

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

STREAM: Argue Creek (U-183)  
BASIN: Smith River  
SURVEY TYPE: Pre-Tx  
DATE: July 2, 2003  
SURVEY CREW: Jeremiah Bernier, Alex Higgins  
REPORT PREPARED BY: Paul Jacobsen  
BASIN AREA: 26.1 km<sup>2</sup>  
USGS MAPS: Twin Sisters  
ECOREGION: Coast Range Sedimentary

**GENERAL DESCRIPTION:**

The Argue Creek habitat survey extended 516 meters. The channel was constrained by hillslopes in a moderate V-shaped valley. The average valley width index was 4.0 (range: 2.0-10.0). Land use for the reach was second growth (15-30 cm dbh) trees. The average unit gradient was 1.2 percent. Scour pools (36%) and riffles (26%) dominated stream habitat. Gravel (43%) and sand (28%) dominated stream substrate. Wood volume was low at 17.3 m<sup>3</sup>/100m.

**COMMENTS:**

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

REACH 1

T21S-R08W-S03SE

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	0%
Moderate V-shape	100%	Multiple Terraces	0%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	4.0	VWI Range:	2 - 10

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	516	1,487	0
Secondary	5	17	0

Channel Dimensions (m)

<u>Wetted</u>		<u>Active</u>		<u>Floodprone</u>	<u>First Terrace</u>
Width	2.8	Width	6.8	9.9	12.5
Depth	0.24	Height	0.6	1.2	1.7
		W:D ratio	11.5	Entrenchment	1.4

Stream Flow Type:	LF	Water temp (C):	13.5 - 13.5
Avg. Unit Gradient:	1.2%	Habitat Units/100m:	7.7

**Riparian, Bank, and Wood Summary**

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

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	17%	Reach avg: 93%
Undercut Banks:	16%	Range: 72 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m</u>
All pieces (>=3m x 0.15m):	121	23.5
Volume (m <sup>3</sup> ):	89	17.3
Key pieces (>=10m x 0.60m):	2	0.4

OREGON DEPARTMENT OF FISH AND WILDLIFE

ARGUE CREEK PRE-TX (U-183)

HABITAT INVENTORY

Report Date: 12/17/03

Survey Date:

7/2/03

REACH 1		T21S-R08W-S03SE					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	
CULVERT CROSSING	1	18	1.6	0.05	29	0	0	0	100	0	0	0	
GLIDE	4	69	2.6	0.18	188	14	0	21	29	6	9	35	
POOL-BACKWATER	1	5	3.8	0.18	17	5	0	50	25	5	20	0	
POOL-DAMMED	2	23	6.9	0.38	190	9	5	50	18	18	10	0	
POOL-LATERAL SCOUR	11	178	3.0	0.52	508	5	3	41	38	5	1	11	
POOL-STRAIGHT SCOUR	1	7	4.2	0.60	28	0	0	70	30	0	0	0	
RAPID/BOULDERS	2	48	2.3	0.14	110	17	0	18	25	23	13	21	
RIFFLE	9	105	1.8	0.09	195	1	0	19	71	8	1	1	
RIFFLE W/ POCKETS	3	50	3.8	0.13	197	4	0	22	36	17	6	18	
STEP/BEDROCK	2	8	2.8	0.04	23	0	0	0	0	0	0	100	
STEP/BOULDERS	1	3	3.0	0.02	8	5	0	10	20	30	40	0	
STEP/COBBLE	2	7	2.0	0.05	11	0	0	5	90	5	0	0	
STEP/LOG	1	1	1.2	0.01	1	0	0	90	10	0	0	0	
<b>Total:</b>	40	520	2.8	0.24	1,504	60	<b>Avg</b>	1	28	43	8	4	14

HABITAT SUMMARY									
Habitat Group	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area		Large Boulders		5
					(m <sup>2</sup> )	Percent	Number	(# / 100m <sup>2</sup> )	
Dammed & BW Pools	3	28	5.8	0.31	207	13.74%	14	6.8	
Scour Pools	12	185	3.1	0.53	536	35.63%	5	0.9	
Glides	4	69	2.6	0.18	188	12.48%	14	7.5	
Riffles	12	155	2.3	0.10	392	26.06%	5	1.3	
Rapids	2	48	2.3	0.14	110	7.31%	17	15.5	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	6	18	2.3	0.03	43	2.83%	5	11.8	
Dry	0	0			0	0.00%	0	0.0	
Culverts	1	18	1.6	0.05	29	1.96%	0	0.0	

