

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

STREAM: Weatherly Creek (U-150)  
BASIN: Umpqua River  
SURVEY TYPE: Post-Tx  
DATE: July 15, 2004  
SURVEY CREW: Peter Baki, Jeremiah Bernier  
REPORT PREPARED BY: Paul Jacobsen  
BASIN AREA: 34.4 km<sup>2</sup>  
USGS MAPS: Devils Graveyard  
ECOREGION: Coast Range Sedimentary

**GENERAL DESCRIPTION:**

The Weatherly Creek habitat survey extended 558 meters. The channel was constrained by hillslopes in a moderate V-shaped valley. The average valley width index was 2.3 (range: 1.1-3.2). Land use for the reach was second growth (15-30 cm dbh) trees. The average unit gradient was 1.2 percent. Scour pools (47%) and riffles (30%) dominated stream habitat. Bedrock (54%) dominated stream substrate. Wood volume was high at 34.5 m<sup>3</sup>/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

T22S-R09W-S02NW

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	100%	Multiple Terraces	0%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	2.3	VWI Range:	1.1 - 3.2

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	100%	Single Channel	0%
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	558	3,053	0
Secondary	85	118	2

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 2
Width: 4.3	Width: 10.3	12.1 ( 7.2 - 15.2 )	20.0 ( 10.6 - 29.4 )
Depth: 0.31	Height: 0.7	1.3 ( 1.2 - 1.4 )	2.1 ( 2 - 2.1 )

W:D ratio: 15.5  
 Stream Flow Type: MF  
 Average Unit Gradient: 1.2%  
 Water temperature (°C): 17.0 - 17.0

Entrenchment (ACW:FPW ratio): 1.2  
 Habitat Units/100m (total channel length): 7.5  
 Habitat Units/100m (primary channel length): 8.6

**Riparian, Bank, and Wood Summary**

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	
Riparian Vegetation:	D15	S

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	1%	Reach avg: 82%
Undercut Banks:	2%	Range: 61 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	164	29.4
Volume (m <sup>3</sup> ):	192	34.5
Key pieces (>=12m x 0.60m):	5	0.9

OREGON DEPARTMENT OF FISH AND WILDLIFE

WEATHERLY CREEK POST-TX (U-150)

HABITAT INVENTORY

Report Date: 10/27/2004

Survey Date:

7/15/2004

REACH 1		T22S-R09W-S02NW					REACH 1					
HABITAT DETAIL												
Habitat Type	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m <sup>2</sup> )	Large Boulders (#>0.5m)	Substrate Percent Wetted Area					
							S/O	Snd	Grvl	Cbl	Bldr	Bdrk
CASCADE/BEDROCK	1	10	1.0	0.01	10	0	0	0	0	0	0	100
DRY UNIT	2	28	1.1	0.00	31	0	0	25	20	8	3	45
POOL-BACKWATER	1	5	3.6	0.20	17	12	6	0	0	6	61	28
POOL-LATERAL SCOUR	14	218	5.1	0.58	1,156	61	5	17	6	7	15	50
POOL-PLUNGE	9	76	4.4	0.45	348	47	1	13	5	8	14	58
RAPID/BEDROCK	3	53	5.0	0.05	305	40	0	0	0	0	5	95
RAPID/BOULDERS	4	58	3.1	0.16	261	34	0	10	15	18	40	18
RIFFLE	7	169	5.3	0.17	953	69	0	11	8	11	15	55
STEP/BEDROCK	3	6	4.9	0.08	37	5	0	0	0	0	7	93
STEP/BOULDERS	3	18	2.8	0.17	52	28	0	2	5	27	43	23
STEP/LOG	1	2	0.4	0.05	1	0	0	5	5	5	5	80
<b>Total:</b>	<b>48</b>	<b>643</b>	<b>4.3</b>	<b>0.31</b>	<b>3,171</b>	<b>296</b>	<b>Avg: 2</b>	<b>11</b>	<b>6</b>	<b>9</b>	<b>18</b>	<b>54</b>

HABITAT SUMMARY								
Habitat Group	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area		Large Boulders	
					(m <sup>2</sup> )	Percent	Number	(# / 100m <sup>2</sup> )
Dammed & BW Pools	1	5	3.6	0.20	17	0.52%	12	72.5
Scour Pools	23	294	4.8	0.53	1,504	47.43%	108	7.2
Glides	0	0			0	0.00%	0	0.0
Riffles	7	169	5.3	0.17	953	30.05%	69	7.2
Rapids	7	112	3.9	0.11	566	17.84%	74	13.1
Cascades	1	10	1.0	0.01	10	0.32%	0	0.0
Step/Falls	7	26	3.4	0.11	91	2.86%	33	36.4
Dry	2	28	1.1	0.00	31	0.98%	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:	24	37.3	43.0
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	6	9.3	10.8
Pool frequency (channel widths/pool):	2.6		
Residual pool depth (avg):	0.40		

