

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

STREAM: Camp Creek (MC-11)
 BASIN: Siuslaw River
 SURVEY TYPE: Pre and Post-Tx
 DATE: October 22, 2003
 REPORT PREPARED BY: Paul Jacobsen

The Camp Creek restoration project extended approximately 500 meters, with the entire length being monitored for pre- and post-treatment conditions. Seven habitat structures were created and 43 key pieces (according to the ODF Large Wood Placement Guide) were used. The intended goals of the project included increasing stream complexity, improved interaction with the floodplain, gravel retention, increased pool area, and enhanced salmonids spawning and rearing habitat. In the first seasons after restoration activities, large wood pieces, volume, and key pieces are increased as expected. In addition, complex pools and winter pool area is greater, summer riffle gravel is higher, and summer riffle fines are lower.

	ODFW	Benchmark	Winter Pre	Summer Pre	Winter Post	Summer Post	
Habitat Variable	Desirable	Undesirable	3/1/00	7/12/00	3/8/01	7/17/01	
Reach #							
Pool Area	>35	<10	38.5	61.7	62.0	57.9	
Pool Frequency	5-8	>20	5.5	4.8	3.8	5.4	
Residual Pool Depth	>0.5-1.0m	<0.2-0.5m	.57	.34	.39	.37	
Complex Pools/km	>2.5	<1.0	6.9	8.7	15.8	12.1	
Width/Depth Ratio	<15	>30	13.9	10.1	12.2	12.2	
Riffle Gravel % area	>35	<15	41	37	42	53	
Silt-Sand-Organic %	<12	>25	11	19	14	6	
Shade %	>70	< 60		85		95	
LWD - pieces/100m	>20	<10	15.3	7.8	20.9	18.7	
LWD - Volume/100m	>30	<20	6.2	2.2	30.9	43.9	
LWD - Key pieces/ 100m	>3	<1	0	0	0	1.2	
Riparian Conifers>20" dbh/1000ft	>300	<150		81		20	
Riparian Conifers>35" dbh/1000ft	>200	<75		20		0	

COMMENTS:

There were no potential barriers to upstream fish migration in the surveyed length.

The crew noted evidence of beaver activity during the survey. Eight habitat structures were also recorded.

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

STREAM: Camp Creek (MC-11)
BASIN: Siuslaw River
SURVEY TYPE: Post-Tx
DATE: July 17, 2001
SURVEY CREW: Russ Macal, Justin Gerding
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 6.8 km²
USGS MAPS: High Point
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The Camp Creek habitat survey extended 571 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 10.0.. Land use for the reach was young (3-15 cm dbh) and second growth (15-30 cm dbh) trees. The average unit gradient was 1.4 percent. Scour pools (57%) and riffles (29%) dominated stream habitat. Bedrock (42%) and gravel (37%) dominated stream substrate. Wood volume was high at 43.9 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

T19S-R7W-S25NW

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 avg: 10.0 range: 10.0-10.0

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	571	2,026	0
Secondary	10	30	0

Channel Dimensions (m)

<u>Wetted</u>		<u>Active</u>	<u>Floodprone</u>	<u>First Terrace</u>
Width	3.3	Width 4.9	10.1	8.9
Depth	0.23	Height 0.4	0.8	1.4
		W:D ratio 12.2	Entrenchment 2.1	

Stream Flow Type: LF Water Temp: 11.5-11.5°C
 Avg. Unit Gradient: 1.4% Habitat Units/100m: 7.7

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	YT	LT
Riparian Vegetation:	D30	D15

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding	6%	Reach avg: 95%
Undercut Banks	13%	Range: 75-100

Large Woody Debris

	<u>Total</u>	<u>Total/100m</u>
All pieces (≥3m x 0.15m)	107	18.7
Volume (m ³)	250	43.9
Key pieces (≥10m x 0.6m)	7	1.2

REACH 1

T19S-R7W-S25NW

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	Cbbl	Bldr	Bdrk
GLIDE	1	50	4.6	0.20	230	0	18	27	55	0	0	0
POOL-DAMMED	1	11	2.2	0.45	24	4	10	15	5	5	0	65
POOL-LATERAL SCOUR	18	277	3.9	0.43	1,070	3	10	19	39	3	0	28
POOL-STRAIGHT SCOUR	3	23	4.3	0.28	96	0	0	5	10	0	0	85
RAPID/BEDROCK	1	15	1.4	0.02	21	0	0	0	4	0	0	96
RIFFLE	16	196	2.8	0.06	590	14	0	6	53	10	0	30
STEP/BEDROCK	4	9	2.6	0.02	23	0	0	0	0	0	0	100
STEP/BOULDERS	1	1	2.0	0.01	3	6	0	0	10	25	0	65
Total:	45	581	3.3	0.23	2,056	27	Avg: 5	11	37	6	0	42

