

**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: 7/8/2008  
 SURVEY CREW: Drew Harper / Frank Drake  
 USGS MAPS: BRUSHY BALD MTN  
 ECOREGION: Coastal Uplands  
 REPORT PREPARED BY: Matt Strickland / Sharon Tippery / Charles Stein

**SURVEY DESCRIPTION:**

Channel morphology: Constrained by high terraces

Dominant landuse(s): Agricultural crop or dairy land.

Dominant riparian vegetation: Deciduous trees: size class 3-15cm dbh

Primary channel length (meters) and area (m<sup>2</sup>): 476 : 717

Secondary channel length (meters) and area (m<sup>2</sup>) 35 : 31

VWI average: 20.0 VWI Range: 20 - 20 Average Gradient: 1.5%

Pieces LWD per 100m: 3.2 Wood Volume (m<sup>3</sup>) per 100m: 5.2

Percent pools: 40% Complex pools (LWD pieces $\geq$ 3): 2 Pools  $\geq$ 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	13	33	51	3	0	0
Pool units	15	49	32	4	1	0
Fast water units	4	18	74	3	0	0

**COMMENTS:**

This is a post-treatment, long term monitoring site. The crew noted a yellow-legged frog and a brook lamprey digging a redd.

**OREGON DEPARTMENT OF FISH AND WILDLIFE  
HABITAT INVENTORY**

**PEA CREEK  
GCG: 5-SC SITE ID: 145**

**Survey Date: 7/8/2008**

**Report Date: 12/29/2008**

**T35S-R14W-S9NE**

**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	476	717	0
Secondary	35	31	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 1.5	Width: 3.1	5.0 ( 3.5 - 7.6 )	6.8 ( 3.9 - 10.1 )
Depth: 0.23	Height: 0.3	0.6 ( 0.4 - 0.8 )	0.8 ( 0.55 - 1.2 )

W:D ratio: 12.6

Stream Flow Type: LF

Average Unit Gradient: 1.5%

Water temperature (°C): 11.0 - 11.0

Entrenchment (ACW:FPW ratio): 1.7

Habitat Units/100m (total channel length): 11.4

Habitat Units/100m (primary channel length): 12.2

**Riparian, Bank, and Wood Summary**

	<u>Primary</u>	<u>Secondary</u>
Land Use:	AG	LG
Riparian Vegetation:	D3	S

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	1%	Reach avg: 88%
Undercut Banks:	4%	Range: 0 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	15	3.2
Volume (m <sup>3</sup> ):	25	5.2
Key pieces (>=12m x 0.60m):	1	0.2

OREGON DEPARTMENT OF FISH AND WILDLIFE

PEA CREEK

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T35S-R14W-S9NE

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
CULVERT CROSSING	2	23	1.2	0.04	35	0	18	0	80	3	0	0
POOL-DAMMED	1	5	1.5	0.20	7	5	0	5	75	10	10	0
POOL-LATERAL SCOUR	24	153	1.8	0.39	266	3	15	51	31	3	0	0
POOL-STRAIGHT SCOUR	2	10	2.7	0.68	28	0	18	42	29	11	0	0
RIFFLE	20	224	1.4	0.07	295	2	4	16	76	4	0	0
RIFFLE W/ POCKETS	5	95	1.2	0.13	115	0	4	28	68	0	0	0
STEP/LOG	4	3	0.7	0.04	2	0	50	31	19	0	0	0
<b>Total:</b>	<b>58</b>	<b>511</b>	<b>1.5</b>	<b>0.23</b>	<b>748</b>	<b>10</b>	<b>Avg: 13</b>	<b>33</b>	<b>51</b>	<b>3</b>	<b>0</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	5	1.5	0.20	7	0.96%	5	69.4
Scour Pools	26	162	1.9	0.41	294	39.27%	3	1.0
Glides	0	0			0	0.00%	0	0.0
Riffles	25	318	1.4	0.08	410	54.85%	2	0.5
Rapids	0	0			0	0.00%	0	0.0
Cascades	0	0			0	0.00%	0	0.0
Step/Falls	4	3	0.7	0.04	2	0.27%	0	0.0
Dry	0	0			0	0.00%	0	0.0
Culverts	2	23	1.2	0.04	35	4.66%	0	0.0

