

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

STREAM: Little Tom Folley Creek Phase 1 (U-266)
BASIN: Umpqua River
SURVEY TYPE: Post-Tx
DATE: August 6, 2007
SURVEY CREW: Ryan Lande, Andy Livesay
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 14.9 km²
USGS MAPS: Elkton
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The Little Tom Folley Creek habitat survey extended 2,544 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 4.1 (range: 1.0-12.0). Land use for the reach was young (3-15 cm dbh) and second growth (15-30 cm dbh) trees. The average unit gradient was 0.9 percent. Scour pools (54%) and riffles (36%) dominated stream habitat. Bedrock (38%) and gravel (35%) dominated stream substrate. Wood volume was low at 14.1 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.

OREGON DEPT OF FISH AND WILDLIFE LITTLE TOM FOLLEY PHASE 1 POST-TX (4-UJP, 266)

HABITAT INVENTORY

Report Date: 11/14/2007

Survey Date: 9/5/2007

REACH 1

T22S-R07W-S17NE

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	4.1	VWI Range:	1 - 12

Channel Morphology (Percent Reach Length)

<u>Constrained</u>		<u>Unconstrained</u>	
Hillslope	0%	Single Channel	0%
Bedrock	0%	Multiple Channel	0%
Terrace	0%	Braided Channel	0%
Alt. Terrace/Hill	100%		
Landuse	0%		

Channel Characteristics

<u>Type</u>	<u>Length (m)</u>	<u>Area (m2)</u>	<u>Dry Units</u>
Primary Channel	2,544	9,379	0
Secondary Channel	86	214	2
Off-Channel Units	36	26	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 11	<u>First Terrace</u> n = 8
Width: 3.3	Width: 7.8	10.4 (8.2 - 16)	13.0 (10.8 - 21)
Depth: 0.26	Height: 0.4	0.9 (0.76 - 1.1)	1.5 (1 - 2)

W:D ratio: 17.9

Stream Flow Type: LF

Average Unit Gradient: 0.9%

Water temperature (°C): 16.0 - 16.0

Entrenchment (ACW:FPW ratio): 1.4

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

Habitat Units/100m (primary channel length): 5.6

Riparian, Bank, and Wood Summary

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

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	11%	Reach avg: 91%
Undercut Banks:	5%	Range: 25 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	321	12.6
Volume (m ³):	360	14.1
Key pieces (>=12m x 0.60m):	5	0.2

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REACH 1		T22S-R07W-S17NE					REACH 1					
HABITAT DETAIL												
Habitat Type	Number	Total	Avg	Avg	Total	Large	Substrate					
	Units	Length	Width	Depth	Area	Boulders	Percent Wetted Area					
		(m)	(m)	(m)	(m ²)	(#>0.5m)	S/O	Snd	Grvl	Cbl	Bldr	Bdrk
CULVERT CROSSING	1	16	0.7	0.02	11	0	10	10	5	5	70	0
DRY UNIT	1	38	3.4	0.00	129	0	0	5	95	0	0	0
POOL-BEAVER DAM	3	81	4.4	0.68	362	0	10	28	47	12	0	3
POOL-ISOLATED	1	2	1.0	0.15	2	0	15	35	50	0	0	0
POOL-LATERAL SCOUR	61	1,246	4.2	0.52	5,210	383	7	18	23	6	1	44
PUDDLED UNIT	1	21	1.0	0.07	21	0	5	20	65	10	0	0
RAPID/BEDROCK	4	75	2.2	0.04	190	0	0	5	1	3	0	91
RAPID/BOULDERS	2	13	0.5	0.02	6	0	0	23	63	15	0	0
RIFFLE	44	1,097	2.8	0.05	3,474	414	1	10	37	8	1	43
STEP/BEAVER DAM	3	2	3.6	0.02	7	0	3	7	82	8	0	0
STEP/BEDROCK	5	23	3.3	0.03	86	0	0	1	1	0	0	98
STEP/COBBLE	17	55	2.2	0.04	122	7	0	6	75	16	1	2
Total:	143	2,666	3.3	0.26	9,619	804	Avg: 4	13	35	8	1	38

HABITAT SUMMARY									
Habitat Group	Number	Total	Avg	Avg	Wetted Area		Large Boulders		
	Units	Length	Width	Depth	(m ²)	Percent	Number	(# / 100m ²)	
		(m)	(m)	(m)					
Dammed & BW Pools	4	83	3.6	0.55	363	3.78%	0	0.0	
Scour Pools	61	1,246	4.2	0.52	5,210	54.16%	383	7.4	
Glides	0	0			0	0.00%	0	0.0	
Riffles	44	1,097	2.8	0.05	3,474	36.11%	414	11.9	
Rapids	6	88	1.6	0.03	196	2.03%	0	0.0	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	25	79	2.6	0.03	216	2.24%	7	3.2	
Dry	2	59	2.2	0.04	150	1.56%	0	0.0	
Culverts	1	16	0.7	0.02	11	0.11%	0	0.0	