**RIPARIAN ZONE VEGETATION SUMMARY**

REACH 1

REACH 1

**Summary of Riparian Zone (0-30m)**

3 transects

Total hardwoods/1000	671
Total conifers/1000 ft	163
Total conifers >20" dbh/1000 ft	20
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	2.0	0.0	0.3	0.0	0.7	0.0	3.0
15-30cm	0.0	6.0	1.0	1.0	1.3	1.0	2.3	8.0
30-50cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
50-90cm	0.0	0.0	0.0	0.0	0.3	0.0	0.3	0.0
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	0.0	8.0	1.0	1.3	1.7	1.7	0.9	3.7

**Canopy closure and ground cover**

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	81		48		70	
Shrub cover	62		43		52	
Grass/forb cover	38		27		48	

**Predominant landform in each zone**

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	50		50		83	
High terrace	17		0		17	
Low terrace	33		17		0	
Floodplain	0		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	0		33		0	
Riprap	0		0		0	
Surface slope (%)	21		18		31	

**RIPARIAN ZONE VEGETATION**

Reach 1

Reach 1

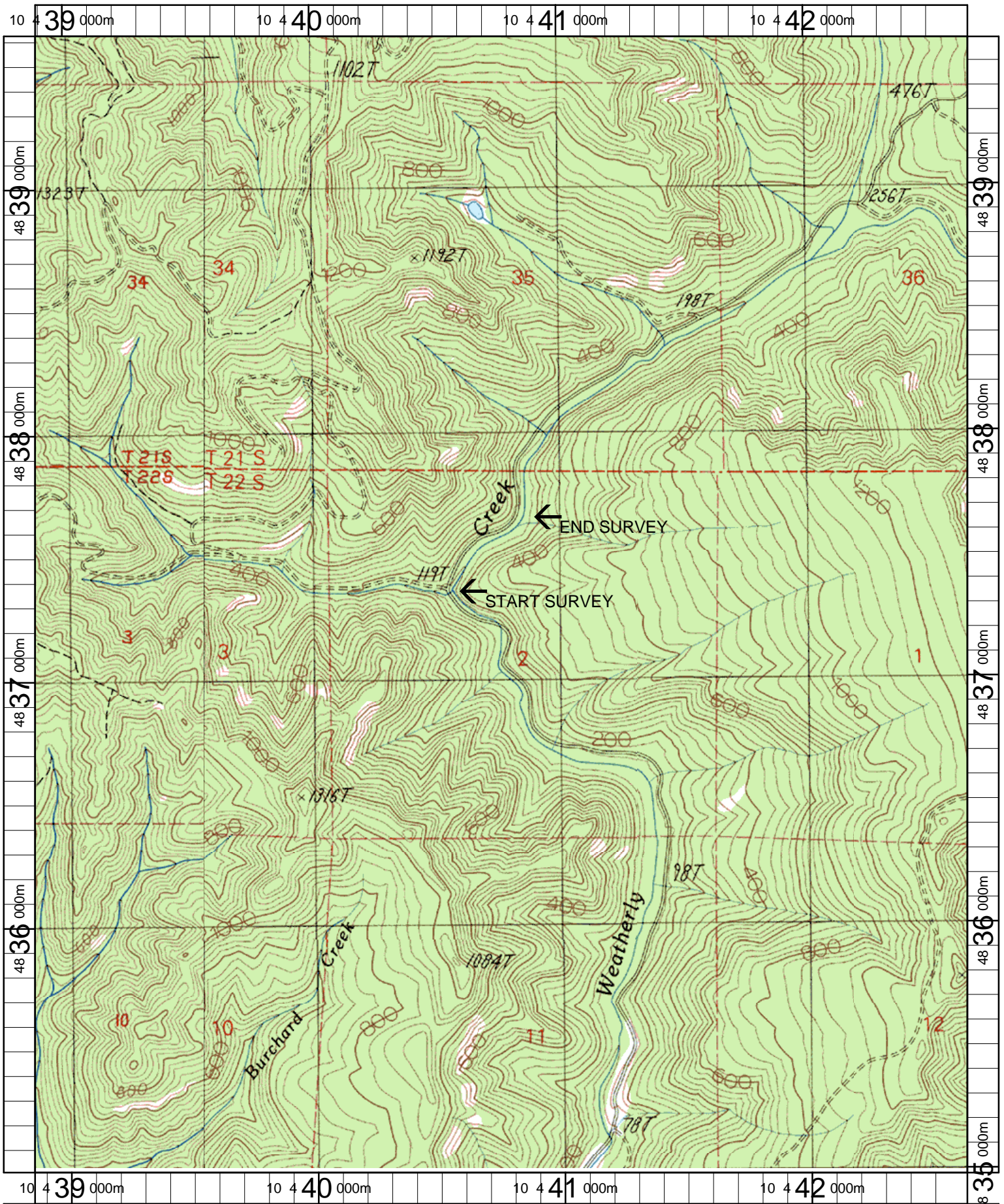
Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes	
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90		
9	RT	3	HS	50	80	20	80	Conifer							
								Hardwood							
9	RT	1	HT	0	80	50	50	Conifer							
								Hardwood	1	2					
9	LF	3	HS	50	90	10	90	Conifer			3				
								Hardwood							
9	RT	2	HS	50	80	20	80	Conifer			2				
								Hardwood							
9	LF	1	HS	45	85	30	70	Conifer							
								Hardwood	2	1					
9	LF	2	RB	0	10	0	0	Conifer							
								Hardwood							
23	RT	1	LT	0	80	90	10	Conifer							
								Hardwood			4				
23	LF	1	HS	50	80	50	50	Conifer							
								Hardwood			3				
23	LF	3	HS	30	60	70	30	Conifer					1		
								Hardwood							
23	RT	2	LT	0	80	90	10	Conifer							
								Hardwood			3				
23	RT	3	HT	0	80	90	10	Conifer							
								Hardwood	1	3					
23	LF	2	RB	0	15	10	10	Conifer							
								Hardwood							
41	RT	1	HS	30	80	50	50	Conifer							
								Hardwood	1	6					
41	LF	2	HS	25	30	100	0	Conifer							
								Hardwood							
41	RT	3	HS	30	80	20	80	Conifer			1				
								Hardwood							
41	LF	1	LT	0	80	100	0	Conifer							
								Hardwood	2	2					
41	LF	3	HS	25	30	100	0	Conifer							
								Hardwood	1						
41	RT	2	HS	30	70	40	60	Conifer			1				
								Hardwood	1						

