

**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: 3/4/2009  
 SURVEY CREW: David Jones / Ryan Emig  
 USGS MAPS: GUNTER  
 ECOREGION: Mid-Coastal Sedimentary  
 REPORT PREPARED BY: Matt Strickland / Sharon Tippery / Charles Stein

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 30-50cm dbh

Primary channel length (meters) and area (m<sup>2</sup>): 453 : 2,859

Secondary channel length (meters) and area (m<sup>2</sup>): 17 : 27

VWI average: 4.2 VWI Range: 2 - 7 Average Gradient: 2.5%

Pieces LWD per 100m: 27.6 Wood Volume (m<sup>3</sup>) per 100m: 44.5

Percent pools: 40% Complex pools (LWD pieces>=3): 5 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	2	23	17	8	8	42
Pool units	2	30	13	6	7	42
Fast water units	1	13	21	9	7	49

**SURVEY COMMENTS:**

The Jeff Creek survey is a post-treatment, restoration site. The crew noted habitat structures throughout the survey reach consisting of placed logs and boulders. The crew also noted several debris jams near the of the survey. There were no potential barriers to upstream fish migration observed within the survey.

Survey Date: 3/4/2009

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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	0%
Moderate V-shape	0%	Multiple Terraces	100%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	4.2	VWI Range:	2 - 7

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 (m<sup>2</sup>)</u>	<u>Dry Units</u>
Primary	453	2,859	0
Secondary	17	27	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 4
Width: 5.6	Width: 7.4	9.5 ( 9 - 10.3 )	13.8 ( 12.8 - 15 )
Depth: 0.35	Height: 0.4	0.8 ( 0.7 - 1 )	1.7 ( 1.6 - 1.7 )

W:D ratio: 19.0

Stream Flow Type: MF

Average Unit Gradient: 2.5%

Water temperature (°C): 7.0 - 7.0

Entrenchment (ACW:FPW ratio): 1.3

Habitat Units/100m (total channel length): 8.7

Habitat Units/100m (primary channel length): 9.0

**Riparian, Bank, and Wood Summary**

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	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):	125	27.6
Volume (m <sup>3</sup> ):	202	44.5
Key pieces (>=12m x 0.60m):	3	0.7

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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
CASCADE/BEDROCK	2	17	6.5	0.15	108	0	0	7	7	5	12	68
CASCADE/BOULDERS	1	9	7.5	0.30	68	0	0	10	5	0	15	70
POOL-BACKWATER	1	6	3.0	0.35	17	0	0	35	10	5	5	45
POOL-DAMMED	3	49	6.0	0.75	313	0	2	42	12	8	5	31
POOL-ISOLATED	1	6	0.7	0.35	4	0	20	80	0	0	0	0
POOL-LATERAL SCOUR	8	121	6.5	0.54	810	0	1	24	13	6	7	49
POOL-PLUNGE	2	8	4.3	0.65	40	0	3	37	17	5	10	29
RAPID/BEDROCK	4	62	6.6	0.19	421	0	0	6	4	2	7	81
RAPID/BOULDERS	3	41	5.8	0.25	234	0	0	8	35	20	5	32
RIFFLE	8	133	5.1	0.28	761	0	1	20	31	10	4	33
STEP/BEDROCK	2	8	6.8	0.15	54	0	0	13	5	5	18	60
STEP/BOULDERS	3	9	5.7	0.22	49	0	5	26	10	5	31	23
STEP/COBBLE	1	1	0.5	0.15	1	0	5	10	50	35	0	0
STEP/LOG	2	2	5.0	0.15	9	0	8	33	23	0	3	35
<b>Total:</b>	41	471	5.6	0.35	2,886	0	<b>Avg:</b> 2	23	17	8	8	42

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	5	61	4.3	0.59	334	11.56%	0	0.0
Scour Pools	10	129	6.0	0.56	849	29.42%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	8	133	5.1	0.28	761	26.36%	0	0.0
Rapids	7	103	6.3	0.21	655	22.69%	0	0.0
Cascades	3	26	6.8	0.20	175	6.06%	0	0.0
Step/Falls	8	20	5.2	0.18	113	3.91%	0	0.0
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

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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	31.9	33.1
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	5	10.6	11.0
Pool frequency (channel widths/pool):	4.2		
Residual pool depth (avg):	0.38		

