

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

STREAM: MUNSON CREEK TRIBUTARY A
 GCG: 1-NC
 SITE ID: 343
 BASIN: TILLAMOOK
 TREATMENT DATE: 2007
 SURVEY DATE: 8/21/2008
 SURVEY CREW: Gwyn Woolley-Scott / Linda Campbell
 USGS MAPS: BEAVER
 ECOREGION: Coastal Lowlands
 REPORT PREPARED BY: Matt Strickland / Sharon Tippery / Charles Stein

SURVEY DESCRIPTION:

Channel morphology: Constrained by high terraces

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

Dominant riparian vegetation: Mixed conifer/deciduous: size class 15-30cm dbh

Primary channel length (meters) and area (m²): 796 : 2,226

Secondary channel length (meters) and area (m²) 48 : 47

VWI average: 12.1 VWI Range: 2.5 - 20 Average Gradient: 5.0%

Pieces LWD per 100m: 17.1 Wood Volume (m³) per 100m: 10.5

Percent pools: 6% Complex pools (LWD pieces \geq 3): 4 Pools \geq 1m deep: 0

Percent substrate (avg):	<u>Silt / organics</u>	<u>Sand</u>	<u>Gravel</u>	<u>Cobble</u>	<u>Boulder</u>	<u>Bedrock</u>
All units	9	14	34	29	13	0
Pool units	12	25	38	21	4	0
Fast water units	1	11	36	35	18	0

COMMENTS:

This is a post-treatment, restoration survey. The crew noted debris jams throughout the survey. They also noted observing juvenile salmonids near the end of the survey.

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

**MUNSON CREEK TRIBUTARY A
GCG: 1-NC SITE ID: 343**

Survey Date: 8/21/2008

Report Date: 12/29/2008

T02S-R09W-S28SE

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	12.1	VWI Range:	2.5 - 20

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	796	2,226	0
Secondary	48	47	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 4
Width: 2.6	Width: 3.8	10.4 (5.1 - 16)	19.1 (9.1 - 38)
Depth: 0.17	Height: 0.5	1.1 (1 - 1.2)	3.2 (2 - 6.1)

W:D ratio: 7.2

Stream Flow Type:

Average Unit Gradient: 5.0%

Water temperature (°C): -

Entrenchment (ACW:FPW ratio): 2.7

Habitat Units/100m (total channel length): 6.9

Habitat Units/100m (primary channel length): 7.3

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	LT	TH
Riparian Vegetation:	M15	S

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	20%	Reach avg: 79%
Undercut Banks:	20%	Range: 17 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	136	17.1
Volume (m ³):	83	10.5
Key pieces (>=12m x 0.60m):	0	0.0

OREGON DEPARTMENT OF FISH AND WILDLIFE

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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	3	42	2.8	0.12	124	8	0	8	23	57	13	0
POOL-BACKWATER	1	3	1.5	0.40	5	0	80	10	10	0	0	0
POOL-LATERAL SCOUR	12	40	2.2	0.33	95	1	12	24	41	21	1	0
POOL-PLUNGE	4	12	2.8	0.34	37	1	13	26	27	20	14	0
POOL-STRAIGHT SCOUR	1	4	4.0	0.35	16	0	20	20	40	20	0	0
RAPID/BOULDERS	20	572	2.6	0.11	1,536	150	1	11	31	34	23	0
RIFFLE	8	159	2.8	0.10	427	23	1	12	53	26	8	0
STEP/BOULDERS	1	1	3.0	0.01	3	0	20	0	0	0	80	0
STEP/COBBLE	4	6	3.0	0.04	17	1	1	5	24	55	15	0
STEP/LOG	4	6	2.5	0.02	15	0	47	5	34	11	3	0
Total:	58	844	2.6	0.17	2,273	184	Avg: 9	14	34	29	13	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	1	3	1.5	0.40	5	0.20%	0	0.0
Scour Pools	17	56	2.4	0.33	148	6.49%	2	1.4
Glides	0	0			0	0.00%	0	0.0
Riffles	8	159	2.8	0.10	427	18.79%	23	5.4
Rapids	20	572	2.6	0.11	1,536	67.58%	150	9.8
Cascades	3	42	2.8	0.12	124	5.43%	8	6.5
Step/Falls	9	12	2.8	0.03	35	1.52%	1	2.9
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:	18	21.3	22.6
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	4	4.7	5.0
Pool frequency (channel widths/pool):	12.2		
Residual pool depth (avg):	0.27		