# Comment Summary

## Oregon Plan Monitoring Sites 2002

**MONITORING AREA: 4-UMP    SITE ID: 150    WEATHERLY CREEK POST-TX (U-15)**

<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	RR	00	19.4	CS/CS, BC	START SIGN LEFT	WEATHERLY CR RD, T=17 A
5	LP	00	81.8			SNORKEL POOL 1
8	LP	00	117.9	HS	STRUCTURE SITE 1	4 LOGS AND 1 BOULDER
9	RI	00	142.9	HS		8 BOULDERS, RIPARIAN 1
11	LP	00	169.8	HS	SITE 2-5 LOGS, 12 BOULD	3 LOGS AND 1 BOULDER
12	RI	00	194.8	HS-2		3 BOULDERS, 2 LOGS AND 1
13	RB	00	224.8	HS	SNORKEL POOL 3	8 BOULDERS
21	SL	02	273.4	DJ	DJ	
23	SB	00	278.4	LA/		RIPARIAN 2
30	PP	00	353			SNORKEL POOL 7
31	RR	00	376.7	RF, HS		20 BOULDERS, OLD ROADB
35	PP	01	417.5	DJ, HS	DJ CAUSES CHAN SPLIT	4 LOGS, 7 BOULDERS
41	RI	00	449.8			RIPARIAN 3
42	PP	00	458.2		PHOTO POINT 2	
43	RI	01	495.4	/TJ	/TJ	UNNAMED TRIB - ON MAP
44	CR	11	495.4		ACW = 1.0	
46	RI	00	537.1	HS		9 BOULDERS
47	LP	00	553.7	HS		3 LOGS AND 1 BOULDER
48	SR	00	557.6		END SIGN RIGHT	



Name: DEVILS GRAVEYARD  
 Date: 6/18/2003  
 Scale: 1 inch equals 1666 feet

Location: 10 440759 E 4837301 N  
 Caption: WEATHERLEY CREEK RESTORATION SITE - UMPQUA BASIN