

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

STREAM: North Fork Eagle Creek (L-157)
BASIN: Clackamas River
SURVEY TYPE: Post-Tx
DATE: September 22, 2004
SURVEY CREW: Peter Baki, Kaylea Foster, LaNoah Babcock
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 73.6 km²
USGS MAPS: Estacada
ECOREGION: Willamette Valley Foothills

GENERAL DESCRIPTION:

The North Fork Eagle Creek habitat survey extended 552 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 5.2 (range: 3.1-6.8). Land use for the reach was large (30-50 cm dbh) and second growth (15-30 cm dbh) trees. The average unit gradient was 0.8 percent. Riffles (68%) and scour pools (31%) dominated stream habitat. Cobble (58%) and boulders (23%) dominated stream substrate. Wood volume was low at 11.1 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-R04E-S11SE

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	100%
Moderate V-shape	0%	Multiple Terraces	0%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	5.2	VWI Range:	3.1 - 6.8

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	552	6,002	0
Secondary	0	0	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 4	<u>First Terrace</u> n = 4
Width: 10.7	Width: 12.3	14.7 (13.4 - 15.8)	18.5 (14.8 - 19.9)
Depth: 0.58	Height: 0.6	1.2 (1 - 1.6)	1.7 (1.2 - 2.1)

W:D ratio: 21.7
Stream Flow Type: MF
Average Unit Gradient: 0.8%
Water temperature (°C): 9.0 - 9.0

Entrenchment (ACW:FPW ratio): 1.2
Habitat Units/100m (total channel length): 4.2
Habitat Units/100m (primary channel length): 4.2

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	LT	ST
Riparian Vegetation:	M15	S

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	1%	Reach avg: 79%
Undercut Banks:	4%	Range: 64 - 92

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	58	10.5
Volume (m ³):	61	11.1
Key pieces (>=12m x 0.60m):	3	0.5

OREGON DEPARTMENT OF FISH AND WILDLIFE

NF EAGLE CREEK POST-TX (L-157)

HABITAT INVENTORY

Report Date: 10/27/2004

Survey Date:

9/22/2004

REACH 1		T03S-R04E-S11SE					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-LATERAL SCOUR	6	171	10.5	1.17	1,880	50	1	4	22	52	15	7	
RIFFLE	14	327	10.9	0.36	3,570	240	0	1	10	62	26	1	
RIFFLE W/ POCKETS	2	50	10.5	0.45	523	40	0	3	10	72	16	0	
STEP/BOULDERS	1	3	10.5	0.30	29	5	0	0	0	20	60	20	
Total:	23	552	10.7	0.58	6,002	335	Avg: 0	2	13	58	23	4	

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	0	0			0	0.00%	0	0.0	
Scour Pools	6	171	10.5	1.17	1,880	31.33%	50	2.7	
Glides	0	0			0	0.00%	0	0.0	
Riffles	16	377	10.9	0.38	4,092	68.18%	280	6.8	
Rapids	0	0			0	0.00%	0	0.0	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	1	3	10.5	0.30	29	0.49%	5	17.0	
Dry	0	0			0	0.00%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

POOL SUMMARY			
	<u>Total</u>	Total of all Channel Lengths	Primary Channel Length
		<u># / Km</u>	<u># / Km</u>
All Pools:	6	10.9	10.9
Pools >=1m deep:	5	9.1	9.1
Complex pools (LWD pieces>=3):	1	1.8	1.8
Pool frequency (channel widths/pool):	7.5		
Residual pool depth (avg):	0.85		

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1

REACH 1

Summary of Riparian Zone (0-30m)

3 transects

Total hardwoods/1000	711
Total conifers/1000 ft	386
Total conifers >20" dbh/1000 ft	61
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	0.7	2.0	1.3	1.0	0.7	1.0	2.7	4.0
15-30cm	0.0	3.3	0.7	2.0	0.0	1.7	0.7	7.0
30-50cm	0.7	0.0	0.7	0.7	0.7	0.0	2.0	0.7
50-90cm	0.0	0.0	0.3	0.0	0.7	0.0	1.0	0.0
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	1.3	5.3	3.0	3.7	2.0	2.7	2.1	3.9

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	44		53		55	
Shrub cover	43		48		52	
Grass/forb cover	57		52		48	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	50		100		100	
High terrace	17		0		0	
Low terrace	33		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 (%)	32		24		14	

