

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

STREAM: BEAR CREEK  
 GCG: 3-MS  
 SITE ID: 125  
 BASIN: COQUILLE  
 TREATMENT DATE: 2002  
 SURVEY DATE: 9/11/2008  
 SURVEY CREW: Peter Cole / Lisa Biggs  
 USGS MAPS: BILL PEAK  
 ECOREGION: Coastal Uplands  
 REPORT PREPARED BY: Matt Strickland / Sharon Tippery / Charles Stein

**SURVEY DESCRIPTION:**

Channel morphology: Constrained by high terraces

Dominant landuse(s): Light grazing pressure

Dominant riparian vegetation: Shrubs (willow, salmonberry, some small alder)

Primary channel length (meters) and area (m<sup>2</sup>): 848 : 3,603

Secondary channel length (meters) and area (m<sup>2</sup>) 54 : 94

VWI average: 8.3 VWI Range: 4.5 - 12 Average Gradient: 0.6%

Pieces LWD per 100m: 22.5 Wood Volume (m<sup>3</sup>) per 100m: 39.8

Percent pools: 84% Complex pools (LWD pieces $\geq$ 3): 19 Pools  $\geq$ 1m deep: 10

Percent substrate (avg):	<u>Silt / organics</u>	<u>Sand</u>	<u>Gravel</u>	<u>Cobble</u>	<u>Boulder</u>	<u>Bedrock</u>
All units	12	25	59	3	0	1
Pool units	20	37	40	2	0	2
Fast water units	5	18	75	2	0	0

**COMMENTS:**

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

**BEAR CREEK  
GCG: 3-MS SITE ID: 125**

**Survey Date: 9/11/2008**

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

**T29S-R14W-S12SE**

**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	8.3	VWI Range:	4.5 - 12

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	848	3,603	0
Secondary	54	94	1

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 3.4	Width: 9.9	11.4 ( 9.4 - 13.9 )	15.1 ( 13.5 - 17 )
Depth: 0.42	Height: 0.6	1.2 ( 1 - 1.2 )	1.8 ( 1.7 - 2 )

W:D ratio: 17.1

Stream Flow Type: LF

Average Unit Gradient: 0.6%

Water temperature (°C): 14.5 - 14.5

Entrenchment (ACW:FPW ratio): 1.2

Habitat Units/100m (total channel length): 6.4

Habitat Units/100m (primary channel length): 6.8

**Riparian, Bank, and Wood Summary**

	<u>Primary</u>	<u>Secondary</u>
Land Use:	LG	ST
Riparian Vegetation:	S	D30

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	8%	Reach avg: 65%
Undercut Banks:	23%	Range: 28 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	191	22.5
Volume (m <sup>3</sup> ):	338	39.8
Key pieces (>=12m x 0.60m):	28	3.3

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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
DRY CHANNEL	1	8	1.5	0.00	12	0	0	17	50	33	0	0
POOL-BACKWATER	3	27	2.5	0.47	63	0	15	29	56	0	0	0
POOL-ISOLATED	1	7	1.8	0.35	12	0	20	20	60	0	0	0
POOL-LATERAL SCOUR	26	573	5.6	0.80	3,118	0	20	37	40	2	0	2
RIFFLE	5	60	1.2	0.05	71	0	4	8	88	0	0	0
RIFFLE W/ POCKETS	9	196	2.0	0.11	385	1	6	23	67	3	0	0
STEP/COBBLE	13	31	1.2	0.04	35	0	2	10	83	4	0	0
<b>Total:</b>	<b>58</b>	<b>902</b>	<b>3.4</b>	<b>0.42</b>	<b>3,697</b>	<b>1</b>	<b>Avg: 12</b>	<b>25</b>	<b>59</b>	<b>3</b>	<b>0</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	4	34	2.3	0.44	76	2.05%	0	0.0
Scour Pools	26	573	5.6	0.80	3,118	84.34%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	14	256	1.7	0.08	456	12.34%	1	0.2
Rapids	0	0			0	0.00%	0	0.0
Cascades	0	0			0	0.00%	0	0.0
Step/Falls	13	31	1.2	0.04	35	0.95%	0	0.0
Dry	1	8	1.5	0.00	12	0.32%	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:	30	33.3	35.4
Pools >=1m deep:	10	11.1	11.8
Complex pools (LWD pieces>=3):	19	21.1	22.4
Pool frequency (channel widths/pool):	3.0		
Residual pool depth (avg):	0.76		

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RIPARIAN ZONE  
VEGETATION SUMMARY

