

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

STREAM: Beaver Creek Upper (L-205)  
BASIN: Sandy River  
SURVEY TYPE: Pre-Tx  
DATE: July 8, 2004  
SURVEY CREW: Erin Richmond, Carmen Vandyke, Jeff Snyder  
REPORT PREPARED BY: Paul Jacobsen  
BASIN AREA: 32.8 km<sup>2</sup>  
USGS MAPS: Camas  
ECOREGION: Willamette Valley Plains

**GENERAL DESCRIPTION:**

The Beaver Creek habitat survey extended 537 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 17.5 (range: 10.0-20.0). Land use for the reach was urban and rural residential. The average unit gradient was 0.1 percent. Scour pools (62%) and slackwater pools (32%) dominated stream habitat. Sand (50%) dominated stream substrate. Wood volume was low at 8.0 m<sup>3</sup>/100m.

**COMMENTS:**

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

The crew noted a few habitat structures during the survey.

REACH 1

T01N-R03E-S25SE

REACH 1

**Valley and Channel Summary**

Valley Characteristics (Percent Reach Length)

Narrow Valley Floor		Broad Valley Floor	
Steep V-shape	0%	Constraining Terraces	0%
Moderate V-shape	0%	Multiple Terraces	100%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	17.5	VWI Range:	10 - 20

Channel Morphology (Percent Reach Length)

Constrained		Unconstrained	
Hillslope	0%	Single Channel	0%
Bedrock	0%	Multiple Channel	0%
Terrace	100%	Braided Channel	0%
Alt. Terrace/Hill	0%		
Landuse	0%		

Channel Characteristics

Type	Length (m)	Area (m2)	Dry Units
Primary	537	3,418	0
Secondary	30	149	1

Channel Dimensions (m)

Wetted	Active	Floodprone	n = 4	First Terrace	n = 4
Width: 6.0	Width: 7.8	9.0	( 6.2 - 11.4 )	9.6	( 6.7 - 12.6 )
Depth: 0.61	Height: 0.7	1.5	( 1.4 - 1.6 )	2.3	( 1.5 - 3.2 )

W:D ratio: 10.6

Entrenchment (ACW:FPW ratio): 1.2

Stream Flow Type: LF

Habitat Units/100m (total channel length): 2.8

Average Unit Gradient: 0.1%

Habitat Units/100m (primary channel length): 3.0

Water temperature (°C): 16.0 - 16.0

**Riparian, Bank, and Wood Summary**

	Primary	Secondary
Land Use:	UR	RR
Riparian Vegetation:	S	D15

Bank Condition and Shade

Bank Status	Percent Reach Length	Shade (% of 180)
Actively Eroding:	4%	Reach avg: 43%
Undercut Banks:	2%	Range: 22 - 100

Large Wood Debris

	Total	Total / 100m primary channel
All pieces (>=3m x 0.15m):	37	6.9
Volume (m <sup>3</sup> ):	43	8.0
Key pieces (>=12m x 0.60m):	2	0.4

**OREGON DEPARTMENT OF FISH AND WILDLIFE**

**BEAVER CREEK UPPER PRE-TX (L-205)**

**HABITAT INVENTORY**

Report Date: 10/27/2004

Survey Date:

7/8/2004

**REACH 1**

**T01N-R03E-S25SE**

**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
DRY CHANNEL	1	14	8.0	0.00	109	0	5	67	10	19	0	0
POOL-BEAVER DAM	2	211	5.2	0.85	1,134	40	10	64	19	2	5	0
POOL-LATERAL SCOUR	8	321	6.8	0.95	2,234	50	15	71	10	2	2	0
RAPID/BOULDERS	1	10	6.0	0.30	59	30	0	5	5	20	70	0
RIFFLE	1	8	2.1	0.15	17	0	0	10	90	0	0	0
STEP/BEAVER DAM	1	1	4.8	0.01	3	0	90	10	0	0	0	0
STEP/COBBLE	1	2	3.2	0.05	6	1	0	10	90	0	0	0
STEP/STRUCTURE	1	1	6.8	0.01	5	0	0	0	0	0	100	0
<b>Total:</b>	16	567	6.0	0.61	3,567	121	<b>Avg:</b> 15	50	19	4	12	0

