

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

STREAM: Bear Creek (MS-4)  
BASIN: Coquille River  
SURVEY TYPE: Post-Tx  
DATE: September 27, 2007  
SURVEY CREW: Peter Cole, Lisa Biggs  
REPORT PREPARED BY: Paul Jacobsen  
BASIN AREA: 11.5 km<sup>2</sup>  
USGS MAPS: Bill Peak  
ECOREGION: Coast Range Coastal Lowlands

**GENERAL DESCRIPTION:**

The Bear Creek habitat survey extended 510 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 3.7 (range: 1.0-6.0). Land use for the reach was young (3-15 cm dbh) and second growth (15-30 cm dbh) trees. The average unit gradient was 0.9 percent. Scour pools (82%) dominated stream habitat. Gravel (57%) and sand (20%) dominated stream substrate. Wood volume was very high at 60.6 m<sup>3</sup>/100m.

**COMMENTS:**

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

The crew noted several habitat structures during the survey.

REACH 1

T29S-R14W-S13SE

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	3.7	VWI Range:	1 - 6

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	0%	Single Channel	0%
Bedrock	0%	Multiple Channel	0%
Terrace	0%	Braided Channel	0%
Alt. Terrace/Hill	100%		
Landuse	0%		

Channel Characteristics

<u>Type</u>	<u>Length (m)</u>	<u>Area (m2)</u>	<u>Dry Units</u>
Primary Channel	510	1,817	1
Secondary Channel	15	54	1
Off-Channel Units	8	18	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 3
Width: 3.0	Width: 6.8	8.1 ( 6.9 - 9.3 )	9.9 ( 8.9 - 11.3 )
Depth: 0.36	Height: 0.6	1.2 ( 1.2 - 1.2 )	1.7 ( 1.5 - 2 )

W:D ratio: 11.3  
 Stream Flow Type: LF  
 Average Unit Gradient: 0.9%  
 Water temperature (°C): 10.0 - 10.0

Entrenchment (ACW:FPW ratio): 1.2  
 Habitat Units/100m (total channel length): 8.8  
 Habitat Units/100m (primary channel length): 9.2

**Riparian, Bank, and Wood Summary**

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

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	17%	Reach avg: 72%
Undercut Banks:	25%	Range: 44 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	212	41.5
Volume (m <sup>3</sup> ):	309	60.6
Key pieces (>=12m x 0.60m):	10	2.0

HABITAT INVENTORY

Report Date: 11/14/2007

Survey Date:

9/27/2007

REACH 1		T29S-R14W-S13SE					REACH 1					
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 UNIT	2	19	5.3	0.00	83	0	5	22	65	8	0	0
POOL-ISOLATED	1	8	2.3	0.50	18	0	35	30	30	5	0	0
POOL-LATERAL SCOUR	23	348	4.3	0.68	1,558	0	12	34	41	10	0	3
RIFFLE	11	110	1.2	0.04	132	0	2	6	74	18	0	1
RIFFLE W/ POCKETS	2	23	1.8	0.18	44	0	8	10	55	28	0	0
STEP/COBBLE	8	26	1.8	0.03	54	0	1	2	79	18	0	0
<b>Total:</b>	<b>47</b>	<b>534</b>	<b>3.0</b>	<b>0.36</b>	<b>1,889</b>	<b>0</b>	<b>Avg: 8</b>	<b>20</b>	<b>57</b>	<b>14</b>	<b>0</b>	<b>2</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	1	8	2.3	0.50	18	0.97%	0	0.0	
Scour Pools	23	348	4.3	0.68	1,558	82.49%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	13	133	1.3	0.06	176	9.32%	0	0.0	
Rapids	0	0			0	0.00%	0	0.0	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	8	26	1.8	0.03	54	2.84%	0	0.0	
Dry	2	19	5.3	0.00	83	4.38%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

POOL SUMMARY			
	Total	Total of all Channel Lengths # / Km	Primary Channel Length # / Km
All Pools:	24	45.0	47.0
Pools >=1m deep:	2	3.7	3.9
Complex pools (LWD pieces>=3):	17	31.9	33.3
Pool frequency (channel widths/pool):	3.3		
Residual pool depth (avg):	0.65		

OREGON DEPARTMENT OF FISH AND WILDLIFE  
HABITAT INVENTORY

BEAR CREEK POST-TX  
GCG: 3-MS SITE ID: 4

Survey Date 9/27/2007

RIPARIAN ZONE

Report Date: 11/7/2007

VEGETATION SUMMARY

REACH 1

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

Total hardwoods/1000	671
Total conifers/1000 ft	284
Total conifers >20" dbh/1000 ft	102
Total conifers >35" dbh/1000 ft	61

