

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

STREAM: Willanch Creek Tributary (MS-280)
BASIN: Coos Bay
SURVEY TYPE: Post-Tx
DATE: February 16, 2005
SURVEY CREW: Jennifer Schmitt, Neil Jensen
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 4.9 km²
USGS MAPS: North Bend
ECOREGION: Coastal Uplands

GENERAL DESCRIPTION:

The Willanch Creek Tributary habitat survey extended 491 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 3.0 (range: 1.0-6.0). Land uses for the reach were young (3-15 cm dbh) and second growth (15-30 cm dbh) trees. The average unit gradient was 3.3 percent. Cascades (45%) and rapids (28%) dominated stream habitat. Bedrock (25%) and sand (24%) dominated stream substrate. Wood volume was moderate at 22.7 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

T25S-R12W-S09NW

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	3.0	VWI Range:	1 - 6

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	491	1,604	0
Secondary Channel	33	57	0
Off-Channel Units	15	20	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 6	<u>First Terrace</u> n = 3
Width: 3.2	Width: 6.0	11.7 (6.3 - 20.1)	13.5 (7 - 20.9)
Depth: 0.30	Height: 0.4	0.9 (0.8 - 0.9)	1.0 (1 - 1.1)

W:D ratio: 13.8

Entrenchment (ACW:FPW ratio): 2.2

Stream Flow Type: LF

Habitat Units/100m (total channel length): 7.4

Average Unit Gradient: 3.3%

Habitat Units/100m (primary channel length): 8.2

Water temperature (°C): 5.0 - 5.0

Riparian, Bank, and Wood Summary

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

Bank Condition and Shade

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

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	111	22.6
Volume (m ³):	112	22.8
Key pieces (>=12m x 0.60m):	8	1.6

HABITAT INVENTORY

Report Date: 11/29/2005

Survey Date:

2/16/2005

REACH 1		T25S-R12W-S09NW					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/BEDROCK	5	145	3.0	0.22	433	0	0	4	5	8	10	73
CASCADE/BOULDERS	5	119	2.6	0.14	326	0	3	14	18	36	26	3
POOL-BACKWATER	2	5	2.4	0.43	12	0	23	58	20	0	0	0
POOL-LATERAL SCOUR	11	83	3.8	0.52	306	0	4	41	12	5	10	28
POOL-PLUNGE	2	10	5.1	0.60	57	0	15	60	10	5	1	10
POOL-STRAIGHT SCOUR	1	10	2.4	0.60	24	0	0	10	20	10	1	59
RAPID/BEDROCK	1	9	1.6	0.15	14	0	0	0	0	0	0	100
RAPID/BOULDERS	9	139	3.4	0.14	452	0	0	7	30	37	24	2
RIFFLE	2	18	3.1	0.10	55	0	0	28	53	18	3	0
STEP/BEDROCK	1	0	0.6	0.02	0	0	0	0	0	0	0	100
STEP/LOG	1	0	1.4	0.10	1	0	0	60	40	0	0	0
Total:	40	539	3.2	0.30	1,681	0	Avg: 3	24	19	16	13	25

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	5	2.4	0.43	12	0.73%	0	0.0	
Scour Pools	14	103	3.9	0.54	387	23.04%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	2	18	3.1	0.10	55	3.29%	0	0.0	
Rapids	10	148	3.2	0.15	466	27.75%	0	0.0	
Cascades	10	264	2.8	0.18	759	45.15%	0	0.0	
Step/Falls	2	1	1.0	0.06	1	0.04%	0	0.0	
Dry	0	0			0	0.00%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

