

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

STREAM: Wright Creek (MC-179)
BASIN: Yaquina River
SURVEY TYPE: Pre-Tx
DATE: June 30, 2003
SURVEY CREW: Jeff Snyder, Jim Andrews
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 16.8 km²
USGS MAPS: Toledo South
ECOREGION: Coast Range Sitka Spruce

GENERAL DESCRIPTION:

The Wright Creek habitat survey extended 527 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 5.6 (range: 2.8-9.0). Land use for the reach was second growth (15-30 cm dbh) trees. The average unit gradient was 0.7 percent. Scour pools (56%) and riffles (28%) dominated stream habitat. Gravel (56%) and sand (26%) dominated stream substrate. Wood volume was low at 9.6 m³/100m.

COMMENTS:

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

OREGON DEPT. FISH AND WILDLIFE

WRIGHT CREEK PRE-TX (MC-179)

HABITAT INVENTORY

Report Date: 12/17/03

Survey Date:

6/30/03

REACH 1

T12S-R10W-S06SE

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	5.6	VWI Range:	2.8 - 9

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	527	1,906	0
Secondary	54	357	1

Channel Dimensions (m)

<u>Wetted</u>		<u>Active</u>		<u>Floodprone</u>	<u>First Terrace</u>
Width	4.3	Width	6.6	12.2	10.3
Depth	0.42	Height	0.7	1.3	1.5
		W:D ratio	10.0	Entrenchment	1.8
Stream Flow Type:	LF			Water temp (C):	14.0 - 14.0
Avg. Unit Gradient:	0.7%			Habitat Units/100m:	8.1

Riparian, Bank, and Wood Summary

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

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	1%	Reach avg: 94%
Undercut Banks:	22%	Range: 61 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m</u>
All pieces (>=3m x 0.15m):	96	18.2
Volume (m ³):	51	9.6
Key pieces (>=10m x 0.60m):	0	0.0

OREGON DEPARTMENT OF FISH AND WILDLIFE

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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
CASCADE/BOULDERS	1	6	50.3	0.10	282	0	15	20	60	5	0	0
POOL-LATERAL SCOUR	26	337	3.6	0.57	1,258	22	10	33	49	7	0	1
PUDDLED UNIT	1	3	0.1	0.01	0	0	0	10	80	10	0	0
RIFFLE	14	216	2.9	0.25	640	3	1	20	64	14	0	1
STEP/COBBLE	5	21	3.5	0.25	83	0	0	6	67	27	0	0
Total:	47	582	4.3	0.42	2,263	25	Avg 6	26	56	11	0	1

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	26	337	3.6	0.57	1,258	55.62%	22	1.7
Glides	0	0			0	0.00%	0	0.0
Riffles	14	216	2.9	0.25	640	28.27%	3	0.5
Rapids	0	0			0	0.00%	0	0.0
Cascades	1	6	50.3	0.10	282	12.45%	0	0.0
Step/Falls	5	21	3.5	0.25	83	3.65%	0	0.0
Dry	1	3	0.1	0.01	0	0.01%	0	0.0
Culverts	0	0			0	0.00%	0	0.0

POOL SUMMARY

	Total	# / Km
All Pools:	26	44.7
Pools >=1m deep:	1	1.7
Complex pools (LWD pieces>=3):	13	22.4
Pool frequency (channel widths/pool):	3.4	
Residual pool depth (avg):	0.41	

STREAM SUMMARY

WRIGHT CREEK PRE-TX (MC-179)

Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m ²)	Substrate Percent Wetted Area						Large Boulders (#>0.5m)
					S/O	Snd	Grvl	Cbl	Bldr	Bdrk	
47	582	4.3	0.42	2,263	6	26	56	11	0	1	25

Habitat Group	Wetted Area	
	(m ²)	Percent
Dammed & BW Pools	0	0.00%
Scour Pools	1,258	55.62%
Glides	0	0.00%
Riffles	640	28.27%
Rapids	0	0.00%
Cascades	282	12.45%
Step/Falls	83	3.65%
Dry	0	0.01%
Culverts	0	0.00%

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1 **REACH 1**

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

Total hardwoods/1000	711
Total conifers/1000 ft	224
Total conifers >20" dbh/1000 ft	41
Total conifers >35" dbh/1000 ft	20

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	0.7	4.3	0.3	3.3	0.0	0.0	1.0	7.7
15-30cm	1.0	0.7	0.7	1.7	0.3	0.3	2.0	2.7
30-50cm	0.0	0.7	0.0	0.3	0.0	0.0	0.0	1.0
50-90cm	0.0	0.0	0.3	0.0	0.0	0.3	0.3	0.3
>90cm	0.0	0.0	0.3	0.0	0.0	0.0	0.3	0.0
Total/100m2	1.7	5.7	1.7	5.3	0.3	0.7	1.2	3.9

Canopy closure and ground cover

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Canopy closure	93	93	88
Shrub cover	38	29	22
Grass/forb cover	69	77	48

