

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

STREAM: Salmon Creek (MS-235)  
BASIN: Coquille River  
SURVEY TYPE: Pre-Tx  
DATE: July 7, 2006  
SURVEY CREW: Lisa Biggs, Peter Cole  
REPORT PREPARED BY: Paul Jacobsen  
BASIN AREA: 57.5 km<sup>2</sup>  
USGS MAPS: China Flat  
ECOREGION: Coast Range Sedimentary

**GENERAL DESCRIPTION:**

The Salmon Creek habitat survey extended 873 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 6.1 (range: 2.4-10.0). Land use for the reach was rural residential and light grazing. The average unit gradient was 1.2 percent. Scour pools (32%) and riffles (29%) dominated stream habitat. Cobble (37%) and gravel (26%) dominated stream substrate. Wood volume was very low at 1.3 m<sup>3</sup>/100m.

**COMMENTS:**

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

REACH 1

T31S-R12W-S24NW

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	0%
Moderate V-shape	0%	Multiple Terraces	100%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	6.1	VWI Range:	2.4 - 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 Channel	873	7,020	0
Secondary Channel	67	206	1
Off-Channel Units	46	118	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 6.8	Width: 16.6	25.2 ( 16 - 36.6 )	27.3 ( 16.5 - 38.6 )
Depth: 0.45	Height: 0.7	1.4 ( 1.3 - 1.5 )	2.8 ( 1.5 - 6.3 )

W:D ratio: 23.7  
 Stream Flow Type: LF  
 Average Unit Gradient: 1.2%  
 Water temperature (°C): 17.0 - 17.0

Entrenchment (ACW:FPW ratio): 1.5  
 Habitat Units/100m (total channel length): 3.5  
 Habitat Units/100m (primary channel length): 4.0

**Riparian, Bank, and Wood Summary**

	<u>Primary</u>	<u>Secondary</u>
Land Use:	RR	LG
Riparian Vegetation:	D15	S

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	16%	Reach avg: 60%
Undercut Banks:	2%	Range: 32 - 94

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	30	3.4
Volume (m <sup>3</sup> ):	12	1.3
Key pieces (>=12m x 0.60m):	0	0.0

HABITAT INVENTORY

Report Date: 3/5/2007

Survey Date:

7/7/2006

REACH 1		T31S-R12W-S24NW					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 UNIT	1	9	6.5	0.00	57	0	0	0	5	70	25	0
GLIDE	2	64	6.6	0.29	417	0	3	10	45	8	0	35
POOL-BACKWATER	2	20	2.7	0.35	52	0	3	8	45	30	0	15
POOL-BEAVER DAM	1	49	14.5	1.10	713	0	0	21	21	37	21	0
POOL-ISOLATED	2	27	2.6	0.45	66	0	10	41	17	25	0	8
POOL-LATERAL SCOUR	9	282	7.5	1.02	2,376	27	4	27	16	28	5	19
RAPID/BEDROCK	1	23	3.0	0.20	70	0	0	0	10	10	0	80
RAPID/BOULDERS	5	196	6.7	0.21	1,381	42	0	1	24	49	25	2
RIFFLE	8	303	6.8	0.19	2,109	33	0	12	28	43	17	0
STEP/BEAVER DAM	1	0	15.5	0.01	6	0	5	15	30	50	0	0
STEP/COBBLE	3	14	6.4	0.13	97	0	0	7	43	50	0	0
<b>Total:</b>	<b>35</b>	<b>986</b>	<b>6.8</b>	<b>0.45</b>	<b>7,344</b>	<b>102</b>	<b>Avg: 2</b>	<b>15</b>	<b>26</b>	<b>37</b>	<b>10</b>	<b>11</b>

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	95	5.0	0.54	832	11.32%	0	0.0	
Scour Pools	9	282	7.5	1.02	2,376	32.35%	27	1.1	
Glides	2	64	6.6	0.29	417	5.68%	0	0.0	
Riffles	8	303	6.8	0.19	2,109	28.72%	33	1.6	
Rapids	6	219	6.1	0.21	1,451	19.76%	42	2.9	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	4	14	8.7	0.10	103	1.40%	0	0.0	
Dry	1	9	6.5	0.00	57	0.78%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

POOL SUMMARY			
	<u>Total</u>	Total of all Channel Lengths <u># / Km</u>	Primary Channel Length <u># / Km</u>
All Pools:	14	14.2	16.0
Pools >=1m deep:	4	4.1	4.6
Complex pools (LWD pieces>=3):	2	2.0	2.3
Pool frequency (channel widths/pool):	4.2		
Residual pool depth (avg):	0.91		

