

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

STREAM: Deer Creek (SC-398)
BASIN: Winchuck River
SURVEY TYPE: Pre-Tx
DATE: March 4, 2008
SURVEY CREW: Kyle Brachter, Bobby Gomez
REPORT PREPARED BY: Sharon Tippery
BASIN AREA: 1.3 km²
USGS MAPS: Mt Emily
ECOREGION: Coast Range Redwood Zone

GENERAL DESCRIPTION:

The Deer Creek habitat survey extended 516 meters. The channel was constrained by hillslopes in a steep V-shaped valley. The average valley width index was 1.1 (range: 1-1.5). Land use for the reach was second growth timber (15-30cm dbh) and large growth timber (30-50cm dbh). The average unit gradient was 10.6 percent. Cascades (45%) and rapids (40%) dominated stream habitat. Gravel (47%), cobble (27%) and boulders (27%) dominated stream substrate. Wood volume was 5.0m³/100m.

COMMENTS:

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

The crew noted one active landslide during the survey.

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

**DEER CREEK
GCG: 5-SC SITE ID: 398**

Survey Date: 3/4/2008

Report Date: 5/8/2008

T41S-R12W-S05SE

REACH 1

Valley and Channel Summary

Valley Characteristics (Percent Reach Length)

<u>Narrow Valley Floor</u>		<u>Broad Valley Floor</u>	
Steep V-shape	100%	Constraining Terraces	0%
Moderate V-shape	0%	Multiple Terraces	0%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	1.1	VWI Range:	1 - 1.5

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	100%	Single Channel	0%
Bedrock	0%	Multiple Channel	0%
Terrace	0%	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	516	1,309	0
Secondary	61	71	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 0
Width: 2.7	Width: 5.4	6.7 (4.3 - 8.7)	(-)
Depth: 0.24	Height: 0.5	0.9 (0.8 - 1)	(-)

W:D ratio: 12.1

Stream Flow Type: MF

Average Unit Gradient: 10.6%

Water temperature (°C): 7.0 - 7.0

Entrenchment (ACW:FPW ratio): 1.3

Habitat Units/100m (total channel length): 4.9

Habitat Units/100m (primary channel length): 5.4

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	LT
Riparian Vegetation:	M15	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):	49	9.5
Volume (m ³):	26	5.0
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
CASCADE/BOULDERS	11	309	2.1	0.13	633	0	0	1	30	32	36	0
CULVERT CROSSING	1	16	1.5	0.10	23	0	0	0	0	0	0	100
POOL-LATERAL SCOUR	3	15	3.2	0.43	48	0	0	3	57	25	15	0
POOL-PLUNGE	6	24	4.0	0.53	97	0	0	2	53	21	25	0
RAPID/BOULDERS	5	208	2.5	0.13	564	0	0	1	53	26	20	0
STEP/COBBLE	1	4	3.8	0.10	13	0	0	0	60	40	0	0
STEP/STRUCTURE	1	1	0.6	0.10	1	0	0	0	10	30	60	0
Total:	28	577	2.7	0.24	1,380	0	Avg: 0	1	41	27	27	4

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	9	39	3.7	0.50	145	10.48%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	0	0			0	0.00%	0	0.0
Rapids	5	208	2.5	0.13	564	40.91%	0	0.0
Cascades	11	309	2.1	0.13	633	45.91%	0	0.0
Step/Falls	2	5	2.2	0.10	14	1.02%	0	0.0
Dry	0	0			0	0.00%	0	0.0
Culverts	1	16	1.5	0.10	23	1.68%	0	0.0

