ODFW AQUATIC INVENTORY PROJECT

OREGON PLAN FOR SALMON & WATERSHEDS

STREAM RESTORATION HABITAT REPORT

STREAM:	Wood Creek (UMP-65)
BASIN:	Umpqua River
SURVEY TYPE:	Post-Tx
DATE:	February 13, 2007
SURVEY CREW:	Jeremy Romer, Joanne Lowden
REPORT PREPARED BY:	Paul Jacobsen
BASIN AREA:	8.4 km^2
USGS MAPS:	McCullough Creek
ECOREGION:	Klamath Mountains Inland Siskiyous

GENERAL DESCRIPTION:

The Wood Creek habitat survey extended 504 meters. The channel was alternately constrained by hillslope and multiple terraces in a broad valley floor. The average valley width index was 7.6 (range: 3-12). Land use for the reach was second growth timber (15-30cm dbh) and large timber (30-50 cm dbh). The average unit gradient was 4.2 percent. Rapids (80%) dominated stream habitat. Gravel (39%), sand (23%) and cobble (31%) dominated stream substrate. Wood volume was very high at 41.7 m^3/100m.

COMMENTS:

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

A culvert (3.6m x 2.3m) was noted at 14 meters into the survey reach. 5 debris jams were recorded.

The crew noted several habitat structures during the survey.

Juvenile salmonids were observed during the survey.

Stream Wood Creek (U-65)

Basin Umpqua River

Treatment Large Wood

	ODFW Benchmark		Pre	Post	Post		
Habitat Variable	**Desirable**	**Undesirable**	3/6/00	2/20/01	2/13/07		
% Pool Area	>35%	<10%	17.2	18.3	**7.0**		
Number of Pools			16	12	**9**		
Deep Pools/km (>1.0 m)			0.0	0.0	**1.6**		
% Off-Channel			2.4	1.6	**9.6**		
LWD – Pieces/100m	>20	<10	16.4	19.9	**24.8**		
LWD – Volume/100m	>30	<20	44.2	37.6	**41.7**		
LWD – Key Pieces/100m	>3	<1	4.6	0.2	**0.6**		
Large Wood Jams/km			8.0	6.0			
% Riffle Fines	<10	>20	30	20	33		
% Riffle Gravel	>35	<15	40	40	36		
% Bedrock			0	2	2		

Bold is noticeable change

Comments: Pool area and the number of pools have decreased over time, but the number of deep pools is higher. Off channel habitat has also increased, along with wood pieces. Wood volume is at pre-treatment levels, and key pieces are lower than pre-treatment levels. Substrate remains unchanged.

OREGON DEPT OF FISH AND WILDLIFE **WOOD CREEK POST-TX (4-UMP, 65)**

HABITAT INVENTORY Report Date: 4/25/2007 Survey Date: 2/13/2007

REACH 1 **T32S-R06W-S22NW** **REACH 1**

Valley and Channel Summary

Valley Characteristics (Percent Reach Length)

Narrow Valley Floor		Broad Valley Floor	
Steep V-shape	0%	Constraining Terraces	0%
Moderate V-shape	0%	Multiple Terraces	100%
Open V-shape	0%	Wide Floodplain	0%

Valley Width Index 7.6 VWI Range: 3 - 12

Channel Morphology (Percent Reach Length)

Constrained		Unconstrained	
Hillslope	0%	Single Channel	0%
Bedrock	0%	Multiple Channel	0%
Terrace	0%	Braided Channel	0%
Alt. Terrace/Hill	100%		
Landuse	0%		

Channel Characteristics

Type	Length (m)	Area (m2)	Dry Units
Primary Channel	504	1,812	0
Secondary Channel	93	147	4
Off-Channel Units	21	24	0

Channel Dimensions (m)

Wetted		Active		Floodprone *n* = 5		First Terrace *n* = 5	
Width:	3.1	Width:	5.0	8.5	(5.4 - 12.5)	12.1	(9.7 - 15)
Depth:	0.28	Height:	0.4	0.9	(0.7 - 1.2)	1.1	(0.8 - 1.3)

