

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

STREAM: MUNSON CREEK TRIBUTARY B  
 GCG: 1-NC  
 SITE ID: 344  
 BASIN: TILLAMOOK  
 TREATMENT DATE: 2007  
 SURVEY DATE: 8/27/2008  
 SURVEY CREW: Gwyn Woolley-Scott / Linda Campbell  
 USGS MAPS: BEAVER  
 ECOREGION: Coastal Uplands  
 REPORT PREPARED BY: Matt Strickland / Sharon Tippery / Charles Stein

**SURVEY DESCRIPTION:**

Channel morphology: Constrained by hillslopes  
 Dominant landuse(s): Large timber (30-50 cm dbh)  
 Dominant riparian vegetation: Mixed conifer/deciduous: size class 30-50cm dbh  
 Primary channel length (meters) and area (m<sup>2</sup>): 508 : 842  
 Secondary channel length (meters) and area (m<sup>2</sup>) 0 : 0  
 VWI average: 1.4 VWI Range: 1 - 1.5 Average Gradient: 6.9%  
 Pieces LWD per 100m: 31.7 Wood Volume (m<sup>3</sup>) per 100m: 42.1  
 Percent pools: 9% Complex pools (LWD pieces>=3): 2 Pools >=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	14	23	30	30	4	0
Pool units	21	33	23	18	4	0
Fast water units	7	19	29	40	5	0

**COMMENTS:**

This is a post-treatment, restoration survey. The crew noted observing fish throughout the survey. Evidence of wildlife included band-tailed pigeons. The crew also noted, areas of extensive riparian blowdown including a possible barrier to upstream migration due to a recent debris jam approximately 230 meters upstream from the start of the survey.

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

**MUNSON CREEK TRIBUTARY B  
GCG: 1-NC SITE ID: 344**

**Survey Date: 8/27/2008**

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

**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	100%	Constraining Terraces	0%
Moderate V-shape	0%	Multiple Terraces	0%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	1.4	VWI Range:	1 - 1.5

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	100%	Single Channel	0%
Bedrock	0%	Multiple Channel	0%
Terrace	0%	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	508	842	0
Secondary	0	0	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 4	<u>First Terrace</u> n = 0
Width: 1.6	Width: 3.4	5.0 ( 3.5 - 6.3 )	( - )
Depth: 0.11	Height: 0.4	0.8 ( 0.4 - 1 )	( - )

W:D ratio: 11.3

Stream Flow Type: LF

Average Unit Gradient: 6.9%

Water temperature (°C): 12.0 - 12.0

Entrenchment (ACW:FPW ratio): 1.6

Habitat Units/100m (total channel length): 14.2

Habitat Units/100m (primary channel length): 14.2

**Riparian, Bank, and Wood Summary**

	<u>Primary</u>	<u>Secondary</u>
Land Use:	LT	ST
Riparian Vegetation:	M30	D1

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	4%	Reach avg: 93%
Undercut Banks:	2%	Range: 67 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	161	31.7
Volume (m <sup>3</sup> ):	214	42.1
Key pieces (>=12m x 0.60m):	6	1.2

