

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

STREAM: Starvout Creek (UMP-151)
BASIN: Cow Creek/South Umpqua River
SURVEY TYPE: Post-Tx
DATE: February 22, 2007
SURVEY CREW: Bill Jones, Joanne Lowden
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 13.8 km²
USGS MAPS: Starvout Creek
ECOREGION: Klamath Mountains Inland Siskiyou

GENERAL DESCRIPTION:

The Starvout Creek habitat survey extended 506 meters. The channel was alternately constrained by hillslope and terrace in a broad valley floor. The average valley width index was 13.6 (range: 2-20). Land use for the reach was second growth timber (15-30 cm dbh). The average unit gradient was 2.6 percent. Rapids (60%) and scour pools (24%) dominated stream habitat. Gravel (47%) and cobble (30%) dominated stream substrate. Wood volume was low at 16.1 m³/100m.

COMMENTS:

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

Stream Starvout Creek (U-151)
 Basin Umpqua River
 Treatment Large Wood

	ODFW Benchmark		Pre	Post	Post		
Habitat Variable	Desirable	Undesirable	2/21/01	3/13/02	2/22/07		
% Pool Area	>35%	<10%	32.4	21.3	24.1		
Number of Pools			13	12	8		
Deep Pools/km (>1.0 m)			0.0	0.0	1.7		
% Off-Channel			2.7	2.6	4.2		
LWD – Pieces/100m	>20	<10	4.7	9.8	18.2		
LWD – Volume/100m	>30	<20	1.1	16.7	16.1		
LWD – Key Pieces/100m	>3	<1	0.0	0.4	0.0		
Large Wood Jams/km			0.0	8.0			
% Riffle Fines	<10	>20	53	3	48		
% Riffle Gravel	>35	<15	30	49	43		
% Bedrock			6	4	4		

Bold is noticeable change

Comments: Pool area and the total number of pools appear to have decreased with time, especially compared to pre-treatment conditions. Deep pools, however, have increased, as has off channel habitat. Large wood pieces are higher, while wood volume has remained stable. Substrate is unchanged from pre to post-treatment, but riffle fines seemed to drop substantially right after treatment, rebounding by 2007.

REACH 1

T32S-R04W-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	13.6	VWI Range:	2 - 20

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	506	2,623	0
Secondary Channel	66	105	0
Off-Channel Units	13	9	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 4
Width: 4.8	Width: 5.6	8.7 (7.3 - 10)	13.5 (10.5 - 17)
Depth: 0.44	Height: 0.5	1.0 (0.9 - 1)	1.7 (1.4 - 1.9)

W:D ratio: 11.5
 Stream Flow Type: MF
 Average Unit Gradient: 2.6%
 Water temperature (°C): -
 Entrenchment (ACW:FPW ratio): 1.6
 Habitat Units/100m (total channel length): 5.1
 Habitat Units/100m (primary channel length): 5.9

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:		Reach avg:
Undercut Banks:		Range: -

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	92	18.2
Volume (m ³):	81	16.1
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: 4/25/2007

