

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

STREAM: Misery Creek (MC-384)
BASIN: Siuslaw River
SURVEY TYPE: Pre-Tx
DATE: March 12, 2008
SURVEY CREW: David Jones, Ryan Emig
REPORT PREPARED BY: Sharon Tippery
BASIN AREA: 8.7 km²
USGS MAPS: Herman Creek
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The Misery Creek habitat survey extended 3,106 meters. The channel was constrained by multiple terraces in a broad valley floor. The average valley width index was 11.8 (range: 9-15). Land use for the reach was mature timber (50-90cm dbh) and second growth timber (15-30cm dbh). The average unit gradient was 1.2 percent. Riffles (62%) and scour pools (33%) dominated stream habitat. Gravel (58%) and sand (20%) dominated stream substrate. Wood volume was 17.7m³/100m.

COMMENTS:

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

The crew noted several habitat structures and debris jams during the survey.

Several steelhead redds, juvenile Coho, rough-skinned newts, amphibian egg masses, an elk carcass, and trout were observed during the survey.

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

MISERY CREEK

GCG: 2-MC SITE ID: 384

Survey Date: 3/11/2008

Report Date: 5/8/2008

T16S-R09W-S21SE

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	11.8	VWI Range:	9 - 15

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	3,106	15,605	0
Secondary	403	995	2

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 4.5	Width: 6.1	7.8 (5.2 - 10)	11.3 (7.2 - 20)
Depth: 0.45	Height: 0.3	0.6 (0.4 - 0.6)	1.3 (0.5 - 1.95)

W:D ratio: 21.9

Stream Flow Type: MF

Average Unit Gradient: 1.2%

Water temperature (°C): 8.0 - 8.0

Entrenchment (ACW:FPW ratio): 1.3

Habitat Units/100m (total channel length): 5.9

Habitat Units/100m (primary channel length): 6.7

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	MT	ST
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):	445	14.3
Volume (m ³):	549	17.7
Key pieces (>=12m x 0.60m):	9	0.3

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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	6	53	1.3	0.09	70	0	3	18	51	26	2	0
POOL-BACKWATER	9	44	2.6	0.37	108	0	17	51	27	3	1	1
POOL-ISOLATED	6	97	3.2	0.38	416	0	51	31	18	0	0	0
POOL-LATERAL SCOUR	80	977	5.3	0.75	5,317	0	4	28	51	12	2	3
POOL-PLUNGE	4	34	6.0	0.84	191	0	2	21	56	11	5	4
PUDDLED UNIT	2	55	1.5	0.25	95	0	25	30	27	9	0	9
RIFFLE	60	1,161	4.2	0.21	5,194	0	1	9	71	17	1	0
RIFFLE W/ POCKETS	31	1,074	4.6	0.32	5,141	0	1	11	67	16	2	2
STEP/BOULDERS	1	3	4.0	0.20	12	0	0	5	20	5	70	0
STEP/COBBLE	3	8	4.7	0.17	36	0	0	7	82	12	0	0
STEP/LOG	5	4	4.4	0.09	21	0	4	23	63	10	0	0
Total:	207	3,509	4.5	0.45	16,601	0	Avg: 4	20	58	14	2	2

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	15	141	2.9	0.38	524	3.16%	0	0.0
Scour Pools	84	1,011	5.4	0.75	5,508	33.18%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	91	2,235	4.3	0.25	10,335	62.25%	0	0.0
Rapids	0	0			0	0.00%	0	0.0
Cascades	6	53	1.3	0.09	70	0.42%	0	0.0
Step/Falls	9	15	4.5	0.13	69	0.42%	0	0.0
Dry	2	55	1.5	0.25	95	0.57%	0	0.0
Culverts	0	0			0	0.00%	0	0.0

POOL SUMMARY

	Total of all Channel Lengths		Primary Channel Length
	<u>Total</u>	<u># / Km</u>	<u># / Km</u>
All Pools:	99	28.2	31.9
Pools >=1m deep:	10	2.8	3.2
Complex pools (LWD pieces>=3):	31	8.8	10.0
Pool frequency (channel widths/pool):	5.8		
Residual pool depth (avg):	0.55		