OREGON DEPARTMENT OF FISH AND WILDLIFE

MUNSON CREEK TRIBUTARY B

HABITAT INVENTORY

GCG: 1-NC SITE ID: 344

Survey Date: 8/27/2008

Report Date: 12/29/2008

T02S-R09W-S27SW

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/BOULDERS	2	15	1.7	0.05	25	3	0	11	22	58	8	0
POOL-LATERAL SCOUR	5	10	1.3	0.21	12	0	16	34	21	27	0	1
POOL-PLUNGE	17	37	1.5	0.28	58	6	20	34	24	16	6	0
POOL-STRAIGHT SCOUR	1	3	1.7	0.20	5	0	58	25	17	0	0	0
RAPID/BOULDERS	26	392	1.7	0.06	636	17	7	19	29	39	5	1
RIFFLE	1	10	2.5	0.07	25	0	17	11	50	22	0	0
STEP/BOULDERS	1	1	1.5	0.02	1	0	19	5	57	19	0	0
STEP/COBBLE	9	34	2.0	0.03	72	0	12	17	33	38	0	1
STEP/LOG	10	6	1.6	0.02	9	1	22	16	39	21	1	0
<b>Total:</b>	<b>72</b>	<b>508</b>	<b>1.6</b>	<b>0.11</b>	<b>842</b>	<b>27</b>	<b>Avg: 14</b>	<b>23</b>	<b>30</b>	<b>30</b>	<b>4</b>	<b>0</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	23	50	1.5	0.26	75	8.95%	6	8.0
Glides	0	0			0	0.00%	0	0.0
Riffles	1	10	2.5	0.07	25	2.97%	0	0.0
Rapids	26	392	1.7	0.06	636	75.46%	17	2.7
Cascades	2	15	1.7	0.05	25	2.93%	3	12.2
Step/Falls	20	41	1.8	0.02	82	9.70%	1	1.2
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:	23	45.3	45.3
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	2	3.9	3.9
Pool frequency (channel widths/pool):	6.5		
Residual pool depth (avg):	0.23		

OREGON DEPARTMENT OF FISH AND WILDLIFE  
HABITAT INVENTORY

MUNSON CREEK TRIBUTARY B  
GCG: 1-NC SITE ID: 344

Survey Date 8/27/2008  
Report Date: 12/29/2008

RIPARIAN ZONE  
VEGETATION SUMMARY

REACH 1

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

Total hardwoods/1000	122
Total conifers/1000 ft	122
Total conifers >20" dbh/1000 ft	20
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	0.3	0.0	0.3	0.3	0.0	0.0	0.7	0.3
15-30cm	0.0	0.0	0.0	0.0	0.7	0.0	0.7	0.0
30-50cm	0.0	1.0	0.0	0.3	0.3	0.3	0.3	1.7
50-90cm	0.0	0.0	0.3	0.0	0.0	0.0	0.3	0.0
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	0.3	1.0	0.7	0.7	1.0	0.3	0.7	0.7

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	63		68		71	
Shrub cover	96		95		95	
Grass/forb cover	4		5		5	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	83		100		100	
High terrace	17		0		0	
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 (%)	31		53		60	

**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	122
Total conifers/1000 ft	122
Total conifers >20" dbh/1000 ft	20
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	0.7	0.3
15-30cm	0.7	0.0
30-50cm	0.3	1.7
50-90cm	0.3	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			
18	LT	1	HS	35	35	95	5	Conifer							
								Hardwood							
18	LT	2	HS	60	70	95	5	Conifer							
								Hardwood	1						
18	LT	3	HS	60	80	95	5	Conifer		1					
								Hardwood							
18	RT	1	HS	18	65	95	5	Conifer							
								Hardwood							
18	RT	2	HS	34	60	95	5	Conifer	1			1			
								Hardwood							
18	RT	3	HS	55	65	95	5	Conifer			1				
								Hardwood							
36	LT	1	HS	31	60	95	5	Conifer							
								Hardwood			3				
36	LT	2	HS	60	55	95	5	Conifer							
								Hardwood			1				
36	LT	3	HS	60	40	95	5	Conifer							
								Hardwood							
36	RT	1	HS	15	70	95	5	Conifer	1						
								Hardwood							
36	RT	2	HS	50	60	95	5	Conifer							
								Hardwood							
36	RT	3	HS	50	60	95	5	Conifer							
								Hardwood							
52	LT	1	HS	75	55	95	5	Conifer							
								Hardwood							
52	LT	2	HS	75	90	95	5	Conifer							
								Hardwood							
52	LT	3	HS	75	90	95	5	Conifer		1					
								Hardwood							
52	RT	1	HT	9	90	100	0	Conifer							
								Hardwood							
52	RT	2	HS	36	70	95	5	Conifer							
								Hardwood							
52	RT	3	HS	58	90	95	5	Conifer							
								Hardwood			1				

