

**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: July 22, 2003  
SURVEY CREW: Trevor Diemer, Ben Walczak  
REPORT PREPARED BY: Paul Jacobsen  
BASIN AREA: km<sup>2</sup>  
USGS MAPS: Baker Point  
ECOREGION: Coast Range Astoria Willapa

**GENERAL DESCRIPTION:**

The Clatskanie River habitat survey extended 513 meters. The channel was constrained by hillslopes in a moderate V-shaped valley. The average valley width index was 2.4 (range: 1.1-7.0). Land use for the reach was second growth (15-30 cm dbh) trees. The average unit gradient was 2.4 percent. Rapids (53%) and scour pools (26%) dominated stream habitat. Gravel (37%) and cobble (24%) dominated stream substrate. Wood volume was low at 8.9 m<sup>3</sup>/100m.

**COMMENTS:**

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

REACH 1

T07N-R04W-S22SW

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	100%	Multiple Terraces	0%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index 2.4		VWI Range: 1.1 - 7	

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	100%	Single Channel	0%
Bedrock	0%	Multiple Channel	0%
Terrace	0%	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	513	3,948	0
Secondary	87	286	3

Channel Dimensions (m)

<u>Wetted</u>		<u>Active</u>		<u>Floodprone</u>	<u>First Terrace</u>
Width	7.6	Width	18.2	27.6	36.2
Depth	0.32	Height	0.6	1.2	1.5
W:D ratio		29.1	Entrenchment		1.6
Stream Flow Type:	LF	Water temp (C):		16.0 - 16.0	
Avg. Unit Gradient:	2.4%	Habitat Units/100m:		4.5	

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	
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: 93%
Undercut Banks:		Range: 50 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m</u>
All pieces (>=3m x 0.15m):	30	5.8
Volume (m <sup>3</sup> ):	46	8.9
Key pieces (>=10m x 0.60m):	2	0.4

OREGON DEPARTMENT OF FISH AND WILDLIFE

CLATSKANIE RIVER PRE-TX (L-215)

HABITAT INVENTORY

Report Date: 12/17/03

Survey Date:

7/22/03

REACH 1		T07N-R04W-S22SW					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	
CULVERT CROSSING	1	4	18.1	0.05	63	0	10	10	30	40	0	10	
DRY CHANNEL	2	64	2.7	0.01	233	0	0	10	50	40	0	0	
POOL-LATERAL SCOUR	6	152	6.8	0.73	1,115	25	5	11	43	21	6	14	
PUDDLED UNIT	1	23	2.3	0.10	53	1	0	10	40	30	0	20	
RAPID/BEDROCK	4	107	10.2	0.23	1,103	17	1	4	11	14	6	64	
RAPID/BOULDERS	7	164	7.0	0.26	1,137	159	1	9	40	29	17	4	
RIFFLE	5	87	6.0	0.24	527	49	1	10	48	26	10	5	
STEP/STRUCTURE	1	0	18.1	0.05	3	0	5	5	5	0	5	80	
<b>Total:</b>	<b>27</b>	<b>600</b>	<b>7.6</b>	<b>0.32</b>	<b>4,234</b>	<b>251</b>	<b>Avg 2</b>	<b>9</b>	<b>37</b>	<b>24</b>	<b>9</b>	<b>19</b>	

HABITAT SUMMARY										87	
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	0	0			0	0.00%	0	0.0			
Scour Pools	6	152	6.8	0.73	1,115	26.33%	25	2.2			
Glides	0	0			0	0.00%	0	0.0			
Riffles	5	87	6.0	0.24	527	12.45%	49	9.3			
Rapids	11	271	8.1	0.25	2,241	52.92%	176	7.9			
Cascades	0	0			0	0.00%	0	0.0			
Step/Falls	1	0	18.1	0.05	3	0.06%	0	0.0			
Dry	3	87	2.6	0.04	286	6.74%	1	0.4			
Culverts	1	4	18.1	0.05	63	1.50%	0	0.0			

POOL SUMMARY		
	<u>Total</u>	<u># / Km</u>
All Pools:	6	10.0
Pools >=1m deep:	1	1.7
Complex pools (LWD pieces>=3):	2	3.3
Pool frequency (channel widths/pool):	5.5	
Residual pool depth (avg):	0.63	

