

**ODFW AQUATIC INVENTORY PROJECT  
RESTORATION MONITORING  
STREAM HABITAT REPORT**

STREAM: MISERY CREEK  
 GCG: 2-MC  
 SITE ID: 384  
 BASIN: SIUSLAW  
 TREATMENT DATE: 2008  
 SURVEY DATE: 7/16/2008  
 SURVEY CREW: Sarah Yue / LaNoah Babcock  
 USGS MAPS: HERMAN CREEK  
 ECOREGION: Mid-Coastal Sedimentary  
 REPORT PREPARED BY: Matt Strickland / Sharon Tippery / Charles Stein

**SURVEY DESCRIPTION:**

Channel morphology: Constrained by high terraces  
 Dominant landuse(s): Second growth timber (15-30 cm dbh)  
 Dominant riparian vegetation: Shrubs (willow, salmonberry, some small alder)  
 Primary channel length (meters) and area (m<sup>2</sup>): 3,023 : 10,221  
 Secondary channel length (meters) and area (m<sup>2</sup>) 284 : 400  
 VWI average: 14.0 VWI Range: 6 - 20 Average Gradient: 0.9%  
 Pieces LWD per 100m: 15.2 Wood Volume (m<sup>3</sup>) per 100m: 15.1  
 Percent pools: 58% Complex pools (LWD pieces $\geq$ 3): 40 Pools  $\geq$ 1m deep: 1  
 Percent substrate (avg):

	<u>Silt / organics</u>	<u>Sand</u>	<u>Gravel</u>	<u>Cobble</u>	<u>Boulder</u>	<u>Bedrock</u>
All units	6	16	36	39	2	1
Pool units	8	23	36	29	3	1
Fast water units	0	7	40	49	3	1

**COMMENTS:**

This is a pre-treatment, restoration survey. The crew noted habitat structures consisting of placed boulders and logs already in place throughout the beginning of the survey. They also noted observing juvenile coho and steelhead fry. Evidence of amphibians included a rough-skinned newt.

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

**MISERY CREEK  
GCG: 2-MC SITE ID: 384**

**Survey Date: 7/16/2008**

**Report Date: 12/29/2008**

**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	100%
Moderate V-shape	0%	Multiple Terraces	0%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	14.0	VWI Range:	6 - 20

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	3,023	10,221	2
Secondary	284	400	3

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 2.9	Width: 8.2	12.5 ( 9.4 - 19.8 )	16.5 ( 11.9 - 23.8 )
Depth: 0.30	Height: 0.6	1.2 ( 0.7 - 1.3 )	1.6 ( 1.4 - 1.8 )

W:D ratio: 14.1

Stream Flow Type: MF

Average Unit Gradient: 0.9%

Water temperature (°C): 12.0 - 12.0

Entrenchment (ACW:FPW ratio): 1.6

Habitat Units/100m (total channel length): 7.4

Habitat Units/100m (primary channel length): 8.1

**Riparian, Bank, and Wood Summary**

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	LT
Riparian Vegetation:	S	D50

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	11%	Reach avg: 90%
Undercut Banks:	11%	Range: 50 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	458	15.2
Volume (m <sup>3</sup> ):	456	15.1
Key pieces (>=12m x 0.60m):	1	0.0

