

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

STREAM: Deep Creek Phase 1 (S-132)
BASIN: Pistol River
SURVEY TYPE: Post-Tx
DATE: July 20, 2004
SURVEY CREW: Greg Ryder, Justin Gerding
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 8.3 km²
USGS MAPS: Sundown Mountain
ECOREGION: Coast Range California Extension

GENERAL DESCRIPTION:

The Deep Creek habitat survey extended 575 meters. The channel was unconstrained in a broad valley floor. The average valley width index was 4.0 (range: 2.6-5.0). Land use for the reach was second growth (15-30 cm dbh) trees. The average unit gradient was 2.9 percent. Riffles (69%) dominated stream habitat. Gravel (39%) and cobble (36%) dominated stream substrate. Wood volume was very high at 55.7 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

T38S-R14W-S14SE

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	0%
Open V-shape	0%	Wide Floodplain	100%
Valley Width Index	4.0	VWI Range:	2.6 - 5

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	0%	Single Channel	0%
Bedrock	0%	Multiple Channel	100%
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	575	1,413	2
Secondary	255	435	3

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 2.3	Width: 7.9	25.1 (11.3 - 34.7)	26.8 (11.8 - 36.2)
Depth: 0.18	Height: 0.6	1.3 (1 - 1.5)	1.4 (1.35 - 1.6)

W:D ratio: 12.6

Entrenchment (ACW:FPW ratio): 3.1

Stream Flow Type: LF

Habitat Units/100m (total channel length): 4.8

Average Unit Gradient: 2.9%

Habitat Units/100m (primary channel length): 7.0

Water temperature (°C): 14.0 - 14.0

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	
Riparian Vegetation:	D15	C15

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:		Reach avg: 88%
Undercut Banks:	2%	Range: 56 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	139	24.2
Volume (m ³):	320	55.7
Key pieces (>=12m x 0.60m):	12	2.1

OREGON DEPARTMENT OF FISH AND WILDLIFE

DEEP CREEK PHASE 1 POST-TX (S-132)

HABITAT INVENTORY

Report Date: 10/27/2004

Survey Date:

7/20/2004

REACH 1		T38S-R14W-S14SE					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	
DRY CHANNEL	5	168	2.5	0.00	394	0	1	11	43	39	6	0	
POOL-BACKWATER	2	10	2.2	0.63	21	0	8	44	18	17	13	0	
POOL-LATERAL SCOUR	7	49	2.9	0.46	145	6	3	23	31	35	9	0	
POOL-PLUNGE	1	5	2.3	0.50	11	0	0	10	25	60	5	0	
RIFFLE	25	598	2.2	0.09	1,278	100	2	10	43	36	8	1	
Total:	40	830	2.3	0.18	1,849	106	Avg: 2	14	39	36	8	0	

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	2	10	2.2	0.63	21	1.14%	0	0.0	
Scour Pools	8	54	2.8	0.46	156	8.41%	6	3.9	
Glides	0	0			0	0.00%	0	0.0	
Riffles	25	598	2.2	0.09	1,278	69.12%	100	7.8	
Rapids	0	0			0	0.00%	0	0.0	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	0	0			0	0.00%	0	0.0	
Dry	5	168	2.5	0.00	394	21.32%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

POOL SUMMARY			
	Total of all Channel Lengths		Primary Channel Length
	<u>Total</u>	<u># / Km</u>	<u># / Km</u>
All Pools:	10	12.0	17.4
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	3	3.6	5.2
Pool frequency (channel widths/pool):	10.5		
Residual pool depth (avg):	0.38		

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1

REACH 1

Summary of Riparian Zone (0-30m)

3 transects

Total hardwoods/1000	894
Total conifers/1000 ft	366
Total conifers >20" dbh/1000 ft	0
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	1.7	2.3	0.7	1.7	4.7	4.0	7.0
15-30cm	0.0	1.7	0.7	2.0	1.0	1.7	1.7	5.3
30-50cm	0.0	0.0	0.0	1.0	0.3	1.0	0.3	2.0
50-90cm	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.3
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	0.0	3.3	3.0	3.7	3.0	7.7	2.0	4.9

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	63		71		62	
Shrub cover	16		18		25	
Grass/forb cover	70		50		55	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	33		50		67	
High terrace	33		17		17	
Low terrace	0		0		0	
Floodplain	33		17		17	
Wetland/meadow	0		0		0	
Stream channel	0		17		0	
Roadbed/Railroad	0		0		0	
Riprap	0		0		0	
Surface slope (%)	26		41		68	