**STREAM SUMMARY**

**CLATSKANIE RIVER PRE-TX (L-215)**

Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m <sup>2</sup> )	Substrate Percent Wetted Area						Large Boulders (>0.5m)
					S/O	Snd	Grvl	Cbl	Bldr	Bdrk	
27	600	7.6	0.32	4,234	2	9	37	24	9	19	251

Habitat Group	Wetted Area	
	(m <sup>2</sup> )	Percent
Dammed & BW Pools	0	0.00%
Scour Pools	1,115	26.33%
Glides	0	0.00%
Riffles	527	12.45%
Rapids	2,241	52.92%
Cascades	0	0.00%
Step/Falls	3	0.06%
Dry	286	6.74%
Culverts	63	1.50%

**RIPARIAN ZONE VEGETATION SUMMARY**

**REACH 1** **REACH 1**

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

Total hardwoods/1000	345
Total conifers/1000 ft	549
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	0.0	1.0	0.0	3.0	0.0	4.0	0.0
15-30cm	0.7	1.7	2.3	1.0	1.0	1.3	4.0	4.0
30-50cm	0.0	1.0	0.0	0.0	0.7	0.0	0.7	1.0
50-90cm	0.0	0.3	0.0	0.3	0.3	0.0	0.3	0.7
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	0.7	3.0	3.3	1.3	5.0	1.3	3.0	1.9

**Canopy closure and ground cover**

	Zone 1	Zone 2	Zone 3
	0-10 meters (%)	10 - 20 meters (%)	20 - 30 meters (%)
Canopy closure	73	73	81
Shrub cover	39	43	38
Grass/forb cover	56	57	52

**Predominant landform in each zone**

	Zone 1	Zone 2	Zone 3
	0-10 meters (%)	10 - 20 meters (%)	20 - 30 meters (%)
Hillslope	83	83	100
High terrace	0	0	0
Low terrace	0	0	0
Floodplain	0	0	0
Wetland/meadow	0	0	0
Stream channel	0	0	0
Roadbed/Railroad	17	17	0
Riprap	0	0	0
Surface slope (%)	42	43	50

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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	345
Total conifers/1000 ft	549
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	4.0	0.0
15-30cm	4.0	4.0
30-50cm	0.7	1.0
50-90cm	0.3	0.7
>90cm	0.0	0.0

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**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		
5	LF	1	HS	55	80	60	40	Conifer							10T 0496931
								Hardwood				1			5092981
5	RT	3	HS	60	90	30	70	Conifer							
								Hardwood		2					
5	LF	2	HS	55	80	70	30	Conifer							
								Hardwood							
5	RT	1	HS	80	80	50	50	Conifer							
								Hardwood		2					
5	LF	3	HS	55	80	70	30	Conifer	1						
								Hardwood		2					
5	RT	2	HS	60	90	40	60	Conifer			1				
								Hardwood		1					
17	RT	3	HS	50	80	60	40	Conifer			1	1			
								Hardwood							
17	RT	2	HS	45	80	70	30	Conifer							
								Hardwood				1			
17	RT	1	HS	20	70	80	20	Conifer							
								Hardwood							
17	LF	3	HS	45	85	20	80	Conifer			1				
								Hardwood							
17	LF	2	HS	45	85	20	80	Conifer		3					
								Hardwood							
17	LF	1	HS	45	85	0.3	70	Conifer							10T 0497060
								Hardwood			3				5092915
23	LF	3	HS	30	70	40	60	Conifer		3					
								Hardwood							
23	RT	1	RB	30	50	5	95	Conifer							
								Hardwood							
23	LF	1	HS	20	70	40	60	Conifer			2				OLD
								Hardwood			3				ROADBED ON
23	LF	2	HS	20	70	40	60	Conifer			3				SIDE OF RIP T
								Hardwood			2				10T 0497012
23	RT	3	HS	60	80	10	30	Conifer	8						5092801
								Hardwood							REPLANTS
23	RT	2	RB	30	30	20	80	Conifer	3						10-15YR OLD
								Hardwood							

