

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

STREAM: Big Elk Creek Site 2 (MC-400)  
BASIN: Yaquina River  
SURVEY TYPE: Pre-Tx  
DATE: April 17, 2008  
SURVEY CREW: Charlie Stein, Jeremy Romer  
REPORT PREPARED BY: Sharon Tippery  
BASIN AREA: 24.6 km<sup>2</sup>  
USGS MAPS: Harlan  
ECOREGION: Coast Range Coastal Uplands

**GENERAL DESCRIPTION:**

The Big Elk Creek Site 2 habitat survey extended 303 meters. The channel was alternately constrained by terrace and hillslope in a broad valley floor. The average valley width index was 2.8 (range: 2.5-3). Land use for the reach was young trees (3-15cm dbh) and large growth timber (30-50cm dbh). The average unit gradient was 0.7 percent. Riffles (67%) and scour pools (31%) dominated stream habitat. Bedrock (53%) and gravel (21%) dominated stream substrate. Wood volume was 19.7m<sup>3</sup>/100m.

**COMMENTS:**

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

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

**BIG ELK CREEK - SITE#2 (PRE-TX)  
GCG: 2-MC SITE ID: 400**

**Survey Date: 4/17/2008**

**Report Date: 5/8/2008**

**T12S-R09W-S10NW**

**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	2.8	VWI Range:	2.5 - 3

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	303	5,961	0
Secondary	10	6	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 3	<u>First Terrace</u> n = 3
Width: 15.9	Width: 21.9	25.8 ( 24 - 27 )	32.6 ( 29 - 37 )
Depth: 0.59	Height: 1.0	2.0 ( 1.9 - 2 )	3.9 ( 3.8 - 4 )

W:D ratio: 22.3

Stream Flow Type: HF

Average Unit Gradient: 0.7%

Water temperature (°C): 7.0 - 7.0

Entrenchment (ACW:FPW ratio): 1.2

Habitat Units/100m (total channel length): 2.9

Habitat Units/100m (primary channel length): 3.0

**Riparian, Bank, and Wood Summary**

	<u>Primary</u>	<u>Secondary</u>
Land Use:	YT	LT
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):	48	15.8
Volume (m <sup>3</sup> ):	60	19.7
Key pieces (>=12m x 0.60m):	2	0.7

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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
CASCADE/BOULDERS	1	10	0.6	0.02	6	0	0	15	80	5	0	0
POOL-STRAIGHT SCOUR	2	96	19.6	1.50	1,880	0	0	2	5	12	11	70
RIFFLE	5	205	16.3	0.42	4,037	0	0	5	21	11	16	47
STEP/BEDROCK	1	2	22.0	0.20	44	0	0	0	0	0	0	100
<b>Total:</b>	9	313	15.9	0.59	5,967	0	<b>Avg:</b> 0	5	21	9	11	53

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	0	0			0	0.00%	0	0.0
Scour Pools	2	96	19.6	1.50	1,880	31.51%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	5	205	16.3	0.42	4,037	67.66%	0	0.0
Rapids	0	0			0	0.00%	0	0.0
Cascades	1	10	0.6	0.02	6	0.10%	0	0.0
Step/Falls	1	2	22.0	0.20	44	0.74%	0	0.0
Dry	0	0			0	0.00%	0	0.0
Culverts	0	0			0	0.00%	0	0.0

