

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

STREAM: Sams Creek (MC-334)  
BASIN: Siletz River  
SURVEY TYPE: Post-Tx  
DATE: July 12, 2007  
SURVEY CREW: Josh Togstad, Jeff Snyder  
REPORT PREPARED BY: Paul Jacobsen  
BASIN AREA: 35.2 km<sup>2</sup>  
USGS MAPS: Eddyville  
ECOREGION: Coast Range Sedimentary

**GENERAL DESCRIPTION:**

The Sams Creek habitat survey extended 573 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 6.2 (range: 6.0-7.0). Land use for the reach was second growth (15-30 cm dbh) trees and rural residential. The average unit gradient was 0.5 percent. Scour pools (58%) dominated stream habitat. Bedrock (34%) and sand (21%) dominated stream substrate. Wood volume was moderate at 25.9 m<sup>3</sup>/100m.

**COMMENTS:**

There were no potential barriers to upstream fish migration in the surveyed length.

The crew noted several habitat structures during the survey.

REACH 1

T10S-R09W-S06SE

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	6.2	VWI Range:	6 - 7

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 Channel	573	6,899	0
Secondary Channel	0	0	0
Off-Channel Units	13	18	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 10.6	Width: 13.4	14.3 ( 13.4 - 15.7 )	19.3 ( 15.4 - 28.3 )
Depth: 0.51	Height: 0.4	0.8 ( 0.6 - 1 )	1.4 ( 0.9 - 2.1 )

W:D ratio: 35.3  
 Stream Flow Type: MF  
 Average Unit Gradient: 0.5%  
 Water temperature (°C): 15.0 - 15.0

Entrenchment (ACW:FPW ratio): 1.1  
 Habitat Units/100m (total channel length): 4.1  
 Habitat Units/100m (primary channel length): 4.2

**Riparian, Bank, and Wood Summary**

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	RR
Riparian Vegetation:	D30	S

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	11%	Reach avg: 70%
Undercut Banks:	4%	Range: 36 - 94

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	100	17.4
Volume (m <sup>3</sup> ):	149	25.9
Key pieces (>=12m x 0.60m):	3	0.5

OREGON DEPT OF FISH AND WILDLIFE

SAMS CREEK POST-TX (2-MC, 334)

HABITAT INVENTORY

Report Date: 11/14/2007

Survey Date:

7/12/2007

REACH 1		T10S-R09W-S06SE					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
GLIDE	1	18	12.5	0.35	219	0	0	45	45	10	0	0
POOL-BACKWATER	1	2	4.3	0.30	10	0	35	55	0	0	0	10
POOL-BEAVER DAM	1	114	8.6	1.80	980	0	30	20	30	20	0	0
POOL-LATERAL SCOUR	8	294	13.2	1.01	4,038	9	11	24	23	11	0	30
RAPID/BEDROCK	3	40	14.2	0.13	568	2	0	18	2	0	0	80
RIFFLE	7	110	7.9	0.17	1,004	6	13	16	20	25	0	26
STEP/BEDROCK	1	2	12.7	0.05	23	0	0	0	0	0	0	100
STEP/COBBLE	2	6	6.7	0.09	75	0	43	13	0	25	0	20
<b>Total:</b>	24	586	10.6	0.51	6,916	17	<b>Avg:</b> 14	21	17	14	0	34

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	2	116	6.5	1.05	991	14.32%	0	0.0	
Scour Pools	8	294	13.2	1.01	4,038	58.38%	9	0.2	
Glides	1	18	12.5	0.35	219	3.16%	0	0.0	
Riffles	7	110	7.9	0.17	1,004	14.51%	6	0.6	
Rapids	3	40	14.2	0.13	568	8.21%	2	0.4	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	3	8	8.7	0.07	97	1.41%	0	0.0	
Dry	0	0			0	0.00%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

POOL SUMMARY			
	<u>Total</u>	Total of all Channel Lengths	Primary Channel Length
		<u># / Km</u>	<u># / Km</u>
All Pools:	10	17.1	17.4
Pools >=1m deep:	3	5.1	5.2
Complex pools (LWD pieces>=3):	6	10.2	10.5
Pool frequency (channel widths/pool):	4.4		
Residual pool depth (avg):	0.99		