RIPARIAN ZONE VEGETATION

Reach 1

Reach 1

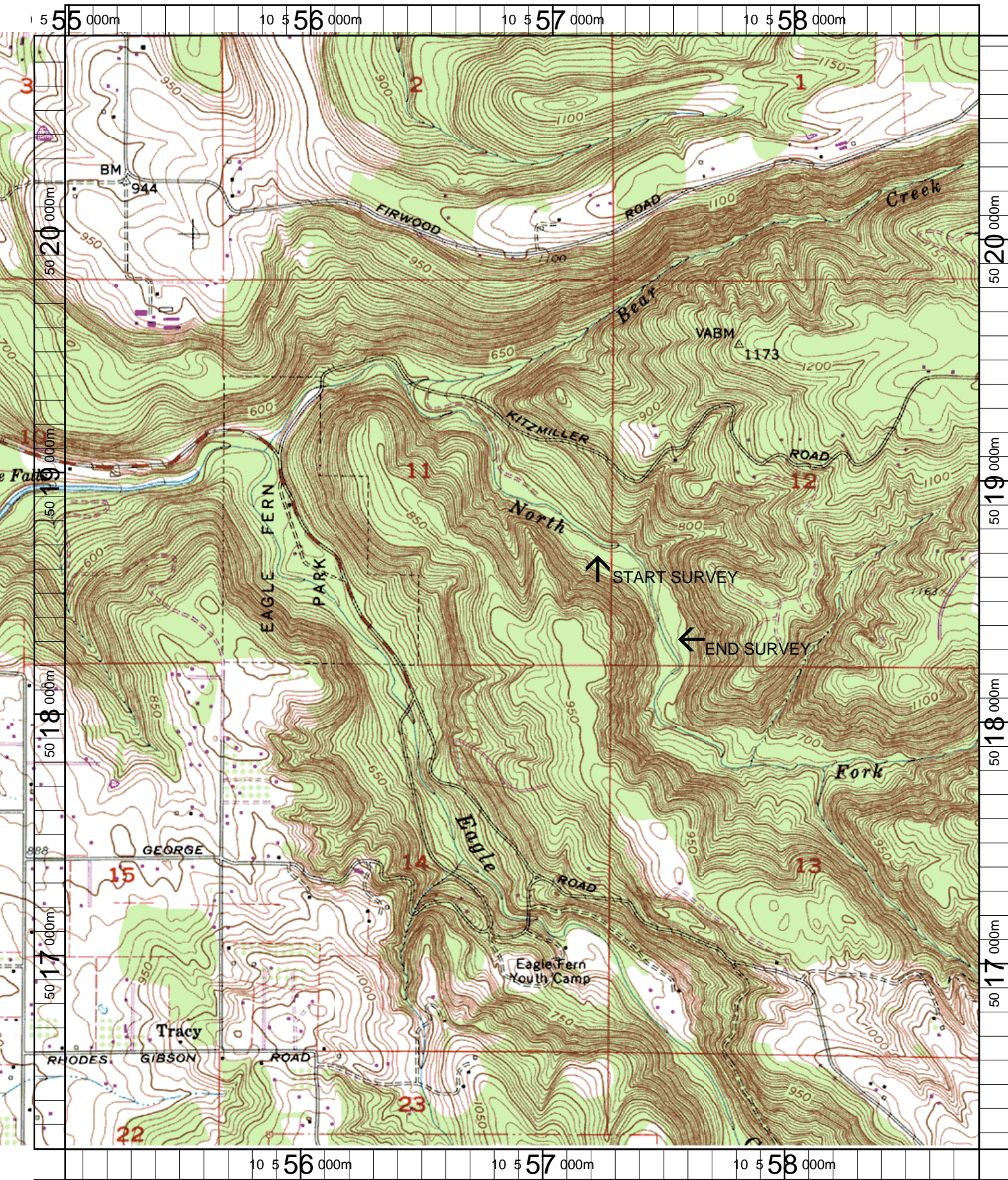
Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90	
8	RT	2	HS	5	60	20	80	Conifer	3	1		1		
								Hardwood						
8	RT	1	LT	20	50	30	70	Conifer	1		1			
								Hardwood	1	4				
8	LF	3	HS	20	90	40	60	Conifer						
								Hardwood	1	1				
8	LF	2	HS	80	80	30	70	Conifer						
								Hardwood	1	1				
8	LF	1	HS	60	60	40	60	Conifer	1					
								Hardwood	1	1				
8	RT	3	HS	5	70	20	80	Conifer	2		1	2		
								Hardwood						
14	RT	3	HS	20	60	70	30	Conifer			1			
								Hardwood		1				
14	LF	2	HS	5	5	50	50	Conifer						
								Hardwood	2					
14	RT	1	HS	20	20	90	10	Conifer						
								Hardwood	1					
14	LF	3	HS	5	20	30	70	Conifer						
								Hardwood		2				
14	RT	2	HS	20	50	90	10	Conifer						
								Hardwood		4	1			
14	LF	1	LT	10	15	70	30	Conifer						
								Hardwood	1	1				
17	RT	2	HS	5	70	30	70	Conifer						
								Hardwood						
17	RT	3	HS	5	20	70	30	Conifer						
								Hardwood						
17	RT	1	HT	60	70	10	90	Conifer			1			
								Hardwood		2				
17	LF	3	HS	30	70	80	20	Conifer						
								Hardwood	2	1				
17	LF	2	HS	30	50	70	30	Conifer	1	1	2			
								Hardwood		1	1			
17	LF	1	HS	20	50	20	80	Conifer						
								Hardwood	2	2				

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: 7-L SITE ID: 157 NF EAGLE CREEK POST-TX (L-157)

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	LP	00	22.6			FISH
3	RI	00	50.4	HS		
4	RI	00	75.4			CABLED LOG
6	RI	00	110.8		METAL LAMPREY TRAP	
7	LP	00	130.6			LAMPREY TRAP
8	RI	00	155.6		RIPARIAN	RIPARIAN
11	LP	00	227	BV		
13	LP	00	266.3	HS, DJ		POOL CAUSED BY DJ
14	RI	00	291.3		RIPARIAN	
16	RI	00	363.8		/SS	
17	RI	00	388.8		RIPARIAN	
22	RP	00	521.9	HS	HS	
23	RI	00	551.5		END SIGN ALDER LEFT	



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

Location: 10 556890 E 5018524 N
 Caption: NORTH FORK EAGLE CREEK RESTORATION SITE -
 CLACKAMAS BASIN