

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

STREAM: Sixes River Tributary (MS-192)  
BASIN: Sixes River  
SURVEY TYPE: Pre-Tx  
DATE: June 14, 2005  
SURVEY CREW: Greg Ryder, Justin Gerding  
REPORT PREPARED BY: Paul Jacobsen  
BASIN AREA: 3.2 km<sup>2</sup>  
USGS MAPS: Barklow Mountain  
ECOREGION: Coast Range California Extension

**GENERAL DESCRIPTION:**

The Sixes River Tributary habitat survey extended 753 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 8.9 (range: 1.5-20.0). Land use for the reach was young (3-15 cm dbh) and second growth (15-30 cm dbh) trees. The average unit gradient was 2.7 percent. Riffles (81%) dominated stream habitat. Gravel (41%) and cobble (37%) dominated stream substrate. Wood volume was very low at 4.8 m<sup>3</sup>/100m.

**COMMENTS:**

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

OREGON DEPT OF FISH AND WILDLIFE SIXES RIVER UNNAMED TRIB PRE-TX (3-MS, 192)

HABITAT INVENTORY Report Date: 4/26/2006 Survey Date: 6/14/2005

REACH 1		T32S-R13W-S10SW					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
POOL-BACKWATER	1	5	4.2	0.50	21	0	10	50	30	10	0	0
POOL-LATERAL SCOUR	15	121	2.6	0.55	319	0	2	28	40	21	1	8
POOL-STRAIGHT SCOUR	1	10	4.1	0.80	43	0	0	30	40	30	0	0
RAPID/BOULDERS	1	8	1.6	0.20	12	0	0	5	30	65	0	0
RIFFLE	30	647	2.7	0.15	1,769	13	0	9	42	44	5	0
STEP/COBBLE	2	13	1.4	0.13	16	0	0	5	45	50	0	0
<b>Total:</b>	<b>50</b>	<b>804</b>	<b>2.7</b>	<b>0.29</b>	<b>2,180</b>	<b>13</b>	<b>Avg: 1</b>	<b>15</b>	<b>41</b>	<b>37</b>	<b>3</b>	<b>3</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	1	5	4.2	0.50	21	0.94%	0	0.0	
Scour Pools	16	132	2.7	0.57	361	16.58%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	30	647	2.7	0.15	1,769	81.17%	13	0.7	
Rapids	1	8	1.6	0.20	12	0.56%	0	0.0	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	2	13	1.4	0.13	16	0.75%	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	
		<u># / Km</u>	Primary Channel Length <u># / Km</u>
All Pools:	17	21.2	22.6
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	6	7.5	8.0
Pool frequency (channel widths/pool):	8.7		
Residual pool depth (avg):	0.46		

REACH 1

T32S-R13W-S10SW

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	8.9	VWI Range:	1.5 - 20

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	753	2,092	0
Secondary Channel	21	35	0
Off-Channel Units	30	53	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 2.7	Width: 5.4	8.4 ( 5.8 - 12.9 )	14.4 ( 6.2 - 33.6 )
Depth: 0.29	Height: 0.4	0.8 ( 0.7 - 1 )	1.1 ( 0.8 - 1.3 )

W:D ratio: 13.2

Entrenchment (ACW:FPW ratio): 1.6

Stream Flow Type: LF

Habitat Units/100m (total channel length): 6.2

Average Unit Gradient: 2.7%

Habitat Units/100m (primary channel length): 6.6

Water temperature (°C): 12.0 - 12.0

**Riparian, Bank, and Wood Summary**

	<u>Primary</u>	<u>Secondary</u>
Land Use:	YT	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:	1%	Reach avg: 94%
Undercut Banks:	6%	Range: 72 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	71	9.4
Volume (m <sup>3</sup> ):	36	4.8
Key pieces (>=12m x 0.60m):	1	0.1

