

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

STREAM: Jack Creek (S-188)
BASIN: Chetco River
SURVEY TYPE: Post-Tx
DATE: July 6, 2004
SURVEY CREW: Greg Ryder, Justin Gerding
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 22.9 km²
USGS MAPS: Mount Emily
ECOREGION: Coast Range California Extension

GENERAL DESCRIPTION:

The Jack Creek habitat survey extended 539 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 6.0 (range: 5.0-7.0). Land use for the reach was greenway and second growth (15-30 cm dbh) trees. The average unit gradient was 0.6 percent. Scour pools (88%) dominated stream habitat. Gravel (57%) dominated stream substrate. Wood volume was low at 10.4 m³/100m.

COMMENTS:

There was one potential barrier to upstream fish migration in the surveyed length. This was a 1.3 m high dam in unit nine (134 m).

The crew noted several habitat structures during the survey.

REACH 1

T91S-R13W-S02NW

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	6.0	VWI Range:	5 - 7

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	539	3,022	0
Secondary	0	0	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 4.6	Width: 12.7	25.3 (11.7 - 49.6)	27.3 (15.1 - 51.6)
Depth: 0.53	Height: 0.7	1.4 (1.2 - 1.6)	2.3 (1.5 - 4)

W:D ratio: 18.3

Stream Flow Type: LF

Average Unit Gradient: 0.6%

Water temperature (°C): 14.0 - 14.0

Entrenchment (ACW:FPW ratio): 2.0

Habitat Units/100m (total channel length): 5.0

Habitat Units/100m (primary channel length): 5.0

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	GN	ST
Riparian Vegetation:	D15	S

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	2%	Reach avg: 60%
Undercut Banks:	5%	Range: 11 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	46	8.5
Volume (m ³):	56	10.4
Key pieces (>=12m x 0.60m):	4	0.7

OREGON DEPARTMENT OF FISH AND WILDLIFE

JACK CREEK POST-TX (S-188)

HABITAT INVENTORY

Report Date: 10/27/2004

Survey Date:

7/6/2004

REACH 1

T91S-R13W-S02NW

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
GLIDE	1	15	6.2	0.15	93	3	0	15	75	5	5	0
POOL-LATERAL SCOUR	13	394	5.7	0.87	2,391	89	7	30	46	7	10	1
POOL-PLUNGE	1	25	10.5	1.20	264	0	10	40	30	5	5	10
RIFFLE	4	65	2.6	0.20	173	8	0	15	75	7	2	0
STEP/COBBLE	7	35	3.2	0.10	97	6	0	9	78	11	2	0
STEP/STRUCTURE	1	4	1.3	0.10	5	0	0	0	0	0	0	100
Total:	27	539	4.6	0.53	3,022	106	Avg: 4	21	57	8	6	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	14	419	6.1	0.89	2,654	87.83%	89	3.4
Glides	1	15	6.2	0.15	93	3.08%	3	3.2
Riffles	4	65	2.6	0.20	173	5.72%	8	4.6
Rapids	0	0			0	0.00%	0	0.0
Cascades	0	0			0	0.00%	0	0.0
Step/Falls	8	39	3.0	0.10	102	3.37%	6	5.9
Dry	0	0			0	0.00%	0	0.0
Culverts	0	0			0	0.00%	0	0.0

POOL SUMMARY

	Total of all Channel Lengths		Primary Channel Length
	<u>Total</u>	<u># / Km</u>	<u># / Km</u>
All Pools:	14	26.0	26.0
Pools >=1m deep:	5	9.3	9.3
Complex pools (LWD pieces>=3):	6	11.1	11.1
Pool frequency (channel widths/pool):	3.0		
Residual pool depth (avg):	0.81		

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1

REACH 1

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

Total hardwoods/1000	1260
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	6.7	0.0	5.7	0.0	0.7	0.0	13.0
15-30cm	0.0	4.0	0.0	1.7	0.0	1.0	0.0	6.7
30-50cm	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.7
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	0.3	0.0	0.3
Total/100m2	0.0	11.3	0.0	7.3	0.0	2.0	0.0	6.9

