

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

STREAM: Bear Creek Lower (NC-364)
BASIN: Nestucca River
SURVEY TYPE: Post-Tx
DATE: March 6, 2008
SURVEY CREW: Ryan Jacobsen, Matt Strickland
REPORT PREPARED BY: Sharon Tippery
BASIN AREA: 6.2 km²
USGS MAPS: Beaver
ECOREGION: Coast Range Volcanic

GENERAL DESCRIPTION:

The Bear Creek habitat survey extended 648 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 20 (range: 20-20). Land use for the reach was rural residential area and second growth timber (15-30cm dbh). The average unit gradient was 2.8 percent. Riffles (50%) and scour pools (29%) dominated stream habitat. Bedrock (31%), cobble (29%) and gravel (25%) dominated stream substrate. Wood volume was 20.3m³/100m.

COMMENTS:

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

The crew noted several habitat structures, a debris jam, and an active landslide during the survey.

Minimal beaver activity was noted in the survey.

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

**BEAR CREEK LOWER
GCG: 1-NC SITE ID: 364**

Survey Date: 3/24/2008

Report Date: 5/6/2008

T03S-R09W-S18NW

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	20.0	VWI Range:	20 - 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	648	2,470	0
Secondary	1	1	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 4	<u>First Terrace</u> n = 4
Width: 3.9	Width: 4.8	6.0 (5 - 7.4)	9.3 (6.1 - 15)
Depth: 0.41	Height: 0.6	1.1 (0.7 - 1.6)	1.8 (1.2 - 2.7)

W:D ratio: 9.5
 Stream Flow Type: MF
 Average Unit Gradient: 2.8%
 Water temperature (°C): 7.0 - 7.0

Entrenchment (ACW:FPW ratio): 1.3
 Habitat Units/100m (total channel length): 6.0
 Habitat Units/100m (primary channel length): 6.0

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	RR	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:		Reach avg:
Undercut Banks:		Range: -

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	82	12.6
Volume (m ³):	132	20.3
Key pieces (>=12m x 0.60m):	8	1.2

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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/BEDROCK	1	10	5.0	0.30	50	0	0	0	10	10	0	80
CULVERT CROSSING	1	16	3.1	0.30	50	0	0	10	29	48	14	0
POOL-LATERAL SCOUR	17	186	3.9	0.61	723	0	7	10	27	24	3	29
RAPID/BEDROCK	1	34	3.7	0.30	126	0	0	0	20	10	10	60
RAPID/BOULDERS	1	81	3.0	0.20	243	0	0	11	33	44	11	0
RIFFLE	14	316	4.0	0.27	1,255	0	2	5	25	35	3	29
STEP/BEDROCK	1	1	1.8	0.20	1	0	0	0	0	0	0	100
STEP/COBBLE	1	3	3.0	0.15	8	0	0	10	40	50	0	0
STEP/LOG	2	3	5.0	0.20	16	0	10	5	15	29	0	42
Total:	39	649	3.9	0.41	2,472	0	Avg: 4	7	25	29	4	31

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	0	0			0	0.00%	0	0.0
Scour Pools	17	186	3.9	0.61	723	29.25%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	14	316	4.0	0.27	1,255	50.78%	0	0.0
Rapids	2	115	3.4	0.25	369	14.92%	0	0.0
Cascades	1	10	5.0	0.30	50	2.02%	0	0.0
Step/Falls	4	6	3.7	0.19	25	1.02%	0	0.0
Dry	0	0			0	0.00%	0	0.0
Culverts	1	16	3.1	0.30	50	2.01%	0	0.0

