

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

STREAM: Munson Creek (N-342)
BASIN: Tillamook River
SURVEY TYPE: Pre-Tx
DATE: July 5, 2006
SURVEY CREW: Gordon Rose, Ben Walczak
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 8.8 km²
USGS MAPS: Beaver
ECOREGION: Coast Range Coastal Uplands

GENERAL DESCRIPTION:

The Munson Creek habitat survey extended 1,376 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 3.7 (range: 1.5-5.0). Land use for the reach was timber harvest and greenway. The average unit gradient was 3.1 percent. Riffles (38%) and rapids (33%) dominated stream habitat. Cobble (34%) and gravel (32%) dominated stream substrate. Wood volume was low at 17.6 m³/100m.

COMMENTS:

There was one potential barrier to upstream fish migration in the surveyed length. This was a 0.6 m high step over log at unit 16 (219 m).

REACH 1

T02S-R09W-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	100%
Moderate V-shape	0%	Multiple Terraces	0%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	3.7	VWI Range:	1.5 - 5

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 Channel	1,376	6,541	2
Secondary Channel	130	532	3
Off-Channel Units	30	63	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 4
Width: 4.7	Width: 8.0	10.2 (8.8 - 12.8)	12.6 (10.1 - 16)
Depth: 0.26	Height: 0.4	0.8 (0.8 - 1)	1.2 (1 - 1.7)

W:D ratio: 19.3
 Stream Flow Type: MF
 Average Unit Gradient: 3.1%
 Water temperature (°C): -

Entrenchment (ACW:FPW ratio): 1.3
 Habitat Units/100m (total channel length): 5.5
 Habitat Units/100m (primary channel length): 6.1

Riparian, Bank, and Wood Summary

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

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	23%	Reach avg: 62%
Undercut Banks:	24%	Range: 33 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	221	16.1
Volume (m ³):	242	17.6
Key pieces (>=12m x 0.60m):	8	0.6

OREGON DEPT OF FISH AND WILDLIFE

MUNSON CREEK PRE-TX (1-NC, 342)

HABITAT INVENTORY

Report Date: 3/5/2007

Survey Date:

7/5/2006

REACH 1		T02S-R09W-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	1	10	1.8	0.10	18	2	0	0	30	40	30	0
CULVERT CROSSING	1	13	1.3	0.20	16	4	0	0	10	40	50	0
DRY CHANNEL	2	67	4.9	0.00	387	0	25	20	40	15	0	0
DRY UNIT	1	16	6.5	0.00	104	0	35	35	30	0	0	0
POOL-DAMMED	2	23	5.0	0.38	120	0	23	33	33	13	0	0
POOL-LATERAL SCOUR	20	199	4.4	0.52	903	11	9	19	34	30	6	2
POOL-PLUNGE	3	19	5.7	0.83	132	6	17	18	35	17	10	3
PUDDLED UNIT	2	63	2.5	0.11	158	0	23	23	45	10	0	0
RAPID/BOULDERS	18	537	4.2	0.17	2,358	234	1	8	23	46	22	2
RIFFLE	22	561	4.8	0.17	2,744	54	4	13	39	36	8	1
STEP/BOULDERS	1	1	5.0	0.10	5	3	0	0	0	20	60	20
STEP/COBBLE	5	18	6.8	0.10	130	6	4	7	21	54	13	1
STEP/LOG	6	10	5.8	0.09	63	0	18	24	34	23	2	0
Total:	84	1,536	4.7	0.26	7,136	320	Avg: 7	15	32	34	11	1

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	2	23	5.0	0.38	120	1.68%	0	0.0	
Scour Pools	23	218	4.6	0.56	1,034	14.49%	17	1.6	
Glides	0	0			0	0.00%	0	0.0	
Riffles	22	561	4.8	0.17	2,744	38.45%	54	2.0	
Rapids	18	537	4.2	0.17	2,358	33.05%	234	9.9	
Cascades	1	10	1.8	0.10	18	0.25%	2	11.4	
Step/Falls	12	29	6.2	0.09	198	2.77%	9	4.5	
Dry	5	146	4.3	0.04	648	9.09%	0	0.0	
Culverts	1	13	1.3	0.20	16	0.23%	4	24.6	

POOL SUMMARY			
	Total	Total of all Channel Lengths # / Km	Primary Channel Length # / Km
All Pools:	25	16.3	18.2
Pools >=1m deep:	1	0.7	0.7
Complex pools (LWD pieces>=3):	7	4.6	5.1
Pool frequency (channel widths/pool):	7.7		
Residual pool depth (avg):	0.43		

