

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

STREAM: Bear Creek Lower (N-364)  
BASIN: Nestucca River  
SURVEY TYPE: Pre-Tx  
DATE: February 12, 2007  
SURVEY CREW: Matt Strickland, Sharon Tippery  
REPORT PREPARED BY: Paul Jacobsen  
BASIN AREA: 6.2 km<sup>2</sup>  
USGS MAPS: Beaver  
ECOREGION: Coast Range Coastal Uplands

**GENERAL DESCRIPTION:**

The Bear Creek habitat survey extended 589 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 20.0. Land use for the reach was rural residential and young (3-15 cm dbh) trees. The average unit gradient was 1.4 percent. Scour pools (39%) and riffles (38%) dominated stream habitat. Bedrock (38%) and cobble (28%) dominated stream substrate. Wood volume was very low at 4.0 m<sup>3</sup>/100m.

**COMMENTS:**

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

REACH 1

T03S-R09W-S18NE

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 Channel	589	1,684	0
Secondary Channel	0	0	0
Off-Channel Units	11	10	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 4	<u>First Terrace</u> n = 4
Width: 3.0	Width: 6.1	7.1 ( 4.9 - 8.6 )	10.6 ( 7.1 - 14.6 )
Depth: 0.38	Height: 0.4	0.8 ( 0.66 - 0.96 )	1.4 ( 0.9 - 1.7 )

W:D ratio: 16.1

Entrenchment (ACW:FPW ratio): 1.2

Stream Flow Type: MF

Habitat Units/100m (total channel length): 7.2

Average Unit Gradient: 1.4%

Habitat Units/100m (primary channel length): 7.3

Water temperature (°C): 8.0 - 8.0

**Riparian, Bank, and Wood Summary**

	<u>Primary</u>	<u>Secondary</u>
Land Use:	RR	YT
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):	36	6.1
Volume (m <sup>3</sup> ):	23	4.0
Key pieces (>=12m x 0.60m):	2	0.3

OREGON DEPT OF FISH AND WILDLIFE

BEAR CREEK LOWER PRE-TX (1-NC, 364)

HABITAT INVENTORY

Report Date: 4/25/2007

Survey Date:

2/12/2007

REACH 1		T03S-R09W-S18NE					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
CULVERT CROSSING	1	16	3.2	0.30	50	0	0	5	24	62	10	0
POOL-BACKWATER	1	4	1.8	0.35	7	0	5	15	70	10	0	0
POOL-LATERAL SCOUR	17	193	3.1	0.60	586	0	1	7	28	23	7	35
POOL-PLUNGE	2	17	4.1	0.80	71	0	3	8	18	15	8	48
RAPID/BEDROCK	5	91	2.6	0.18	228	0	0	0	2	12	9	77
RAPID/BOULDERS	2	21	2.8	0.18	58	0	0	3	15	60	23	0
RIFFLE	10	247	2.5	0.19	644	0	0	1	17	31	7	43
STEP/BEDROCK	1	1	0.5	0.05	0	0	0	0	0	0	0	100
STEP/COBBLE	3	10	4.7	0.18	48	0	0	0	19	62	10	8
STEP/LOG	1	0	4.5	0.15	1	0	0	0	50	20	15	15
<b>Total:</b>	43	599	3.0	0.38	1,694	0	<b>Avg:</b> 0	4	22	28	8	38

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	4	1.8	0.35	7	0.43%	0	0.0	
Scour Pools	19	210	3.2	0.62	657	38.79%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	10	247	2.5	0.19	644	38.05%	0	0.0	
Rapids	7	112	2.7	0.18	285	16.85%	0	0.0	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	5	11	3.8	0.15	50	2.96%	0	0.0	
Dry	0	0			0	0.00%	0	0.0	
Culverts	1	16	3.2	0.30	50	2.93%	0	0.0	

