

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

STREAM: Bewley Creek (NC-111)
BASIN: Tillamook River
SURVEY TYPE: Post-Tx
DATE: August 29, 1996
SURVEY CREW: Barry Thom, Paul Jacobsen
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 15.5 km²
USGS MAPS: Tillamook
ECOREGION: Coast Range Sitka Spruce

GENERAL DESCRIPTION:

The Bewley Creek habitat survey extended 315 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 4.5 (range: 4.0 – 5.0). Land use for the reach was second growth (15-30 cm dbh) trees. The average unit gradient was 0.8 percent. Scour pools (34%), riffles (29%) and glides (28%) dominated stream habitat. Gravel (32%) and cobble (25%) dominated stream substrate. Wood volume was high at 32.4 m³/100m.

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

T2S-R10W-S23SE

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 avg: 4.5 range: 4.0-5.0

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	315	1,239	0
Secondary	14	63	0

Channel Dimensions (m)

<u>Wetted</u>		<u>Active</u>	<u>Floodprone</u>	<u>First Terrace</u>
Width 4.0	Width	7.4	0.0	8.7
Depth 0.40	Height	0.5	0.0	1.0
	W:D ratio	14.7	Entrenchment	**.*

Stream Flow Type: LF Water Temp: 0.0-0.0°C
 Avg. Unit Gradient: 0.8% Habitat Units/100m: 5.8

Riparian, Bank, and Wood Summary

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

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding	0%	Reach avg: 87%
Undercut Banks	6%	Range: 56-100

Large Woody Debris

	<u>Total</u>	<u>Total/100m</u>
All pieces (≥3m x 0.15m)	35	11.1
Volume (m ³)	102	32.4
Key pieces (≥10m x 0.6m)	4	1.3

REACH 1 T2S-R10W-S23SE 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	Cbbl	Bldr	Bdrk
GLIDE	4	92	3.9	0.25	370	4	16	23	30	16	3	13
POOL-ISOLATED	1	14	4.5	0.70	63	0	100	0	0	0	0	0
POOL-LATERAL SCOUR	5	82	4.6	0.66	383	19	20	28	35	14	2	2
POOL-PLUNGE	1	11	6.0	1.30	66	0	30	30	20	20	0	0
RIFFLE	5	90	3.3	0.16	289	1	4	10	45	38	2	2
RIFFLE W/ POCKETS	1	28	3.0	0.25	84	12	5	10	30	45	10	0
STEP/COBBLE	2	12	4.3	0.10	48	18	0	10	25	45	10	10
Total:	19	329	4.0	0.40	1,302	54	Avg:17	18	32	25	3	5

HABITAT SUMMARY

Habitat Group	No. Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area (m ²)	Percent	Large Number	Boulders #/100m ²
Dammed & BW Pools	1	14	4.5	0.70	63	4.84	0	0.0
Scour Pools	6	93	4.8	0.77	449	34.48	19	4.2
Glides	4	92	3.9	0.25	370	28.41	4	1.1
Riffles	6	118	3.3	0.18	373	28.62	13	3.5
Rapids	0	0	-	-	0	0.00	0	0.0
Cascades	0	0	-	-	0	0.00	0	0.0
Step/Falls	2	12	4.3	0.10	48	3.65	18	37.9
Dry	0	0	-	-	0	0.00	0	0.0

POOL SUMMARY

All Pools	<u>Total</u>	<u>#/Km</u>
	7	21.3
Pools ≥1m deep:	1	3.0
Complex pools (LWD pieces ≥3):	4	12.2
Pool Frequency (channel widths/pool):	6.4	
Residual pool depth (avg)	0.62m	

STREAM SUMMARY

BEWLEY CREEK 1996 POST-TX

Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m ²)	Substrate Percent Wetted Area						Total Large Boulder
					S/O	Sand	Grvl	Cbbl	Bldr	Bdrk	
19	329	4.0	0.40	1,302	17	18	32	25	3	5	54

Wetted Area

Habitat Group	(m ²)	Percent
Scour Pool	449	34.5
Backwater Pools	63	4.8
Glide	370	28.4
Riffle	373	28.6
Rapid	0	0.0
Cascade	0	0.0
Step	48	3.6
Dry	0	0.0

STREAM HABITAT STATUS SHEET

STREAM NAME Bowley Cr 1996 Post-Tx **CONTRACT** _____
BASIN Tillamook **CREW** B. Thom, P. Johns

DATE FILENAME COMMENTS

ENTRY	DATE	FILENAME	COMMENTS
REACH	<u>11/21/01</u>	<u>Be 96P</u>	HR.DBF
UNIT 1			U1.DBF
UNIT 2			U2.DBF
UNIT CHECK			CHK.DBF
RIPARIAN			RP.DBF
WOOD			WD.DBF

ENTERED BY:
[Signature]

ANALYSIS	DATE	FILENAME	COMMENTS
CALIBRATION			CAL.DBF
MAP SUMMARY/CORRECTIONS			
WOOD EXPAND			WE.DBF
UNIT LINK			UX.DBF
UNIT LINK WITH WOOD			UX2.DBF
PROFILES + COMMENT SUMMARY			PRO.XLS
HABITAT REPORT LINK			LNK.DBF
RIPARIAN LINK			RLK.DBF

