

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

STREAM: Deer Creek (MC-301)
BASIN: Alsea River
SURVEY TYPE: Pre-Tx
DATE: July 13, 2005
SURVEY CREW: Tory Fitchett, Lanoah Babcock
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 1,939 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 6.2 (range: 1.5-10.5). Land use for the reach was second growth (15-30 cm dbh) trees. The average unit gradient was 2.4 percent. Riffles (32%), scour pools (28%) and beaver pools (24%) dominated stream habitat. Gravel (40%), sand (22%) and cobble (19%) dominated stream substrate. Wood volume was very low at 9.5 m³/100m.

COMMENTS:

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

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	100%
Moderate V-shape	0%	Multiple Terraces	0%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	6.2	VWI Range:	1.5 - 10.5

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	1,939	6,790	0
Secondary Channel	0	0	0
Off-Channel Units	50	26	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 8	<u>First Terrace</u> n = 6
Width: 3.3	Width: 4.6	7.9 (4.8 - 11.3)	11.1 (6.6 - 15.3)
Depth: 0.35	Height: 0.4	0.7 (0.6 - 0.9)	1.1 (0.95 - 1.25)

W:D ratio: 13.1

Entrenchment (ACW:FPW ratio): 1.8

Stream Flow Type: MF

Habitat Units/100m (total channel length): 5.4

Average Unit Gradient: 2.4%

Habitat Units/100m (primary channel length): 5.5

Water temperature (°C): 12.0 - 12.0

Riparian, Bank, and Wood Summary

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

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	22%	Reach avg: 83%
Undercut Banks:	25%	Range: 33 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	146	7.5
Volume (m ³):	185	9.5
Key pieces (>=12m x 0.60m):	6	0.3

OREGON DEPT OF FISH AND WILDLIFE

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

HABITAT INVENTORY

Report Date: 4/26/2006

Survey Date:

7/14/2005

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/BOULDERS	5	188	2.6	0.26	514	243	2	8	15	27	39	10
CULVERT CROSSING	1	9	2.6	0.20	24	0	10	30	45	15	0	0
POOL-BEAVER DAM	3	130	11.1	0.92	1,639	0	38	30	15	7	0	10
POOL-LATERAL SCOUR	30	389	3.6	0.62	1,440	37	9	26	45	16	2	1
POOL-PLUNGE	5	48	5.7	0.57	301	8	10	21	34	25	7	3
POOL-STRAIGHT SCOUR	4	50	2.7	0.48	134	0	10	23	37	26	1	3
RAPID/BOULDERS	5	151	2.3	0.21	382	135	2	14	27	26	28	3
RIFFLE	26	453	2.2	0.16	1,077	38	8	22	45	23	3	0
RIFFLE W/ POCKETS	14	524	2.1	0.30	1,114	10	8	24	52	14	1	0
STEP/BEAVER DAM	4	7	5.1	0.02	33	0	13	37	43	8	0	0
STEP/BEDROCK	1	3	3.6	0.05	9	0	0	0	0	0	0	100
STEP/BOULDERS	2	14	2.3	0.13	30	39	0	0	0	8	93	0
STEP/COBBLE	2	11	3.1	0.05	38	0	5	28	43	25	0	0
STEP/LOG	2	1	5.3	0.03	8	0	13	25	45	18	0	0
STEP/STRUCTURE	3	11	5.3	0.09	73	0	0	3	17	13	0	67
Total:	107	1,989	3.3	0.35	6,816	510	Avg: 9	22	40	19	7	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	3	130	11.1	0.92	1,639	24.05%	0	0.0
Scour Pools	39	487	3.8	0.60	1,875	27.50%	45	2.4
Glides	0	0			0	0.00%	0	0.0
Riffles	40	977	2.2	0.21	2,190	32.14%	48	2.2
Rapids	5	151	2.3	0.21	382	5.60%	135	35.4
Cascades	5	188	2.6	0.26	514	7.55%	243	47.2
Step/Falls	14	47	4.4	0.06	192	2.81%	39	20.3
Dry	0	0			0	0.00%	0	0.0
Culverts	1	9	2.6	0.20	24	0.35%	0	0.0

