

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

STREAM: Starvout Creek (U-151)  
BASIN: Cow Cr/South Umpqua River  
SURVEY TYPE: Post-Tx  
DATE: July 20, 2007  
SURVEY CREW: Rachel Kelley, Angela Mallard  
REPORT PREPARED BY: Paul Jacobsen  
BASIN AREA: 13.8 km<sup>2</sup>  
USGS MAPS: Starvout Creek  
ECOREGION: Klamath Mountains Inland Siskiyou

**GENERAL DESCRIPTION:**

The Starvout Creek habitat survey extended 509 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 15.2 (range: 13.0-18.0). Land use for the reach was second growth (15-30 cm dbh) trees and timber harvest. The average unit gradient was 2.5 percent. Riffles (53%) and scour pools (27%) dominated stream habitat. Cobble (29%) and gravel (26%) dominated stream substrate. Wood volume was low at 14.4 m<sup>3</sup>/100m.

**COMMENTS:**

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

REACH 1

T32S-R01W-S20SE

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	15.2	VWI Range:	13 - 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	509	1,681	0
Secondary Channel	8	11	0
Off-Channel Units	20	17	1

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 3.2	Width: 5.8	8.2 ( 6.4 - 10 )	10.2 ( 7.9 - 12 )
Depth: 0.24	Height: 0.3	0.7 ( 0.6 - 0.8 )	1.4 ( 1.1 - 1.8 )

W:D ratio: 17.1

Entrenchment (ACW:FPW ratio): 1.4

Stream Flow Type: LF

Habitat Units/100m (total channel length): 7.1

Average Unit Gradient: 2.5%

Habitat Units/100m (primary channel length): 7.5

Water temperature (°C): 14.0 - 14.0

**Riparian, Bank, and Wood Summary**

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	TH
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: 76%
Undercut Banks:	1%	Range: 53 - 97

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	41	8.1
Volume (m <sup>3</sup> ):	73	14.4
Key pieces (>=12m x 0.60m):	0	0.0

OREGON DEPT OF FISH AND WILDLIFE

STARVOUT CREEK POST-TX (4-UJP, 151)

HABITAT INVENTORY

Report Date: 11/14/2007

Survey Date:

7/20/2007

REACH 1		T32S-R01W-S20SE					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
DRY UNIT	1	10	1.2	0.00	12	0	90	5	5	0	0	0
POOL-LATERAL SCOUR	15	133	3.5	0.44	465	36	6	10	28	29	19	8
RAPID/BOULDERS	6	105	3.3	0.11	327	23	4	11	27	32	18	8
RIFFLE	16	290	2.9	0.12	906	46	8	11	25	31	22	4
<b>Total:</b>	<b>38</b>	<b>537</b>	<b>3.2</b>	<b>0.24</b>	<b>1,710</b>	<b>105</b>	<b>Avg: 9</b>	<b>10</b>	<b>26</b>	<b>29</b>	<b>19</b>	<b>6</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	0	0			0	0.00%	0	0.0	
Scour Pools	15	133	3.5	0.44	465	27.20%	36	7.7	
Glides	0	0			0	0.00%	0	0.0	
Riffles	16	290	2.9	0.12	906	52.99%	46	5.1	
Rapids	6	105	3.3	0.11	327	19.11%	23	7.0	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	0	0			0	0.00%	0	0.0	
Dry	1	10	1.2	0.00	12	0.70%	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:	15	27.9		29.5
Pools >=1m deep:	0	0.0		0.0
Complex pools (LWD pieces>=3):	5	9.3		9.8
Pool frequency (channel widths/pool):	6.2			
Residual pool depth (avg):	0.34			