OREGON DEPARTMENT OF FISH AND WILDLIFE  
HABITAT INVENTORY

SALMON CREEK PRE-TX  
GCG: 3-MS SITE ID: 235

Survey Date 7/7/2006  
Report Date: 3/5/2007

RIPARIAN ZONE  
VEGETATION SUMMARY

REACH 1

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

Total hardwoods/1000	1199
Total conifers/1000 ft	142
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	4.0	0.0	9.7	0.3	1.0	0.3	14.7
15-30cm	0.0	2.0	0.3	0.3	0.0	2.3	0.3	4.7
30-50cm	0.0	0.3	0.3	0.0	1.0	0.0	1.3	0.3
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	0.0	6.3	0.7	10.0	1.7	3.3	0.8	6.6

Canopy closure and ground cover

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Canopy closure	54	56	70
Shrub cover	57	48	33
Grass/forb cover	14	27	29

Predominant landform in each zone

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Hillslope	50	50	50
High terrace	33	33	50
Low terrace	17	17	0
Floodplain	0	0	0
Wetland/meadow	0	0	0
Stream channel	0	0	0
Roadbed/Railroad	0	0	0
Riprap	0	0	0
Surface slope (%)	56	64	35

**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	1199
Total conifers/1000 ft	142
Total conifers >20" dbh/1000 ft	20
Total conifers >35" dbh/1000 ft	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	0.3	14.7
15-30cm	0.3	4.7
30-50cm	1.3	0.3
50-90cm	0.3	0.0
>90cm	0.0	0.0

**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		
16	RT	1	HT	0	60	95	0	Conifer							ESTIMATED DUE TO BLACKBERRIE NO TREES
								Hardwood		2					
16	LF	1	HS	135	35	5	10	Conifer							NO TREES
								Hardwood							
16	LF	3	HS	20	90	5	10	Conifer			3				ESTIMATED SLOPE TOO STEEP NO TREES
								Hardwood							
16	RT	2	HT	0	0	100	0	Conifer							HT/HS
								Hardwood							
16	RT	3	HT	0	5	100	0	Conifer							HT/HS
								Hardwood							
16	LF	2	HS	140	30	10	5	Conifer				1			SHRUB POISON OAK
								Hardwood							
23	RT	3	HT	0	97	20	40	Conifer	1						
								Hardwood		1					
23	RT	2	LT	0	100	90	10	Conifer							WILLOW THICKET
								Hardwood	29						
23	RT	1	LT	0	60	90	5	Conifer							
								Hardwood	9						
23	LF	3	HS	100	85	20	75	Conifer							
								Hardwood	3	3					
23	LF	2	HS	120	90	0	90	Conifer				1			
								Hardwood							
23	LF	1	HS	90	75	40	40	Conifer							ESTIMATED - TONS OF POISON OAK ESTIMATED - TOO STEEP
								Hardwood		2					
28	LF	1	HS	110	15	15	30	Conifer							
								Hardwood	1						
28	RT	3	HT	0	80	15	30	Conifer					1		HT/HS, SLOPES HT=0%, NO TREES
								Hardwood							
28	LF	2	HS	125	40	10	50	Conifer							
								Hardwood							
28	LF	3	HS	90	60	40	20	Conifer							
								Hardwood		3					
28	RT	1	HT	0	80	95	0	Conifer							
								Hardwood	2	2	1				
28	RT	2	HT	0	75	80	5	Conifer							
								Hardwood		1					

# Comment Summary

## Restoration Monitoring Sites 2006

MONITORING AREA: **3-MS**      SITE ID: **235**      **SALMON CREEK PRE-TX**

<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
1	RI	01	21.3		CT-MT,LG-RR	T=16C@1000AM, LONG G
2	IP	10	21.3	WL		DACE, TROUT, RSN, YL F
3	LP	00	56.2	WL	DACE THROUGHOUT SURVE	15 RSN, MALLARD W/BAB
5	LP	01	104.1	WL		8+ RSN
6	IP	10	104.1	WL		RSN, MURKY WATER
10	RI	01	202	BV, WL		LOTS OF RSN
11	LP	02	202	WL, DJ		4" ALLIGATOR LIZARD, 2 Y
13	LP	02	202	WL		RSN
14	RI	02	202		CA-CT	
15	DU	02	202		SUBMERGED FLOW	WATER FLOWS UNDER R
17	LP	00	263.7	WL	YELLOW-LEGGED FROG	5 DOZEN RSN, YL FROG
18	RI	00	293.5	SS/, WL		COHO BY SS/, YL FROG
19	SD	00	293.9	BD	H=0.30M	BV DAM MOSTLY COMPLE
20	BP	01	343.1	BV	NEW BP	BV DEN
21	BW	10	343.1	WL		2 YL FROGS AT SIDE OF P
23	LP	00	435.1	WL		6YL FROGS, 60RSN, PINK
24	RI	00	485.1	WL	CA-CT	CHICKADEE NEST, YL FR
25	RI	00	535.1			TONS OF DACE
27	RI	00	622.4	WL	CH-MV	YL FROG
28	GL	00	650.6	WL		RSN, SWALLOW TAIL BUT
29	LP	01	686.9	BV		12" CUTTHROAT, 2 CRAYF