REACH 1

T12S-R10W-S10SE

REACH 1

POOL SUMMARY

	<u>Total</u>	Total of all Channel Lengths <u># / Km</u>	Primary Channel Length <u># / Km</u>
All Pools:	42	21.1	21.7
Pools >=1m deep:	3	1.5	1.5
Complex pools (LWD pieces>=3):	10	5.0	5.2
Pool frequency (channel widths/pool):	10.4		
Residual pool depth (avg):	0.54		

OREGON DEPARTMENT OF FISH AND WILDLIFE
HABITAT INVENTORY

DEER CREEK PRE-TX
GCG: 2-MC SITE ID: 301

Survey Date 7/13/2005
Report Date: 4/26/2006

RIPARIAN ZONE
VEGETATION SUMMARY

REACH 1

Summary of Riparian Zone (0-30m) 6 transects

Total hardwoods/1000	782
Total conifers/1000 ft	61
Total conifers >20" dbh/1000 ft	51
Total conifers >35" dbh/1000 ft	51

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	2.0	0.0	1.7	0.0	2.3	0.0	6.0
15-30cm	0.0	0.7	0.0	1.5	0.0	1.0	0.0	3.2
30-50cm	0.0	0.5	0.0	1.8	0.2	0.8	0.2	3.2
50-90cm	0.0	0.0	0.0	0.2	0.0	0.3	0.0	0.5
>90cm	0.0	0.0	0.7	0.0	0.2	0.0	0.8	0.0
Total/100m2	0.0	3.2	0.7	5.2	0.3	4.5	0.3	4.3

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	34		43		49	
Shrub cover	51		63		68	
Grass/forb cover	48		35		26	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	33		58		75	
High terrace	58		42		25	
Low terrace	0		0		0	
Floodplain	8		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	0		0		0	
Riprap	0		0		0	
Surface slope (%)	24		35		36	

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

6 transects

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

Total hardwoods/1000	782
Total conifers/1000 ft	61
Total conifers >20" dbh/1000 ft	51
Total conifers >35" dbh/1000 ft	51

Average number of trees in a 5-m wide band

Diameter class (cm)	Zones 1-3	
	<u>0-30 meters</u>	
	<u>Conifer</u>	<u>Hardwood</u>
3-15cm	0.0	6.0
15-30cm	0.0	3.2
30-50cm	0.2	3.2
50-90cm	0.0	0.5
>90cm	0.8	0.0

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		
21	RT	3	HS	25	80	80	20	Conifer							
								Hardwood			3				
21	RT	1	HT	5	65	90	10	Conifer							
								Hardwood		1					
21	LF	1	FP	3	25	40	60	Conifer							
								Hardwood	4						
21	LF	3	HS	40	75	45	20	Conifer							
								Hardwood	4	2					
21	RT	2	HT	12	75	70	30	Conifer							
								Hardwood			2				
21	LF	2	HS	55	45	65	15	Conifer						2	
								Hardwood	5	3					
31	RT	3	HS	40	70	35	65	Conifer				1		1	
								Hardwood	2						
31	LF	1	HS	20	30	70	30	Conifer							
								Hardwood	3						
31	LF	2	HS	35	20	85	15	Conifer							
								Hardwood							
31	LF	3	HS	50	15	90	10	Conifer							
								Hardwood							
31	RT	1	HS	40	80	10	90	Conifer							
								Hardwood	2						
31	RT	2	HS	40	75	25	75	Conifer						2	
								Hardwood	3						
43	RT	3	HS	110	20	90	10	Conifer							
								Hardwood							
43	RT	2	HS	150	15	85	15	Conifer							
								Hardwood							
43	RT	1	HS	85	10	50	30	Conifer							
								Hardwood							
43	LF	3	HS	65	10	90	10	Conifer							
								Hardwood	5						
43	LF	1	HS	105	20	80	20	Conifer							
								Hardwood	3						
43	LF	2	HS	80	15	90	10	Conifer							
								Hardwood	2						

