

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

STREAM: Wright Creek (MC-179)  
BASIN: Yaquina River  
SURVEY TYPE: Post-Tx  
DATE: July 12, 2004  
SURVEY CREW: Erin Richmond, Jeff Snyder  
REPORT PREPARED BY: Paul Jacobsen  
BASIN AREA: 16.8 km<sup>2</sup>  
USGS MAPS: Toledo South  
ECOREGION: Coast Range Sitka Spruce

**GENERAL DESCRIPTION:**

The Wright Creek habitat survey extended 493 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 5.4 (range: 3.4-7.4). Land use for the reach was second growth (15-30 cm dbh) trees. The average unit gradient was 0.9 percent. Scour pools (68%) and riffles (30%) dominated stream habitat. Sand (45%) and gravel (41%) dominated stream substrate. Wood volume was low at 16.0 m<sup>3</sup>/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

T12S-R10W-S06NW

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	5.4	VWI Range:	3.4 - 7.4

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	493	2,332	0
Secondary	36	46	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 4.0	Width: 6.3	8.8 ( 4.9 - 13.4 )	10.1 ( 5.8 - 14.5 )
Depth: 0.37	Height: 0.5	1.0 ( 0.8 - 1.4 )	1.4 ( 1.1 - 1.9 )

W:D ratio: 14.0

Stream Flow Type: LF

Average Unit Gradient: 0.9%

Water temperature (°C): 12.0 - 12.0

Entrenchment (ACW:FPW ratio): 1.5

Habitat Units/100m (total channel length): 6.2

Habitat Units/100m (primary channel length): 6.7

**Riparian, Bank, and Wood Summary**

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	
Riparian Vegetation:	D30	S

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:		Reach avg: 99%
Undercut Banks:	21%	Range: 72 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	75	15.2
Volume (m <sup>3</sup> ):	79	16.0
Key pieces (>=12m x 0.60m):	4	0.8

OREGON DEPARTMENT OF FISH AND WILDLIFE

WRIGHT CREEK POST-TX (MC-179)

HABITAT INVENTORY

Report Date: 10/27/2004

Survey Date:

7/12/2004

REACH 1

T12S-R10W-S06NW

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
POOL-BACKWATER	3	27	1.6	0.25	41	0	43	48	7	2	0	0
POOL-ISOLATED	1	2	1.5	0.10	3	0	30	60	10	0	0	0
POOL-LATERAL SCOUR	17	295	5.1	0.55	1,617	21	13	60	25	1	0	0
RIFFLE	12	206	3.3	0.15	719	0	3	22	73	1	0	0
<b>Total:</b>	33	529	4.0	0.37	2,379	21	<b>Avg:</b> 13	45	41	1	0	0

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	4	28	1.6	0.21	43	1.82%	0	0.0
Scour Pools	17	295	5.1	0.55	1,617	67.97%	21	1.3
Glides	0	0			0	0.00%	0	0.0
Riffles	12	206	3.3	0.15	719	30.21%	0	0.0
Rapids	0	0			0	0.00%	0	0.0
Cascades	0	0			0	0.00%	0	0.0
Step/Falls	0	0			0	0.00%	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:	21	39.7	42.6
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	6	11.3	12.2
Pool frequency (channel widths/pool):	4.0		
Residual pool depth (avg):	0.44		

**RIPARIAN ZONE VEGETATION SUMMARY**

REACH 1

REACH 1

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

3 transects

Total hardwoods/1000	528
Total conifers/1000 ft	142
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	0.3	0.3	0.0	0.0	0.0	1.3	0.3	1.7
15-30cm	0.0	0.0	0.7	1.0	1.3	2.7	2.0	3.7
30-50cm	0.0	0.7	0.0	0.7	0.0	1.3	0.0	2.7
50-90cm	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.7
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	0.3	1.7	0.7	1.7	1.3	5.3	0.8	2.9

**Canopy closure and ground cover**

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	65		83		78	
Shrub cover	39		43		37	
Grass/forb cover	63		52		38	

