

**ODFW AQUATIC INVENTORY PROJECT
RESTORATION MONITORING
STREAM HABITAT REPORT**

STREAM: JACK CREEK
 GCG: 5-SC
 SITE ID: 188
 BASIN: CHETCO
 TREATMENT DATE: 2003
 SURVEY DATE: 4/14/2009
 SURVEY CREW: David Jones / Ryan Emig
 USGS MAPS: MT EMILY
 ECOREGION: Southern Oregon Coastal Mountain
 REPORT PREPARED BY: Matt Strickland / Sharon Tippery / Charles Stein

REACH: 1 LOCATION: T41S-R13W-S02NW

SURVEY DESCRIPTION:

Channel morphology: Constrained by high terraces
 Dominant landuse(s): No use identified by survey crew
 Dominant riparian vegetation: Deciduous trees: size class 30-50cm dbh
 Primary channel length (meters) and area (m²): 561 : 4,287
 Secondary channel length (meters) and area (m²) 46 : 105
 VWI average: 12.8 VWI Range: 7 - 20 Average Gradient: 0.4%
 Pieces LWD per 100m: 9.6 Wood Volume (m³) per 100m: 14.3
 Percent pools: 61% Complex pools (LWD pieces>=3): 5 Pools >=1m deep: 1
 Percent substrate (avg):

	<u>Silt / organics</u>	<u>Sand</u>	<u>Gravel</u>	<u>Cobble</u>	<u>Boulder</u>	<u>Bedrock</u>
All units	3	21	58	5	9	4
Pool units	2	26	53	4	15	0
Fast water units	1	10	74	5	6	2

SURVEY COMMENTS:

The Jack Creek habitat survey is a post-treatment, long term monitoring site. The crew noted a non-functioning concrete fish trap approximately 170 meters upstream from the start of the survey. Habitat structures consisting of cabled logs, stumps, and boulders were noted throughout the survey. The crew also noted observing juvenile salmonids and a frog. There were no potential barriers to upstream fish migration within the survey reach. A previous post-treatment habitat survey was conducted during the winter of 2005. Comparisons were made among key coho salmon habitat attributes: total secondary channel length, pieces of LWD per 100 m, wood volume per 100 m, percent pools, and complex pools. All key attributes decreased slightly except secondary channel length and percent pools, which increased.

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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	12.8	VWI Range:	7 - 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	561	4,287	0
Secondary	46	105	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 6.9	Width: 10.2	11.9 (9.9 - 13.7)	15.6 (14.5 - 17)
Depth: 0.69	Height: 0.4	0.8 (0.7 - 0.8)	2.0 (1.1 - 3.8)

W:D ratio: 26.1

Stream Flow Type:

Average Unit Gradient: 0.4%

Water temperature (°C): 8.0 - 8.0

Entrenchment (ACW:FPW ratio): 1.2

Habitat Units/100m (total channel length): 4.6

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

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	NU	LT
Riparian Vegetation:	D30	S

Bank Condition and Shade

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

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	54	9.6
Volume (m ³):	80	14.3
Key pieces (>=12m x 0.60m):	6	1.1

OREGON DEPT OF FISH AND WILDLIFE
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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	9	0.7	0.07	6	0	5	5	50	20	0	20
POOL-BACKWATER	2	27	2.0	0.25	61	0	20	67	11	0	3	0
POOL-LATERAL SCOUR	13	337	8.2	1.18	2,701	0	2	26	53	4	15	0
RIFFLE	7	196	7.0	0.29	1,339	0	1	12	78	4	5	0
RIFFLE W/ POCKETS	2	28	7.5	0.40	209	0	0	8	73	5	15	0
STEP/BEDROCK	1	2	0.3	0.10	0	0	5	5	14	0	0	76
STEP/COBBLE	2	9	8.5	0.23	77	0	0	5	82	10	3	0
Total:	28	607	6.9	0.69	4,392	0	Avg: 3	21	58	5	9	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	2	27	2.0	0.25	61	1.38%	0	0.0
Scour Pools	13	337	8.2	1.18	2,701	61.48%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	9	224	7.1	0.31	1,548	35.24%	0	0.0
Rapids	0	0			0	0.00%	0	0.0
Cascades	1	9	0.7	0.07	6	0.14%	0	0.0
Step/Falls	3	11	5.8	0.18	77	1.76%	0	0.0
Dry	0	0			0	0.00%	0	0.0
Culverts	0	0			0	0.00%	0	0.0

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POOL SUMMARY

	<u>Total</u>	Total of all Channel Lengths <u># / Km</u>	Primary Channel Length <u># / Km</u>
All Pools:	15	24.7	26.7
Pools >=1m deep:	11	18.1	19.6
Complex pools (LWD pieces>=3):	5	8.2	8.9
Pool frequency (channel widths/pool):	4.0		
Residual pool depth (avg):	0.83		

