

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

STREAM: Woodruff Creek (MS-169)
BASIN: Millicoma River
SURVEY TYPE: Post-Tx
DATE: July 14, 2004
SURVEY CREW: Alex Dale, Kevin Cellura
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 7.8 km²
USGS MAPS: Allegany
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The Woodruff Creek habitat survey extended 774 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 9.7 (range: 1.1-20.0). Land use for the reach was timber harvest and young (3-15 cm dbh) trees. The average unit gradient was 1.4 percent. Scour pools (46%) and riffles (36%) dominated stream habitat. Gravel (38%) and sand (29%) dominated stream substrate. Wood volume was high at 36.1 m³/100m.

COMMENTS:

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

The crew noted several habitat structures during the survey.

REACH 1

T25S-R11W-S08NE

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	9.7	VWI Range:	1.1 - 20

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	774	3,080	0
Secondary	100	122	3

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 4
Width: 3.5	Width: 5.9	6.9 (5.1 - 8)	8.7 (8 - 10.2)
Depth: 0.32	Height: 0.4	0.8 (0.7 - 0.9)	2.7 (0.9 - 5)

W:D ratio: 14.8

Stream Flow Type: LF

Average Unit Gradient: 1.4%

Water temperature (°C): 16.0 - 16.0

Entrenchment (ACW:FPW ratio): 1.2

Habitat Units/100m (total channel length): 7.2

Habitat Units/100m (primary channel length): 8.1

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	TH	YT
Riparian Vegetation:	D15	S

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	4%	Reach avg: 69%
Undercut Banks:	11%	Range: 19 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	178	23.0
Volume (m ³):	279	36.1
Key pieces (>=12m x 0.60m):	20	2.6

OREGON DEPARTMENT OF FISH AND WILDLIFE

WOODRUFF CREEK POST-TX (MS-169)

HABITAT INVENTORY

Report Date: 10/27/2004

Survey Date:

7/14/2004

REACH 1

T25S-R11W-S08NE

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
DRY CHANNEL	2	43	0.7	0.00	25	0	25	50	25	0	0	0
POOL-BACKWATER	2	12	2.2	0.19	25	3	33	43	20	5	0	0
POOL-DAMMED	2	63	6.5	0.71	386	12	20	23	23	20	15	0
POOL-ISOLATED	3	15	1.3	0.24	20	1	59	38	3	0	0	0
POOL-LATERAL SCOUR	16	241	4.2	0.58	1,024	27	16	36	31	8	4	5
POOL-PLUNGE	1	6	2.9	0.70	17	1	0	10	20	0	0	70
POOL-STRAIGHT SCOUR	7	80	5.5	0.65	428	26	14	34	36	13	4	0
PUDDLED UNIT	1	11	1.0	0.20	11	0	50	50	0	0	0	0
RAPID/BOULDERS	2	17	2.4	0.09	44	18	0	10	35	30	25	0
RIFFLE	20	345	3.2	0.11	1,106	45	3	22	61	10	1	3
RIFFLE W/ POCKETS	1	20	3.1	0.11	63	0	10	40	50	0	0	0
STEP/BEAVER DAM	2	3	3.3	0.03	9	1	30	30	10	0	30	0
STEP/BEDROCK	1	2	1.2	0.03	2	3	0	0	0	0	0	100
STEP/BOULDERS	1	6	3.8	0.20	21	20	0	5	5	10	80	0
STEP/COBBLE	1	8	2.0	0.08	15	0	0	10	90	0	0	0
STEP/LOG	1	1	5.3	0.01	5	0	30	30	30	10	0	0
Total:	63	874	3.5	0.32	3,202	157	Avg: 14	29	38	9	5	5

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	7	91	3.0	0.36	431	13.46%	16	3.7
Scour Pools	24	327	4.6	0.61	1,469	45.87%	54	3.7
Glides	0	0			0	0.00%	0	0.0
Riffles	21	365	3.2	0.11	1,168	36.49%	45	3.9
Rapids	2	17	2.4	0.09	44	1.38%	18	40.8
Cascades	0	0			0	0.00%	0	0.0
Step/Falls	6	19	3.1	0.06	53	1.66%	24	45.1
Dry	3	54	0.8	0.07	37	1.14%	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:	31	35.5	40.0
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	13	14.9	16.8
Pool frequency (channel widths/pool):	4.8		
Residual pool depth (avg):	0.51		

