

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

STREAM: South Myrtle Creek (U-253)  
BASIN: Umpqua River  
SURVEY TYPE: Reference  
DATE: June 30, 2004  
SURVEY CREW: Sierra Koch, Valerie Montague  
REPORT PREPARED BY: Paul Jacobsen  
BASIN AREA: 150.0 km<sup>2</sup>  
USGS MAPS: White Rock  
ECOREGION: Coast Range Klamath Siskiyou

**GENERAL DESCRIPTION:**

The South Myrtle Creek habitat survey extended 514 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 19.8 (range: 11.0-25.0). Land use for the reach was second growth (15-30 cm dbh) trees and rural residential. The average unit gradient was 3.3 percent. Rapids (60%) and riffles (25%) dominated stream habitat. Bedrock (30%), cobble (23%) and boulders (23%) dominated stream substrate. Wood volume was very low at 3.4 m<sup>3</sup>/100m.

**COMMENTS:**

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

REACH 1

T29S-R03W-S11NW

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	19.8	VWI Range:	11 - 25

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	514	2,043	0
Secondary	24	17	1

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 3.7	Width: 5.9	8.0 ( 5.8 - 8.8 )	20.6 ( 11.8 - 31.4 )
Depth: 0.31	Height: 0.5	1.1 ( 0.9 - 1.24 )	3.4 ( 1.85 - 4.35 )

W:D ratio: 11.1

Stream Flow Type: MF

Average Unit Gradient: 3.3%

Water temperature (°C): 14.0 - 14.0

Entrenchment (ACW:FPW ratio): 1.3

Habitat Units/100m (total channel length): 7.1

Habitat Units/100m (primary channel length): 7.4

**Riparian, Bank, and Wood Summary**

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	RR
Riparian Vegetation:	M15	C30

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	9%	Reach avg: 75%
Undercut Banks:	2%	Range: 57 - 94

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	23	4.5
Volume (m <sup>3</sup> ):	17	3.4
Key pieces (>=12m x 0.60m):	0	0.0

OREGON DEPARTMENT OF FISH AND WILDLIFE

SOUTH MYRTLE CREEK REF (U-253)

HABITAT INVENTORY

Report Date: 10/27/2004

Survey Date:

6/30/2004

REACH 1		T29S-R03W-S11NW					REACH 1						
HABITAT DETAIL													
Habitat Type	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m <sup>2</sup> )	Large Boulders (#>0.5m)	Substrate Percent Wetted Area						
							S/O	Snd	Grvl	Cbl	Bldr	Bdrk	
CASCADE/BEDROCK	1	10	3.0	0.50	29	0	0	0	0	5	5	90	
POOL-LATERAL SCOUR	4	60	2.7	0.55	163	3	0	3	23	30	23	23	
POOL-PLUNGE	3	11	5.1	0.85	64	5	0	26	22	19	19	13	
POOL-STRAIGHT SCOUR	1	7	2.5	0.40	18	1	0	25	25	30	20	0	
POOL-TRENCH	1	9	1.1	0.60	10	1	0	0	10	10	10	70	
PUDDLED UNIT	1	24	0.7	0.05	17	10	0	15	15	40	30	0	
RAPID/BEDROCK	2	43	3.4	0.30	142	7	0	18	18	13	8	45	
RAPID/BOULDERS	14	250	4.2	0.21	1,089	180	0	4	14	28	32	21	
RIFFLE	7	119	4.3	0.21	510	77	0	8	18	25	28	21	
STEP/BEDROCK	3	6	2.9	0.13	16	0	0	0	5	5	0	90	
STEP/STRUCTURE	1	1	2.5	0.12	3	1	0	0	15	15	10	60	
<b>Total:</b>	<b>38</b>	<b>538</b>	<b>3.7</b>	<b>0.31</b>	<b>2,060</b>	<b>285</b>	<b>Avg: 0</b>	<b>7</b>	<b>16</b>	<b>23</b>	<b>23</b>	<b>30</b>	

HABITAT SUMMARY								
Habitat Group	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area		Large Boulders	
					(m <sup>2</sup> )	Percent	Number	(# / 100m <sup>2</sup> )
Dammed & BW Pools	0	0			0	0.00%	0	0.0
Scour Pools	9	87	3.3	0.64	254	12.35%	10	3.9
Glides	0	0			0	0.00%	0	0.0
Riffles	7	119	4.3	0.21	510	24.77%	77	15.1
Rapids	16	292	4.1	0.23	1,231	59.77%	187	15.2
Cascades	1	10	3.0	0.50	29	1.38%	0	0.0
Step/Falls	4	7	2.8	0.13	19	0.91%	1	5.3
Dry	1	24	0.7	0.05	17	0.82%	10	59.3
Culverts	0	0			0	0.00%	0	0.0

