

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

STREAM: Eames Creek (MC-177)
BASIN: Siuslaw River
SURVEY TYPE: Post-Tx
DATE: July 5, 2005
SURVEY CREW: Andy Livesay, Jennifer Jacobs
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 15.7 km²
USGS MAPS: High Point
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The Eames Creek habitat survey extended 495 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 10.6 (range: 8.0-13.2). Land use for the reach was second growth (15-30 cm dbh) trees and timber harvest. The average unit gradient was 1.3 percent. Beaver pools (30%), scour pools (28%) and riffles (23%) dominated stream habitat. Sand (32%) and bedrock (29%) dominated stream substrate. Wood volume was high at 37.9 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

T09S-R06W-S07NE

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	10.6	VWI Range:	8 - 13.2

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 Channel	495	2,674	0
Secondary Channel	23	98	1
Off-Channel Units	46	52	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 4.3	Width: 7.4	10.4 (8.7 - 12)	24.7 (19.5 - 33)
Depth: 0.29	Height: 0.7	1.4 (1.2 - 1.5)	2.2 (1.8 - 2.7)

W:D ratio: 11.0 Entrenchment (ACW:FPW ratio): 1.4
 Stream Flow Type: MF Habitat Units/100m (total channel length): 6.0
 Average Unit Gradient: 1.3% Habitat Units/100m (primary channel length): 6.9
 Water temperature (°C): 12.0 - 12.0

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	TH
Riparian Vegetation:	D15	C30

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	12%	Reach avg: 84%
Undercut Banks:	27%	Range: 53 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	99	20.0
Volume (m ³):	188	37.9
Key pieces (>=12m x 0.60m):	9	1.8

OREGON DEPT OF FISH AND WILDLIFE

EAMES CREEK POST-TX (2-MC, 177)

HABITAT INVENTORY

Report Date: 4/26/2006

Survey Date:

7/5/2005

REACH 1		T09S-R06W-S07NE					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	26	6.0	0.25	155	3	0	20	10	0	0	70
CASCADE/BOULDERS	2	20	0.7	0.03	14	0	25	43	28	5	0	0
DRY UNIT	1	15	6.0	0.00	90	0	50	50	0	0	0	0
POOL-BACKWATER	2	26	1.4	0.18	38	0	30	55	5	0	0	10
POOL-BEAVER DAM	3	123	6.7	0.68	811	0	40	37	13	0	0	10
POOL-LATERAL SCOUR	4	77	4.9	0.46	395	12	4	36	10	1	3	47
POOL-PLUNGE	1	15	4.0	0.60	58	1	0	10	5	5	0	80
POOL-STRAIGHT SCOUR	4	62	5.3	0.50	337	8	0	50	18	11	1	20
RAPID/BEDROCK	1	21	6.0	0.75	128	0	0	20	0	0	0	80
RAPID/BOULDERS	2	23	3.0	0.09	82	14	15	30	15	15	15	10
RIFFLE	7	142	4.4	0.18	663	1	0	14	18	2	21	45
STEP/BEAVER DAM	3	3	3.6	0.04	11	0	46	32	11	0	0	11
STEP/COBBLE	2	10	3.3	0.16	34	0	0	25	30	25	0	20
STEP/LOG	1	1	5.0	0.20	7	0	0	30	30	0	0	40
Total:	34	564	4.3	0.29	2,824	39	Avg: 14	32	15	5	6	29

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	5	148	4.5	0.48	849	30.07%	0	0.0	
Scour Pools	9	154	4.9	0.49	790	27.97%	21	2.7	
Glides	0	0			0	0.00%	0	0.0	
Riffles	7	142	4.4	0.18	663	23.49%	1	0.2	
Rapids	3	45	4.0	0.31	210	7.45%	14	6.7	
Cascades	3	46	2.5	0.10	169	5.98%	3	1.8	
Step/Falls	6	15	3.7	0.11	52	1.85%	0	0.0	
Dry	1	15	6.0	0.00	90	3.19%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

POOL SUMMARY			
	Total	Total of all Channel Lengths # / Km	Primary Channel Length # / Km
All Pools:	14	24.8	28.3
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	5	8.9	10.1
Pool frequency (channel widths/pool):	5.4		
Residual pool depth (avg):	0.41		

