

**ODFW AQUATIC INVENTORY PROJECT
RESTORATION MONITORING
STREAM HABITAT REPORT**

STREAM: FOSTER CREEK UPPER
 GCG: 7-L
 SITE ID: 86
 BASIN: CLACKAMAS
 TREATMENT DATE: 2002
 SURVEY DATE: 3/31/2009
 SURVEY CREW: Ryan Jacobsen / Miles Johnson
 USGS MAPS: REDLAND
 ECOREGION: Prairie Terraces
 REPORT PREPARED BY: Matt Strickland / Sharon Tippery / Charles Stein

REACH: 1 LOCATION: T02S-R03W-S00NE

SURVEY DESCRIPTION:

Channel morphology: Unconstrained - predominantly single channel
 Dominant landuse(s): Rural residential
 Dominant riparian vegetation: Mixed conifer/deciduous: size class 30-50cm dbh
 Primary channel length (meters) and area (m²): 852 : 2,349
 Secondary channel length (meters) and area (m²) 110 : 282
 VWI average: 20.0 VWI Range: 20 - 20 Average Gradient: 0.7%
 Pieces LWD per 100m: 5.0 Wood Volume (m³) per 100m: 5.2
 Percent pools: 49% Complex pools (LWD pieces>=3): 5 Pools >=1m deep:0
 Percent substrate (avg):

	<u>Silt / organics</u>	<u>Sand</u>	<u>Gravel</u>	<u>Cobble</u>	<u>Boulder</u>	<u>Bedrock</u>
All units	31	14	31	24	0	0
Pool units	33	14	30	23	0	0
Fast water units	26	13	34	27	0	0

SURVEY COMMENTS:

The Upper Foster Creek habitat survey is a post-treatment, long term monitoring site. The crew noted a road ford approximately 275 meters upstream from the start of the survey. There were no potential barriers to upstream fish migration observed within the survey reach. A previous post-treatment habitat survey was conducted during the winter of 2003. Comparisons were made among key coho salmon habitat attributes: total secondary channel length, pieces of LWD per 100 m, wood volume per 100 m, percent pools, and complex pools. All key attributes decreased slightly except percent pools and complex pools which showed a significant increase.

Survey Date: 3/31/2009

Report Date: 2/16/2010

T02S-R03W-S00NE

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	0%
Open V-shape	0%	Wide Floodplain	100%
Valley Width Index	20.0	VWI Range:	20 - 20

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	0%	Single Channel	100%
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	852	2,349	1
Secondary	110	282	1

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 0
Width: 2.9	Width: 3.9	34.2 (20 - 45)	(-)
Depth: 0.35	Height: 0.5	1.0 (0.8 - 1)	(-)

W:D ratio: 8.2

Stream Flow Type: MF

Average Unit Gradient: 0.7%

Water temperature (°C): 7.0 - 7.0

Entrenchment (ACW:FPW ratio): 9.0

Habitat Units/100m (total channel length): 5.9

Habitat Units/100m (primary channel length): 6.7

Riparian, Bank, and Wood Summary

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

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 primary channel</u>
All pieces (>=3m x 0.15m):	43	5.0
Volume (m ³):	44	5.2
Key pieces (>=12m x 0.60m):	0	0.0

**OREGON DEPT OF FISH AND WILDLIFE
HABITAT INVENTORY**

**FOSTER CREEK UPPER
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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	58	3.6	0.00	209	0	70	10	20	0	0	0
POOL-DAMMED	1	12	3.0	0.50	36	0	40	20	30	10	0	0
POOL-LATERAL SCOUR	30	397	3.3	0.42	1,251	0	33	13	30	23	0	0
PUDDLED UNIT	1	50	1.6	0.25	80	0	40	30	10	20	0	0
RIFFLE	22	443	2.4	0.28	1,050	0	26	13	34	27	0	0
STEP/LOG	2	2	2.9	0.13	5	0	25	15	30	30	0	0
Total:	57	961	2.9	0.35	2,631	0	Avg: 31	14	31	24	0	0

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	12	3.0	0.50	36	1.37%	0	0.0
Scour Pools	30	397	3.3	0.42	1,251	47.56%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	22	443	2.4	0.28	1,050	39.89%	0	0.0
Rapids	0	0			0	0.00%	0	0.0
Cascades	0	0			0	0.00%	0	0.0
Step/Falls	2	2	2.9	0.13	5	0.20%	0	0.0
Dry	2	108	2.6	0.13	289	10.98%	0	0.0
Culverts	0	0			0	0.00%	0	0.0

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POOL SUMMARY

	<u>Total</u>	Total of all Channel Lengths <u># / Km</u>	Primary Channel Length <u># / Km</u>
All Pools:	31	32.2	36.4
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	5	5.2	5.9
Pool frequency (channel widths/pool):	7.9		
Residual pool depth (avg):	0.16		