Survey Date 6/14/2005

**RIPARIAN ZONE**

Report Date: 4/26/2006

**VEGETATION SUMMARY**

**REACH 1**

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

Total hardwoods/1000	691
Total conifers/1000 ft	284
Total conifers >20" dbh/1000 ft	81
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	2.0	0.0	1.3	0.7	0.7	1.0	4.0
15-30cm	0.3	2.7	0.0	2.0	1.3	1.7	1.7	6.3
30-50cm	0.0	0.7	0.0	0.0	0.7	0.3	0.7	1.0
50-90cm	0.7	0.0	0.3	0.0	0.3	0.0	1.3	0.0
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	1.3	5.3	0.3	3.3	3.0	2.7	1.6	3.8

**Canopy closure and ground cover**

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	85		82		80	
Shrub cover	50		53		45	
Grass/forb cover	50		42		52	

**Predominant landform in each zone**

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	33		33		83	
High terrace	67		67		17	
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		7		23	

**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	691
Total conifers/1000 ft	284
Total conifers >20" dbh/1000 ft	81
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	1.0	4.0
15-30cm	1.7	6.3
30-50cm	0.7	1.0
50-90cm	1.3	0.0
>90cm	0.0	0.0

**RIPARIAN ZONE VEGETATION**

Reach 1

Reach 1

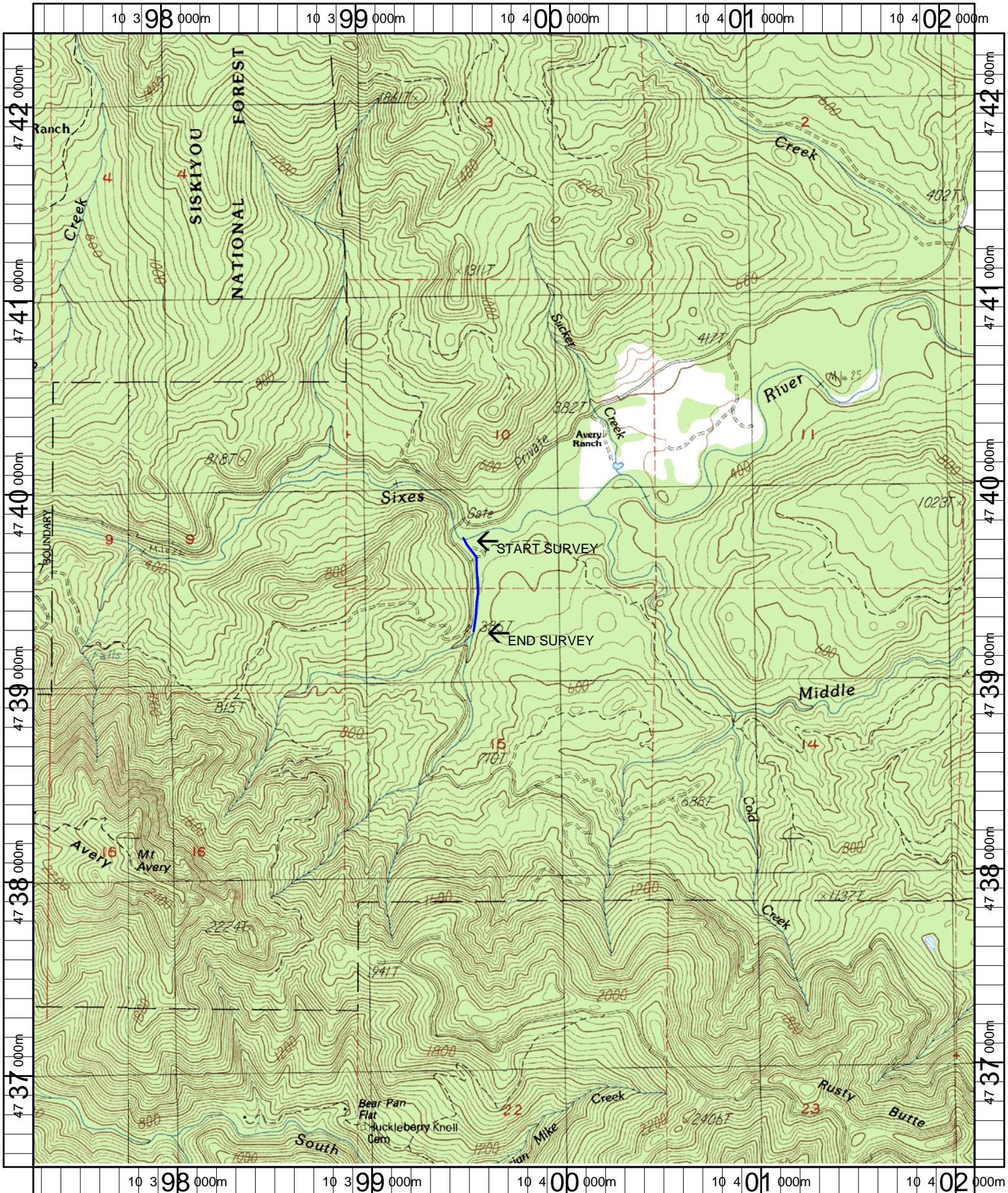
Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90	
14	LF	3	HS	25	90	10	90	Conifer		1	1	1		GRAND FIR, MAPLE
								Hardwood		1				
14	RT	1	HT	0	100	20	80	Conifer		1				DOUG FIR, MAPLE
								Hardwood		3				
14	RT	2	HT	0	100	50	50	Conifer						
								Hardwood						
14	RT	3	HS	10	90	70	30	Conifer						
								Hardwood		2				
14	LF	1	HS	30	100	10	90	Conifer				2		CEDAR, ALDERS
