

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

STREAM: Deadhorse Creek (W-78)
BASIN: Molalla River
SURVEY TYPE: Post-Tx
DATE: July 23, 2002
SURVEY CREW: Sarah Beldin, Cort Beldin
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 38.1 km²
USGS MAPS: Soosap Peak
ECOREGION: Willamette Valley Foothills

GENERAL DESCRIPTION:

The Deadhorse Creek habitat survey extended 641 meters. The channel was constrained by hillslopes in a moderate V-shaped valley. The average valley width index was 2.4 (range: 1.2 – 4.5). Land use for the reach was second growth (15-30 cm dbh) trees and timber harvest. The average unit gradient was 3.5 percent. Cascades (37%) and riffles (34%) dominated stream habitat. Gravel (38%) and cobble (37%) dominated stream substrate. Wood volume was high at 50.5 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

T05S-R04E-S31NW

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	100%	Multiple Terraces	0%
Open V-shape	0%	Wide Floodplain	0%
Valley Width Index	2.4	VWI Range:	1.2 - 4.5

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	100%	Single Channel	0%
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	641	7,159	0
Secondary	48	195	0

Channel Dimensions (m)

<u>Wetted</u>		<u>Active</u>		<u>Floodprone</u>	<u>First Terrace</u>
Width	10.4	Width	17.7	23.0	27.8
Depth	0.35	Height	0.8	1.5	2.1
		W:D ratio	23.3	Entrenchment	1.3
Stream Flow Type:	MF	Water temp (C):		15.0 - 15.0	
Avg. Unit Gradient:	3.5%	Habitat Units/100m:		5.0	

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	TH
Riparian Vegetation:	M30	D3

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:		Reach avg: 74%
Undercut Banks:	2%	Range: 50 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m</u>
All pieces (>=3m x 0.15m):	84	13.1
Volume (m ³):	324	50.5
Key pieces (>=10m x 0.60m):	28	4.4

OREGON DEPARTMENT OF FISH AND WILDLIFE

DEADHORSE CREEK POST-TX (W-78)

HABITAT INVENTORY

Report Date: 3/17/03

Survey Date:

7/23/02

REACH 1

T05S-R04E-S31NW

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	12	263	9.4	0.23	2,751	355	1	9	36	35	17	3
POOL-LATERAL SCOUR	5	84	7.7	0.96	649	60	0	14	37	37	10	2
RAPID/BOULDERS	5	117	7.0	0.25	866	120	0	9	42	38	11	0
RIFFLE	8	198	12.5	0.27	2,487	165	1	10	38	40	10	1
STEP/BOULDERS	1	15	17.2	0.25	255	20	0	10	38	38	10	5
STEP/COBBLE	1	12	28.2	0.05	347	25	5	5	40	40	10	0
Total:	32	689	10.4	0.35	7,355	745	Avg 1	10	38	37	12	2

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	0	0			0	0.00%	0	0.0
Scour Pools	5	84	7.7	0.96	649	8.82%	60	9.3
Glides	0	0			0	0.00%	0	0.0
Riffles	8	198	12.5	0.27	2,487	33.82%	165	6.6
Rapids	5	117	7.0	0.25	866	11.78%	120	13.9
Cascades	12	263	9.4	0.23	2,751	37.41%	355	12.9
Step/Falls	2	27	22.7	0.15	601	8.18%	45	7.5
Dry	0	0			0	0.00%	0	0.0
Culverts	0	0			0	0.00%	0	0.0

POOL SUMMARY

	Total	# / Km
All Pools:	5	7.8
Pools >=1m deep:	2	3.1
Complex pools (LWD pieces>=3):	2	3.1
Pool frequency (channel widths/pool):	7.8	
Residual pool depth (avg):	0.64	

RIPARIAN ZONE VEGETATION SUMMARY

REACH 1 **REACH 1**

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

Total hardwoods/1000	1585
Total conifers/1000 ft	1077
Total conifers >20" dbh/1000 ft	122
Total conifers >35" dbh/1000 ft	20

