

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

STREAM: Clatskanie River (L-215)
BASIN: Clatskanie River
SURVEY TYPE: Pre-Tx
DATE: June 28, 2004
SURVEY CREW: Scott Young, Ben Walczak
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 397.0 km²
USGS MAPS: Baker Point
ECOREGION: Coast Range Astoria Willapa

GENERAL DESCRIPTION:

The Clatskanie River habitat survey extended 902 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 3.2 (range: 2.3-4.0). Land use for the reach was second growth (15-30 cm dbh) and large (30-50 cm dbh) trees. The average unit gradient was 1.5 percent. Scour pools (41%) and rapids (25%) dominated stream habitat. Cobble (27%) and gravel (27%) dominated stream substrate. Wood volume was low at 7.6 m³/100m.

COMMENTS:

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

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	3.2	VWI Range:	2.3 - 4

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	0%	Single Channel	0%
Bedrock	0%	Multiple Channel	0%
Terrace	100%	Braided Channel	0%
Alt. Terrace/Hill	0%		
Landuse	0%		

Channel Characteristics

<u>Type</u>	<u>Length (m)</u>	<u>Area (m2)</u>	<u>Dry Units</u>
Primary	902	6,149	0
Secondary	280	938	7

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 4
Width: 6.4	Width: 13.5	23.8 (7.1 - 36.6)	32.2 (7.8 - 48.8)
Depth: 0.33	Height: 0.6	1.1 (1 - 1.4)	1.7 (1.2 - 2.4)

W:D ratio: 23.8
Stream Flow Type: MF
Average Unit Gradient: 1.5%
Water temperature (°C): -

Entrenchment (ACW:FPW ratio): 1.7
Habitat Units/100m (total channel length): 4.3
Habitat Units/100m (primary channel length): 5.7

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	LT
Riparian Vegetation:	D15	S

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	10%	Reach avg: 78%
Undercut Banks:	3%	Range: 58 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	102	11.3
Volume (m ³):	69	7.6
Key pieces (>=12m x 0.60m):	3	0.3

OREGON DEPARTMENT OF FISH AND WILDLIFE

CLATSKANIE RIVER PRE-TX (L-215)

HABITAT INVENTORY

Report Date: 10/27/2004

Survey Date:

6/28/2004

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	
CULVERT CROSSING	1	20	2.5	0.20	50	4	30	30	0	30	10	0	
DRY CHANNEL	1	13	2.6	0.00	34	1	11	11	42	32	5	0	
POOL-ALCOVE	1	34	1.7	0.25	58	0	45	45	10	0	0	0	
POOL-LATERAL SCOUR	14	398	5.9	0.51	2,497	54	14	15	32	24	5	11	
POOL-PLUNGE	2	26	6.6	1.00	167	3	25	28	15	15	3	15	
POOL-STRAIGHT SCOUR	1	14	3.4	0.40	48	2	0	0	0	10	20	70	
POOL-TRENCH	1	29	6.5	1.70	187	0	10	10	10	10	0	60	
PUDDLED UNIT	6	210	3.6	0.09	774	16	10	10	50	23	2	5	
RAPID/BEDROCK	4	77	9.4	0.25	800	13	10	10	6	7	4	64	
RAPID/BOULDERS	5	160	5.9	0.23	949	66	3	3	23	38	28	6	
RIFFLE	7	174	6.0	0.24	1,234	22	4	7	26	49	11	3	
STEP/BEDROCK	2	6	4.8	0.13	40	3	0	0	0	3	3	95	
STEP/COBBLE	4	16	10.9	0.12	165	18	1	8	38	43	10	0	
STEP/LOG	1	3	7.0	0.01	21	1	10	10	48	29	5	0	
STEP/STRUCTURE	1	3	22.5	0.01	63	2	0	0	5	10	5	80	
Total:	51	1,183	6.4	0.33	7,087	205	Avg: 10	11	27	27	8	18	

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	34	1.7	0.25	58	0.82%	0	0.0
Scour Pools	18	466	5.9	0.63	2,898	40.89%	59	2.0
Glides	0	0			0	0.00%	0	0.0
Riffles	7	174	6.0	0.24	1,234	17.41%	22	1.8
Rapids	9	237	7.4	0.24	1,749	24.68%	79	4.5
Cascades	0	0			0	0.00%	0	0.0
Step/Falls	8	28	10.3	0.09	289	4.08%	24	8.3
Dry	7	223	3.5	0.07	809	11.41%	17	2.1
Culverts	1	20	2.5	0.20	50	0.71%	4	8.0