OREGON DEPARTMENT OF FISH AND WILDLIFE
HABITAT INVENTORY

EAMES CREEK POST-TX
GCG: 2-MC SITE ID: 177

Survey Date 7/5/2005
Report Date: 4/26/2006

RIPARIAN ZONE
VEGETATION SUMMARY

REACH 1

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

Total hardwoods/1000	878
Total conifers/1000 ft	390
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	2.8	0.0	2.0	0.0	2.8	0.0	7.6
15-30cm	2.4	0.0	1.2	3.6	0.0	1.6	3.6	5.2
30-50cm	0.0	1.2	2.4	0.4	0.4	0.0	2.8	1.6
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	2.4	4.0	3.6	6.0	0.4	4.4	2.1	4.8

Canopy closure and ground cover

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Canopy closure	63	67	51
Shrub cover	72	55	47
Grass/forb cover	20	23	35

Predominant landform in each zone

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Hillslope	0	20	40
High terrace	100	80	60
Low terrace	0	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 (%)	3	3	12

Summary of Riparian Zone (0-30m) for all reaches

3 transects

Summary of riparian zone (0-100 feet) extrapolated to 1,000 feet along stream

Total hardwoods/1000	878
Total conifers/1000 ft	390
Total conifers >20" dbh/1000 ft	0
Total conifers >35" dbh/1000 ft	0

Average number of trees in a 5-m wide band

Diameter class (cm)	Zones 1-3	
	<u>0-30 meters</u>	
	<u>Conifer</u>	<u>Hardwood</u>
3-15cm	0.0	7.6
15-30cm	3.6	5.2
30-50cm	2.8	1.6
50-90cm	0.0	0.0
>90cm	0.0	0.0

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	LF	1	HT	0	60	70	20	Conifer		4					0463997 / 4864677
								Hardwood							
8	LF	2	HT	0	70	20	60	Conifer		1	4				
								Hardwood							
8	LF	3	HT	0	60	20	80	Conifer			1				
								Hardwood		2					
8	RT	1	HT	0	75	85	5	Conifer							
								Hardwood							
8	RT	2	HS	10	65	75	2	Conifer							
								Hardwood		1					
8	RT	3	HS	15	60	80	5	Conifer							
								Hardwood							
14	LF	1	HT	0	60	85	10	Conifer							0464033 / 4864879
								Hardwood	2		3				
14	LF	2	HT	1	40	70	20	Conifer							
								Hardwood	2	2					
14	LF	3	HS	45	0	5	60	Conifer							ROADBED, CLEARCUT
								Hardwood							
20	RT	1	HT	0	65	30	60	Conifer			2				
								Hardwood							
20	LF	3	HT	0	50	90	10	Conifer							
								Hardwood	3						
20	RT	3	HT	0	85	40	20	Conifer							
								Hardwood	4	2					
20	LF	2	HT	5	90	60	15	Conifer			1	2			
								Hardwood	3	5	1				
20	RT	2	HT	0	70	50	20	Conifer			1				
								Hardwood		1					
20	LF	1	HT	15	55	90	5	Conifer							0464063 / 4864996
								Hardwood	5						

