

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

STREAM: Little South Fork Hunter Creek (S-45)
BASIN: Hunter Creek
SURVEY TYPE: Post-Tx
DATE: August 20, 2007
SURVEY CREW: Scott Kuhn, Drew Harper
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 2.2 km²
USGS MAPS: Sundown Mountain
ECOREGION: Coast Range Coastal Uplands

GENERAL DESCRIPTION:

The Little South Fork Hunter Creek habitat survey extended 671 meters. The channel was constrained by hillslopes in a moderate V-shaped valley. The average valley width index was 1.4 (range: 1.0-1.5). Land use for the reach was second growth (15-30 cm dbh) trees. The average unit gradient was 3.9 percent. Rapids (47%) and scour pools (21%) dominated stream habitat. Cobble (31%) and gravel (28%) dominated stream substrate. Wood volume was low at 16.2 m³/100m.

COMMENTS:

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

REACH 1

T37S-R14W-S27SW

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	1.4	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 Channel	671	2,558	1
Secondary Channel	80	160	2
Off-Channel Units	25	65	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u>	<i>n = 5</i>	<u>First Terrace</u>	<i>n = 0</i>
Width: 3.6	Width: 6.3	8.9	(7.5 - 11.1)	(-)	(-)
Depth: 0.28	Height: 0.4	0.8	(0.7 - 0.9)	(-)	(-)

W:D ratio: 16.1

Entrenchment (ACW:FPW ratio): 1.4

Stream Flow Type: MF

Habitat Units/100m (total channel length): 6.4

Average Unit Gradient: 3.9%

Habitat Units/100m (primary channel length): 7.5

Water temperature (°C): 14.0 - 14.0

Riparian, Bank, and Wood Summary

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

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	0%	Reach avg: 80%
Undercut Banks:	1%	Range: 53 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	107	15.9
Volume (m ³):	109	16.2
Key pieces (>=12m x 0.60m):	1	0.1

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

HABITAT INVENTORY Report Date: 11/14/2007 Survey Date: 8/20/2007

REACH 1		T37S-R14W-S27SW					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	4	44	3.1	0.08	156	24	0	4	24	34	39	0
DRY UNIT	1	14	0.9	0.00	13	9	0	6	17	50	28	0
GLIDE	1	12	3.3	0.15	38	1	5	10	52	19	14	0
POOL-LATERAL SCOUR	8	67	3.7	0.60	273	28	9	18	27	30	16	0
POOL-PLUNGE	3	17	6.4	0.87	111	15	36	14	13	9	28	0
POOL-STRAIGHT SCOUR	4	49	4.0	0.44	207	25	11	17	32	24	16	0
PUDDLED UNIT	2	43	1.1	0.09	43	4	3	10	19	49	20	0
RAPID/BOULDERS	19	418	3.7	0.16	1,578	362	1	11	28	35	25	1
RIFFLE	1	29	3.3	0.15	95	9	0	10	25	45	20	0
RIFFLE W/ POCKETS	5	82	3.2	0.16	257	28	4	15	39	31	12	0
STEP/LOG	2	2	4.5	0.00	12	0	10	27	44	17	3	0
Total:	50	776	3.6	0.28	2,784	505	Avg: 6	13	28	31	21	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	0	0			0	0.00%	0	0.0	
Scour Pools	15	134	4.3	0.61	591	21.25%	68	11.5	
Glides	1	12	3.3	0.15	38	1.36%	1	2.6	
Riffles	6	110	3.2	0.16	352	12.65%	37	10.5	
Rapids	19	418	3.7	0.16	1,578	56.71%	362	22.9	
Cascades	4	44	3.1	0.08	156	5.62%	24	15.4	
Step/Falls	2	2	4.5	0.00	12	0.42%	0	0.0	
Dry	3	57	1.0	0.06	56	1.99%	13	23.4	
Culverts	0	0			0	0.00%	0	0.0	

POOL SUMMARY			
	<u>Total</u>	Total of all Channel Lengths	Primary Channel Length
		<u># / Km</u>	<u># / Km</u>
All Pools:	15	19.3	22.4
Pools >=1m deep:	1	1.3	1.5
Complex pools (LWD pieces>=3):	6	7.7	8.9
Pool frequency (channel widths/pool):	8.2		
Residual pool depth (avg):	0.53		