POOL SUMMARY			
	Total	Total of all Channel Lengths # / Km	Primary Channel Length # / Km
All Pools:	65	24.4	25.6
Pools >=1m deep:	3	1.1	1.2
Complex pools (LWD pieces>=3):	24	9.0	9.4
Pool frequency (channel widths/pool):	5.2		
Residual pool depth (avg):	0.50		

Survey Date 9/5/2007
Report Date: 11/7/2007

**RIPARIAN ZONE
VEGETATION SUMMARY**

REACH 1

Summary of Riparian Zone (0-30m) 9 transects

Total hardwoods/1000	552
Total conifers/1000 ft	255
Total conifers >20" dbh/1000 ft	28
Total conifers >35" dbh/1000 ft	7

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	1.4	0.0	1.6	0.2	1.4	0.2	4.3
15-30cm	0.7	1.2	0.9	1.1	1.2	1.1	2.8	3.5
30-50cm	0.2	0.7	0.3	0.3	0.1	0.1	0.7	1.1
50-90cm	0.0	0.1	0.1	0.0	0.2	0.0	0.3	0.1
>90cm	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0
Total/100m2	1.0	3.4	1.4	3.1	1.8	2.6	1.4	3.0

Canopy closure and ground cover

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Canopy closure	74	76	60
Shrub cover	54	54	37
Grass/forb cover	34	39	53

Predominant landform in each zone

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Hillslope	34	62	79
High terrace	40	28	17
Low terrace	0	0	0
Floodplain	6	0	0
Wetland/meadow	0	0	0
Stream channel	0	0	0
Roadbed/Railroad	17	11	6
Riprap	0	0	0
Surface slope (%)	21	35	46

Summary of Riparian Zone (0-30m) for all reaches 9 transects

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

Total hardwoods/1000	552
Total conifers/1000 ft	255
Total conifers >20" dbh/1000 ft	28
Total conifers >35" dbh/1000 ft	7

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	0.2	4.3
15-30cm	2.8	3.5
30-50cm	0.7	1.1
50-90cm	0.3	0.1
>90cm	0.1	0.0

69	LT	2	HS	65	80	40	60	Conifer				
								Hardwood				
69	LT	3	HS	70	75	10	50	Conifer				
								Hardwood	2			
69	RT	1	HS	40	95	40	60	Conifer			1	
								Hardwood	1	1		
69	RT	2	HS	50	85	50	50	Conifer			1	
								Hardwood				
69	RT	3	HS	65	70	55	40	Conifer		1		
								Hardwood		3		
79	LT	1	RB	0	80	65	35	Conifer				
								Hardwood	3	1		
79	LT	2	HS	90	75	60	40	Conifer		1		
								Hardwood	1	1		
79	LT	3	HS	95	75	40	50	Conifer	1	2		
								Hardwood				
79	RT	1	HS	65	85	15	70	Conifer		1		
								Hardwood		2		
79	RT	2	HS	70	75	30	70	Conifer		2		
								Hardwood		1		
79	RT	3	HS	70	15	20	70	Conifer	1			
								Hardwood	1			
95	LT	1	RB	0	90	25	40	Conifer				
								Hardwood		1	1	
95	LT	2	HS	65	85	20	60	Conifer		1		
								Hardwood	3			
95	LT	3	HS	70	90	30	60	Conifer		1		
								Hardwood	2			
95	RT	1	HS	20	85	35	45	Conifer				
								Hardwood	4	1		
95	RT	2	HS	30	90	50	50	Conifer		1		
								Hardwood	3			
95	RT	3	HS	40	95	40	60	Conifer		1		
								Hardwood	1			
107	LT	1	HT	5	65	65	35	Conifer				1
								Hardwood	3	1		
107	LT	2	RB	0	85	20	20	Conifer		1		
								Hardwood	1			
107	LT	3	HS	30	70	25	75	Conifer		2		
								Hardwood				
107	RT	1	HS	45	100	10	90	Conifer		0	1	
								Hardwood		0	2	
107	RT	2	HS	55	100	5	90	Conifer			1	1
								Hardwood				
107	RT	3	HS	50	100	5	90	Conifer		1		1
								Hardwood				