COMMENT SUMMARY

MONITORING AREA: 1-NC SITE ID: 344 STREAM: MUNSON CREEK TRIBUTARY B

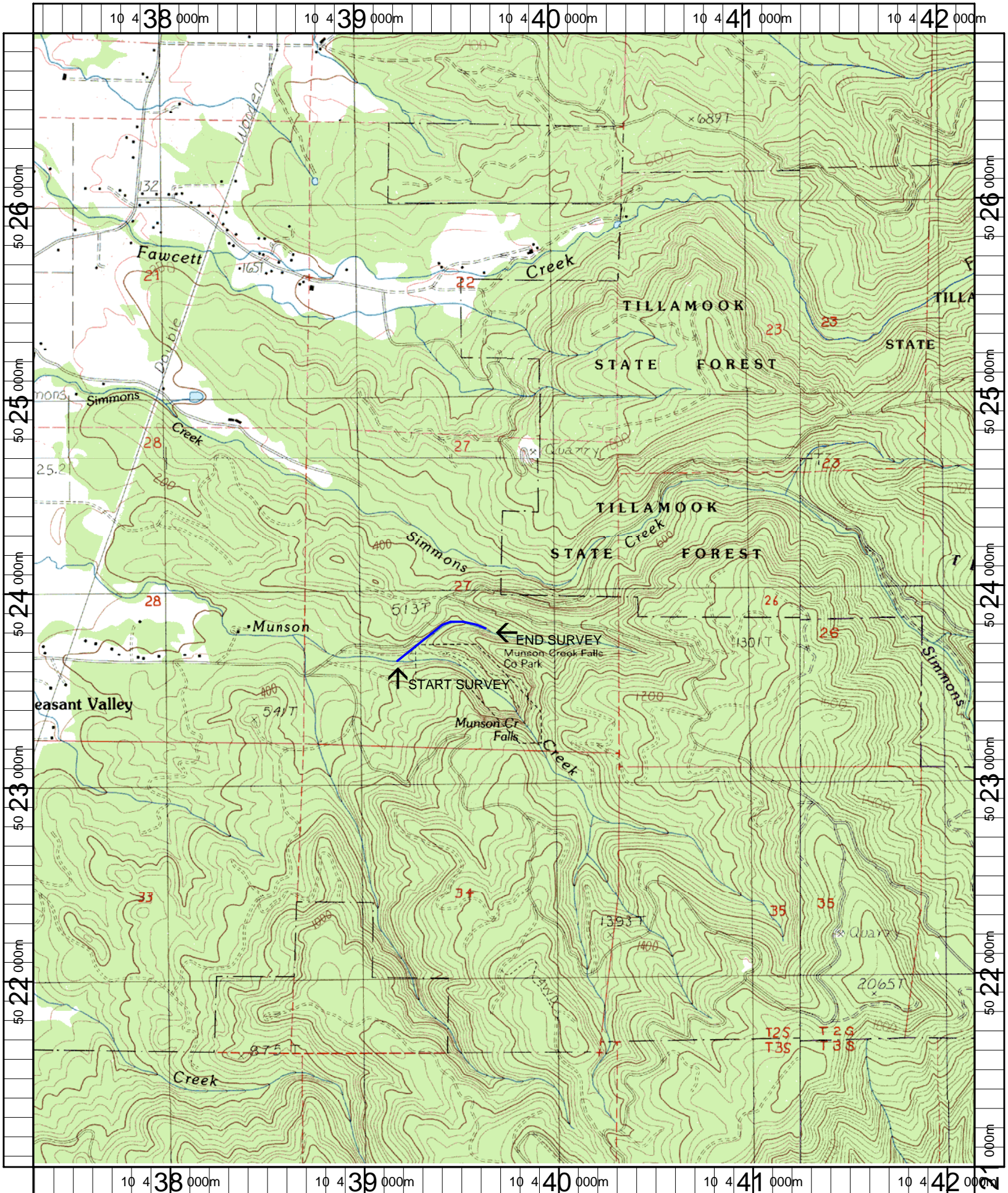
UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	RB	00	18		TERRACE FORM INFLUENCED BY MAINSTEM AND ROAD, VWI=20
2	LP	00	20.5		U1: ACH=0.4M, ACW=5.5M, FH=0.8M, FW=9.2M, TH=1.30M, TW=21.5M
3	RB	00	34.5	BC	NO CULVERT WHERE ROAD CROSSES OVER CREEK
6	LP	00	63.5		BEDROCK IS HARDPAN
9	RB	00	99.7		BEDROCK IS HARDPAN
10	PP	00	101.2		BEDROCK IS HARDPAN
11	SL	00	101.9		H=0.60M
15	PP	00	115.1		(1) 3CM FISH
16	SC	00	119.1		HARDPAN IS BEDROCK
18	RB	00	141.1		BEDROCK IS HARDPAN
19	PP	00	144.1		(1) 3CM FISH
20	SL	00	144.6		H=0.25M
22	PP	00	155.6		SHADED BY LOG
23	SL	00	155.9		H=0.20M
27	PP	00	193.9		LARGE LOG CREATES UNDERCUT
28	SC	00	195.4		H=0.50M
30	SC	00	212.9	PN	GIANT BLOW DOWN AREA, MOST OF WATER NOT VISIBLE, PHOTO
32	SC	00	231.9	PN	PN DUE TO BLOW DOWN, PHOTO UPSTREAM
38	PP	00	281.6		UNDERCUT UNDER LOG, SLOPE=0, NO STEP HEIGHT
43	SL	00	302.2		H=0.40M
51	SL	00	366.3		H=0.20M
52	RB	00	391.3	HS	(1) 5CM FISH, INTERLOCKING LOG JAM