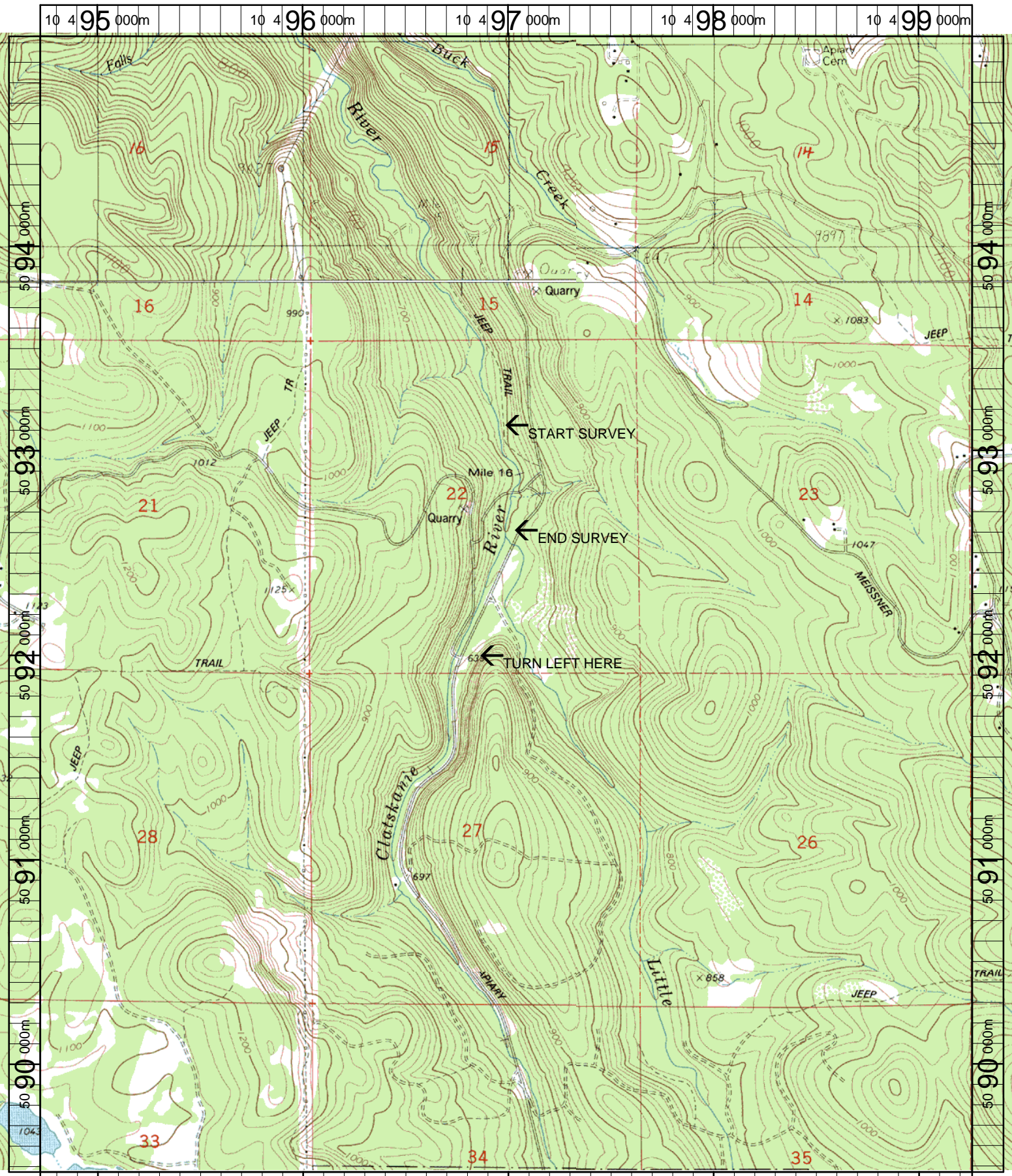
# Comment Summary

## Oregon Plan Monitoring Sites 2003

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

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	RB	00	30		10T 0496915 5093189 16.2	10T 049615 5093189
5	RB	01	130		10T 0496931 5092981 RIP/	RIP#1
16	RR	00	307.8		95M BELOW BRIDGE	
17	RR	00	336.3	SS/	10T 0497060 5092915 16.5	RIPT #2
22	SS	00	433.65		H=.20M	ACTIVELY ERODING SEE PH
23	CC	00	437.15	CC	10T 0497012 5092801	
25	LP	00	488.75	DJ		





Name: BAKER POINT  
 Date: 12/17/2003  
 Scale: 1 inch equals 2000 feet

Location: 10 496986 E 5092252 N  
 Caption: CLATSKANIE RIVER RESTORATION SITE - CLATSKANIE BASIN