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	4.0	0.3	3.7	1.3	0.7	1.7	8.3
15-30cm	0.3	0.3	0.3	0.3	0.7	1.7	1.3	2.3
30-50cm	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.3
50-90cm	0.3	0.0	0.0	0.0	0.3	0.0	0.7	0.0
>90cm	0.0	0.0	0.3	0.0	0.7	0.0	1.0	0.0
Total/100m2	0.7	4.7	1.0	4.0	3.0	2.3	1.6	3.7

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	52		45		43	
Shrub cover	38		26		25	
Grass/forb cover	58		58		52	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	50		67		67	
High terrace	17		33		17	
Low terrace	17		0		0	
Floodplain	0		0		0	
Wetland/meadow	0		0		0	
Stream channel	17		0		0	
Roadbed/Railroad	0		0		17	
Riprap	0		0		0	
Surface slope (%)	31		19		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	671
Total conifers/1000 ft	284
Total conifers >20" dbh/1000 ft	102
Total conifers >35" dbh/1000 ft	61

**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	1.7	8.3
15-30cm	1.3	2.3
30-50cm	0.0	0.3
50-90cm	0.7	0.0
>90cm	1.0	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		
11	LT	1	HT	0	40	15	85	Conifer							
								Hardwood	1	1					
11	LT	2	HS	20	10	10	90	Conifer							5M OF HT
								Hardwood	1						
11	LT	3	HS	30	0	5	95	Conifer							
								Hardwood							
11	RT	1	LT	0	45	50	50	Conifer							
								Hardwood	3						
11	RT	2	HT	0	90	20	60	Conifer							
								Hardwood	7						
11	RT	3	HS	15	95	50	35	Conifer				1	1		
								Hardwood	2	2					
27	LT	1	SC	0	35	10	70	Conifer							
								Hardwood	1						
27	LT	2	HT	0	70	80	20	Conifer							
								Hardwood	1	1					
27	LT	3	HT	0	60	85	15	Conifer							
								Hardwood		3					
27	RT	1	HS	85	80	40	60	Conifer				1			
								Hardwood	4						
27	RT	2	HS	25	85	15	10	Conifer			1			1	
								Hardwood	1						
27	RT	3	HS	25	95	5	10	Conifer			2			1	
								Hardwood							
37	LT	1	HS	30	50	35	65	Conifer		1					
								Hardwood	1						
37	LT	2	HS	20	15	10	90	Conifer	1						
								Hardwood	1						
37	LT	3	HS	40	10	5	95	Conifer	2						
								Hardwood							
37	RT	1	HS	70	60	80	20	Conifer							
								Hardwood	2		1				
37	RT	2	HS	50	0	20	80	Conifer							
								Hardwood							
37	RT	3	RB	0	0	0	60	Conifer	2						
								Hardwood							

COMMENT SUMMARY

MONITORING AREA: 3-MS SITE ID: 4 STREAM: BEAR CREEK POST-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	LP	00	10.2	AM	TEMPERATURE=10.5C AT 10:30AM. BROWN GREEN ALGAE.AM=LG RLFROG. CO
3	LP	00	33.7	DJ, HS	HS(LWD). FRESH BEAR, ELK TRACK
8	SC	00	101	WL/	TRAIL/
9	LP	00	120.2		COHO THROUGHOUT SURVEY AS WELL AS ELK TRAX
10	SC	00	122.7	WL	/WL TRAIL/
11	LP	00	137.9		10" CT, RIP 1
15	LP	00	173.6	HS, DJ	HS(LWD)
23	LP	01	229.5	HS, DJ	HS(LWD)
25	RI	00	235.8		COOPERS OR SHARP SHINNED HAWK JUST ABOVE
26	LP	00	263.1	HS, DJ, BV	HUGE DJ HS(LWD). BEAVER CHEWED STICKS.
27	RI	00	271.1		RIP 2
28	LP	01	285	DJ, HS	HS(LWD)
33	LP	00	341.4	HS	LOTS OF BROWN GREEN ALGAE EVERYWHERE, LWD
35	LP	00	369.9	HS	LWD
37	LP	00	399.6	HS	HS(LWD) , RIP 3
38	RI	00	405.2	WL	/WL TRAIL/
39	LP	00	423	HS	HS(LWD)
40	RI	00	433.3	WL	/WL TRAIL/
41	LP	00	445.8	HS	HS(LWD)
43	LP	00	481.9	HS	HS(LWD) . FRESH BEAR, COYOTE, POSSUM, COON TRACKS
45	LP	00	495	HS	HS(LWD)
47	LP	00	510.4	HS	HS(LWD). BOBCAT TRACKS , END

