40	8	0	0	90	10	0	0	0
POOL-LATERAL SCOUR	14	89	2.6	0.47	216	0	0	44	36	13	6	2
POOL-PLUNGE	6	23	2.6	0.52	67	0	0	45	34	6	5	9
RAPID/BOULDERS	8	138	2.0	0.13	272	0	0	13	58	18	10	1
RIFFLE	11	200	1.8	0.09	347	0	0	19	67	13	0	0
STEP/BEDROCK	1	4	2.2	0.15	8	0	0	0	21	21	0	58
STEP/COBBLE	1	2	2.2	0.10	4	0	0	5	55	30	10	0
STEP/LOG	1	1	2.2	0.05	2	0	0	70	30	0	0	0
STEP/STRUCTURE	1	1	0.7	0.15	1	0	0	10	10	10	70	0
Total:	48	533	2.2	0.27	1,060	0	Avg: 0	29	46	13	7	5

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	4	2.2	0.40	8	0.73%	0	0.0
Scour Pools	20	112	2.6	0.48	282	26.64%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	11	200	1.8	0.09	347	32.77%	0	0.0
Rapids	8	138	2.0	0.13	272	25.64%	0	0.0
Cascades	3	37	1.6	0.12	67	6.36%	0	0.0
Step/Falls	4	8	1.8	0.11	15	1.46%	0	0.0
Dry	0	0			0	0.00%	0	0.0
Culverts	1	34	2.0	0.15	68	6.41%	0	0.0

POOL SUMMARY

	Total of all Channel Lengths		Primary Channel Length
	<u>Total</u>	<u># / Km</u>	<u># / Km</u>
All Pools:	21	39.4	40.7
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	4	7.5	7.7
Pool frequency (channel widths/pool):	6.9		
Residual pool depth (avg):	0.40		

COMMENT SUMMARY

MONITORING AREA: 5-SC SITE ID: 396 STREAM: PISTOL RIVER TRIBUTARY

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	PP	00	5.3	CS/CS	FORM:CH,SV. VEG:M30,S. USE:ST,RR.
3	CC	00	40.6	CC	DIAMETER=2M SUBSTRATE IS STEEL
4	RB	00	58.1	CS/CS	
13	RB	00	170.6		FORM:CH,SV. VEG:M15,S. USE:ST,RR.
19	RI	01	204.5	TJ/	
20	RI	11	204.5		TEMPERATURE=8.5C ACW=1.5M
26	RI	00	256.6		FORM:CT,MT. VEG:D15,S. USE:ST,RR.
28	RI	00	293.6		JUVENILE SALMONID
35	SR	00	354	DJ	
38	RI	00	405		FORM:CH,MV. VEG:M15,S. USE:ST,RR.
42	RI	01	454.6	/TJ	
43	CB	11	454.6		TEMPERATURE=7C ACW=1M
49	RB	00	516.2		FORM:CH,MV. VEG:M30. USE:ST,RR.



Name: CAPE SEBASTIAN
 Date: 1/3/2008
 Scale: 1 inch equals 2000 feet

Location: 10 0385635 E 4679184 N NAD 27
 Caption: PISTOL RIVER TRIBUTARY RESTORATION SITE - PISTOL RIVER