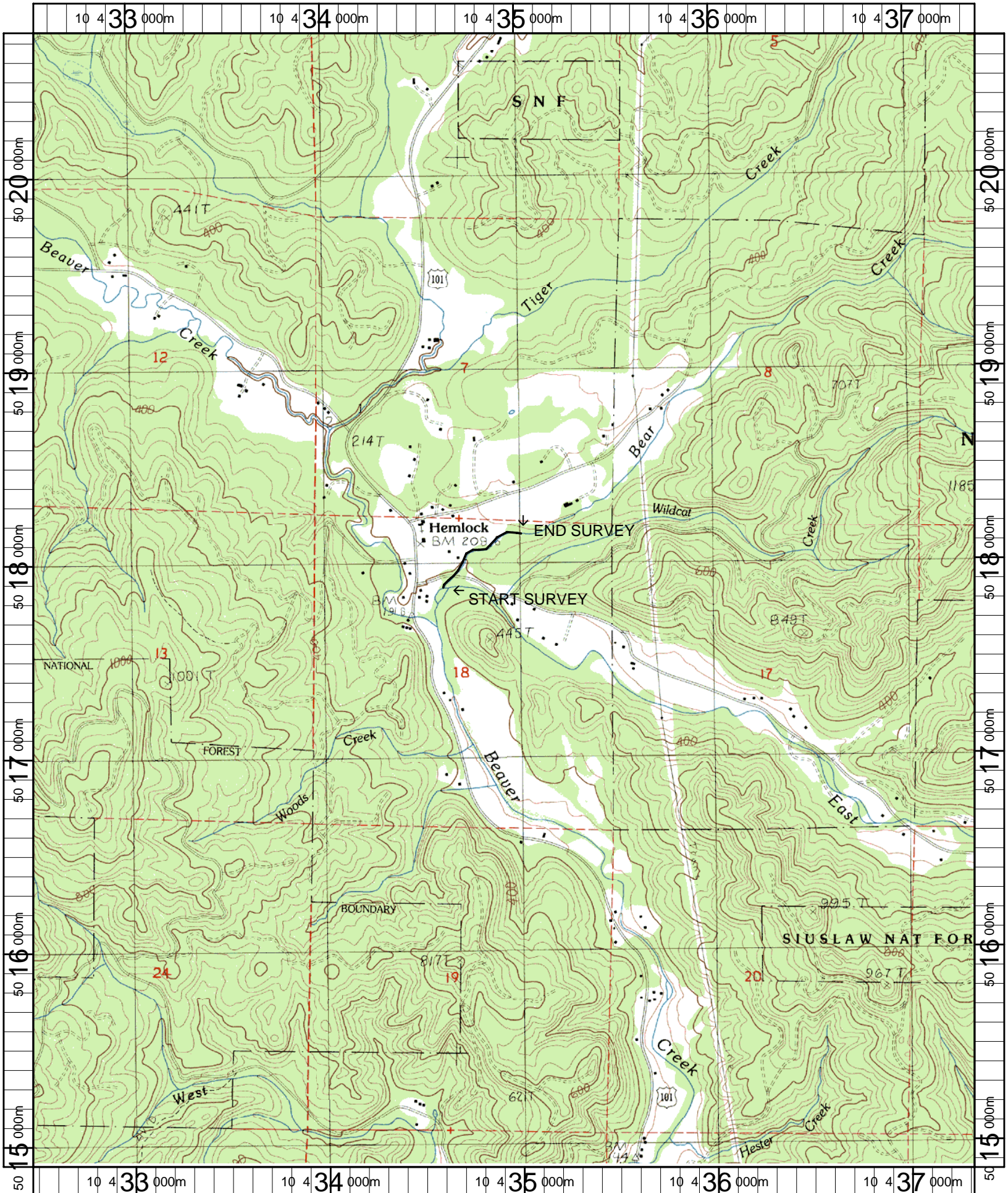
POOL SUMMARY

	Total of all Channel Lengths		Primary Channel Length
	<u>Total</u>	<u># / Km</u>	<u># / Km</u>
All Pools:	17	26.2	26.2
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	5	7.7	7.7
Pool frequency (channel widths/pool):	8.0		
Residual pool depth (avg):	0.41		

COMMENT SUMMARY

MONITORING AREA: 1-NC SITE ID: 364 STREAM: BEAR CREEK LOWER

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	RB	00	81		CT/CT, D30/S, RR/ST
2	LP	00	84.9	HS	
7	CC	00	145.1	CC	NO STEP
14	RI	00	263.1		CT/CT, D30/S, RR/ST
20	RI	00	336.7	LA	
26	LP	00	474.7	DJ/HS,BV	
27	RI	00	506.7		CT/CT, D30/S, RR/ST
30	LP	00	543.8	HS,BV	
31	RI	00	561.8	SS/	
34	LP	01	603.3	TJ/	
35	SR	11	603.3		T=8C, ACW=2.3M
39	LP	00	648.3		CT/CT, D15/S, RR/ST



Name: BEAVER
 Date: 4/25/2007
 Scale: 1 inch equals 2000 feet

Location: 10 0434922 E 5017803 N
 Caption: BEAR CREEK LOWER RESTORATION SITE - NESTUCCA BASIN