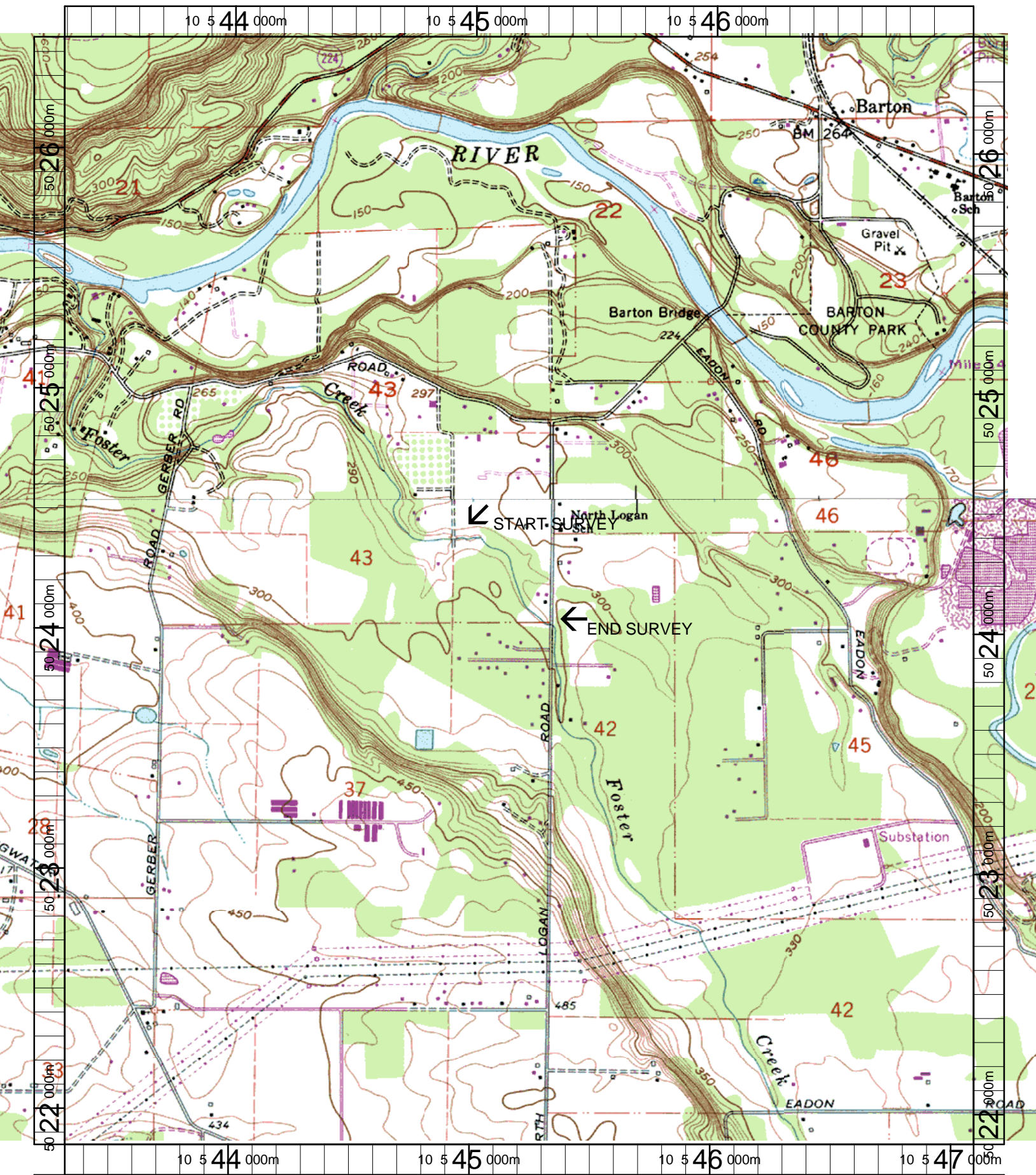
OREGON DEPT OF FISH AND WILDLIFE
HABITAT INVENTORY

OREGON PLAN MONITORING SITE
SURVEY DATE: 3/31/2009

COMMENT SUMMARY

MONITORING AREA: 7-L SITE ID: 86 STREAM: FOSTER CREEK UPPER

REACH	UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	1	RI	00	21		T=7.5C
1	2	LP	01	37	SS\	
1	12	LP	00	231.6		USWF M30\S RRLG
1	13	RI	00	274.6	RF	
1	22	LP	00	391.6	SS\	
1	23	RI	00	409.6		USWF M30\S RRLG
1	25	RI	01	452.6	TJ\	
1	26	RI	11	452.6		ACW=2.9M, T=7.5C
1	36	RI	00	626.6		USWF M30\S RRLG
1	40	LP	00	652.3	RF,\SS	
1	50	LP	00	781.3	\SS	
1	56	LP	00	838.2		USWF D3\G RRLG



Name: REDLAND
 Date: 3/20/2003
 Scale: 1 inch equals 1666 feet

Location: 10 545187 E 5024172 N
 Caption: FOSTER CREEK RESTORATION SITE - CLACKAMAS BASIN

Foster Creek - Upper (L-86) 2009 Winter Habitat Survey Photographs



Unit 1 - A downstream view of the Foster Creek Upper survey start. Triple culvert crossing here.



Unit 1 - Looking upstream from the survey start and habitat structures.



Unit 7 - Habitat structure logs.



Unit 14 - Habitat structure logs.



Unit 39 - Fence and cattle crossing with habitat structure in background.



Unit 58 - End of survey at culvert crossing and Harding Road.