POOL SUMMARY			
	Total	Total of all Channel Lengths # / Km	Primary Channel Length # / Km
All Pools:	9	16.7	17.5
Pools >=1m deep:	1	1.9	1.9
Complex pools (LWD pieces>=3):	0	0.0	0.0
Pool frequency (channel widths/pool):	10.1		
Residual pool depth (avg):	0.48		

**RIPARIAN ZONE VEGETATION SUMMARY**

REACH 1

REACH 1

**Summary of Riparian Zone (0-30m)**

3 transects

Total hardwoods/1000	975
Total conifers/1000 ft	1991
Total conifers >20" dbh/1000 ft	81
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	6.0	5.3	7.3	7.3	1.7	17.3	15.0
15-30cm	4.0	0.7	3.7	0.0	4.0	0.3	11.7	1.0
30-50cm	0.7	0.0	0.7	0.0	1.0	0.0	2.3	0.0
50-90cm	1.0	0.0	0.0	0.0	0.3	0.0	1.3	0.0
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	10.3	6.7	9.7	7.3	12.7	2.0	10.9	5.3

**Canopy closure and ground cover**

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	60		43		52	
Shrub cover	38		24		23	
Grass/forb cover	62		74		63	

**Predominant landform in each zone**

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	17		17		17	
High terrace	83		83		67	
Low terrace	0		0		0	
Floodplain	0		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	0		0		17	
Riprap	0		0		0	
Surface slope (%)	9		13		10	

