

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

STREAM: BUMMER CREEK  
 GCG: 2-MC  
 SITE ID: 9  
 BASIN: ALSEA  
 TREATMENT DATE: 2002  
 SURVEY DATE: 8/14/2008  
 SURVEY CREW: Gwyn Woolley-Scott / Linda Campbell  
 USGS MAPS: PRAIRIE PEAK  
 ECOREGION: Mid-Coastal Sedimentary  
 REPORT PREPARED BY: Matt Strickland / Sharon Tippery / Charles Stein

**SURVEY DESCRIPTION:**

Channel morphology: Constrained by high terraces  
 Dominant landuse(s): Agricultural crop or dairy land.  
 Dominant riparian vegetation: Deciduous trees: size class 15-30cm dbh  
 Primary channel length (meters) and area (m<sup>2</sup>): 586 : 2,033  
 Secondary channel length (meters) and area (m<sup>2</sup>) 69 : 72  
 VWI average: 10.8 VWI Range: 7 - 20 Average Gradient: 2.8%  
 Pieces LWD per 100m: 22.9 Wood Volume (m<sup>3</sup>) per 100m: 30.8  
 Percent pools: 42% Complex pools (LWD pieces>=3): 11 Pools >=1m deep: 1  
 Percent substrate (avg):

	<u>Silt / organics</u>	<u>Sand</u>	<u>Gravel</u>	<u>Cobble</u>	<u>Boulder</u>	<u>Bedrock</u>
All units	5	12	22	41	16	3
Pool units	11	19	20	35	12	3
Fast water units	0	9	23	46	20	1

**COMMENTS:**

This is a post-treatment, long term monitoring site. The crew noted several habitat structures near the beginning of the survey. They also noted juvenile and resident salmonids and several sculpin throughout the survey. Evidence of wildlife included a garter snake. The crew noted ending approximately 50 meters upstream from possible previous end due to a missing end sign. The survey was extended to approximately 600 meters.

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

**BUMMER CREEK**

**GCG: 2-MC SITE ID: 9**

**Survey Date: 8/14/2008**

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

**T14S-RR08W-S25S**

**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	10.8	VWI Range:	7 - 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	586	2,033	0
Secondary	69	72	1

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 3.2	Width: 8.6	10.0 ( 8.5 - 13 )	11.4 ( 9.8 - 14 )
Depth: 0.28	Height: 0.6	1.2 ( 1.2 - 1.4 )	1.6 ( 1.5 - 1.7 )

W:D ratio: 13.9

Stream Flow Type: LF

Average Unit Gradient: 2.8%

Water temperature (°C): 15.0 - 15.0

Entrenchment (ACW:FPW ratio): 1.2

Habitat Units/100m (total channel length): 7.8

Habitat Units/100m (primary channel length): 8.7

**Riparian, Bank, and Wood Summary**

	<u>Primary</u>	<u>Secondary</u>
Land Use:	AG	ST
Riparian Vegetation:	D15	S

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	16%	Reach avg: 98%
Undercut Banks:	9%	Range: 83 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	134	22.9
Volume (m <sup>3</sup> ):	181	30.8
Key pieces (>=12m x 0.60m):	6	1.0

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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	7	106	2.6	0.10	254	34	0	9	21	47	19	4
POOL-LATERAL SCOUR	16	183	3.9	0.55	729	45	14	19	20	36	11	1
POOL-PLUNGE	4	38	3.3	0.49	130	18	3	21	22	34	17	4
POOL-STRAIGHT SCOUR	1	6	5.5	0.45	34	3	0	10	14	24	14	38
PUDDLED UNIT	1	35	0.3	0.10	11	0	0	10	40	50	0	0
RAPID/BOULDERS	12	225	3.2	0.10	773	115	0	9	23	46	22	0
RIFFLE	2	16	2.5	0.18	40	5	2	10	26	47	15	0
STEP/BEDROCK	1	7	3.0	0.10	22	6	0	5	5	19	14	57
STEP/BOULDERS	6	35	3.0	0.10	106	36	0	7	22	49	23	0
STEP/COBBLE	1	3	2.0	0.05	6	1	0	5	50	35	0	10
<b>Total:</b>	51	655	3.2	0.28	2,105	263	<b>Avg:</b> 5	12	22	41	16	3

