

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

STREAM: Bear Creek Upper (NC-365)
BASIN: Nestucca River
SURVEY TYPE: Post-Tx
DATE: March 12, 2008
SURVEY CREW: Ryan Jacobsen, Matt Strickland
REPORT PREPARED BY: Sharon Tippery
BASIN AREA: 5.0 km²
USGS MAPS: Beaver
ECOREGION: Coast Range Volcanic

GENERAL DESCRIPTION:

The Bear Creek habitat survey extended 402 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 8.3 (range: 4.5-12). Land use for the reach was second growth timber (15-30cm dbh) and large growth timber (30-50cm dbh). The average unit gradient was 2.5 percent. Riffles (62%) and scour pools (18%) dominated stream habitat. Cobble (33%) and gravel (31%) dominated stream substrate. Wood volume was 29.5m³/100m.

COMMENTS:

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

The crew noted several habitat structures during the survey.

Juvenile Coho were observed during the survey.

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

**BEAR CREEK UPPER
GCG: 1-NC SITE ID: 365**

Survey Date: 3/12/2008

Report Date: 5/6/2008

T03S-R09W-S08SW

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	402	1,489	0
Secondary	38	56	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 3.4	Width: 5.0	7.2 (5.9 - 9)	10.2 (6.8 - 14.6)
Depth: 0.32	Height: 0.3	0.6 (0.6 - 0.6)	1.3 (0.8 - 1.7)

W:D ratio: 16.6

Stream Flow Type: MF

Average Unit Gradient: 2.5%

Water temperature (°C): 8.0 - 8.0

Entrenchment (ACW:FPW ratio): 1.5

Habitat Units/100m (total channel length): 8.0

Habitat Units/100m (primary channel length): 8.7

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	LT
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):	94	23.4
Volume (m ³):	118	29.5
Key pieces (>=12m x 0.60m):	0	0.0

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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
POOL-DAMMED	2	17	4.1	0.50	70	0	5	33	43	15	5	0
POOL-ISOLATED	2	4	2.7	0.45	12	0	35	45	13	8	0	0
POOL-LATERAL SCOUR	11	78	3.5	0.55	275	0	1	26	35	27	11	1
POOL-PLUNGE	1	4	3.8	0.50	16	0	0	20	35	30	15	0
RAPID/BOULDERS	7	82	2.3	0.11	191	0	1	20	28	37	14	0
RIFFLE	10	249	3.8	0.16	963	0	0	11	31	43	15	1
STEP/COBBLE	1	3	3.9	0.10	13	0	0	5	25	55	15	0
STEP/LOG	1	2	3.2	0.20	5	0	0	30	35	25	10	0
Total:	35	440	3.4	0.32	1,545	0	Avg: 3	21	31	33	12	1

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	4	21	3.4	0.48	82	5.32%	0	0.0
Scour Pools	12	83	3.5	0.55	291	18.82%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	10	249	3.8	0.16	963	62.33%	0	0.0
Rapids	7	82	2.3	0.11	191	12.37%	0	0.0
Cascades	0	0			0	0.00%	0	0.0
Step/Falls	2	5	3.6	0.15	18	1.17%	0	0.0
Dry	0	0			0	0.00%	0	0.0
Culverts	0	0			0	0.00%	0	0.0

