

**ODFW AQUATIC INVENTORY PROJECT  
RESTORATION MONITORING  
STREAM HABITAT REPORT**

STREAM: MYRTLE CREEK  
 GCG: 3-MS  
 SITE ID: 144  
 BASIN: COQUILLE  
 TREATMENT DATE: 2002  
 SURVEY DATE: 9/2/2008  
 SURVEY CREW: Peter Cole / Lisa Biggs  
 USGS MAPS: POWERS  
 ECOREGION: Mid-Coastal Sedimentary  
 REPORT PREPARED BY: Matt Strickland / Sharon Tippery / Charles Stein

**SURVEY DESCRIPTION:**

Channel morphology: Constrained alternately by high terraces and hillslopes

Dominant landuse(s): Large timber (30-50 cm dbh)

Dominant riparian vegetation: Mixed conifer/deciduous: size class 50-90cm dbh

Primary channel length (meters) and area (m<sup>2</sup>): 498 : 5,933

Secondary channel length (meters) and area (m<sup>2</sup>) 68 : 259

VWI average: 8.8 VWI Range: 5 - 20 Average Gradient: 0.4%

Pieces LWD per 100m: 11.2 Wood Volume (m<sup>3</sup>) per 100m: 19.8

Percent pools: 79% Complex pools (LWD pieces $\geq$ 3): 2 Pools  $\geq$ 1m deep: 2

Percent substrate (avg):	<u>Silt / organics</u>	<u>Sand</u>	<u>Gravel</u>	<u>Cobble</u>	<u>Boulder</u>	<u>Bedrock</u>
All units	6	18	35	17	9	14
Pool units	8	20	36	13	12	10
Fast water units	0	6	47	23	12	11

**COMMENTS:**

**OREGON DEPARTMENT OF FISH AND WILDLIFE  
HABITAT INVENTORY**

**MYRTLE CREEK**

**GCG: 3-MS SITE ID: 144**

**Survey Date: 9/2/2008**

**Report Date: 12/29/2008**

**T30S-R11W-S09NE**

**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	100%
Moderate V-shape	0%	Multiple Terraces	0%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	8.8	VWI Range:	5 - 20

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	0%	Single Channel	0%
Bedrock	0%	Multiple Channel	0%
Terrace	0%	Braided Channel	0%
Alt. Terrace/Hill	100%		
Landuse	0%		

Channel Characteristics

<u>Type</u>	<u>Length (m)</u>	<u>Area (m2)</u>	<u>Dry Units</u>
Primary	498	5,933	0
Secondary	68	259	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 8.0	Width: 20.9	23.1 ( 19.8 - 25.7 )	30.2 ( 25.8 - 34.1 )
Depth: 0.47	Height: 1.0	2.0 ( 1.8 - 2.4 )	5.4 ( 3.8 - 8 )

W:D ratio: 20.6

Stream Flow Type: LF

Average Unit Gradient: 0.4%

Water temperature (°C): 14.0 - 14.0

Entrenchment (ACW:FPW ratio): 1.1

Habitat Units/100m (total channel length): 3.5

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

**Riparian, Bank, and Wood Summary**

	<u>Primary</u>	<u>Secondary</u>
Land Use:	LT	GN
Riparian Vegetation:	M50	D30

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	15%	Reach avg: 81%
Undercut Banks:	3%	Range: 69 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	56	11.2
Volume (m <sup>3</sup> ):	99	19.8
Key pieces (>=12m x 0.60m):	7	1.4

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**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
POOL-BACKWATER	4	62	3.4	0.48	247	8	18	38	15	8	5	16
POOL-ISOLATED	1	6	2.0	0.20	11	0	0	30	60	10	0	0
POOL-LATERAL SCOUR	7	382	11.4	0.93	4,908	134	8	20	36	13	12	10
RIFFLE	3	70	7.5	0.12	518	49	0	7	53	16	13	11
RIFFLE W/ POCKETS	1	27	14.0	0.15	375	10	0	5	30	45	10	10
STEP/BEDROCK	1	1	7.0	0.07	4	0	0	0	0	0	0	100
STEP/COBBLE	3	19	7.2	0.10	127	21	0	5	47	38	10	0
<b>Total:</b>	<b>20</b>	<b>566</b>	<b>8.0</b>	<b>0.47</b>	<b>6,192</b>	<b>222</b>	<b>Avg: 6</b>	<b>18</b>	<b>35</b>	<b>17</b>	<b>9</b>	<b>14</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	5	68	3.1	0.42	259	4.18%	8	3.1
Scour Pools	7	382	11.4	0.93	4,908	79.27%	134	2.7
Glides	0	0			0	0.00%	0	0.0
Riffles	4	97	9.1	0.13	893	14.42%	59	6.6
Rapids	0	0			0	0.00%	0	0.0
Cascades	0	0			0	0.00%	0	0.0
Step/Falls	4	19	7.1	0.09	132	2.12%	21	16.0
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:	12	21.2	24.1
Pools >=1m deep:	2	3.5	4.0
Complex pools (LWD pieces>=3):	2	3.5	4.0
Pool frequency (channel widths/pool):	2.3		
Residual pool depth (avg):	0.79		