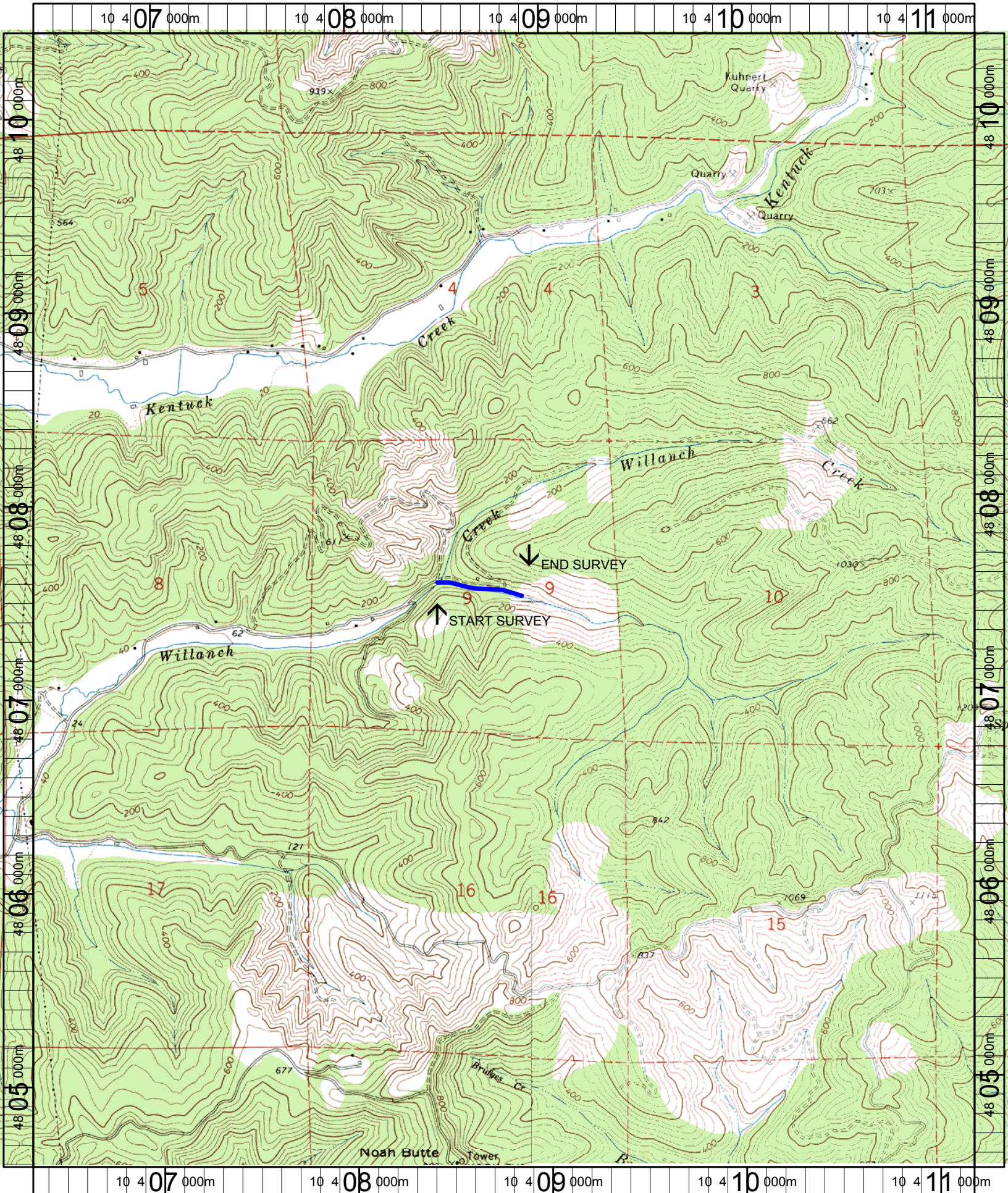
POOL SUMMARY			
	<u>Total</u>	Total of all Channel Lengths	Primary Channel Length
		<u># / Km</u>	<u># / Km</u>
All Pools:	16	29.7	32.6
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	5	9.3	10.2
Pool frequency (channel widths/pool):	5.6		
Residual pool depth (avg):	0.32		

Comment Summary

Restoration Monitoring Sites 2005

MONITORING AREA: **3-MS** SITE ID: **280** WILLANCH CREEK TRIB POST-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	RB	00	11.5	HS		
8	RB	00	79.9	/SS		
10	RB	00	114.6	DJ, BV		
11	LP	00	119.5	BV, HS, DJ		
12	RB	00	140.8	BV, HS, DJ		
13	CB	00	165.8	SS/, HS, DJ		
16	CB	11	186.7	BV	NEXT UNIT WOULD BE A 0.8 STEP	
19	RB	00	211.9	SS/		
20	SP	00	221.8	BV		
21	CB	01	261.5	/SS, DJ, BV		
23	LP	00	269.2	BV		
24	CR	00	317.1	BV		
26	CR	00	354	/SS, BV		
27	LP	00	359.8	SS/SS, BV		
32	CB	01	432.3	DJ		
34	SL	01	438.8		H = .6	
36	LP	01	452.4	SS/		
38	SR	02	452.4		H = .25	
40	CR	00	490.7	SS/		



Name: ALLEGANY
 Date: 9/28/2005
 Scale: 1 inch equals 2000 feet

Location: 10 408781 E 4807489 N
 Caption: WILLANCH CREEK TRIBUTARY RESTORATION SITE - COOS BASIN