

**ODFW AQUATIC INVENTORY PROJECT**  
**OREGON PLAN FOR SALMON & WATERSHEDS**  
**STREAM RESTORATION HABITAT REPORT**

STREAM: King Creek Upper (MS-167)  
BASIN: Coquille River  
SURVEY TYPE: Post-Tx  
DATE: July 25, 2003  
SURVEY CREW: Pat Burns, Brock Jonasson  
REPORT PREPARED BY: Paul Jacobsen  
BASIN AREA: 9.0 km<sup>2</sup>  
USGS MAPS: Bridge  
ECOREGION: Coast Range Sedimentary

**GENERAL DESCRIPTION:**

The King Creek habitat survey extended 543 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 5.4 (range: 3.0-10.0). Land use for the reach was second growth (15-30 cm dbh) trees and timber harvest. The average unit gradient was 1.7 percent. Dry channel units (56%) and scour pools (30%) dominated stream habitat. Cobble (37%) and gravel (36%) dominated stream substrate. Wood volume was low at 18.2 m<sup>3</sup>/100m.

**COMMENTS:**

There were no potential barriers to upstream fish migration in the surveyed length.

The crew noted several habitat structures during the survey.

REACH 1

T29S-R11W-S21NW

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	5.4	VWI Range:	3 - 10

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	543	1,012	16
Secondary	28	44	1

Channel Dimensions (m)

<u>Wetted</u>		<u>Active</u>		<u>Floodprone</u>	<u>First Terrace</u>
Width	2.1	Width	4.4	5.8	7.1
Depth	0.19	Height	0.5	1.0	1.3
		W:D ratio	8.6	Entrenchment	1.3

Stream Flow Type:	PD	Water temp (C):	12.5 - 12.5
Avg. Unit Gradient:	1.7%	Habitat Units/100m:	7.5

**Riparian, Bank, and Wood Summary**

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	TH
Riparian Vegetation:	M30	G

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	7%	Reach avg: 85%
Undercut Banks:	12%	Range: 53 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m</u>
All pieces (>=3m x 0.15m):	114	21.0
Volume (m <sup>3</sup> ):	99	18.2
Key pieces (>=10m x 0.60m):	2	0.4

OREGON DEPARTMENT OF FISH AND WILDLIFE

KING CREEK UPPER POST-TX (MS-167)

HABITAT INVENTORY

Report Date: 12/17/03

Survey Date:

7/25/03

REACH 1

T29S-R11W-S21NW

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
DRY CHANNEL	1	10	4.5	0.00	43	0	0	0	30	60	10	0
DRY UNIT	6	97	4.1	0.00	374	0	0	5	47	48	0	0
POOL-BACKWATER	1	3	1.2	0.20	4	0	100	0	0	0	0	0
POOL-LATERAL SCOUR	15	136	2.3	0.40	314	0	15	23	29	28	3	1
PUDDLED UNIT	10	199	0.9	0.16	170	3	9	10	36	42	2	2
RIFFLE	8	123	1.1	0.06	137	1	5	7	44	39	4	1
STEP/COBBLE	1	2	4.5	0.01	9	0	0	0	40	60	0	0
STEP/LOG	1	1	4.5	0.01	5	0	10	10	40	40	0	0
<b>Total:</b>	<b>43</b>	<b>571</b>	<b>2.1</b>	<b>0.19</b>	<b>1,056</b>	<b>4</b>	<b>Avg 11</b>	<b>13</b>	<b>36</b>	<b>37</b>	<b>2</b>	<b>1</b>

HABITAT SUMMARY

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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	3	1.2	0.20	4	0.39%	0	0.0
Scour Pools	15	136	2.3	0.40	314	29.77%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	8	123	1.1	0.06	137	12.95%	1	0.7
Rapids	0	0			0	0.00%	0	0.0
Cascades	0	0			0	0.00%	0	0.0
Step/Falls	2	3	4.5	0.01	14	1.28%	0	0.0
Dry	17	305	2.2	0.09	588	55.62%	3	0.5
Culverts	0	0			0	0.00%	0	0.0

POOL SUMMARY

	Total	# / Km
All Pools:	16	28.0
Pools >=1m deep:	0	0.0
Complex pools (LWD pieces>=3):	11	19.3
Pool frequency (channel widths/pool):	8.1	
Residual pool depth (avg):	0.32	

**STREAM SUMMARY**

**KING CREEK UPPER POST-TX (MS-167)**

Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m <sup>2</sup> )	Substrate Percent Wetted Area						Large Boulders (>0.5m)
					S/O	Snd	Grvl	Cbl	Bldr	Bdrk	
43	571	2.1	0.19	1,056	11	13	36	37	2	1	4

