

**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 24, 2002
SURVEY CREW: Russ Macal, Troy Eberly
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 543 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 4.3 (range: 3.5 – 5.0). Land use for the reach was light grazing and second growth (15-30 cm dbh) trees. The average unit gradient was 1.9 percent. Riffles (50%) and scour pools (39%) dominated stream habitat. Gravel (35%) and cobble (35%) dominated stream substrate. Wood volume was high at 44.4 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	4.3	VWI Range:	3.5 - 5

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	543	2,202	0
Secondary	107	236	3

Channel Dimensions (m)

<u>Wetted</u>		<u>Active</u>		<u>Floodprone</u>	<u>First Terrace</u>
Width	3.6	Width	8.8	11.3	13.3
Depth	0.38	Height	0.5	1.0	1.4
		W:D ratio	18.5	Entrenchment	1.3
Stream Flow Type:	LF	Water temp (C): 12.5 - 12.5			
Avg. Unit Gradient:	1.9%	Habitat Units/100m: 7.6			

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	LG	ST
Riparian Vegetation:	G	D30

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	8%	Reach avg: 60%
Undercut Banks:	2%	Range: 31 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m</u>
All pieces (>=3m x 0.15m):	120	22.1
Volume (m ³):	241	44.4
Key pieces (>=10m x 0.60m):	28	5.2

OREGON DEPARTMENT OF FISH AND WILDLIFE

FEAGLES CREEK POST-TX (MC-31)

HABITAT INVENTORY

Report Date: 3/17/03

Survey Date:

6/24/02

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	
CULVERT CROSSING	1	17	3.0	0.10	52	0	0	15	35	35	15	0	
POOL-BACKWATER	2	15	2.2	0.48	31	0	25	55	15	5	0	0	
POOL-LATERAL SCOUR	16	185	4.5	0.64	805	3	7	29	37	21	1	5	
POOL-PLUNGE	1	12	12.7	2.00	146	0	5	50	25	20	0	0	
PUDDLED UNIT	3	51	3.1	0.11	170	0	5	13	50	28	0	3	
RAPID/BOULDERS	1	10	1.0	0.05	10	1	0	0	20	75	5	0	
RIFFLE	14	354	3.0	0.13	1,209	5	1	4	37	57	0	1	
STEP/BEDROCK	1	1	0.5	0.02	1	0	0	0	0	0	0	100	
STEP/COBBLE	1	4	3.0	0.15	13	0	0	0	20	75	0	5	
STEP/STRUCTURE	1	1	1.6	0.10	1	0	11	17	22	17	33	0	
Total:	41	650	3.6	0.38	2,438	9	Avg	5	18	35	35	2	5

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	15	2.2	0.48	31	1.28%	0	0.0	
Scour Pools	17	196	4.9	0.72	951	39.00%	3	0.3	
Glides	0	0			0	0.00%	0	0.0	
Riffles	14	354	3.0	0.13	1,209	49.61%	5	0.4	
Rapids	1	10	1.0	0.05	10	0.42%	1	9.7	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	3	6	1.7	0.09	14	0.59%	0	0.0	
Dry	3	51	3.1	0.11	170	6.97%	0	0.0	
Culverts	1	17	3.0	0.10	52	2.13%	0	0.0	

POOL SUMMARY		
	<u>Total</u>	<u># / Km</u>
All Pools:	19	35.0
Pools >=1m deep:	2	3.7
Complex pools (LWD pieces>=3):	10	18.4
Pool frequency (channel widths/pool):	3.9	
Residual pool depth (avg):	0.58	

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1 **REACH 1**

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

Total hardwoods/1000	203
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	0.0	0.0	0.0	0.0	1.0	0.0	1.0
15-30cm	0.0	0.3	0.0	0.7	0.0	1.0	0.0	2.0
30-50cm	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.3
50-90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	0.0	0.3	0.0	1.0	0.0	2.0	0.0	1.1

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	21		48		37	
Shrub cover	30		28		27	
Grass/forb cover	70		63		65	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	33		33		67	
High terrace	50		33		17	
Low terrace	17		17		0	
Floodplain	0		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	0		17		17	
Riprap	0		0		0	
Surface slope (%)	18		18		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			
11	LF	1	HT	0	10	20	80								
11	LF	2	HS	50	10	10	90								
11	LF	3	HS	45	100	80	20								
11	RT	1	HT	0	10	20	80								
11	RT	2	HT	0	80	20	80								
11	RT	3	HS	35	10	10	90								PARTIAL RB
26	LF	1	HT	0	0	20	80								
26	LF	2	HT	0	100	40	60								
26	LF	3	HS	10	60	0	100								
26	RT	1	HS	55	80	0	100								
26	RT	2	RB	10	50	0	50								
26	RT	3	HS	55	0	20	80								
38	LF	1	HS	50	25	100	0								
38	LF	2	HS	50	50	100	0								
38	LF	3	RB	25	50	50	0								NEW BLM ROAD
38	RT	1	LT	0	0	20	80								
38	RT	2	LT	0	0	0	100								
38	RT	3	HT	10	0	0	100								