**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	211	5.2	0.85	1,134	31.79%	40	3.5
Scour Pools	8	321	6.8	0.95	2,234	62.64%	50	2.2
Glides	0	0			0	0.00%	0	0.0
Riffles	1	8	2.1	0.15	17	0.48%	0	0.0
Rapids	1	10	6.0	0.30	59	1.65%	30	51.0
Cascades	0	0			0	0.00%	0	0.0
Step/Falls	3	3	4.9	0.02	14	0.39%	1	7.2
Dry	1	14	8.0	0.00	109	3.05%	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:	10	17.6	18.6
Pools >=1m deep:	2	3.5	3.7
Complex pools (LWD pieces>=3):	4	7.1	7.4
Pool frequency (channel widths/pool):	7.3		
Residual pool depth (avg):	0.76		

**RIPARIAN ZONE VEGETATION SUMMARY**

REACH 1

REACH 1

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

3 transects

Total hardwoods/1000	305
Total conifers/1000 ft	183
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		Zone 2		Zone 3		Zones 1-3	
	0-10 meters		10 - 20 meters		20 - 30 meters		0-30 meters	
	Conifer	Hardwood	Conifer	Hardwood	Conifer	Hardwood	Conifer	Hardwood
3-15cm	0.0	0.7	1.3	0.7	0.7	0.0	2.0	1.3
15-30cm	0.0	0.0	0.0	1.3	0.0	1.7	0.0	3.0
30-50cm	0.0	0.0	0.3	0.3	0.3	0.3	0.7	0.7
50-90cm	0.0	0.0	0.0	0.0	0.3	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	0.0	0.7	1.7	2.3	1.3	2.0	1.0	1.7

**Canopy closure and ground cover**

	Zone 1		Zone 2		Zone 3	
	0-10 meters		10 - 20 meters		20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	13		55		48	
Shrub cover	40		35		28	
Grass/forb cover	35		43		53	

**Predominant landform in each zone**

	Zone 1		Zone 2		Zone 3	
	0-10 meters		10 - 20 meters		20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	0		0		0	
High terrace	83		100		0	
Low terrace	0		0		0	
Floodplain	17		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	0		0		100	
Riprap	0		0		0	
Surface slope (%)	5		5		6	