COMMENT SUMMARY

MONITORING AREA: 2-MC SITE ID: 384 STREAM: MISERY CREEK

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	RP	00	17	HS	START OF SURVEY
2	LP	00	27	HS	
4	LP	00	49	DJ, HS	
6	LP	00	89	HS	
7	RI	00	101		STEELHEAD REDD
9	RP	00	162	HS	
11	RI	00	185		STEELHEAD REDD
12	LP	00	196	HS, /SS	STEELHEAD REDD
14	RP	00	243	HS	PLACED BOULDERS IN STREAM
16	RI	01	276	TJ/	
17	CB	11	276		TEMP=7.7C.
19	RI	01	308	/TJ	TWO STEELHEAD REDDS
20	RI	11	308		ACW=2.2M.
22	RP	01	356		PRIVATE BRIDGE CROSSING
24	LP	00	367	HS	PLACED BOULDERS
25	RP	00	386	HS	
26	LP	00	399	HS, DJ	
27	RI	00	427	/CS	
28	PP	00	432	HS, DJ	
33	RI	00	469.5	HS	
35	RI	00	548.5	HS	
36	LP	00	556.5	HS,DJ	

COMMENT SUMMARY

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UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
38	LP	01	617.5	HS,DJ	
41	LP	00	651.5	HS, DJ,	PLACED BOULDERS AS /CS
42	RP	00	674.5		TEMP=7.8C
43	LP	00	684.5	HS, DJ	
47	LP	00	717.5	HS, DJ	
48	RP	01	765.5		STEELHEAD REDD
55	LP	02	792.4	TJ/, DJ,HS	
57	CB	11	803.4		TEMP=8C.
61	LP	00	818.4		LOW WATER BRIDGE CROSSING. PLACED BOULDERS AS CS/CS
63	IP	10	840.4		LOTS OF COVER FROM SHRUBS
66	BW	10	883.4	TJ/	TRIB ENTERS BACKWATER
67	RI	11	883.4		TEMP=8.5C. ACW=1.3M
68	LP	00	896.4		STEELHEAD REDD
69	RP	00	967.4		STEELHEAD REDDS
70	LP	00	977.4		SGS SIGN
71	RP	01	1008.4	SS/, /TJ	
72	CB	11	1008.4		TEMP=8.2C
76	RI	00	1118.4	/SS	
79	LP	00	1159.4		STEELHEAD REDDS
80	RI	00	1181.4		STEELHEAD REDDS
83	LP	00	1220.4		COHO FRY IN POOL
90	RP	00	1396.4	HS,DJ	ELK CARCASS IN CREEK

COMMENT SUMMARY

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UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
91	RP	01	1433.4	TJ/	PRIVATE BRIDGE CROSSING.
92	CB	11	1433.4		TEMP=7C
96	RI	00	1494.4		STEELHEAD REDD
101	BW	10	1576.4		SCULPIN SPOTTED
104	LP	00	1625.4		STEELHEAD REDD.
106	LP	01	1657.4	DJ	
109	LP	02	1666.4		COHO JUVENILES
110	PD	02	1666.4	/SS	COHO JUVENILES AND FRY
111	IP	10	1666.4	AM	ROUGH-SKINNED NEWTS AND EGG MASSES
113	LP	00	1683.4		COHO JUVENILES
119	LP	00	1759.4		COHO JUVENILES
126	RP	01	1871.4	/TJ	
127	CB	11	1871.4		ACW=1.2M.
129	RP	01	1912.4	SS/	
131	LP	02	1912.4	DJ	
133	LP	00	1926.4		COHO JUVENILES
135	LP	01	1958.4		STEELHEAD REDD
136	BW	10	1958.4		COHO FRY
137	RI	00	1968.4		TEMP=7.5C
144	RP	01	2083.4	/TJ	
145	CB	11	2083.4		ACW=1.3M
147	RP	00	2143.4		STEELHEAD REDD

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UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
151	LP	00	2176.1		STEELHEAD REDD AND TROUT
160	RP	01	2298.1	SS/	STEELHEAD REDD
162	LP	01	2312.1	AM	ROUGH-SKINNED NEWT PRESENT
164	RP	00	2340.1		STEELHEAD REDD
167	LP	01	2376.1	DJ	
177	LP	00	2556.1		STEELHEAD REDDS
179	LP	00	2606.1	DJ	
181	LP	00	2641.1	DJ	
182	RI	01	2651.1	TJ/SS	
183	RI	11	2651.1		TEMP=7.5C
191	IP	10	2746.6		HORSESHOE SHAPED
195	RI	01	2826.3		SGS SIGN (CANT READ NUMBERS ON SIGNS)
196	RI	11	2826.3		ACW=1.4M
198	RI	01	2857.3	/SS	
199	LP	01	2863.3	DJ	
202	LP	00	2911.3		COHO JUVENILES AND TROUT PRESENT
207	RP	00	3106.3		END OF SURVEY



Name: HERMAN CREEK
 Date: 12/11/2007
 Scale: 1 inch equals 2000 feet

Location: 10 437650 E 4890560 N
 Caption: MISERY CREEK RESTORATION SITE - SIUSLAW BASIN