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RIPARIAN ZONE  
VEGETATION SUMMARY

REACH 1

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

Total hardwoods/1000	610
Total conifers/1000 ft	163
Total conifers >20" dbh/1000 ft	122
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	3.7	0.3	2.7	0.0	3.0	0.3	9.3
15-30cm	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.7
30-50cm	0.0	0.0	0.3	0.0	0.0	0.0	0.3	0.0
50-90cm	0.3	0.0	0.7	0.0	1.0	0.0	2.0	0.0
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	0.3	3.7	1.3	2.7	1.0	3.7	0.9	3.3

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	74		73		66	
Shrub cover	19		20		24	
Grass/forb cover	67		73		68	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	50		50		50	
High terrace	50		50		50	
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 (%)	45		36		31	

**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	610
Total conifers/1000 ft	163
Total conifers >20" dbh/1000 ft	122
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	9.3
15-30cm	0.0	0.7
30-50cm	0.3	0.0
50-90cm	2.0	0.0
>90cm	0.0	0.0

**RIPARIAN ZONE VEGETATION**

Reach 1

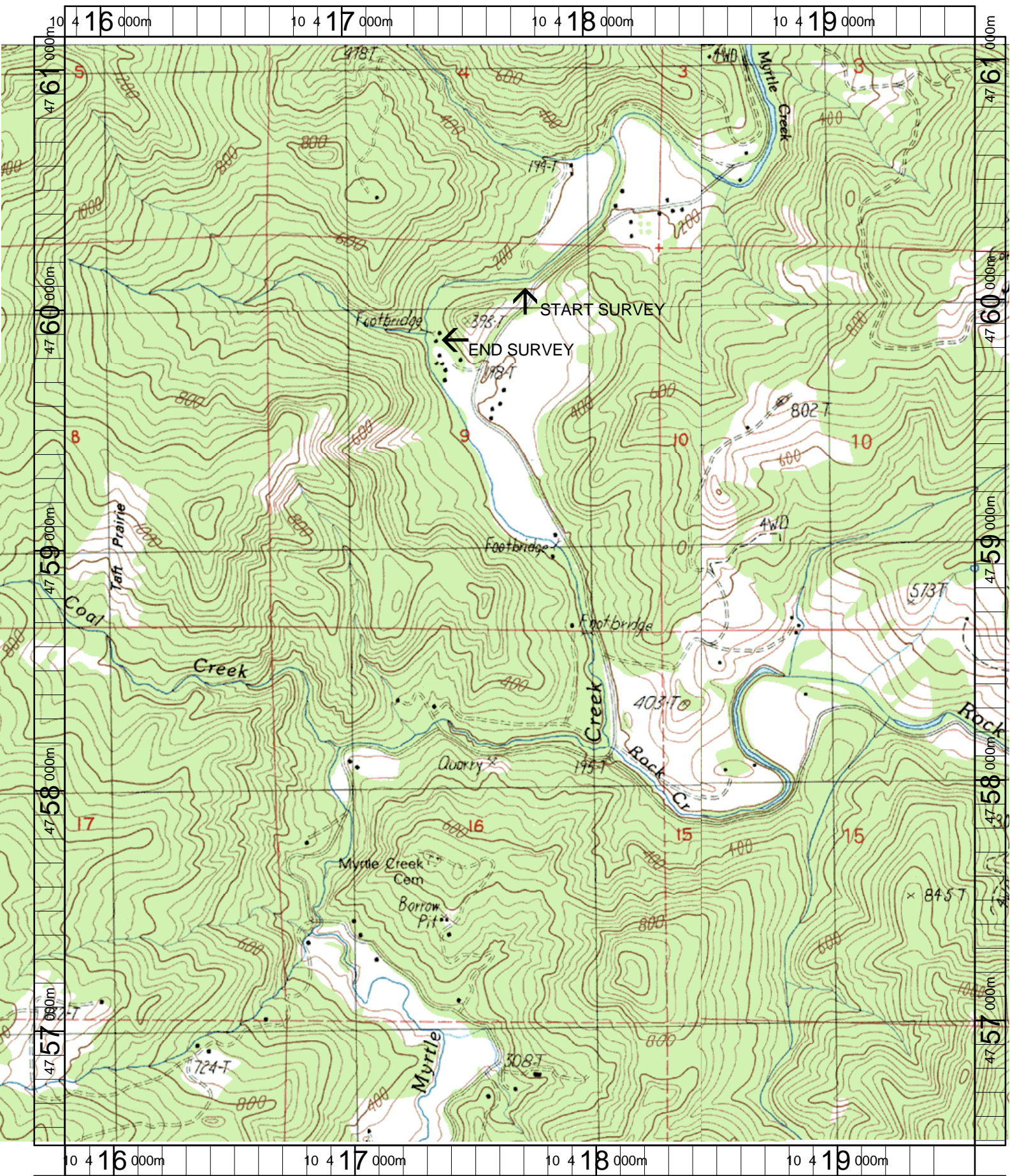
Reach 1

Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes	
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90		
6	LT	1	HS	85	95	5	85	Conifer							
								Hardwood	2						
6	LT	2	HS	55	85	10	80	Conifer	1						
								Hardwood	1						
6	LT	3	HS	55	90	5	85	Conifer				2			
								Hardwood	1						
6	RT	1	HT	0	80	30	70	Conifer				1			
								Hardwood							
6	RT	2	HT	0	55	15	85	Conifer							
								Hardwood	2						
