

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

STREAM: South Myrtle Creek (U-249)
BASIN: Umpqua River
SURVEY TYPE: Pre-Tx
DATE: July 6, 2004
SURVEY CREW: Sierra Koch, Valerie Montague
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 150.0 km²
USGS MAPS: White Rock
ECOREGION: Coast Range Klamath Siskiyou

GENERAL DESCRIPTION:

The South Myrtle Creek habitat survey extended 1,178 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 14.9 (range: 11.0-21.0). Land use for the reach was light grazing and rural residential. The average unit gradient was 2.8 percent. Scour pools (40%) and riffles (34%) dominated stream habitat. Bedrock (33%) and cobble (21%) dominated stream substrate. Wood volume was very low at 0.3 m³/100m.

COMMENTS:

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

REACH 1

T30S-R03W-S15NE

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	14.9	VWI Range:	11 - 21

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	0%	Single Channel	0%
Bedrock	0%	Multiple Channel	0%
Terrace	100%	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	1,178	4,467	0
Secondary	32	65	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 4	<u>First Terrace</u> n = 4
Width: 3.6	Width: 5.6	7.0 (6.8 - 7.3)	12.2 (7.8 - 15.5)
Depth: 0.50	Height: 0.5	0.9 (0.7 - 1)	3.6 (2.7 - 5.5)

W:D ratio: 12.9

Stream Flow Type: MF

Average Unit Gradient: 2.8%

Water temperature (°C): 14.0 - 14.0

Entrenchment (ACW:FPW ratio): 1.2

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

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

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	LG	RR
Riparian Vegetation:	M3	C30

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	3%	Reach avg: 77%
Undercut Banks:	3%	Range: 17 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	18	1.5
Volume (m ³):	3	0.3
Key pieces (>=12m x 0.60m):	0	0.0

OREGON DEPARTMENT OF FISH AND WILDLIFE

SOUTH MYRTLE CREEK PRE-TX (U-249)

HABITAT INVENTORY

Report Date: 10/27/2004

Survey Date:

7/6/2004

REACH 1		T30S-R03W-S15NE					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/BEDROCK	2	33	2.5	0.38	72	0	0	5	13	5	0	78	
POOL-BACKWATER	1	3	6.0	0.10	15	0	25	25	0	10	0	40	
POOL-LATERAL SCOUR	13	186	3.8	0.72	718	42	3	26	21	23	4	24	
POOL-PLUNGE	8	66	4.3	1.10	371	15	0	24	24	20	9	23	
POOL-STRAIGHT SCOUR	8	144	4.3	0.81	625	22	0	20	24	24	5	27	
POOL-TRENCH	2	37	3.0	1.05	110	4	0	8	10	13	0	70	
RAPID/BEDROCK	5	118	2.3	0.23	298	37	0	1	7	10	7	75	
RAPID/BOULDERS	9	142	4.2	0.22	566	116	0	16	22	32	23	7	
RIFFLE	11	276	3.9	0.42	1,144	176	0	19	27	31	14	9	
RIFFLE W/ POCKETS	5	113	3.5	0.21	399	97	0	22	26	24	16	12	
STEP/BEDROCK	10	55	2.3	0.16	118	5	0	1	2	2	1	95	
STEP/BOULDERS	2	22	2.1	0.13	39	12	0	0	5	25	70	0	
STEP/COBBLE	2	15	4.0	0.15	58	16	0	18	23	50	10	0	
Total:	78	1,210	3.6	0.50	4,532	542	Avg: 1	16	18	21	10	33	

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	3	6.0	0.10	15	0.33%	0	0.0
Scour Pools	31	434	4.0	0.86	1,824	40.24%	83	4.6
Glides	0	0			0	0.00%	0	0.0
Riffles	16	389	3.8	0.36	1,543	34.04%	273	17.7
Rapids	14	261	3.5	0.23	864	19.06%	153	17.7
Cascades	2	33	2.5	0.38	72	1.59%	0	0.0
Step/Falls	14	92	2.5	0.15	215	4.74%	33	15.4
Dry	0	0			0	0.00%	0	0.0
Culverts	0	0			0	0.00%	0	0.0

POOL SUMMARY		
	Total	Primary Channel Length
	# / Km	# / Km
All Pools:	32	27.2
Pools >=1m deep:	8	6.8
Complex pools (LWD pieces>=3):	1	0.8
Pool frequency (channel widths/pool):	6.7	
Residual pool depth (avg):	0.68	

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1

REACH 1

Summary of Riparian Zone (0-30m)

3 transects

Total hardwoods/1000	833
Total conifers/1000 ft	732
Total conifers >20" dbh/1000 ft	41
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	4.7	8.7	2.7	1.7	1.0	0.0	8.3	10.3
15-30cm	0.0	3.0	1.3	0.0	1.0	0.0	2.3	3.0
30-50cm	0.3	0.3	0.0	0.0	0.3	0.0	0.7	0.3
50-90cm	0.0	0.0	0.0	0.0	0.7	0.0	0.7	0.0
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	5.0	12.0	4.0	1.7	3.0	0.0	4.0	4.6

