

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

STREAM: Deer Creek (MC-301)
BASIN: Alsea River
SURVEY TYPE: Post-Tx
DATE: February 7, 2006
SURVEY CREW: Scott Venables, Seth Ring
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 3.2 km²
USGS MAPS: Toledo South
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The Deer Creek habitat survey extended 2,031 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 4.3 (range: 1.7-8.0). Land use for the reach was mature (50-90 cm dbh) and second growth (15-30 cm dbh) trees. The average unit gradient was 1.7 percent. Scour pools (48%) and riffles (34%) dominated stream habitat. Gravel (29%), silt (23%) and sand (20%) dominated stream substrate. Wood volume was low at 17.1 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

T12S-R10W-S10SE

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	4.3	VWI Range:	1.7 - 8

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	2,031	8,097	0
Secondary Channel	38	81	3
Off-Channel Units	178	186	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 8	<u>First Terrace</u> n = 7
Width: 3.4	Width: 6.8	20.1 (9.7 - 51.9)	30.5 (11.7 - 54.9)
Depth: 0.45	Height: 0.6	1.3 (1 - 1.5)	3.2 (1.4 - 7.2)

W:D ratio: 11.2 Entrenchment (ACW:FPW ratio): 3.0
 Stream Flow Type: MF Habitat Units/100m (total channel length): 8.8
 Average Unit Gradient: 1.7% Habitat Units/100m (primary channel length): 9.7
 Water temperature (°C): 8.0 - 8.0

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	MT	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:		Reach avg:
Undercut Banks:		Range: -

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	209	10.3
Volume (m ³):	347	17.1
Key pieces (>=12m x 0.60m):	8	0.4

OREGON DEPT OF FISH AND WILDLIFE

DEER CREEK POST-TX (2-MC, 301)

HABITAT INVENTORY

Report Date: 12/6/2006

Survey Date:

2/7/2006

REACH 1		T12S-R10W-S10SE					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/BEDROCK	1	7	0.4	0.10	3	0	0	10	25	30	5	30
CASCADE/BOULDERS	6	147	3.8	0.36	619	0	1	4	12	32	44	7
DRY CHANNEL	1	4	2.8	0.00	10	0	100	0	0	0	0	0
GLIDE	1	10	2.4	0.40	23	0	10	60	30	0	0	0
POOL-BACKWATER	12	62	1.7	0.30	109	0	72	7	9	9	3	0
POOL-BEAVER DAM	1	56	3.2	1.00	179	0	67	10	5	14	5	0
POOL-DAMMED	4	32	4.9	0.74	145	0	24	18	22	26	10	0
POOL-ISOLATED	1	4	0.9	0.30	4	0	100	0	0	0	0	0
POOL-LATERAL SCOUR	85	974	4.0	0.68	3,859	0	23	24	36	9	5	3
POOL-PLUNGE	10	37	3.2	0.57	180	0	30	17	11	22	8	12
PUDDLED UNIT	2	9	1.1	0.28	10	0	100	0	0	0	0	0
RAPID/BOULDERS	7	84	3.8	0.31	307	0	3	16	18	33	29	2
RIFFLE	49	806	3.1	0.20	2,858	0	12	20	40	20	6	2
STEP/BEAVER DAM	3	2	1.8	0.18	4	0	40	38	18	3	0	0
STEP/BEDROCK	4	3	1.3	0.06	5	0	0	0	0	0	0	100
STEP/BOULDERS	3	7	3.1	0.20	29	0	0	3	10	10	77	0
STEP/LOG	8	5	3.5	0.11	19	0	20	41	22	15	2	0
Total:	198	2,247	3.4	0.45	8,363	0	Avg: 23	20	29	14	8	5

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	18	154	2.4	0.44	437	5.22%	0	0.0
Scour Pools	95	1,011	3.9	0.67	4,039	48.30%	0	0.0
Glides	1	10	2.4	0.40	23	0.27%	0	0.0
Riffles	49	806	3.1	0.20	2,858	34.17%	0	0.0
Rapids	7	84	3.8	0.31	307	3.67%	0	0.0
Cascades	7	154	3.3	0.32	622	7.44%	0	0.0
Step/Falls	18	17	2.6	0.13	57	0.68%	0	0.0
Dry	3	13	1.6	0.18	20	0.24%	0	0.0
Culverts	0	0			0	0.00%	0	0.0

POOL SUMMARY

	<u>Total</u>	Total of all Channel Lengths <u># / Km</u>	Primary Channel Length <u># / Km</u>
All Pools:	113	50.3	55.6
Pools >=1m deep:	5	2.2	2.5
Complex pools (LWD pieces>=3):	21	9.3	10.3
Pool frequency (channel widths/pool):	2.9		
Residual pool depth (avg):	0.50		

