

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

STREAM: Bear Creek (MS-4)
BASIN: Coquille River
SURVEY TYPE: Pre-Tx
DATE: July 4, 2000
SURVEY CREW: Scott Groth, Cassie Mellan
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 10.2 km²
USGS MAPS: Bill Peak
ECOREGION: Coast Range Sitka Spruce

GENERAL DESCRIPTION:

The Bear Creek habitat survey extended 823 meters. The channel was single channel unconstrained in a broad valley floor. The average valley width index was 8.6 (range: 3.5 – 20.0). Land use for the reach was young (3-15 cm dbh) and second growth (15-30 cm dbh) trees. The average unit gradient was 0.9 percent. Scour pools (56%) and riffles (30%) dominated stream habitat. Gravel (50%) and sand (20%) dominated stream substrate. Wood volume was moderate at 25.7 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

T29S-R14W-24NE

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	0	Multiple Terraces	100
Open V-shape	0	Wide Floodplain	0

Valley Width Index avg: 8.6 range: 3.5-20.0

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	0	Single Channel	100
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	823	3,052	0
Secondary	81	155	1

Channel Dimensions (m)

<u>Wetted</u>		<u>Active</u>	<u>Floodprone</u>	<u>First Terrace</u>
Width 3.4	Width	7.4	8.8	33.8
Depth 0.35	Height	0.7	1.3	3.3
	W:D ratio	11.5	Entrenchment 1.2	

Stream Flow Type: MF Water Temp: 13.0-13.0°C
 Avg. Unit Gradient: 0.9% Habitat Units/100m: 5.4

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	YT	ST
Riparian Vegetation:	D30	M15

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding	11%	Reach avg: 85%
Undercut Banks	19%	Range: 67-100

Large Woody Debris

	<u>Total</u>	<u>Total/100m</u>
All pieces ($\geq 3m \times 0.15m$)	136	16.5
Volume (m ³)	211	25.7
Key pieces ($\geq 10m \times 0.6m$)	9	1.1

REACH 1

T29S-R14W-24NE

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	3	80	3.8	0.17	319	0	0	11	57	33	0	0
POOL-BACKWATER	3	26	3.0	0.23	70	0	38	42	18	0	0	2
POOL-ISOLATED	1	3	3.0	0.20	9	0	36	55	9	0	0	0
POOL-LATERAL SCOUR	16	287	4.1	0.59	1,268	0	14	22	44	13	0	7
POOL-STRAIGHT SCOUR	6	107	5.1	0.72	535	0	19	32	40	7	0	2
PUDDLED CHANNEL	1	12	0.4	0.05	5	0	0	10	70	20	0	0
RAPID/BOULDERS	2	41	1.2	0.08	48	0	0	6	63	31	0	0
RIFFLE	17	348	2.6	0.11	953	0	4	11	62	20	0	3
Total:	49	904	3.4	0.35	3,206	0	Avg:11	20	50	15	0	4

HABITAT SUMMARY

Habitat Group	No. Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area (m ²)	Percent	Large Boulders Number	Boulders #/100m ²
Dammed & BW Pools	4	29	3.0	0.23	79	2.47	0	0.0
Scour Pools	22	394	4.4	0.63	1,802	56.21	0	0.0
Glides	3	80	3.8	0.17	319	9.94	0	0.0
Riffles	17	348	2.6	0.11	953	29.73	0	0.0
Rapids	2	41	1.2	0.08	48	1.49	0	0.0
Cascades	0	0	-	-	0	0.00	0	0.0
Step/Falls	0	0	-	-	0	0.00	0	0.0
Dry	1	12	0.4	0.05	5	0.15	0	0.0

POOL SUMMARY

	<u>Total</u>	<u>#/Km</u>
All Pools	26	28.8
Pools ≥1m deep:	1	1.1
Complex pools (LWD pieces ≥3):	11	12.2
Pool Frequency (channel widths/pool):	4.7	
Residual pool depth (avg)	0.53m	

STREAM SUMMARY

BEAR CREEK (PRE-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	
49	904	3.4	0.35	3,206	11	20	50	15	0	4	0

