

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

STREAM: Elliott Creek (N-337)
BASIN: Wilson River
SURVEY TYPE: Post-Tx
DATE: July 2, 2007
SURVEY CREW: Trevor Diemer, Nathan Wilson
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 8.8 km²
USGS MAPS: Woods Point
ECOREGION: Coast Range Volcanic

GENERAL DESCRIPTION:

The Elliott Creek habitat survey extended 1,302 meters. The channel was constrained by terraces in a broad valley floor. The average valley width index was 5.2 (range: 4.0-7.0). Land use for the reach was second growth (15-30 cm dbh) and young (3-15 cm dbh) trees. The average unit gradient was 2.3 percent. Riffles (37%) and scour pools (32%) dominated stream habitat. Gravel (30%), cobble (28%) and sand (26%) dominated stream substrate. Wood volume was high at 46.1 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

T02N-R06W-S35NE

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	5.2	VWI Range:	4 - 7

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	1,302	6,141	0
Secondary Channel	223	452	3
Off-Channel Units	56	76	1

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 5	<u>First Terrace</u> n = 5
Width: 4.0	Width: 6.1	7.3 (5.5 - 10)	10.0 (6 - 15)
Depth: 0.33	Height: 0.3	0.6 (0.5 - 0.9)	1.1 (0.6 - 1.8)

W:D ratio: 21.1
 Stream Flow Type: MF
 Average Unit Gradient: 2.3%
 Water temperature (°C): 9.0 - 9.0

Entrenchment (ACW:FPW ratio): 1.2
 Habitat Units/100m (total channel length): 6.3
 Habitat Units/100m (primary channel length): 7.7

Riparian, Bank, and Wood Summary

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

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	1%	Reach avg: 96%
Undercut Banks:	1%	Range: 75 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	308	23.7
Volume (m ³):	600	46.1
Key pieces (>=12m x 0.60m):	51	3.9

OREGON DEPT OF FISH AND WILDLIFE

ELLIOTT CREEK POST-TX (1-NC, 337)

HABITAT INVENTORY

Report Date: 11/14/2007

Survey Date:

7/2/2007

REACH 1		T02N-R06W-S35NE					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	3	36	1.2	0.06	51	0	2	13	36	43	6	0
DRY UNIT	1	20	4.0	0.00	80	0	5	35	30	30	0	0
POOL-DAMMED	1	6	3.0	0.70	18	0	20	40	20	20	0	0
POOL-ISOLATED	4	12	1.0	0.23	17	0	49	44	4	4	0	0
POOL-LATERAL SCOUR	41	449	4.6	0.62	2,149	0	20	32	29	18	0	1
POOL-PLUNGE	1	4	4.0	0.60	16	0	24	41	18	18	0	0
PUDDLED UNIT	3	104	2.0	0.18	208	0	19	23	29	29	0	0
RAPID/BOULDERS	16	376	3.9	0.09	1,542	11	2	16	28	45	6	3
RIFFLE	24	506	4.3	0.11	2,459	3	4	20	37	35	5	0
RIFFLE W/ POCKETS	1	48	0.5	0.20	24	0	45	45	5	5	0	0
STEP/COBBLE	4	18	5.8	0.11	102	0	0	14	35	45	7	0
STEP/LOG	1	2	2.0	0.10	4	0	45	35	20	0	0	0
Total:	100	1,581	4.0	0.33	6,669	14	Avg: 13	26	30	28	3	1

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	5	18	1.4	0.32	35	0.52%	0	0.0	
Scour Pools	42	453	4.6	0.62	2,165	32.47%	0	0.0	
Glides	0	0			0	0.00%	0	0.0	
Riffles	25	554	4.1	0.12	2,483	37.23%	3	0.1	
Rapids	16	376	3.9	0.09	1,542	23.12%	11	0.7	
Cascades	3	36	1.2	0.06	51	0.76%	0	0.0	
Step/Falls	5	20	5.0	0.11	106	1.59%	0	0.0	
Dry	4	124	2.5	0.14	288	4.32%	0	0.0	
Culverts	0	0			0	0.00%	0	0.0	