**RIPARIAN ZONE VEGETATION**

Reach 1

Reach 1

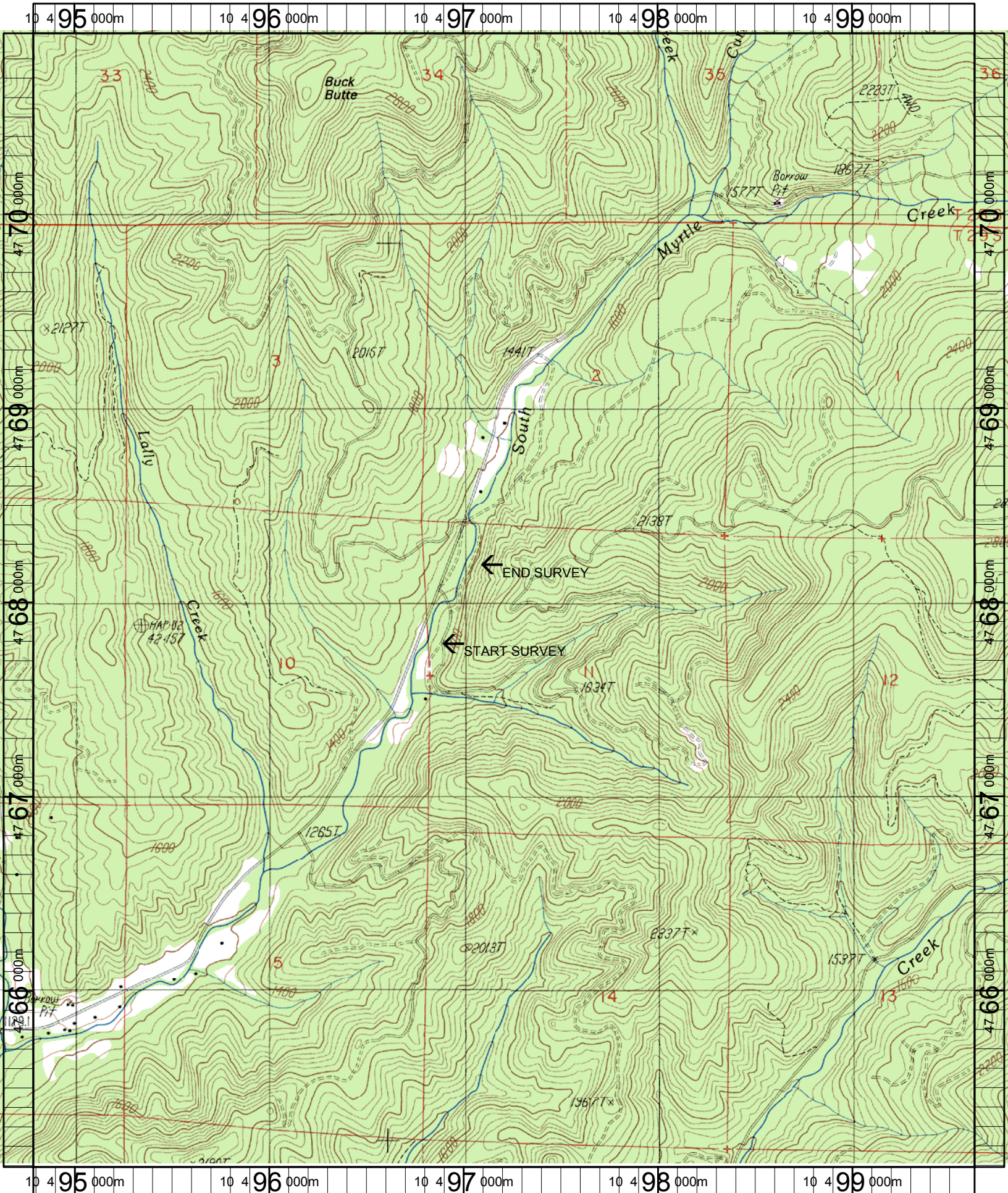
Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes	
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90		
10	RT	2	HT	1	50	70	30	Conifer	4	2					
								Hardwood	2						
10	LF	1	HT	7	20	25	75	Conifer	2	3	1				
								Hardwood							
10	LF	3	RB	0	0		5	Conifer							
								Hardwood							
10	RT	1	HT	0	75	80	20	Conifer	3	3				4M HT	
								Hardwood	5	2					
10	LF	2	HT	0	1	5	85	Conifer	5	2					
								Hardwood							
10	RT	3	HT	0	60	40	60	Conifer	5	3					
								Hardwood							
24	RT	2	HT	6	75	5	95	Conifer	1	2					
								Hardwood	3						
24	RT	3	HT	2	75	15	85	Conifer	8	1					
								Hardwood							
24	RT	1	HT	0	70	20	80	Conifer	1				1		
								Hardwood	4						
24	LF	3	HT	0.3	70	20	80	Conifer	2	3	1				
								Hardwood							
24	LF	2	HT	0.5	50	30	70	Conifer			2				
								Hardwood	3						
24	LF	1	HT	2.5	60	30	70	Conifer	1	3			2	HT 6.5 M	
								Hardwood	1						
34	LF	3	HT	0.3	55	10	90	Conifer	4	5	2				
								Hardwood	1						
34	RT	3	HS	58	50	30	60	Conifer	3				1		
								Hardwood	4	1					
34	LF	1	HT	2	65	30	70	Conifer	4	2	1			4M HT	
								Hardwood							
34	RT	1	HS	45	70	45	55	Conifer	3	1					
								Hardwood	8						
34	LF	2	HT	2	20	10	90	Conifer	3	3				ROAD DIRT BED	
								Hardwood							
34	RT	2	HS	70	60	25	75	Conifer	3	2					
								Hardwood	14						

# Comment Summary

## Oregon Plan Monitoring Sites 2002

MONITORING AREA: **4-UMP**    SITE ID: **253**    SOUTH MYRTLE CREEK REF (U-253)

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	RI	00	7.9		START	ACTUAL START
12	SS	00	184.8			H=.2
14	TP	00	201.3			TROUT FRY
17	SR	00	215.8			H=.5
20	SR	00	229.8			H=.7
21	PP	00	235.3			TROUT FRY
22	SR	00	238.3			H=.25
23	RI	00	263.3			TROUT FRY
27	LP	00	321.7	BC	BRIDGE	TROUT FRY
28	RB	01	338.3	BV	HAB. SURVEY SIGN	BEAVER STICK
30	RB	01	361		FRY - TROUT	PRIMARY CHANNEL
31	PD	02	361	DJ		SECONDARY CHANNEL
34	RI	00	435.1	5	ANIMAL TRAIL OR OLD R	
38	RB	00	513.5		END SURVEY	END OF SURVEY



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

Location: 10 497204 E 4768011 N  
 Caption: SOUTH MYRTLE CREEK REFERENCE SITE - SOUTH UMPQUA BASIN