OREGON DEPARTMENT OF FISH AND WILDLIFE

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HABITAT DETAIL

Habitat Type	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m <sup>2</sup> )	Large Boulders (#>0.5m)	Substrate Percent Wetted Area					
							S/O	Snd	Grvl	Cbl	Bldr	Bdrk
CASCADE/BOULDERS	5	29	1.2	0.06	35	5	0	11	27	57	5	0
DRY CHANNEL	2	9	2.9	0.00	20	0	28	28	40	5	0	0
DRY UNIT	2	3	1.7	0.00	4	0	10	10	48	33	0	0
POOL-BACKWATER	10	35	1.8	0.21	64	0	30	45	16	9	0	0
POOL-ISOLATED	4	16	1.4	0.14	19	0	35	23	16	18	0	9
POOL-LATERAL SCOUR	106	1,737	3.4	0.55	6,148	665	8	23	36	29	3	1
PUDDLED UNIT	1	38	1.2	0.25	45	0	0	10	45	45	0	0
RAPID/BOULDERS	7	83	2.3	0.12	188	36	0	6	30	50	13	0
RIFFLE	93	1,287	2.7	0.12	3,886	54	0	7	42	48	2	1
RIFFLE W/ POCKETS	1	20	5.0	0.10	101	0	0	5	45	50	0	0
STEP/COBBLE	14	49	2.0	0.07	103	1	0	8	30	62	0	0
STEP/LOG	1	2	5.1	0.05	8	0	0	10	40	50	0	0
<b>Total:</b>	<b>246</b>	<b>3,307</b>	<b>2.9</b>	<b>0.30</b>	<b>10,621</b>	<b>761</b>	<b>Avg: 6</b>	<b>16</b>	<b>36</b>	<b>39</b>	<b>2</b>	<b>1</b>

HABITAT SUMMARY

Habitat Group	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area		Large Boulders	
					(m <sup>2</sup> )	Percent	Number	(# / 100m <sup>2</sup> )
Dammed & BW Pools	14	51	1.7	0.19	83	0.78%	0	0.0
Scour Pools	106	1,737	3.4	0.55	6,148	57.88%	665	10.8
Glides	0	0			0	0.00%	0	0.0
Riffles	94	1,308	2.8	0.12	3,987	37.54%	54	1.4
Rapids	7	83	2.3	0.12	188	1.77%	36	19.1
Cascades	5	29	1.2	0.06	35	0.33%	5	14.1
Step/Falls	15	51	2.2	0.07	111	1.04%	1	0.9
Dry	5	49	2.1	0.05	69	0.65%	0	0.0
Culverts	0	0			0	0.00%	0	0.0

POOL SUMMARY

	Total of all Channel Lengths		Primary Channel Length
	Total	# / Km	# / Km
All Pools:	120	36.3	39.7
Pools >=1m deep:	1	0.3	0.3
Complex pools (LWD pieces>=3):	40	12.1	13.2
Pool frequency (channel widths/pool):	3.4		
Residual pool depth (avg):	0.46		

OREGON DEPARTMENT OF FISH AND WILDLIFE  
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RIPARIAN ZONE  
VEGETATION SUMMARY

REACH 1

Summary of Riparian Zone (0-30m) 3 transects

Total hardwoods/1000	833
Total conifers/1000 ft	20
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	0.7	0.3	2.7	0.0	3.3	0.3	6.7
15-30cm	0.0	1.7	0.0	1.3	0.0	0.3	0.0	3.3
30-50cm	0.0	2.0	0.0	0.0	0.0	0.7	0.0	2.7
50-90cm	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	0.0	5.3	0.3	4.0	0.0	4.3	0.1	4.6

Canopy closure and ground cover

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Canopy closure	86	73	59
Shrub cover	56	46	68
Grass/forb cover	44	54	33

Predominant landform in each zone

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Hillslope	17	33	33
High terrace	67	67	67
Low terrace	17	0	0
Floodplain	0	0	0
Wetland/meadow	0	0	0
Stream channel	0	0	0
Roadbed/Railroad	0	0	0
Riprap	0	0	0
Surface slope (%)	9	8	14

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

**3 transects**

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

Total hardwoods/1000	833
Total conifers/1000 ft	20
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	0.3	6.7
15-30cm	0.0	3.3
30-50cm	0.0	2.7
50-90cm	0.0	1.0
>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		
42	LT	1	HT	0	95	80	20	Conifer							
								Hardwood	1	5	4	1			
42	LT	2	HS	4	90	65	35	Conifer							
								Hardwood	1	4					
42	LT	3	HS	45	85	100	0	Conifer							
								Hardwood			1				
42	RT	1	HT	0	80	20	80	Conifer							
								Hardwood							
42	RT	2	HT	0	40	0	100	Conifer							
								Hardwood							
42	RT	3	HT	0	0	0	100	Conifer							5% DIRT
								Hardwood							
102	LT	1	LT	12	90	40	60	Conifer							
								Hardwood			2	1			
102	LT	2	HT	0	80	10	90	Conifer	1						
								Hardwood	2						
102	LT	3	HT	0	80	25	75	Conifer							
								Hardwood	1	1	1				
102	RT	1	HS	40	100	25	75	Conifer							
								Hardwood				1			
102	RT	2	HS	45	100	20	80	Conifer							
								Hardwood							
102	RT	3	HS	40	100	80	20	Conifer							
								Hardwood	8						
151	LT	1	HT	0	100	70	30	Conifer							
								Hardwood	1						
151	LT	2	HT	0	80	80	20	Conifer							
								Hardwood	4						
151	LT	3	HT	0	30	100	0	Conifer							
								Hardwood							
151	RT	1	HT	0	50	100	0	Conifer							
								Hardwood							
151	RT	2	HT	0	50	100	0	Conifer							
								Hardwood	1						
151	RT	3	HT	0	60	100	0	Conifer							
								Hardwood	1						