Comment Summary

Oregon Plan Monitoring Sites 2002

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

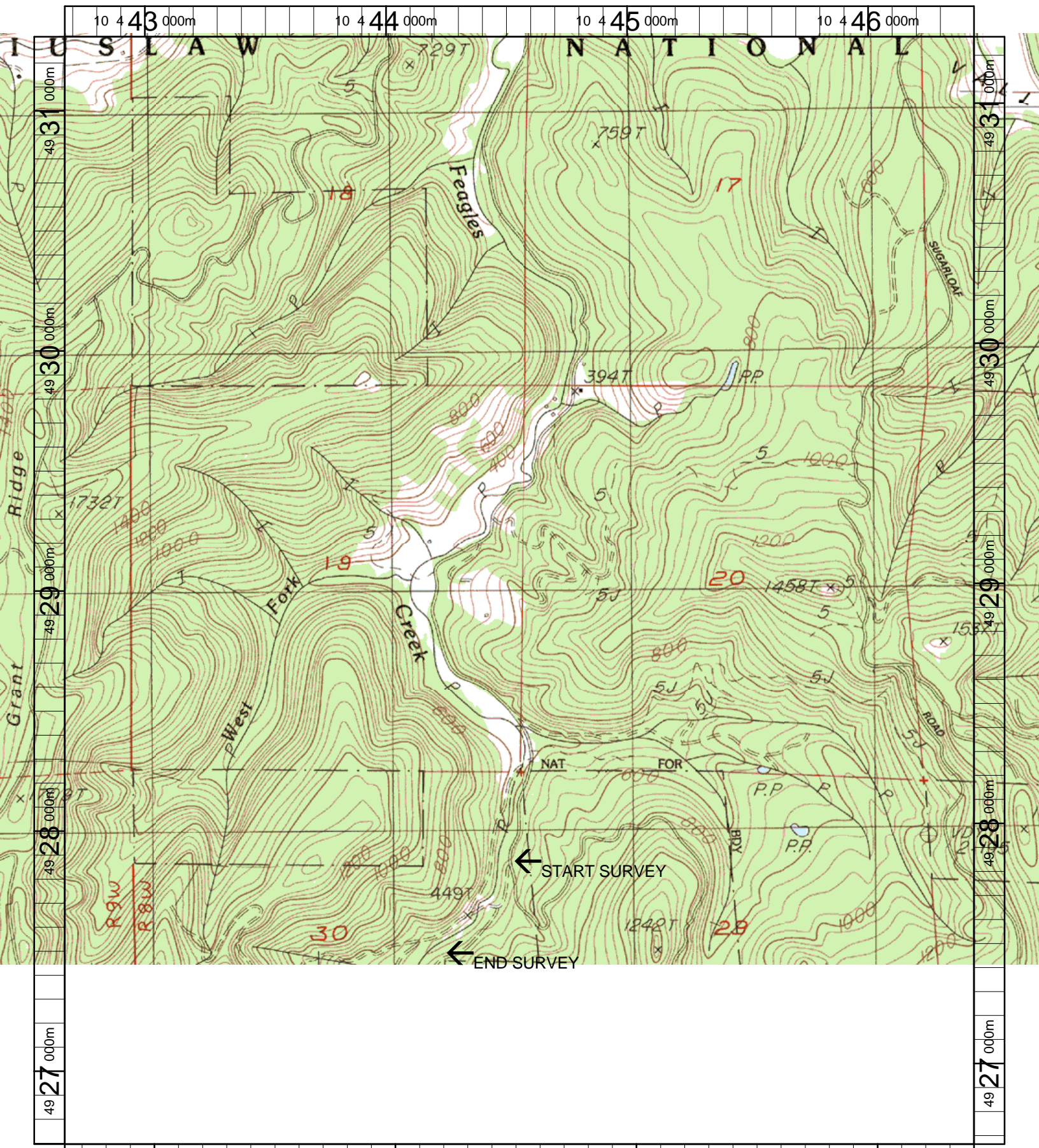
<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
1	LP	00	12.5		START SURVEY	START SURVEY
2	RI	00	22.2		T=12C@0900	
3	LP	01	33.4	WL		RSN/ FISH
4	BW	10	33.4	WL	RSN, COHO	RSN
5	RI	01	54.2	BV		
6	BW	10	54.2	BV /SS, WL		RSN
7	LP	00	67			COHO
9	SC	00	79.9		H=.2	
10	LP	00	92.3		COHO	COHO
11	RI	00	155.8		RIP#1	RIP#1
14	LP	01	178.7	DJ	> WIDTH CAUSED BY DJ	
15	PD	02	178.7	SS/		
17	LP	00	205.5	/SS	COHO	COHO
18	RI	00	222.3	/SS		
19	LP	01	235.3	HS	HS	COHO
21	LP	02	250	TJ/	TJ	
22	SR	11	250		H=1.4	TRIB UNIT
23	RI	11	250			TRIB UNIT
25	LP	01	264.7	HS		COHO
26	RI	01	297.7		RIP#2	
27	PD	02	297.7			SMALL POOL

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>
28	LP	01	311.8	HS		
29	PD	02	311.8			COHO
30	PP	00	323.3	RF	RF,CC	1M RI @ TAILOUT
31	SS	00	324.1	PA	H=1.4	STEP UP TO CULVERT H=1.4
32	CC	00	341.4	CC	PHOTO 100-0200	4.3 X C.7 SQUASHED GALV
33	LP	00	348.1		COHO	
34	RI	01	366.7	/TJ	TJ	
35	RI	11	366.7			TRIB UNIT
36	LP	00	379.7		COHO	OVERHANGING BLACKBERR
38	LP	00	427.8	HS	RSN, RIP #3	
40	RI	00	526.3		PHOTO 100-0201	SCULPIN
41	LP	00	542.7		END SURVEY	END SURVEY, COHO



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