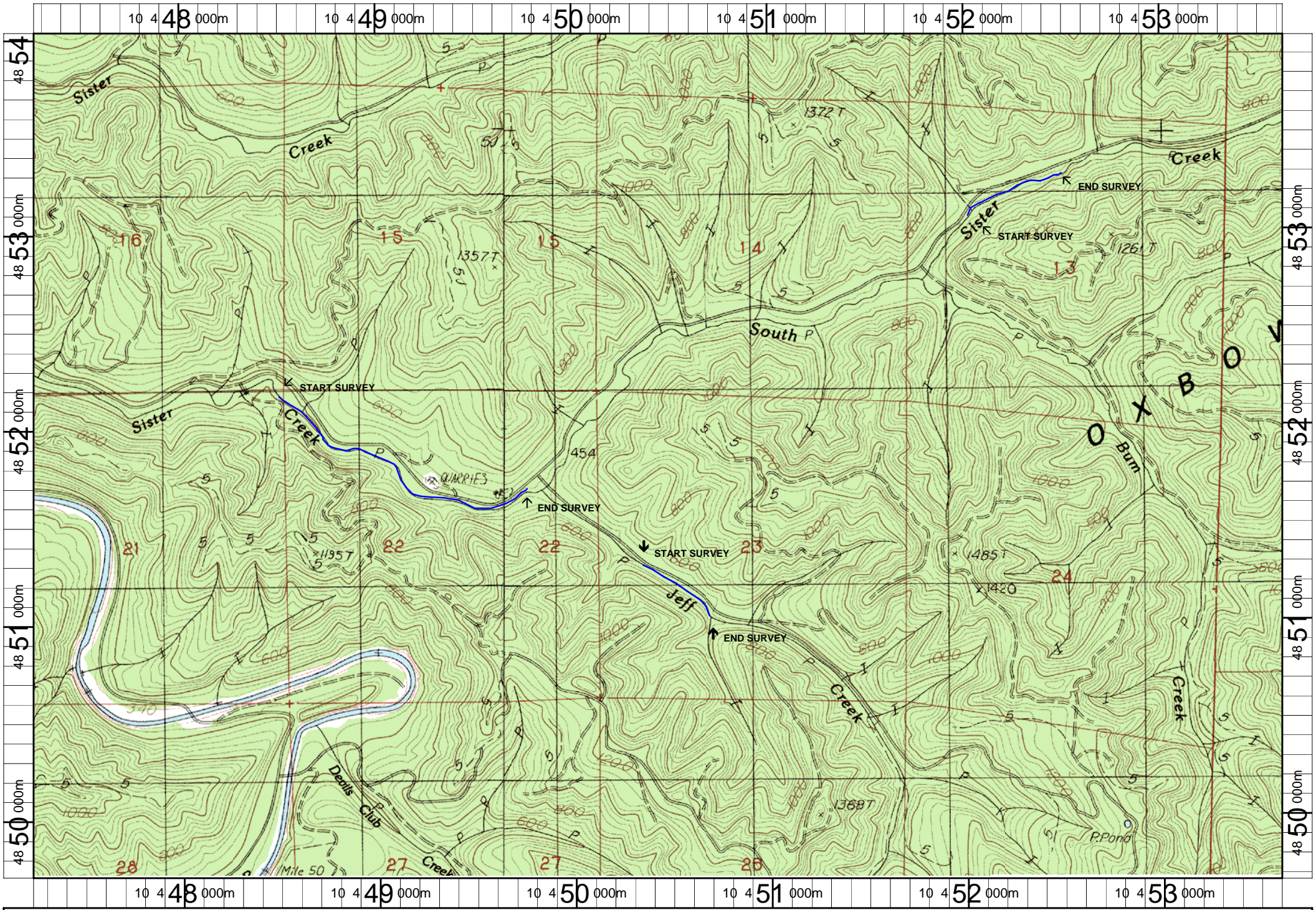
OREGON DEPT OF FISH AND WILDLIFE  
HABITAT INVENTORY

OREGON PLAN MONITORING SITE  
SURVEY DATE: 3/4/2009

COMMENT SUMMARY

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

REACH	UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	1	RI	00	24.6	HS	
1	4	LP	00	38.3	HS	PLACED BOULDERS
1	6	LP	00	51	HS	
1	7	RB	01	78	HS,TJ/	
1	8	SC	11	78		ACW=0.80M, T=6.5C
1	11	RB	00	85.3	HS	
1	12	RI	00	102.3	HS	
1	13	SB	00	104.3	HS,DJ	
1	18	SL	00	146.6	HS	
1	27	SB	00	285.8	SS/,HS	
1	29	SR	00	316.3	HS,DJ	
1	32	LP	00	361.3	HS,DJ	
1	35	LP	00	390.3	HS,DJ	
1	38	CR	00	416.3	HS,DJ	
1	41	CR	00	453.3	HS,DJ	



Name: GUNTER  
 Date: 1/5/2009  
 Scale: 1 inch equals 2000 feet

Location: 10 0450430 E 4851853 N NAD 83  
 Caption: JEFF CREEK RESTORATION SITE - SMITH BASIN

## Jeff Creek (UMP-405) 2009 Winter Habitat Survey Photographs



Unit 1 - A upstream view of the Jeff Creek survey start.



Placed boulders and large wood.



Jeff Creek reach photo with placed boulders and large wood.



End of Jeff Creek survey.