POOL SUMMARY			
	Total	Total of all Channel Lengths # / Km	Primary Channel Length # / Km
All Pools:	47	29.7	36.1
Pools >=1m deep:	1	0.6	0.8
Complex pools (LWD pieces>=3):	20	12.7	15.4
Pool frequency (channel widths/pool):	5.5		
Residual pool depth (avg):	0.52		

Survey Date 7/2/2007
Report Date: 11/7/2007

**RIPARIAN ZONE
VEGETATION SUMMARY**

REACH 1

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

Total hardwoods/1000	1046
Total conifers/1000 ft	457
Total conifers >20" dbh/1000 ft	10
Total conifers >35" dbh/1000 ft	10

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	0.7	2.0	1.0	3.8	0.7	3.2	2.3	9.0
15-30cm	0.5	5.0	1.0	0.8	2.2	1.8	3.7	7.7
30-50cm	0.0	0.5	0.3	0.0	1.0	0.0	1.3	0.5
50-90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
>90cm	0.2	0.0	0.0	0.0	0.0	0.0	0.2	0.0
Total/100m2	1.3	7.5	2.3	4.7	3.8	5.0	2.5	5.7

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	84		77		88	
Shrub cover	30		33		35	
Grass/forb cover	65		61		61	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	42		33		75	
High terrace	50		50		17	
Low terrace	0		0		0	
Floodplain	0		0		0	
Wetland/meadow	0		0		0	
Stream channel	8		0		0	
Roadbed/Railroad	0		17		8	
Riprap	0		0		0	
Surface slope (%)	10		10		20	

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	1046
Total conifers/1000 ft	457
Total conifers >20" dbh/1000 ft	10
Total conifers >35" dbh/1000 ft	10

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	2.3	9.0
15-30cm	3.7	7.7
30-50cm	1.3	0.5
50-90cm	0.0	0.0
>90cm	0.2	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		
1	LT	1	HT	0	85	15	80	Conifer							
								Hardwood	1	5					
1	LT	2	HT	0	90	15	70	Conifer							
								Hardwood							
1	LT	3	HT	0	85	35	45	Conifer							
								Hardwood	1						
1	LT	3	RB	0	90	5	80	Conifer				1		RB IN HALF OF RIP	
								Hardwood	2	2					
1	RT	1	SC	0	90	10	90	Conifer							
								Hardwood	1	2					
1	RT	2	HT	0	90	10	90	Conifer	2						
								Hardwood	4	1					
21	LT	1	HT	0	85	10	90	Conifer							2D,10T
								Hardwood				1			0469900
															5050900
21	LT	2	HS	50	90	10	90	Conifer				1			
								Hardwood	7	1					
21	LT	3	HS	40	95	30	60	Conifer				1			
								Hardwood	5	1					
21	RT	1	HT	0	60	50	50	Conifer							
								Hardwood				1	1		
21	RT	2	HT	0	30	60	40	Conifer	1						
								Hardwood	1						
21	RT	3	HT	0	70	55	45	Conifer	1	1					
								Hardwood	2	2					
35	LT	1	HT	0	85	50	50	Conifer							10T 0469770
								Hardwood	1	2					5050806
35	LT	2	HT	0	70	50	50	Conifer							
								Hardwood	1						
35	LT	3	HS	15	90	40	60	Conifer				2			
								Hardwood	3						
35	RT	1	HS	30	85	55	45	Conifer							
								Hardwood	2	3					
35	RT	2	RB	5	20	40	40	Conifer							
								Hardwood	3						
35	RT	3	HS	50	90	40	60	Conifer				2	3		
								Hardwood	1						

