

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

STREAM: Anthony Creek (W-67)
BASIN: MF Willamette River
SURVEY TYPE: Pre-Tx
DATE: February 12, 2001
SURVEY CREW: Joe Zuccarello, Eric Brown
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 18.9 km²
USGS MAPS: Lowell
ECOREGION: Willamette Valley Foothills

GENERAL DESCRIPTION:

The Anthony Creek habitat survey extended 670 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 8.1 (range: 6.5 – 13.0). Land use for the reach was second growth (15-30 cm dbh) trees. The average unit gradient was 3.0 percent. Rapids (61%) and scour pools (24%) dominated stream habitat. Bedrock (51%) and gravel (15%) dominated stream substrate. Wood volume was low at 7.6 m³/100m.

COMMENTS:

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

REACH SUMMARY

REACH 1

T19S-R1W-S30SE

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 avg: 8.1 range: 6.5-13.0

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	670	4,476	0
Secondary	12	32	0

Channel Dimensions (m)

<u>Wetted</u>		<u>Active</u>		<u>Floodprone</u>	<u>First Terrace</u>
Width	6.0	Width	7.6	13.8	11.4
Depth	0.35	Height	0.5	1.0	1.3
		W:D ratio	14.6	Entrenchment	1.8

Stream Flow Type: MF Water Temp: 4.0-4.0°C
 Avg. Unit Gradient: 3.0% Habitat Units/100m: 4.5

Riparian, Bank, and Wood Summary

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

Bank Condition and Shade

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

Large Woody Debris

	<u>Total</u>	<u>Total/100m</u>
All pieces (≥3m x 0.15m)	22	3.3
Volume (m ³)	51	7.6
Key pieces (≥10m x 0.6m)	3	0.4

HABITAT UNIT SUMMARY

REACH 1 T19S-R1W-S30SE 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	Cbbl	Bldr	Bdrk
GLIDE	2	32	7.5	0.28	237	0	0	0	5	5	0	90
POOL-LATERAL SCOUR	8	108	5.2	0.60	576	0	6	16	36	19	8	14
POOL-STRAIGHT SCOUR	4	65	7.6	0.70	502	0	1	5	5	5	3	81
RAPID/BEDROCK	10	310	5.9	0.13	2,202	0	0	0	2	7	5	87
RAPID/BOULDERS	3	92	6.1	0.17	562	0	0	3	25	23	48	0
RIFFLE W/ POCKETS	3	70	5.7	0.27	410	0	5	10	15	27	40	3
STEP/BEDROCK	1	4	4.6	0.05	20	0	0	0	5	0	0	95
Total:	31	682	6.0	0.35	4,508	0	Avg: 2	6	15	13	12	51

HABITAT SUMMARY

Habitat Group	No. Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area (m ²)	Percent	Large Boulders Number	Boulders #/100m ²
Dammed & BW Pools	0	0	-	-	0	0.00	0	0.0
Scour Pools	12	173	6.0	0.63	1,078	23.90	0	0.0
Glides	2	32	7.5	0.28	237	5.25	0	0.0
Riffles	3	70	5.7	0.27	410	9.09	0	0.0
Rapids	13	401	6.0	0.14	2,764	61.31	0	0.0
Cascades	0	0	-	-	0	0.00	0	0.0
Step/Falls	1	4	4.6	0.05	20	0.45	0	0.0
Dry	0	0	-	-	0	0.00	0	0.0

