

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

STREAM: Willanch Creek (MS-279)
BASIN: Coos Bay
SURVEY TYPE: Reference
DATE: February 16, 2005
SURVEY CREW: Jennifer Schmitt, Neil Jensen
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 20.1 km²
USGS MAPS: North Bend
ECOREGION: Coastal Uplands

GENERAL DESCRIPTION:

The Willanch Creek habitat survey extended 531 meters. The channel was unconstrained in a broad valley floor. The average valley width index was 3.4 (range: 1.0-8.0). Land uses for the reach were second growth (15-30 cm dbh) and young (3-15 cm dbh) trees. The average unit gradient was 4.4 percent. Cascades (65%) dominated stream habitat. Gravel (24%), bedrock (22%) and sand (20%) dominated stream substrate. Wood volume was moderate at 22.3 m³/100m.

COMMENTS:

There was one potential barrier to upstream fish migration in the surveyed length. This was a 1.15 meter high step over log at unit 9 (97.3 m).

REACH 1

T25S-R12W-S09NE

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	0%
Open V-shape	0%	Wide Floodplain	100%
Valley Width Index	3.4	VWI Range:	1 - 8

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	0%	Single Channel	100%
Bedrock	0%	Multiple Channel	0%
Terrace	0%	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	531	1,047	0
Secondary Channel	24	85	1
Off-Channel Units	13	9	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 4	<u>First Terrace</u> n = 0
Width: 2.0	Width: 4.3	12.0 (5.6 - 18.2)	(-)
Depth: 0.23	Height: 0.4	0.7 (0.68 - 0.8)	(-)

W:D ratio: 11.9
 Stream Flow Type: MF
 Average Unit Gradient: 4.4%
 Water temperature (°C): 8.0 - 8.0

Entrenchment (ACW:FPW ratio): 3.5
 Habitat Units/100m (total channel length): 6.3
 Habitat Units/100m (primary channel length): 6.8

Riparian, Bank, and Wood Summary

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

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):	156	29.4
Volume (m ³):	118	22.3
Key pieces (>=12m x 0.60m):	0	0.0

OREGON DEPT OF FISH AND WILDLIFE

WILLANCH CREEK REFERENCE (3-MS, 279)

HABITAT INVENTORY

Report Date: 11/29/2005

Survey Date:

2/16/2005

REACH 1		T25S-R12W-S09NE					REACH 1					
HABITAT DETAIL												
Habitat Type	Number	Total	Avg	Avg	Total	Large	Substrate					
	Units	Length	Width	Depth	Area		Boulders	Percent Wetted Area				
		(m)	(m)	(m)	(m ²)	(#>0.5m)	S/O	Snd	Grvl	Cbl	Bldr	Bdrk
CASCADE/BEDROCK	6	114	1.9	0.14	216	0	0	7	8	12	14	59
CASCADE/BOULDERS	9	258	2.2	0.10	522	0	1	7	26	44	20	3
DRY UNIT	1	17	4.8	0.00	82	0	11	44	44	0	0	0
POOL-DAMMED	1	10	2.4	0.70	24	0	15	70	15	0	0	0
POOL-LATERAL SCOUR	4	22	2.7	0.48	62	0	9	46	26	3	4	13
POOL-PLUNGE	2	9	1.9	0.35	17	0	5	28	10	5	5	48
POOL-STRAIGHT SCOUR	2	12	3.1	0.48	38	0	5	22	7	0	0	66
RAPID/BOULDERS	4	48	1.9	0.08	86	0	3	12	39	34	9	2
RIFFLE	2	22	0.9	0.09	22	0	30	20	50	0	0	0
RIFFLE W/ POCKETS	2	50	0.9	0.89	68	0	5	25	70	0	0	0
STEP/BEDROCK	1	2	1.3	0.05	2	0	0	0	0	0	0	100
STEP/LOG	2	3	1.3	0.03	4	0	40	50	0	0	0	10
Total:	36	567	2.0	0.23	1,140	0	Avg: 7	20	24	17	9	22

HABITAT SUMMARY									
Habitat Group	Number	Total	Avg	Avg	Wetted Area		Large Boulders		
	Units	Length	Width	Depth	(m ²)	Percent	Number	(# / 100m ²)	
		(m)	(m)	(m)					
Dammed & BW Pools	1	10	2.4	0.70	24	2.06%	0	0.0	
Scour Pools	8	43	2.6	0.44	116	10.19%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	4	72	0.9	0.49	89	7.85%	0	0.0	
Rapids	4	48	1.9	0.08	86	7.50%	0	0.0	
Cascades	15	372	2.0	0.12	738	64.67%	0	0.0	
Step/Falls	3	5	1.3	0.03	7	0.57%	0	0.0	
Dry	1	17	4.8	0.00	82	7.15%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

POOL SUMMARY			
	Total	Total of all Channel Lengths # / Km	Primary Channel Length # / Km
All Pools:	9	15.9	16.9
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	1	1.8	1.9
Pool frequency (channel widths/pool):	14.8		
Residual pool depth (avg):	0.36		