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

**MUNSON CREEK PRE-TX
GCG: 1-NC SITE ID: 342**

**Survey Date 7/5/2006
Report Date: 3/5/2007**

**RIPARIAN ZONE
VEGETATION SUMMARY**

REACH 1

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

Total hardwoods/1000	406
Total conifers/1000 ft	427
Total conifers >20" dbh/1000 ft	61
Total conifers >35" dbh/1000 ft	20

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	2.0	0.0	2.3	0.0	0.0	0.7	4.3	0.7
15-30cm	0.0	1.7	1.0	1.0	0.7	0.7	1.7	3.3
30-50cm	0.0	1.7	0.0	0.7	0.0	0.3	0.0	2.7
50-90cm	0.3	0.0	0.0	0.0	0.3	0.0	0.7	0.0
>90cm	0.3	0.0	0.0	0.0	0.0	0.0	0.3	0.0
Total/100m2	2.7	3.3	3.3	1.7	1.0	1.7	2.3	2.2

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	68		53		52	
Shrub cover	64		70		56	
Grass/forb cover	26		26		25	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	17		17		33	
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		0	
Riprap	0		0		0	
Surface slope (%)	9		19		28	

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	427
Total conifers >20" dbh/1000 ft	61
Total conifers >35" dbh/1000 ft	20

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	4.3	0.7
15-30cm	1.7	3.3
30-50cm	0.0	2.7
50-90cm	0.7	0.0
>90cm	0.3	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		
27	LF	3	HT	0	95	40	50	Conifer		2					
								Hardwood	1		1				
27	LF	2	HT	0	95	60	30	Conifer	3	1					
								Hardwood		1	2				
27	RT	1	HT	0	95	25	75	Conifer	5						UTM 0439004-5023660-3D
								Hardwood		3	2				
27	RT	2	HT	0	85	25	75	Conifer	2	2					
								Hardwood		2					
27	RT	3	HS	50	80	40	20	Conifer							
								Hardwood	1	1					
27	LF	1	HT	0	95	60	30	Conifer	1						
								Hardwood		2	3				
50	RT	3	HS	55	10	20	30	Conifer							
								Hardwood							
50	LF	1	HT	0	70	85	15	Conifer							UTM 0439150-5023602-2D
								Hardwood							
50	LF	2	HT	0	75	70	15	Conifer	2						
								Hardwood							
50	LF	3	HT	0	75	60	30	Conifer							
								Hardwood		1					
50	RT	1	HS	55	60	40	10	Conifer							CLEARCUT ALL 3 ZONES
								Hardwood							
50	RT	2	HS	55	40	90	10	Conifer							
								Hardwood							
77	RT	3	HT	60	10	80	15	Conifer							
								Hardwood							
77	RT	2	HT	60	10	80	20	Conifer							
								Hardwood							
77	RT	1	HT	0	70	80	20	Conifer				1	1		
								Hardwood							
77	LF	3	HT	0	40	95	5	Conifer				1			
								Hardwood							
77	LF	1	HT	0	20	95	5	Conifer							POOR GPS - JUST ABOVE PARKING
								Hardwood							
77	LF	2	HT	0	10	95	5	Conifer							
								Hardwood							

