

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: June 26, 2003
SURVEY CREW: James Andrews, Jeff Snyder
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 32.8 km²
USGS MAPS: Camas
ECOREGION: Willamette Valley Plains

GENERAL DESCRIPTION:

The Beaver Creek Upper habitat survey extended 431 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 19.3 (range: 17.0-20.0). Land use for the reach was urban and rural residential. The average unit gradient was 0.4 percent. Scour pools (93%) dominated stream habitat. Gravel (27%) and sand (22%) dominated stream substrate. Wood volume was very low at 8.3 m³/100m.

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

T01N-R03E-S25SE

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	0%	Multiple Terraces	100%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index 19.3		VWI Range: 17 - 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	431	2,780	0
Secondary	29	150	1

Channel Dimensions (m)

<u>Wetted</u>		<u>Active</u>		<u>Floodprone</u>	<u>First Terrace</u>
Width	5.2	Width	8.4	17.4	30.7
Depth	0.65	Height	1.2	2.5	4.3
W:D ratio		6.9	Entrenchment		2.1

Stream Flow Type: MF Water temp (C): 16.0 - 16.0
 Avg. Unit Gradient: 0.4% Habitat Units/100m: 3.9

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	UR	RR
Riparian Vegetation:	S	D15

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	3%	Reach avg: 54%
Undercut Banks:	1%	Range: 43 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m</u>
All pieces ($\geq 3m \times 0.15m$):	28	6.5
Volume (m ³):	36	8.3
Key pieces ($\geq 10m \times 0.60m$):	2	0.5

OREGON DEPARTMENT OF FISH AND WILDLIFE

BEAVER CREEK UPPERN PRE-TX (L-205)

HABITAT INVENTORY

Report Date: 12/17/03

Survey Date:

6/26/03

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 ²)	Large Boulders (#>0.5m)	Substrate						
							Percent Wetted Area						
							S/O	Snd	Grvl	Cbl	Bldr	Bdrk	
DRY UNIT	1	11	5.0	0.00	55	0	0	45	40	15	0	0	
POOL-LATERAL SCOUR	8	404	6.9	1.14	2,724	39	28	33	33	7	0	0	
RAPID/BOULDERS	1	8	3.9	0.30	32	80	0	0	0	10	90	0	
RIFFLE	4	31	3.2	0.25	100	13	0	23	46	30	1	0	
STEP/BEAVER DAM	1	1	7.8	0.30	8	5	0	0	0	100	0	0	
STEP/STRUCTURE	3	5	2.6	0.30	12	20	0	0	0	7	90	3	
Total:	18	460	5.2	0.65	2,930	157	Avg 12	22	27	18	20	1	

HABITAT SUMMARY									
Habitat Group	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area		Large Boulders		29
					(m ²)	Percent	Number	(# / 100m ²)	
Dammed & BW Pools	0	0			0	0.00%	0	0.0	
Scour Pools	8	404	6.9	1.14	2,724	92.98%	39	1.4	
Glides	0	0			0	0.00%	0	0.0	
Riffles	4	31	3.2	0.25	100	3.40%	13	13.1	
Rapids	1	8	3.9	0.30	32	1.08%	80	253.2	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	4	6	3.9	0.30	19	0.66%	25	128.6	
Dry	1	11	5.0	0.00	55	1.88%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

POOL SUMMARY		
	Total	# / Km
All Pools:	8	17.4
Pools >=1m deep:	4	8.7
Complex pools (LWD pieces>=3):	4	8.7
Pool frequency (channel widths/pool):	6.9	
Residual pool depth (avg):	1.05	

STREAM SUMMARY

BEAVER CREEK UPPERN PRE-TX (L-205)

Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m ²)	Substrate Percent Wetted Area						Large Boulders (>0.5m)
					S/O	Snd	Grvl	Cbl	Bldr	Bdrk	
18	460	5.2	0.65	2,930	12	22	27	18	20	1	157

Habitat Group	Wetted Area	
	(m ²)	Percent
Dammed & BW Pools	0	0.00%
Scour Pools	2,724	92.98%
Glides	0	0.00%
Riffles	100	3.40%
Rapids	32	1.08%
Cascades	0	0.00%
Step/Falls	19	0.66%
Dry	55	1.88%
Culverts	0	0.00%

