

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

STREAM: JEFF CREEK
 GCG: 4-UMP
 SITE ID: 405
 BASIN: SMITH
 TREATMENT DATE: 2008
 SURVEY DATE: 7/25/2011
 SURVEY CREW: Eric Bailey and Sara DeRischebourg
 USGS MAPS: GUNTER
 ECOREGION: Mid-Coastal Sedimentary
 REPORT PREPARED BY: Lora Tennant

REACH: 1 LOCATION: T20S-R08W-S23NW

SURVEY DESCRIPTION:

Channel morphology: Constrained alternately by high terraces and hillslopes

Dominant landuse(s): Second growth timber (15-30 cm dbh)

Dominant riparian vegetation: Deciduous trees: size class 15-30cm dbh

Primary channel length (meters) and area (m²): 478 : 2,079

Secondary channel length (meters) and area (m²) 24 : 27

VWI average: 4.4 VWI Range: 3 - 5.5 Average Gradient: 2.5%

Pieces LWD per 100m: Wood Volume (m³) per 100m:

Percent pools: 38% Complex pools (LWD pieces>=3): 0 Pools >=1m deep: 0

<u>Percent substrate (avg):</u>	<u>Silt / organics</u>	<u>Sand</u>	<u>Gravel</u>	<u>Cobble</u>	<u>Boulder</u>	<u>Bedrock</u>
All units	14	19	23	2	5	37
Pool units	18	24	10	0	2	46
Fast water units	3	15	31	5	2	44

SURVEY COMMENTS:

This is a post-treatment (boulders and wood) restoration survey. The crew observed a Dunn's salamander and two rough-skinned newts. Several wood and boulder habitat structures were also observed.

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

**JEFF CREEK
GCG: 4-UMP SITE ID: 405**

Survey Date: 7/25/2011

Report Date: 8/3/2012

T20S-R08W-S23NW

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	4.4	VWI Range:	3 - 5.5

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	0%	Single Channel	0%
Bedrock	0%	Multiple Channel	0%
Terrace	0%	Braided Channel	0%
Alt. Terrace/Hill	100%		
Landuse	0%		

Channel Characteristics

<u>Type</u>	<u>Length (m)</u>	<u>Area (m2)</u>	<u>Dry Units</u>
Primary	478	2,079	0
Secondary	24	27	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 3.8	Width: 6.7	10.2 (8.2 - 15.7)	13.9 (11.8 - 16.6)
Depth: 0.15	Height: 0.3	0.7 (0.4 - 0.8)	1.3 (0.9 - 1.6)

W:D ratio: 22.2

Stream Flow Type: LF

Average Unit Gradient: 2.5%

Water temperature (°C): 12.5 - 12.5

Entrenchment (ACW:FPW ratio): 1.5

Habitat Units/100m (total channel length): 9.8

Habitat Units/100m (primary channel length): 10.2

Riparian, Bank, and Wood Summary

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

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	7%	Reach avg: 89%
Undercut Banks:	4%	Range: 69 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	154	32.2
Volume (m ³):	210	43.8
Key pieces (>=12m x 0.60m):	12	2.5

HABITAT INVENTORY

GCG: 4-UMP SITE ID: 405

Survey Date: 7/25/2011

Report Date: 6/8/2012

T20S-R08W-S23NW

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
POOL-BACKWATER	2	14	1.2	0.10	15	0	48	43	8	3	0	0
POOL-DAMMED	6	84	3.9	0.24	331	10	24	35	7	0	1	33
POOL-ISOLATED	3	7	1.5	0.10	10	0	67	18	15	0	0	0
POOL-LATERAL SCOUR	5	58	4.6	0.29	279	31	4	22	18	1	4	51
POOL-PLUNGE	1	4	6.0	0.60	24	0	0	5	0	0	0	95
POOL-STRAIGHT SCOUR	2	26	6.0	0.28	165	2	45	5	5	0	0	45
RAPID/BEDROCK	4	74	5.2	0.09	394	10	1	6	3	0	0	90
RAPID/BOULDERS	2	14	3.4	0.05	79	13	5	29	21	0	3	42
RIFFLE	8	125	2.7	0.12	371	27	3	17	50	3	0	27
RIFFLE W/ POCKETS	1	13	4.4	0.20	58	8	0	5	19	57	19	0
STEP/BEDROCK	3	10	5.0	0.08	52	7	0	5	0	0	2	93
STEP/COBBLE	4	4	2.6	0.05	10	0	13	15	71	0	0	1
STEP/LOG	1	2	4.5	0.10	9	0	0	8	92	0	0	0
STEP/STRUCTURE	7	67	4.6	0.12	307	94	8	23	11	0	27	31
Total:	49	502	3.8	0.15	2,106	202	Avg: 14	19	23	2	5	37

