

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 14, 2004
SURVEY CREW: Greg Ryder, Justin Gerding
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 9.0 km²
USGS MAPS: Bridge
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The King Creek habitat survey extended 554 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 12.3 (range: 2.5-20.0). Land use for the reach was young (3-15 cm dbh) and second growth (15-30 cm dbh) trees. The average unit gradient was 1.7 percent. Riffles (50%) and scour pools (49%) dominated stream habitat. Gravel (64%) and sand (21%) dominated stream substrate. Wood volume was moderate at 21.2 m³/100m.

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	12.3	VWI Range:	2.5 - 20

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	554	930	0
Secondary	0	0	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 1.8	Width: 3.6	4.6 (4 - 5)	7.3 (5.8 - 11)
Depth: 0.28	Height: 0.4	0.7 (0.6 - 0.8)	1.6 (1.1 - 2.3)

W:D ratio: 10.4

Entrenchment (ACW:FPW ratio): 1.3

Stream Flow Type: LF

Habitat Units/100m (total channel length): 7.6

Average Unit Gradient: 1.7%

Habitat Units/100m (primary channel length): 7.6

Water temperature (°C): 15.0 - 15.0

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	YT	ST
Riparian Vegetation:	D15	G

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	2%	Reach avg: 85%
Undercut Banks:	13%	Range: 28 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	115	20.8
Volume (m ³):	117	21.2
Key pieces (>=12m x 0.60m):	3	0.5

OREGON DEPARTMENT OF FISH AND WILDLIFE

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

HABITAT INVENTORY

Report Date: 10/27/2004

Survey Date:

7/14/2004

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 ²)	Large Boulders (#>0.5m)	Substrate Percent Wetted Area					
							S/O	Snd	Grvl	Cbl	Bldr	Bdrk
POOL-LATERAL SCOUR	20	207	2.4	0.51	459	1	5	32	53	9	1	1
RIFFLE	20	342	1.3	0.07	467	4	0	12	74	14	1	1
STEP/COBBLE	2	5	1.0	0.05	4	0	0	10	80	10	0	0
Total:	42	554	1.8	0.28	930	5	Avg: 3	21	64	11	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	0	0			0	0.00%	0	0.0
Scour Pools	20	207	2.4	0.51	459	49.34%	1	0.2
Glides	0	0			0	0.00%	0	0.0
Riffles	20	342	1.3	0.07	467	50.19%	4	0.9
Rapids	0	0			0	0.00%	0	0.0
Cascades	0	0			0	0.00%	0	0.0
Step/Falls	2	5	1.0	0.05	4	0.47%	0	0.0
Dry	0	0			0	0.00%	0	0.0
Culverts	0	0			0	0.00%	0	0.0

POOL SUMMARY

	Total of all Channel Lengths		Primary Channel Length
	<u>Total</u>	<u># / Km</u>	<u># / Km</u>
All Pools:	20	36.1	36.1
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	13	23.5	23.5
Pool frequency (channel widths/pool):	7.7		
Residual pool depth (avg):	0.46		

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1

REACH 1

Summary of Riparian Zone (0-30m)

3 transects

Total hardwoods/1000	427
Total conifers/1000 ft	122
Total conifers >20" dbh/1000 ft	20
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	1.3	0.0	0.0	0.0	0.3	0.0	1.7
15-30cm	0.3	1.0	0.3	1.0	0.0	0.7	0.7	2.7
30-50cm	0.3	1.3	0.7	1.3	0.0	0.0	1.0	2.7
50-90cm	0.0	0.0	0.0	0.0	0.3	0.0	0.3	0.0
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	0.7	3.7	1.0	2.3	0.3	1.0	0.7	2.3

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	67		38		23	
Shrub cover	30		10		13	
Grass/forb cover	60		67		40	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	33		67		67	
High terrace	50		33		17	
Low terrace	0		0		0	
Floodplain	0		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	17		0		17	
Riprap	0		0		0	
Surface slope (%)	17		32		34	

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	
9	LF	3	HS	40	80	0	60	Conifer				1		D FIR 40 % RB
								Hardwood						
9	RT	1	HS	40	70	40	60	Conifer						
								Hardwood			1			
9	RT	2	HS	40	10	20	20	Conifer		1	2			CLEARCUT
								Hardwood						
9	RT	3	HS	40	0	20	0	Conifer						
								Hardwood						
9	LF	2	HS	70	80	0	100	Conifer	0					MYRTLE
								Hardwood		2	1			
9	LF	1	RB	0	80	0	40	Conifer						40% HS 100% SLOPE
								Hardwood	2					
19	RT	2	HS	50	10	20	20	Conifer						CLEARCUT
								Hardwood						
19	RT	3	HS	45	0	0	0	Conifer						CLEARCUT
								Hardwood						
19	RT	1	HS	60	60	40	60	Conifer		1	1			
								Hardwood			1			
19	LF	3	RB	0	10	0	40	Conifer						40% HT
								Hardwood						
19	LF	2	HT	0	40	0	80	Conifer						
								Hardwood						
19	LF	1	HT	0	70	40	60	Conifer						ALDER
								Hardwood		3				
28	LF	2	HT	0	10	0	100	Conifer						
								Hardwood						
28	LF	3	HT	0	10	0	100	Conifer						D FIR SEEDLINGS
								Hardwood						
28	RT	1	HT	0	90	40	60	Conifer						ALDER
								Hardwood	2		1			
28	RT	2	HS	30	80	20	80	Conifer						MYRTLE
								Hardwood		1	3			
28	RT	3	HS	80	40	60		Conifer						
								Hardwood	1	2				
28	LF	1	HT	0	30	20	80	Conifer						ALDER
								Hardwood			1			