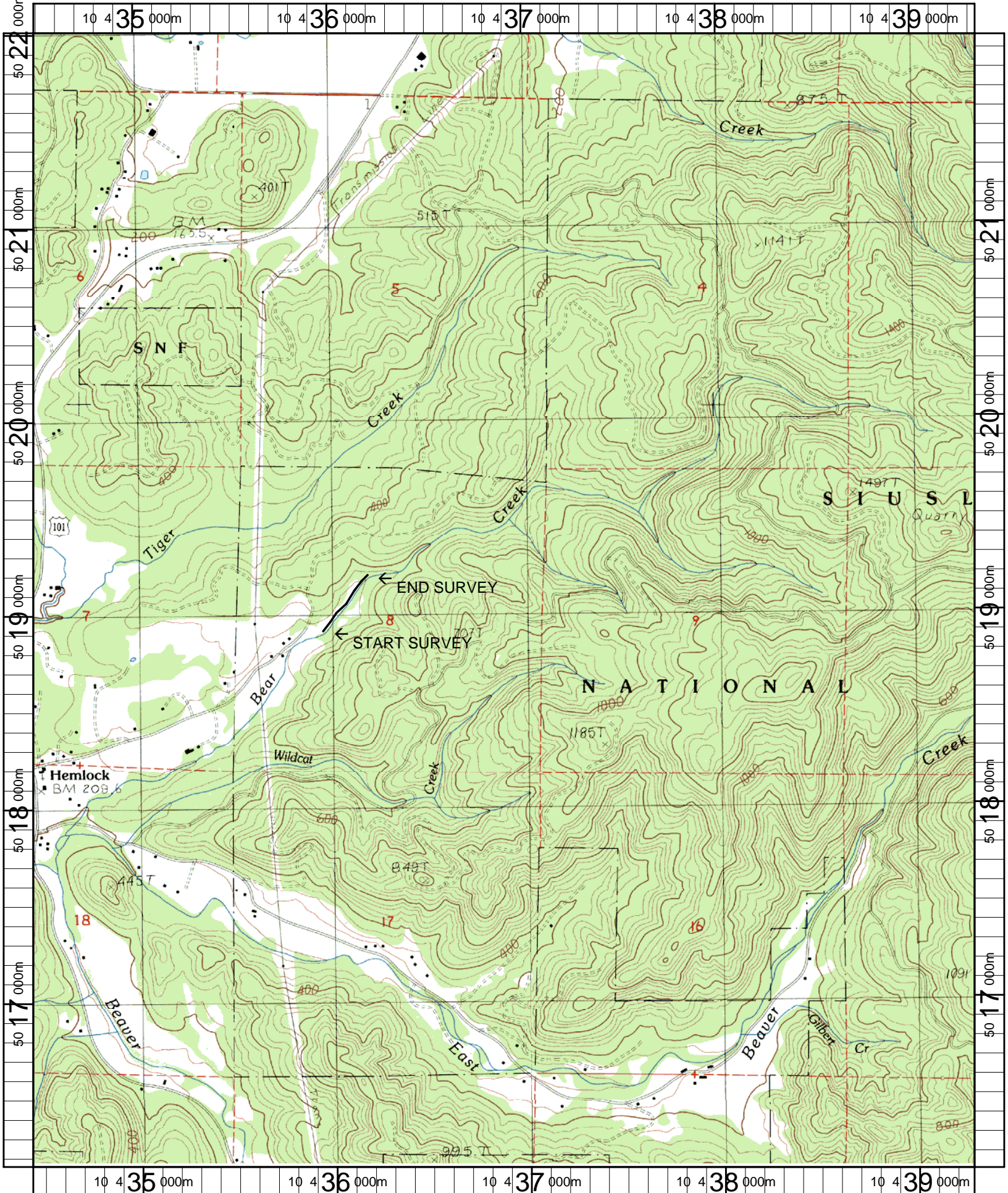
POOL SUMMARY

	Total of all Channel Lengths		Primary Channel Length
	<u>Total</u>	<u># / Km</u>	<u># / Km</u>
All Pools:	16	36.4	39.9
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	8	18.2	19.9
Pool frequency (channel widths/pool):	5.5		
Residual pool depth (avg):	0.34		

COMMENT SUMMARY

MONITORING AREA: 1-NC SITE ID: 365 STREAM: BEAR CREEK UPPER

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
2	LP	01	31.2	HS	LOGS
4	RI	01	59.2	HS	LOGS.
6	DP	00	68.2	HS	LOGS. JUVENILE SALMONIDS OBSERVED.
8	RI	01	118.2	HS /TJ	LOGS.
9	RB	11	118.2		ACW=1.2M, TEMPERATURE=8C
10	RI	00	151.2	HS	LOGS OFF OF ACTIVE CHANNEL.
11	LP	00	162.2	HS	LOGS
13	RB	02	170.2	HS	LOGS
14	LP	00	176.2	HS	LOGS
16	RI	00	209.2	HS	LOGS
17	RI	00	231.2	HS	LOGS
18	PP	00	235.4	HS	LOGS
19	SL	00	236.9	HS	LOGS.
22	LP	00	272.9	HS	LOGS. JUVENILE COHO OBSERVED.
25	RB	00	297.3	HS	LOGS
27	RB	00	320.3	HS	LOGS
30	RI	00	358.5	HS	LOGS.
31	LP	01	366.5	SS/	
34	LP	00	384.5	HS	LOGS.
35	RI	00	401.5	HS	LOGS.



Name: BEAVER
 Date: 4/26/2007
 Scale: 1 inch equals 2000 feet

Location: 10 0436885 E 5019062 N
 Caption: BEAR CREEK UPPER RESTORATION SITE - NESTUCCA BASIN