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	21	227	3.8	0.53	894	42.46%	66	7.4
Glides	0	0			0	0.00%	0	0.0
Riffles	2	16	2.5	0.18	40	1.90%	5	12.5
Rapids	12	225	3.2	0.10	773	36.70%	115	14.9
Cascades	7	106	2.6	0.10	254	12.08%	34	13.4
Step/Falls	8	45	2.9	0.09	134	6.35%	43	32.1
Dry	1	35	0.3	0.10	11	0.50%	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:	21	32.1	35.9
Pools >=1m deep:	1	1.5	1.7
Complex pools (LWD pieces>=3):	11	16.8	18.8
Pool frequency (channel widths/pool):	3.6		
Residual pool depth (avg):	0.43		

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RIPARIAN ZONE  
VEGETATION SUMMARY

REACH 1

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

Total hardwoods/1000	894
Total conifers/1000 ft	61
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	0.0	4.0	0.0	1.0	0.7	0.7	0.7	5.7
15-30cm	0.0	3.0	0.0	1.3	0.0	0.0	0.0	4.3
30-50cm	0.0	2.3	0.0	0.7	0.0	1.3	0.0	4.3
50-90cm	0.0	0.0	0.0	0.0	0.3	0.3	0.3	0.3
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	0.0	9.3	0.0	3.0	1.0	2.3	0.3	4.9

Canopy closure and ground cover

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Canopy closure	100	92	73
Shrub cover	83	92	66
Grass/forb cover	17	8	34

Predominant landform in each zone

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Hillslope	0	17	33
High terrace	100	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 (%)	11	9	14

**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	894
Total conifers/1000 ft	61
Total conifers >20" dbh/1000 ft	20
Total conifers >35" dbh/1000 ft	0

**Average number of trees in a 5-m wide band**

<u>Diameter</u> <u>class (cm)</u>	<u>Zones 1-3</u>	
	<u>0-30 meters</u>	
	<u>Conifer</u>	<u>Hardwood</u>
3-15cm	0.7	5.7
15-30cm	0.0	4.3
30-50cm	0.0	4.3
50-90cm	0.3	0.3
>90cm	0.0	0.0