POOL SUMMARY

	Total of all Channel Lengths		Primary Channel Length
	<u>Total</u>	<u># / Km</u>	<u># / Km</u>
All Pools:	27	52.9	56.8
Pools >=1m deep:	1	2.0	2.1
Complex pools (LWD pieces>=3):	2	3.9	4.2
Pool frequency (channel widths/pool):	6.1		
Residual pool depth (avg):	0.35		

Survey Date 7/8/2008  
Report Date: 12/29/2008

**RIPARIAN ZONE  
VEGETATION SUMMARY**

REACH 1

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

Total hardwoods/1000	0
Total conifers/1000 ft	41
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	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15-30cm	0.7	0.0	0.0	0.0	0.0	0.0	0.7	0.0
30-50cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
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	0.7	0.0	0.0	0.0	0.0	0.0	0.2	0.0

**Canopy closure and ground cover**

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Canopy closure	5	0	0
Shrub cover	55	0	0
Grass/forb cover	43	84	62

**Predominant landform in each zone**

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Hillslope	0	0	0
High terrace	100	83	67
Low terrace	0	0	0
Floodplain	0	0	0
Wetland/meadow	0	0	0
Stream channel	0	0	0
Roadbed/Railroad	0	17	33
Riprap	0	0	0
Surface slope (%)	8	0	0

**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	0
Total conifers/1000 ft	41
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	0.0
15-30cm	0.7	0.0
30-50cm	0.0	0.0
50-90cm	0.0	0.0
>90cm	0.0	0.0

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**RIPARIAN ZONE VEGETATION**