Comment Summary

Restoration Monitoring Sites 2006

MONITORING AREA: 1-NC SITE ID: 342 MUNSON CREEK PRE-TX

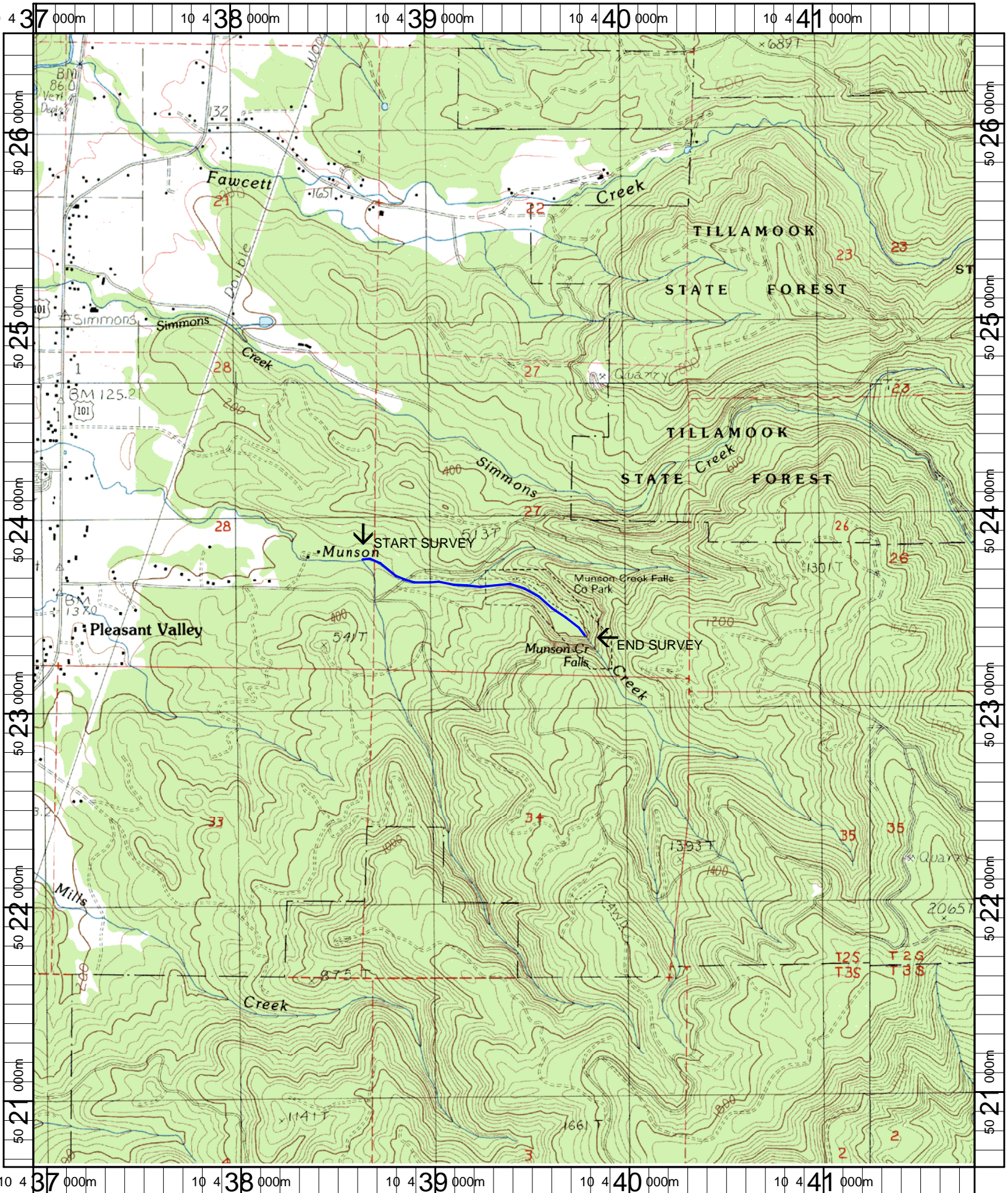
UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	RI	00	50		START AT /TJ	
3	LP	00	83.3			BEDROCK=HARDPAN
4	SC	00	84.3		H=0.30M	
8	LP	00	139.6			BEDROCK=HARDPAN
14	PP	00	205.3		PHOTO #7	
15	CC	00	218.3	CC		
16	SL	00	218.8	PN	H=0.60M	
20	SL	01	245.6		H=0.25M	
24	LP	01	295.2			BEDROCK=HARDPAN
27	RI	01	382.2	SS/	RIPARIAN #1	
30	PP	01	450.7			COHO
31	SL	02	450.7		H=0.70M	DRY
33	RI	03	450.7	TJ		
37	RI	00	484.2			RIFFLE W POCKETS 0.2-0.
41	RI	00	604.4	RF		OLD ATV TRAIL
43	SC	00	613.7		H=0.25M	
45	SC	00	632.7		H=0.35M	
47	RI	01	669.7	/TJ		UTM 0439150-5023602-2D
49	SL	00	670.7		H=0.35M	
50	DP	00	684.7		RIPARIAN #2	
53	SC	01	715		H=0.50M	

Comment Summary

Restoration Monitoring Sites 2006

MONITORING AREA: 1-NC SITE ID: 342 MUNSON CREEK PRE-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
57	SL	00	743.2		H=0.25M	
60	RB	01	818.2	TJ/		
62	SL	00	821.2		H=0.40M	
66	SC	00	865.2		H=0.45M	
67	LP	00	872.2			CREEK COMPLETELY OV
68	RI	00	880.2	/SS		
72	RI	00	964.3			CREEK COMPLETELY OV
73	RB	00	1014.3			CREEK COMPLETELY OV
77	RB	00	1155.8		RIPARIAN #3	
80	RB	00	1305.8			COMPLETELY OVERGRO
81	RB	00	1360.8			COMPLETELY OVERGRO
82	PP	00	1365.8			LEFT TERRACE IS GRAVE
83	SB	00	1366.8		H=0.45M	



Name: BEAVER
 Date: 5/22/2006
 Scale: 1 inch equals 2000 feet

Location: 10 439381 E 5023563 N
 Caption: MUNSON CREEK RESTORATION SITE - TILLAMOOK BASIN