

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

STREAM: Fourth of July Creek (MC-87)
BASIN: Siletz River
SURVEY TYPE: Post-Tx
DATE: March 14, 2006
SURVEY CREW: Brian Bangs, Trevan Cornwell
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 6.7 km³
USGS MAPS: Valsetz
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The Fourth of July Creek habitat survey extended 415 meters. The channel was unconstrained in a broad valley floor. The average valley width index was 13.5 (range: 12.0-15.0). Land use for the reach was young (3-15 cm dbh) trees. The average unit gradient was 0.3 percent. Scour pools (87%) dominated stream habitat. Gravel (52%) and sand (30%) dominated stream substrate. Wood volume was high at 33.4 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.

Stream Fourth of July Creek (MC-87)

Basin Siletz River

Treatment Large Wood

	ODFW Benchmark		Pre 3/25/98	Post 2/17/99	Post 3/14/06		
Habitat Variable	Desirable	Undesirable					
% Pool Area	>35%	<10%	80.1	56.1	90.0		
Number of Pools			10	8	13		
Deep Pools/km (>1.0 m)			20.9	14.3	19.0		
% Off-Channel			3.0	12.9	4.2		
LWD – Pieces/100m	>20	<10	34.6	33.5	32.8		
LWD – Volume/100m	>30	<20	45.1	61.2	33.4		
LWD – Key Pieces/100m	>3	<1	3.1	3.1	1.0		
Large Wood Jams/km			10.2	10.4	14.5		
% Riffle Fines	<10	>20	17	58	41		
% Riffle Gravel	>35	<15	83	42	50		
% Bedrock			0	0	1		

Bold is noticeable change

Comments: The treatment was large wood assembled in complex jams. Through time, the wood has been reduced, apparently flushing out of the system without additional recruitment. Pool area has increased, along with the number of pools, while deep pools are near pre-treatment levels. Riffle fines are higher and gravel is lower than pre-treatment estimates.

REACH 1

T09S-R08W-S07SW

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	0%
Moderate V-shape	0%	Multiple Terraces	100%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	13.5	VWI Range:	12 - 15

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	0%	Single Channel	100%
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 Channel	415	2,825	0
Secondary Channel	0	0	0
Off-Channel Units	59	125	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 4	<u>First Terrace</u> n = 4
Width: 6.0	Width: 10.5	28.5 (15.6 - 38.8)	34.3 (29 - 44)
Depth: 0.88	Height: 0.6	1.2 (1.2 - 1.3)	1.6 (1.4 - 1.7)

W:D ratio: 17.1

Entrenchment (ACW:FPW ratio): 2.8

Stream Flow Type: LF

Habitat Units/100m (total channel length): 4.0

Average Unit Gradient: 0.3%

Habitat Units/100m (primary channel length): 4.6

Water temperature (°C): 5.5 - 5.5

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	YT	
Riparian Vegetation:	D30	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):	136	32.8
Volume (m ³):	138	33.4
Key pieces (>=12m x 0.60m):	4	1.0

HABITAT INVENTORY

Report Date: 12/6/2006

Survey Date:

3/14/2006

REACH 1		T09S-R08W-S07SW					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
POOL-ALCOVE	1	23	3.7	0.60	86	0	74	25	2	0	0	0
POOL-LATERAL SCOUR	12	363	6.8	1.20	2,570	0	7	37	49	6	0	1
RIFFLE	3	66	3.4	0.27	175	0	14	27	50	10	0	0
STEP/COBBLE	3	22	5.8	0.30	120	0	2	8	81	8	0	0
Total:	19	474	6.0	0.88	2,951	0	Avg: 11	30	52	7	0	1

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	23	3.7	0.60	86	2.91%	0	0.0	
Scour Pools	12	363	6.8	1.20	2,570	87.10%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	3	66	3.4	0.27	175	5.92%	0	0.0	
Rapids	0	0			0	0.00%	0	0.0	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	3	22	5.8	0.30	120	4.07%	0	0.0	
Dry	0	0			0	0.00%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