POOL SUMMARY		
	Total	# / Km
All Pools:	15	28.8
Pools >=1m deep:	1	1.9
Complex pools (LWD pieces>=3):	8	15.4
Pool frequency (channel widths/pool):	5.1	
Residual pool depth (avg):	0.47	

**STREAM SUMMARY**

**ARGUE CREEK PRE-TX (U-183)**

Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m <sup>2</sup> )	Substrate Percent Wetted Area						Large Boulders (>0.5m)
					S/O	Snd	Grvl	Cbl	Bldr	Bdrk	
40	520	2.8	0.24	1,504	1	28	43	8	4	14	60

Habitat Group	Wetted Area	
	(m <sup>2</sup> )	Percent
Dammed & BW Pools	207	13.74%
Scour Pools	536	35.63%
Glides	188	12.48%
Riffles	392	26.06%
Rapids	110	7.31%
Cascades	0	0.00%
Step/Falls	43	2.83%
Dry	0	0.00%
Culverts	29	1.96%

**RIPARIAN ZONE VEGETATION SUMMARY**

**REACH 1** **REACH 1**

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

Total hardwoods/1000	752
Total conifers/1000 ft	183
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	0.7	0.3	0.0	0.3	4.3	0.7	5.0
15-30cm	0.3	1.0	1.0	0.7	1.0	3.0	2.3	4.7
30-50cm	0.0	1.3	0.0	1.0	0.0	0.3	0.0	2.7
50-90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	0.3	3.0	1.3	1.7	1.3	7.7	1.0	4.1

**Canopy closure and ground cover**

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Canopy closure	68	73	76
Shrub cover	47	22	9
Grass/forb cover	38	43	56

**Predominant landform in each zone**

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Hillslope	83	67	100
High terrace	0	17	0
Low terrace	0	0	0
Floodplain	17	0	0
Wetland/meadow	0	0	0
Stream channel	0	0	0
Roadbed/Railroad	0	17	0
Riprap	0	0	0
Surface slope (%)	21	22	31

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	752
Total conifers/1000 ft	183
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	0.7	5.0
15-30cm	2.3	4.7
30-50cm	0.0	2.7
50-90cm	0.0	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		
16	LF	2	HS	45	75	0	80	Conifer							
								Hardwood							
16	LF	1	HS	45	75	40	60	Conifer		1					PHOTO 100-0048
								Hardwood							
16	LF	3	HS	15	65	5	75	Conifer							
								Hardwood		4					
16	RT	1	FP	0	80	60	20	Conifer							
								Hardwood			4				
16	RT	2	HT	0	75	20	70	Conifer	1						
								Hardwood				3			
16	RT	3	HS	30	80	30	60	Conifer	1						
								Hardwood	2	1					
25	LF	3	HS	28	80	20	60	Conifer							
								Hardwood	1	2					
25	RT	3	HS	50	85	0	60	Conifer			3				
								Hardwood	9	1					
25	RT	1	HS	15	60	60	40	Conifer							
								Hardwood							
25	LF	2	HS	25	80	100	0	Conifer							
								Hardwood		2					
25	LF	1	HS	20	65	100	0	Conifer							PHOTO 100-0049
								Hardwood							
25	RT	2	HS	25	55	0	70	Conifer			2				
								Hardwood							
32	RT	2	RB	0	85	10	20	Conifer			1				
								Hardwood							
32	RT	3	HS	25	75	0	40	Conifer							
								Hardwood		1	1				
32	LF	1	HS	20	65	0	40	Conifer							PHOTO 100-0050
								Hardwood	1	2					
32	LF	2	HS	35	70	0	20	Conifer							
								Hardwood							
32	LF	3	HS	35	70	0	40	Conifer							
								Hardwood	1						
32	RT	1	HS	25	65	20	70	Conifer							
								Hardwood	1	1					