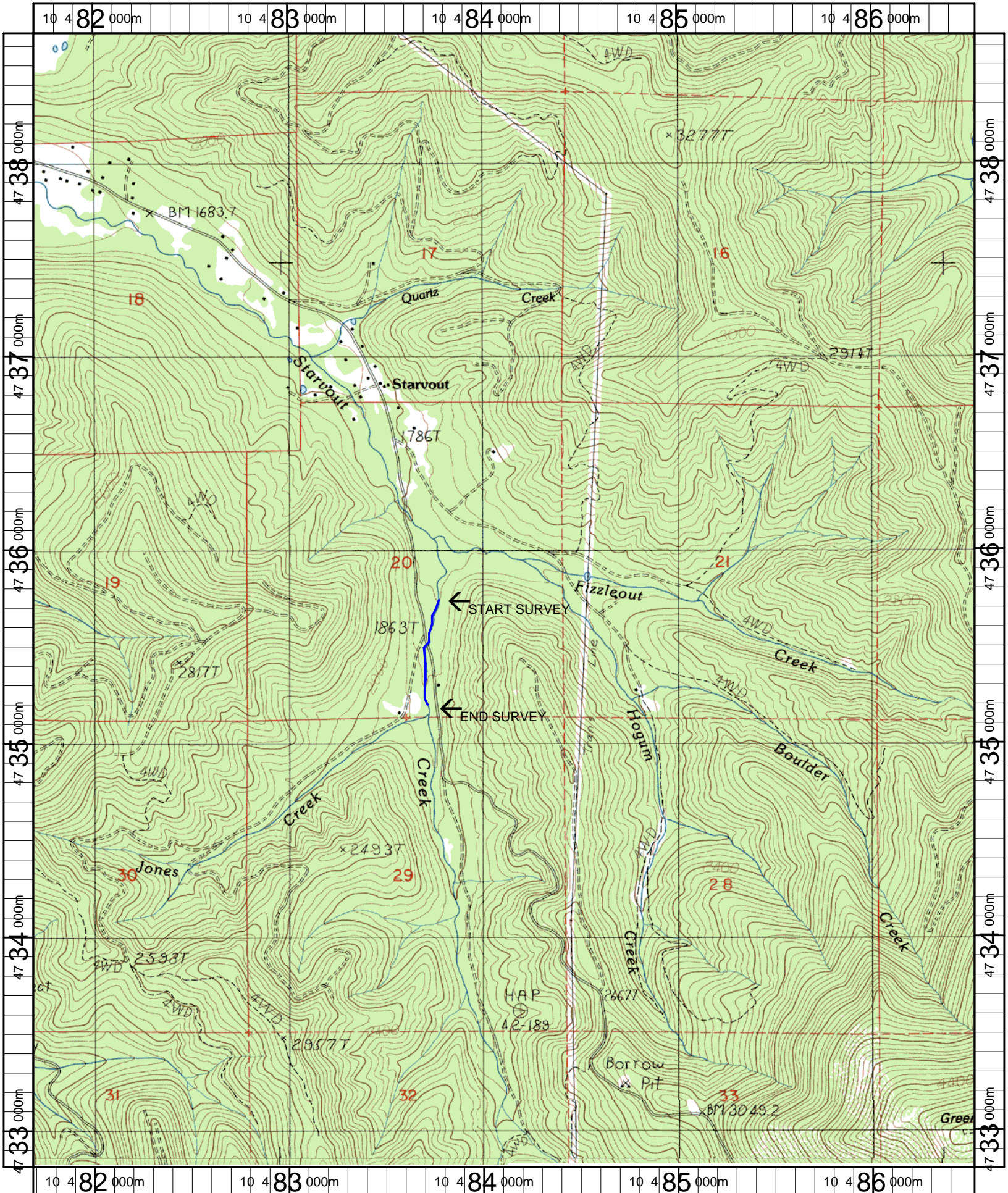
Survey Date:

2/22/2007

REACH 1		T32S-R04W-S20SE					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/BOULDERS	1	18	5.0	0.50	90	0	0	0	35	35	30	0
GLIDE	1	13	0.7	0.20	9	0	100	0	0	0	0	0
POOL-LATERAL SCOUR	8	99	6.4	0.77	659	0	0	3	52	31	6	8
RAPID/BOULDERS	17	380	4.6	0.33	1,650	0	1	1	48	33	13	4
RIFFLE	2	36	3.3	0.18	161	0	40	8	43	10	0	0
RIFFLE W/ POCKETS	1	39	4.3	0.30	168	0	0	0	60	30	10	0
Total:	30	585	4.8	0.44	2,737	0	Avg: 6	2	47	30	10	4

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	0	0			0	0.00%	0	0.0	
Scour Pools	8	99	6.4	0.77	659	24.09%	0	0.0	
Glides	1	13	0.7	0.20	9	0.33%	0	0.0	
Riffles	3	75	3.6	0.22	329	12.01%	0	0.0	
Rapids	17	380	4.6	0.33	1,650	60.28%	0	0.0	
Cascades	1	18	5.0	0.50	90	3.29%	0	0.0	
Step/Falls	0	0			0	0.00%	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>	<u># / Km</u>
All Pools:	8	13.7		15.8
Pools >=1m deep:	1	1.7		2.0
Complex pools (LWD pieces>=3):	6	10.3		11.9
Pool frequency (channel widths/pool):	13.1			
Residual pool depth (avg):	0.48			



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