6	RT	3	HT	0	45	25	75	Conifer							
								Hardwood	1	1					
12	LT	1	HT	0	65	10	85	Conifer							
								Hardwood	2						
12	LT	2	HT	5	35	30	65	Conifer							
								Hardwood							
12	LT	3	HT	5	20	35	45	Conifer							
								Hardwood							
12	RT	1	HS	90	35	25	15	Conifer							
								Hardwood	3						ZONE 1 HS IS SLUMPING ALL TREE
12	RT	2	HS	70	70	50	35	Conifer				1			
								Hardwood							
12	RT	3	HS	50	55	45	45	Conifer							
								Hardwood	1						
18	LT	1	HT	0	75	40	55	Conifer							
								Hardwood	2						
18	LT	2	HT	0	95	10	85	Conifer			1	1			
								Hardwood							
18	LT	3	HT	0	95	10	80	Conifer				1			
								Hardwood							
18	RT	1	HS	95	95	5	90	Conifer							
								Hardwood	2						
18	RT	2	HS	85	95	5	90	Conifer							
								Hardwood	5						
18	RT	3	HS	75	90	25	75	Conifer							
								Hardwood	6	1					

COMMENT SUMMARY

MONITORING AREA: 3-MS      SITE ID: 144      STREAM: MYRTLE CREEK

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	LP	00	56.1	AM	T=14°C @ 930AM, ROUGH-SKINNED NEWT
3	LP	00	79.2	SD	3.75CM PIPE
4	RI	00	104.2	AM	OLD LAMPREY REDDS, (3) ROUGH-SKINNED NEWTS
6	LP	00	146.6		RIPARIAN 1
7	SR	00	147.2		H=0.20M
8	LP	01	227.2	HS, /LI	LWD AND BOULDERS, 2 /LI HAVE FALLEN SEVERAL TREES INTO CREEK.
12	RI	01	320.7	HS	7CM YELLOW-LEGGED FROG ON GRAVEL BAR, LWD AND BOULDERS
18	SC	00	400.8	RIP#3	
19	LP	01	498.3	AM	POOL ENDS 50M UPSTREAM OF END SIGN, ROUGH-SKINNED NEWT



Name: POWERS  
 Date: 3/21/2003  
 Scale: 1 inch equals 1666 feet

Location: 10 417706 E 4758813 N  
 Caption: MYRTLE CREEK RESTORATION SITE - COQUILLE BASIN