

**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: June 16, 2005  
SURVEY CREW: Justin Gerding, Greg Ryder  
REPORT PREPARED BY: Paul Jacobsen  
BASIN AREA: 22.9 km<sup>2</sup>  
USGS MAPS: Mount Emily  
ECOREGION: Coast Range California Extension

**GENERAL DESCRIPTION:**

The Jack Creek habitat survey extended 578 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 9.9 (range: 6.0-20.0). Land use for the reach was greenway and second growth (15-30 cm dbh) trees. The average unit gradient was 1.0 percent. Scour pools (51%) and riffles (48%) dominated stream habitat. Gravel (63%) and sand (20%) dominated stream substrate. Wood volume was low at 13.5 m<sup>3</sup>/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

T41S-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	9.9	VWI Range:	6 - 20

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	578	3,872	0
Secondary Channel	0	0	0
Off-Channel Units	10	43	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 4	<u>First Terrace</u> n = 4
Width: 6.6	Width: 10.4	12.8 ( 11.1 - 15.5 )	15.1 ( 13.2 - 17.1 )
Depth: 0.65	Height: 0.6	1.2 ( 1.2 - 1.2 )	1.9 ( 1.3 - 3 )

W:D ratio: 17.3  
 Stream Flow Type: LF  
 Average Unit Gradient: 1.0%  
 Water temperature (°C): 12.5 - 12.5

Entrenchment (ACW:FPW ratio): 1.2  
 Habitat Units/100m (total channel length): 4.6  
 Habitat Units/100m (primary channel length): 4.7

**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: 69%
Undercut Banks:	3%	Range: 14 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	53	9.2
Volume (m <sup>3</sup> ):	78	13.5
Key pieces (>=12m x 0.60m):	5	0.9

HABITAT INVENTORY

Report Date: 4/26/2006

Survey Date:

6/16/2005

REACH 1		T41S-R13W-S02NW					REACH 1					
HABITAT DETAIL												
Habitat Type	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m <sup>2</sup> )	Large Boulders (#>0.5m)	Substrate Percent Wetted Area					
							S/O	Snd	Grvl	Cbl	Bldr	Bdrk
POOL-BACKWATER	1	10	4.3	0.95	43	0	20	40	40	0	0	0
POOL-LATERAL SCOUR	11	287	6.8	1.09	1,993	94	5	29	46	5	15	0
RIFFLE	11	206	6.4	0.25	1,307	28	0	12	79	5	5	0
RIFFLE W/ POCKETS	4	85	6.7	0.45	572	25	0	15	71	5	9	0
<b>Total:</b>	<b>27</b>	<b>588</b>	<b>6.6</b>	<b>0.65</b>	<b>3,914</b>	<b>147</b>	<b>Avg: 3</b>	<b>20</b>	<b>63</b>	<b>5</b>	<b>9</b>	<b>0</b>

HABITAT SUMMARY									
Habitat Group	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area		Large Boulders		
					(m <sup>2</sup> )	Percent	Number	(# / 100m <sup>2</sup> )	
Dammed & BW Pools	1	10	4.3	0.95	43	1.09%	0	0.0	
Scour Pools	11	287	6.8	1.09	1,993	50.91%	94	4.7	
Glides	0	0			0	0.00%	0	0.0	
Riffles	15	291	6.5	0.31	1,879	48.00%	53	2.8	
Rapids	0	0			0	0.00%	0	0.0	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	0	0			0	0.00%	0	0.0	
Dry	0	0			0	0.00%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

POOL SUMMARY			
	<u>Total</u>	<u>Total of all Channel Lengths # / Km</u>	<u>Primary Channel Length # / Km</u>
All Pools:	12	20.4	20.8
Pools >=1m deep:	8	13.6	13.8
Complex pools (LWD pieces>=3):	6	10.2	10.4
Pool frequency (channel widths/pool):	4.7		
Residual pool depth (avg):	0.93		