REACH 1

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

Total hardwoods/1000	610
Total conifers/1000 ft	102
Total conifers >20" dbh/1000 ft	20
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	0.0	0.7	0.3	2.0	0.3	3.3
15-30cm	0.0	0.3	0.3	1.3	0.3	0.0	0.7	1.7
30-50cm	0.0	2.0	0.0	2.0	0.3	0.3	0.3	4.3
50-90cm	0.0	0.3	0.0	0.0	0.3	0.0	0.3	0.3
>90cm	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.3
Total/100m2	0.0	3.3	0.3	4.0	1.3	2.7	0.6	3.3

Canopy closure and ground cover

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Canopy closure	42	42	49
Shrub cover	83	54	31
Grass/forb cover	17	44	56

Predominant landform in each zone

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Hillslope	0	33	67
High terrace	100	67	33
Low terrace	0	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 (%)	0	9	18

**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	610
Total conifers/1000 ft	102
Total conifers >20" dbh/1000 ft	20
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	3.3
15-30cm	0.7	1.7
30-50cm	0.3	4.3
50-90cm	0.3	0.3
>90cm	0.0	0.3

**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			
19	LT	1	HT	0	70	80	20	Conifer							
								Hardwood			1				
19	LT	2	HT	0	10	0	100	Conifer							
								Hardwood							
19	LT	3	HT	0	0	0	100	Conifer							
								Hardwood							
19	RT	1	HT	0	60	80	20	Conifer							ELDERBERRY
								Hardwood	2		1				
19	RT	2	HS	40	90	60	40	Conifer							
								Hardwood		1	1				
19	RT	3	HS	40	90	60	40	Conifer							
								Hardwood			1				
37	LT	1	HT	0	40	90	10	Conifer							
								Hardwood			2				
37	LT	2	HT	0	80	100	0	Conifer							
								Hardwood		3	4				
37	LT	3	HS	20	95	5	15	Conifer	1				1		
								Hardwood	2					1	
37	RT	1	HT	0	20	100	0	Conifer							
								Hardwood					1		
37	RT	2	HS	15	0	85	5	Conifer							3M OF ATV
								Hardwood							RB & 3M OF
37	RT	3	HS	20	30	100	0	Conifer				1			HT
								Hardwood							
54	LT	1	HT	0	20	100	0	Conifer							
								Hardwood							
54	LT	2	HT	0	50	80	20	Conifer			1				
								Hardwood	2		1				
54	LT	3	HS	30	70	20	80	Conifer							
								Hardwood	4						
54	RT	1	HT	0	40	50	50	Conifer							
								Hardwood			1	2			
54	RT	2	HT	0	20	0	100	Conifer							
								Hardwood							
54	RT	3	HT	0	10	0	100	Conifer			1				
								Hardwood							