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1

REACH 1

Summary of Riparian Zone (0-30m)

3 transects

Total hardwoods/1000	406
Total conifers/1000 ft	41
Total conifers >20" dbh/1000 ft	0
Total conifers >35" dbh/1000 ft	0

Average number of trees in a 5-meter wide band

Diameter class (cm)	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters		Zones 1-3 0-30 meters	
	Conifer	Hardwood	Conifer	Hardwood	Conifer	Hardwood	Conifer	Hardwood
3-15cm	0.0	2.3	0.0	1.7	0.7	0.0	0.7	4.0
15-30cm	0.0	1.7	0.0	0.0	0.0	0.0	0.0	1.7
30-50cm	0.0	0.3	0.0	0.3	0.0	0.0	0.0	0.7
50-90cm	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.3
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	0.0	4.3	0.0	2.0	0.7	0.3	0.2	2.2

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	39		37		26	
Shrub cover	44		36		21	
Grass/forb cover	41		37		25	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	17		50		83	
High terrace	67		33		17	
Low terrace	0		0		0	
Floodplain	17		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	0		17		0	
Riprap	0		0		0	
Surface slope (%)	8		23		28	

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: 3-MS SITE ID: 169 WOODRUFF CREEK POST-TX (MS-16)

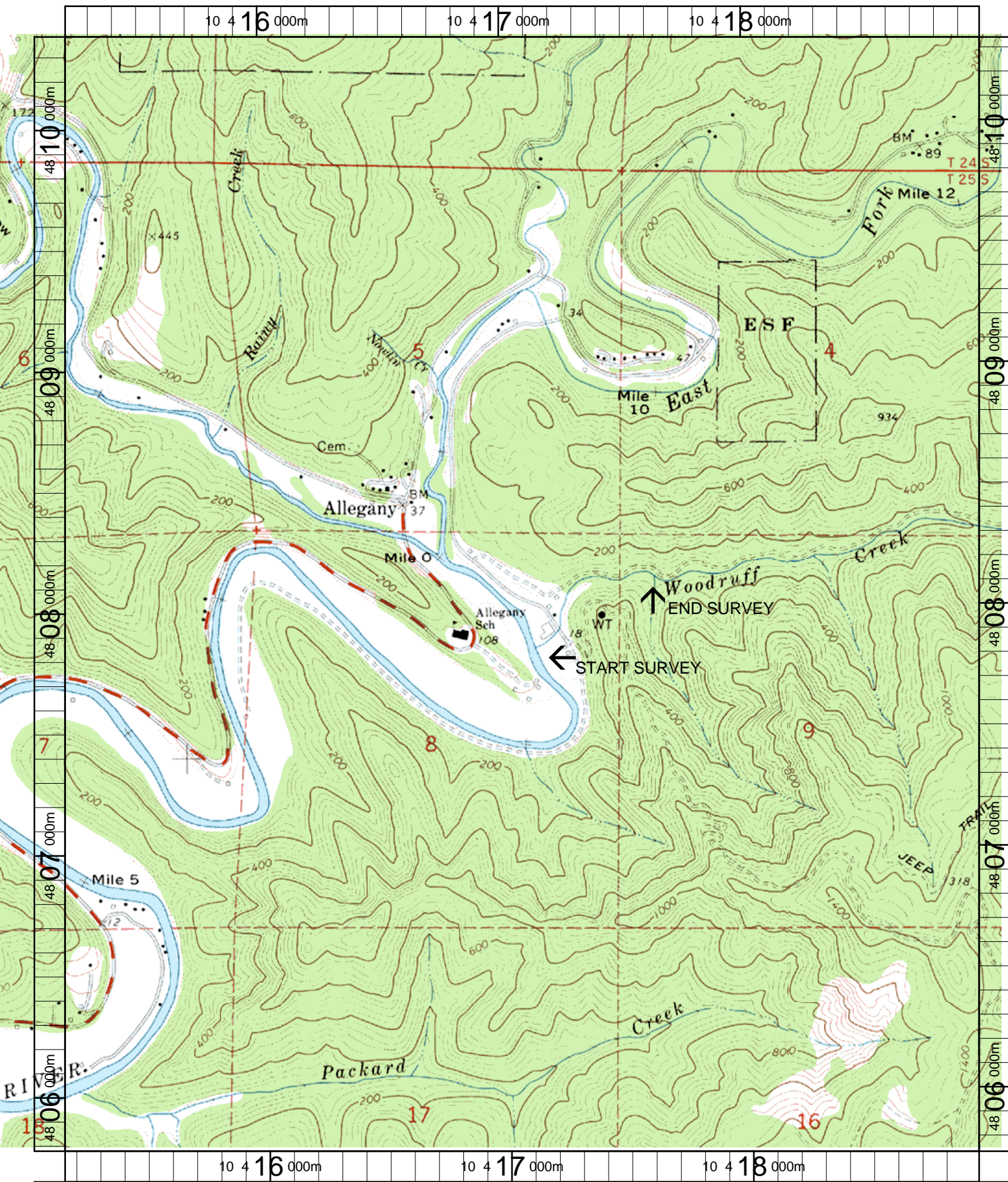
<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
1	SB	00	5.5	BV		START 7/14
2	LP	00	12.1	WL/ SD		BIG BROWN BEAVER RAN IN
3	SD	00	13.4	BV, BD	H=0.7	
4	DP	00	54.9	BV, WL	CABLING PRESENT	FRY, CHINOOK, COHO