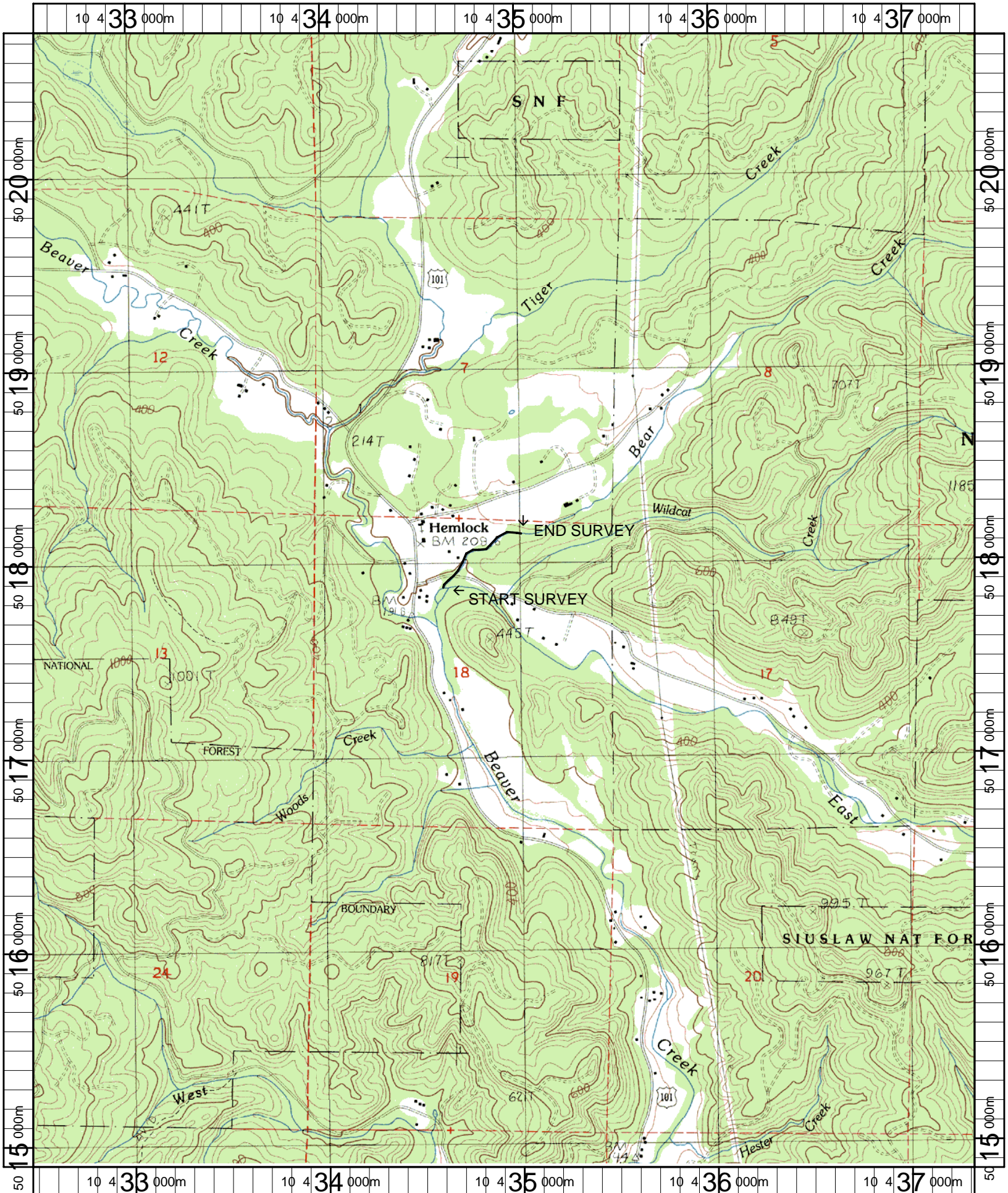
POOL SUMMARY			
	Total of all Channel Lengths		Primary Channel Length
	<u>Total</u>	<u># / Km</u>	<u># / Km</u>
All Pools:	20	33.4	34.0
Pools >=1m deep:	1	1.7	1.7
Complex pools (LWD pieces>=3):	3	5.0	5.1
Pool frequency (channel widths/pool):	4.9		
Residual pool depth (avg):	0.43		

# Comment Summary

## Restoration Monitoring Sites 2007

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

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR
4	CC	00	72.7	CC	E. BEAVER CR. RD.
8	RI	00	167.5	SD/	SCREENED WATER DIVERSION.
18	LP	00	257	SS/	
25	RI	00	392.5	SS/	
30	LP	00	440.9	SS/	
32	LP	00	477.7	SS/	
34	LP	00	505.9	SS/	
35	RR	00	526	SS/ BV	
36	PP	01	535.1	TJ/ BV	
38	RI	11	535.1		ACW=1.2 TEMP.=9.0
43	LP	00	588.5		ENDED DUE TO UNKNWN LNDOWNR UP



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