POOL SUMMARY

	<u>Total</u>	Total of all Channel Lengths <u># / Km</u>	Primary Channel Length <u># / Km</u>
All Pools:	19	16.1	21.1
Pools >=1m deep:	2	1.7	2.2
Complex pools (LWD pieces>=3):	5	4.2	5.5
Pool frequency (channel widths/pool):	4.6		
Residual pool depth (avg):	0.48		

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1	REACH 1
Summary of Riparian Zone (0-30m) 3 transects	
Total hardwoods/1000	406
Total conifers/1000 ft	386
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	1.0	0.3	1.0	0.0	0.0	0.3	2.0
15-30cm	1.7	2.7	1.3	0.0	3.0	1.7	6.0	4.3
30-50cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50-90cm	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.3
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	1.7	3.7	1.7	1.0	3.0	2.0	2.1	2.2

Canopy closure and ground cover

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Canopy closure	71	55	71
Shrub cover	33	20	19
Grass/forb cover	65	54	81

Predominant landform in each zone

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Hillslope	50	50	83
High terrace	17	33	17
Low terrace	33	0	0
Floodplain	0	0	0
Wetland/meadow	0	0	0
Stream channel	0	0	0
Roadbed/Railroad	0	17	0
Riprap	0	0	0
Surface slope (%)	13	13	15

RIPARIAN ZONE VEGETATION

Reach 1

Reach 1

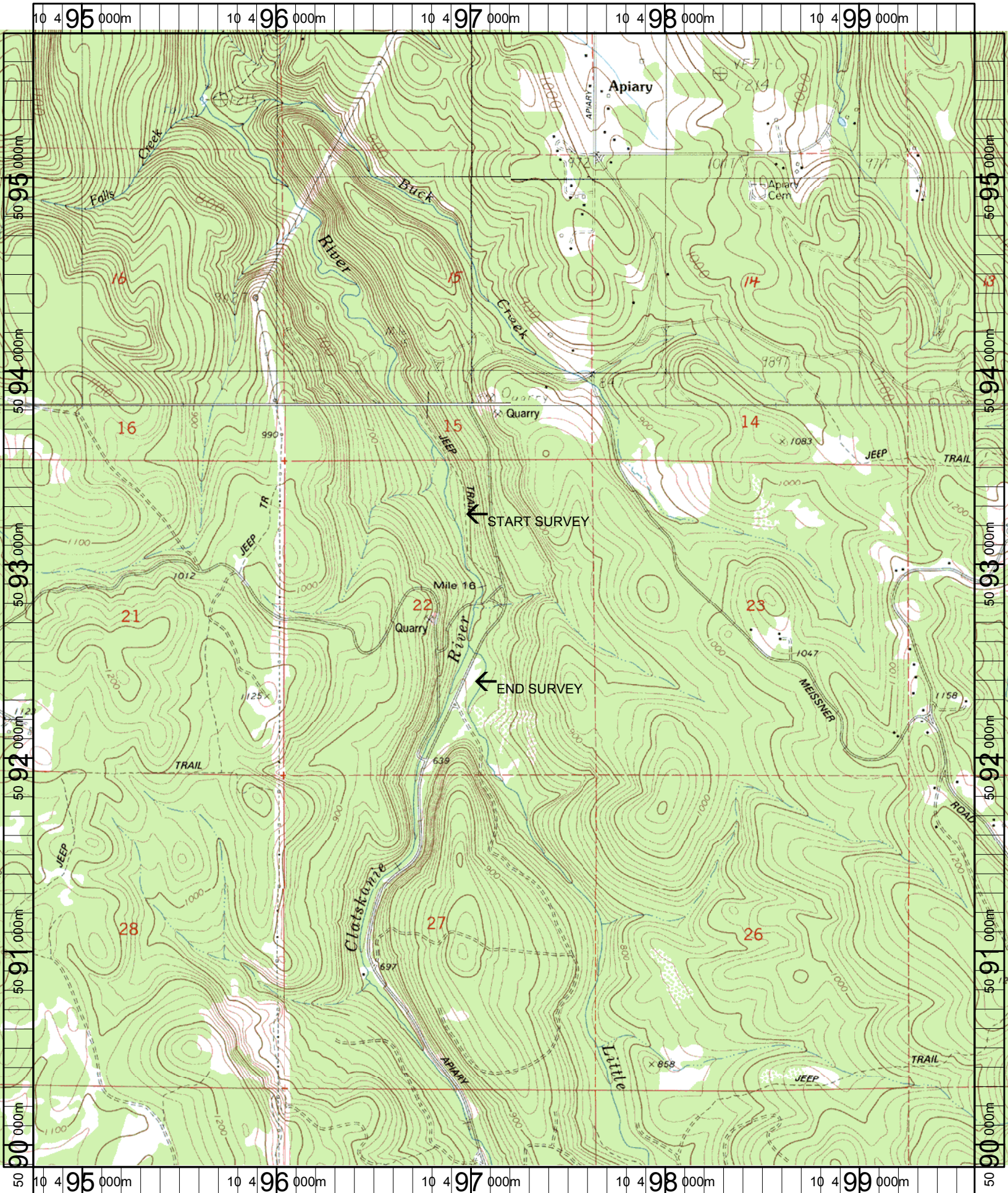
Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes	
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90		
15	LF	1	HS	35	85	15	85	Conifer							10T 0497031
								Hardwood	3	2					5092953
															VINEMAPLE
15	RT	3	HS	35	80	20	80	Conifer							
								Hardwood				1			
15	LF	2	HS	30	85	15	85	Conifer		2					
								Hardwood							
15	LF	3	HS	15	90	10	90	Conifer		3					
								Hardwood							
15	RT	1	LT	0	70	50	40	Conifer							
								Hardwood		1					
15	RT	2	HS	30	80	30	16	Conifer							
								Hardwood	3						
30	RT	3	HS	10	45	10	90	Conifer			1				
								Hardwood			1				
30	LF	2	HS	10	70	15	85	Conifer			2				
								Hardwood							
30	LF	1	HS	10	70	35	65	Conifer		3					10T 049688
								Hardwood							5092709 (2D)
30	LF	3	HS	10	70	15	85	Conifer		3					
								Hardwood							
30	RT	2	HT	0	25	20	80	Conifer	1						
								Hardwood							
30	RT	1	HT	0	40	20	80	Conifer							
								Hardwood							
42	LF	1	HS	35	80	20	80	Conifer			2				10T 0492000
								Hardwood			3				5092571
42	LF	2	RB	0	0	0	0	Conifer							
								Hardwood							
42	LF	3	HS	10	70	20	80	Conifer			2				
								Hardwood			2				
42	RT	1	LT	0	80	60	40	Conifer							
								Hardwood			2				
42	RT	2	HT	10	70	40	60	Conifer							
								Hardwood							
42	RT	3	HT	10	70	40	60	Conifer							
								Hardwood			2				

