

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

STREAM: Clatskanie River (L-215)
BASIN: Clatskanie River
SURVEY TYPE: Post-Tx
DATE: September 19, 2007
SURVEY CREW: Lanoah Babcock, Kara Morris
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 65.1 km²
USGS MAPS: Baker Point
ECOREGION: Coast Range Astoria Willapa

GENERAL DESCRIPTION:

The Clatskanie River habitat survey extended 1,060 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 6.6 (range: 2.0-20.0). Land use for the reach was young (3-15 cm dbh) trees. The average unit gradient was 1.4 percent. Scour pools (53%) and riffles (44%) dominated stream habitat. Cobble (38%), bedrock (21%) and gravel (20%) dominated stream substrate. Wood volume was very low at 4.6 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

T06N-R03W-S22NE

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	6.6	VWI Range:	2 - 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 Channel	1,060	6,674	0
Secondary Channel	124	154	2
Off-Channel Units	15	20	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 5.5	Width: 11.3	15.8 (9.9 - 20)	17.7 (10.4 - 23)
Depth: 0.50	Height: 0.5	1.0 (0.8 - 1.1)	1.6 (1.15 - 3)

W:D ratio: 22.9
 Stream Flow Type: MF
 Average Unit Gradient: 1.4%
 Water temperature (°C): 9.0 - 9.0

Entrenchment (ACW:FPW ratio): 1.4
 Habitat Units/100m (total channel length): 3.4
 Habitat Units/100m (primary channel length): 3.9

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	YT	
Riparian Vegetation:	D30	G

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	11%	Reach avg: 83%
Undercut Banks:	5%	Range: 58 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	45	4.2
Volume (m ³):	49	4.6
Key pieces (>=12m x 0.60m):	1	0.1

HABITAT INVENTORY

Report Date: 11/14/2007

Survey Date:

9/19/2007

REACH 1		T06N-R03W-S22NE					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	13	393	6.6	0.77	2,737	39	3	10	25	40	14	8
POOL-PLUNGE	1	34	3.5	1.70	119	0	0	0	10	29	10	52
POOL-STRAIGHT SCOUR	2	46	5.5	0.78	268	3	0	5	20	33	8	35
POOL-TRENCH	3	87	5.3	1.03	483	0	0	2	12	18	3	65
PUDDLED UNIT	2	124	1.2	0.15	154	0	10	8	33	48	3	0
RIFFLE	14	491	6.1	0.24	2,992	103	0	5	19	45	22	9
STEP/BEDROCK	3	9	3.2	0.09	42	5	0	0	0	2	0	98
STEP/COBBLE	3	14	4.1	0.09	52	5	0	7	22	55	17	0
Total:	41	1,199	5.5	0.50	6,847	155	Avg: 2	6	20	38	14	21

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	19	560	6.1	0.86	3,607	52.68%	42	1.2	
Glides	0	0			0	0.00%	0	0.0	
Riffles	14	491	6.1	0.24	2,992	43.70%	103	3.4	
Rapids	0	0			0	0.00%	0	0.0	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	6	24	3.6	0.09	94	1.38%	10	10.6	
Dry	2	124	1.2	0.15	154	2.24%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

POOL SUMMARY			
	<u>Total</u>	Total of all Channel Lengths	Primary Channel Length
		<u># / Km</u>	<u># / Km</u>
All Pools:	19	15.9	17.9
Pools >=1m deep:	4	3.3	3.8
Complex pools (LWD pieces>=3):	3	2.5	2.8
Pool frequency (channel widths/pool):	5.6		
Residual pool depth (avg):	0.74		

