

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

STREAM: Feagles Creek (MC-31)
BASIN: Yaquina River
SURVEY TYPE: Post-Tx
DATE: June 30, 2004
SURVEY CREW: Erin Richmond, Kaylea Foster, Jeff Snyder
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 21.0 km²
USGS MAPS: Harlan
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The Feagles Creek habitat survey extended 455 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 5.3 (range: 4.0-8.8). Land use for the reach was second growth (15-30 cm dbh) trees and heavy grazing. The average unit gradient was 2.6 percent. Riffles (64%) and scour pools (27%) dominated stream habitat. Cobble (32%), gravel (24%) and sand (20%) dominated stream substrate. Wood volume was very high at 55.7 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

T12S-R08W-S30NE

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	5.3	VWI Range:	4 - 8.8

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	455	2,101	0
Secondary	158	315	10

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 3.5	Width: 8.2	10.0 (7.4 - 11.3)	16.9 (11.2 - 27)
Depth: 0.25	Height: 0.5	1.0 (0.7 - 1.2)	2.3 (1.6 - 3.7)

W:D ratio: 17.7

Stream Flow Type: LF

Average Unit Gradient: 2.6%

Water temperature (°C): 12.0 - 12.0

Entrenchment (ACW:FPW ratio): 1.3

Habitat Units/100m (total channel length): 8.0

Habitat Units/100m (primary channel length): 10.8

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	HG
Riparian Vegetation:	G	D15

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	3%	Reach avg: 66%
Undercut Banks:	2%	Range: 29 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	148	32.5
Volume (m ³):	253	55.7
Key pieces (>=12m x 0.60m):	17	3.7

OREGON DEPARTMENT OF FISH AND WILDLIFE

FEAGLES CREEK POST-TX (MC-31)

HABITAT INVENTORY

Report Date: 10/27/2004

Survey Date:

6/30/2004

REACH 1		T12S-R08W-S30NE					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	1	5	0.9	0.01	5	0	0	0	0	0	0	100	
DRY UNIT	3	15	1.5	0.00	22	0	35	10	31	24	0	0	
POOL-BACKWATER	1	6	1.7	0.40	11	0	35	45	10	10	0	0	
POOL-ISOLATED	1	4	1.2	0.20	5	0	42	53	5	0	0	0	
POOL-LATERAL SCOUR	14	135	4.5	0.49	650	0	13	33	24	23	0	7	
PUDDLED UNIT	7	67	1.8	0.15	109	15	45	21	16	11	5	3	
RIFFLE	15	304	4.1	0.19	1,290	53	4	13	33	42	2	6	
RIFFLE W/ POCKETS	3	61	4.7	0.18	264	32	0	7	23	55	11	4	
STEP/COBBLE	4	17	3.6	0.13	61	5	0	6	22	70	2	0	
Total:	49	613	3.5	0.25	2,416	105	Avg: 15	20	24	32	2	7	

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	10	1.5	0.30	15	0.63%	0	0.0
Scour Pools	14	135	4.5	0.49	650	26.90%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	18	364	4.2	0.19	1,554	64.33%	85	5.5
Rapids	0	0			0	0.00%	0	0.0
Cascades	1	5	0.9	0.01	5	0.19%	0	0.0
Step/Falls	4	17	3.6	0.13	61	2.53%	5	8.2
Dry	10	81	1.7	0.10	131	5.43%	15	11.4
Culverts	0	0			0	0.00%	0	0.0

POOL SUMMARY			
	Total	Total of all Channel Lengths # / Km	Primary Channel Length # / Km
All Pools:	16	26.1	35.2
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	10	16.3	22.0
Pool frequency (channel widths/pool):	4.7		
Residual pool depth (avg):	0.43		