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RIPARIAN ZONE
VEGETATION SUMMARY

REACH 1

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

Total hardwoods/1000	406
Total conifers/1000 ft	305
Total conifers >20" dbh/1000 ft	81
Total conifers >35" dbh/1000 ft	41

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	1.0	1.0	0.3	0.0	0.0	1.0	1.3
15-30cm	0.0	2.3	1.3	0.3	0.0	2.0	1.3	4.7
30-50cm	0.0	0.7	0.3	0.0	1.0	0.0	1.3	0.7
50-90cm	0.3	0.0	0.3	0.0	0.0	0.0	0.7	0.0
>90cm	0.0	0.0	0.7	0.0	0.0	0.0	0.7	0.0
Total/100m2	0.3	4.0	3.7	0.7	1.0	2.0	1.7	2.2

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	65		59		48	
Shrub cover	61		47		53	
Grass/forb cover	39		53		48	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	0		50		67	
High terrace	50		33		17	
Low terrace	50		17		17	
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 (%)	8		15		18	

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	406
Total conifers/1000 ft	305
Total conifers >20" dbh/1000 ft	81
Total conifers >35" dbh/1000 ft	41

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	1.0	1.3
15-30cm	1.3	4.7
30-50cm	1.3	0.7
50-90cm	0.7	0.0
>90cm	0.7	0.0