OREGON DEPARTMENT OF FISH AND WILDLIFE  
HABITAT INVENTORY

STARVOUT CREEK POST-TX  
GCG: 4-UMP SITE ID: 151

Survey Date 7/20/2007  
Report Date: 11/7/2007

RIPARIAN ZONE  
VEGETATION SUMMARY

REACH 1

Summary of Riparian Zone (0-30m) 3 transects

Total hardwoods/1000	732
Total conifers/1000 ft	301
Total conifers >20" dbh/1000 ft	22
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	3.2	0.0	2.1	0.0	1.4	0.0	6.7
15-30cm	1.1	2.5	1.1	0.7	0.4	1.8	2.5	4.9
30-50cm	1.1	0.0	0.4	0.0	0.7	0.4	2.1	0.4
50-90cm	0.4	0.0	0.0	0.0	0.0	0.0	0.4	0.0
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	2.5	5.6	1.4	2.8	1.1	3.5	1.6	4.0

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	83		55		57	
Shrub cover	65		51		51	
Grass/forb cover	26		41		43	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	0		0		0	
High terrace	106		53		71	
Low terrace	0		0		0	
Floodplain	0		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	0		53		18	
Riprap	0		0		0	
Surface slope (%)	5		1		-1	

**Summary of Riparian Zone (0-30m) for all reaches****3 transects****Summary of riparian zone (0-100 feet) extrapolated to 1,000 feet along stream**

Total hardwoods/1000	732
Total conifers/1000 ft	301
Total conifers >20" dbh/1000 ft	22
Total conifers >35" dbh/1000 ft	0

**Average number of trees in a 5-m wide band**

Diameter class (cm)	Zones 1-3	
	<u>0-30 meters</u>	
	<u>Conifer</u>	<u>Hardwood</u>
3-15cm	0.0	6.7
15-30cm	2.5	4.9
30-50cm	2.1	0.4
50-90cm	0.4	0.0
>90cm	0.0	0.0