HABITAT SUMMARY

Habitat Group	No. Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area (m ²)	Percent	Large Boulders Number	#/100m ²
Dammed & BW Pools	1	11	2.2	0.45	24	1.14	4	17.0
Scour Pools	21	299	4.0	0.41	1,166	56.71	3	0.3
Glides	1	50	4.6	0.20	230	11.19	0	0.0
Riffles	16	196	2.8	0.06	590	28.68	14	2.4
Rapids	1	15	1.4	0.02	21	1.04	0	0.0
Cascades	0	0	-	-	0	0.00	0	0.0
Step/Falls	5	10	2.5	0.02	26	1.24	6	23.5
Dry	0	0	-	-	0	0.00	0	0.0

POOL SUMMARY

All Pools	<u>Total</u>	<u>#/Km</u>
	22	37.9
Pools >1m deep:	1	1.7
Complex pools (LWD pieces ≥ 3):	7	12.1
Pool Frequency (channel widths/pool):	5.4	
Residual pool depth (avg)	0.37m	

STREAM SUMMARY

CAMP CREEK POST-TX (#11)

Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m ²)	Substrate Percent Wetted Area						Total Large Boulder
					S/O	Sand	Grvl	Cbbl	Bldr	Bdrk	
45	581	3.3	0.23	2,056	5	11	37	6	0	42	27

Wetted Area

Habitat Group	(m ²)	Percent
Scour Pool	1,166	56.7
Backwater Pools	24	1.1
Glide	230	11.2
Riffle	590	28.7
Rapid	21	1.0
Cascade	0	0.0
Step	26	1.2
Dry	0	0.0

REACH 1

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1

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

Total hardwoods/1000 ft	2,174
Total conifers/1000 ft	81
Total conifers >20" dbh/1000 ft	20
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	6.0	0.3	8.0	0.3	11.7	0.7	25.7
15-30cm	0.0	1.7	0.0	2.3	0.0	1.0	0.0	5.0
30-50cm	0.0	2.7	0.3	1.0	0.0	0.7	0.3	4.3
50-90cm	0.0	0.0	0.0	0.3	0.3	0.0	0.3	0.3
>90cm	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.3
Total/100m ²	0.0	10.7	0.7	11.7	0.7	13.3	0.4	11.9

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10-20 meters		Zone 3 20-30 meters	
	(%)		(%)		(%)	
Canopy closure	56		38		36	
Shrub cover	38		40		36	
Grass/forb cover	50		47		46	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10-20 meters		Zone 3 20-30 meters	
	Hillslope	0		0		17
High terrace	83		67		83	
Low terrace	17		17		0	
Floodplain	0		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	0		17		0	
Riprap	0		0		0	
Surface slope (%)	0		0		4	

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

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

Total hardwoods/1000 ft	2,174
Total conifers/1000 ft	81
Total conifers >20" dbh/1000 ft	20

Average number of trees in a 5-meter wide band

<u>Diameter</u> <u>class (cm)</u>	<u>Zones 1-3</u>	
	<u>Conifer</u>	<u>Hardwood</u>
3-15cm	0.7	25.7
15-30cm	0.0	5.0
30-50cm	0.3	4.3
50-90cm	0.3	0.3
>90cm	0.0	0.3

