

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

STREAM: Foster Creek Lower (L-214)
BASIN: Clackamas River
SURVEY TYPE: Post-Tx
DATE: January 27, 2004
SURVEY CREW: Jim Andrews, April Waters
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 9.0 km²
USGS MAPS: Damascus
ECOREGION: Willamette Valley Foothills

GENERAL DESCRIPTION:

The Foster Creek habitat survey extended 491 meters. The channel was constrained by hillslopes in a moderate V-shaped valley. The average valley width index was 2.9 (range: 1.3-4.9). Land use for the reach was rural residential. The average unit gradient was 2.3 percent. Riffles (58%) and rapids (20%) dominated stream habitat. Gravel (51%) and cobble (29%) dominated stream substrate. Wood volume was low at 16.5 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

T02S-R03E-S41NE

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	2.9	VWI Range:	1.3 - 4.9

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	491	2,306	0
Secondary	8	41	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 1
Width: 4.9	Width: 10.2	19.8 (7.1 - 27.7)	8.8 (8.8 - 8.8)
Depth: 0.46	Height: 0.6	1.2 (1.1 - 1.4)	1.7 (1.7 - 1.7)

W:D ratio: 17.2

Stream Flow Type: MF

Avg. Unit Gradient: 2.3%

Entrenchment (ACW:FPW ratio): 2.3

Water temp (°C): 6.2 - 6.2

Habitat Units/100m: 6.0

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	RR	
Riparian Vegetation:	M15	M30

Bank Condition and Shade

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

Large Wood Debris

	<u>Total</u>	<u>Total / 100m</u>
All pieces (>=3m x 0.15m):	72	14.7
Volume (m ³):	81	16.5
Key pieces (>=10m x 0.60m):	5	1.0

REACH 1		T02S-R03E-S41NE					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	8	5.4	0.80	41	0	20	10	70	0	0	0	0
POOL-LATERAL SCOUR	5	66	5.0	0.82	319	0	0	3	71	22	1	3	3
POOL-PLUNGE	2	17	3.6	0.93	57	0	0	3	50	33	9	6	6
RAPID/BEDROCK	1	25	4.2	0.40	103	0	0	0	1	10	4	86	86
RAPID/BOULDERS	5	80	4.6	0.34	359	0	0	2	43	43	9	3	3
RIFFLE	12	286	4.7	0.32	1,352	0	0	3	47	33	9	8	8
STEP/BEDROCK	1	5	8.0	0.25	38	0	0	0	0	5	5	90	90
STEP/COBBLE	2	12	6.3	0.25	69	0	0	0	68	33	0	0	0
STEP/LOG	1	2	5.1	0.30	9	0	0	0	85	15	0	0	0
Total:	30	499	4.9	0.46	2,347	0	Avg: 1	2	51	29	6	10	

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	1	8	5.4	0.80	41	1.73%	0	0.0	
Scour Pools	7	82	4.6	0.85	375	15.99%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	12	286	4.7	0.32	1,352	57.60%	0	0.0	
Rapids	6	105	4.5	0.35	463	19.71%	0	0.0	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	4	18	6.4	0.26	116	4.96%	0	0.0	
Dry	0	0			0	0.00%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

POOL SUMMARY			
	Total	# / Km	
All Pools:	8	16.0	8
Pools >=1m deep:	2	4.0	
Complex pools (LWD pieces>=3):	4	8.0	
Pool frequency (channel widths/pool):	6.1		
Residual pool depth (avg):	0.64		

STREAM SUMMARY

FOSTER CREEK LOWER POST-TX (L-214)

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	
30	499	4.9	0.46	2,347	1	2	51	29	6	10	