OREGON DEPARTMENT OF FISH AND WILDLIFE  
HABITAT INVENTORY

JACK CREEK POST-TX  
GCG: 5-SC SITE ID: 188

Survey Date 6/16/2005  
Report Date: 4/26/2006

RIPARIAN ZONE  
VEGETATION SUMMARY

REACH 1

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

Total hardwoods/1000	996
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	3.3	0.0	1.0	0.0	0.7	0.0	5.0
15-30cm	0.0	5.0	0.0	3.7	0.0	1.3	0.0	10.0
30-50cm	0.0	0.7	0.0	0.0	0.0	0.7	0.0	1.3
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	9.0	0.0	4.7	0.0	2.7	0.0	5.4

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	62		50		38	
Shrub cover	43		35		38	
Grass/forb cover	57		62		50	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	0		33		33	
High terrace	100		67		67	
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 (%)	0		12		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	996
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-m wide band**

Diameter class (cm)	Zones 1-3	
	<u>0-30 meters</u>	
	<u>Conifer</u>	<u>Hardwood</u>
3-15cm	0.0	5.0
15-30cm	0.0	10.0
30-50cm	0.0	1.3
50-90cm	0.0	0.0
>90cm	0.0	0.0

**RIPARIAN ZONE VEGETATION**

Reach 1

Reach 1

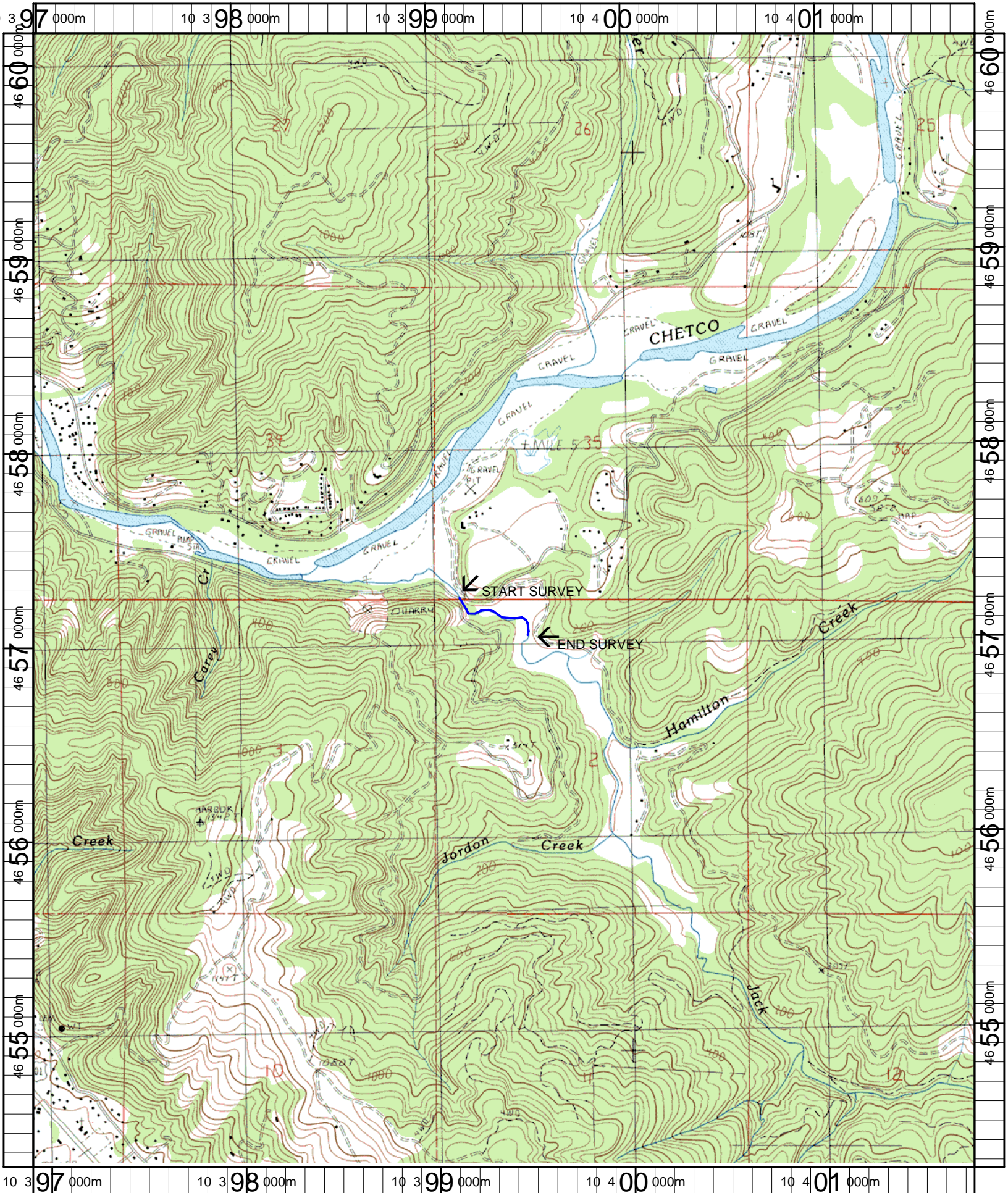
Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes	
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90		
10	LF	1	HT	0	0	40	60	Conifer							WILLOW
								Hardwood	3						
10	LF	2	HS	50	10	100	0	Conifer							ALL BLACKBERRIES
								Hardwood							S
10	LF	3	HS	50	10	90	10	Conifer							CASCARA
								Hardwood	1						
10	RT	1	HT	0	60	40	60	Conifer							ALDER
								Hardwood	3	3					
10	RT	2	HT	0	70	30	70	Conifer							WILLOW
								Hardwood	1	3					
10	RT	3	HT	0	50	100	0	Conifer							ASH
								Hardwood			1				
14	LF	3	HT	0	80	40	60	Conifer							YOUNG REDWOODS, ALDER,
								Hardwood	1	4	1				
14	RT	3	HS	20	90	0	100	Conifer							
								Hardwood							
14	LF	2	HT	0	90	60	40	Conifer							YOUNG REDWOODS
								Hardwood	1	4					
14	RT	1	HT	0	100	30	70	Conifer							ALDER
								Hardwood		1					
14	RT	2	HS	20	100	10	90	Conifer							MAPLE, MYRTLE
								Hardwood	1	4					
14	LF	1	HT	0	100	80	20	Conifer							YOUNG REDWOODS, ALDER, MYRTLE, ALDER
								Hardwood	2	4					
20	LF	1	HT	0	100	30	70	Conifer							
								Hardwood		7	2				
20	RT	3	HT	0	0	0	100	Conifer							GOLF COURSE
								Hardwood							
20	RT	2	HT	0	0	10	90	Conifer							GOLF COURSE
								Hardwood							
20	RT	1	HT	0	10	40	60	Conifer							ALDER
								Hardwood	2						
20	LF	3	HT	0	0	0	30	Conifer							GOLF COURSE, POND
								Hardwood							
20	LF	2	HT	0	30	0	80	Conifer							
								Hardwood							

