

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

STREAM: Trout Creek Upper (L-200)
BASIN: Clackamas River
SURVEY TYPE: Post-Tx
DATE: June 30, 2003
SURVEY CREW: Sarah Beldin, Tory Fitchett
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 5.7 km²
USGS MAPS: Cherryville, Wildcat Mtn.
ECOREGION: Willamette Valley Foothills

GENERAL DESCRIPTION:

The Trout Creek habitat survey extended 512 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 3.6 (range: 1.0-8.3). Land use for the reach was young (3-15 cm dbh) and second growth (15-30 cm dbh) trees. The average unit gradient was 4.8 percent. Cascades (39%) and rapids (37%) dominated stream habitat. Cobble (32%) and gravel (25%) dominated stream substrate. Wood volume was high at 31.5 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

T03S-R35E-S01SE

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	3.6	VWI Range:	1 - 8.3

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	512	1,717	0
Secondary	34	92	0

Channel Dimensions (m)

<u>Wetted</u>		<u>Active</u>		<u>Floodprone</u>	<u>First Terrace</u>
Width	2.9	Width	5.6	7.5	9.3
Depth	0.19	Height	0.4	0.7	1.6
		W:D ratio	15.4	Entrenchment	1.4

Stream Flow Type: LF Water temp (C): 12.0 - 12.0
 Avg. Unit Gradient: 4.8% Habitat Units/100m: 7.5

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	YT	ST
Riparian Vegetation:	D15	C30

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:		Reach avg: 66%
Undercut Banks:	0%	Range: 42 - 94

Large Wood Debris

	<u>Total</u>	<u>Total / 100m</u>
All pieces (>=3m x 0.15m):	114	22.3
Volume (m ³):	161	31.5
Key pieces (>=10m x 0.60m):	3	0.6

OREGON DEPARTMENT OF FISH AND WILDLIFE

TROUT CREEK UPPER POST-TX (L-200)

HABITAT INVENTORY

Report Date: 12/17/03

Survey Date:

6/30/03

REACH 1

T03S-R35E-S01SE

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
CASCADE/BEDROCK	2	51	5.1	0.15	261	3	0	0	5	12	5	79
CASCADE/BOULDERS	9	147	2.9	0.17	447	64	10	3	26	38	19	4
POOL-DAMMED	2	13	2.4	0.30	32	9	7	25	38	23	7	0
POOL-LATERAL SCOUR	1	9	1.1	0.35	9	2	0	15	40	40	5	0
POOL-PLUNGE	2	8	4.3	0.40	34	2	3	32	39	22	5	0
POOL-STRAIGHT SCOUR	1	6	2.2	0.30	13	1	0	0	15	30	10	45
RAPID/BEDROCK	2	43	4.3	0.15	224	4	0	0	5	14	10	71
RAPID/BOULDERS	11	167	2.9	0.19	453	34	0	9	29	32	14	15
RIFFLE	6	95	3.3	0.17	324	21	2	13	31	30	8	16
STEP/BEDROCK	1	1	0.5	0.10	1	0	0	0	0	0	0	100
STEP/BOULDERS	2	4	2.5	0.13	9	5	0	3	13	45	40	0
STEP/COBBLE	1	2	0.7	0.10	1	0	0	0	25	75	0	0
STEP/LOG	1	1	0.8	0.10	1	1	0	0	0	80	20	0
Total:	41	547	2.9	0.19	1,810	146	Avg 3	8	25	32	13	18

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	13	2.4	0.30	32	1.77%	9	28.2
Scour Pools	4	22	3.0	0.36	56	3.11%	5	8.9
Glides	0	0			0	0.00%	0	0.0
Riffles	6	95	3.3	0.17	324	17.93%	21	6.5
Rapids	13	210	3.1	0.18	677	37.40%	38	5.6
Cascades	11	198	3.3	0.16	708	39.11%	67	9.5
Step/Falls	5	8	1.4	0.11	12	0.69%	6	48.3
Dry	0	0			0	0.00%	0	0.0
Culverts	0	0			0	0.00%	0	0.0

POOL SUMMARY

	Total	# / Km
All Pools:	6	11.0
Pools >=1m deep:	0	0.0
Complex pools (LWD pieces>=3):	1	1.8
Pool frequency (channel widths/pool):	16.3	
Residual pool depth (avg):	0.27	