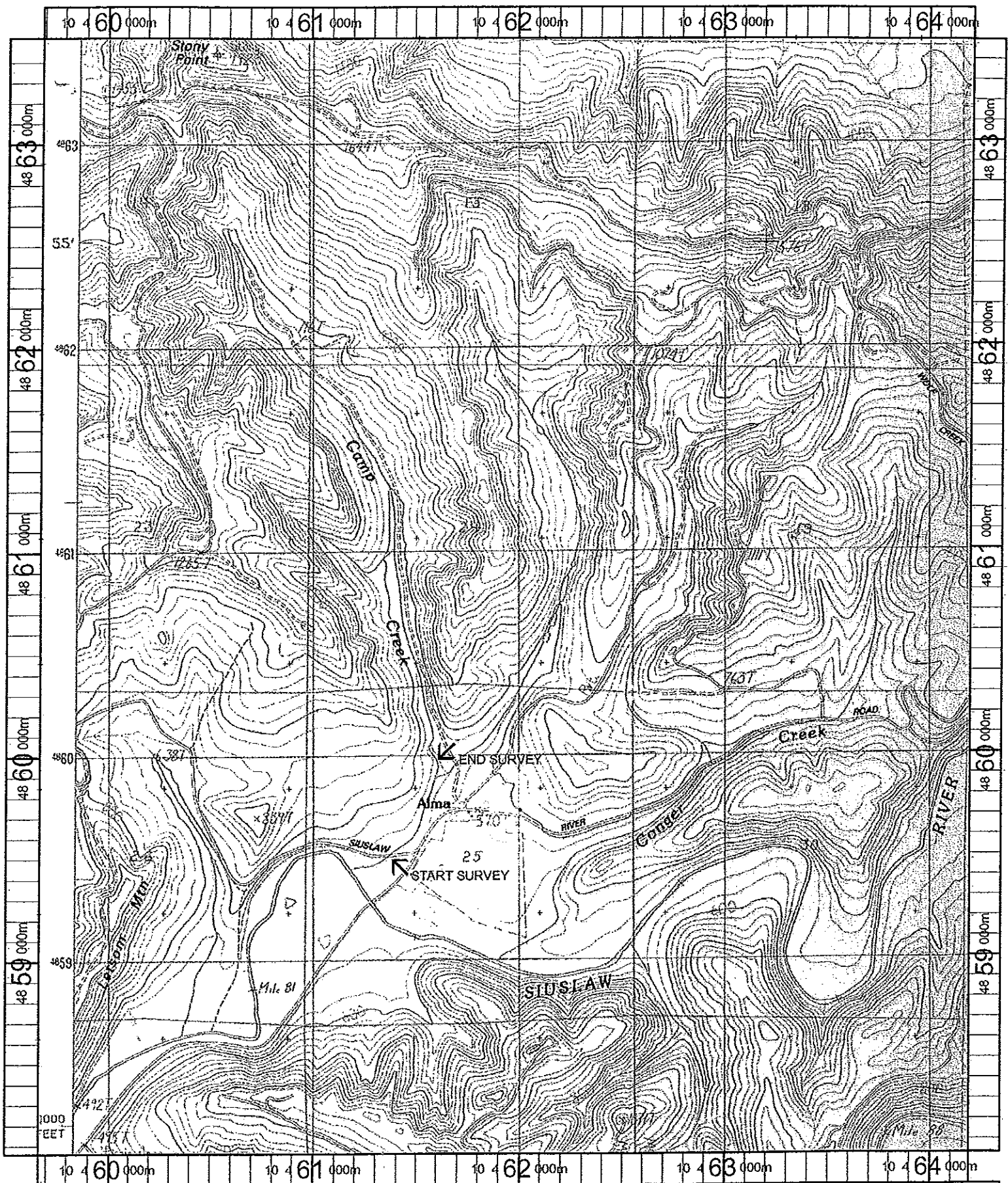
RIPARIAN ZONE VEGETATION

Reach 1

Reach 1

VEGETATION DETAIL

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	1	HT	0.0	20	30	70	Conifer	0	0	0	0	0	
								Hardwood	2	0	0	0	0	ALDER
13	LF	2	HT	0.0	2	0	100	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
13	LF	3	HT	0.0	10	40	60	Conifer	0	0	0	0	0	
								Hardwood	8	0	0	0	0	
13	RT	1	LT	0.0	60	40	60	Conifer	0	0	0	0	0	
								Hardwood	0	0	1	0	1	SALMONBERRY
13	RT	2	LT	0.0	60	50	50	Conifer	1	0	0	0	0	
								Hardwood	0	2	0	0	0	D. FIR, ALDER
13	RT	3	HT	0.0	75	5	80	Conifer	0	0	0	0	0	
								Hardwood	12	1	0	0	0	MAPLE, ALDER
21	LF	1	HT	0.0	65	50	50	Conifer	0	0	0	0	0	
								Hardwood	5	1	1	0	0	ALDER
21	LF	2	HT	0.0	45	25	75	Conifer	0	0	0	0	0	
								Hardwood	6	2	2	0	0	ALDER, MAPLE
21	LF	3	HT	0.0	10	0	100	Conifer	0	0	0	0	0	
								Hardwood	1	0	0	0	0	MAPLE
21	RT	1	HT	0.0	75	65	35	Conifer	0	0	0	0	0	
								Hardwood	9	2	1	0	0	ALDER
21	RT	2	HT	0.0	40	70	30	Conifer	0	0	0	0	0	
								Hardwood	2	0	1	0	0	ALDER
21	RT	3	HT	0.0	50	90	10	Conifer	1	0	0	0	0	
								Hardwood	5	1	2	0	0	CEDAR, ALDER, SALMO
29	LF	1	HT	0.0	50	0	30	Conifer	0	0	0	0	0	
								Hardwood	0	2	1	0	0	
29	LF	2	RB	0.0	10	5	15	Conifer	0	0	1	0	0	
								Hardwood	2	2	0	1	0	CEDAR, MAPLE
29	LF	3	HS	25.0	0	0	5	Conifer	0	0	0	1	0	
								Hardwood	0	0	0	0	0	D. FIR, CLEAR CUT
29	RT	1	HT	0.0	65	45	55	Conifer	0	0	0	0	0	
								Hardwood	2	0	4	0	0	ALDER
29	RT	2	HT	0.0	70	90	10	Conifer	0	0	0	0	0	
								Hardwood	14	1	0	0	0	MAPLE, ALDER
29	RT	3	HT	0.0	70	80	20	Conifer	0	0	0	0	0	
								Hardwood	9	1	0	0	0	MAPLE, ALDER



Name: HIGH POINT
 Date: 11/8/100
 Scale: 1 inch equals 2000 feet

Location: 10 461838 E 4860762 N
 Caption: CAMP CREEK RESTORATION SITE - SIUSLAW BASIN