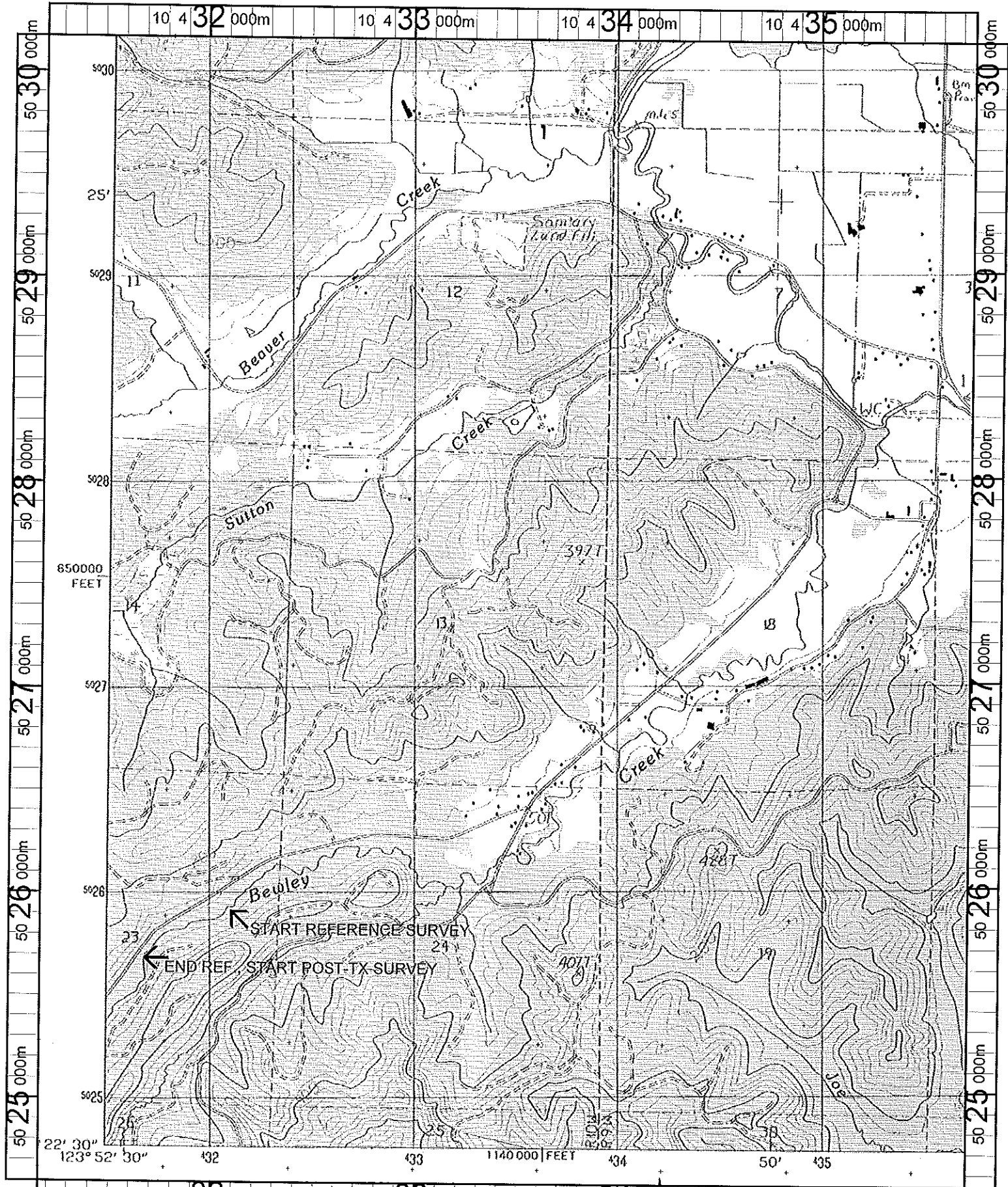
ANALYZED BY:

FINAL REPORT	DATE	FILENAME	COMMENTS
BAR GRAPHS			BAR.XLS
COVER + REPORT			COV.DOC
PHOTOS			
REPORT MAPS			
REACH ENTRY			

COMPLETED BY:

COMMENTS / NOTES

OREGON PLAN / REFERENCE SURVEYS			
BASIN AREA	BEAVER DAMS	#	MAJOR FAILURES
STREAM ORDER	BEAVER ACTIVITY	#	DEBRIS JAMS
JAMS FROM WOOD SHEETS # <u>3</u>	CULVERT CROSSINGS	#	HABITAT STRUCTURES
			# <u>10</u>



<p>Name: TILLAMOOK Date: 5/30/101 Scale: 1 inch equals 2000 feet</p>	<p>Location: 10 433362 E 5027339 N Caption: 4 - 6 POST-TX AND REFERENCE SURVEYS - BEWLEY CREEK - TILLAMOOK BASIN</p>
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