Average number of trees in a 5-meter wide band

Diameter class (cm)	Zone 1		Zone 2		Zone 3		Zones 1-3	
	0-10 meters		10 - 20 meters		20 - 30 meters		0-30 meters	
	Conifer	Hardwood	Conifer	Hardwood	Conifer	Hardwood	Conifer	Hardwood
3-15cm	5.7	7.7	3.0	6.7	1.7	4.7	10.3	19.0
15-30cm	0.7	1.3	1.0	2.0	1.3	1.3	3.0	4.7
30-50cm	0.0	1.0	0.3	0.0	2.0	1.0	2.3	2.0
50-90cm	1.0	0.3	0.3	0.0	0.3	0.0	1.7	0.3
>90cm	0.0	0.0	0.3	0.0	0.0	0.0	0.3	0.0
Total/100m2	7.3	10.3	5.0	8.7	5.3	7.0	5.9	8.7

Canopy closure and ground cover

	Zone 1		Zone 2		Zone 3	
	0-10 meters		10 - 20 meters		20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	65		68		62	
Shrub cover	47		35		27	
Grass/forb cover	48		60		58	

Predominant landform in each zone

	Zone 1		Zone 2		Zone 3	
	0-10 meters		10 - 20 meters		20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	33		67		67	
High terrace	17		17		17	
Low terrace	50		17		17	
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 (%)	27		43		46	