RIPARIAN ZONE VEGETATION

Reach 1

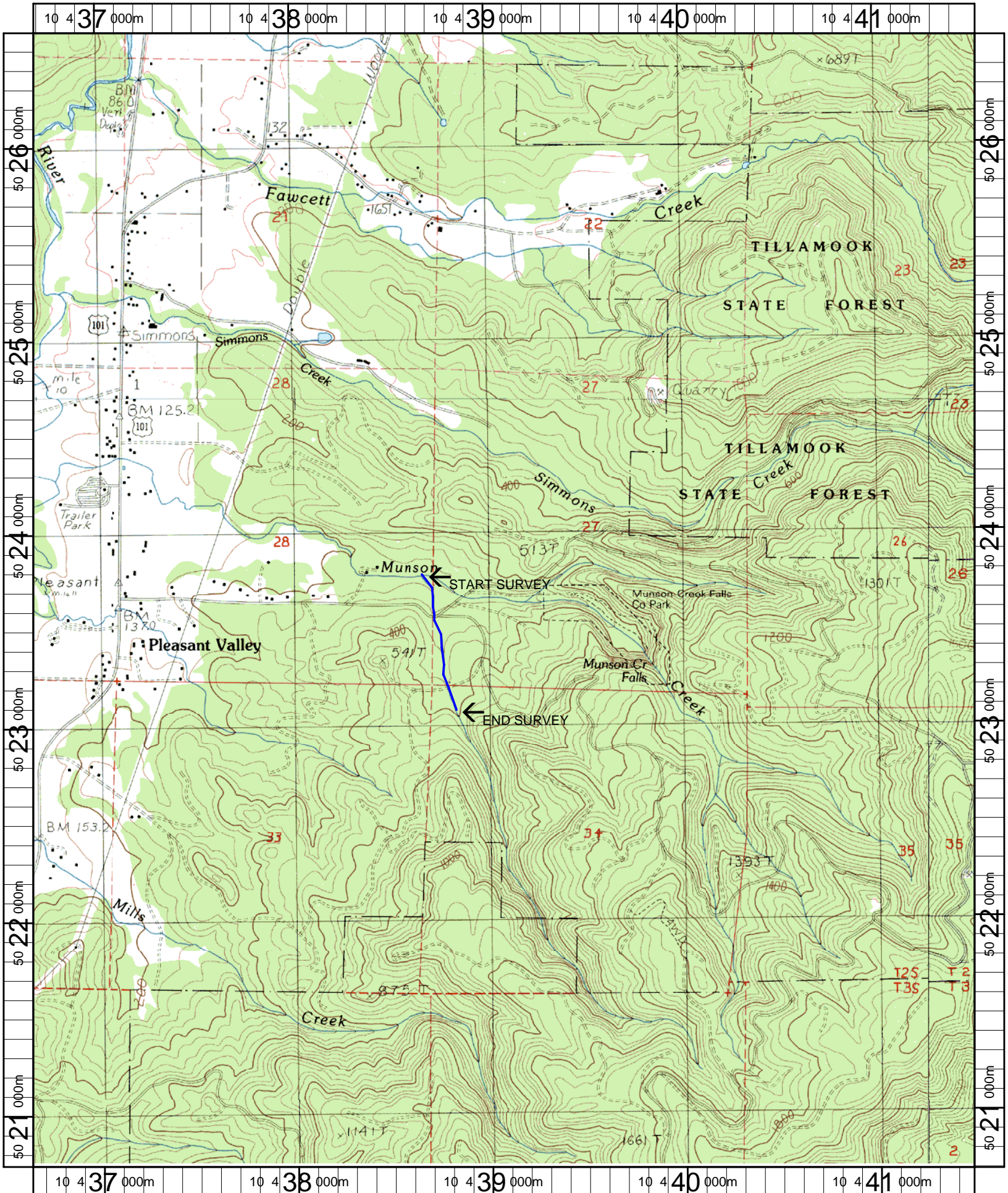
Reach 1

Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes	
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90		
23	LT	1	LT	1	80	60	40	Conifer							
								Hardwood			1				
23	LT	2	LT	9	70	40	60	Conifer	1						
								Hardwood							
23	LT	3	LT	9	75	20	80	Conifer							
								Hardwood							
23	RT	1	LT	1	50	80	20	Conifer							
								Hardwood							
23	RT	2	HT	15	80	10	90	Conifer	1	2				2	
								Hardwood							
23	RT	3	HT	6	60	80	20	Conifer			3				
								Hardwood							
34	LT	1	HT	19	90	30	70	Conifer							TRANSITION SLOPE
								Hardwood	3	1	1				
34	LT	2	HT	8	85	5	95	Conifer	1	2	1				
								Hardwood	1						
34	LT	3	HS	25	75	10	90	Conifer							
								Hardwood		4					
34	RT	1	LT	7	70	60	40	Conifer					1		
								Hardwood							
34	RT	2	HS	15	45	95	5	Conifer							
								Hardwood							
34	RT	3	HS	22	55	85	15	Conifer							
								Hardwood		2					
43	LT	1	HT	3	70	40	60	Conifer							
								Hardwood		1					
43	LT	2	HS	20	60	70	30	Conifer					1		
								Hardwood							
43	LT	3	HS	15	20	60	40	Conifer							
								Hardwood							
43	RT	1	HT	14	30	95	5	Conifer							
								Hardwood		5					
43	RT	2	HS	23	15	60	40	Conifer							
								Hardwood		1					
43	RT	3	HS	29	5	60	40	Conifer							
								Hardwood							

COMMENT SUMMARY

MONITORING AREA: 1-NC SITE ID: 343 STREAM: MUNSON CREEK TRIBUTARY A

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	CB	00	5		TOO DARK & WET & BRUSHY FOR GOOD PHOTOS
3	SL	00	7.5		H=0.20M
7	SC	00	42.5		H=0.30M
10	LP	00	51		HARDPAN BANK LEFT
15	SL	00	113	DJ	H=0.20M
23	RB	00	220		LOW TERRACE
28	PP	00	245	CC	DOWNSTREAM END OF LARGE CULVERT, POOLING BEFORE DESCENT.
29	RI	00	285	CC	MUNSON CREEK ROAD & ABOVE
34	RB	00	434		NO GPS SATELLITES
36	RB	01	514	/TJ	
40	SL	00	540	DJ	H=0.50M
41	RI	00	548	DJ	
46	SB	00	656	DJ	H=1.00M
48	SL	01	676	DJ	H=0.50M
50	BW	10	686		(1) FISH 3CM
52	SC	00	687	CC	H=0.30M, LOWER END OF CC UNDER GREEN DIAMOND LOGGING RD, PHOTO
53	SP	00	691		INSIDE LOWER END CULVERT
54	RB	00	731	CC	THROUGH CULVERT & ABOVE
58	RB	00	796		PHOTO



Name: BEAVER
 Date: 1/9/2007
 Scale: 1 inch equals 2000 feet

Location: 10 439082 E 5023645 N
 Caption: MUNSON CREEK TRIBUTARY A RESTORATION SITE -
 TILLAMOOK BASIN

NC-343 Munson Creek Trib A (Post-Treatment) 2008 Summer Habitat Survey Photographs



Culvert crossing



Reach photo