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: 7-L SITE ID: 215 CLATSKANIE RIVER PRE-TX (L-215)

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	SC	00	4.3		10T 0496938 5093174	
4	SP	00	94.9		WEAK POOL	
5	RB	01	133.1		03 CHANNEL AT TOP	
8	PD	02	191.5			COHO FRY STRANDED IN P
10	SL	02	191.5	DJ		
15	PP	00	281.8		RIP 1 10T 0497031 509295	
18	RR	00	340.3	SS/		
21	RR	00	440.5		10T 0497027 5092812 2D	
22	SS	00	443.3			PA, BC
26	AL	10	494	BV	BV INDUCED FROM OLD	BEAVER INDUCED
29	SC	00	521.6		10T 0496988 5092709	
30	LP	00	550.2		RIP T 2	
35	SR	01	642			HARDPAN CLAY
36	RR	01	655.1			HARDPAN CLAY
41	LP	01	693.4		10T 0497000 5092571 - 2D	
42	SC	01	697.2		RIP 3 H=.6	
43	PD	02	697.2		OLD CULVERT ON SIDE	
44	LP	01	716.9	DJ/	SPAWNING SURVEY	
45	CC	11	716.9	CC	END 30306.00	2M ROUND X2
46	RB	00	740.1		SEG 4	
51	TP	00	902.4		10T 046945 5092377 2D	



Name: BAKER POINT
Date: 6/14/2004
Scale: 1 inch equals 2000 feet

Location: 10 497167 E 5092819 N
Caption: CLATSKANIE RIVER RESTORATION SITE - CLATSKANIE BASIN