

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

STREAM: King Creek Lower (MS-166)
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 347 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 4.4 (range: 2.0-5.5). Land use for the reach was timber harvest. The average unit gradient was 1.0 percent. Scour pools (80%) dominated stream habitat. Gravel (57%) and sand (21%) dominated stream substrate. Wood volume was moderate at 25.5 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-S20SE

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:	2 - 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	347	853	0
Secondary	5	10	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 2.2	Width: 5.3	6.8 (6.3 - 7.5)	8.0 (7.3 - 9.1)
Depth: 0.32	Height: 0.5	0.9 (0.8 - 1)	1.6 (1.3 - 1.7)

W:D ratio: 12.0

Entrenchment (ACW:FPW ratio): 1.3

Stream Flow Type: LF

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

Average Unit Gradient: 1.0%

Habitat Units/100m (primary channel length): 10.4

Water temperature (°C): 15.0 - 15.0

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	TH	
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: 63%
Undercut Banks:	15%	Range: 17 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	88	25.4
Volume (m ³):	88	25.5
Key pieces (>=12m x 0.60m):	4	1.2

OREGON DEPARTMENT OF FISH AND WILDLIFE

KING CREEK (LOWER) POST-TX (MS-166)

HABITAT INVENTORY

Report Date: 10/27/2004

Survey Date:

7/14/2004

REACH 1

T29S-R11W-S20SE

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	1	5	2.1	0.45	10	0	15	60	25	0	0	0
POOL-LATERAL SCOUR	19	250	2.8	0.52	694	18	6	29	46	13	6	1
RIFFLE	9	78	1.6	0.09	136	0	0	11	71	17	1	0
STEP/COBBLE	7	18	1.4	0.07	22	0	0	9	76	14	1	0
Total:	36	351	2.2	0.32	863	18	Avg: 4	21	57	14	4	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	1	5	2.1	0.45	10	1.17%	0	0.0
Scour Pools	19	250	2.8	0.52	694	80.45%	18	2.6
Glides	0	0			0	0.00%	0	0.0
Riffles	9	78	1.6	0.09	136	15.78%	0	0.0
Rapids	0	0			0	0.00%	0	0.0
Cascades	0	0			0	0.00%	0	0.0
Step/Falls	7	18	1.4	0.07	22	2.60%	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	56.9	57.7
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	9	25.6	26.0
Pool frequency (channel widths/pool):	3.3		
Residual pool depth (avg):	0.47		

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1

REACH 1

Summary of Riparian Zone (0-30m)

3 transects

Total hardwoods/1000	264
Total conifers/1000 ft	163
Total conifers >20" dbh/1000 ft	81
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	2.0	0.7	1.0	0.0	0.0	0.7	3.0
15-30cm	0.0	0.3	0.7	0.0	0.0	0.0	0.7	0.3
30-50cm	0.0	0.7	0.0	0.3	0.0	0.0	0.0	1.0
50-90cm	0.3	0.0	0.7	0.0	0.3	0.0	1.3	0.0
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	0.3	3.0	2.0	1.3	0.3	0.0	0.9	1.4

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	38		20		18	
Shrub cover	30		8		10	
Grass/forb cover	47		12		12	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	50		33		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	0		33		17	
Riprap	0		0		0	
Surface slope (%)	37		22		36	