W:D ratio: 11.9
Entrenchment (ACW:FPW ratio): 1.8
Stream Flow Type: MF
Habitat Units/100m (total channel length): 6.1
Average Unit Gradient: 4.2%
Habitat Units/100m (primary channel length): 7.5
Water temperature (°C): 7.0 - 7.0

Riparian, Bank, and Wood Summary

	Primary	Secondary
Land Use:	ST	LT
Riparian Vegetation:	D15	S

Bank Condition and Shade

Bank Status	Percent Reach Length	Shade (% of 180)
Actively Eroding:		Reach avg:
Undercut Banks:		Range: -

Large Wood Debris

	Total	Total / 100m primary channel
All pieces (>=3m x 0.15m):	125	24.8
Volume (m^3):	210	41.7
Key pieces (>=12m x 0.60m):	3	0.6

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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
CULVERT CROSSING	1	15	3.5	0.20	51	0	0	5	48	38	10	0
DRY CHANNEL	2	55	2.3	0.00	105	0	42	42	16	0	0	0
POOL-ISOLATED	1	1	1.0	0.25	1	0	25	25	0	0	0	50
POOL-LATERAL SCOUR	6	30	2.9	0.52	92	0	5	16	46	26	6	0
POOL-PLUNGE	2	10	4.5	0.73	45	0	3	3	50	20	25	0
PUDDLED UNIT	2	31	0.9	0.05	27	0	8	13	63	14	2	0
RAPID/BOULDERS	19	440	3.5	0.25	1,590	0	0	2	35	41	20	2
RIFFLE	2	35	1.4	0.15	65	0	11	22	36	29	2	0
STEP/BOULDERS	1	1	2.4	0.10	3	0	5	19	48	24	5	0
STEP/LOG	2	1	3.9	0.13	3	0	3	5	51	31	10	0
Total:	38	618	3.1	0.28	1,983	0	**Avg:** 5	9	39	31	14	2

HABITAT SUMMARY

Habitat Group	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area (m^2)	Wetted Area Percent	Large Boulders Number	Large Boulders (# / $100m^2$)
Dammed & BW Pools	1	1	1.0	0.25	1	0.05%	0	0.0
Scour Pools	8	40	3.3	0.57	137	6.91%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	2	35	1.4	0.15	65	3.28%	0	0.0
Rapids	19	440	3.5	0.25	1,590	80.20%	0	0.0
Cascades	0	0			0	0.00%	0	0.0
Step/Falls	3	2	3.4	0.12	6	0.31%	0	0.0
Dry	4	86	1.6	0.03	132	6.67%	0	0.0
Culverts	1	15	3.5	0.20	51	2.58%	0	0.0