Comment Summary

Restoration Monitoring Sites 2005

MONITORING AREA: **2-MC** SITE ID: **177** **EAMES CREEK POST-TX**

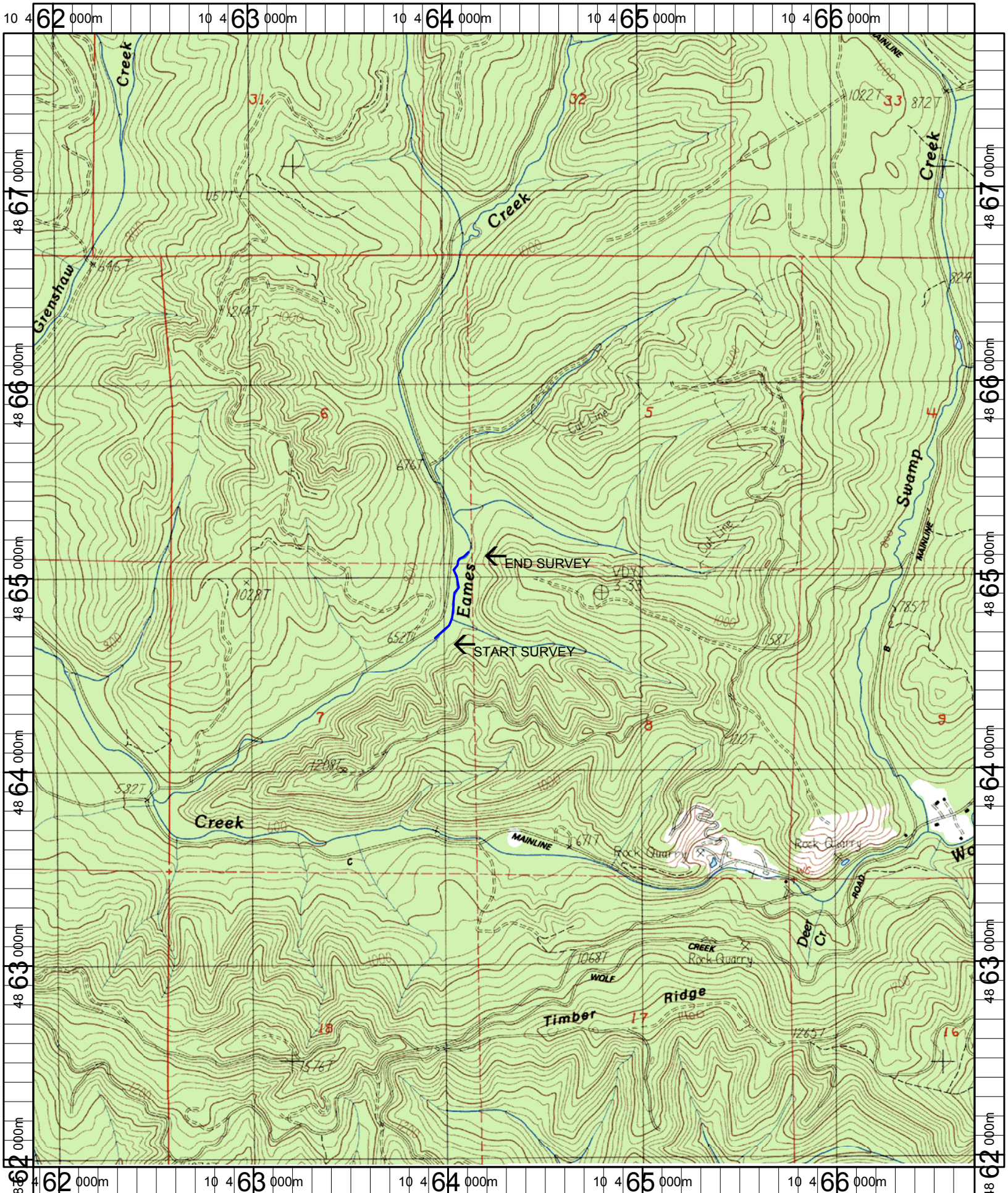
UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	PP	01	14.5	HS, /TJ	TEMP 12C	
3	CR	00	40.3		.3 PLUNGE, .25 PLUNGE	
4	SP	00	66.8	HS		
5	RI	01	96.6	HS, WL	HS	
8	RI	00	127.2			RIPARIAN 1
9	RI	00	146.5		POOR SLOPE VISIBILITY	
11	LP	00	195.3	HS, DJ	HS	
13	LP	00	223.2		RS NEWT RIPARIAN 2	
14	RI	00	239.5	DJ	0464033 / 4864879	
15	SL	00	240.9		H 0.4M	
19	RI	00	279.5	DJ		
20	SD	00	280.7	BD	H=0.3M	
21	BP	00	315.8	PN, WL, BV		FRY PRESENT
22	RI	00	335.5	HS	HS	
23	SD	00	336.5	BD, PN	H=0.3M	
24	BP	01	360	BV		
25	BW	10	360	DJ		
26	SC	00	364		0464063 / 4864996	RIPARIAN
27	SP	00	378.8			FRY PRESENT
30	RR	01	430.4			METRICS BECAUSE OF BV P
31	SD	01	431.4	BD, PN	H=0.55M	COHO FRY PRESENT

Comment Summary

Restoration Monitoring Sites 2005

MONITORING AREA: 2-MC SITE ID: 177 EAMES CREEK POST-TX

<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
32	BP	01	495.4	HS, BV	HS, MANY COHO FRY	
34	DU	02	495.4		UNDERGROUND FLOW	



Name: HIGH POINT
 Date: 6/13/2005
 Scale: 1 inch equals 2000 feet

Location: 10 464302 E 4864876 N
 Caption: EAMES CREEK RESTORATION SITE - SIUSLAW BASIN