56	LT	1	HT	0	90	20	80	Conifer	2		1	10T0469594
								Hardwood				5050595
56	LT	2	HT	0	90	35	65	Conifer	2		2	
								Hardwood	3			
56	LT	3	HS	0	95	30	70	Conifer	1		3	
								Hardwood				
56	RT	1	HS	30	90	30	70	Conifer	2		2	
								Hardwood			3	
56	RT	2	HS	30	95	30	70	Conifer			3	
								Hardwood				
56	RT	3	HS	40	95	20	80	Conifer		2	1	
								Hardwood				
73	LT	1	HT	0	70	10	40	Conifer				10T0469461
								Hardwood	1		2	5050463,3D
73	LT	2	HT	0	90	30	70	Conifer				
								Hardwood	2		1	
73	LT	3	HS	20	90	45	55	Conifer				
								Hardwood	2		3	
73	RT	1	HS	15	80	30	70	Conifer				
								Hardwood	1		5	
73	RT	2	HS	30	95	30	70	Conifer	1		2	
								Hardwood	1		1	
73	RT	3	HS	35	85	15	85	Conifer	2		1	
								Hardwood	2		1	
96	LT	1	HS	10	90	25	75	Conifer			1	10T0469296
								Hardwood	3		4	5050370
96	LT	2	HS	10	75	50	50	Conifer				
								Hardwood	1			
96	LT	3	HS	15	70	55	45	Conifer				
								Hardwood	1		2	
96	RT	1	HS	30	95	60	40	Conifer				
								Hardwood	2		3	
96	RT	2	RB	0	90	30	30	Conifer			0	
								Hardwood			1	
96	RT	3	HS	25	95	55	45	Conifer			2	
								Hardwood				

COMMENT SUMMARY

MONITORING AREA: 1-NC SITE ID: 337 STREAM: ELLIOTT CREEK POST-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	RB	01	13		PHOTO 0262
2	IP	10	13		ANOTHER IP FOUND ON WAY OUT. ABOUT SAME SIZE, OPPOSITE SIDE
3	RI	00	33	HS	
4	LP	00	51	HS	
5	RB	00	65	HS	
6	LP	00	75	HS	
8	LP	00	102.5	HS	
9	RI	00	125.5	HS	
10	LP	00	131.5	HS	
11	RI	00	147.5	HS	
12	LP	00	162.5	HS	
14	LP	00	177	HS	
15	RI	01	205	HS	
17	LP	00	217	HS	
22	RB	00	282	HS	
23	LP	00	290	HS	
26	LP	00	318	HS	
27	RI	00	323	HS	
28	LP	00	335	HS	
29	RI	01	361	HS	
30	CB	11	361		0469860
31	LP	00	371	HS	