121	LT	1	HT	0	90	90	5	Conifer			
								Hardwood			1
121	LT	2	HT	0	95	80	10	Conifer			
								Hardwood	2		
121	LT	3	HT	0	90	75	25	Conifer			
								Hardwood	1		
121	RT	1	HS	60	90	30	70	Conifer			
								Hardwood			
121	RT	2	HS	70	65	20	70	Conifer			
								Hardwood	3		
121	RT	3	HS	65	60	40	60	Conifer			1
								Hardwood	1		
132	LT	1	HS	70	85	70	30	Conifer		2	
								Hardwood			1
132	LT	2	RB	0	55	60	40	Conifer			
								Hardwood	1		
132	LT	3	HS	75	85	20	50	Conifer		1	
								Hardwood		2	
132	RT	1	HT	5	90	35	50	Conifer		3	
								Hardwood	1		1
132	RT	2	HS	80	100	10	90	Conifer		2	
								Hardwood			
132	RT	3	HS	95	95	10	90	Conifer		2	1
								Hardwood		1	

COMMENT SUMMARY

MONITORING AREA: 4-UMP SITE ID: 266 STREAM: LITTLE TOM FOLLEY PHASE 1 POST-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
1	SC	00	3.3	CS/	
2	LP	00	17.8	BC, CS/CS	
3	SC	00	19.5	CS/CS	
4	LP	00	41.5		COW PIES IN STREAM
6	LP	00	88.7		BEDROCK AND HARDPAN
11	RI	01	148.2	BV	
13	LP	01	157.2	BV	
14	SD	00	157.7	BD	
15	BP	00	182.7	BV	
17	LP	01	230.7	/TJ	
18	RB	11	230.7		TRIB TEMP = 13
20	LP	00	283.7	BV	BEAVER SPOTTED IN POOL
28	LP	00	380.2		BEDROCK = HARDPAN
36	SD	01	465.8	BD	VERY WEAK BV DAM
37	BP	01	491.8	BV	
40	LP	00	521.3	BV	
42	SD	01	529.1	BD	
43	BP	01	559.1	BV	
46	LP	01	627.6	DJ	
52	LP	00	687.8		POOL IS DAMMED BY 5 ARTIFICIAL HAYBAILS COVERED IN BLACK LANDSCAPE
56	LP	00	745.1	HS	PLACED BOULDERS
57	RI	00	757.1	HS	PLACED BOULDERS

COMMENT SUMMARY

MONITORING AREA: 4-UMP SITE ID: 266 STREAM: LITTLE TOM FOLLEY PHASE 1 POST-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
58	LP	00	777.1	HS	PLACED BOULDERS
60	LP	00	825.1	HS	PLACED BOULDERS
62	LP	01	874.1	TJ/	
64	RI	00	895.1	HS	PLACED BOULDERS
65	LP	00	912.6	HS	PLACED BOULDERS
66	RI	00	962.6	HS	PLACED BOULDERS
67	RI	00	1009.6	HS, CS/	PLACED BOULDERS
70	LP	00	1045.6	HS	PLACED BOULDERS
71	RI	00	1057	HS	PLACED BOULDERS
72	LP	00	1073	HS	PLACED BOULDERS
73	RI	00	1100	HS	PLACED BOULDERS
74	LP	00	1120	HS	PLACED BOULDERS
75	RI	00	1135	HS	PLACED BOULDERS
76	LP	00	1150	HS	
77	RI	00	1184.5	HS	PLACED BOULDERS
78	LP	00	1209.5	HS	PLACED BOULDERS
79	RI	00	1264.5	HS	PLACED BOULDERS
80	LP	00	1293.5	HS	BOULDERS
82	LP	00	1307.1	CS/	
83	RI	00	1334.1	CS/	
84	LP	00	1351.1	HS	
85	SC	00	1354.7	HS	BOULDERS