**RIPARIAN ZONE VEGETATION**

Reach 1

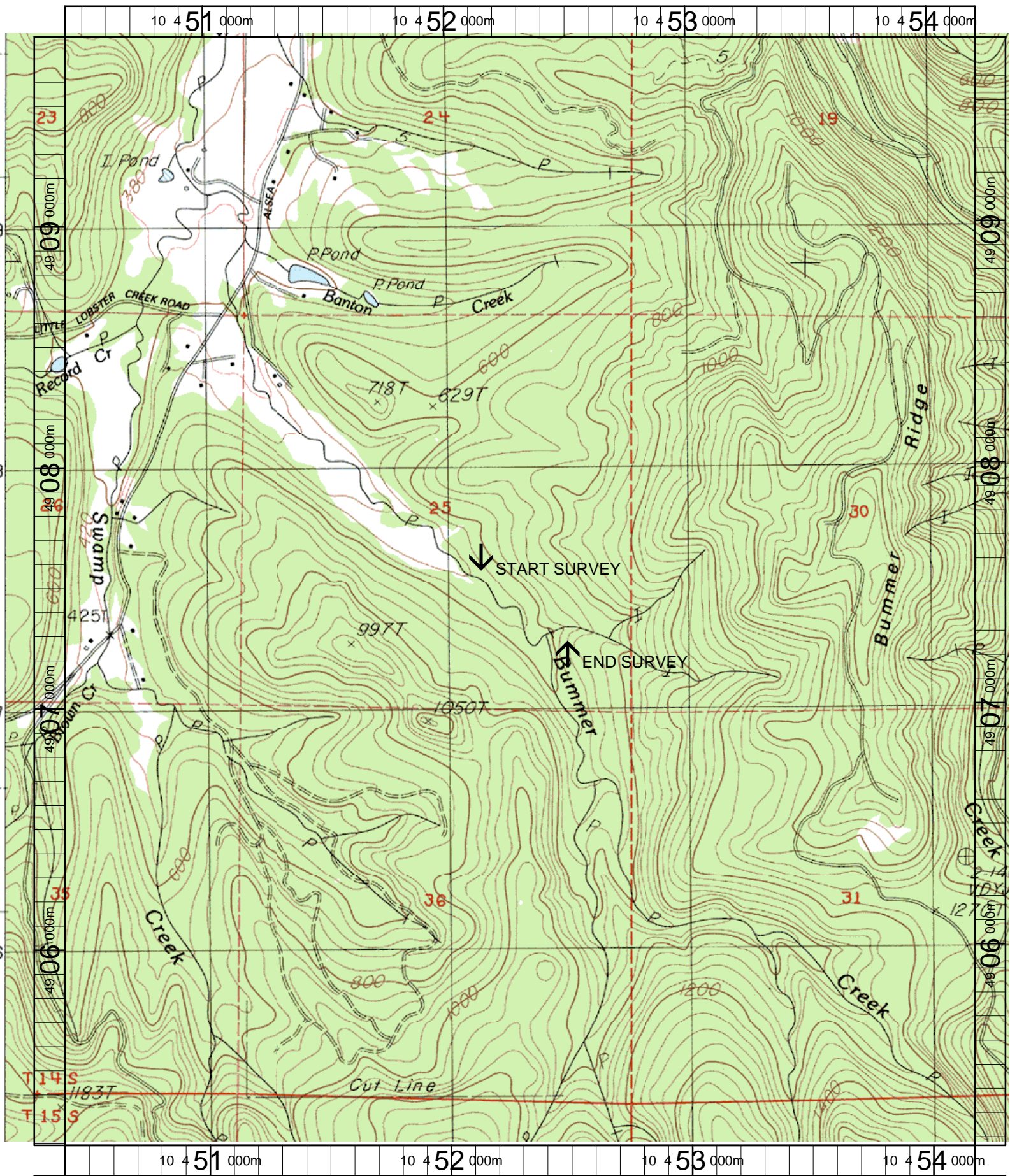
Reach 1

Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes	
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90		
12	LT	1	HT	10	100	50	50	Conifer							1 BL MAPLE, REST ALDER
								Hardwood	7	3					
12	LT	2	HT	6	90	90	10	Conifer							
								Hardwood							
12	LT	3	HT	11	0	0	100	Conifer							PASTURE.
								Hardwood							
12	RT	1	HT	8	100	90	10	Conifer							ALDER.
								Hardwood	1	0	1				
12	RT	2	HT	5	100	90	10	Conifer							ALDER.
								Hardwood	1		1				
12	RT	3	HT	5	100	95	5	Conifer							YOUNG MAPLE.
								Hardwood	1						
25	LT	1	HT	12	100	90	10	Conifer							
								Hardwood		3	3				
25	LT	2	HS	25	90	95	5	Conifer							
								Hardwood							
25	LT	3	HS	29	60	75	25	Conifer					1		ROAD AT END OF ZONE 3
								Hardwood							
25	RT	1	HT	8	100	90	10	Conifer							
								Hardwood			2				
25	RT	2	HT	10	100	90	10	Conifer							
								Hardwood		1	1				
25	RT	3	HT	7	100	95	5	Conifer							
								Hardwood			3				
37	LT	1	HT	14	100	90	10	Conifer							
								Hardwood	1	2	1				
37	LT	2	HT	-4	80	95	5	Conifer							
								Hardwood	1	2					
37	LT	3	HT	10	90	80	20	Conifer							HARDWOODS ALL ALDER.
								Hardwood	1		1				
37	RT	1	HT	13	100	90	10	Conifer							
								Hardwood	3	1					
37	RT	2	HT	13	90	90	10	Conifer							
								Hardwood	1	1					
37	RT	3	HS	24	85	50	50	Conifer	2						ZONE 3=EDGE OF REPROD.
								Hardwood					1		

