

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

STREAM: Bachelor Creek Tributary (U-233)
BASIN: Umpqua River
SURVEY TYPE: Post-Tx
DATE: March 17, 2005
SURVEY CREW: Brian Bangs, Sheila Davis
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 41.1 km²
USGS MAPS: Non Pareil
ECOREGION: Coast Range Umpqua Valleys

GENERAL DESCRIPTION:

The Bachelor Creek habitat survey extended 556 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 11.8 (range: 4.0-18.0). Land use for the reach was Agriculture and large (30-50 cm dbh) trees. The average unit gradient was 1.5 percent. Scour pools (47%) and riffles (31%) dominated stream habitat. Sand (42%) and gravel (31%) dominated stream substrate. Wood volume was very low at 4.7 m³/100m.

COMMENTS:

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

OREGON DEPT OF FISH AND WILDLIFE BACHELOR CREEK TRIBUTARY POST-TX (4-UJP, 233)

HABITAT INVENTORY

Report Date: 11/29/2005

Survey Date: 3/17/2005

REACH 1

T24S-R04W-S18NW

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	11.8	VWI Range:	4 - 18

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	556	773	0
Secondary Channel	0	0	0
Off-Channel Units	19	12	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 1.3	Width: 2.2	5.1 (3.3 - 7.2)	9.1 (6 - 13.2)
Depth: 0.23	Height: 0.4	0.8 (0.7 - 0.9)	1.9 (1.6 - 2.2)

W:D ratio: 5.3
 Stream Flow Type: MF
 Average Unit Gradient: 1.5%
 Water temperature (°C): 9.0 - 9.0

Entrenchment (ACW:FPW ratio): 4.5
 Habitat Units/100m (total channel length): 12.7
 Habitat Units/100m (primary channel length): 13.1

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	AG	LT
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):	97	17.4
Volume (m ³):	26	4.7
Key pieces (>=12m x 0.60m):	0	0.0

OREGON DEPT OF FISH AND WILDLIFE BACHELOR CREEK TRIBUTARY POST-TX (4-UJP, 233)

HABITAT INVENTORY

Report Date: 11/29/2005

Survey Date:

3/17/2005

REACH 1		T24S-R04W-S18NW					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
CULVERT CROSSING	1	19	2.1	0.05	39	0	8	17	21	17	17	21
GLIDE	5	69	1.3	0.10	88	0	20	45	21	6	2	6
POOL-BACKWATER	7	9	0.7	0.13	6	0	24	50	19	6	1	0
POOL-LATERAL SCOUR	30	226	1.7	0.41	361	0	22	47	22	6	2	1
POOL-PLUNGE	1	4	1.4	0.90	5	0	25	55	15	5	0	0
RAPID/BOULDERS	4	31	1.4	0.09	44	0	9	16	39	18	9	10
RIFFLE	23	215	1.1	0.08	240	0	10	37	45	6	1	0
STEP/BEDROCK	1	1	0.6	0.05	1	0	0	95	5	0	0	0
STEP/LOG	1	1	1.3	0.05	2	0	5	10	85	0	0	0
Total:	73	575	1.3	0.23	786	0	Avg: 17	42	31	7	2	2

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	7	9	0.7	0.13	6	0.77%	0	0.0	
Scour Pools	31	230	1.6	0.42	366	46.61%	0	0.0	
Glides	5	69	1.3	0.10	88	11.14%	0	0.0	
Riffles	23	215	1.1	0.08	240	30.53%	0	0.0	
Rapids	4	31	1.4	0.09	44	5.63%	0	0.0	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	2	3	1.0	0.05	2	0.30%	0	0.0	
Dry	0	0			0	0.00%	0	0.0	
Culverts	1	19	2.1	0.05	39	5.03%	0	0.0	

POOL SUMMARY			
	Total of all Channel Lengths		Primary Channel Length
	<u>Total</u>	<u># / Km</u>	<u># / Km</u>
All Pools:	38	66.1	68.3
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	8	13.9	14.4
Pool frequency (channel widths/pool):	6.9		
Residual pool depth (avg):	0.34		