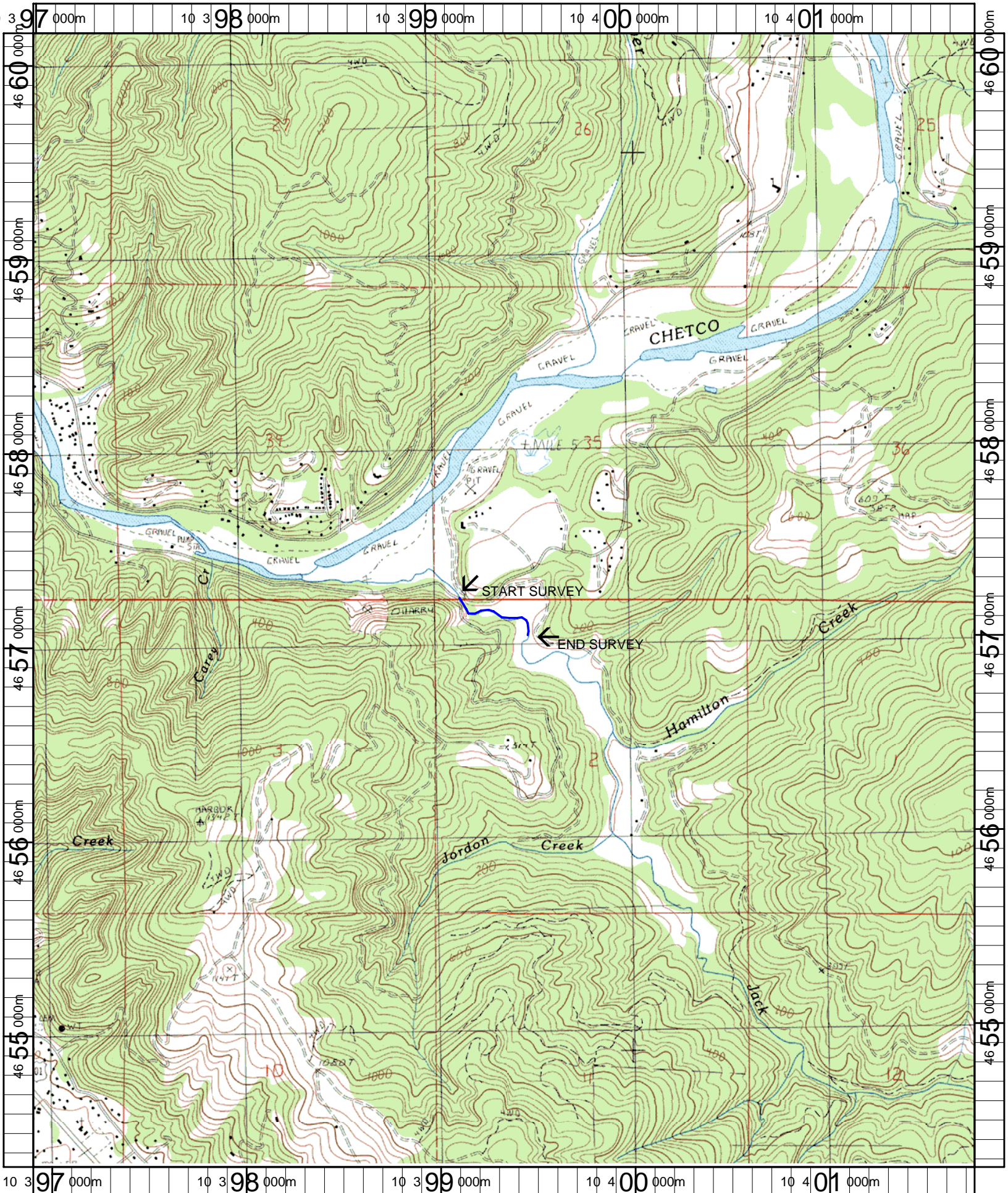
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OREGON PLAN MONITORING SITE
SURVEY DATE: 4/14/2009

COMMENT SUMMARY

MONITORING AREA: 5-SC SITE ID: 188 STREAM: JACK CREEK

REACH	UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	1	LP	00	40	BC,CS\CS	SOUTH BANK CHETCO RIVER RD
1	2	RI	01	89	HS	EROSION ALONG LEFT BANK
1	3	BW	10	89	DJ,HS,\SS	
1	4	LP	01	113	HS,\CS	EROSION OF RIGHT STREAM BANK
1	6	CR	12	113	WL	T=7.25C, ACW=1.0M, MINK CROSSED TRIB
1	7	RI	01	142	AM	FROG
1	9	LP	00	171	CS,\HS	OLD NON FUNCTION CONCRETE FISH TRAP ON LEFT BA
1	11	LP	00	236	\CS,HS	
1	12	RP	00	251	HS,\CS	
1	13	RI	00	290	HS,\CS	
1	15	LP	01	325	BC	GOLF COURSE BRIDGE
1	21	SC	00	407		VWI = 27
1	22	LP	00	431	HS	
1	23	RI	00	446	HS	
1	24	LP	00	463	HS	BOULDERS CABLED TO HAB STUMPS
1	25	RP	00	476	HS	
1	26	LP	00	530	HS,CS\	
1	28	LP	00	561	HS,WL,AM	SALMONID SMOLTS, FROG



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

Jack Creek (SC-188) 2009 Winter Habitat Survey Photographs



Downstream view near the start of the survey.



Downstream view of placed large wood habitat structure.