

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

STREAM: Bear Creek Upper (N-365)
BASIN: Nestucca River
SURVEY TYPE: Pre-Tx
DATE: March 27, 2007
SURVEY CREW: Matt Strickland, Sharon Tippery
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 5.0 km²
USGS MAPS: Beaver
ECOREGION: Coast Range Coastal Uplands

GENERAL DESCRIPTION:

The Bear Creek habitat survey extended 403 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 5.8 (range: 4.0-7.0). Land use for the reach was young (3-15 cm dbh) and second growth (15-30 cm dbh) trees. The average unit gradient was 2.7 percent. Rapids (53%) and riffles (35%) dominated stream habitat. Cobble (39%) and gravel (32%) dominated stream substrate. Wood volume was very low at 4.4 m³/100m.

COMMENTS:

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

REACH 1

T03S-R09W-S08NW

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	5.8	VWI Range:	4 - 7

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	403	1,685	0
Secondary Channel	25	65	0
Off-Channel Units	25	25	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 3.8	Width: 5.3	7.1 (5.4 - 9.3)	8.0 (6.1 - 9.5)
Depth: 0.40	Height: 0.3	0.7 (0.66 - 0.7)	0.9 (0.8 - 1.05)

W:D ratio: 15.5
 Stream Flow Type: MF
 Average Unit Gradient: 2.7%
 Water temperature (°C): 8.0 - 8.0

Entrenchment (ACW:FPW ratio): 1.4
 Habitat Units/100m (total channel length): 6.0
 Habitat Units/100m (primary channel length): 6.7

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	YT	ST
Riparian Vegetation:	D15	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):	44	10.9
Volume (m ³):	18	4.4
Key pieces (>=12m x 0.60m):	0	0.0

OREGON DEPT OF FISH AND WILDLIFE

BEAR CREEK UPPER PRE-TX (1-NC, 365)

HABITAT INVENTORY

Report Date: 4/25/2007

Survey Date:

3/27/2007

REACH 1		T03S-R09W-S08NW					REACH 1					
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-LATERAL SCOUR	7	50	3.8	0.83	192	0	1	16	40	31	12	0
POOL-PLUNGE	1	4	3.7	0.70	16	0	5	25	35	25	10	0
RAPID/BOULDERS	10	229	4.0	0.26	935	0	0	7	24	43	25	1
RIFFLE	8	166	3.3	0.19	620	0	1	6	36	41	15	0
STEP/COBBLE	1	3	4.1	0.15	11	0	0	5	20	55	20	0
Total:	27	453	3.8	0.40	1,774	0	Avg: 1	10	32	39	18	0

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	8	55	3.8	0.81	208	11.70%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	8	166	3.3	0.19	620	34.95%	0	0.0	
Rapids	10	229	4.0	0.26	935	52.70%	0	0.0	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	1	3	4.1	0.15	11	0.65%	0	0.0	
Dry	0	0			0	0.00%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

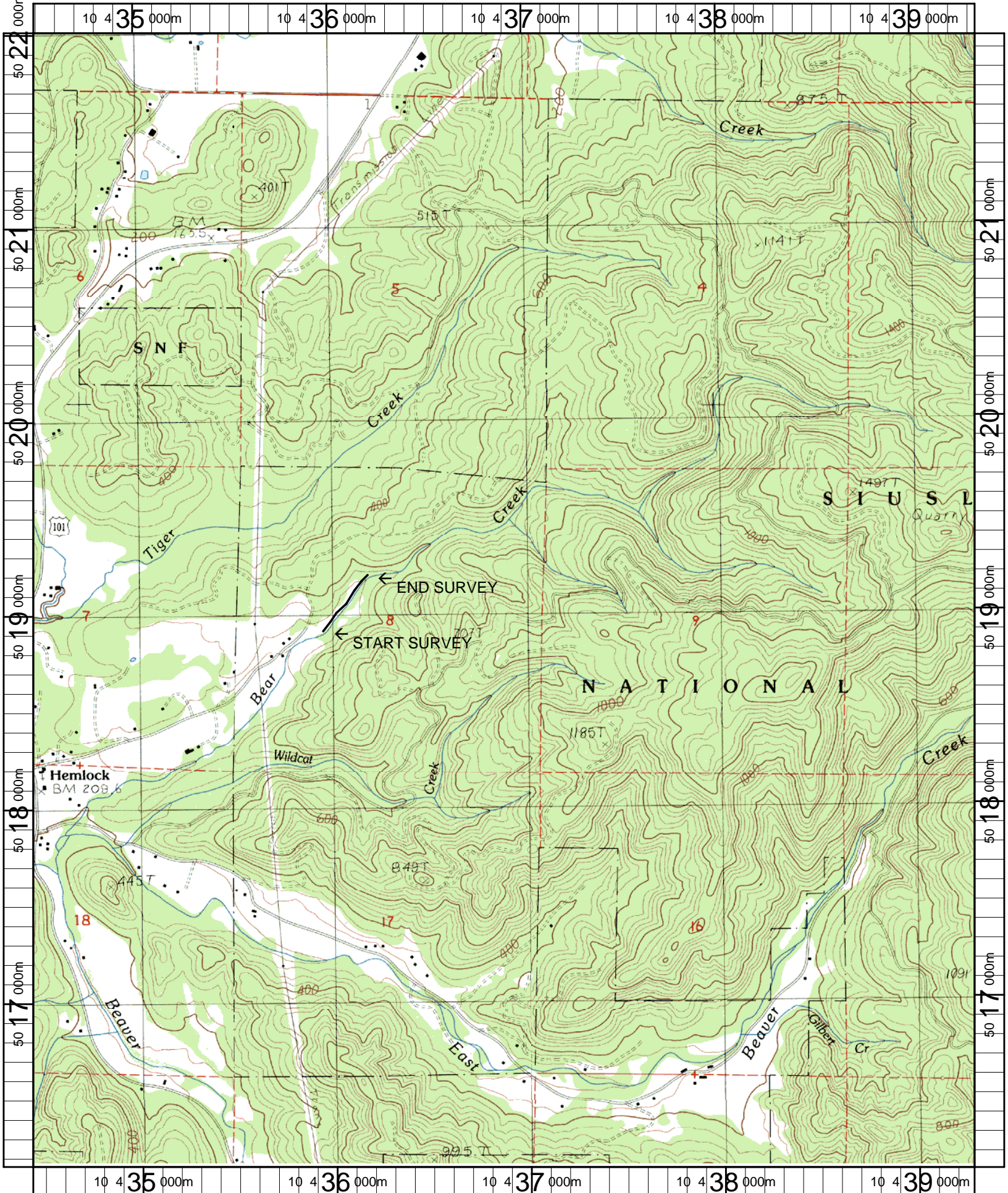
POOL SUMMARY			
	<u>Total</u>	Total of all Channel Lengths	
		<u># / Km</u>	Primary Channel Length <u># / Km</u>
All Pools:	8	17.7	19.9
Pools >=1m deep:	1	2.2	2.5
Complex pools (LWD pieces>=3):	3	6.6	7.4
Pool frequency (channel widths/pool):	10.7		
Residual pool depth (avg):	0.60		

Comment Summary

Restoration Monitoring Sites 2007

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

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR
8	RB	01	133.3	/TJ	
9	RB	11	133.3		ACW=1.9 TEMPERATURE =8.5
24	LP	01	373.9	TJ/	
25	RI	11	373.9		ACW=1.1 TEMPERATURE =8.5



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