								Hardwood	2		2			
14	LF	2	HS	20	90	0	100	Conifer				1		CEDAR
								Hardwood						
23	LF	2	HT	0	100	30	40	Conifer						VINEMAPLE
								Hardwood	1					
23	RT	3	HS	45	60	40	60	Conifer						ALDER
								Hardwood		1				
23	RT	2	HS	20	70	80	20	Conifer						ALDER
								Hardwood		5				
23	LF	3	HT	0	90	70	30	Conifer						ALDER
								Hardwood			1			
23	LF	1	HT	0	90	50	50	Conifer						ALDER
								Hardwood		1				
23	RT	1	HS	25	80	80	20	Conifer	1					HEMLOCK, ALDER
								Hardwood		1				
36	RT	3	HS	20	60	80	20	Conifer		1	1			DOUG FIR, CASCARA
								Hardwood	2					
36	LF	1	HT	0	100	60	40	Conifer						ALDER
								Hardwood	2	3				
36	LF	2	HT	0	90	80	20	Conifer						ALDER
								Hardwood	2	1				
36	LF	3	HS	40	90	0	80	Conifer	2	2				CEDAR
								Hardwood		1				
36	RT	1	HT	0	40	80	20	Conifer						CASCARA
								Hardwood	2					
36	RT	2	HT	0	40	80	20	Conifer						ELDERBERRY
								Hardwood	1					

# Comment Summary

## Restoration Monitoring Sites 2005

MONITORING AREA: **3-MS**      SITE ID: **192**      **SIXES RIVER UNNAMED TRIB PRE-T**

<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
1	RI	00	25			U 1-5 ARE WITHIN THE SIXE
5	LP	00	83.8			TROUT FRY
8	LP	01	146.8	TJ/		OLD ROAD CROSSING
9	RI	11	146.8	/SS		TRIB
12	LP	02	170.6			TROUT FRY
14	LP	00	179.9			COHO FRY
22	LP	00	297.3	/SS		
24	LP	00	325.5			FRY
35	LP	00	449.6	DJ		COHO FRY
50	RI	00	752.6	/CS		END WHERE RIVER FORKS



Name: BARKLOW MT  
 Date: 5/2/2006  
 Scale: 1 inch equals 2000 feet

Location: 10 399720 E 4739421 N  
 Caption: SIXES RIVER UNNAMED TRIBUTARY RESTORATION SITE - SIXES BSAIN