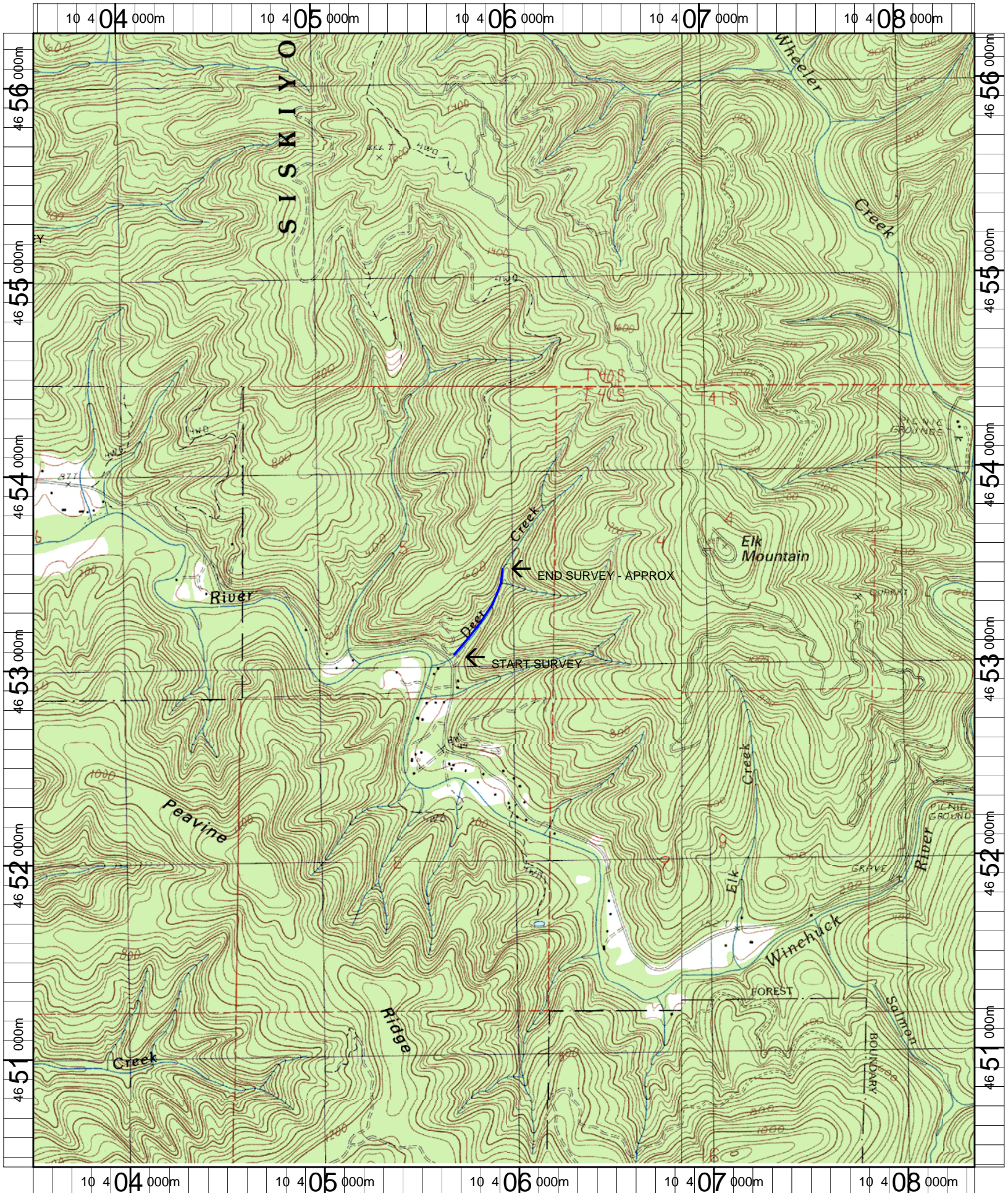
POOL SUMMARY

	Total of all Channel Lengths		Primary Channel Length
	<u>Total</u>	<u># / Km</u>	<u># / Km</u>
All Pools:	9	15.6	17.4
Pools >=1m deep:	1	1.7	1.9
Complex pools (LWD pieces>=3):	1	1.7	1.9
Pool frequency (channel widths/pool):	11.9		
Residual pool depth (avg):	0.40		

COMMENT SUMMARY

MONITORING AREA: 5-SC SITE ID: 398 STREAM: DEER CREEK

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	PP	00	4.8		FORM:CH,SV. VEG:D15,S. USE:ST,RR.
3	CC	00	22.1	CC	STEEL, NO SUBSTRATE
6	RB	00	133.1		FORM:CH,SV. VEG:D15,G. USE:ST,LT.
8	CB	00	191.3	SS/	
12	CB	00	252.8		FORM:CH,SV. VEG:M15,S. USE:ST,LT.
21	RB	01	369.5	LA	
26	CB	00	430		TEMPERATURE=7.5C ACW=3.1M
27	CB	00	480		FORM:CH,SV. VEG:M30,S. USE:ST,LT.
28	CB	00	516		FORM:CH,SV. VEG:M15,G. USE:ST,LT.



Name: MT EMILY
 Date: 1/3/2008
 Scale: 1 inch equals 2000 feet

Location: 10 0405958 E 4653335 N NAD 27
 Caption: DEER CREEK RESTORATION SITE - WINCHUCK RIVER