STREAM SUMMARY

TROUT CREEK UPPER POST-TX (L-200)

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	
41	547	2.9	0.19	1,810	3	8	25	32	13	18	146

Habitat Group	Wetted Area	
	(m ²)	Percent
Dammed & BW Pools	32	1.77%
Scour Pools	56	3.11%
Glides	0	0.00%
Riffles	324	17.93%
Rapids	677	37.40%
Cascades	708	39.11%
Step/Falls	12	0.69%
Dry	0	0.00%
Culverts	0	0.00%

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1 **REACH 1**

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

Total hardwoods/1000	833
Total conifers/1000 ft	284
Total conifers >20" dbh/1000 ft	41
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	3.7	1.0	2.0	0.0	0.0	1.0	5.7
15-30cm	0.3	2.3	0.7	0.7	0.0	1.0	1.0	4.0
30-50cm	1.7	2.0	0.3	1.3	0.0	0.0	2.0	3.3
50-90cm	0.3	0.0	0.3	0.7	0.0	0.0	0.7	0.7
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	2.3	8.0	2.3	4.7	0.0	1.0	1.6	4.6

Canopy closure and ground cover

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Canopy closure	66	39	3
Shrub cover	48	38	48
Grass/forb cover	48	52	45

Predominant landform in each zone

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Hillslope	100	100	100
High terrace	0	0	0
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 (%)	18	12	13

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	833
Total conifers/1000 ft	284
Total conifers >20" dbh/1000 ft	41
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	5.7
15-30cm	1.0	4.0
30-50cm	2.0	3.3
50-90cm	0.7	0.7
>90cm	0.0	0.0