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1

REACH 1

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

Total hardwoods/1000	467
Total conifers/1000 ft	0
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	0.7	0.0	0.3	0.0	0.3	0.0	1.3
15-30cm	0.0	0.3	0.0	1.7	0.0	1.3	0.0	3.3
30-50cm	0.0	0.3	0.0	1.0	0.0	1.0	0.0	2.3
50-90cm	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.7
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	0.0	1.3	0.0	3.7	0.0	2.7	0.0	2.6

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	53		65		58	
Shrub cover	35		45		57	
Grass/forb cover	65		40		43	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	17		50		67	
High terrace	67		33		0	
Low terrace	0		0		0	
Floodplain	17		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	0		17		33	
Riprap	0		0		0	
Surface slope (%)	14		28		30	

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		
13	LF	3	RB	3	80	20	80	Conifer							
								Hardwood		2	1				
13	RT	3	HS	54	90	10	90	Conifer							
								Hardwood			1				
13	LF	1	FP	5	90	10	90	Conifer							
								Hardwood		1					
13	RT	1	HT	12	75	40	60	Conifer							
								Hardwood	2						
13	LF	2	HS	82	80	80	20	Conifer							
								Hardwood	1						
13	RT	2	HT	4	80	20	80	Conifer							
								Hardwood		4	2				
34	LF	1	HT	14	70	30	70	Conifer							
								Hardwood			1				
34	RT	3	HS	52	0	100	0	Conifer							
								Hardwood							
34	RT	2	RB	3	50	10	90	Conifer							
								Hardwood					1		
34	RT	1	HS	46	60	20	80	Conifer							
								Hardwood							
34	LF	3	HS	24	80	60	40	Conifer							
								Hardwood							
34	LF	2	HT	6	90	90	10	Conifer							
								Hardwood					1		
41	LF	2	HS	40	90	10	0	Conifer							
								Hardwood		1	1				
41	LF	3	HS	45	100	80	20	Conifer							
								Hardwood	1	2	1				
41	RT	1	HT	4	0	50	50	Conifer							
								Hardwood							
41	RT	2	HS	35	0	60	40	Conifer							
								Hardwood							
41	RT	3	RB	3	0	70	30	Conifer							
								Hardwood							
41	LF	1	HT	3	20	60	40	Conifer							
								Hardwood							

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: 2-MC SITE ID: 31 FEAGLES CREEK POST-TX (MC-31)