COMMENT SUMMARY

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

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	RI	00	16.3		CT/CT, D30/S, RR/ST
2	LP	00	45.3	3 HS	
4	LP	00	87.5	HS	HS HAS CABLES
10	LP	00	230.6	HS	BOULDER/LOG HS
12	LP	01	275.1	TJ/	
14	RI	11	275.1		ACW=2.2M
18	RI	01	315.8	/TJ	
22	LP	00	363.3	BC	
23	RI	00	371.3	HS	
24	LP	00	382.8	HS	
27	LP	00	419.9		COHO FRY PRESENT
29	LP	01	452.2	HS	
30	SC	10	452.2		H=0.25M
31	LP	00	484.4	HS	
33	LP	00	557.9	HS	
39	LP	00	614.3	HS, DJ	
41	LP	00	650.5	HS, RR	
42	RI	00	668.1		CA/CT, D30/S, LT
43	LP	00	684.7	HS	
45	LP	00	694.9	HS	
47	LP	00	725	2 HS	
51	DC	01	770.5		PHOTOS, POSSIBLE SL, SUBSURFACE FLOW

COMMENT SUMMARY

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

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
54	LP	02	778.1	HS, TJ/	
55	CB	11	778.1		ACW=1.2M
57	SC	11	778.1		H=0.50M
59	LP	00	818.3	BC/RF	BRIDGE IS CONCRETE, BASE IS AT WATER SURFACE, PHOTO
71	LP	00	969.2	SS/	
74	RI	01	1001.2	TJ/	
75	CB	11	1001.2		ACW=2.3M
92	LP	01	1277.5	TJ/, DJ	
93	CB	11	1277.5		ACW=0.80M
94	SC	11	1277.5		H=0.40M
102	RI	00	1333.6		CA/CT,D30/G,LT/ST, 10M MANMADE POND ON LT TERR 30M FROM STREAM
106	LP	00	1382.5	HS	
107	RI	01	1416	BC,CE, TJ/	CONCRETE BRIDGE & 0.7M DIA CULVERT ON LEFT UNDER BRIDGE
109	RB	11	1416		ACW=2.4M
124	LP	01	1642.3	DJ	
126	LP	02	1650.8	AM	ROUGH-SKINNED NEWTS, LOTS OF COHO FRY
127	PD	02	1650.8		ACW=3.4M
151	RI	00	1979.9		CT/CT, D50/S, LT/
157	LP	01	2047.5	/TJ	
158	RB	11	2047.5		ACW=2.3M
176	LP	00	2214.9	SS/	
180	LP	01	2281.3	TJ/	



COMMENT SUMMARY

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UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
181	DU	11	2281.3		UNDERGROUND FLOW
182	LP	11	2281.3		COHO IN POOL OF TRIB
199	RI	00	2416.9		LOTS OF STEELHEAD FRY
203	SL	00	2448.9		H=0.15M
206	SC	00	2460.7		H=0.20M
217	LP	01	2594.9	DJ, TJ/	
233	LP	01	2771.2	/TJ	
234	RI	11	2771.2		T=12C
237	SC	01	2798.3	/TJ	
240	LP	00	2806.3	DJ	



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

MC-384 Misery Creek (Pre-Treatment) 2008 Summer Habitat Survey Photographs



Large wood debris jam