RIPARIAN ZONE VEGETATION

Reach 1

Reach 1

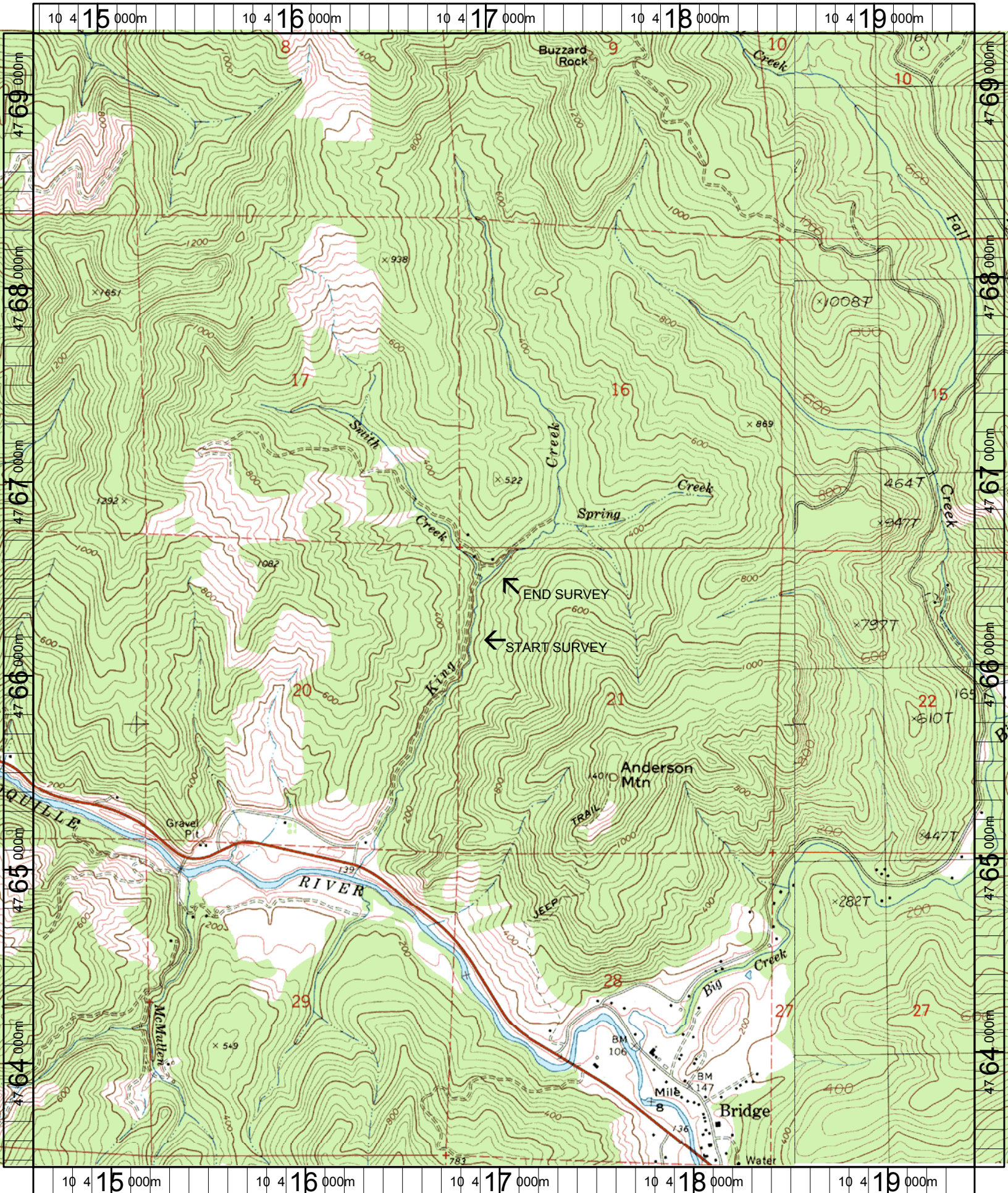
Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes	
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90		
15	RT	3	HS	70	30	20	0	Conifer							CLEARCUT
								Hardwood							
15	LF	2	HT					Conifer							REDWOOD SEEDLINGS
								Hardwood							
15	RT	2	HS	60	60	20	20	Conifer	2			2			
								Hardwood	3						
15	LF	3	HT		60		40	Conifer							REDWOOD SEEDLINGS
								Hardwood							
15	LF	1	HT	0	5	0	60	Conifer							REDWOOD SEEDLINGS
								Hardwood							
15	RT	1	HS	105	40	40	60	Conifer							DOUGFIR
								Hardwood	4						
26	LF	1	HS	65	60	20	60	Conifer							
								Hardwood			2				
26	LF	2	RB	0	0	0	0	Conifer							25% HS 50% SLOPE
								Hardwood							
26	LF	3	RB	0	0	0	0	Conifer							30% HS, 100 %SLOPE
								Hardwood							
26	RT	1	HT	0	30	40	40	Conifer							RIP RESTORATION
								Hardwood	2	1					N CLEARCUT
26	RT	2	HT	0	0	0	20	Conifer							
								Hardwood							
26	RT	3	HS	40	0	20	0	Conifer							
								Hardwood							
33	LF	1	HS	50	40	40	40	Conifer							30% HT
								Hardwood							
33	LF	2	RB	0	0	0	0	Conifer							
								Hardwood							
33	LF	3	HS	60				Conifer							
								Hardwood							
33	RT	2	HS	50	40	20	20	Conifer		2					
								Hardwood			1				
33	RT	1	HT	0	50	40	20	Conifer					1		D FIR
								Hardwood							
33	RT	3	HS	10	0	0	20	Conifer					1		CLEARCUT
								Hardwood							

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: **3-MS** SITE ID: **166** KING CREEK (LOWER) POST-TX (MS)

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	LP	00	8.8		T=15 DEG C AT 9:50	
2	SC	00	9.6		COHO FRY, RSN	
3	LP	00	21			COHO FRY
5	LP	00	41.5	HS		SITE 1 COHO FRY
7	LP	00	62.9	HS		SITE 2 COHO FRY
9	LP	00	91.7	HS		SITE 3
10	LP	01	105.3	HS		SITE 4
15	LP	00	134.1	HS		SITE 5
17	LP	00	146.7	HS		SITE 6
19	LP	00	168.9	HS		SITE 7
20	LP	00	174.4	HS		SITE 8
22	LP	00	196	HS		SITE 9
24	LP	00	221	HS		SITE 10
26	LP	00	234.4	HS		BLUE AND YELLOW FLAGGI
31	RI	00	282.5	WL		RSN
32	LP	00	295.1			COHO FRY, TROUT FRY
34	LP	00	324	CS/		RIP RAP, OLD CAR BODY
36	LP	00	346.5	TJ/	T=16 DEG C AT 14:30	SMITH CREEK END PHOTO 0



Name: BRIDGE
 Date: 7/22/2004
 Scale: 1 inch equals 2000 feet

Location: 10 417053 E 4766365 N
 Caption: KING CREEK LOWER RESTORATION SITE - MF COQUILLE BASIN