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

**SAMS CREEK POST-TX  
GCG: 2-MC SITE ID: 334**

Survey Date 7/12/2007

**RIPARIAN ZONE**

Report Date: 11/7/2007

**VEGETATION SUMMARY**

**REACH 1**

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

Total hardwoods/1000	894
Total conifers/1000 ft	0
Total conifers >20" dbh/1000 ft	0
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	2.3	0.0	2.7	0.0	1.0	0.0	6.0
15-30cm	0.0	0.0	0.0	1.3	0.0	2.0	0.0	3.3
30-50cm	0.0	0.3	0.0	0.7	0.0	1.3	0.0	2.3
50-90cm	0.0	1.0	0.0	0.7	0.0	1.3	0.0	3.0
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	0.0	3.7	0.0	5.3	0.0	5.7	0.0	4.9

**Canopy closure and ground cover**

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	75		77		71	
Shrub cover	23		37		35	
Grass/forb cover	77		63		51	

**Predominant landform in each zone**

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	33		50		33	
High terrace	67		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		17	
Riprap	0		0		0	
Surface slope (%)	6		13		10	

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	0
Total conifers >20" dbh/1000 ft	0
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	0.0	6.0
15-30cm	0.0	3.3
30-50cm	0.0	2.3
50-90cm	0.0	3.0
>90cm	0.0	0.0