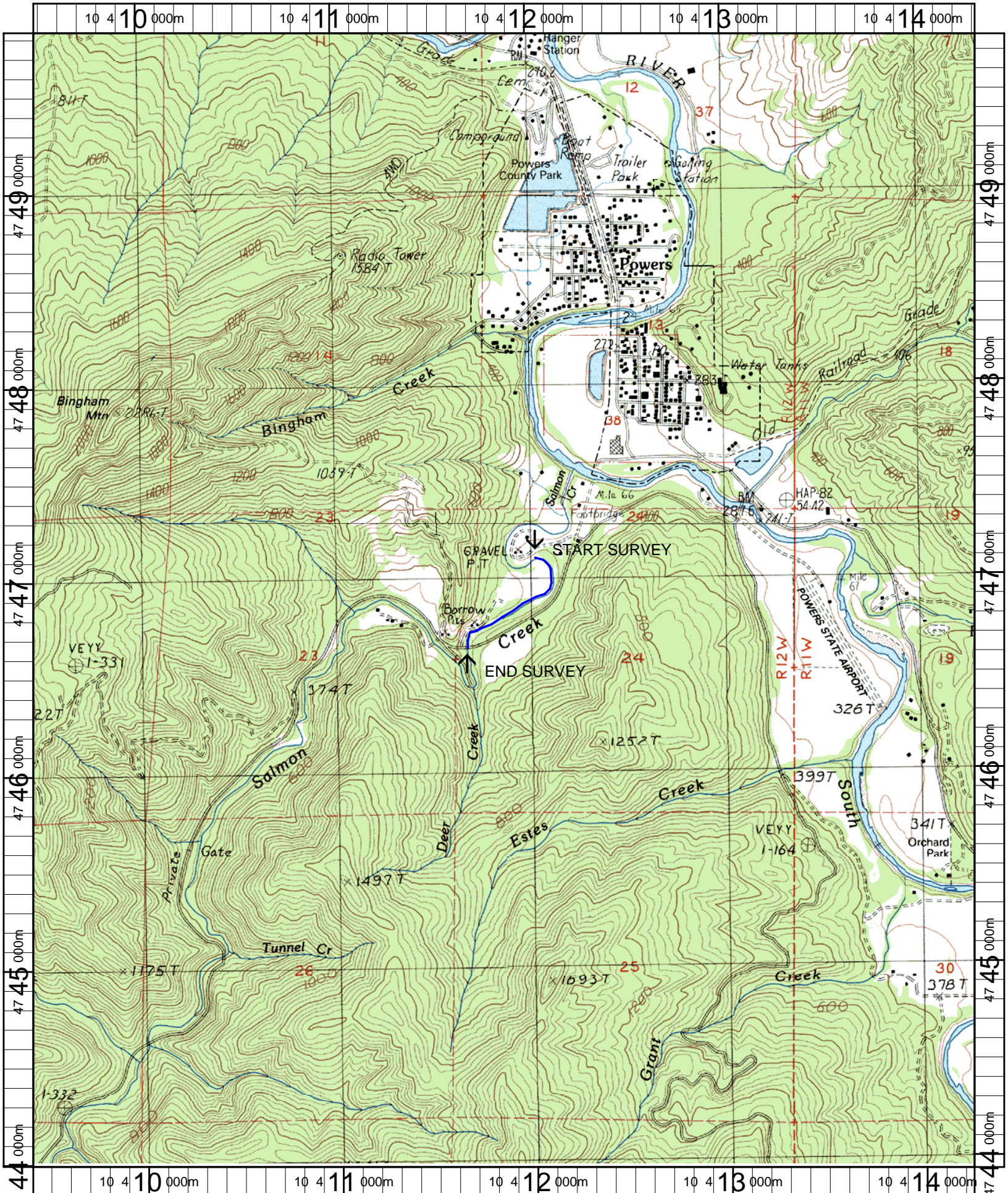
# Comment Summary

## Restoration Monitoring Sites 2006

MONITORING AREA: 3-MS      SITE ID: 235      SALMON CREEK PRE-TX

<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
30	BW	10	686.9	WL		GARTER SNAKE, 12+ RSN
31	RB	00	717.4	WL		DEER TRACK, T=17.5C AT
32	LP	00	758.1	WL	WATER PUMP IN POOL	MANY CT, 3 YL FROGS, L
33	RB	00	805.4		POSSIBLE JUV. CHINOOK	
34	LP	00	825.6	BC, WL		CRAYFISH, MANY RSN
35	RB	00	872.9		BRIDGE OVER RB, CA-CT	





Name: CHINA FLAT (OR)  
 Date: 2/15/2007  
 Scale: 1 inch equals 2000 feet

Location: 10 0411860 E 4746888 N  
 Caption: SALMON CREEK RESTORATION SITE - SF COQUILLE BASIN