Survey Date 8/20/2007
Report Date: 11/7/2007

**RIPARIAN ZONE
VEGETATION SUMMARY**

REACH 1

Summary of Riparian Zone (0-30m) 3 transects

Total hardwoods/1000	772
Total conifers/1000 ft	183
Total conifers >20" dbh/1000 ft	20
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	1.7	0.0	0.3	0.3	3.7	0.3	5.7
15-30cm	0.0	1.7	0.3	1.0	0.3	2.0	0.7	4.7
30-50cm	0.0	0.7	0.0	0.7	1.7	0.7	1.7	2.0
50-90cm	0.0	0.3	0.0	0.0	0.3	0.0	0.3	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	0.3	2.0	2.7	6.3	1.0	4.2

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	60		48		84	
Shrub cover	60		10		32	
Grass/forb cover	32		46		42	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	83		50		100	
High terrace	0		0		0	
Low terrace	0		0		0	
Floodplain	0		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	17		50		0	
Riprap	0		0		0	
Surface slope (%)	47		22		73	

Summary of Riparian Zone (0-30m) for all reaches

3 transects

Summary of riparian zone (0-100 feet) extrapolated to 1,000 feet along stream

Total hardwoods/1000	772
Total conifers/1000 ft	183
Total conifers >20" dbh/1000 ft	20
Total conifers >35" dbh/1000 ft	0

Average number of trees in a 5-m wide band

Diameter class (cm)	Zones 1-3	
	<u>0-30 meters</u>	
	<u>Conifer</u>	<u>Hardwood</u>
3-15cm	0.3	5.7
15-30cm	0.7	4.7
30-50cm	1.7	2.0
50-90cm	0.3	0.3
>90cm	0.0	0.0