---

**RIPARIAN ZONE VEGETATION**

Reach 1

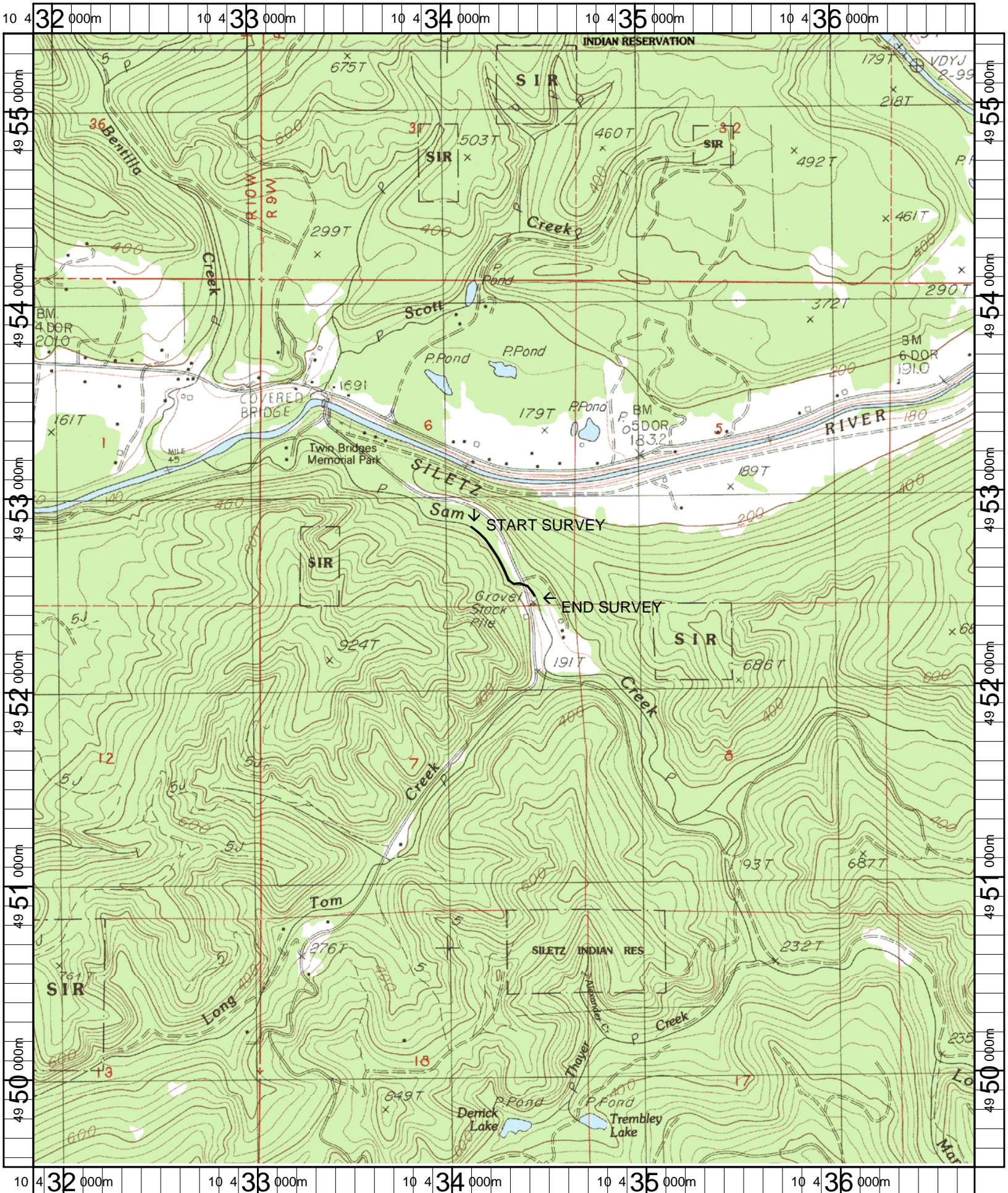
Reach 1

Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes	
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90		
4	LT	1	HT	0	75	30	70	Conifer							TWO LARGE 90+ ALDERS OUTSIDE
								Hardwood							
4	LT	2	HT	0	80	20	80	Conifer							
								Hardwood							
4	LT	3	HT	0	75	35	65	Conifer							
								Hardwood	1	1	4	1			
4	RT	1	HS	19	50	20	80	Conifer							
								Hardwood	3						
4	RT	2	HS	10	70	25	75	Conifer							
								Hardwood		1					
4	RT	3	HS	14	85	70	30	Conifer							
								Hardwood		2		1			
13	LT	1	HT	0	90	10	90	Conifer							
								Hardwood	4						
13	LT	2	HT	0	90	90	10	Conifer							
								Hardwood	5	3					
13	LT	3	HT	0	90	20	80	Conifer							
								Hardwood				2			
13	RT	1	HS	17	80	60	40	Conifer							
								Hardwood					2		
13	RT	2	HS	16	85	70	30	Conifer							
								Hardwood	3			1			
13	RT	3	HS	46	70	70	30	Conifer							
								Hardwood	2						
21	LT	1	HT	0	70	10	90	Conifer							
								Hardwood			1	1			
21	LT	2	HS	50	95	5	95	Conifer							
								Hardwood			2	1			
21	LT	3	RB	2	80	5	10	Conifer							ACCESS ROAD TO HOME. LARGE BIG- LEAF MAPLE NEXT
								Hardwood		3					
21	RT	1	HT	0	85	10	90	Conifer							
								Hardwood							
21	RT	2	HT	0	40	10	90	Conifer							
								Hardwood							
21	RT	3	HT	0	25	10	90	Conifer							
								Hardwood							

COMMENT SUMMARY

MONITORING AREA: 2-MC      SITE ID: 334      STREAM: SAMS CREEK POST-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
2	BP	00	123.8	BV	BLOWN-OUT BEAVER DAM.
4	RR	00	152.4		METRIC 2
5	LP	00	194.9		CO
6	SC	00	200.8		CO
7	LP	00	216.5	CO	
8	RI	00	234.4	CO	
10	BW	10	247.9	CO	
12	LP	00	271.5	WL, CO, HS	
13	RI	00	284.5		METRIC 3
14	LP	01	308.6	HS, CO	
15	SC	11	308.6	PN	PHOTO 24
17	RR	00	324.9	CO	
18	LP	00	360.9	CO	
20	LP	00	471.4	CO, WL	
21	GL	00	488.9	WL	GAME TRAIL
22	LP	00	509.3	CO, HS, BV	
23	LP	00	544.5	HS, CO, BV	GAUGING STATION/
24	RI	00	573.2	BV, CO	END OF SURVEY. 1540 HRS.



Name: EDDYVILLE  
 Date: 4/25/2007  
 Scale: 1 inch equals 2000 feet

Location: 10 0434296 E 4952454 N  
 Caption: SAMS CREEK RESTORATION SITE - SILETZ BASIN