Comment Summary

Restoration Monitoring Sites 2006

MONITORING AREA: **2-MC** SITE ID: **301** **DEER CREEK POST-TX**

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	GL	00	9.5	CC	1000 RD, 1.4 m HI x 2.4 m WIDE	
2	LP	00	14.6		T = 8.0 AT 1pm	
3	LP	00	19.9	DJ, CS/		
13	LP	00	128.8	HS, DJ	6 LOGS	
15	SL	00	138.3	DJ	H = 0.3	
16	DP	00	148.6	EI/	SLUMPING/	
18	LP	00	194.1	HS	7 LOGS	
20	LP	00	217.1		2 INCH FISH	
21	RI	01	274.1	SS/, HS	13 LOGS	
23	LP	00	284.4		2 CROSSES ON LEFT BANK	
24	RI	00	309.5	HS		
25	SL	00	310.6	DJ	H = 0.5	
26	DP	00	315.1		T=8.0 AT 9 AM	
27	SD	00	316	BD	H = 0.5 m	
28	LP	01	330.6	SS/		
30	LP	00	341.1	/TJ		
31	RI	11	341.1		T = 8.0, ACW = 1.6 m	
32	RI	00	376.2	GS		
37	SL	02	411.5		H = 0.45	
38	BW	10	411.5	/SS		
42	PP	00	456.5	HS	WEIR	

Comment Summary

Restoration Monitoring Sites 2006

MONITORING AREA: **2-MC** SITE ID: **301** **DEER CREEK POST-TX**

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
43	SL	00	457.6		H = 0.7	
50	RI	00	551.7		ADULT SALMONID CARCASS	
53	SR	00	620		H = 0.4	
59	SB	01	697.5		H = 1.25	
61	CB	00	755.1	SS/		
62	LP	00	762		FISH	
63	SL	00	762.3		H = 0.35	
65	RB	01	800.9	TJ/		
66	RI	11	800.9		ACW = 2.1	
67	SB	11	800.9		H = 1.35 m, T = 9 at 1pm	
69	RB	01	823.3		ADULT SALMONID CARCASS	
73	LP	01	847.1		CARCASS	
78	RB	00	895.8	DJ		
79	SL	00	896.5		H = 0.45	
83	SD	00	927.1	BD	H = 0.5	
84	BP	01	983.1	/TJx2, BV	SS/SS, SS/ LOTS OF FISH	
85	RI	11	983.1		ACW = 1.2, T = 8.5 AT 3pm	
86	RI	11	983.1		ACW = 1.6, T = 8.5	
87	SD	11	983.1	BD	H = 0.4	
89	LP	01	1005.1	TJ/		
90	RI	11	1005.1		ACW = 0.8, T = 8.5	