**Predominant landform in each zone**

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	0		17		83	
High terrace	50		33		0	
Low terrace	0		0		0	
Floodplain	33		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	17		50		17	
Riprap	0		0		0	
Surface slope (%)	4		11		31	

**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		
11	LF	1	RB	0	70	40	70	Conifer							
								Hardwood			2				
11	LF	2	HS	35	80	50	50	Conifer		2					
								Hardwood		1					
11	LF	3	HS	35	90	30	60	Conifer		4					
								Hardwood							
11	RT	1	HT	5	90	40	60	Conifer	1						
								Hardwood							
11	RT	2	HT	9	90	60	30	Conifer							
								Hardwood		2	1				
11	RT	3	HS	35	90	40	10	Conifer							
								Hardwood	1	3	4				
20	RT	1	HT	5	40	60	70	Conifer							
								Hardwood							
20	LF	1	HT	5	10	30	50	Conifer							
								Hardwood	1			2			
20	RT	3	HS	35	90	20	40	Conifer							
								Hardwood		3					
20	RT	2	HT	7	70	60	40	Conifer							
								Hardwood			1				
20	LF	3	HS	35	90	60	20	Conifer							
								Hardwood	3						
20	LF	2	RB	5	90	40	60	Conifer							
								Hardwood							
26	LF	1	FP	5	90	5	90	Conifer							
								Hardwood							
26	LF	2	RB	5	80	10	90	Conifer							
								Hardwood							
26	LF	3	RB	5	20	30	70	Conifer							
								Hardwood							
26	RT	1	FP	5	90	60	40	Conifer							
								Hardwood							
26	RT	2	RB	5	90	40	40	Conifer							
								Hardwood							
26	RT	3	HS	40	90	40	30	Conifer							
								Hardwood		2					