Habitat Group	Wetted Area	
	(m <sup>2</sup> )	Percent
Dammed & BW Pools	4	0.39%
Scour Pools	314	29.77%
Glides	0	0.00%
Riffles	137	12.95%
Rapids	0	0.00%
Cascades	0	0.00%
Step/Falls	14	1.28%
Dry	588	55.62%
Culverts	0	0.00%

**RIPARIAN ZONE VEGETATION SUMMARY**

REACH 1	REACH 1
<b>Summary of Riparian Zone (0-30m) 3 transects</b>	
Total hardwoods/1000	183
Total conifers/1000 ft	427
Total conifers >20" dbh/1000 ft	20
Total conifers >35" dbh/1000 ft	20

**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	0.3	0.7	0.0	0.7	0.3
15-30cm	0.0	0.7	0.7	0.0	1.3	0.3	2.0	1.0
30-50cm	0.7	1.0	2.3	0.0	1.0	0.3	4.0	1.3
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	0.3	0.3	0.0	0.3	0.3
Total/100m2	0.7	1.7	3.0	0.7	3.3	0.7	2.3	1.0

**Canopy closure and ground cover**

	Zone 1	Zone 2	Zone 3
	0-10 meters (%)	10 - 20 meters (%)	20 - 30 meters (%)
Canopy closure	78	42	55
Shrub cover	20	3	12
Grass/forb cover	60	75	72

**Predominant landform in each zone**

	Zone 1	Zone 2	Zone 3
	0-10 meters (%)	10 - 20 meters (%)	20 - 30 meters (%)
Hillslope	33	67	83
High terrace	33	17	0
Low terrace	0	0	0
Floodplain	17	0	0
Wetland/meadow	0	0	0
Stream channel	0	0	0
Roadbed/Railroad	17	17	17
Riprap	0	0	0
Surface slope (%)	16	39	37

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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	183
Total conifers/1000 ft	427
Total conifers >20" dbh/1000 ft	20
Total conifers >35" dbh/1000 ft	20

**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	0.7	0.3
15-30cm	2.0	1.0
30-50cm	4.0	1.3
50-90cm	0.0	0.0
>90cm	0.3	0.3

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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	
11	RT	2	HS	55	20	0	80	Conifer		2	3			
								Hardwood						
11	RT	3	HS	40	0	0	80	Conifer						
								Hardwood						
11	RT	1	HT	0	50	20	80	Conifer						
								Hardwood		1	2			
11	LF	3	HS	60	90	5	90	Conifer					1	
								Hardwood						
11	LF	2	HS	60	95	5	90	Conifer						
								Hardwood					1	
11	LF	1	RB	0	90	0	0	Conifer						
								Hardwood						
20	LF	2	RB	0	0	0	0	Conifer						
								Hardwood						
20	LF	3	HS	45	95	10	80	Conifer	2	3	2			
								Hardwood						
20	RT	1	FP	0	90	40	50	Conifer						
								Hardwood		1				
20	RT	2	HS	75	40	5	90	Conifer			2			
								Hardwood	1					
20	RT	3	HS	30	0	50	90	Conifer						
								Hardwood						
20	LF	1	HS	30	90	5	90	Conifer						
								Hardwood						
27	LF	3	RB	0	50	0	0	Conifer						
								Hardwood						
27	RT	1	HS	65	95	5	90	Conifer						
								Hardwood			1			
27	RT	3	HS	45	95	5	90	Conifer		1	1			
								Hardwood		1	1			
27	LF	2	HT	0	0	0	100	Conifer						
								Hardwood						
27	LF	1	HT	0	50	50	50	Conifer			2			
								Hardwood						
27	RT	2	HS	45	95	5	90	Conifer			2			
								Hardwood						

# Comment Summary

## Oregon Plan Monitoring Sites 2003

MONITORING AREA: 3-MS      SITE ID: 167      KING CREEK UPPER POST-TX (MS-1)

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	PD	00	19.4		REACH 1 PHOTO 40	1.8M UNDERCUT
2	LP	00	32.3	HS, DJ, WL		NEWTS
5	LP	00	67.2	HS, DJ		
7	LP	00	99.8	HS, WL		FISH
8	SC	00	101.8		ACW=4.5	NO DEPTH
9	LP	00	110.5	WL	MAIN CHANNEL, POOL	FISH
11	DC	00	145.1		RIP PHOTO #41	
12	LP	00	152.7	HS		
13	DU	00	173.3			WASHING MACHINE
14	LP	00	179.7	HS		
15	PD	00	204.5	HS		
17	LP	00	236.4	HS, WL		NEWTS, FISH
19	LP	00	249.4	HS		
20	PD	00	274.6	HS	RIP PHOTO #42	
21	LP	00	285.8	HS, WL		NEWT, FISH
22	PD	00	310.8	HS		
23	RI	00	335.8	/SS, HS		
24	RI	00	349.3	HS		
25	LP	00	358.3	HS, DJ		
27	LP	00	389.5	HS		
29	LP	00	415.5	WL		FISH