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	11	105	2.8	0.18	357	16.95%	10	2.8
Scour Pools	8	88	5.1	0.33	469	22.25%	33	7.0
Glides	0	0			0	0.00%	0	0.0
Riffles	9	138	2.9	0.13	429	20.37%	35	8.2
Rapids	6	89	4.6	0.08	473	22.47%	23	4.9
Cascades	0	0			0	0.00%	0	0.0
Step/Falls	15	82	4.1	0.09	378	17.96%	101	26.7
Dry	0	0			0	0.00%	0	0.0
Culverts	0	0			0	0.00%	0	0.0

OREGON DEPT OF FISH AND WILDLIFE
HABITAT INVENTORY

JEFF CREEK
GCG: 4-UMP SITE ID: 405

Survey Date: 7/25/2011

Report Date: 6/8/2012

T20S-R08W-S23NW

REACH 1

POOL SUMMARY

	<u>Total</u>	Total of all Channel Lengths <u># / Km</u>	Primary Channel Length <u># / Km</u>
All Pools:	19	37.8	39.7
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	0	0.0	0.0
Pool frequency (channel widths/pool):	3.9		
Residual pool depth (avg):	0.17		

Survey Date 7/25/2011

**RIPARIAN ZONE
VEGETATION SUMMARY**

REACH 1

Report Date: 6/8/2012

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

Total hardwoods/1000	833
Total conifers/1000 ft	61
Total conifers >20" dbh/1000 f	0
Total conifers >35" dbh/1000 f	0

Average number of trees in a 5-meter wide band

Diameter class (cm)	Zone 1 <u>0-10 meters</u>		Zone 2 <u>10 - 20 meters</u>		Zone 3 <u>20 - 30 meters</u>		Zones 1-3 <u>0-30 meters</u>	
	Conifer	Hardwood	Conifer	Hardwood	Conifer	Hardwood	Conifer	Hardwood
3-15cm	0.0	0.0	0.0	1.7	0.0	1.0	0.0	2.7
15-30cm	0.0	3.0	0.0	2.0	0.0	0.7	0.0	5.7
30-50cm	0.0	3.3	0.3	0.3	0.7	0.0	1.0	3.7
50-90cm	0.0	0.3	0.0	0.7	0.0	0.7	0.0	1.7
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	0.0	6.7	0.3	4.7	0.7	2.3	0.3	4.6

Canopy closure and ground cover

	Zone 1 <u>0-10 meters</u>		Zone 2 <u>10 - 20 meters</u>		Zone 3 <u>20 - 30 meters</u>	
	(%)		(%)		(%)	
Canopy closure	76		78		76	
Shrub cover	46		45		32	
Grass/forb cover	54		55		53	

Predominant landform in each zone

	Zone 1 <u>0-10 meters</u>		Zone 2 <u>10 - 20 meters</u>		Zone 3 <u>20 - 30 meters</u>	
	(%)		(%)		(%)	
Hillslope	33		50		50	
High terrace	67		50		0	
Low terrace	0		0		0	
Floodplain	0		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	0		0		50	
Riprap	0		0		0	
Surface slope (%)	15		33		40	

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	833
Total conifers/1000 ft	61
Total conifers >20" dbh/1000 f	0
Total conifers >35" dbh/1000 f	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	2.7
15-30cm	0.0	5.7
30-50cm	1.0	3.7
50-90cm	0.0	1.7
>90cm	0.0	0.0

OREGON DEPT OF FISH AND WILDLIFE
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OREGON PLAN MONITORING SITE
SURVEY DATE: 7/25/2011

COMMENT SUMMARY

MONITORING AREA: 4-UMP SITE ID: 405 STREAM: JEFF CREEK

REACH	UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	1	RR	00	18		0450333/4851297
1	2	SS	00	24	HS	
1	5	LP	01	64.2	HS	
1	7	SC	00	65.4	AM	
1	8	LP	01	79.9	HS, TJ/	
1	9	SC	11	79.9		TEMP=12.5 ACW=.6
1	14	SS	00	116.8	HS	
1	15	DP	00	131.1	HS	
1	16	RI	00	146.7	HS	
1	20	SL	00	177.1	DJ	
1	21	DP	00	179.1		
1	22	RI	00	203.8		

COMMENT SUMMARY

MONITORING AREA: 4-UMP SITE ID: 405 STREAM: JEFF CREEK

REACH	UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	23	SP	00	223.8		
1	24	SS	00	231.5	HS	
1	25	DP	01	261.3		
1	27	RB	00	273.6	HS	
1	28	DP	00	282.7	HS	
1	32	SP	00	299.6		
1	33	SS	01	310.4	HS, AM	
1	34	IP	10	310.4	AM	
1	36	SS	00	339.2	HS	
1	37	DP	01	351.2		
1	38	IP	10	351.2		
1	39	RR	00	373.2	DJ	

COMMENT SUMMARY

MONITORING AREA: 4-UMP SITE ID: 405 STREAM: JEFF CREEK

REACH	UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	40	LP	00	387.2	HS	
1	42	LP	00	411.2		
1	43	SS	00	423.8	HS	
1	44	RI	01	433.8	TJ/	
1	45	RB	11	433.8		T=12.5 ACW=.35
1	46	SS	00	445.8	HS	
1	47	DP	00	462.8		
1	49	SR	00	478.4	HS	0450666/4851065