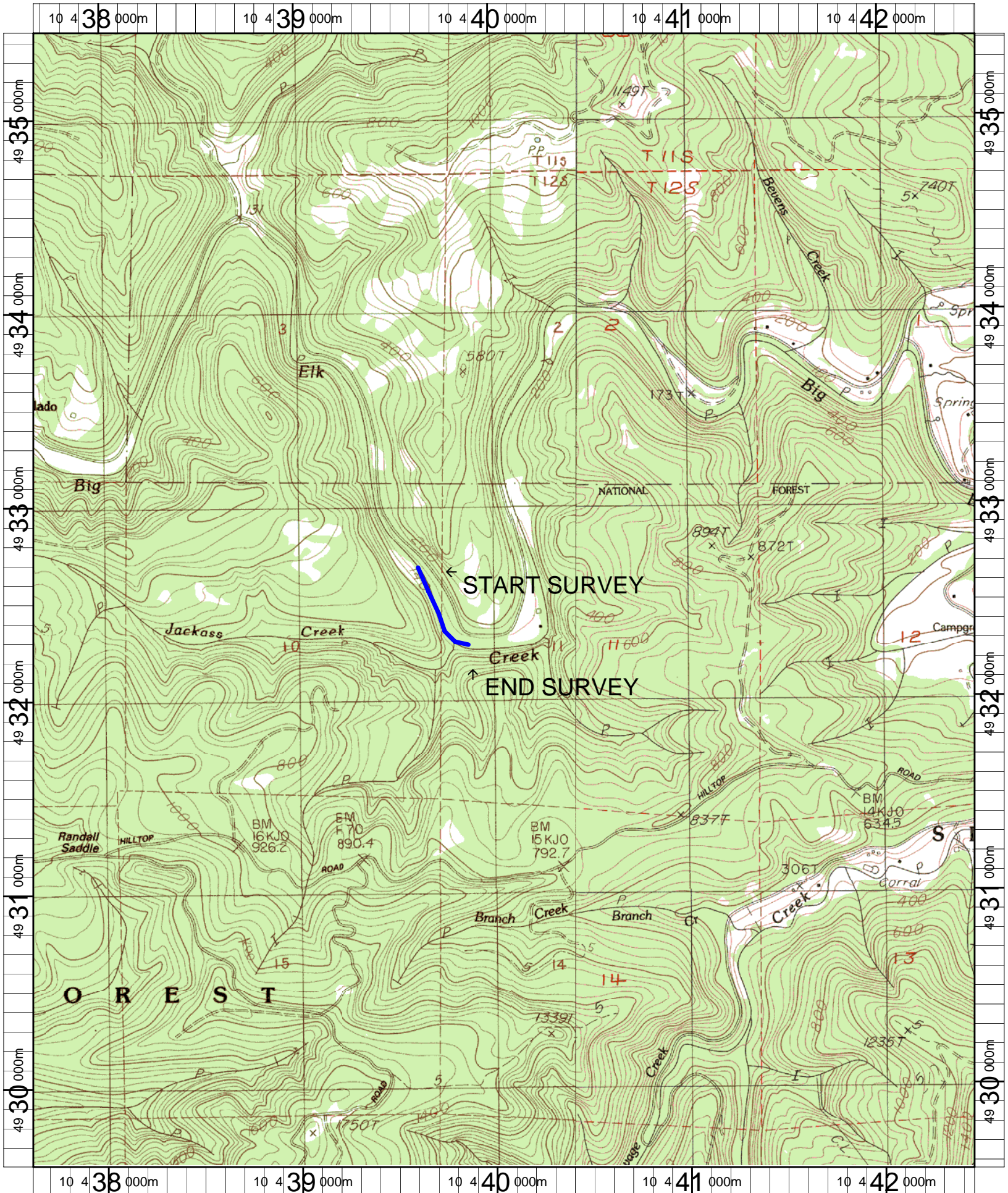
POOL SUMMARY

	Total of all Channel Lengths		Primary Channel Length
	<u>Total</u>	<u># / Km</u>	<u># / Km</u>
All Pools:	2	6.4	6.6
Pools >=1m deep:	2	6.4	6.6
Complex pools (LWD pieces>=3):	2	6.4	6.6
Pool frequency (channel widths/pool):	7.2		
Residual pool depth (avg):	1.03		

**COMMENT SUMMARY**

MONITORING AREA: 2-MC      SITE ID: 400      STREAM: BIG ELK CREEK - SITE#2 (PRE-TX)

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	RI	01	50	SS/TJ	REST SITE 2
2	CB	11	50		ACW=0.8M T=7.5C
8	SP	01	298.2	TJ/TJ	TRIB LEFT IS JACKASS CK
9	RI	00	303.2		ACW=1M T=7C (NOT JACKASS CK)



Name: HARLAN (OR)  
 Date: 3/3/2008  
 Scale: 1 inch equals 2000 feet

Location: 10 0440055 E 4932510 N NAD 27  
 Caption: BIG ELK CREEK SITE 2 RESTORATION SITE - YAQUINA BASIN