

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

STREAM: Little SF Hunter Creek (SC-45)
BASIN: Hunter River
SURVEY TYPE: Post-Tx
DATE: January 24, 2007
SURVEY CREW: Scott Sebring, Jason Hatfield
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 2.2 km²
USGS MAPS: Sundown Mountain
ECOREGION: Coast Range Coastal Uplands

GENERAL DESCRIPTION:

The Little SF Hunter Creek habitat survey extended 545 meters. The channel was constrained by hillslopes in a moderate V-shape valley. The average valley width index was 2.2 (range: 1.5-3). Land use for the reach was second growth (15-30 cm dbh) and young (3-15 cm dbh) trees. The average unit gradient was 4.7 percent. Rapids (46%), cascades (26%) and scour pools (18%) dominated stream habitat. Gravel (33%), cobble (29%) and boulders (24%) dominated stream substrate. Wood volume was low at 9.8 m³/100m.

COMMENTS:

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

3 debris jams were noted in the survey.

Stream Little South Fork Creek (S-45)
 Basin Hunter Creek
 Treatment Large Wood

	ODFW Benchmark		Pre	Post	Post		
Habitat Variable	Desirable	Undesirable	2/9/00	2/20/01	1/24/07		
% Pool Area	>35%	<10%	19.6	21.6	20.0		
Number of Pools			9	9	15		
Deep Pools/km (>1.0 m)			2.4	3.7	1.6		
% Off-Channel			9.5	0.7	8.7		
LWD – Pieces/100m	>20	<10	14.3	25.1	12.3		
LWD – Volume/100m	>30	<20	12.2	37.8	9.8		
LWD – Key Pieces/100m	>3	<1	1.4	2.5	0.2		
Large Wood Jams/km			10.2	25.5			
% Riffle Fines	<10	>20	14	10	20		
% Riffle Gravel	>35	<15	31	44	50		
% Bedrock			0	0	0		

Bold is noticeable change

Comments: Pool area has remained stable, with the total number of pools increasing and the number of deep pools decreasing, although these changes may partly be a symptom of variable stream flows between survey years. Off channel habitat has rebounded to pre-treatment conditions. Large wood appears to be dropping dramatically, suggesting that it is leaving the reach without being replenished from the riparian area. Substrate levels have remained stable.

REACH 1

T37S-R14W-S27SE

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	100%	Multiple Terraces	0%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	2.2	VWI Range:	1.5 - 3

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 Channel	545	2,689	0
Secondary Channel	47	195	0
Off-Channel Units	26	61	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 3
Width: 4.5	Width: 9.9	14.0 (10.5 - 20.8)	18.8 (14.5 - 22.8)
Depth: 0.40	Height: 0.8	1.6 (1.4 - 1.9)	2.5 (1.9 - 3)

W:D ratio: 12.9

Entrenchment (ACW:FPW ratio): 1.4

Stream Flow Type: MF

Habitat Units/100m (total channel length): 5.8

Average Unit Gradient: 4.7%

Habitat Units/100m (primary channel length): 6.6

Water temperature (°C): 4.0 - 4.0

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	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:		Reach avg:
Undercut Banks:		Range: -

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	67	12.3
Volume (m ³):	53	9.8
Key pieces (>=12m x 0.60m):	1	0.2

OREGON DEPT OF FISH AND WILDLIFE LITTLE SF HUNTER CREEK POST-TX (5-SC, 45)

HABITAT INVENTORY Report Date: 4/25/2007 Survey Date: 1/24/2007

REACH 1		T37S-R14W-S27SE					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
CASCADE/BOULDERS	7	176	3.0	0.13	792	0	0	14	31	29	26	1
GLIDE	1	22	6.5	0.20	144	0	0	10	20	50	20	0
POOL-BACKWATER	1	5	4.5	0.75	20	0	0	80	15	0	5	0
POOL-DAMMED	1	4	6.2	0.60	25	0	0	10	90	0	0	0
POOL-ISOLATED	1	3	2.0	0.30	6	0	0	10	45	30	15	0
POOL-LATERAL SCOUR	10	88	4.8	0.64	466	0	1	15	31	31	21	0
POOL-PLUNGE	2	11	7.2	1.00	73	0	0	25	33	20	23	0
RAPID/BOULDERS	9	292	4.4	0.26	1,357	0	0	11	30	35	24	0
RIFFLE	1	14	3.4	0.25	46	0	0	20	50	25	5	0
STEP/BOULDERS	2	2	5.0	0.25	8	0	0	0	5	23	73	0
STEP/LOG	1	2	6.2	0.15	9	0	0	10	80	10	0	0
Total:	36	618	4.5	0.40	2,946	0	Avg: 0	15	33	29	24	0

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	3	12	4.2	0.55	51	1.73%	0	0.0	
Scour Pools	12	99	5.2	0.70	539	18.28%	0	0.0	
Glides	1	22	6.5	0.20	144	4.88%	0	0.0	
Riffles	1	14	3.4	0.25	46	1.57%	0	0.0	
Rapids	9	292	4.4	0.26	1,357	46.08%	0	0.0	
Cascades	7	176	3.0	0.13	792	26.89%	0	0.0	
Step/Falls	3	3	5.4	0.22	17	0.57%	0	0.0	
Dry	0	0			0	0.00%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