RIPARIAN ZONE VEGETATION

Reach 1

Reach 1

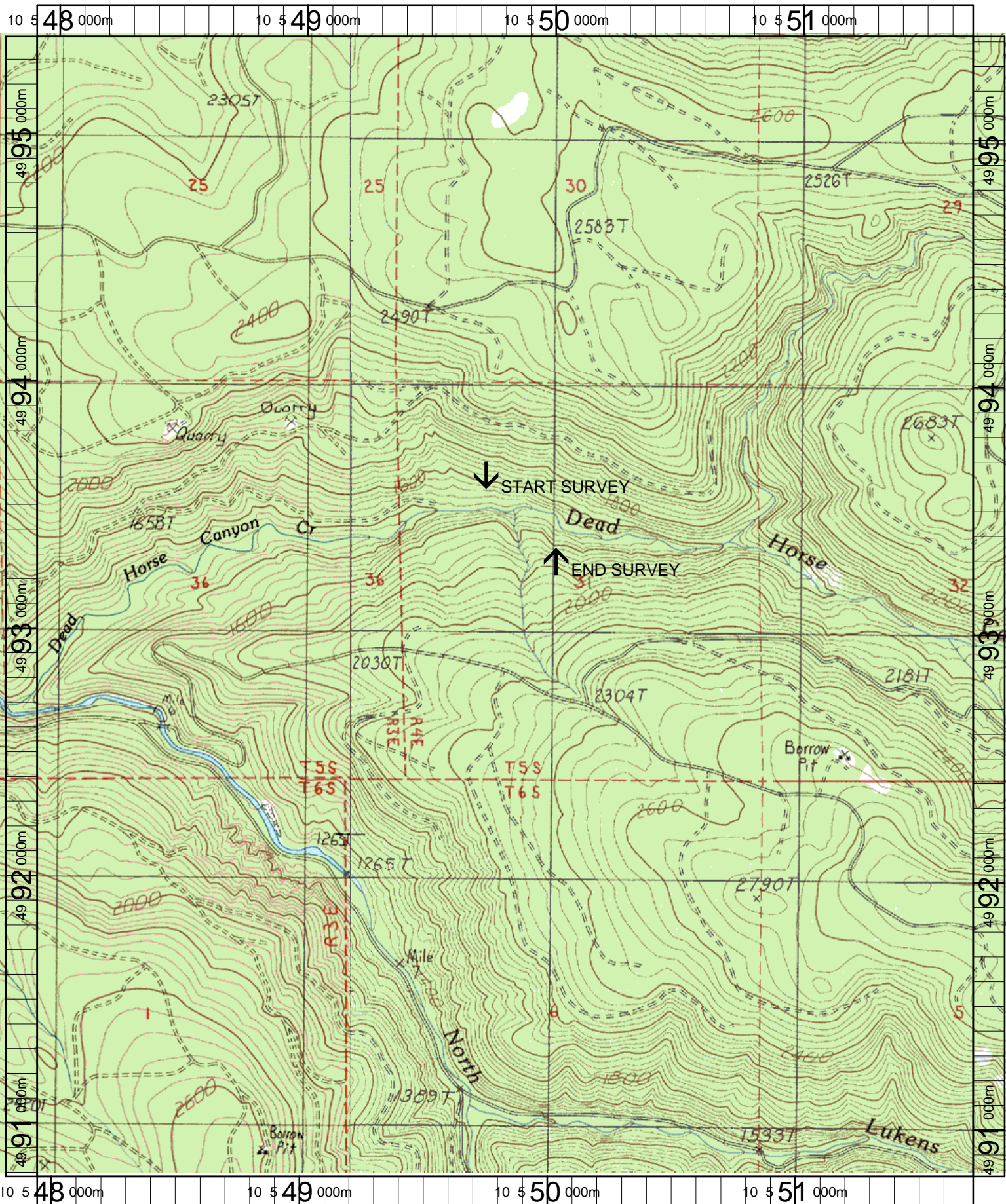
Unit	Side	Zone	Surface	Slope	Cover (percent)				Diameter class (cm)					Notes
					Canopy	Shrub	Grass		3-15	15-30	30-50	50-90	>90	
9	LF	1	LT	5	30	60	30	Conifer	1			1		
								Hardwood	5					
9	LF	2	LT	5	30	50	50	Conifer						
								Hardwood	7					
9	LF	3	LT	5	60	50	50	Conifer	2					VMAPLE
								Hardwood	12	2	1			
9	RT	1	HS	90	10	40	60	Conifer						
								Hardwood	4			1		
9	RT	2	HS	90	15	30	60	Conifer	3					
								Hardwood	2					
9	RT	3	HS	90	0	10	70	Conifer		1	1			
								Hardwood						
15	LF	1	HT	15	90	60	40	Conifer	5			2		
								Hardwood	7					
15	LF	2	HT	0	80	30	70	Conifer	3	1				
								Hardwood	2	4				
15	LF	3	HT	0	80	30	70	Conifer	3					
								Hardwood						
15	RT	1	LT	5	90	60	40	Conifer	1					TRIB
								Hardwood	3					
15	RT	2	HS	100	80	50	50	Conifer				1		
								Hardwood	5					
15	RT	3	HS	100	30	10	40	Conifer						
								Hardwood	2	1	1			
20	LF	1	HS	30	80	40	60	Conifer						
								Hardwood	2	2	2			
20	LF	2	HS	40	100	30	60	Conifer						1 CEDAR
								Hardwood	2	1				
20	LF	3	HS	45	100	40	50	Conifer		1	2	1		
								Hardwood		1	1			
20	RT	1	LT	15	90	20	60	Conifer	10	2				CEDAR
								Hardwood	2	2	1			
20	RT	2	HS	25	100	20	70	Conifer	3	2		1		
								Hardwood	2	1				
20	RT	3	HS	35	100	20	70	Conifer		2	3			
								Hardwood						

Comment Summary

Oregon Plan Monitoring Sites 2002

MONITORING AREA: 8-W SITE ID: 78 DEADHORSE CREEK POST-TX (W-78)

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	RI	00	26.1	HS	START JUST ABOVE /EI	START, T=15C@1020
3	CB	01	76.1	/SS		
4	RB	01	110.5	DJ,HS	DEBRIS JAM	
7	SC	00	122.8		H=.8	
8	RI	00	147.8			FISH
11	RI	00	219.1	HS		
13	CB	01	263.5	/TJ	/TJ	
15	CB	00	288.5		TRIB IN METRICS/RIP	
16	RI	00	319.7	HS		
17	RB	00	344.7			30% UNDERCUT @ ACH
25	LP	00	514.2	HS		
26	SB	00	529		H=1.4	
27	LP	01	545.5	/TJ	/TJ	
32	LP	00	640.9	END SURVEY	END SURVEY	



Name: SOOSAP PEAK
 Date: 3/20/2003
 Scale: 1 inch equals 1666 feet

Location: 10 549808 E 4993106 N
 Caption: DEADHORSE CREEK RESTORATION SITE - MOLALLA RIVER