OREGON DEPARTMENT OF FISH AND WILDLIFE
HABITAT INVENTORY

CLATSKANIE RIVER POST-TX
GCG: 7-L SITE ID: 215

Survey Date 9/19/2007

RIPARIAN ZONE

Report Date: 11/7/2007

VEGETATION SUMMARY

REACH 1

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

Total hardwoods/1000	386
Total conifers/1000 ft	447
Total conifers >20" dbh/1000 ft	0
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	0.0	0.3	0.0	0.3	0.7	0.7	0.7
15-30cm	1.0	0.7	1.0	0.3	3.3	1.7	5.3	2.7
30-50cm	0.3	1.0	0.7	0.7	0.3	0.0	1.3	1.7
50-90cm	0.0	1.0	0.0	0.3	0.0	0.0	0.0	1.3
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	1.3	2.7	2.0	1.3	4.0	2.3	2.4	2.1

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	63		53		53	
Shrub cover	38		35		12	
Grass/forb cover	52		40		75	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	0		17		33	
High terrace	50		50		50	
Low terrace	33		0		0	
Floodplain	0		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	17		33		17	
Riprap	0		0		0	
Surface slope (%)	4		18		22	

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	386
Total conifers/1000 ft	447
Total conifers >20" dbh/1000 ft	0
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	0.7	0.7
15-30cm	5.3	2.7
30-50cm	1.3	1.7
50-90cm	0.0	1.3
>90cm	0.0	0.0