RIPARIAN ZONE VEGETATION

Reach 1

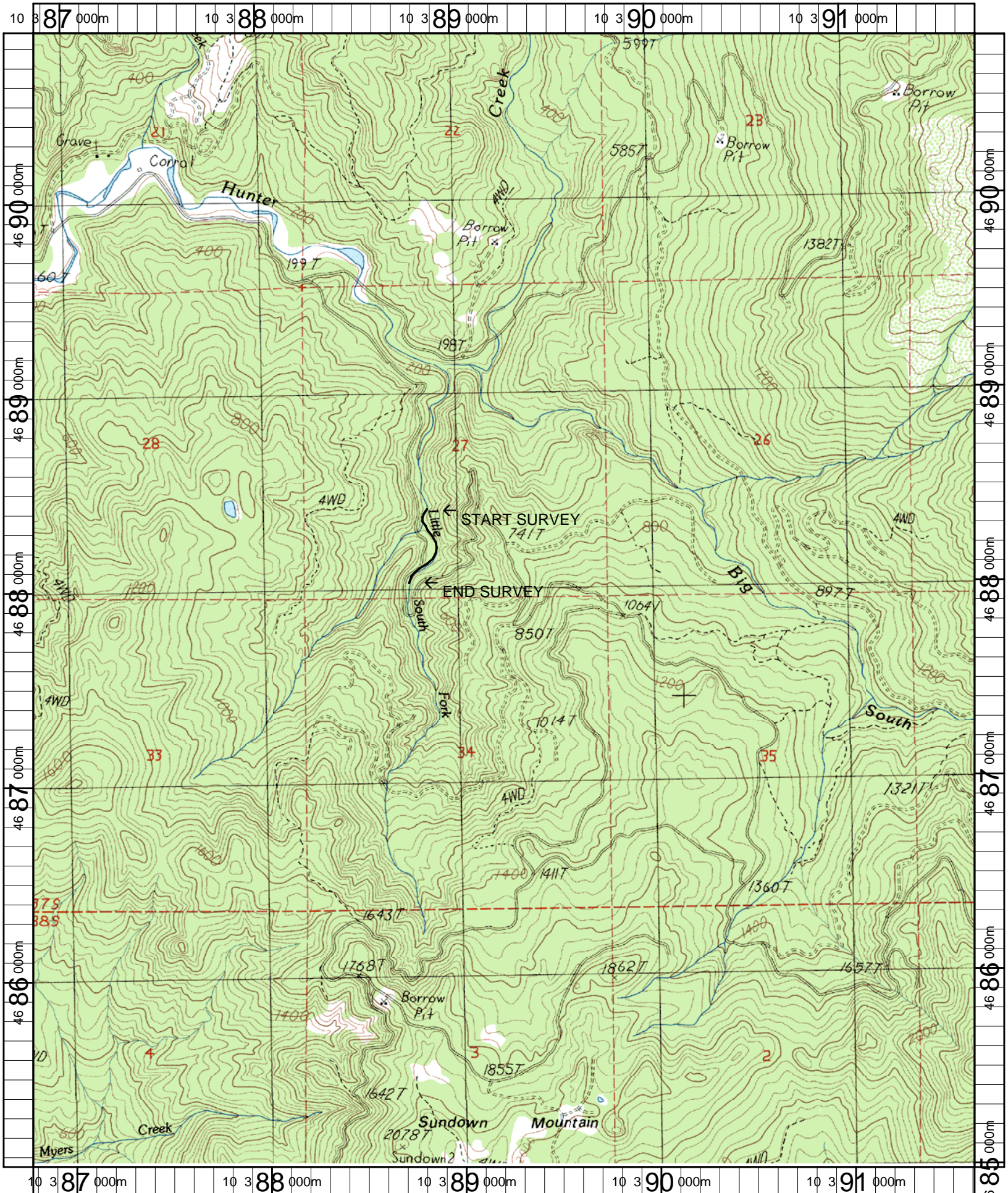
Reach 1

Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes	
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90		
13	LT	1	HS	50	80	20	80	Conifer							
								Hardwood	3		2				
13	LT	2	HS	30	70	10	90	Conifer							
								Hardwood	1	3					
13	LT	3	HS	100	100	50	50	Conifer							
								Hardwood	5		1				
13	RT	1	HS	70	60	70	30	Conifer							
								Hardwood		2					
13	RT	2	RB	0	0	0	20	Conifer							PAVED ROAD BED OF METZGUS
								Hardwood							
13	RT	3	HS	50	50	90	10	Conifer							
								Hardwood	3						
22	LT	1	HS	30	70	80	20	Conifer							CROSSES SMALL TRIB
								Hardwood	1						
22	LT	2	HS	60	90	0	90	Conifer		1					
								Hardwood			1				
22	LT	3	HS	30	90	5	80	Conifer			1	1			
								Hardwood							
22	RT	1	HS	60	30	50	30	Conifer							
								Hardwood		2					
22	RT	2	RB	0	40	10	5	Conifer							GRAVEL ROAD BED; LITTLE
								Hardwood							
22	RT	3	HS	120	100	20	20	Conifer		1	1				
								Hardwood	5						
33	LT	1	HS	70	100	90	10	Conifer							
								Hardwood	1			1			
33	LT	2	HS	40	85	35	65	Conifer							
								Hardwood			1				
33	LT	3	HS	40	85	10	80	Conifer			3				
								Hardwood							
33	RT	1	RB	0	20	50	20	Conifer							MAPLE TREES HAVE SOME GRAVEL ROAD
								Hardwood		1					
33	RT	2	RB	0	0	5	5	Conifer							
								Hardwood							
33	RT	3	HS	100	80	15	10	Conifer	1						
								Hardwood	3	1	1				

COMMENT SUMMARY

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

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	SP	00	11.2		PIC 100-0053; TEMP=14.5C
6	CB	02	97.5	BV	
13	RB	01	151.4	/TJ	METZGUS CR.
14	RB	11	151.4	BC	LITTLE S.F. HUNTER CR. RD.; METZGUS CR.; TEMP=14.5
20	RI	01	250	TJ/	
21	PD	00	275		ACW=1.1
30	LP	00	357.6	DJ	
36	LP	00	430.3	SS/	



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