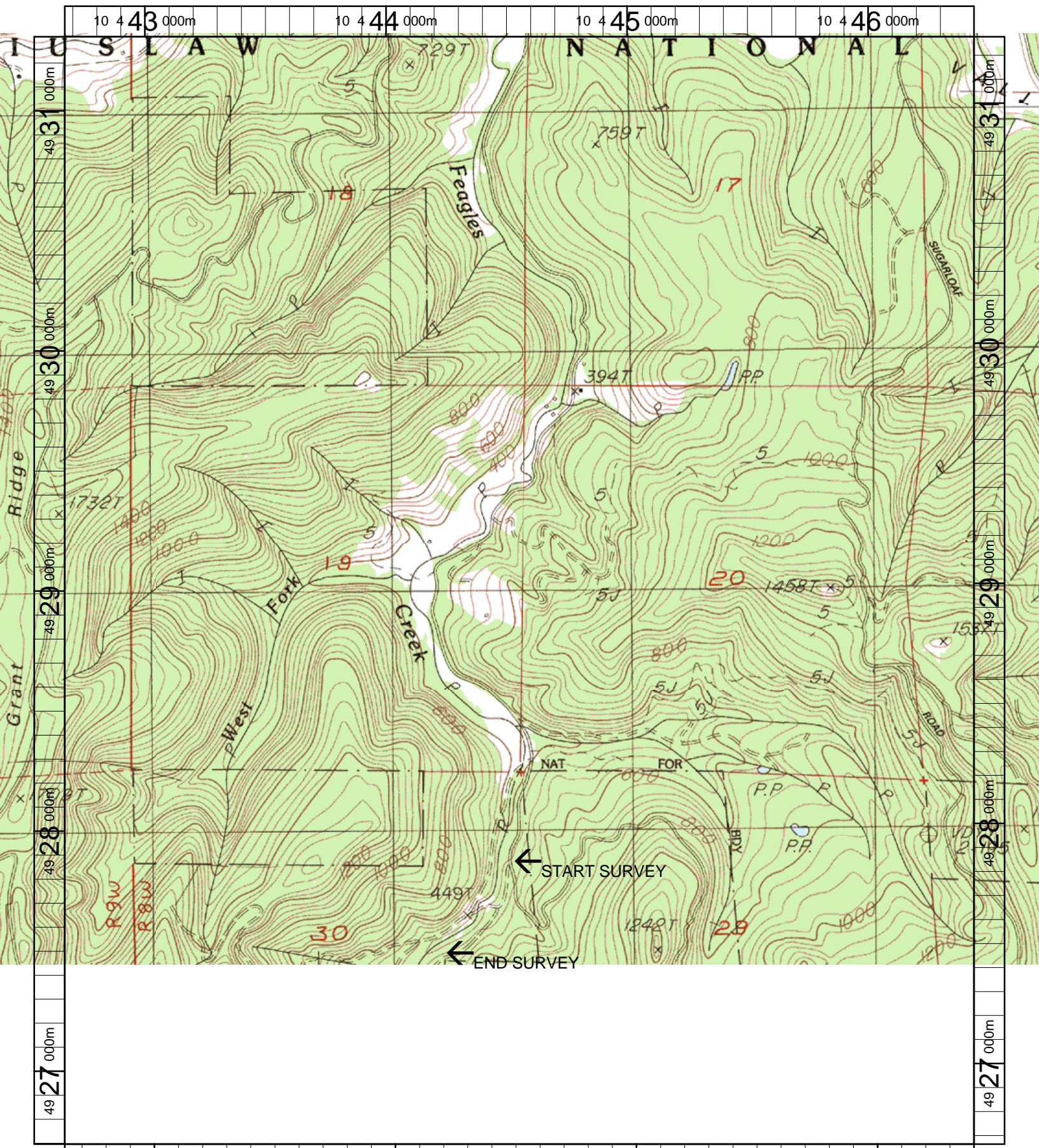
<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
1	RI	00	13	WL	START	KINGFISHER, DIPPERS T=12
4	PD	02	42.2			COHO FRY, RSN
7	LP	00	50.8	HS		
10	LP	00	72			CT, CO
13	RI	00	132.7		RIP1	RIP1
14	SC	01	137.3	SS/		T=12C-900
16	SC	01	149.3	SS/		
17	LP	01	153.2	SS/		
18	LP	02	153.2			COHO FRY
19	IP	10	153.2	SS/, WL		RACCOON
20	BW	10	153.2	SS/		
21	PD	02	153.2	SS/		
22	LP	02	153.2	HS		
24	LP	00	186.3	DJ,HS,WL		COHO FRY
26	LP	00	226.5	HS,WL		
27	RI	01	238		PHOTOS 84 AND 85	
28	LP	02	238			COHO
33	RI	00	271.5	HS,DJ	RIP2	
34	RI	01	292.5			RIP 2
36	PD	03	292.5			COHO
37	RI	00	317.5	HS,DJ	HS	

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: 2-MC SITE ID: 31 FEAGLES CREEK POST-TX (MC-31)

<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
38	LP	00	331.3	BC	BC	
39	SC	00	335.4	CS/CS		
40	RI	00	360.4	CS/		
41	RP	01	385.4		RIP 3	RIP 3
44	PD	02	385.4			COHO
48	RI	00	430	HS,WL		DUCKS



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

Location: 10 444529 E 4928990 N
 Caption: FEAGLES CREEK RESTORATION SITE - YAQUINA BASIN