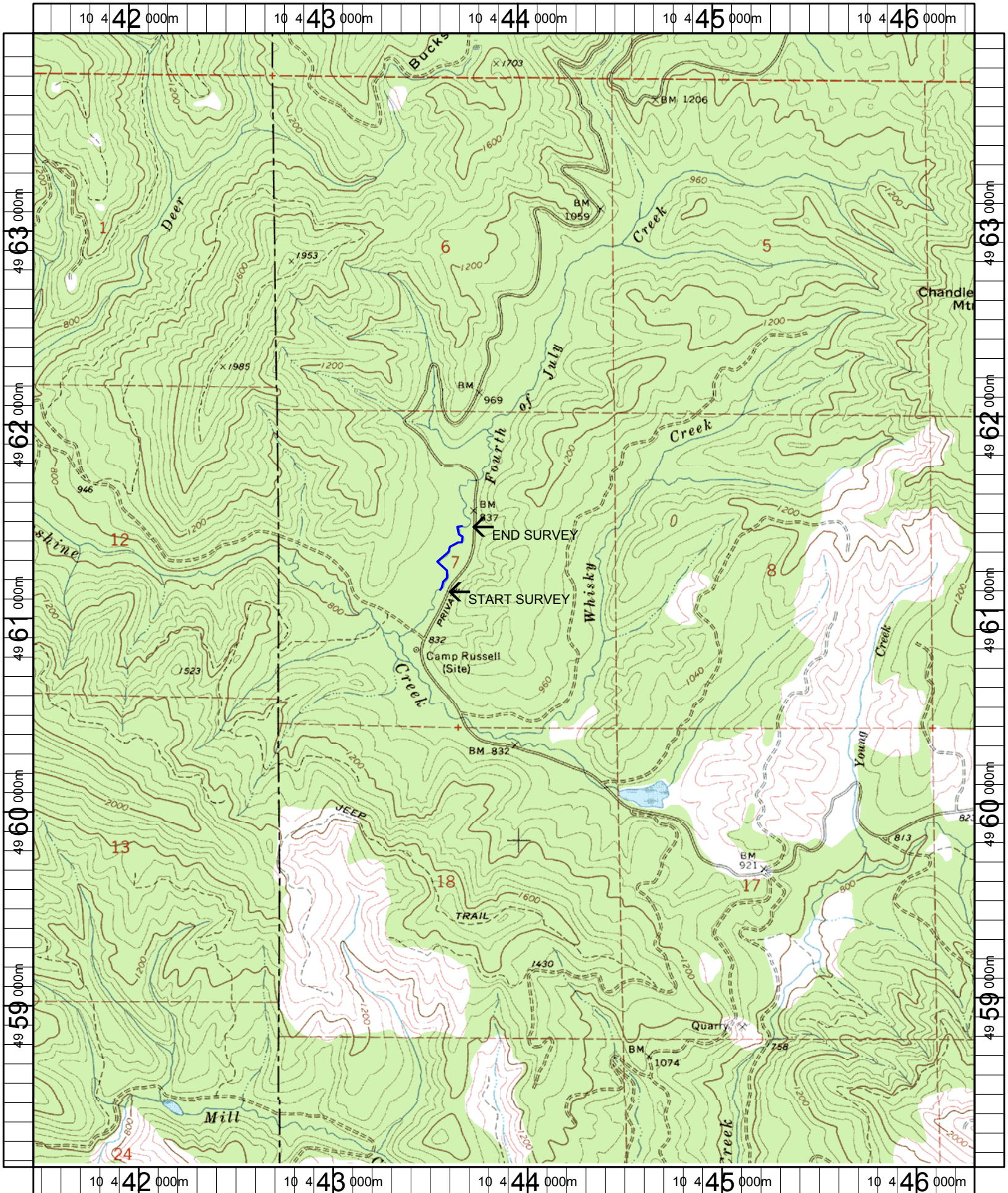
POOL SUMMARY			
	<u>Total</u>	<u>Total of all Channel Lengths # / Km</u>	<u>Primary Channel Length # / Km</u>
All Pools:	13	27.4	31.3
Pools >=1m deep:	9	19.0	21.7
Complex pools (LWD pieces>=3):	12	25.3	28.9
Pool frequency (channel widths/pool):	3.5		
Residual pool depth (avg):	0.92		

Comment Summary

Restoration Monitoring Sites 2006

MONITORING AREA: **2-MC** SITE ID: **87** **FOURTH OF JULY CREEK POST-TX**

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	LP	00	30.8	BV	START FLAG ALDER RIGHT	
4	LP	00	98.3	BV		
7	LP	00	190.1	HS,BV,DJ	/SS, SALMONID FRY	
10	LP	01	234.8	TJ/		
11	RI	11	234.8		T=7.0, BV DAM UP TRIB, FRY	
13	LP	00	267.6	HS		
14	LP	00	300.6	HS	SLMON BONES	
15	LP	00	316.2		PVC PIPE ON BANKS	
16	LP	01	363.4	BV, DJ		
17	AL	10	363.4	HS, BV,/SS	RSN, AMPHIB EGG MASSES	
18	LP	00	401.9	SS/, BV		
19	RI	00	414.9	/SS	MANY FRY ABOVE END OF SURVEY	



Name: VALSETZ
 Date: 1/23/2006
 Scale: 1 inch equals 2000 feet

Location: 10 443903 E 4961073 N
 Caption: FOURTH OF JULY CREEK RESTORATION SITE - SILETZ BASIN