**COMMENT SUMMARY**

MONITORING AREA: 2-MC      SITE ID: 9      STREAM: BUMMER CREEK

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	LP	00	10.3	HS	(24) 4CM FISH, T=15C, PLACED LOG JAM.
2	RI	00	19.1	HS	2ND PLACED JAM
6	PD	02	63		ACW=1.0M, NO DEEP PUDDLES
8	LP	00	90.4		(12) 4CM FISH
13	LP	00	151.8		(6) 4CM FISH, (1) 20CM FISH
15	LP	00	166.7	HS	(1) 10CM FISH
17	LP	01	208.9		(20) 5CM FISH
22	LP	00	232.2	WL	RED SPOTTED GARTER SNAKE, (1) 5CM FISH
24	LP	00	254.4	HS	(12) 4CM FISH, INTERLOCKING JAM, (3) 10CM FISH
26	LP	00	273.6		(1) 2CM BULLHEAD, (12) 5CM FISH
30	LP	00	324.2		(12) 5CM FISH
31	RB	01	349.2	TJ/	
33	LP	11	349.2		(1) 10CM FISH, (1) 15CM FISH
34	RB	11	349.2		T=16C
41	PP	00	454.9		(3) 4CM FISH
51	RB	00	585.7		END SURVEY HERE



Name: PRAIRIE PEAK  
 Date: 3/20/2003  
 Scale: 1 inch equals 1666 feet

Location: 10 452295 E 4907480 N  
 Caption: BUMMER CREEK RESTORATION SITE - ALSEA BASIN



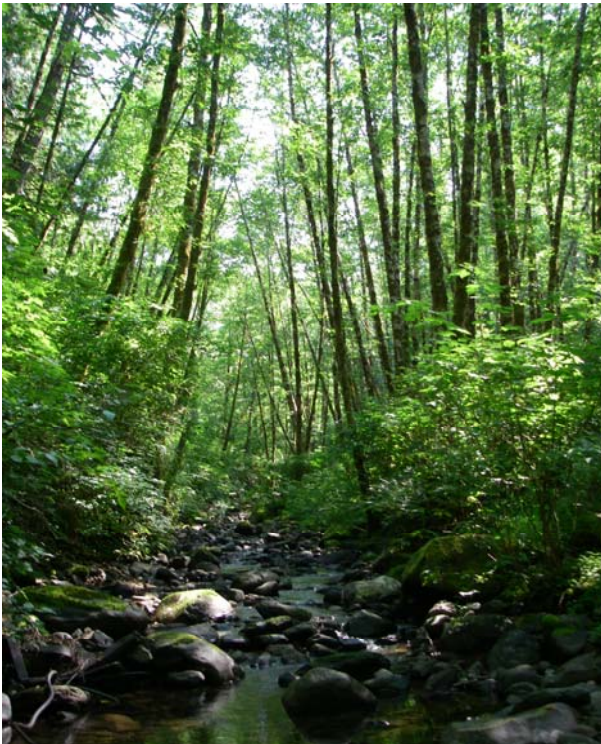
MC-9 Bummer Creek (Post-Treatment) 2008 Summer Habitat Survey Photographs



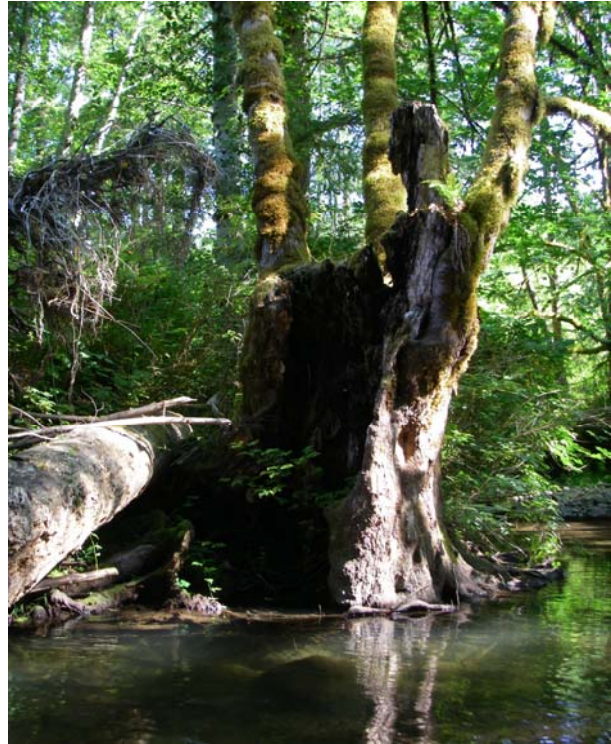
Large wood habitat structure



End of survey



Reach photo



Scour pool