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1	REACH 1
Summary of Riparian Zone (0-30m) 3 transects	
Total hardwoods/1000	305
Total conifers/1000 ft	20
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	0.3	0.3	0.0	0.0	2.0	0.3	2.3
15-30cm	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.7
30-50cm	0.0	0.0	0.0	0.3	0.0	0.3	0.0	0.7
50-90cm	0.0	0.0	0.0	1.0	0.0	0.0	0.0	1.0
>90cm	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.3
Total/100m2	0.0	1.3	0.3	1.3	0.0	2.3	0.1	1.7

Canopy closure and ground cover

	Zone 1	Zone 2	Zone 3
	0-10 meters (%)	10 - 20 meters (%)	20 - 30 meters (%)
Canopy closure	23	40	53
Shrub cover	78	59	49
Grass/forb cover	23	8	19

Predominant landform in each zone

	Zone 1	Zone 2	Zone 3
	0-10 meters (%)	10 - 20 meters (%)	20 - 30 meters (%)
Hillslope	0	0	33
High terrace	33	67	50
Low terrace	67	0	0
Floodplain	0	0	0
Wetland/meadow	0	0	0
Stream channel	0	0	0
Roadbed/Railroad	0	33	17
Riprap	0	0	0
Surface slope (%)	21	11	12

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	305
Total conifers/1000 ft	20
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	0.3	2.3
15-30cm	0.0	0.7
30-50cm	0.0	0.7
50-90cm	0.0	1.0
>90cm	0.0	0.3