COMMENT SUMMARY

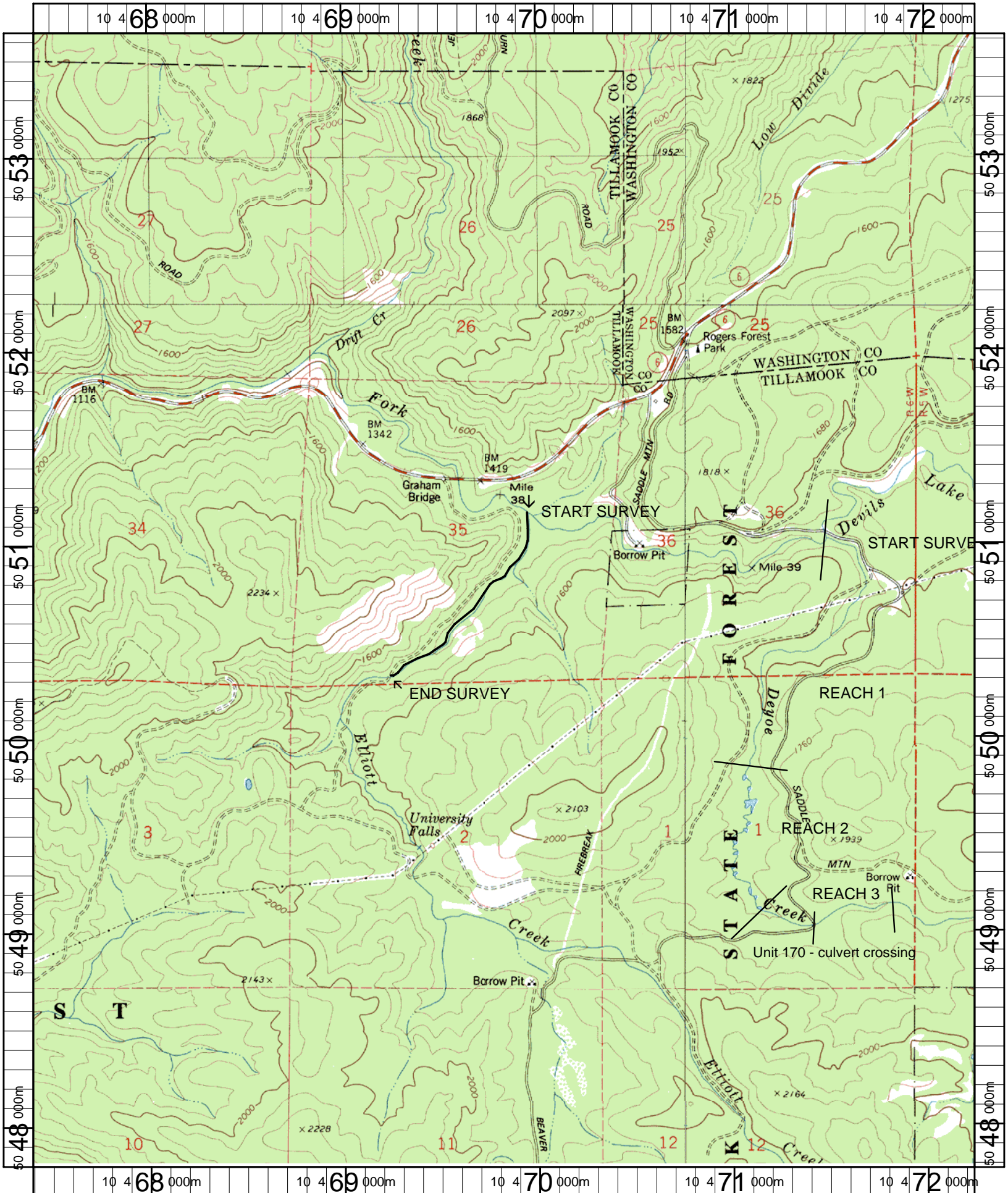
MONITORING AREA: 1-NC SITE ID: 337 STREAM: ELLIOTT CREEK POST-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
32	RI	00	400	HS	
34	RI	00	452	HS	
35	LP	00	464	HS	
37	LP	00	482	HS	
40	RI	00	533.5	HS	
41	LP	00	541.5	HS	
42	RI	01	587.5	HS	
43	LP	01	593.5	HS	
47	LP	00	613.5	HS	
49	LP	01	658.5	HS, DJ	
50	RI	01	676.5	HS	
51	RI	02	676.5	HS	
52	LP	02	676.5	HS	
55	LP	00	729.5	HS	
56	RB	00	771.5	HS	
57	LP	00	784.5	HS	
59	LP	01	798.5	HS	
64	LP	00	849.5	HS	
65	RB	00	892.5	HS	
66	LP	00	903.5	HS	
69	LP	01	943.5	HS	
71	PD	02	970.5	HS	

COMMENT SUMMARY

MONITORING AREA: 1-NC SITE ID: 337 STREAM: ELLIOTT CREEK POST-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
72	LP	00	977.5	SS, HS	
73	RI	00	1011.5	HS	
74	RI	01	1031.5	HS	
75	SL	01	1033.5	HS	
81	PD	02	1069.5	HS	
83	RB	03	1069.5	HS	
85	PP	03	1069.5	HS	
87	RB	04	1069.5	HS	
88	RI	00	1107.5	HS	
90	RI	00	1137.5	HS	
93	RB	00	1208.5	/SS	
100	RB	00	1301.5		COHO AND STEELHEAD STILL PRESENT



Name: WOODS POINT
 Date: 4/25/2007
 Scale: 1 inch equals 2000 feet

Location: 10 0469827 E 5050713 N
 Caption: ELLIOTT CREEK RESTORATION SITE - DEVILS LAKE FORK
 WILSON BASIN