Comment Summary

Restoration Monitoring Sites 2006

MONITORING AREA: **2-MC** SITE ID: **301** **DEER CREEK POST-TX**

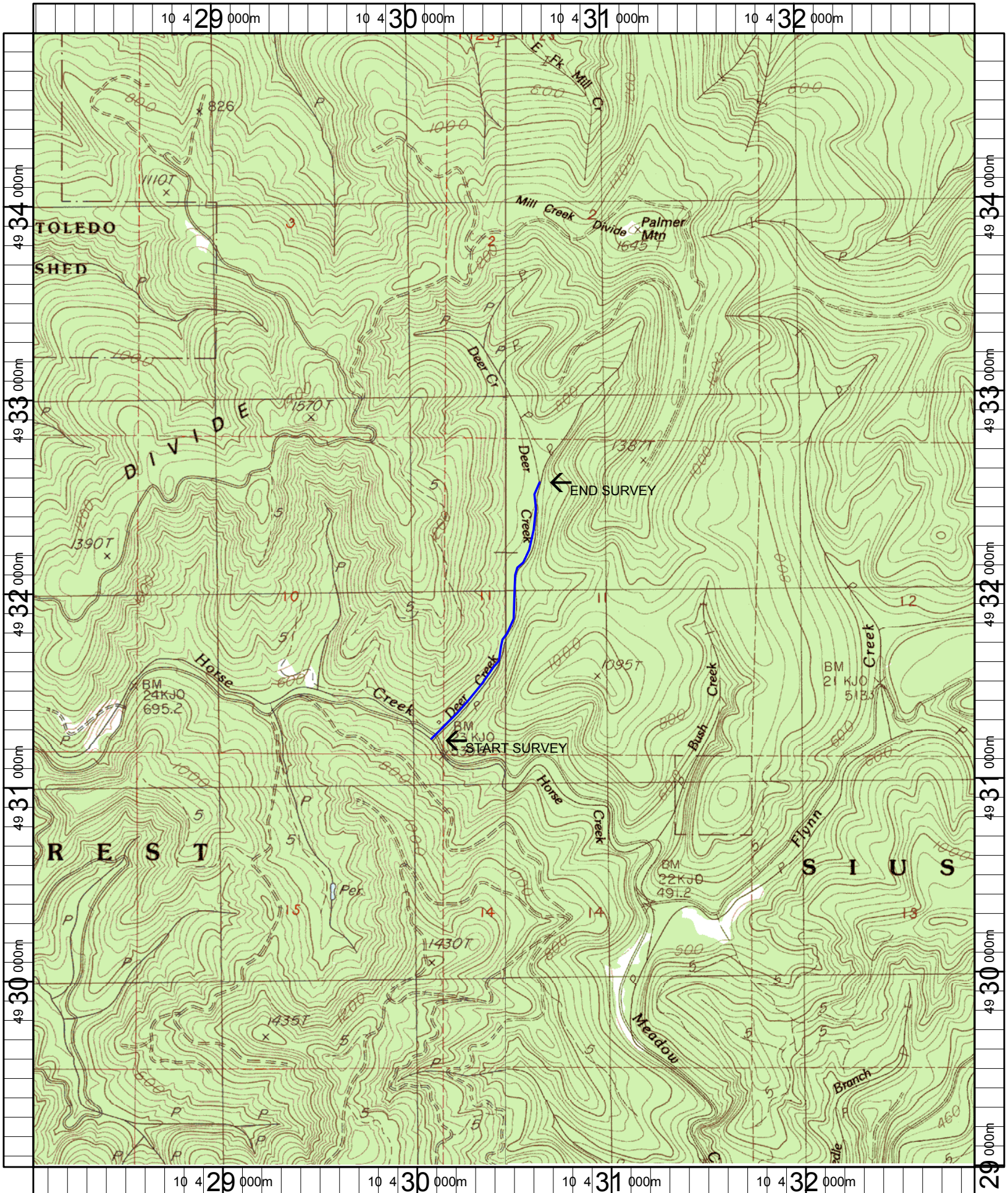
UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
92	SR	11	1005.1		H = 0.3, HARDPAN	
93	SR	12	1005.1		H = 1.1, HARDPAN, ACW = 2.1	
94	RI	12	1005.1		HARDPAN	
100	LP	01	1076.6		FISH	
101	BW	10	1076.6		NEWT	
103	LP	00	1097.9		T = 7.5 AT 9:30	
110	RB	00	1194.3		CARCASS	
111	SB	00	1195.1		H = 0.3	
115	LP	01	1236.3	TJ/		
116	CR	11	1236.3		ACW = .55, T = 8.0	
118	LP	01	1251.6	TJ/		
119	RI	11	1251.6		ACW = 1.3, T = 9.0	
121	SL	11	1251.6		H = 0.3	
123	LP	00	1276	SS/		
124	LP	00	1297.2	SS/		
128	LP	00	1334.8		FISH	
129	LP	01	1353.7		HARDPAN	
130	PD	02	1353.7		ACW = 2.5	
131	PD	02	1353.7		ACW = 1.1	
132	LP	00	1385.8	SS/	CARCASS	
142	LP	00	1487.1		HARDPAN	

Comment Summary

Restoration Monitoring Sites 2006

MONITORING AREA: **2-MC** SITE ID: **301** **DEER CREEK POST-TX**

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
144	LP	00	1509.3		HARDPAN	
150	RI	00	1563.1		CARCASS	
153	LP	00	1598.4		HARDPAN	
156	LP	00	1635		HARDPAN	
157	LP	00	1652.3	TJ/		
159	RI	11	1652.3		ACW = 1.3, T = 9.0	
162	RI	01	1717.2	/TJ		
163	RI	11	1717.2		ACW = 1.0, T = 7.5	
165	SR	11	1717.2		H = 0.3	
169	LP	00	1750.8		HARDPAN	
170	RI	00	1764.7	SS/		
172	PP	00	1782.5		HARDPAN	
173	SL	00	1783.3		H = 0.4	
175	LP	00	1803		HARDPAN	
187	RI	00	1913.3		HARDPAN	
193	LP	00	1985.5		HARDPAN	
194	RI	01	2010.1		HARDPAN	
195	BW	10	2010.1		NW SLAMANDER EGG MASS, NEWTS	
196	LP	00	2023.5		RL FROG EGG MASS IN U195 BW	
197	RI	01	2030.8	TJ/	SPAWNING SURVEY SIGN	



Name: TOLEDO SOUTH
 Date: 6/13/2005
 Scale: 1 inch equals 2000 feet

Location: 10 430476 E 4931943 N
 Caption: DEER CREEK RESTORATION SITE - ALSEA BASIN