

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

STREAM: Whaleshead Creek (S-347)
BASIN: Pacific Ocean
SURVEY TYPE: Pre-Tx
DATE: August 15, 2006
SURVEY CREW: Greg Ryder, Steve Koller
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 10.0 km²
USGS MAPS: Carpenterville
ECOREGION: Coast Range Coastal Uplands

GENERAL DESCRIPTION:

The Whaleshead Creek habitat survey extended 945 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 4.0 (range: 3.2-4.5). Land use for the reach was rural residential and greenway. The average unit gradient was 2.1 percent. Scour pools (72%) dominated stream habitat. Gravel (41%) and cobble (34%) dominated stream substrate. Wood volume was very low at 4.6 m³/100m.

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

T40S-R14W-S03NW

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	4.0	VWI Range:	3.2 - 4.5

Channel Morphology (Percent Reach Length)

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

Channel Characteristics

<u>Type</u>	<u>Length (m)</u>	<u>Area (m2)</u>	<u>Dry Units</u>
Primary Channel	945	3,380	0
Secondary Channel	45	153	1
Off-Channel Units	16	59	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 3.7	Width: 12.1	15.2 (12.3 - 19.2)	17.7 (14.4 - 23.6)
Depth: 0.39	Height: 0.6	1.3 (1.1 - 1.6)	2.2 (1.7 - 2.6)

W:D ratio: 19.2
 Stream Flow Type: LF
 Average Unit Gradient: 2.1%
 Water temperature (°C): 14.0 - 14.0

Entrenchment (ACW:FPW ratio): 1.5
 Habitat Units/100m (total channel length): 4.4
 Habitat Units/100m (primary channel length): 4.7

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	RR	GN
Riparian Vegetation:	C30	M15

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	4%	Reach avg: 92%
Undercut Banks:	8%	Range: 56 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	69	7.3
Volume (m ³):	43	4.6
Key pieces (>=12m x 0.60m):	1	0.1

OREGON DEPT OF FISH AND WILDLIFE

WHALESHEAD CREEK PRE-TX (5-SC, 347)

HABITAT INVENTORY

Report Date: 3/5/2007

Survey Date:

8/15/2006

REACH 1		T40S-R14W-S03NW					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
CASCADE/BOULDERS	1	35	4.3	0.20	152	52	0	0	10	0	90	0
CULVERT CROSSING	1	204	0.6	0.10	122	0	0	0	0	0	0	100
DRY UNIT	1	29	4.1	0.00	119	0	0	0	50	50	0	0
POOL-BACKWATER	2	16	4.0	0.40	59	0	35	25	40	0	0	0
POOL-LATERAL SCOUR	20	488	4.2	0.67	2,359	32	12	13	36	31	5	5
POOL-PLUNGE	1	16	14.1	1.30	228	0	20	20	40	20	0	0
RAPID/BOULDERS	2	30	2.6	0.08	83	0	0	5	45	50	0	0
RIFFLE	8	156	2.4	0.09	383	7	1	0	46	48	5	0
STEP/COBBLE	7	29	2.7	0.08	81	0	0	0	50	50	0	0
STEP/LOG	1	2	3.2	0.05	7	0	0	0	100	0	0	0
Total:	44	1,005	3.7	0.39	3,593	91	Avg: 8	8	41	34	5	5

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	2	16	4.0	0.40	59	1.65%	0	0.0	
Scour Pools	21	504	4.7	0.70	2,587	72.02%	32	1.2	
Glides	0	0			0	0.00%	0	0.0	
Riffles	8	156	2.4	0.09	383	10.65%	7	1.8	
Rapids	2	30	2.6	0.08	83	2.31%	0	0.0	
Cascades	1	35	4.3	0.20	152	4.22%	52	34.3	
Step/Falls	8	31	2.8	0.08	88	2.44%	0	0.0	
Dry	1	29	4.1	0.00	119	3.31%	0	0.0	
Culverts	1	204	0.6	0.10	122	3.41%	0	0.0	

POOL SUMMARY			
	<u>Total</u>	Total of all Channel Lengths	Primary Channel Length
		<u># / Km</u>	<u># / Km</u>
All Pools:	23	22.9	24.4
Pools >=1m deep:	6	6.0	6.4
Complex pools (LWD pieces>=3):	8	8.0	8.5
Pool frequency (channel widths/pool):	3.6		
Residual pool depth (avg):	0.65		

OREGON DEPARTMENT OF FISH AND WILDLIFE
HABITAT INVENTORY

WHALESHEAD CREEK PRE-TX
GCG: 5-SC SITE ID: 347

Survey Date 8/15/2006
Report Date: 3/5/2007

**RIPARIAN ZONE
VEGETATION SUMMARY**

REACH 1

Summary of Riparian Zone (0-30m) 2 transects

Total hardwoods/1000	122
Total conifers/1000 ft	122
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	0.0	0.0	0.0	0.0	1.5	0.0	1.5
15-30cm	0.0	0.0	0.0	0.5	0.0	0.0	0.0	0.5
30-50cm	1.0	0.0	0.5	0.0	0.5	0.0	2.0	0.0
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	0.0	0.5	0.5	0.5	1.5	0.7	0.7

Canopy closure and ground cover

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Canopy closure	40	55	55
Shrub cover	100	100	100
Grass/forb cover	10	0	5

Predominant landform in each zone

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Hillslope	75	75	75
High terrace	25	25	25
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 (%)	18	25	25

Summary of Riparian Zone (0-30m) for all reaches

2 transects

Summary of riparian zone (0-100 feet) extrapolated to 1,000 feet along stream

Total hardwoods/1000	122
Total conifers/1000 ft	122
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	0.0	1.5
15-30cm	0.0	0.5
30-50cm	2.0	0.0
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	
14	LF	2	HS	20	100	100	0				1			SITKA SPRUCE
14	RT	3	HS	40	60	100	0							MYRTLEWOOD
										2				
14	RT	2	HS	40	40	100	0							
14	RT	1	HS	20	20	100	20							
14	LF	3	HS	20	80	100	20				1			SITKA SPRUCE
14	LF	1	HS	20	80	100	20				2			SITKA SPRUCE
30	LF	1	HT	10	0	100	0							SALMONBERRY
30	LF	2	HT	10	0	100	0							SALMONBERRY
30	LF	3	HT	10	0	100	0							SALMONBERRY
30	RT	1	HS	20	60	100	0							
30	RT	2	HS	30	80	100	0							ALDER
30	RT	3	HS	30	80	100	0							ALDER
											1			

Comment Summary

Restoration Monitoring Sites 2006

MONITORING AREA: **5-SC** SITE ID: **347** WHALESHEAD CREEK PRE-TX

<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	35.2	CC, SS/		T=14.0C
2	CC	00	239.2	CC		3 METAL CC DIA=2M, 2.3M
8	LP	00	305.9			TROUT FRY
13	CB	00	467.8			TROUT FRY
20	SL	00	603.9		H=0.30M	
21	LP	00	617.1			TROUT FRY
25	LP	00	673.3	DJ		
29	LP	01	705.7	DJ		
33	LP	00	775.6	DJ		
39	LP	01	849.9	DJ		
44	PP	01	944.5	TJ/TJ		FORKS WHALESHEAD-N T