**RIPARIAN ZONE VEGETATION**

Reach 1

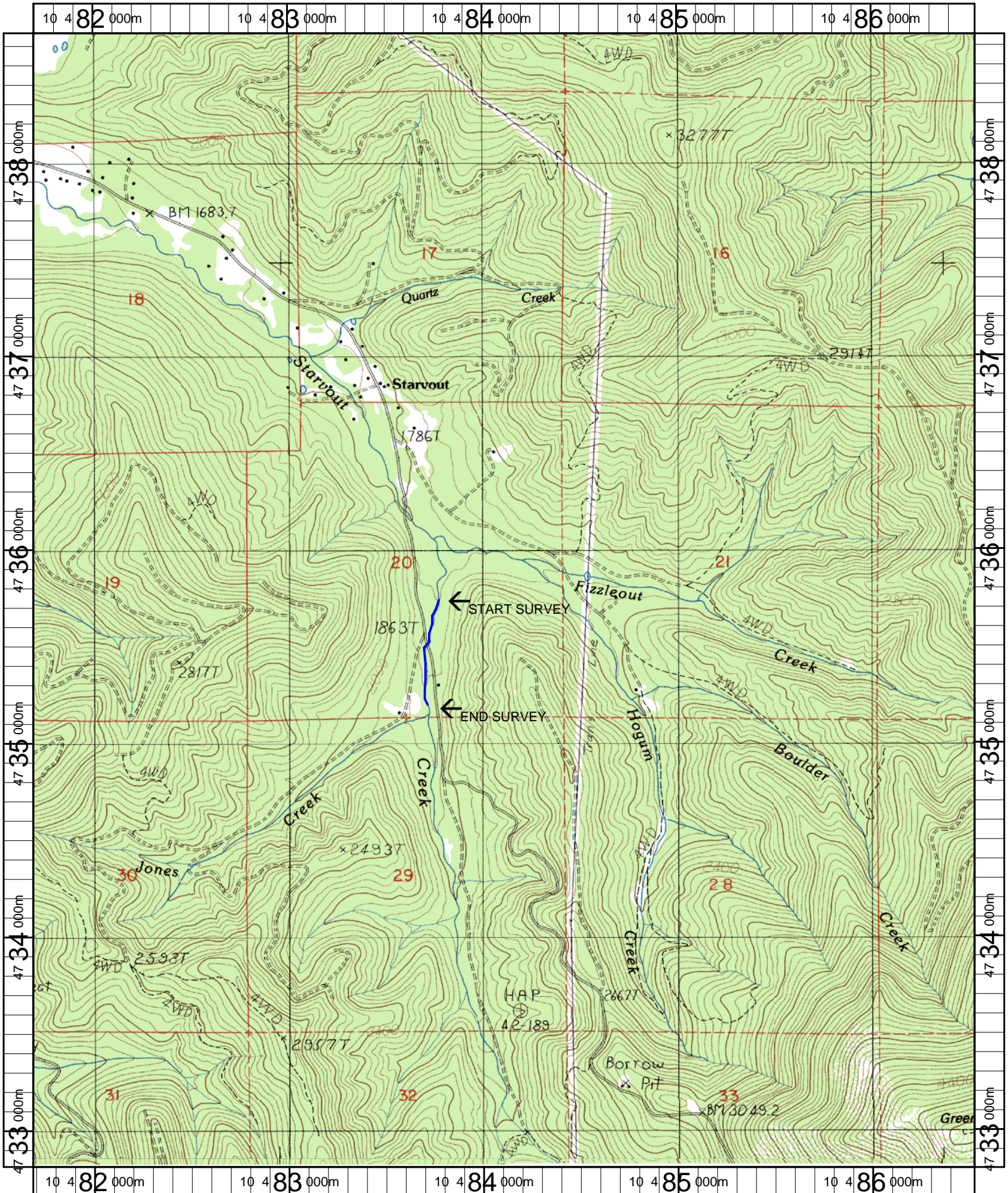
Reach 1

Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes	
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90		
10	LT	2	RB	3	50	35	35	Conifer		2					
								Hardwood	1						
10	LT	3	HT	-10	85	75	20	Conifer							ZONE 3 DESCENDS TO BOWL
								Hardwood	4	1					
10	RT	1	HT	4	85	45	35	Conifer			1	1			
								Hardwood	4	1					
10	RT	1	HT	6	90	60	30	Conifer							
								Hardwood		2					
10	RT	2	RB	0	50	30	70	Conifer							
								Hardwood	3						
10	RT	3	HT	3	70	50	40	Conifer			1	1			
								Hardwood		1					
20	LT	1	HT	5	85	70	20	Conifer							
								Hardwood	3	1					
20	LT	2	HT	0	90	85	10	Conifer							
								Hardwood	1	1					
20	LT	3	HT	0	80	65	30	Conifer							
								Hardwood		2	1				
20	RT	1	HT	5	75	70	25	Conifer							
								Hardwood	2	1					
20	RT	2	RB	0	20	25	75	Conifer							
								Hardwood							
20	RT	3	RB	0	10	20	80	Conifer							
								Hardwood	0	0					
28	LT	1	HT	6	80	70	25	Conifer							
								Hardwood		2					
28	LT	2	HT	0	80	60	30	Conifer							
								Hardwood	1	1					
28	RT	1	HT	6	80	75	20	Conifer			3	2			
								Hardwood							
28	RT	2	HT	2	40	70	25	Conifer			1	1			
								Hardwood							
28	RT	3	HT	2	40	45	45	Conifer				1			
								Hardwood		1					

**COMMENT SUMMARY**

MONITORING AREA: 4-UMP      SITE ID: 151      STREAM: STARVOUT CREEK POST-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
20	RI	00	255.1		BC- STARVOUT CREEK RD
32	RI	11	405.2		FLOWS INTO 02 CHANNEL
38	RI	00	508.7	AM	GOLD PANNING



Name: STARVOUT CREEK  
 Date: 1/9/2007  
 Scale: 1 inch equals 2000 feet

Location: 10 484108 E 4735736 N  
 Caption: STARVOUT CREEK RESTORATION SITE - COW CR/S.  
 UMPQUA BASIN