Comment Summary

Restoration Monitoring Sites 2005

MONITORING AREA: 4-UMP SITE ID: 233 BACHELOR CREEK TRIBUTARY POS

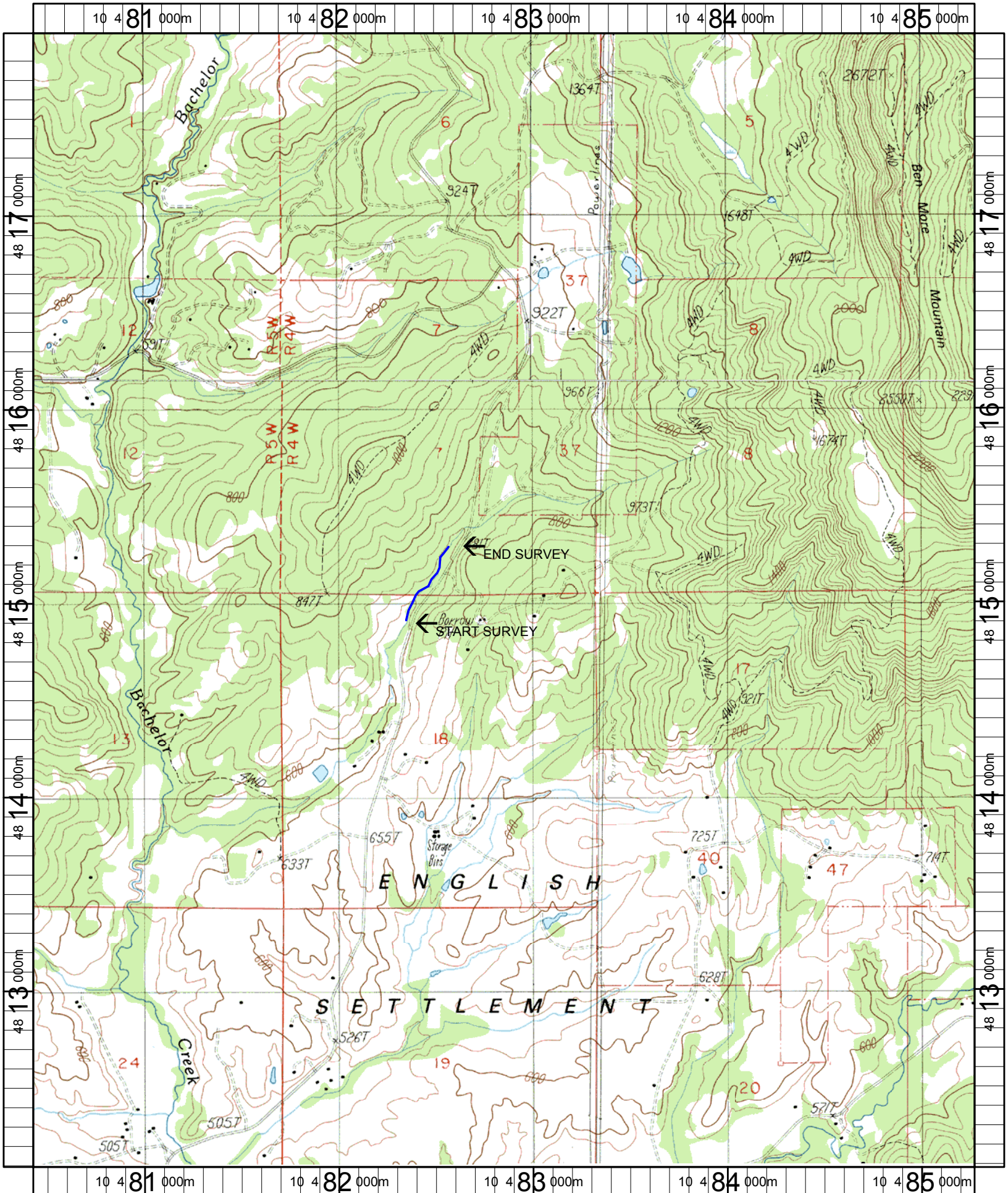
<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
1	RI	00	5.6			CT,CT,D30,G,AG,LT
4	LP	00	24.7	DJ, SS		DRY SIDE SEEP 6 FT
5	PP	00	28.6	DJ		
6	SR	00	29.9			H=0.7
7	LP	00	38.6			SALMANDERS
12	RI	00	79.8	DJ		
14	LP	00	94.3	DJ		
18	RI	00	130.5			CT,CT,D30,S,AG,LT
19	LP	00	142.6	WL		DEER
20	RI	01	155.7	TJ/		
21	BW	10	155.7	HS		
22	RI	11	155.7	DJ		
24	LP	00	175.3	DJ		
25	RI	00	184.1	DJ		
26	LP	00	189.4	WL		DEER, RACCOON
27	RI	00	193.7	DJ		
29	LP	00	211	DJ		
31	RI	00	228.6	DJ		
32	RB	01	242.2	CS		TO CULVERT ENTRY
34	CC	00	261	CC		W=3.4, H=1.9,FISH
35	RI	00	268.2	WL		DEER, SALAMANDER

Comment Summary

Restoration Monitoring Sites 2005

MONITORING AREA: **4-UMP** SITE ID: **233** **BACHELOR CREEK TRIBUTARY POS**

<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
36	LP	00	278			SALAMANDERS
37	RI	00	282.1	DJ		CA,CT,D30,S,AG,LT
38	LP	00	285.8			SLAMANDERS
39	LP	01	296.6	DJ		
40	RI	11	296.6	HS		SALAMANDERS
41	RI	00	311.9	DJ, RB		SALAMANDERS
42	LP	00	321.9	DJ, WL		DEER, SALAMANDERS
43	RI	01	341.6	DJ		SALAMANDERS
44	BW	10	341.6	DJ		
45	LP	00	342.3	DJ		
47	LP	00	353	DJ		FISH FRY
49	RI	01	384.5			CA,CT,D3,G,ST,LT
54	LP	00	408.1	DJ		
55	LP	00	416	DJ		
64	GL	00	509.5	WL		DEER
66	SL	00	517.6			H=0.35
67	RI	00	524.1	DJ		
68	LP	00	530.8	DJ		
69	LP	00	536.4	DJ		
70	LP	00	536.7			ADULT TROUT, FRY; SALAMANDER
73	RB	00	556.2			CT,CT,S,D3,ST,LT



Name: NONPAREIL
 Date: 6/13/2005
 Scale: 1 inch equals 2000 feet

Location: 10 482854 E 4815012 N
 Caption: BACHELOR CREEK TRIBUTARY RESTORATION SITE -
 UMPQUA (CALAPOOYA) BASIN