

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

STREAM: Beaver Creek Upper (L-205)
BASIN: Sandy River
SURVEY TYPE: Post-Tx
DATE: June 30, 2005
SURVEY CREW: Kaylea Foster, Jeff Snyder
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 32.8 km²
USGS MAPS: Camas
ECOREGION: Willamette Valley Plains

GENERAL DESCRIPTION:

The Beaver Creek habitat survey extended 379 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 20.0. Land use for the reach was greenway and rural residential. The average unit gradient was 0.6 percent. Dammed pools (51%) and scour pools (38%) dominated stream habitat. Silt (39%) and sand (34%) dominated stream substrate. Wood volume was very low at 5.8 m³/100m.

COMMENTS:

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

REACH 1

T01N-R03E-S25SW

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	20.0	VWI Range:	20 - 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 Channel	379	2,553	0
Secondary Channel	0	0	0
Off-Channel Units	18	54	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 3	<u>First Terrace</u> n = 3
Width: 6.0	Width: 8.4	10.8 (9.3 - 12)	19.8 (11 - 30)
Depth: 0.66	Height: 1.0	2.1 (1.7 - 2.4)	4.0 (3.5 - 4.5)

W:D ratio: 8.2
 Stream Flow Type: MF
 Average Unit Gradient: 0.6%
 Water temperature (°C): 16.0 - 16.0

Entrenchment (ACW:FPW ratio): 1.3
 Habitat Units/100m (total channel length): 3.8
 Habitat Units/100m (primary channel length): 4.0

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	GN	RR
Riparian Vegetation:	S	P

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	21%	Reach avg: 61%
Undercut Banks:	27%	Range: 42 - 89

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	15	4.0
Volume (m ³):	22	5.8
Key pieces (>=12m x 0.60m):	0	0.0

HABITAT INVENTORY

Report Date: 4/26/2006

Survey Date:

6/30/2005

REACH 1		T01N-R03E-S25SW					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
POOL-BACKWATER	1	18	3.0	0.60	54	0	85	15	0	0	0	0
POOL-DAMMED	1	170	7.5	0.80	1,275	25	30	50	20	0	0	0
POOL-LATERAL SCOUR	5	128	6.1	0.94	765	24	60	35	3	0	0	2
POOL-PLUNGE	1	15	15.0	2.00	225	0	80	20	0	0	0	0
RAPID/BOULDERS	1	16	4.0	0.20	64	45	0	10	10	10	70	0
RIFFLE	3	47	4.3	0.40	203	10	15	47	23	15	0	0
STEP/BEAVER DAM	1	1	7.0	0.10	7	0	50	50	0	0	0	0
STEP/BOULDERS	1	1	4.0	0.10	2	7	0	0	0	0	100	0
STEP/COBBLE	1	2	6.0	0.15	12	3	0	50	40	10	0	0
Total:	15	397	6.0	0.66	2,607	114	Avg: 39	34	10	4	11	1

HABITAT SUMMARY									
Habitat Group	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area		Large Boulders		
					(m ²)	Percent	Number	(# / 100m ²)	
Dammed & BW Pools	2	188	5.3	0.70	1,329	50.98%	25	1.9	
Scour Pools	6	143	7.6	1.12	990	37.97%	24	2.4	
Glides	0	0			0	0.00%	0	0.0	
Riffles	3	47	4.3	0.40	203	7.79%	10	4.9	
Rapids	1	16	4.0	0.20	64	2.46%	45	70.3	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	3	4	5.7	0.12	21	0.81%	10	47.6	
Dry	0	0			0	0.00%	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:	8	20.2	21.1
Pools >=1m deep:	4	10.1	10.6
Complex pools (LWD pieces>=3):	2	5.0	5.3
Pool frequency (channel widths/pool):	5.9		
Residual pool depth (avg):	0.86		

