

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

STREAM: Byron Creek (U-10)
BASIN: Umpqua River
SURVEY TYPE: Post-Tx
DATE: August 16, 2007
SURVEY CREW: Jim Deshler, Stephanie McCary
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 11.8 km²
USGS MAPS: Tenmile
ECOREGION: Umpqua Interior Foothills

GENERAL DESCRIPTION:

The Byron Creek habitat survey extended 500 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 20.0. Land use for the reach was rural residential. The average unit gradient was 1.5 percent. The stream was dry when surveyed. Cobble (40%), gravel (24%) and bedrock (21%) dominated stream substrate. Wood volume was moderate at 29.7 m³/100m.

COMMENTS:

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

REACH 1

T29S-R07W-S29NE

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	20.0	VWI Range:	20 - 20

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 Channel	500	2,288	20
Secondary Channel	0	0	0
Off-Channel Units	10	25	1

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 4.5	Width: 5.3	7.9 (6.7 - 9.3)	8.6 (6.9 - 10)
Depth: 0.01	Height: 0.7	1.3 (1.2 - 1.4)	2.2 (1.4 - 3.9)

W:D ratio: 8.1
 Stream Flow Type: PD
 Average Unit Gradient: 1.5%
 Water temperature (°C): -

Entrenchment (ACW:FPW ratio): 1.5
 Habitat Units/100m (total channel length): 4.1
 Habitat Units/100m (primary channel length): 4.2

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	RR	
Riparian Vegetation:	S	M15

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	40%	Reach avg: 62%
Undercut Banks:	0%	Range: 47 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	63	12.6
Volume (m ³):	148	29.7
Key pieces (>=12m x 0.60m):	19	3.8

HABITAT INVENTORY

Report Date: 11/14/2007

Survey Date:

8/16/2007

REACH 1		T29S-R07W-S29NE					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
DRY UNIT	17	410	4.5	0.00	1,878	11	5	8	26	44	4	12
PUDDLED UNIT	4	100	4.4	0.07	435	4	2	5	14	20	3	56
Total:	21	510	4.5	0.01	2,313	15	Avg: 5	7	24	40	4	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	0	0			0	0.00%	0	0.0
Glides	0	0			0	0.00%	0	0.0
Riffles	0	0			0	0.00%	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	21	510	4.5	0.01	2,313	100.00	15	0.6
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:	0	0.0	0.0
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	0	0.0	0.0
Pool frequency (channel widths/pool):	0.0		
Residual pool depth (avg):			

OREGON DEPARTMENT OF FISH AND WILDLIFE
HABITAT INVENTORY

BYRON CREEK POST-TX
GCG: 4-UMP SITE ID: 10

Survey Date 8/16/2007
Report Date: 11/7/2007

RIPARIAN ZONE
VEGETATION SUMMARY

REACH 1

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

Total hardwoods/1000	1077
Total conifers/1000 ft	325
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	4.7	0.7	2.0	0.7	2.0	1.7	8.7
15-30cm	0.3	2.0	1.3	3.0	1.7	3.0	3.3	8.0
30-50cm	0.3	0.0	0.0	0.3	0.0	0.7	0.3	1.0
50-90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	1.0	6.7	2.0	5.3	2.3	5.7	1.8	5.9

Canopy closure and ground cover

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Canopy closure	65	50	31
Shrub cover	75	46	22
Grass/forb cover	25	54	78

Predominant landform in each zone

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

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	1077
Total conifers/1000 ft	325
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	1.7	8.7
15-30cm	3.3	8.0
30-50cm	0.3	1.0
50-90cm	0.0	0.0
>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		
6	LT	1	HT	0	80	100	0	Conifer							
								Hardwood	1	2					
6	LT	2	HT	0	70	80	20	Conifer		1					
								Hardwood	1	2					
6	LT	3	HT	0	40	70	30	Conifer		1					
								Hardwood	1	2					
6	RT	1	HT	0	50	90	10	Conifer							
								Hardwood	2	3					
6	RT	2	HT	0	20	40	60	Conifer							
								Hardwood	2						
6	RT	3	HT	0	0	0	100	Conifer							FIELD
								Hardwood	0						
11	LT	1	HT	0	80	10	90	Conifer	1	1					
								Hardwood	6	1					
11	LT	2	HT	0	70	10	90	Conifer	1	2					
								Hardwood	1	3					
11	LT	3	HT	0	75	10	90	Conifer	1	2					
								Hardwood	3	4	1				
11	RT	1	HT	10	100	100	0	Conifer							
								Hardwood	2						
11	RT	2	HT	0	60	80	20	Conifer	1						
								Hardwood	1	2					
11	RT	3	HT	0	20	10	90	Conifer							FIELD
								Hardwood							
16	LT	1	HT	0	60	60	40	Conifer				1			
								Hardwood	1						
16	LT	2	HT	0	80	65	35	Conifer		1					
								Hardwood	1	2	1				
16	LT	3	HS	0	50	40	60	Conifer	1	2					
								Hardwood	2	3	1				
16	RT	1	HS	0	20	90	10	Conifer							
								Hardwood	2						
16	RT	2	HT	0	0	0	100	Conifer							FIELD
								Hardwood							
16	RT	3	HT	0	0	0	100	Conifer							FIELD
								Hardwood							

COMMENT SUMMARY

MONITORING AREA: 4-UMP SITE ID: 10 STREAM: BYRON CREEK POST-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
3	DU	01	75	TJ/	PIC 95/96
12	DU	00	275		PIC 97-99
13	DU	00	300		DEBRIS JAM REHAB
15	DU	00	350		DEBRIS JAM REHAB
16	PD	00	375		FISH, DEBRIS JAM, REHAB
17	PD	00	400		DEBRIS JAM REHAB
19	DU	00	450		DEBRIS JAM
20	DU	00	475		DEBRIS JAM REHAB
21	DU	00	500		DEBRIS JAM REHAB