Reach 1

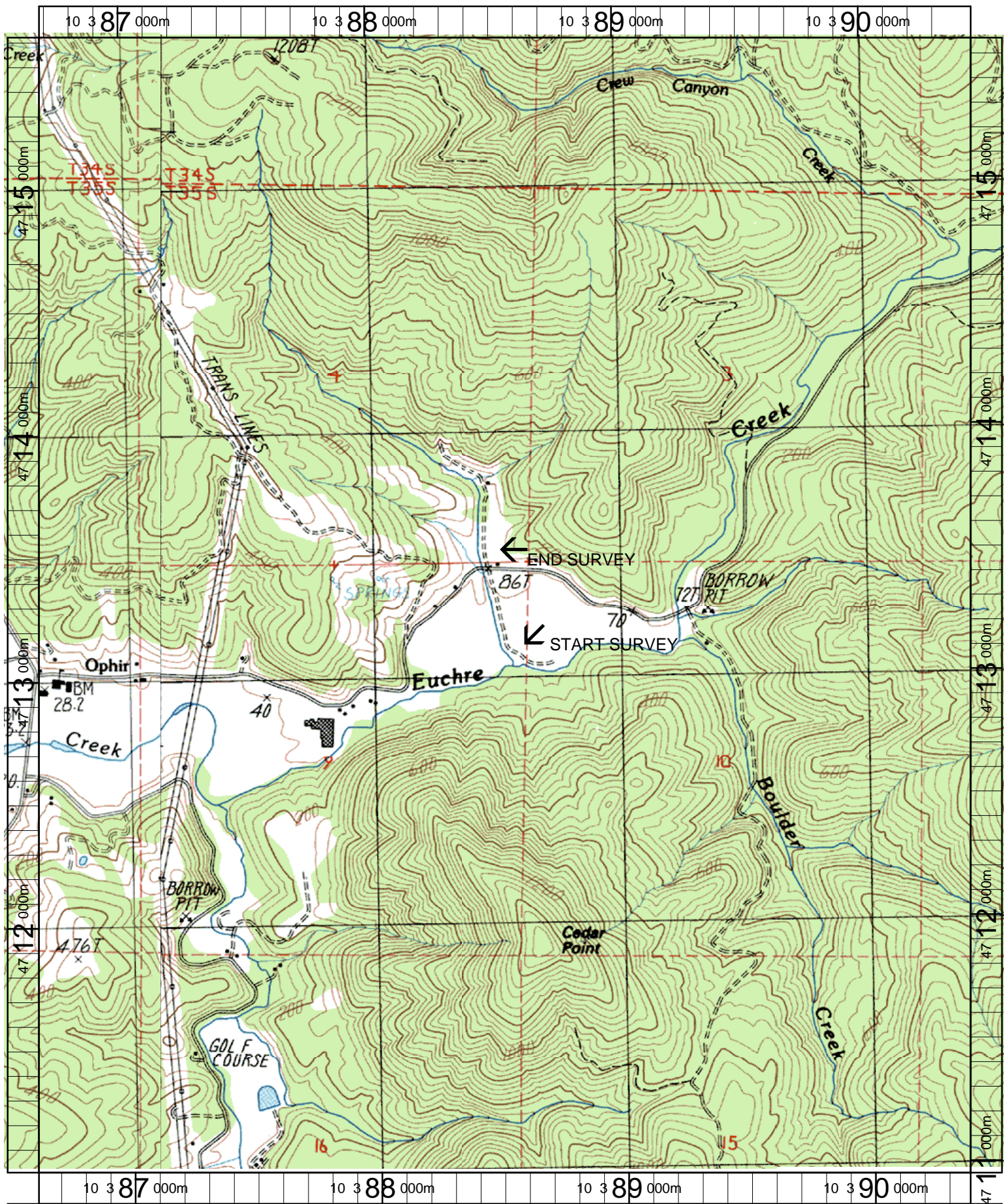
Reach 1

Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes	
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90		
19	LT	1	HT	15	0	75	25	Conifer							
								Hardwood							
19	LT	2	HT	0	0	0	100	Conifer							PASTURE
								Hardwood							
19	LT	3	HT	0	0	0	100	Conifer							PASTURE
								Hardwood							
19	RT	1	HT	15	0	45	45	Conifer							
								Hardwood							
19	RT	2	HT	0	0	0	50	Conifer							1/2 OH DIRT
								Hardwood							ROAD IN
19	RT	3	HT	0	0	0	0	Conifer							ZONE 2
								Hardwood							PASTURE
34	LT	1	HT	0	0	20	80	Conifer							
								Hardwood							
34	LT	2	HT	0	0	0	100	Conifer							
								Hardwood							
34	LT	3	HT	0	0	0	100	Conifer							
								Hardwood							
34	RT	1	HT	5	0	40	60	Conifer							
								Hardwood							
34	RT	2	RB	0	0	0	55	Conifer							
								Hardwood							
34	RT	3	RB	0	0	0	50	Conifer							
								Hardwood							
51	LT	1	HT	6	30	70	30	Conifer				2			
								Hardwood							
51	LT	2	HT	0	0	0	100	Conifer							
								Hardwood							
51	LT	3	HT	0	0	0	100	Conifer							
								Hardwood							
51	RT	1	HT	5	0	80	20	Conifer							
								Hardwood							
51	RT	2	HT	0	0	0	100	Conifer							
								Hardwood							
51	RT	3	RB	0	0	0	20	Conifer							
								Hardwood							

**COMMENT SUMMARY**

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

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	LP	00	5.4	/CS	PHOTO 100-0013
2	RI	00	8.5	/CS	
6	SL	00	25.2	DJ	H=0.35M
8	LP	00	37.4	/CS	
10	DP	00	50.9	/CS	
20	CC	00	144.4	CC, PA	DIA= 0.5M; NO DROP; METAL, CYLINDRICAL; PHOTO 100-0014& 0015
26	SL	00	174.9	DJ	H=0.35M
27	RI	00	194	BC	PRIVATE RD
38	LP	00	292.3		BROOK LAMPREY DIGGING REDD
43	SL	00	320.6		H=0.35M STEP IS MUD HELD IN PLACE BY ROOTS
44	LP	00	333.5	AM; /SS;DJ	RED-LEGGED FROG
47	SL	00	343.8		H=0.40M, SOIL HELD UP BY VEGETATION MAKES STEP
48	RI	00	358.6		MINT AND GRASSES DENSE IN CHANNEL
56	CC	00	439.7	CC	DIA=2.4M; D-SHAPE W/ GRAVEL BEDLOAD; EUCHRE CR RD; NO DROP



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