OREGON DEPARTMENT OF FISH AND WILDLIFE
HABITAT INVENTORY

BEAVER CREEK UPPER POST-TX
GCG: 7-L SITE ID: 205

Survey Date 6/30/2005
Report Date: 4/26/2006

RIPARIAN ZONE
VEGETATION SUMMARY

REACH 1

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

Total hardwoods/1000	325
Total conifers/1000 ft	61
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 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	1.0	0.0	1.7	0.0	1.3	0.0	4.0
15-30cm	0.0	0.0	0.0	0.3	0.3	0.3	0.3	0.7
30-50cm	0.0	0.0	0.3	0.3	0.0	0.0	0.3	0.3
50-90cm	0.0	0.0	0.0	0.3	0.3	0.0	0.3	0.3
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	0.0	1.0	0.3	2.7	0.7	1.7	0.3	1.8

Canopy closure and ground cover

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Canopy closure	6	37	39
Shrub cover	60	30	2
Grass/forb cover	40	40	78

Predominant landform in each zone

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Hillslope	0	0	0
High terrace	100	100	100
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 (%)	0	0	0

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	325
Total conifers/1000 ft	61
Total conifers >20" dbh/1000 ft	20
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	4.0
15-30cm	0.3	0.7
30-50cm	0.3	0.3
50-90cm	0.3	0.3
>90cm	0.0	0.0