**RIPARIAN ZONE VEGETATION**

Reach 1

Reach 1

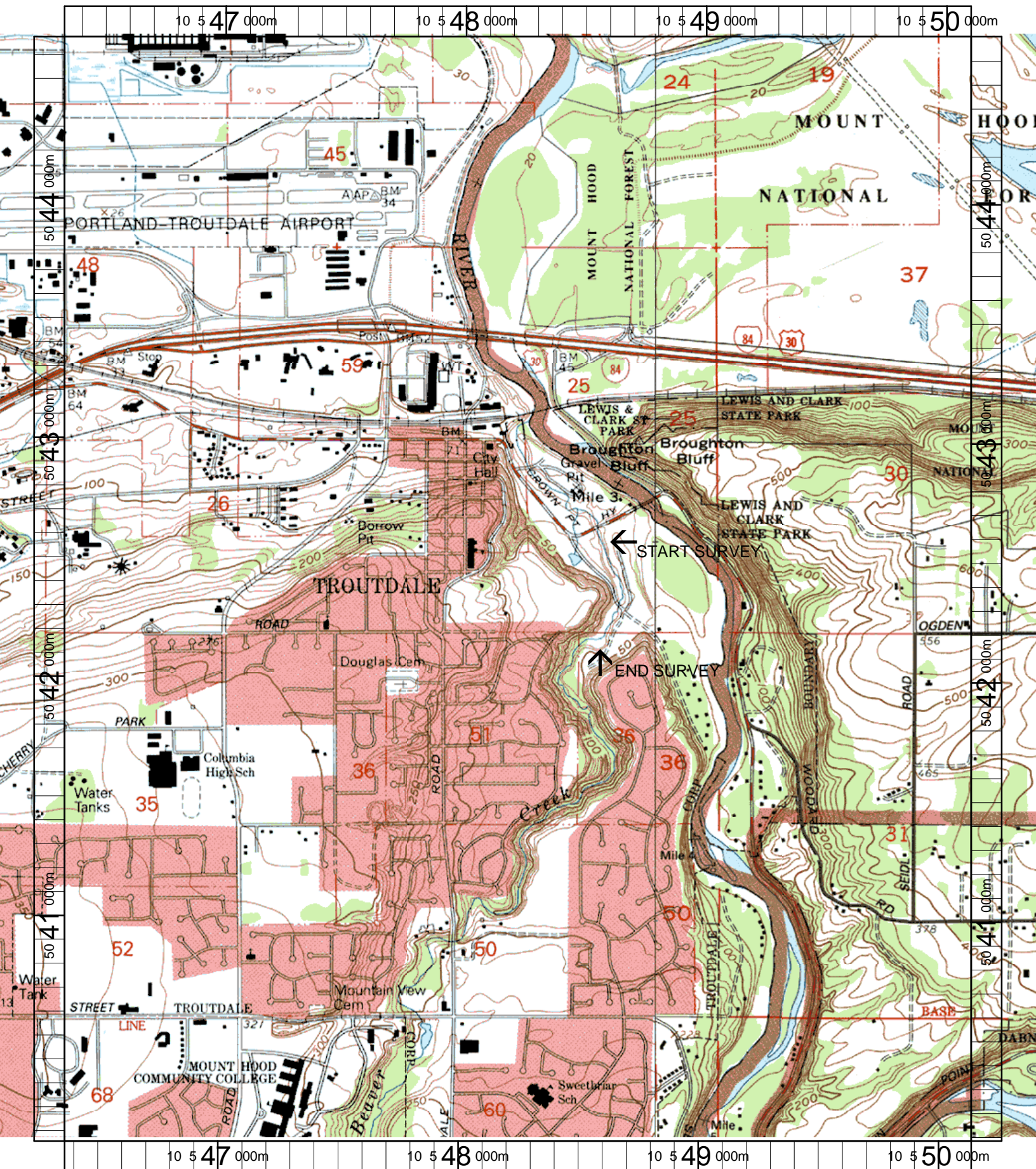
Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes	
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90		
3	RT	1	HT	5	0	40	30	Conifer							
								Hardwood	1						
3	LF	1	HT	5	0	30	10	Conifer							
								Hardwood							
3	LF	2	HT	5	40	70	10	Conifer	1						
								Hardwood		2					
3	LF	3	RB	5	70	60	30	Conifer			1			STATE PARK	
								Hardwood		2					
3	RT	2	HT	5	60	10	60	Conifer	1						
								Hardwood	1						
3	RT	3	RB	5	0	0	80	Conifer	1					HOUSE	
								Hardwood		1					
6	RT	1	HT	5	20	60	20	Conifer							
								Hardwood	1						
6	LF	1	HT	5	40	60	30	Conifer							
								Hardwood							
6	LF	3	RB	10	70	40	50	Conifer				1		PARK	
								Hardwood							
6	RT	3	RB	5	80	40	40	Conifer							
								Hardwood		2	1				
6	RT	2	HT	5	70	50	30	Conifer							
								Hardwood		1	1				
6	LF	2	HT	5	80	50	40	Conifer							
								Hardwood		1					
15	RT	3	RB	5	40	0	80	Conifer						ROAD	
								Hardwood							
15	RT	1	FP	5	0	10	80	Conifer							
								Hardwood							
15	LF	3	RB	5	30	30	40	Conifer	1						
								Hardwood							
15	LF	2	HT	5	60	30	40	Conifer	2		1				
								Hardwood							
15	LF	1	HT	5	20	40	40	Conifer							
								Hardwood							
15	RT	2	HT	5	20	0	80	Conifer							
								Hardwood	1						

# Comment Summary

## Oregon Plan Monitoring Sites 2002

MONITORING AREA: 7-L      SITE ID: 205      BEAVER CREEK UPPER PRE-TX (L-2)

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	LP	00	28.6		START AT LP UNDER BC	CRAYFISH
2	SD	00	29.3	BV, BD	H=.5	H-.4M
3	BP	00	204.3	BV, WL, HS		RACCOON, FISH
5	LP	00	230.9	WL		RACCOON
6	SC	00	232.7		H=.1	RIP 2
7	LP	00	283.3	WL /BV		GREAT BLUE HERON
8	BP	01	319	BV		SD VERY SMALL
9	LP	02	319	DJ		
11	LP	00	340.6	CS/		ASPHALT CHUNKS
12	RB	00	350.4	BC HS	BC	CABLED ASPHALT CHUNKS
13	SS	00	351.1	BV, DJ	H=.5 CS/CS	H=.5
14	LP	00	401.4	DJ, /UD		PIPE OUTSIDE OF CHANNEL
16	LP	00	537.2	CS/		BLDRS



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

Location: 10 548227 E 5042384 N  
 Caption: BEAVER CREEK UPPER RESTORATION SITE - SANDY RIVER BASIN