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	18		13		13	
Shrub cover	47		35		40	
Grass/forb cover	47		77		73	

Predominant landform in each zone

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

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		
17	LF	3	HT	8	0	90	10	Conifer							
								Hardwood							
17	RT	3	HT	1.5	5	50	50	Conifer		1					
								Hardwood							
17	RT	1	HT	7	0	60	40	Conifer							SLOPE TO HT-2M FP
								Hardwood	3	3					
17	LF	2	HT	4	10	80	20	Conifer	3						
								Hardwood	1						
17	LF	1	HT	10	40	60	40	Conifer	5						SLOPE TO HT?
								Hardwood	3	1	1				
17	RT	2	HT	2	10	40	60	Conifer	2	1					STUMPS CLEAR CUT
								Hardwood	3						
35	LF	1	HT	0	0	30	30	Conifer	7						3M HT THEN SLOPE TO HT
								Hardwood	6	2					
35	LF	2	HT	1	0	0	100	Conifer							
								Hardwood							
35	LF	3	HT	2	0	0	100	Conifer							
								Hardwood							
35	RT	1	HT	3	35	20	80	Conifer	2		1				6M SLOPE TO HT
								Hardwood	7						
35	RT	2	HT	1	55	20	80	Conifer	3	3					
								Hardwood	1						
35	RT	3	HT	7	70	20	80	Conifer	3	2	1	2			
								Hardwood							
51	LF	2	HT	1	0		100	Conifer							
								Hardwood							
51	RT	3	HT	1	0		100	Conifer							
								Hardwood							
51	RT	2	HT	0	0		100	Conifer							
								Hardwood							
51	LF	1	HT	0	25	40	60	Conifer							4.5 M SLOPE TO HT
								Hardwood	4	1					
51	LF	3	HT	1	0		100	Conifer							.35M FRUIT TREE
								Hardwood							
51	RT	1	HT	0	10	70	30	Conifer							4M SLOPE TO HT
								Hardwood	3	2					

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: **4-UMP** SITE ID: **249** SOUTH MYRTLE CREEK PRE-TX (U-2)

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	LP	00	15.8		T=14 DEG C AT 11:00	FRY, LARGER POOL BELOW
2	RI	00	34.1	WL	CHANNEL METRICS	DEERTRACK
4	SR	00	42.8		H=.4	H=.12 M CHUTE ABRUPT
9	RI	00	151.8	WL		TRAIL
10	RI	00	202.9	WL		TRAIL
11	RI	00	220.2			.4 SCOUR W/ BOULDER SUB
12	LP	00	233			FRY
14	LP	00	260.3			FRY
17	RP	00	305.6		T=15 DEG C AT 1:00	
20	LP	00	353		FIRE ACCESS ROAD	FIRE RD STOPS AT CREEK
21	RI	00	371.8		VERY LOW ENERGY RIFF	
24	SR	01	403.3		H=.5 SR CAUSED SCOUR	H=.5M
26	SC	00	410.2		YELLOW FLAG SP-7	
29	RR	00	447.5	WL		TRAIL
30	LP	00	470.1		STOCKYARD PANEL ACR	3M RIFFLE AT PTC
31	RB	00	490.9		DEAD STELLARS JAY	DEAD STELLARS JAY
34	RR	00	566.2		T=16 DEG C, RIP AND ME	
38	SR	00	633.6		H=.6 SLOPE ESTIMATED	.75H/10.9L 45 DEG
39	TP	00	660.6		CLINOMETER INCORREC	SQUIRREL CARCASS
40	LP	00	673.2			.2M RIFFLE AT PTC
41	SR	00	678.6		H=.4	.4 H

Comment Summary

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MONITORING AREA: **4-UMP** SITE ID: **249** SOUTH MYRTLE CREEK PRE-TX (U-2)