Wetted Area

Habitat Group	(m ²)	Percent
Scour Pool	1,802	56.2
Backwater Pools	79	2.5
Glide	319	9.9
Riffle	953	29.7
Rapid	48	1.5
Cascade	0	0.0
Step	0	0.0
Dry	5	0.2

REACH 1

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1

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

Total hardwoods/1000 ft	183
Total conifers/1000 ft	142
Total conifers >20" dbh/1000 ft	61
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	0.3	0.7	0.7	0.0	0.0	0.0	1.0	0.7
15-30cm	0.0	1.7	0.0	0.0	0.3	0.0	0.3	1.7
30-50cm	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.7
50-90cm	0.0	0.0	0.7	0.0	0.3	0.0	1.0	0.0
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m ²	0.3	3.0	1.3	0.0	0.7	0.0	0.8	1.0

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10-20 meters		Zone 3 20-30 meters	
	(%)		(%)		(%)	
Canopy closure	53		23		12	
Shrub cover	78		70		67	
Grass/forb cover	18		23		17	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10-20 meters		Zone 3 20-30 meters	
	Hillslope	50		50		50
High terrace	33		50		50	
Low terrace	17		0		0	
Floodplain	0		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	0		0		0	
Riprap	0		0		0	
Surface slope (%)	28		17		20	

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

Summary of riparian zone (0-100ft) extrapolated to 1,000 feet along stream

Total hardwoods/1000 ft	183
Total conifers/1000 ft	142
Total conifers >20" dbh/1000 ft	61

Average number of trees in a 5-meter wide band

<u>Diameter</u> <u>class (cm)</u>	<u>Zones 1-3</u>	
	<u>Conifer</u>	<u>Hardwood</u>
3-15cm	1.0	0.7
15-30cm	0.3	1.7
30-50cm	0.0	0.7
50-90cm	1.0	0.0
>90cm	0.0	0.0