55	RT	1	HT	8	30	20	80	Conifer			
								Hardwood			
55	LF	1	HT	4	50	60	40	Conifer			
								Hardwood	3	2	
55	RT	3	HS	24	35	40	60	Conifer			
								Hardwood			
55	RT	2	HT	6	20	15	85	Conifer			
								Hardwood	1		
55	LF	2	HS	18	60	70	30	Conifer			
								Hardwood		2	
55	LF	3	HS	26	45	80	20	Conifer			
								Hardwood		2	
76	RT	3	HS	25	50	80	20	Conifer			
								Hardwood	3		
76	LF	1	HT	5	0	70	30	Conifer			
								Hardwood			
76	LF	2	HT	4	50	60	40	Conifer			
								Hardwood	2	1	
76	LF	3	HT	4	60	40	50	Conifer			
								Hardwood			1
76	RT	1	HT	4	15	20	80	Conifer			
								Hardwood			
76	RT	2	HT	6	35	60	40	Conifer			
								Hardwood		1	
88	RT	3	HT	4	70	70	3	Conifer			
								Hardwood			1
88	LF	2	HS	12	45	70	30	Conifer			
								Hardwood	3		
88	LF	3	HT	17	60	80	20	Conifer			
								Hardwood	4		
88	RT	1	HT	5	47	50	50	Conifer			
								Hardwood			
88	RT	2	HT	3	65	60	40	Conifer			
								Hardwood		5	1
88	LF	1	HT	5	35	50	50	Conifer			
								Hardwood		1	

Comment Summary

Restoration Monitoring Sites 2005

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

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	CC	00	9.2	CC	H=1.25M/W=2.6M, NATUR	
3	SD	00	17.4	BD	H=0.8M	H=0.8M
4	BP	00	73.2	BV		
5	RI	00	86.6	BV		
6	LP	00	97.8	BV		
7	SC	00	104.8		H=0.15M	
9	SC	00	121.7		H=0.3M	H=0.3M
10	LP	00	137.6	BV		
12	SD	00	168.8	BV, BD	H=0.5M	H=0.5M
13	BP	00	188.7	BV, SS/		
14	SP	00	208.4	BV	TEMP=12C	
16	PP	00	267	BV	LONG TAIL	
17	SS	00	270.6		H=0.9M	CONCRETE STRUCT H=0.9,S
18	SS	00	277.3		H=0.2M	
19	LP	00	300	BV		
20	SD	00	302	BD	H=0.6M	H=0.6M
21	RI	00	316.6		10T 0430243/ UTM 493143	RIPARIAN 1
22	SP	00	327.3	BV		
23	LP	00	358.9		LONG PTC	
28	SS	00	429.8		H=0.6M	
35	SR	00	576.5		H=0.4M	H=0.4M