RIPARIAN ZONE VEGETATION

Reach 1

Reach 1

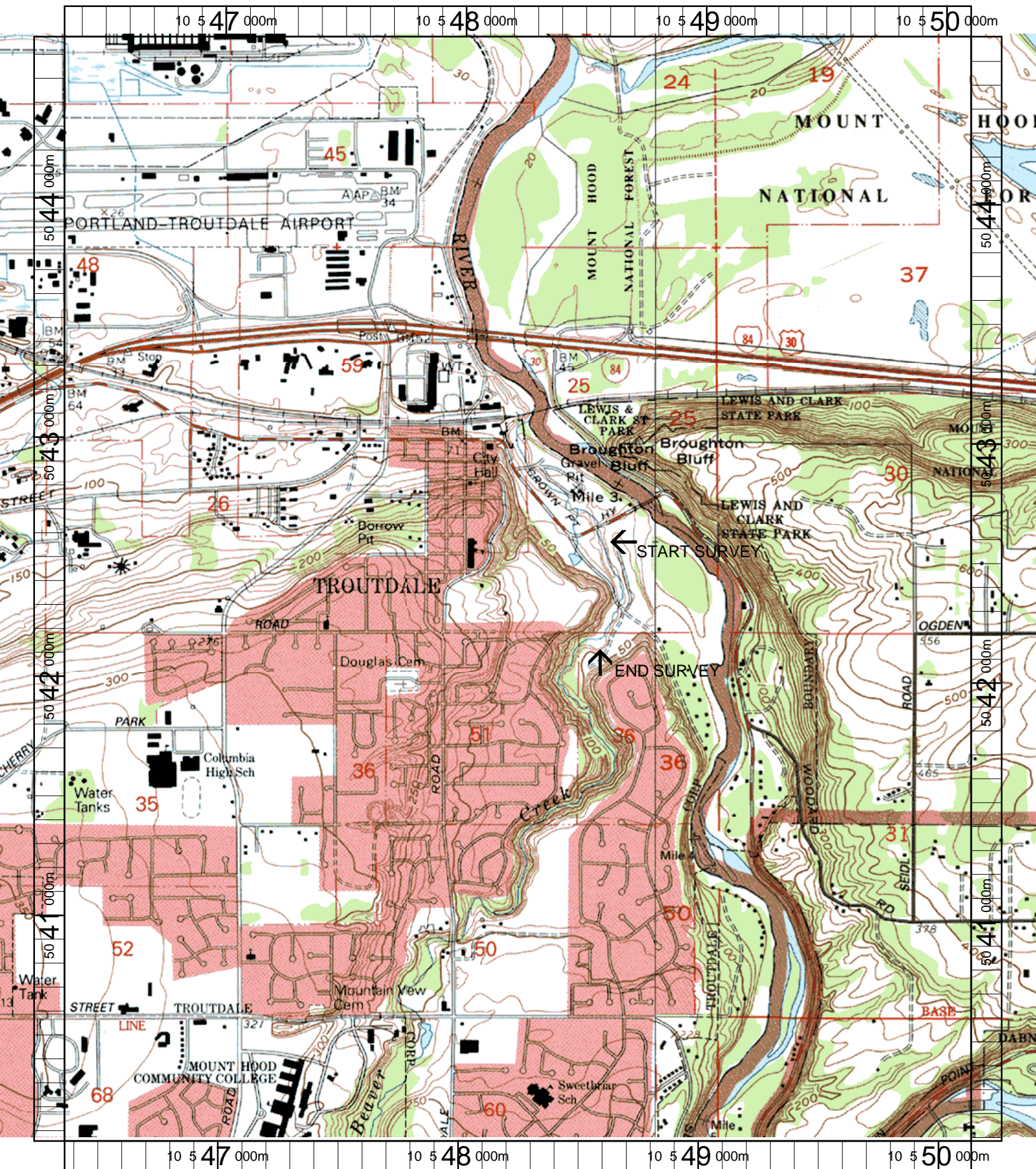
Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes	
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90		
4	LF	1	LT	14	40	90	10	Conifer							COTTONWOODS
								Hardwood					1		
4	LF	2	HT	15	50	90	10	Conifer							COTTONWOODS
								Hardwood				2			
4	LF	3	HT	2	50	85	15	Conifer							COTTONWOODS
								Hardwood							
4	RT	1	LT	16	10	95	5	Conifer							COTTONWOODS,
								Hardwood							RI CKRRS
4	RT	2	HT	9	30	90	10	Conifer							CTTNWOODS,
								Hardwood							BLCKBERR,
4	RT	3	HT	15	75	70	30	Conifer							NFTTIES
								Hardwood	4		1				CTTNWOODS,
10	RT	3	HS	16	30	30	20	Conifer							BLCKBERR,
								Hardwood							NFTTIES
10	LF	1	LT	15	25	90	10	Conifer							RB-PAVED
								Hardwood	1						BLACKBERRIES
10	LF	2	HT	6	75	90	10	Conifer	1						
								Hardwood				1			
10	LF	3	HT	3	85	50	10	Conifer							
								Hardwood	2						
10	RT	1	LT	3	0	90	10	Conifer							BLACKBERRIES
								Hardwood							
10	RT	2	HT	15	10	85	15	Conifer							BLACKBERRIES
								Hardwood							
15	LF	3	RB		0	0	0	Conifer							ASPHALT ROAD
								Hardwood							
15	RT	1	HT	40	60	0	100	Conifer							MOWED LAWN
								Hardwood			2				
15	RT	2	RB		75	0	0	Conifer							DRIVEWAY
								Hardwood				1			
15	RT	3	HS	23	75	60	40	Conifer							
								Hardwood							
15	LF	1	HT	35	0	100	0	Conifer							BLACKBERRIES
								Hardwood							
15	LF	2	RB		0	0	0	Conifer							ASPHALT ROAD
								Hardwood							

Comment Summary

Oregon Plan Monitoring Sites 2003

MONITORING AREA: 7-L SITE ID: 205 BEAVER CREEK UPPERN PRE-TX (L

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	LP	00	67.3		CHANNEL METRICS UNIT	ELONGATED POOL
2	RI	00	76.2			HOUSE RT BANK-STEPS DO
3	LP	00	134.4	HS CS		
4	RI	00	141.5	WL		5 BOULDERS CROSSING ST
5	SS	00	142.3		H=.1M	HUMMINGBIRDS, DOVES
7	LP	00	175.7	HS, WL		FISH
8	RI	00	183.5	WL	CHANNEL METRICS UNIT	FISH
9	LP	00	212.6	HS, WL		FISH
10	SS	00	213.2	WL	H=.12M	FISH, GBH
11	LP	01	238.2	HS		
12	LP	02	238.2	WL		MANY FISH
13	DU	02	238.2		EST- LENGTH WIDTH %S	
14	LP	00	258.8		CHANNEL METRICS UNIT	#0008 #0009 #00010PHOTO
15	RB	00	266.9	BC, CS	BC	
17	LP	00	430.2		17-19-ONE LONG LP	
18	SD	00	431.2	CS, BD	H=1.1M	TEMP= 18 DEG C NO SHADE



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