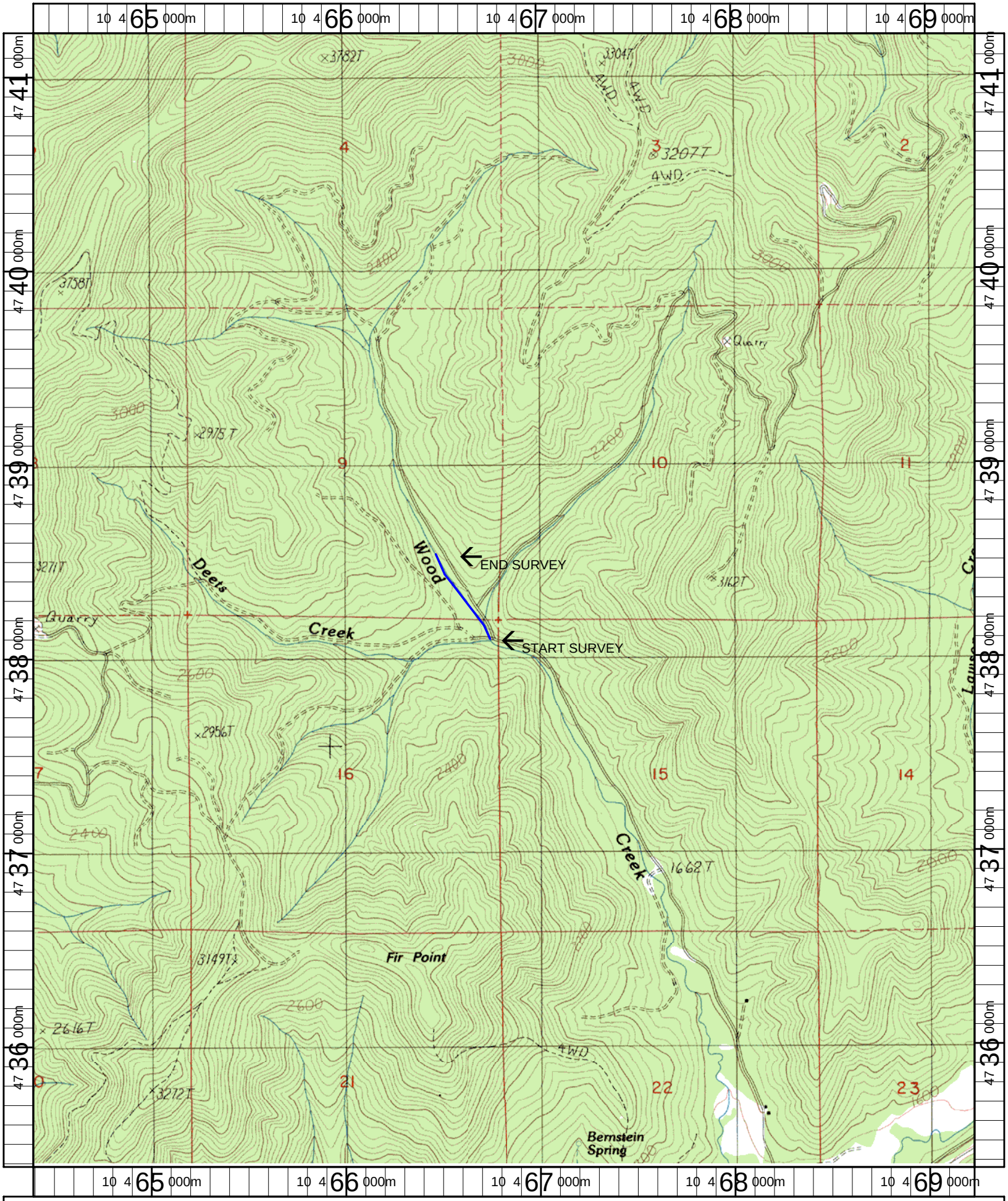
POOL SUMMARY

	Total	Total of all Channel Lengths # / Km	Primary Channel Length # / Km
All Pools:	9	14.6	17.9
Pools >=1m deep:	1	1.6	2.0
Complex pools (LWD pieces>=3):	4	6.5	7.9
Pool frequency (channel widths/pool):	13.7		
Residual pool depth (avg):	0.38		

Comment Summary
Restoration Monitoring Sites 2007

MONITORING AREA: 4-UMP SITE ID: 65 WOOD CREEK POST-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR
1	CC	00	14.6	CC	3.6m x 2.3m CC
6	RB	01	78	HS	
8	RB	00	97	HS	
10	LP	00	101	HS	
11	RB	01	126	HS, /TJ	
12	RB	11	126		TEMP=7C
13	PP	00	130.5	HS	TEMP=7C
15	RB	00	164.8	HS, RF	
20	RB	01	223.8	DJ, HS	
21	RI	00	248.8	HS	
22	RB	01	264.8	DJ, HS	
25	RB	01	321.2	HS	
27	LP	00	325.9	DJ, HS	
28	PD	02	325.9	WL	JUVENILE SALMONIDS
30	RB	01	377.9	TJ/	
33	RB	00	427.9	DJ, HS	
34	RB	00	457.9	HS	
37	RB	01	504	DJ, HS	



Name: MC CULLOUGH CREEK
Date: 1/9/2007
Scale: 1 inch equals 2000 feet

Location: 10 466823 E 4738294 N
Caption: WOOD CREEK RESTORATION SITE - UMPQUA BASIN