POOL SUMMARY

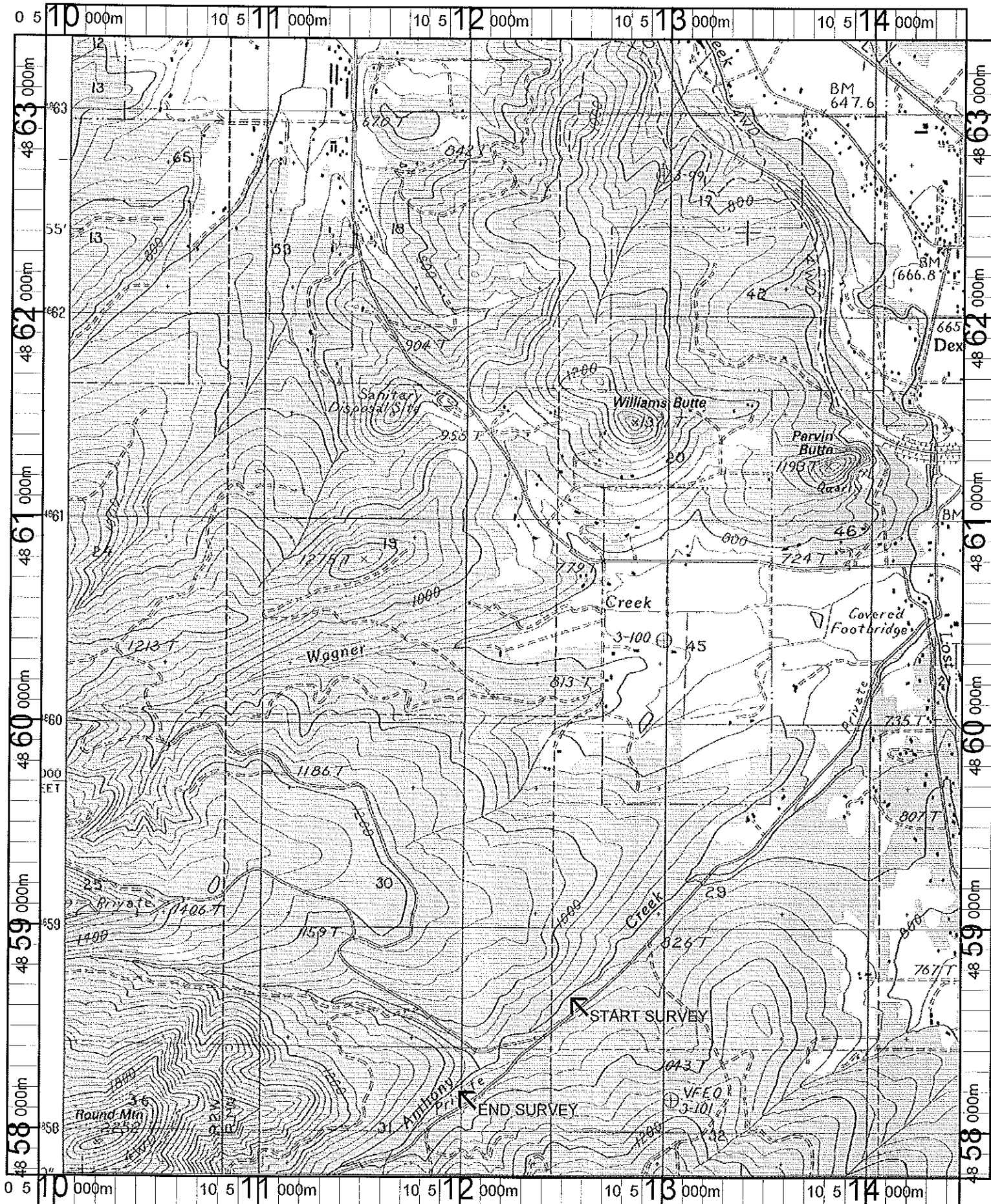
All Pools	<u>Total</u>	<u>#/Km</u>
	12	17.6
Pools ≥1m deep:	1	1.5
Complex pools (LWD pieces ≥3):	0	0.0
Pool Frequency (channel widths/pool):	7.5	
Residual pool depth (avg)	0.43m	

STREAM SUMMARY

ANTHONY CREEK PRE-TX

Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m ²)	Substrate Percent Wetted Area						Total Large Boulder
					S/O	Sand	Grvl	Cbbl	Bldr	Bdrk	
31	682	6.0	0.35	4,508	2	6	15	13	12	51	0

Habitat Group	Wetted Area	
	(m ²)	Percent
Scour Pool	1,078	23.9
Backwater Pools	0	0.0
Glide	237	5.2
Riffle	410	9.1
Rapid	2,764	61.3
Cascade	0	0.0
Step	20	0.4
Dry	0	0.0



Name: LOWELL
 Date: 5/29/101
 Scale: 1 inch equals 2000 feet

Location: 10 512090 E 4860548 N
 Caption: ANTHONY CREEK RESTORATION SITE - MF
 WILLAMETTE BASIN