**COMMENT SUMMARY**

MONITORING AREA: 3-MS      SITE ID: 125      STREAM: BEAR CREEK

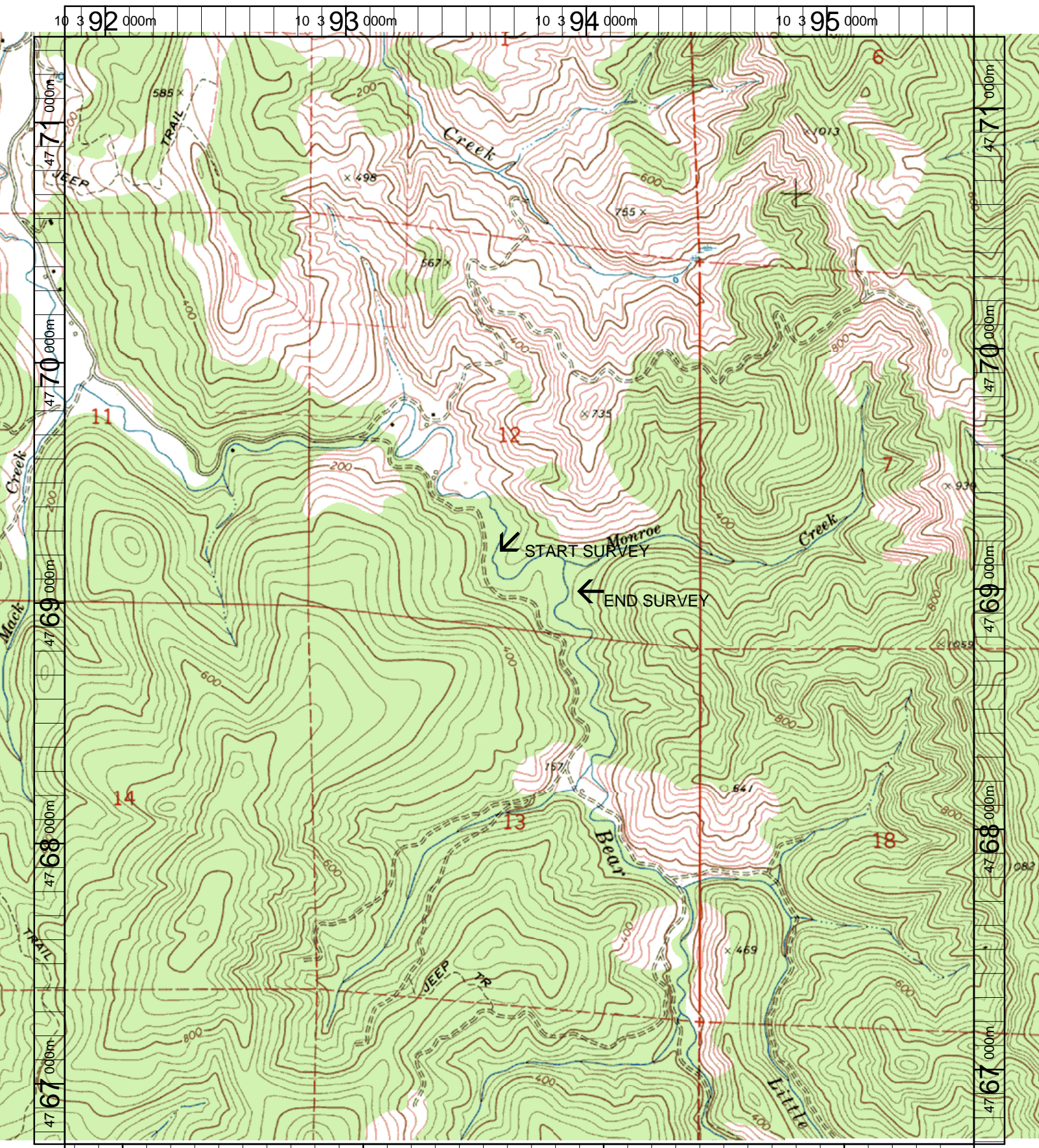
UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	LP	00	27.2		T=14C @ 9:14AM, START SIGN ALDER LEFT
4	RP	00	76.1		CATTLE CROSSING
5	LP	01	95.3	AM	STICKLEBACK, 7.5CM YELLOW-LEGGED FROG, LONG GREEN ALGAE THRU/OUT
14	LP	00	192	WL	\TRAIL, DEER TRACKS THROUGHOUT, COHO FRY PRESENT
17	RP	00	219.7	WL	\TRAIL
18	LP	00	249.8	HS	
19	RP	00	265.6		RIPARIAN 1
20	LP	00	271.6	HS	
21	BW	10	271.6	HS	NO SLOPE, NO STEP
25	LP	01	340.4	HS,\TJ,AM	RED-LEGGED FROG
26	DC	11	340.4	AM	5CM DUNNS SALAMANDER
27	RP	00	364.6		CATTLE CROSSING
28	LP	00	377.6	HS	
30	LP	00	407.9	HS	FRESH RACCOON SCAT
32	LP	00	447.9	HS,LA	LANDSLIDE ACTIVE: H=10M, W=6M
36	LP	00	512.2	RF	ATV TRAIL ON RIGHT
37	SC	00	515		RIPARIAN 2
38	LP	00	555	HS	
40	LP	00	569.3	HS	
42	LP	00	584.9	HS	
43	RP	01	629.3	HS	
47	LP	00	714	BV,HS,AM	RED-LEGGED FROG

**COMMENT SUMMARY**

MONITORING AREA: 3-MS      SITE ID: 125      STREAM: BEAR CREEK

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
49	LP	00	731.6	HS	
51	LP	00	747.9	AM	RED-LEGGED FROG
53	LP	00	765.9	HS	
54	RI	00	775.9		RIPARIAN 3
55	LP	00	802.4	HS,DJ	
56	RI	01	822.6	TJ\	ATV ROAD CROSSING
57	RI	11	822.6	RF	ACW=2.4M, T=15.5C @ 2:00PM, ATV TRAIL CROSSING





Name: BILL PEAK  
Date: 3/20/2003  
Scale: 1 inch equals 1666 feet

Location: 10 393681 E 4769027 N  
Caption: BEAR CREEK RESTORATION SITE- COQUILLE BASIN

MS-125 Bear Creek (Post-Treatment) 2008 Summer Habitat Survey Photographs



Reach photo 1



Large wood habitat structure



Reach photo 2



*Plethodon vehiculum* (Western Red-backed Salamander)