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	96		82		37	
Shrub cover	30		20		7	
Grass/forb cover	63		67		80	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	33		17		33	
High terrace	33		50		50	
Low terrace	33		33		17	
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		5		13	

RIPARIAN ZONE VEGETATION

Reach 1

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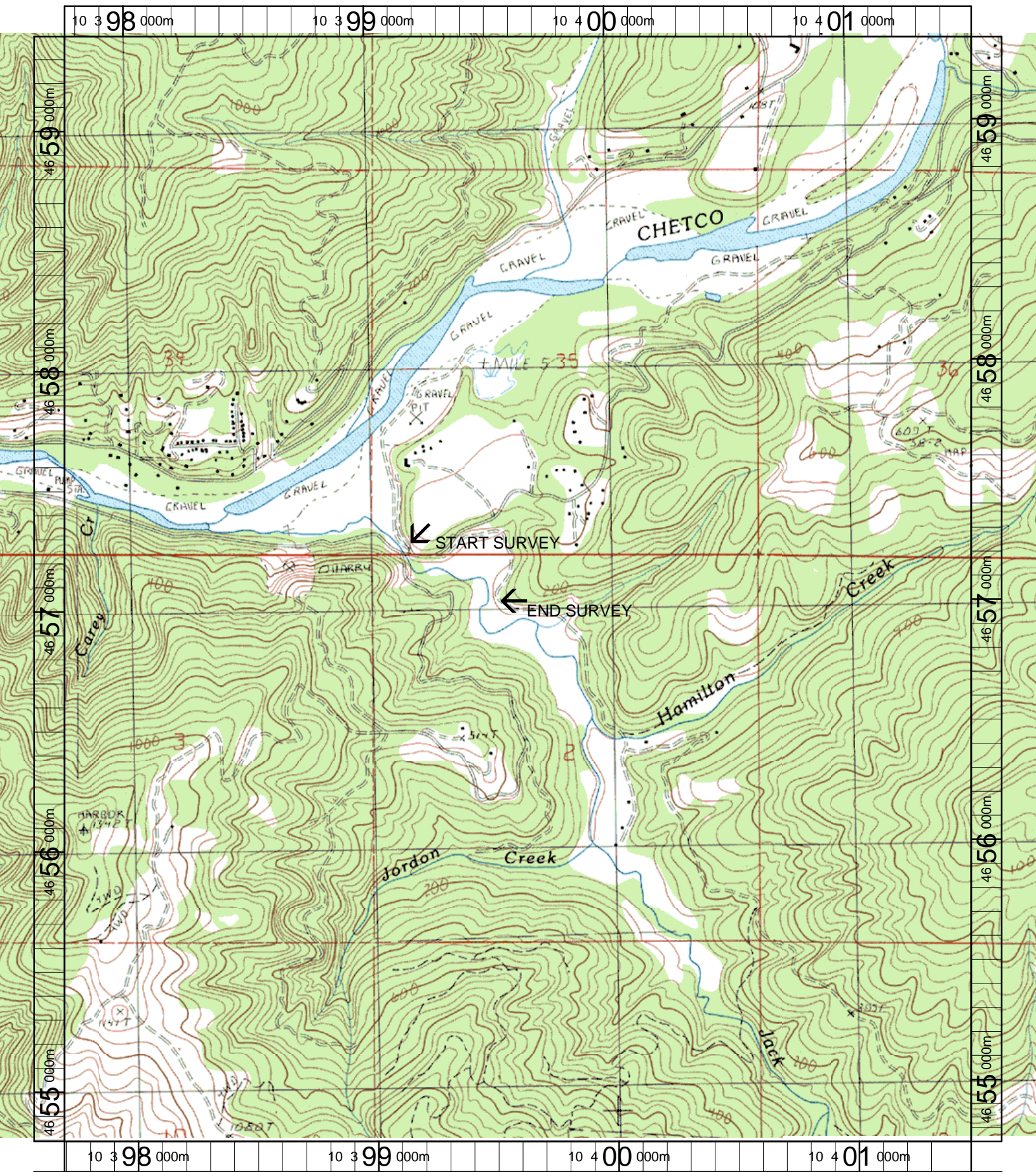
Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes	
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90		
12	RT	2	HT	0	90	60	20	Conifer							
								Hardwood	5	1					
12	RT	3	HT	0	20	20	80	Conifer							BLACKBERRIES
								Hardwood							
12	LF	2	LT	0	100	20	60	Conifer							WILLOW, ALDER
								Hardwood	5						
12	RT	1	HT	0		40	40	Conifer							BLACKBERRIES, WILLOW
								Hardwood	2						
12	LF	1	LT	0	100	20	80	Conifer							BLACKBERRIES, WILLOW
								Hardwood	6						
12	LF	3	HS	40	20	0	60	Conifer							BLACKBERRIES, ALDER
								Hardwood	1	1					
15	LF	1	LT	0	90	40	60	Conifer							SEEDLING REDWOODS, ALDER
								Hardwood	8	4					
15	LF	3	LT	0	70	0	100	Conifer							
								Hardwood							
15	RT	1	HS	10	90	20	80	Conifer							20% HT ALDER
								Hardwood			1				
15	RT	2	HS	20	90	20	60	Conifer							
								Hardwood							
15	RT	3	HS	40	100	20	60	Conifer							MYRTLE
								Hardwood	1	2				1	
15	LF	2	LT	0	100	0	80	Conifer							WILLOW
								Hardwood	3	3					
20	RT	1	HS	10	100	20	80	Conifer							ALDER, GOLF COURSE GREEN
								Hardwood	3	5					
20	RT	2	HT	0	40	0	100	Conifer							
								Hardwood							
20	LF	3	HT	0	0	0	80	Conifer							GOLF COURSE GREEN
								Hardwood							ELDERBERRY
20	LF	2	HT	10	70	20	80	Conifer							
								Hardwood	4	1					
20	LF	1	HT	0	100	40	40	Conifer							ALDER
								Hardwood	1	3	1				
20	RT	3	HT	0	10	0	100	Conifer							GOLF COURSE GREEN
								Hardwood							