# Comment Summary

## Restoration Monitoring Sites 2005

MONITORING AREA: **5-SC**      SITE ID: **188**      JACK 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>
1	LP	00	16.2	BC, CS/CS		RIPRAP, S BANK CHETCO R
3	LP	00	63.3	/SS		MUDDY WATER ENTERS FR
5	LP	01	103.7	HS		
7	RP	00	126.3			POCKETS CREATED BY BLD
8	RI	00	148.6			LOCATION OF REMOVED DA
9	LP	00	173.6	CS/		
11	RI	00	216.9	/CS		RIPRAP
12	LP	00	242	CS/CS, HS		CABLED LOGS
13	RP	00	260.4	/CS, HS		POCKETS CREATED BY CAB
14	RI	00	286.7	HS		
15	RI	00	306.6	FC		
16	LP	00	336.5	BC		FOOTBRIDGE
17	LP	00	371.7	HS		
18	RP	00	396.7	HS		POCKETS CREATED BY BOU
20	LP	00	436.8		GOLF COURSE	
22	LP	00	485.4	HS		
23	RI	00	494.2	HS		
24	LP	00	540.4	CS/, HS		



Name: MT EMILY  
 Date: 5/2/2006  
 Scale: 1 inch equals 2000 feet

Location: 10 399364 E 4657213 N  
 Caption: JACK CREEK RESTORATION SITE - CHETCO BASIN