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	17	17	17
Low terrace	17	0	0
Floodplain	0	0	0
Wetland/meadow	0	0	0
Stream channel	0	0	0
Roadbed/Railroad	17	33	33
Riprap	0	0	0
Surface slope (%)	30	31	27

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	711
Total conifers/1000 ft	224
Total conifers >20" dbh/1000 ft	41
Total conifers >35" dbh/1000 ft	20

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	1.0	7.7
15-30cm	2.0	2.7
30-50cm	0.0	1.0
50-90cm	0.3	0.3
>90cm	0.3	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		
9	RT	3	HS	36	85	20	20	Conifer							60% BARE
								Hardwood							
9	LF	1	LT	2	95	8	95	Conifer							
								Hardwood	3	2	1				
9	LF	2	RB	0	95	2	80	Conifer							20% GRAVEL
								Hardwood							
9	LF	3	HS	65	100		80	Conifer							20% BARE
								Hardwood		1		1			
9	RT	2	HS	90	95		80	Conifer				1	1		20% BARE
								Hardwood			1				
9	RT	1	HS	49	85		100	Conifer							
								Hardwood			1				
23	LF	2	HS	65	85	5	80	Conifer	1	2					
								Hardwood	6	4					
23	LF	1	HS	75	95		20	Conifer	2	3					80% BARE
								Hardwood							
23	RT	1	HT	0.5	90	100		Conifer							BLACKBERRIES
								Hardwood							
23	RT	2	HT	1.2		100		Conifer							BLACKBERRIES
								Hardwood							
23	RT	3	HT	1		30	70	Conifer							BLACKBERRIES
								Hardwood							
23	LF	3	RB	31	80	5	40	Conifer							BURNT TREES 55%
								Hardwood							RARE ALDER 5%
37	RT	2	HS	28	100	10	85	Conifer							BARE
								Hardwood	4						
37	RT	3	HS	28	90	40	50	Conifer			1				10% BARE
								Hardwood							
37	RT	1	HS	35	100	5	90	Conifer							ALDER 5%
								Hardwood	10						BARE
37	LF	3	RB	2	85	15	30	Conifer							55% BARE
								Hardwood							
37	LF	2	RB	1	90	30	60	Conifer							10% BARE
								Hardwood			1				
37	LF	1	RB	21	90	40	40	Conifer							
								Hardwood							

Comment Summary

Oregon Plan Monitoring Sites 2003

MONITORING AREA: **2-MC** SITE ID: **179** **WRIGHT CREEK PRE-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	6.4		DJ	
2	RI	00	31.4			HARDPAN
3	RI	00	50.6			HARDPAN
4	LP	00	61.2	WL	FISH PRESENT/SS, WL	FISH, ELK TRAILS
5	LP	00	71.3		FISH DJ	
7	LP	00	108.3		ORANGE & WHITE FLAGG	ORANGE FLAGGINGS
8	LP	00	123.1	BV	BV (CUTTINGS). WL (BIRD CUTTINGS	
9	RI	00	148.1	WL	WL (ELK TRACKS)	ELK TRACKS
10	LP	00	175.7			FISH PRESENT
14	LP	00	198.7		ORANGE FLAGGING (F)	
16	RI	00	223.5		ORANGE FLAGGING SITE	
17	RI	00	236.4		WL (ELK SCAT AND TRAC	
20	LP	02	279.8			FISH PRESENT
21	RI	02	279.8		FISH (SCULPIN)	
22	LP	00	290.3		FISH (SALMONID)	FISH PRESENT/SC. 1 PIN
23	LP	00	298.3	WL	FISH (SALMONID),WL (EL	FISH RTH, STELLAR'S JAY
24	LP	00	320.2		ORANGE FLAGGING SITE	PHOTO
26	LP	00	347		ORANGE FLAGGING	
31	LP	02	385.9		FISH	
32	RI	02	385.9	WL		NEWTS- ROUGH SKINNED
33	LP	02	385.9			FISH PRESENT

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35	LP	00	400.3	/CS/, BC	BC, FISH	BOULDERS
37	SC	00	412		RIPARIAN TRANCSECT T	
38	LP	00	435		FISH	
39	RI	00	453.3		/SS	FISH PRESENT
40	LP	00	475		WL (STELLARS JAY)	COHO
41	LP	01	481.3		/TJ (UNNAMED)	SOME BEDROCK ON SHORE
42	CB	11	481.3		COHO PRESENT	H2O TEMP=11 DEG C
43	LP	00	489.9		ORANGE FLAGGING (D)	
45	LP	00	507	WL	WL (TRAILS)	ELKTRACKS
47	LP	00	527.4		ORANGE & WHITE FLAG (



Name: TOLEDO SOUTH
 Date: 6/11/2003
 Scale: 1 inch equals 1666 feet

Location: 10 424476 E 4934226 N
 Caption: WRIGHT CREEK RESTORATION SITE - YAQUINA BASIN