

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

STREAM: Big Elk Creek Site 3 (MC-401)
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 km²
USGS MAPS: Harlan
ECOREGION: Coast Range Coastal Uplands

GENERAL DESCRIPTION:

The Big Elk Creek Site 3 habitat survey extended 168 meters. The channel was alternately constrained by terrace and hillslope in a broad valley floor. The average valley width index was 3 (range: 3-3). Land use for the reach was second growth timber (15-30cm dbh) and large growth timber (30-50cm dbh). The average unit gradient was 1.5 percent. Scour pools (98%) dominated stream habitat. Bedrock (38%) and gravel (29%) dominated stream substrate. Wood volume was 0.2m³/100m.

COMMENTS:

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

Beaver activity, juvenile salmonids, an adult salmonid, a redd, and a rough-skinned newt were observed during the survey.

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

**BIG ELK CREEK - SITE#3 (PRE-TX)
GCG: 2-MC SITE ID: 401**

Survey Date: 4/17/2008

Report Date: 5/8/2008

T12S-R09W-S02SE

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	3.0	VWI Range:	3 - 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	168	2,450	0
Secondary	6	9	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 3	<u>First Terrace</u> n = 3
Width: 9.7	Width: 16.6	19.2 (18.5 - 20)	24.4 (24 - 25)
Depth: 0.78	Height: 0.9	1.8 (1.5 - 2)	4.1 (3.7 - 4.6)

W:D ratio: 18.4

Stream Flow Type: HF

Average Unit Gradient: 1.5%

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:	ST	LT
Riparian Vegetation:	D30	G

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):	5	3.0
Volume (m ³):	0	0.2
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-ISOLATED	1	6	1.5	0.30	9	0	26	21	0	0	0	53
POOL-STRAIGHT SCOUR	2	156	15.3	1.65	2,411	0	2	11	31	11	21	25
RAPID/BOULDERS	1	10	0.8	0.02	8	0	5	11	84	0	0	0
STEP/BEDROCK	1	2	15.5	0.30	31	0	0	0	0	0	10	90
Total:	5	174	9.7	0.78	2,458	0	Avg: 7	11	29	4	10	38

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	1	6	1.5	0.30	9	0.35%	0	0.0
Scour Pools	2	156	15.3	1.65	2,411	98.06%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	0	0			0	0.00%	0	0.0
Rapids	1	10	0.8	0.02	8	0.33%	0	0.0
Cascades	0	0			0	0.00%	0	0.0
Step/Falls	1	2	15.5	0.30	31	1.26%	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:	3	17.3	17.9
Pools >=1m deep:	2	11.5	11.9
Complex pools (LWD pieces>=3):	1	5.8	6.0
Pool frequency (channel widths/pool):	3.5		
Residual pool depth (avg):	1.03		

COMMENT SUMMARY

MONITORING AREA: 2-MC SITE ID: 401 STREAM: BIG ELK CREEK - SITE#3 (PRE-TX)

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	SP	01	101	/TJ BV	BIG ELK CREEK REST SITE 2-MC 401 W08 CHINOOK CARCASS
2	IP	10	101	AM	ROUGH-SKINNED NEWT, YOY SALMONIDS
3	RB	00	111		ACW=0.9M T=7C
4	SP	00	165.8		REDD, ADULT DYING SALMONID
5	SR	00	167.8		END SURVEY



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

Location: 10 0440945 E 4933443 N NAD 27
 Caption: BIG ELK CREEK SITE 3 RESTORATION SITE - YAQUINA BASIN