# Comment Summary

## Oregon Plan Monitoring Sites 2002

**MONITORING AREA: 2-MC      SITE ID: 179      WRIGHT CREEK POST-TX (MC-179)**

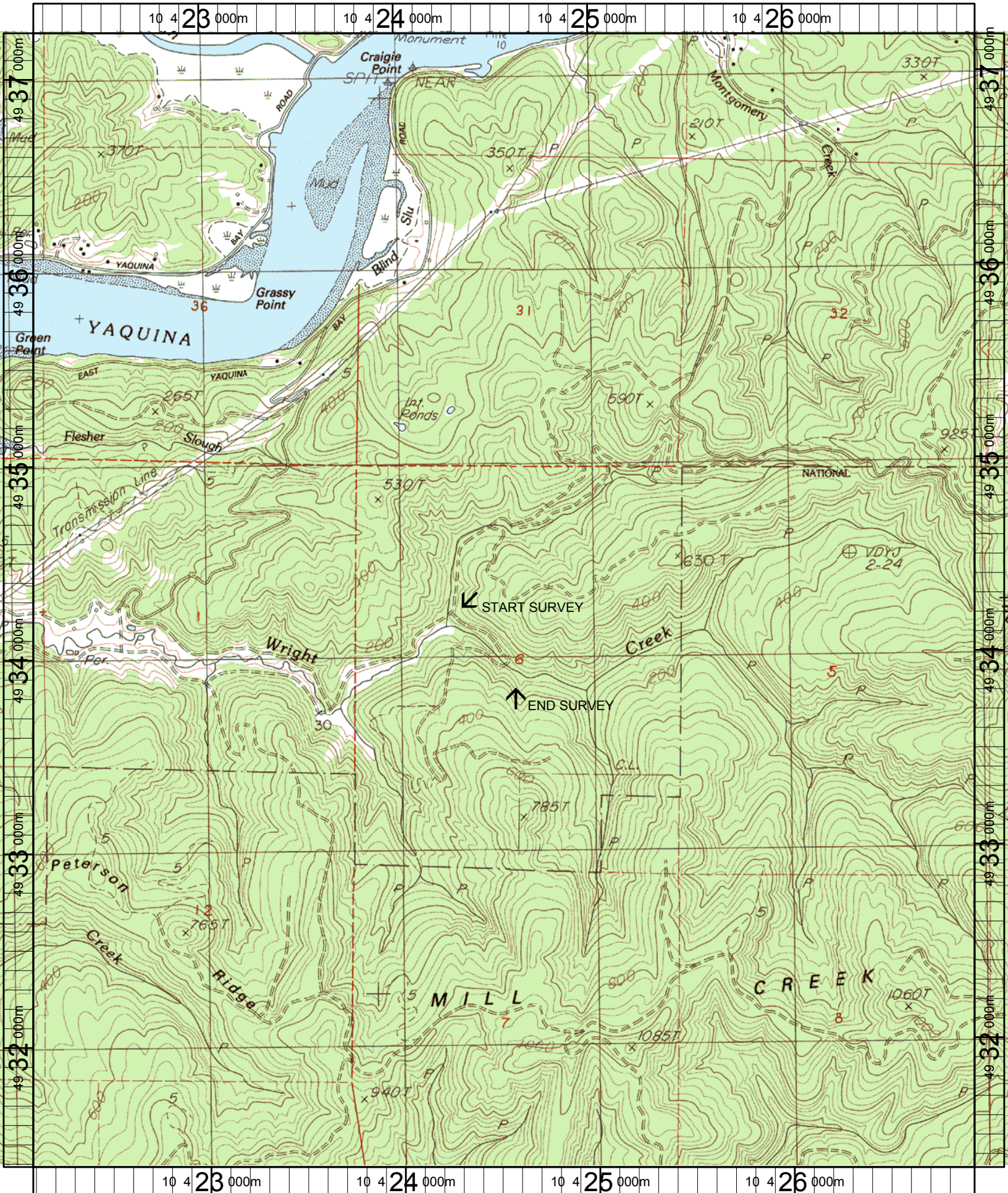
<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
1	LP	00	4.2		WATER TEMP= 12 DEG C	T=12 DEG C AT 11:30
3	LP	00	17.6	DJ		COHO FRY
4	RI	01	41.5	/DJ		
5	BW	10	41.5			COHO FRY
6	LP	00	59.8	HS	HS	REDD
7	LP	00	73.6	DJ, HS	HS, COHO	COHO FRY
8	RI	00	87.9	WL	WL	DEER TRACKS
9	LP	00	108.2	HS, DJ	HS	
11	LP	00	125.9	WL	M/R AT 125.9M	DEER TRACKS, RIP 1 METRI
13	IP	10	154.2			RSN
17	LP	00	210.9	WL		DEER
19	LP	00	237.8	HS, DJ	HS	CO FRY- 20
20	RI	00	255.1		,/R AT 225.1M	BRAIDED CHANNEL RIP 2, M
21	LP	00	275.4			CO FRY, CT, BRAIDED CHAN
23	LP	00	335.5	DJ, HS		
25	BW	10	364.5			CO FRY
26	LP	00	394		M/R AT 349.0M	RIP 3 METRICS
27	LP	00	411.7	BC, CS	CS, RC	CO FRY, BOULDERS
28	RI	00	426.3			BRAIDED CHANNEL
30	RI	01	465.9	/SS	/SS	
31	BW	10	465.9	WL		COHO FRY, DEER

# Comment Summary

## Oregon Plan Monitoring Sites 2002

MONITORING AREA: 2-MC      SITE ID: 179      WRIGHT CREEK POST-TX (MC-179)

<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
32	LP	01	493	/TJ, HS	/TJ	
33	RI	11	493		END SURVEY ALDER RT	END OF SURVEY



Name: TOLEDO SOUTH  
 Date: 6/14/2004  
 Scale: 1 inch equals 2000 feet

Location: 10 424534 E 4934289 N  
 Caption: WRIGHT CREEK RESTORATION SITE - YAQUINA BASIN