Comment Summary

Restoration Monitoring Sites 2005

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

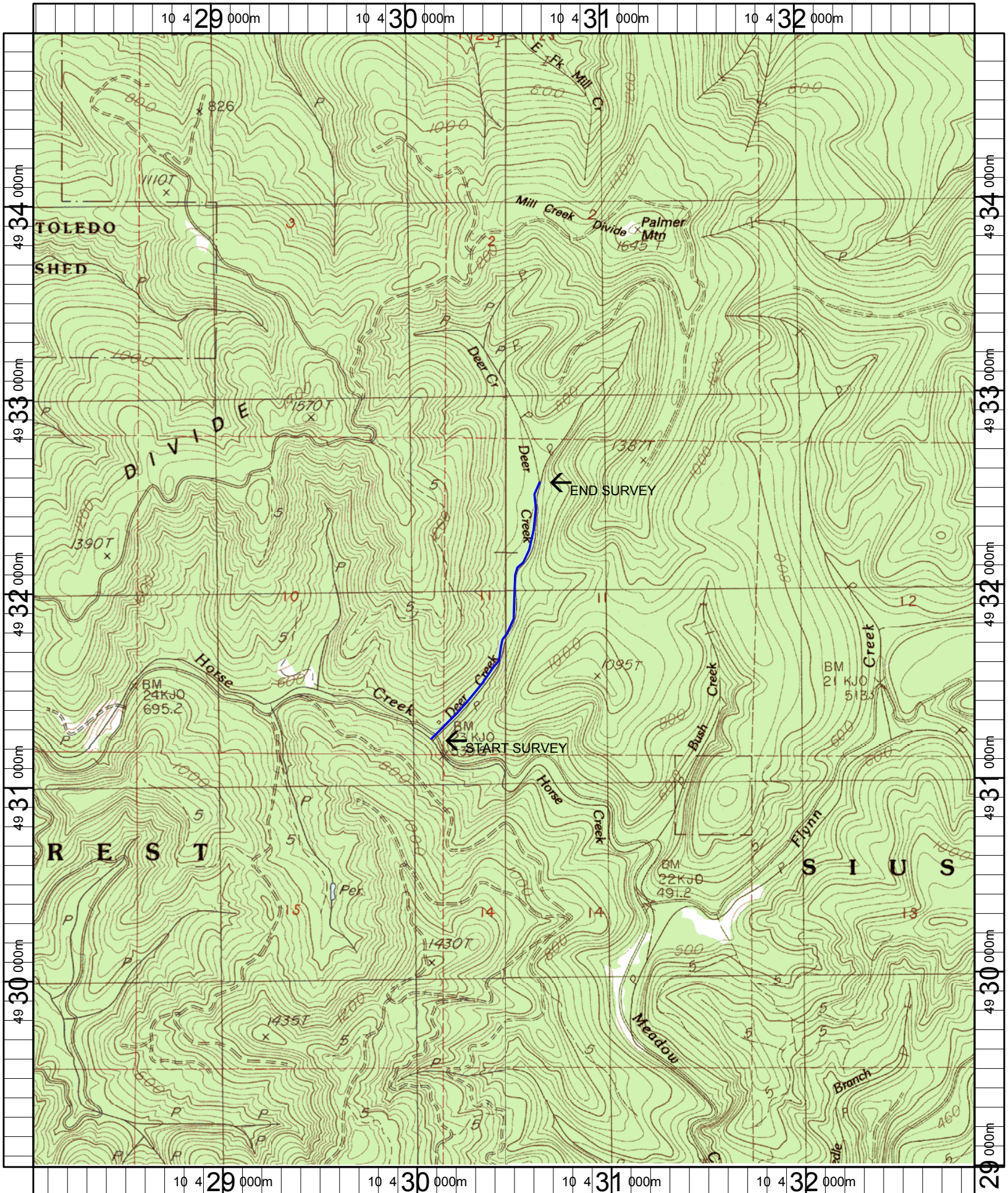
UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
37	SB	00	622		H=0.4M	H=0.4M
40	CB	00	710	SS/		
43	CB	00	780.6			RIPARIAN 3
45	RB	00	879.4	WL, DJ		
46	LP	00	900.7	/SS, SS/		
48	RI	01	927.4	/TJ		
49	RI	11	927.4		TRIB	POCKETS=0.4M
51	LP	01	956.2	TJ/, SS/		
55	RI	00	1004.1		END 13 JULY	RIPARIAN 4, END OF DAY
56	LP	00	1012		BEGIN 14 JULY	BEGIN NEW DAY 7/14/05
60	LP	00	1058.5	BV		
63	RI	00	1108.3	SS/		
67	SL	00	1159.1		H=0.25M	H=0.25
68	LP	00	1179.5	SS/		
70	LP	01	1198	TJ/ DJ		
71	RB	11	1198		TRIB	
76	RI	00	1286.2	BV		RIPARIAN 5
78	RP	00	1343.8	BV		
79	LP	00	1353.5	BV		
81	LP	00	1414.9	BV		
82	RP	00	1458.6			ONE POCKET=0.9M

Comment Summary

Restoration Monitoring Sites 2005

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

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
85	LP	00	1489.8	DJ		
87	LP	00	1520.2	BV		
88	RP	00	1562.7	BV	10T 0430618/ UTM 493233	RIPARIAN 6
90	RP	01	1623.5	TJ/		
92	LP	00	1634	BV		
93	RP	00	1684	WL		GAME TRAIL
94	RP	00	1704.8	BV		
96	SL	00	1713.4	BV	H=0.3M	H=0.3M
99	LP	00	1765.7	BV		
100	RP	00	1786.1	BV, WL		
101	RP	00	1836.1	BV, DJ		
102	LP	00	1844.4	BV		
103	RI	00	1860.1	BV		
105	RI	00	1884.2	BD		
106	SD	00	1885.3	BD, BV	H=1.1M, NOT A PN	H=1.1M
107	BP	00	1939.3	BV, TJ/		



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