Comment Summary

Oregon Plan Monitoring Sites 2002

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

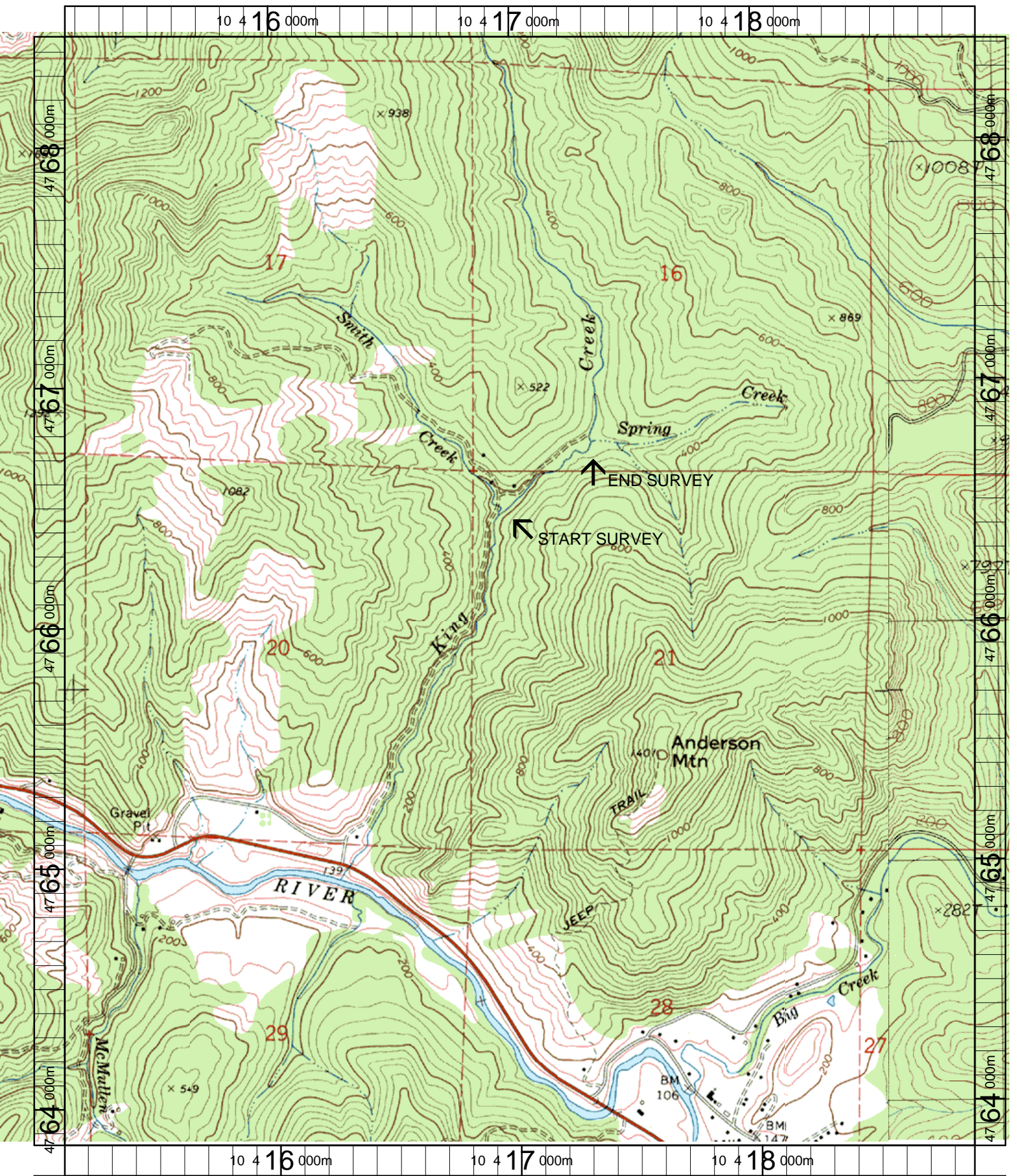
UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	RI	00	16.7		T=15 DEG C AT 14:40	PHOTO 0021 TEMP=15 DEG
2	LP	00	26.1	HS		SITE 1
6	LP	00	69.2	HS		SITE 2
7	RI	00	85.7	HS		SITE 3
8	LP	00	105.5	HS		SITE 4 COHO FRY
10	RI	00	146.1		ROAD BED ACTS AS HT	
11	LP	00	158	HS, WL		SITE 5 RSN
13	LP	00	179.1	HS		COHO FRY, SITE 6
17	LP	00	211.2	HS		SITE 7
19	LP	00	235.8	HS		SITE 8
21	LP	00	247.8	HS		SITE 9
23	LP	00	282.9	HS		SITE 10
24	RI	00	292.9	HS		SITE 11
26	RI	00	326.8	/SS HS		SITE 12
28	LP	00	358.9	HS		SITE 13
30	LP	00	391.5	HS		SITE 14
31	RI	00	411.6			COHO FRY
34	LP	00	437.8	HS		SITE 15
37	RI	00	493.8	HS		SITE 16
39	RI	00	529.5	HS		SITE 17
40	LP	00	537	HS		SITE 18

Comment Summary

Oregon Plan Monitoring Sites 2002

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

<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
42	LP	00	554	HS /TJ	T=15 DEG C AT 19:20	SITE 19 SPRING CREEK



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