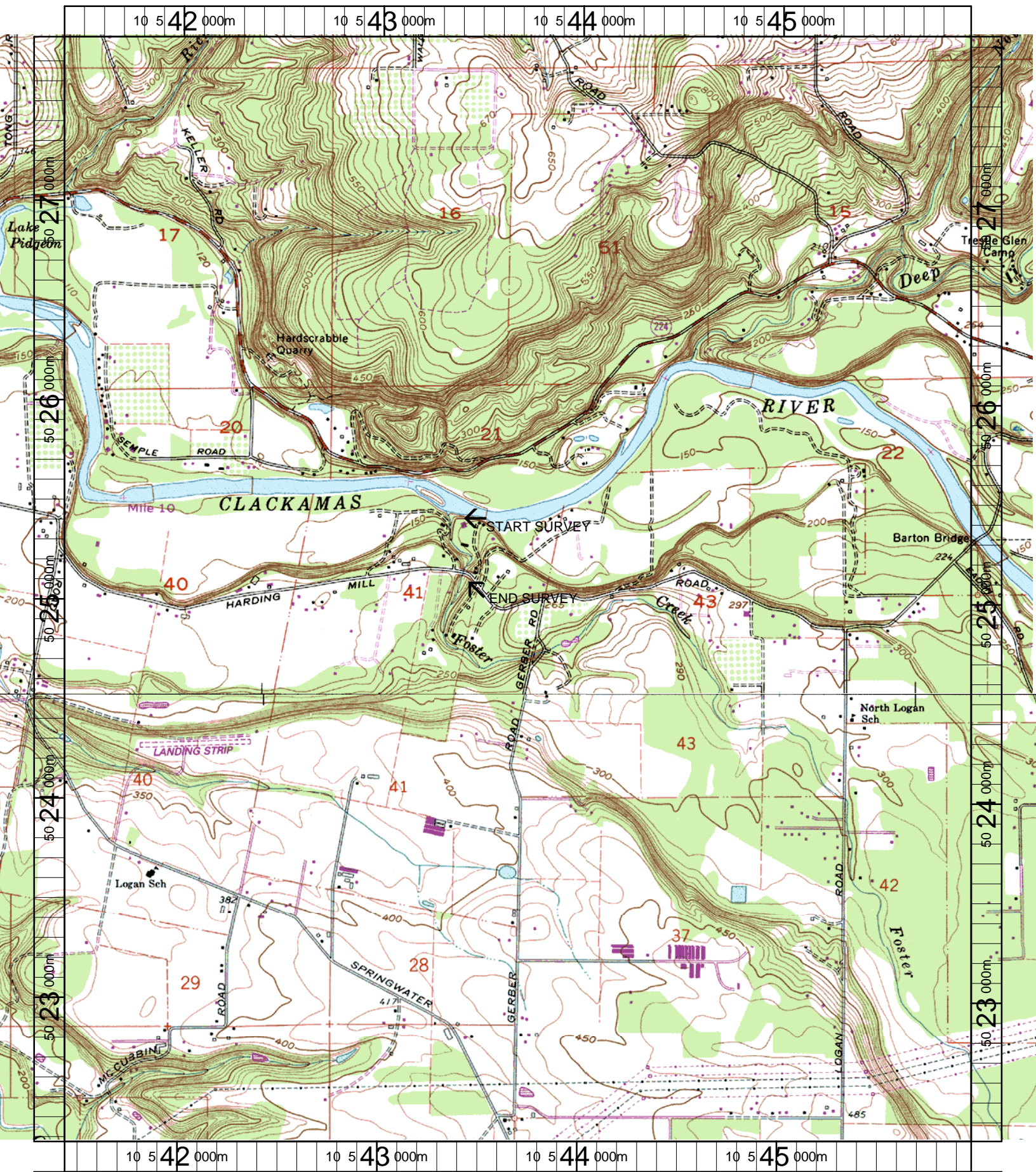
Habitat Group	Wetted Area	
	(m ²)	Percent
Dammed & BW Pools	41	1.73%
Scour Pools	375	15.99%
Glides	0	0.00%
Riffles	1,352	57.60%
Rapids	463	19.71%
Cascades	0	0.00%
Step/Falls	116	4.96%
Dry	0	0.00%
Culverts	0	0.00%

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: 7-L SITE ID: 214 FOSTER CREEK LOWER POST-TX (L

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	RI	00	18.9		HARDPAN	
3	RB	00	52.9	DJ	HARDPAN	
4	PP	00	61.7		HARDPAN	
7	RI	00	106.5	HS		
8	RI	00	139.3	HS, DJ		
9	PP	00	147.1		HS CONT INTO TRIB UNIT	
10	SL	00	148.9	DJ, HS	H=.3M, HS	
11	RI	00	178.9	DJ	SG=5M	
13	LP	00	196	DJ	4M AT TAILOUT	
16	LP	01	233.5		HARDPAN	
17	BW	10	233.5	LA/		
18	RB	00	255.5	/LA		
22	LP	00	321.7	HS, DJ	SG=4M	
23	RI	00	350.9		HS W/LOGS	
24	LP	00	360.3	DJ	HS CONT.	
26	LP	00	391.4	/LA	HARDPAN	
27	RI	00	415.3	DJ		
28	RI	00	441.3	CS, BC	SOUTH BAKER'S FERRY	
29	RI	00	466.3	CS	BC CONT.	
30	RI	00	491.3		EOS, T=6C	



Name: DAMASCUS
 Date: 12/17/2003
 Scale: 1 inch equals 2000 feet

Location: 10 543682 E 5025068 N
 Caption: FOSTER CREEK LOWER RESTORATION SITE -
 CLACKAMAS BASIN