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: 5-SC SITE ID: 188 JACK CREEK POST-TX (S-188)

<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	SC	00	5.2	BC CS/SS	T=14 DEG C AT 9:20	PHOTO 0010 TEMP=14 DEG
2	LP	00	40.1	WL, HS	EST TERRACE HT	FROG, FRY OLD STRUCTUR
4	LP	00	73.5	/SS		SEEP ENTERS FROM ROCK
5	LP	00	86.3	HS		NEW STRUCTURE NOT CAB
6	LP	01	97.4	HS		OLD CABLED ROCKS
8	PP	00	129.8			CT, TROUT FRY, BDRK IS C
9	SS	00	133.6	PA	H OF DAM=1.3	PHOTO 0011 DAM HT=1.3
10	LP	00	148.2	CS/	T DAM WIDTH=15.9	FISH LADDER WEIR AT DAM
11	RI	00	174.6	CS/SS/HS	MOVED METRICS DUE T	OLD STRUCTURE
12	GL	00	189.6	BV		
13	LP	00	239.5	HS		OLD LAMPREY REDS, TROU
14	SC	00	243.1	HS		OLD CABLED LOGS
15	LP	00	276.1	FC		GOLF COURSE FENCE
16	LP	00	314.3	/CS, BC		GOLF COURSE BRIDGE
17	SC	00	320.5	WL		FROG
18	LP	00	341.3	HS		TROUT FRY, OLD STRUCTU
20	LP	00	417.4	HS, BV		OLD CABLED LOGS - 4
22	LP	00	451.1	HS		OLD CABLED STRUCTURES-
23	RI	00	468.2	HS		CABLED ROOTWAD, OLD
24	LP	00	507.4	CS/		DEAD PGS
27	SC	00	538.5		T=14 AT 14:20	PHOTO 0012 AT 14:20 UPST



Name: MT EMILY
 Date: 6/11/2003
 Scale: 1 inch equals 1666 feet

Location: 10 399607 E 4657072 N
 Caption: JACK CREEK RESTORATION SITE - CHETCO BASIN