COMMENT SUMMARY

MONITORING AREA: 1-NC      SITE ID: 344      STREAM: MUNSON CREEK TRIBUTARY B

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
54	SL	00	397.3		H=0.60M
57	PP	00	418.2		(1) 5CM FISH
58	RB	00	424.2		(1) 5CM FISH
62	SB	00	435.9		H=0.35M
64	SL	00	439.9	DJ	H=0.50M, DEBRIS JAM OVER STEP
65	RB	00	459.4	WL	BAND-TAILED PIGEONS
66	SL	00	459.9		H=0.70M
68	SL	00	471.6		H=0.60M
70	SL	00	473.6		H=0.40M
72	RB	00	507.9		PHOTOS UPSTREAM & DOWNSTREAM, POOR GPS SATELLITE COVERAGE





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

Location: 10 439744 E 5023946 N  
 Caption: MUNSON CREEK TRIBUTARY B RESTORATION SITE -  
 TILLAMOOK BASIN

NC-344 Munson Creek Trib B (Post-Treatment) 2008 Summer Habitat Survey Photographs



Start sign



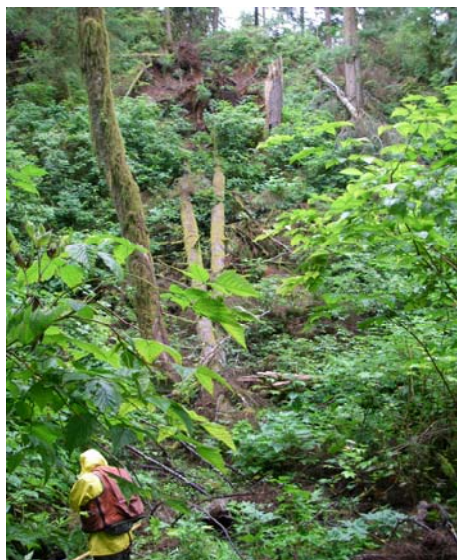
Debris jam



Active landslide



Substrate



Fallen trees on hillslope