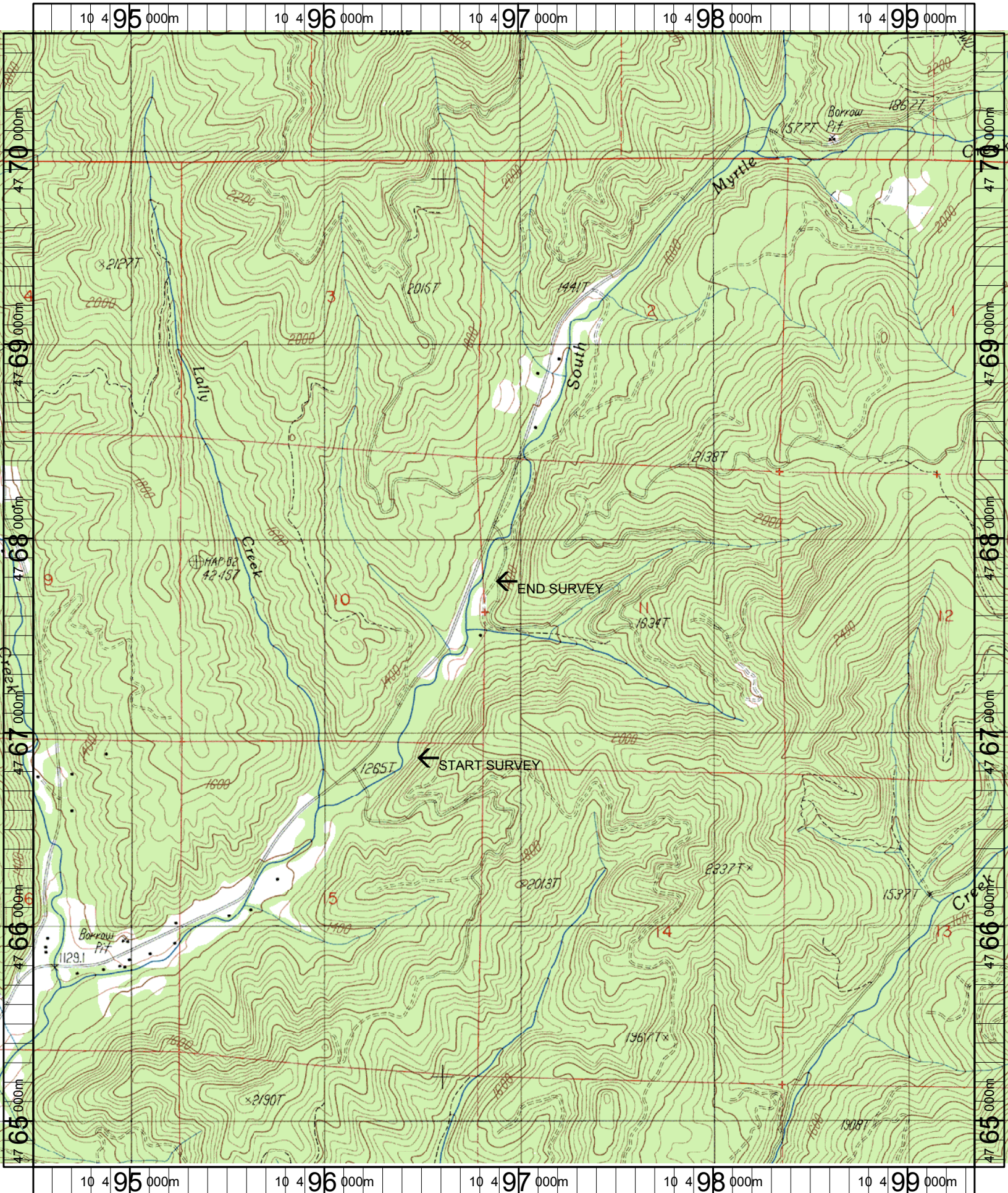
UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
43	PP	01	708.2	TJ/	/TJ - WATERFALL	UC .7 M
44	PP	11	708.2		T=14 DEG C AT 1:30	1M RIFFLE AT MOUTH
45	SR	11	708.2		H=4.5M, ESTIMATED	4.5M H
46	CR	01	733.2			.1-1.5 DEPT VARIANCE
49	SR	00	755.8		H=0.3M	.3M H
50	RB	00	775.3		GARTER SNAKE, 1 FT LO	
51	LP	00	799		RIPARIAN/ METRICS	
52	RR	00	803		DJ .1 M HARDWOOD ACR	CONSTRICTED CHUTE
53	RP	00	829.8		SM DJ	
55	SB	00	855		H=.3M	.3M H
58	SR	00	883.6		H=.2M	.2H
61	SB	00	906.1		H=0.3M	.3H
62	PP	00	915.8		NUMEROUS FRY	SUBSTRATE EST
63	SR	01	926	/TJ	H=1.2	
64	PP	11	926		T=15 DEG C AT 3:30	TRIB
65	SR	11	926		H=.95M	.95H TRIB
66	CR	00	933.6			.1-.4 DEEP
67	RI	00	963.4			PINK FLAGGING
68	RP	00	988.6			PINK FLAGGING
70	RB	00	1031.8			OUTLET PIPE AT HIGH BANK
71	SP	00	1056.6			PINK FLAG

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: 4-UMP SITE ID: 249 SOUTH MYRTLE CREEK PRE-TX (U-2)

<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
74	SR	00	1091		H=65	.65 H
76	RR	00	1147.9			SOME BR SCOUR .4 AND .6
78	RB	00	1178.4		END OF SURVEY	



Name: WHITE ROCK
 Date: 6/14/2004
 Scale: 1 inch equals 2000 feet

Location: 10 496921 E 4767681 N
 Caption: SOUTH MYRTLE CREEK RESTORATION SITE - SOUTH
 UMPQUA BASIN