RIPARIAN ZONE VEGETATION

Reach 1

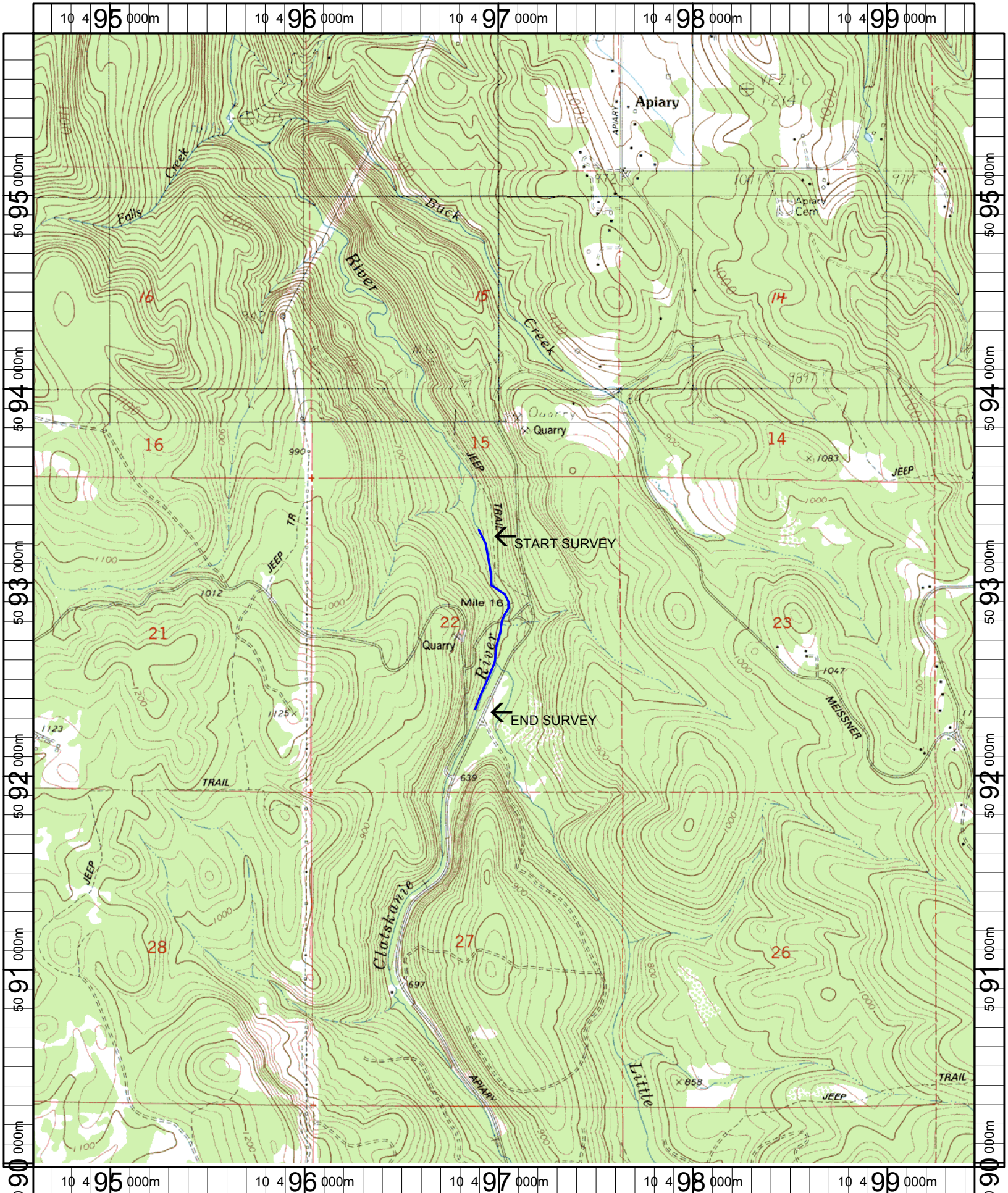
Reach 1

Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes	
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90		
12	LT	1	HT	0	40	60	40	Conifer							
								Hardwood				1			
12	LT	2	HT	0	75	40	60	Conifer							4 M HS=50 % SLOPE
								Hardwood		1	2				
12	LT	3	HS	25	85	0	70	Conifer		4					
								Hardwood							
12	RT	1	LT	0	85	70	30	Conifer							
								Hardwood							
12	RT	2	HS	80	80	80	20	Conifer							
								Hardwood							
12	RT	3	HS	80	70	30	70	Conifer			3				
								Hardwood			3				
21	LT	1	HT	0	90	10	30	Conifer			3				
								Hardwood			1	2			
21	LT	2	HT	0	75	10	40	Conifer	1	3	2				
								Hardwood							
21	LT	3	HT	0	85	0	50	Conifer	1	3	1				
								Hardwood							
21	RT	1	RB	23	15	0	100	Conifer							
								Hardwood							
21	RT	2	RB	30	0	0	100	Conifer							
								Hardwood							
21	RT	3	RB	26	0	0	100	Conifer							NO BC OVER STREAM, BRIDGE
								Hardwood							
30	LT	1	LT	0	65	30	70	Conifer			1				
								Hardwood				1			
30	LT	2	RB	0	0	0	0	Conifer							APIARY RD
								Hardwood							
30	LT	3	HT	0	55	40	60	Conifer							
								Hardwood			2				
30	RT	1	HT	0	80	60	40	Conifer							
								Hardwood			1	1	1		
30	RT	2	HT	0	85	80	20	Conifer							
								Hardwood					1		
30	RT	3	HT	0	20	0	100	Conifer							
								Hardwood		2					

COMMENT SUMMARY

MONITORING AREA: 7-L SITE ID: 215 STREAM: CLATSKANIE RIVER POST-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
13	LP	00	322.4		RIPARIAN 1. CRAWDADS
17	RI	00	465.6		CRAWDADS
18	LP	00	503.1	HS	HAB BOULDERS
20	LP	00	527.1	HS	LOGS AND BOULDERS
21	SR	00	532.8	HS	BOULDERS
22	RI	00	566.2	HS	BOULDERS AND LOGS
32	LP	01	811.2	CE	
33	RI	11	811.2		3 X 3M METAL BOTTOM CULVERT, APIARY ROAD
34	RI	00	831.2		SPAWNING SIGN REACH ID 30308.00 SEG1, HADITAT SIGN 15673, STRT 8/15/07
35	LP	00	959.2		NO BREAK TO CUT LENGTH



Name: BAKER POINT
 Date: 6/13/2005
 Scale: 1 inch equals 2000 feet

Location: 10 497026 E 5092908 N
 Caption: CLATSKANIE RIVER RESTORATION SITE - CLATSKANIE BASIN