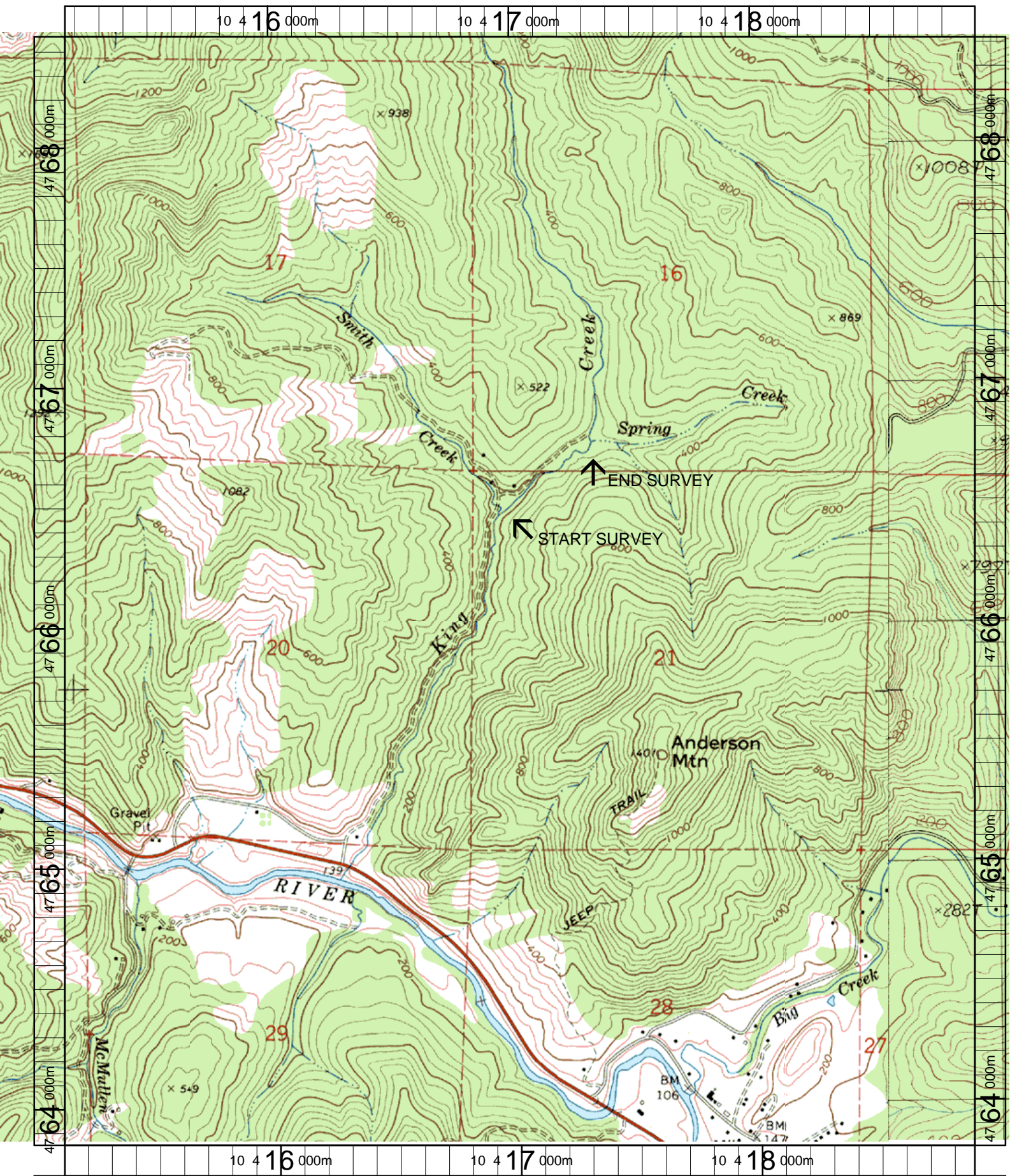


# Comment Summary

## Oregon Plan Monitoring Sites 2003

MONITORING AREA: 3-MS      SITE ID: 167      KING CREEK UPPER POST-TX (MS-1)

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
34	SL	00	444.5		H=0.8	NO DEPTH
38	LP	00	479.6	HS, WL		FISH, 1M UNDERCUT
39	PD	00	495.3			1M UNDERCUT
41	PD	00	516.9	/LI, /SS	COHO PRESENT IN ALL P	HS, DJ .3M POCKET
42	PD	01	542.9	HS, /TJ	RIP #3	SPRING CR (DRY)
43	DU	11	542.9			END



Name: BRIDGE  
 Date: 6/11/2003  
 Scale: 1 inch equals 1666 feet

Location: 10 417015 E 4766139 N  
 Caption: KING CREEK UPPER RESTORATION SITE - MF COQUILLE BASIN