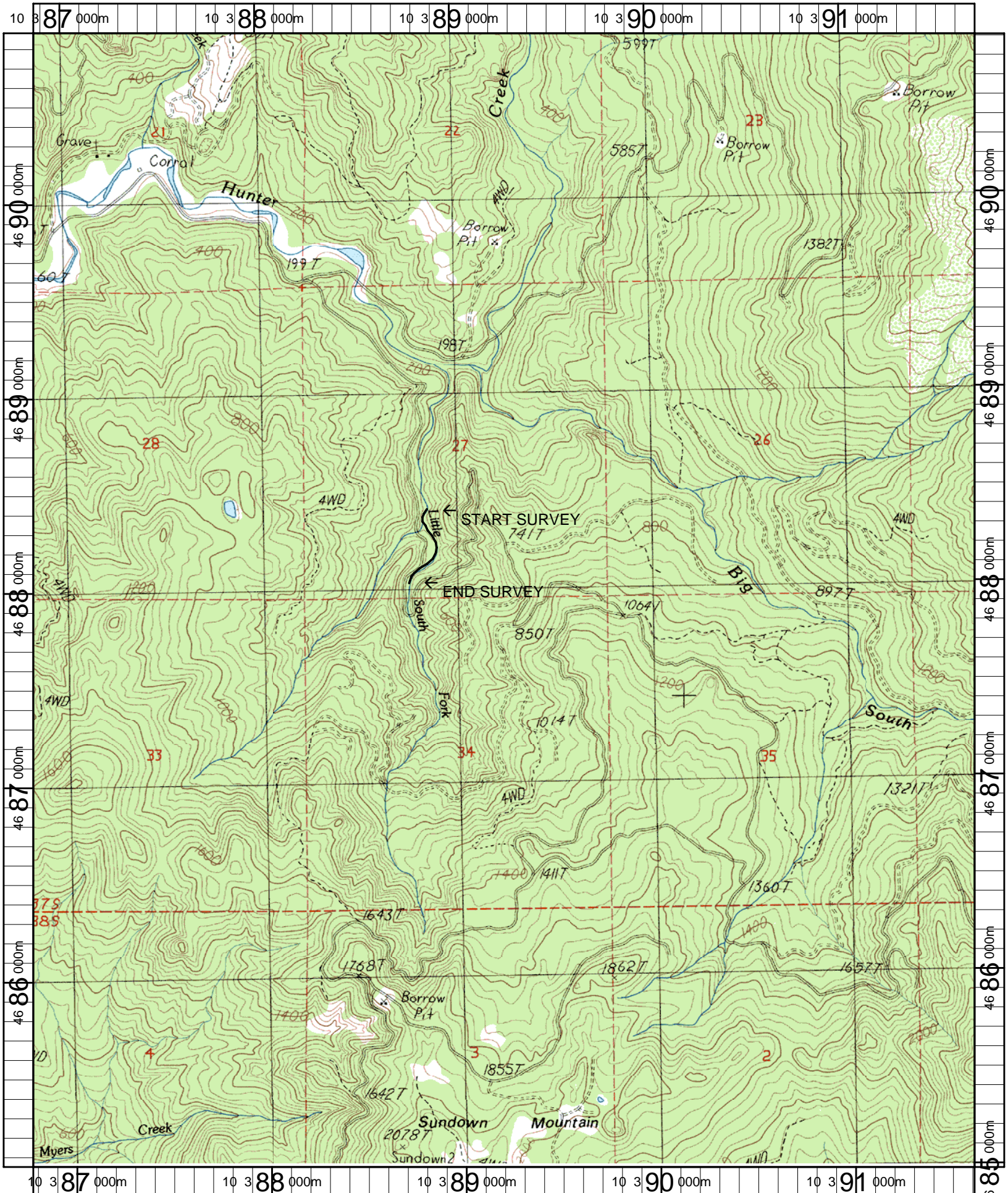
POOL SUMMARY			
	Total of all Channel Lengths		Primary Channel Length
	<u>Total</u>	<u># / Km</u>	<u># / Km</u>
All Pools:	15	24.3	27.5
Pools >=1m deep:	1	1.6	1.8
Complex pools (LWD pieces>=3):	3	4.9	5.5
Pool frequency (channel widths/pool):	4.1		
Residual pool depth (avg):	0.47		

Comment Summary

Restoration Monitoring Sites 2007

MONITORING AREA: 5-SC SITE ID: 45 LITTLE SF HUNTER CREEK POST-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR
6	RB	01	104.1	DJ	
9	SL	02	104.1	DJ	
16	CB	01	161.7	TJ/	METZGUS CRK END REACH TRIB 15
21	RB	01	247.6	TJ/	
23	RB	01	298.8	/TJ	
29	RB	00	378.4	DJ	
36	CB	00	545	WL	LARGE FRESHWATER MUSSEL



Name: SUNDOWN MT
 Date: 4/26/2007
 Scale: 1 inch equals 2000 feet

Location: 10 0389237 E 4687930 N
 Caption: LITTLE SOUTH FORK HUNTER CREEK RESTORATION SITE -
 HUNTER CREEK BASIN