5	SD	00	56.5	BD	H=0.5	
6	DP	00	78.3	WL	SCULPIN	CHINOOK FRY, DACE , COH
7	RI	00	120.2	BC	BRIDGE, ADD 5	KRUSE RD, RIPRAP
8	LP	00	150.5	WL, BV		FRY, DACE, COON TRACKS,
9	RI	00	164.6			DRAINPIPE IN STREAM
10	PP	00	170.5			RUSTY PIPE
12	RI	00	186.6	WL		ELK TRACKS
13	LP	01	204.1	WL, /SS	GPS=0417232/4808002	DENS
14	BW	10	204.1	BV		
15	RI	00	209.2	BV		
16	LP	00	217.8	WL, SD/		TRACKS- COON, HARDPAN
18	SP	00	241.1	WL		RSN, DENS
20	LP	01	265.3	HS, BV		1.5M UNDERCUT, DEEP
22	RI	01	273.9	DJ		
25	LP	01	291.9	HS		
26	RI	01	306.2	HS		
29	LP	01	321.4	WL, HS		FRY, STELLARS JAY

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: **3-MS** SITE ID: **169** WOODRUFF CREEK POST-TX (MS-16)

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
31	LP	00	368		GPS=0417283, 480813	
32	RI	00	395.2	SS/		CULVERT - DRY
33	SP	00	417.2	HS		FRY
35	LP	00	435.9			FRY
36	LP	00	451.7	HS		FRY
40	SP	00	499.4	HS		FRY, TROUT, PGS
41	SL	00	500.4	DJ	H=0.4	
42	RP	01	520.6	HS		FRY
45	RI	01	549.2	HS	GPS=0417461/ 4808092	
48	RI	00	582	HS		
52	LP	00	613.2	HS		FRY
54	LP	00	649.6	HS		
55	RI	00	659.6	HS		
56	SP	00	664.8	HS		
57	RI	00	727.9	HS		KINGFISHER CHIPMUNKS
58	SP	00	736.3	HS		
59	RI	01	743.6	/TJ	/TJ	
60	RB	11	743.6			TRIB-17 DEG C AT 2:30
61	LP	00	751.4	HS		FRY
63	SP	00	774.2			FRY PRESENT



Name: ALLEGANY
 Date: 3/21/2003
 Scale: 1 inch equals 1666 feet

Location: 10 417065 E 4808064 N
 Caption: WOODRUFF CREEK RESTORATION SITE - MILLICOMA BASIN