RIPARIAN ZONE VEGETATION

Reach 1

Reach 1

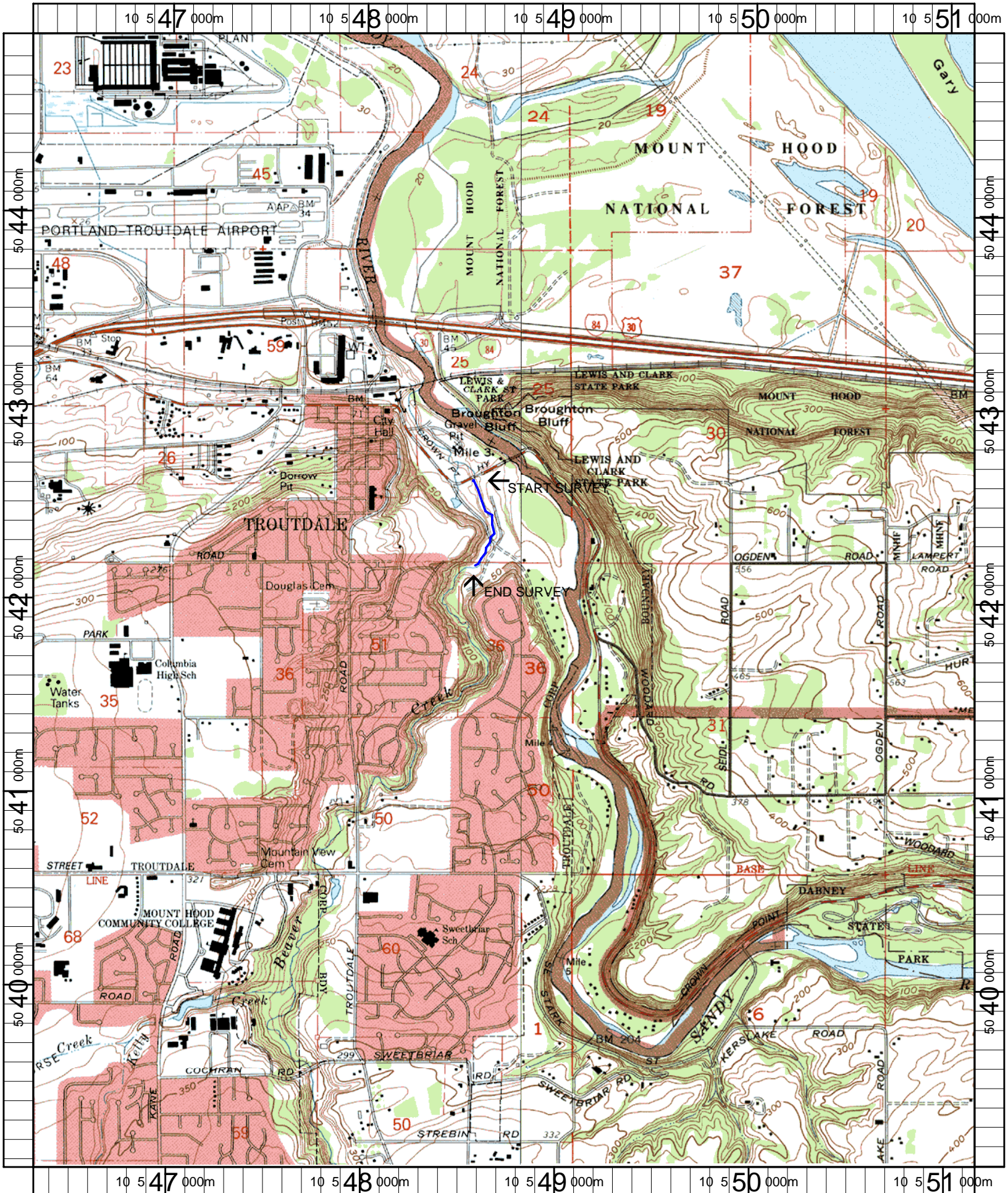
Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes	
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90		
4	RT	3	HT	0	0	0	80	Conifer		1					RESIDENTIAL AREA
								Hardwood							
4	RT	2	HT	0	25	0	20	Conifer							RESIDENTIAL AREA
								Hardwood							
4	LF	3	HT	0	80	0	100	Conifer							PARK
								Hardwood							
4	RT	1	HT	0	5	70	30	Conifer							
								Hardwood	2						
4	LF	2	HT	0	100	90	10	Conifer				1			
								Hardwood	5						
4	LF	1	HT	0	10	60	40	Conifer							
								Hardwood	1						
7	RT	3	HT	0	25	10	90	Conifer							RESIDENTIAL AREA
								Hardwood		1					
7	LF	1	HT	0	20	90	10	Conifer							
								Hardwood							
7	LF	2	HT	0	70	0	100	Conifer							PARK
								Hardwood		1	1				
7	LF	3	HT	0	50	0	100	Conifer					1		PARK
								Hardwood							
7	RT	2	HT	0	25	90	10	Conifer							
								Hardwood				1			
7	RT	1	HT	0	0	50	50	Conifer							
								Hardwood							
15	LF	3	HT	0	0	0	0	Conifer							ROAD
								Hardwood							
15	RT	1	HT	0	0	0	100	Conifer							
								Hardwood							
15	RT	2	HT	0	0	0	100	Conifer							
								Hardwood							
15	RT	3	HT	0	80	0	100	Conifer							
								Hardwood	4						
15	LF	1	HT	0	0	90	10	Conifer							
								Hardwood							
15	LF	2	HT	0	0	0	0	Conifer							ROAD
								Hardwood							

Comment Summary

Restoration Monitoring Sites 2005

MONITORING AREA: 7-L SITE ID: 205 BEAVER CREEK UPPER POST-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	RI	00	18	BC	BC	T = 16 C, 0548540, 5042686
2	LP	00	47	CS, BV	CS/, BD	
3	SD	00	48	BD	H = .35 M	H = .35 M
4	DP	00	218	CS, BV		
5	RI	00	233	CS	CS/CS, HS	
6	LP	00	248	CS	CS/CS	RIPRAP
7	SC	00	250		H = .1 M	H = .1 M
10	SB	00	301		H = .15 M	H = .1 M
11	LP	01	335		THICK BLACKBERRIES	
14	RB	00	366	BC	BC, CS/CS	
15	LP	00	379	BV		T = 17, 0549530, 5042240



Name: CAMAS
 Date: 5/1/2006
 Scale: 1 inch equals 2000 feet

Location: 10 548718 E 5042005 N
 Caption: BEAVER CREEK UPPER RESTORATION SITE - SANDY RIVER BASIN