Comment Summary

Restoration Monitoring Sites 2005

MONITORING AREA: **3-MS** SITE ID: **279** WILLANCH CREEK REFERENCE

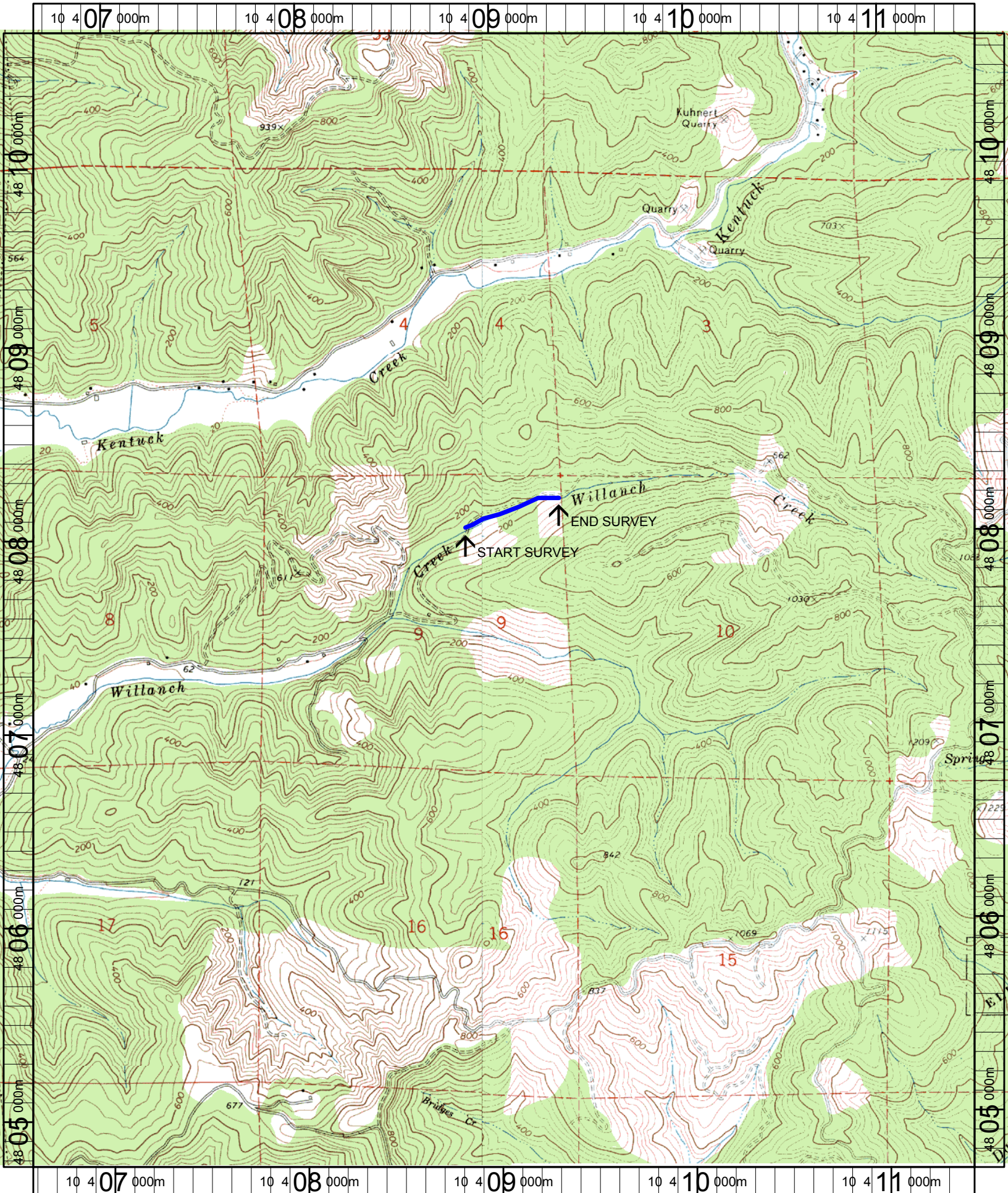
UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	CB	00	23.7	LI/	OLD ROAD CROSSING	
2	CB	00	47	/SS		
5	RB	00	62.3	/SS		
6	LP	00	67	/SS		
8	CR	00	95.3	DJ		
9	SL	00	97.3	PN, DJ	H = 1.15	
10	DP	01	107.1	DJ		
11	CB	01	112.1	DJ		
12	RI	01	127.5	TJ/, SS/		
13	RB	11	127.5		CULV AND 1.0 STEP IN NEXT UNIT	
14	RI	02	127.5	DJ		
19	CB	00	196.7	BV		
20	LP	00	204.4	BV		
22	CB	00	256	DJ, /LI		
24	CR	00	275.3	/SS		
26	SR	00	280.7		H = .95	
27	RB	00	295.9	BV		
28	CB	00	339	/SS		
29	CR	00	357.4	SS/		
31	CR	00	381.8	/SS, BV		
33	CR	00	422.6	BV		

Comment Summary

Restoration Monitoring Sites 2005

MONITORING AREA: 3-MS SITE ID: 279 WILLANCH CREEK REFERENCE

<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
35	CB	00	520.8	SS/SS		



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

Location: 10 409038 E 4807668 N
 Caption: WILLANCH CREEK REFERENCE SITE - COOS BASIN