

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

STREAM: PEA CREEK
 GCG: 5-SC
 SITE ID: 145
 BASIN: EUCHRE
 TREATMENT DATE: 2002
 SURVEY DATE: 4/1/2009
 SURVEY CREW: David Jones / Ryan Emig
 USGS MAPS: BRUSHY BALD MTN
 ECOREGION: Coastal Uplands
 REPORT PREPARED BY: Matt Strickland / Sharon Tippery / Charles Stein

REACH: 1 LOCATION: T35S-R14W-S09NE

SURVEY DESCRIPTION:

Channel morphology: Constrained by high terraces
 Dominant landuse(s): Heavy grazing pressure
 Dominant riparian vegetation: Mixed conifer/deciduous: size class 3-15cm dbh
 Primary channel length (meters) and area (m²): 499 : 1,222
 Secondary channel length (meters) and area (m²): 54 : 82
 VWI average: 20.0 VWI Range: 20 - 20 Average Gradient: 1.8%
 Pieces LWD per 100m: 2.6 Wood Volume (m³) per 100m: 4.7
 Percent pools: 34% Complex pools (LWD pieces \geq 3): 2 Pools \geq 1m deep:0
 Percent substrate (avg):

	<u>Silt / organics</u>	<u>Sand</u>	<u>Gravel</u>	<u>Cobble</u>	<u>Boulder</u>	<u>Bedrock</u>
All units	8	25	64	2	1	0
Pool units	6	29	62	2	1	0
Fast water units	4	14	78	3	1	0

SURVEY COMMENTS:

The Pea Creek habitat survey is a post-treatment, long term monitoring site. The crew noted habitat structures throughout the survey. There were no potential barriers to upstream fish migration observed within the survey reach. A previous post-treatment habitat survey was conducted during the winter of 2003. 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 increased significantly except wood volume and pieces of LWD, which showed a slight decrease.

Survey Date: 4/1/2009

Report Date: 2/16/2010

T35S-R14W-S09NE

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	20.0	VWI Range:	20 - 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	499	1,222	0
Secondary	54	82	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 2.3	Width: 2.9	4.6 (2.5 - 6)	9.0 (3.7 - 12)
Depth: 0.35	Height: 0.3	0.6 (0.6 - 0.7)	1.3 (0.8 - 1.7)

W:D ratio: 9.3

Stream Flow Type: MF

Average Unit Gradient: 1.8%

Water temperature (°C): 9.0 - 9.0

Entrenchment (ACW:FPW ratio): 1.5

Habitat Units/100m (total channel length): 13.5

Habitat Units/100m (primary channel length): 15.0

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	HG	RR
Riparian Vegetation:	M3	G

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):	13	2.6
Volume (m ³):	24	4.7
Key pieces (>=12m x 0.60m):	1	0.2

OREGON DEPT OF FISH AND WILDLIFE
HABITAT INVENTORY

PEA CREEK
GCG: 5-SC SITE ID: 145

Survey Date: 4/1/2009

Report Date: 2/16/2010

T35S-R14W-S09NE

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
CULVERT CROSSING	1	20	2.0	0.20	40	0	0	0	100	0	0	0
POOL-BACKWATER	3	11	1.9	0.35	27	0	33	63	3	0	0	0
POOL-ISOLATED	1	3	1.0	0.15	3	0	30	70	0	0	0	0
POOL-LATERAL SCOUR	26	162	2.5	0.52	401	0	6	28	63	2	1	0
POOL-PLUNGE	7	18	2.3	0.59	43	0	6	32	57	4	2	0
RAPID/BOULDERS	1	3	2.5	0.20	6	0	0	5	71	14	10	0
RIFFLE	27	328	2.3	0.21	769	0	5	15	78	2	1	0
STEP/BEDROCK	1	1	1.2	0.20	2	0	57	38	5	0	0	0
STEP/COBBLE	5	6	2.0	0.18	11	0	7	27	61	5	0	0
STEP/LOG	2	1	2.3	0.18	3	0	0	18	79	3	0	0
STEP/STRUCTURE	1	1	0.2	0.20	0	0	32	32	32	5	0	0
Total:	75	554	2.3	0.35	1,304	0	Avg: 8	25	64	2	1	0

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	4	14	1.7	0.30	30	2.31%	0	0.0
Scour Pools	33	180	2.5	0.53	443	33.99%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	27	328	2.3	0.21	769	58.94%	0	0.0
Rapids	1	3	2.5	0.20	6	0.48%	0	0.0
Cascades	0	0			0	0.00%	0	0.0
Step/Falls	9	9	1.8	0.18	16	1.21%	0	0.0
Dry	0	0			0	0.00%	0	0.0
Culverts	1	20	2.0	0.20	40	3.07%	0	0.0

OREGON DEPT OF FISH AND WILDLIFE
HABITAT INVENTORY

PEA CREEK
GCG: 5-SC SITE ID: 145

Survey Date: 4/1/2009

Report Date: 2/16/2010

T35S-R14W-S09NE

REACH 1

POOL SUMMARY

	<u>Total</u>	Total of all Channel Lengths <u># / Km</u>	Primary Channel Length <u># / Km</u>
All Pools:	37	66.8	74.1
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	2	3.6	4.0
Pool frequency (channel widths/pool):	5.1		
Residual pool depth (avg):	0.35		