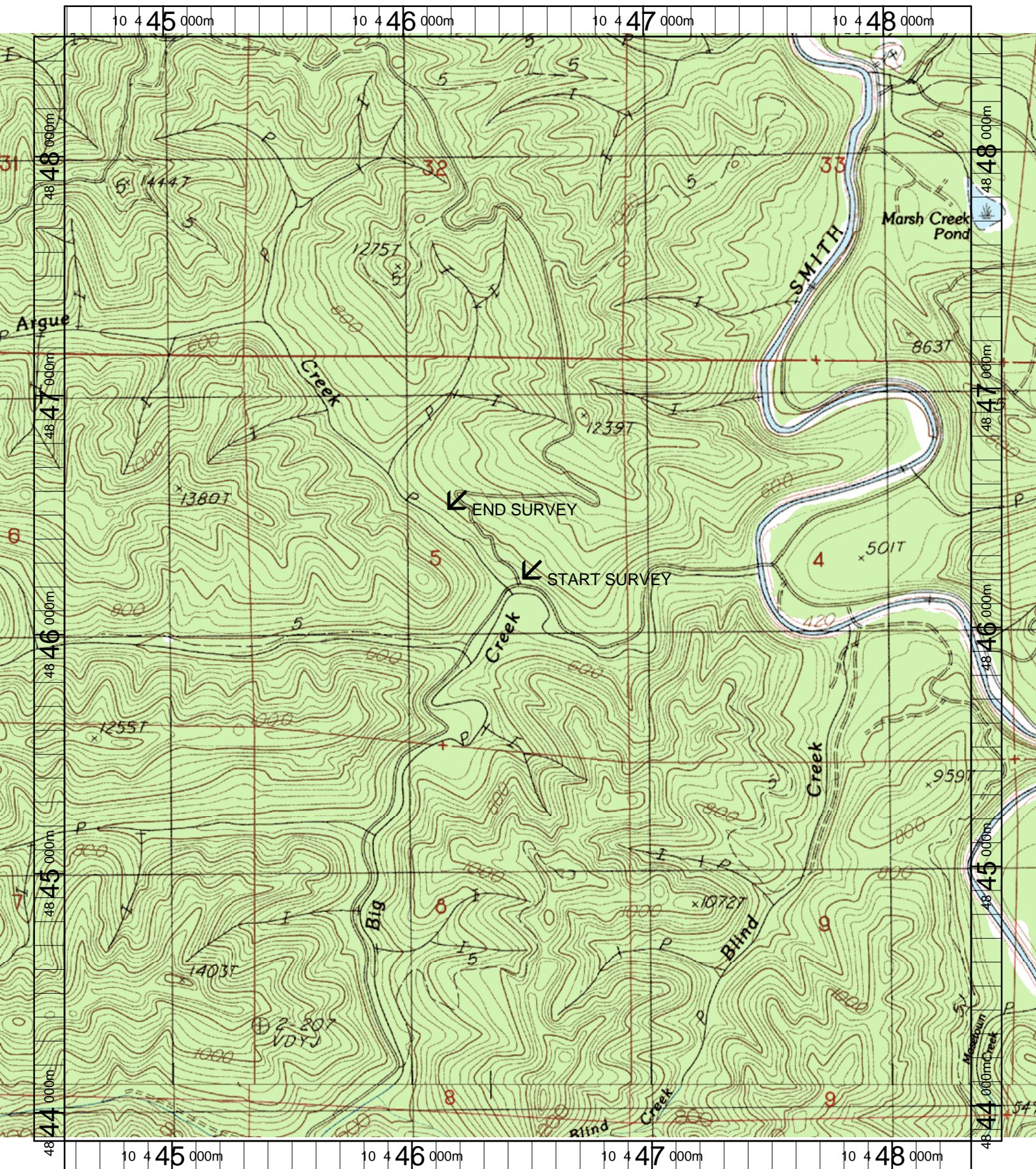
# Comment Summary

## Oregon Plan Monitoring Sites 2003

MONITORING AREA: **4-UMP**    SITE ID: **183**    ARGUE CREEK PRE-TX (U-183)

<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	6.3		T=13.5	
2	CC	00	24.7	CC	H=1.25 W=3	BLM ROAD 22-9-14
10	SL	00	94.6		H=.3	
16	RI	00	151.6		RIP 1	RIP 1
18	RI	00	182		PINK FLAK WITH RED ST	PINK FLAG ON REBAR
22	RI	00	248.1	LA/		
25	LP	00	300.3			RIP 2
30	SR	00	374.5		H=.8	
32	RP	01	403.1			RIP 3
36	GL	00	466.6			LI/ IN COMMENT CODE
37	SB	00	469.1		H=.35	
38	DP	00	486.4	DJ	OLD BRIDGE DJ	OLD ROAD BRIDGE
40	RI	00	515.9		NO GPS COVERAGE	





Name: TWIN SISTERS  
 Date: 6/11/2003  
 Scale: 1 inch equals 1666 feet

Location: 10 446455 E 4846181 N  
 Caption: ARGUE CREEK RESTORATION SITE - SMITH BASIN