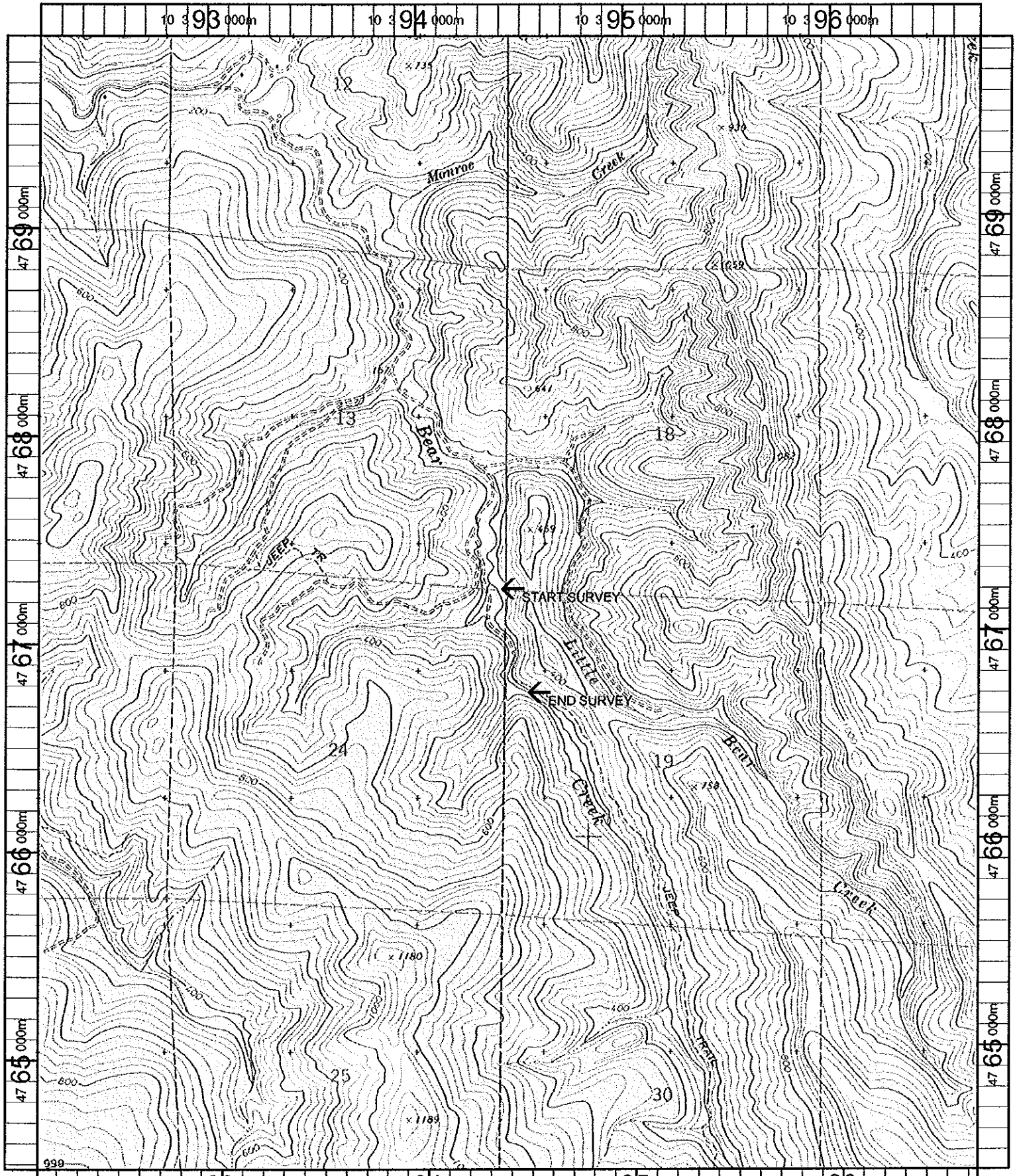
RIPARIAN ZONE VEGETATION

Reach 1

Reach 1

VEGETATION DETAIL

Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90	
8	LF	1	HS	45.0	50	50	30	Conifer	0	0	0	0	0	
								Hardwood	2	0	0	0	0	
8	LF	2	HS	10.0	10	50	50	Conifer	1	0	0	0	0	
								Hardwood	0	0	0	0	0	CLEARCUT
8	LF	3	HS	20.0	10	60	40	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
8	RT	1	HS	40.0	70	90	10	Conifer	0	0	0	0	0	
								Hardwood	0	1	0	0	0	
8	RT	2	HS	40.0	60	80	20	Conifer	1	0	0	0	0	
								Hardwood	0	0	0	0	0	ROAD
8	RT	3	HS	40.0	50	80	20	Conifer	0	0	0	1	0	
								Hardwood	0	0	0	0	0	
16	LF	1	LT	10.0	50	80	20	Conifer	0	0	0	0	0	
								Hardwood	0	1	0	0	0	
16	LF	2	HT	10.0	50	80	20	Conifer	0	0	0	1	0	
								Hardwood	0	0	0	0	0	
16	LF	3	HT	10.0	10	80	20	Conifer	0	1	0	0	0	
								Hardwood	0	0	0	0	0	
16	RT	1	HT	15.0	50	90	10	Conifer	0	0	0	0	0	
								Hardwood	0	1	0	0	0	
16	RT	2	HT	10.0	0	80	20	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	ROAD, YOUNG REPLANT
16	RT	3	HT	15.0	0	80	20	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	YOUNG REPLANT
23	LF	1	HS	15.0	50	80	20	Conifer	1	0	0	0	0	
								Hardwood	0	1	1	0	0	
23	LF	2	HS	20.0	0	50	10	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	CLEARCUT
23	LF	3	HS	25.0	0	50	0	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	
23	RT	1	HT	45.0	50	80	20	Conifer	0	0	0	0	0	
								Hardwood	0	1	1	0	0	
23	RT	2	HT	10.0	20	80	20	Conifer	0	0	0	1	0	
								Hardwood	0	0	0	0	0	OLD ROAD
23	RT	3	HT	10.0	0	50	0	Conifer	0	0	0	0	0	
								Hardwood	0	0	0	0	0	ROAD



Name: BILL PEAK
 Date: 11/1/100
 Scale: 1 inch equals 2000 feet

Location: 10 394316 E 4767152 N
 Caption: BEAR CREEK RESTORATION SITE - COQUILLE BASIN