RIPARIAN ZONE VEGETATION

Reach 1

Reach 1

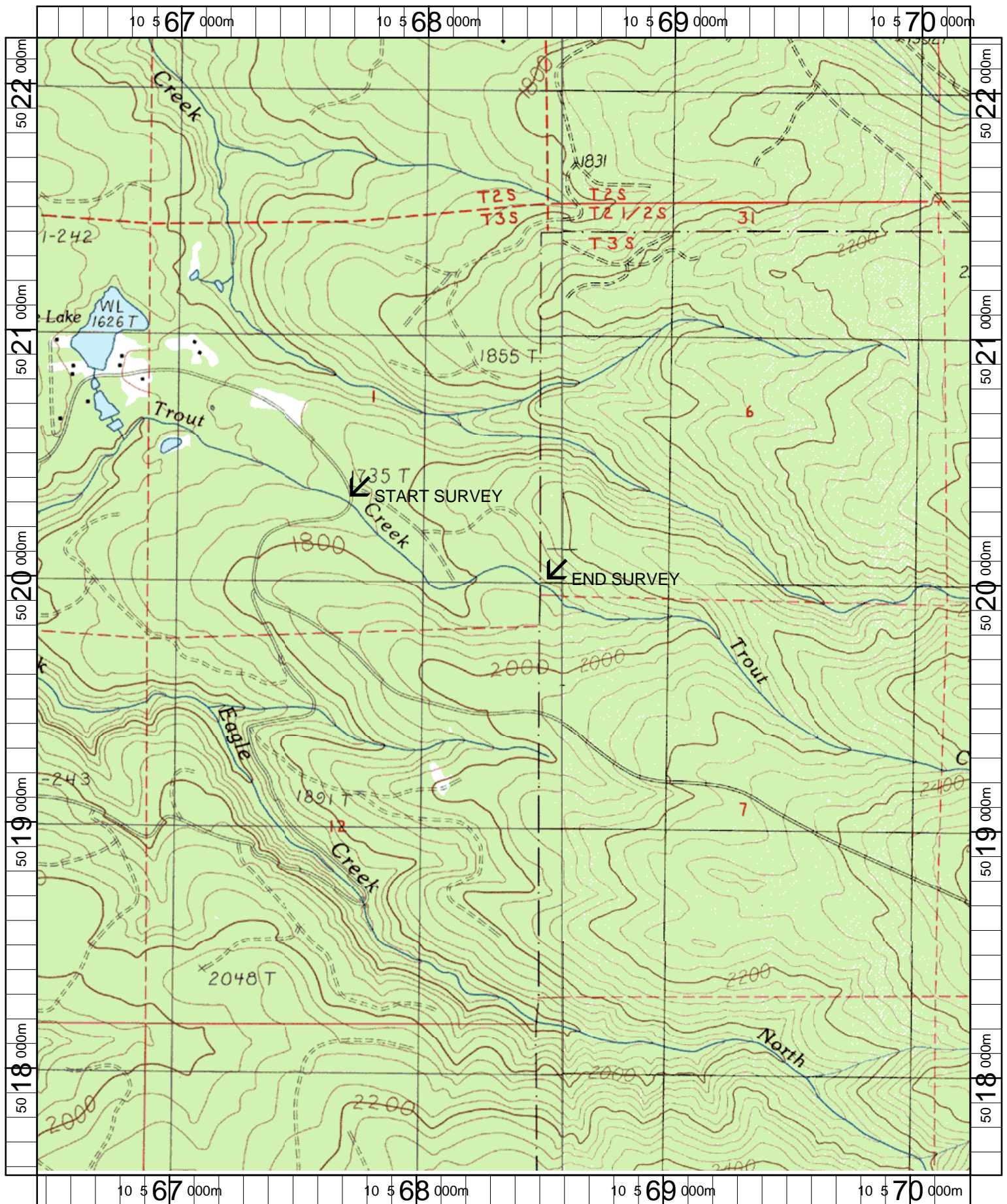
Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes	
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90		
15	RT	1	HS	18	75	55	40	Conifer			2				
								Hardwood	3	3					
15	RT	2	HS	11	65	70	20	Conifer	1						
								Hardwood	4	2					
15	LF	3	HS	12	0	15	75	Conifer							YOUNG REPLANTS
								Hardwood							
15	LF	2	HS	10	25	10	65	Conifer	1	1		1			
								Hardwood							
15	LF	1	HS	20	70	20	70	Conifer		1					RODENT HOLES IN LG STI IMP
								Hardwood	2						
15	RT	3	HS	12	0	80	10	Conifer							
								Hardwood							
26	RT	3	HS	12	0	40	50	Conifer							
								Hardwood							
26	RT	2	HS	5	15	30	60	Conifer							
								Hardwood	1			1			
26	RT	1	HS	20	50	40	55	Conifer							
								Hardwood	3	1	1				
26	LF	3	HS	15	20	90	10	Conifer							
								Hardwood		3					
26	LF	2	HS	16	70	80	10	Conifer				1			
								Hardwood	1		3				
26	LF	1	HS	12	60	75	25	Conifer				1			
								Hardwood	2	2	1				
37	RT	1	HS	30	60	30	65	Conifer							
								Hardwood	1	1	1				
37	LF	3	HS	17	0	45	55	Conifer							
								Hardwood							
37	LF	2	HS	12	40	15	80	Conifer	1	1					
								Hardwood				1			
37	RT	3	HS	11	0	15	70	Conifer							
								Hardwood							
37	RT	2	HS	20	20	20	75	Conifer							
								Hardwood				1			
37	LF	1	HS	7	80	70	30	Conifer				2	1		
								Hardwood				3			

Comment Summary

Oregon Plan Monitoring Sites 2003

MONITORING AREA: 7-L SITE ID: 200 TROUT CREEK UPPER POST-TX (L-2)

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	RB	01	10.5		T=12 DEG C @ 10:30 AM	START
2	CB	01	20.5		1 CLEAR CUT W/ BUTTER	
4	SC	01	26.1		H=.6M	H=.06M
7	RI	02	34.6	/TJ		
12	SB	00	78.8	DJ	H=.3M	H=.3M
14	CB	00	102.1	SS/	DEEP POCKET	
15	CB	00	127.5			RIPARIAN
19	SL	00	154.3		H=.4M	H=.4M
22	RB	00	204	DJ		
23	RI	00	225.7	DJ		
24	RB	00	244.9	SS/		
25	SB	00	246.3	DJ	H=.4M	H=.4
26	DP	00	254			RIPARIAN
30	SR	00	291.2		H=.4M	H=.4M
31	RB	00	310.5	DJ		
35	RI	00	381.3		/~20M HT TO HS	
36	RB	00	388.1	DJ	1 BIG SHADE HOLE	
41	RB	00	512.1		END SIGN/ALDER	END



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

Location: 10 568328 E 5019898 N
 Caption: TROUT CREEK UPPER RESTORATION SITE - CLACKAMAS BASIN