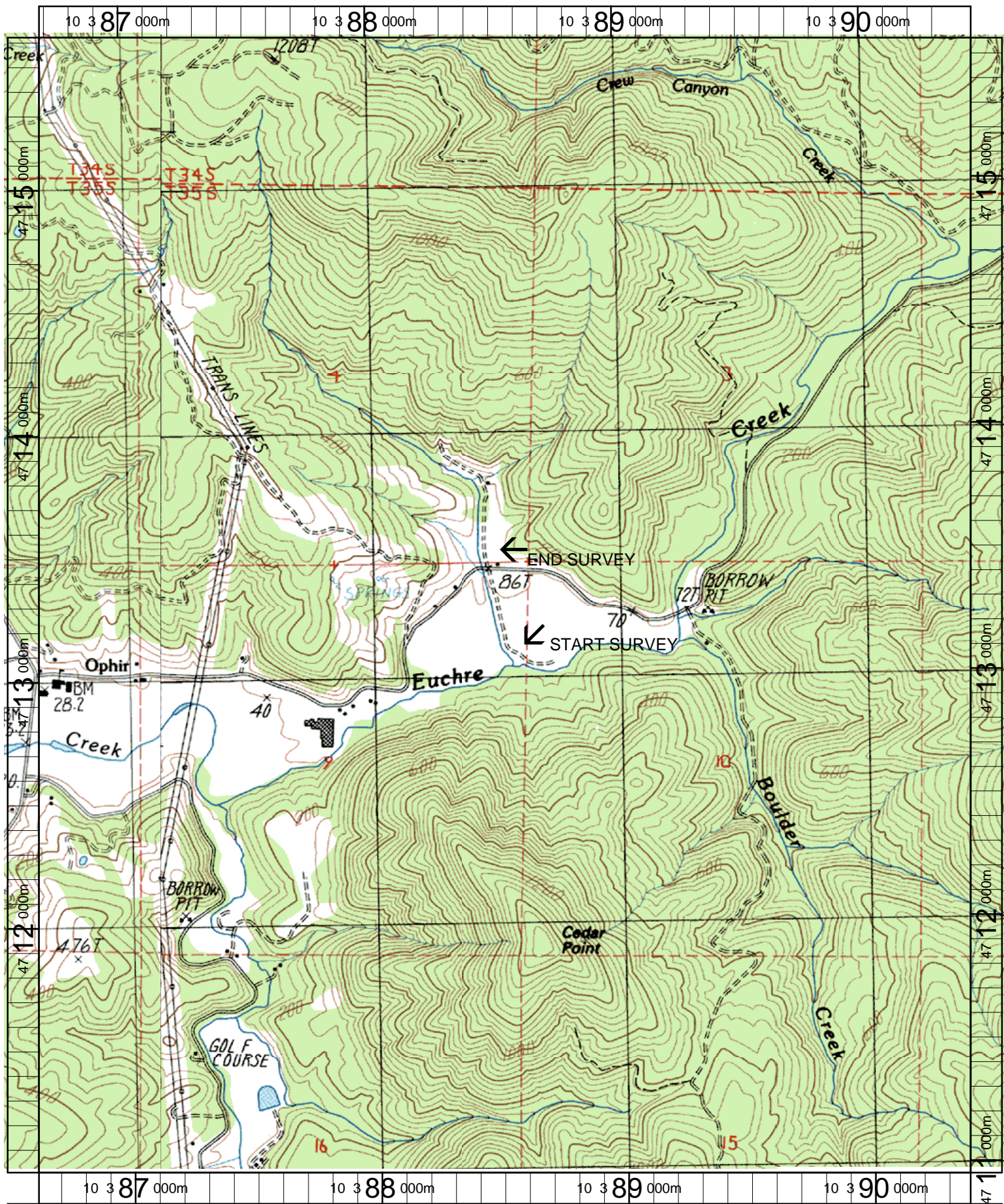
OREGON DEPT OF FISH AND WILDLIFE
HABITAT INVENTORY

OREGON PLAN MONITORING SITE
SURVEY DATE: 4/1/2009

COMMENT SUMMARY

MONITORING AREA: 5-SC SITE ID: 145 STREAM: PEA CREEK

REACH	UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	7	RI	00	59.5		VWI IS AT LEAST 200
1	9	RI	00	84	/CS	
1	11	RB	00	91.5	/CS	
1	13	RI	00	104.5		VWI IS AT LEAST 200
1	17	RI	01	150.5	/SS,HS	
1	22	SL	00	162.5		STEP LOG IS A LIVE TREE
1	23	RI	00	177		OLD ROAD CROSSING - NO BRIDGE OR CULVERT
1	34	RI	00	227.7		VWI = 150
1	35	LP	00	231.7	BC	
1	42	LP	00	268.7	HS	
1	56	RI	00	357.7		VWI = 138
1	60	SR	00	375.6		BEDROCK=HARDPAN
1	61	RI	00	395.6	HS	
1	62	LP	00	406.6	HS,SS/	
1	66	RI	01	439.4	/TJ	
1	67	BW	10	439.4	TJ	TRIB FLOWS INTO BW
1	70	SS	10	439.4	CC	CULVERT IS 0.5M ROUND PLASTIC
1	72	CC	00	463.4	CC	NO STEP, DIA=2.5M, HALF NATURAL SUBSTRATE
1	75	RI	00	499.4		VWI = 45



Name: BRUSHY BALD MT
 Date: 3/21/2003
 Scale: 1 inch equals 1666 feet

Location: 10 388528 E 4713289 N
 Caption: PEA CREEK RESTORATION SITE - EUCHRE BASIN

Pea Creek (SC-145) 2009 Winter Habitat Survey Photographs



Upstream view of Pea Creek and active channel near start of survey.



Downstream view of stream through dense riparian cover.



Upstream view of stream and dominate substrate.



Upstream view near the end of the survey.