RIPARIAN ZONE VEGETATION

Reach 1

Reach 1

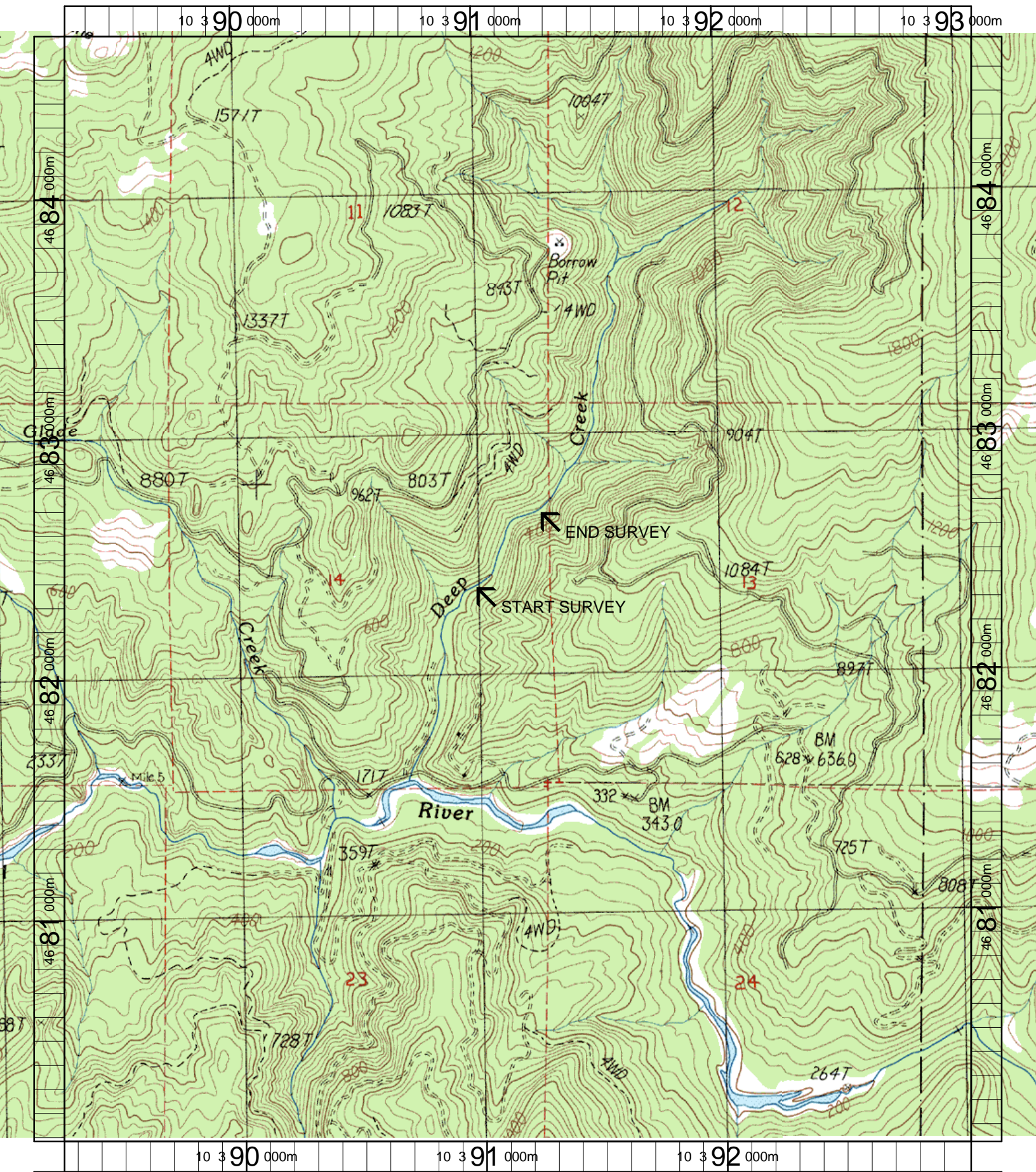
Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes	
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90		
9	RT	1	FP	0	40	20									
							Conifer								
							Hardwood								
9	LF	1	HS	15	50	10	90	Conifer							
								Hardwood							
9	RT	2	SC	3	40	28	30	Conifer							
								Hardwood	1		1				
9	LF	3	HS	85	60	5	10	Conifer	1	3	1				
								Hardwood							
9	LF	2	HS	90	55	10	80	Conifer							
								Hardwood							
9	RT	3	FP	0	70	40	60	Conifer							
								Hardwood	3		1	1			
17	LF	3	HS	80	60	20	60	Conifer							
								Hardwood							
17	LF	1	HT	0	80	10	80	Conifer							
								Hardwood	3	3					
17	RT	1	FP					Conifer							
								Hardwood	2	2					
17	RT	2	FP	0	80		10	Conifer							
								Hardwood		4					
17	RT	3	HS	95	80	20	60	Conifer							
								Hardwood	2						VERY OLD LARGE STUMP 1.5M
17	LF	2	HS	45	80	10	70	Conifer							
								Hardwood		1					
31	LF	1	HS	90	80	20	40	Conifer							
								Hardwood							
31	LF	3	HS	45	100	40	60	Conifer							
								Hardwood	9	2					
31	RT	1	HT			20		Conifer							
								Hardwood							
31	RT	3	HT	100	0		80	Conifer	4						
								Hardwood		3	2				
31	LF	2	HS	45	100	20	60	Conifer	7	2					
								Hardwood	1	1	2				
31	RT	2	HT	60		20		Conifer							
								Hardwood							

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: **5-SC** SITE ID: **132** DEEP CREEK PHASE 1 POST-TX (S-1)

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	RI	00	25		PHOTO AT 10:20 0029	T=14 DEG C 10:20
2	RI	00	50		TROUT FRY	
4	LP	00	68.4	WL		PGS, RNS
10	RI	01	168.2	HS		
16	LP	01	252.4	WL		RSN
18	BW	10	277.4	WL, HS		RED LEGGED FROG
20	RI	01	327.4	HS		
21	RI	02	327.4	HS		
22	RI	03	327.4	HS		
24	DC	05	327.4	HS		
25	LP	05	327.4	HS	TROUT FRY	
26	RI	05	327.4	HS		
33	RI	00	427.4	SS/		
37	RI	00	505		TROUT FRY	
40	RI	00	575.2		PHOTO 0030 16:50	



Name: SUNDOWN MT
 Date: 6/18/2003
 Scale: 1 inch equals 1666 feet

Location: 10 391159 E 4682357 N
 Caption: DEEP CREEK PHASE 1 RESTORATION SITE - PISTOL RIVER BASIN