COMMENT SUMMARY

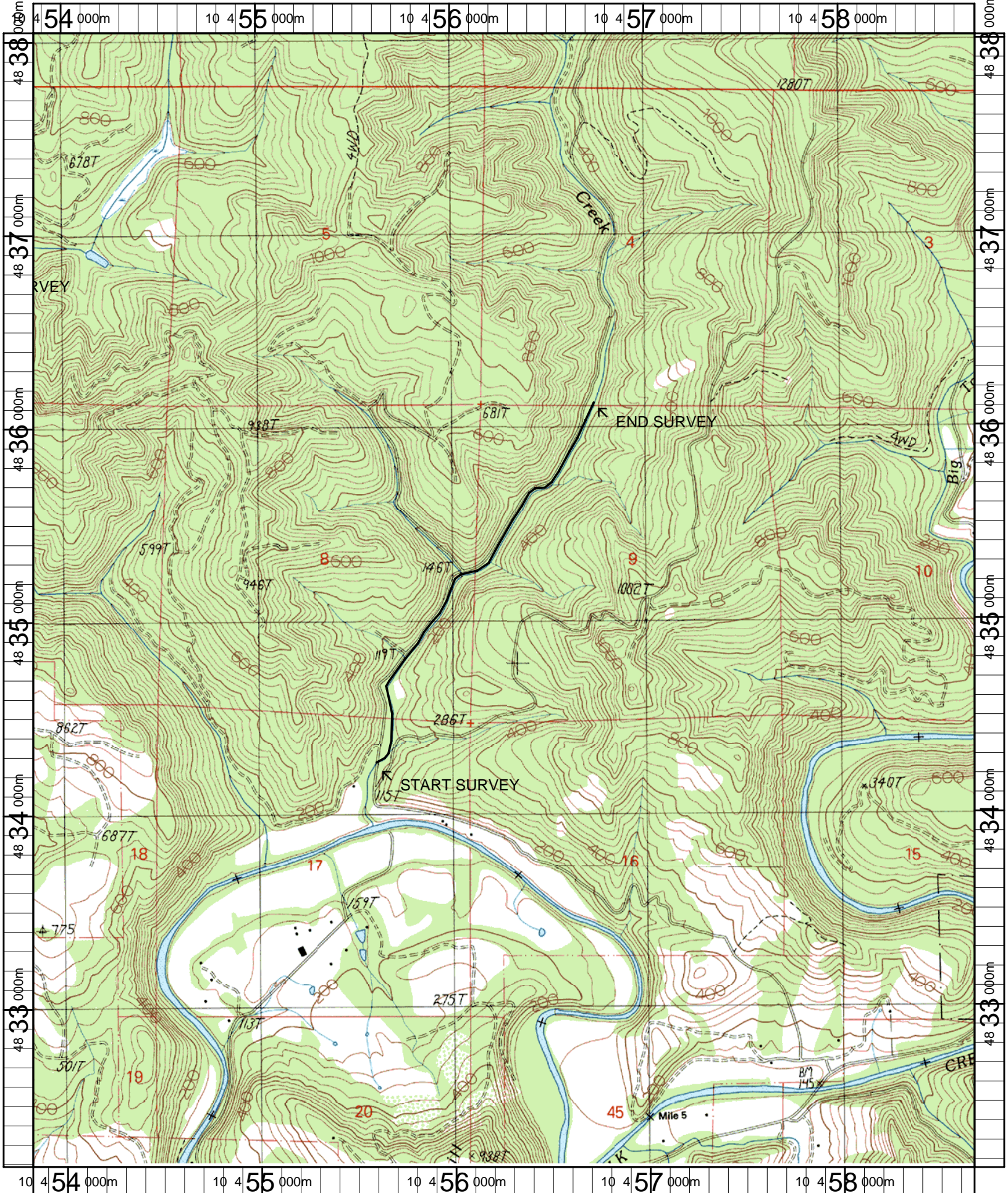
MONITORING AREA: 4-UMP SITE ID: 266 STREAM: LITTLE TOM FOLLEY PHASE 1 POST-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
86	LP	01	1379.7	HS, TJ/	BOULDERS
87	RI	11	1379.7		TRIB TEMPERATURE = 14 C
88	CC	11	1379.7	CC	CULVERT DIAMETER = 2.2 M.
91	RI	00	1438.7	HS	BOULDERS AND LOGS
92	LP	00	1482.7	HS	BOULDERS AND LOGS
94	LP	00	1507	HS	LOGS
96	LP	00	1519	HS	LOGS
98	LP	00	1584.5	HS, /SS	LOGS
100	LP	00	1625	HS, DJ	LOGS
101	RI	01	1682	CS	
103	LP	00	1705	CS/, CS/	
104	RR	01	1724.5	HS	LOGS
106	LP	00	1738.5	HS, DJ	LOGS
107	SC	00	1742.5		COW PIES AND TRACKS
115	RR	00	1911.6	BV	.1 ALDER CUT BY BEAVER
116	LP	00	1929.6		LOTS OF STEELHEAD AND COHO FRY
121	RI	00	2048.2	HS	LOGS
123	RI	00	2114.2	DJ	
125	LP	00	2154.2	HS	COW PIES AND TRACKS
127	RI	01	2190.2	/TJ, HS	PLACED LOGS
128	RB	11	2190.2		TRIB TEMPERATURE = 14
129	LP	00	2215.2	HS	PLACED LOGS

COMMENT SUMMARY

MONITORING AREA: 4-UMP SITE ID: 266 STREAM: LITTLE TOM FOLLEY PHASE 1 POST-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
130	RI	00	2245.2	HS	LOGS
131	LP	00	2267.2	HS	LOGS
133	LP	00	2310.7	HS	LOGS
134	RI	00	2338.7	HS	LOGS
135	LP	00	2352.2	HS	LOGS
136	RI	00	2402.2	HS	LOGS
137	RI	00	2455.2	HS, DJ	LOGS
143	RI	00	2543.9	HS	BOULDERS



Name: ELKTON (OR)
 Date: 4/25/2007
 Scale: 1 inch equals 2000 feet

Location: 10 0456263 E 4835102 N
 Caption: LITTLE TOM FOLLEY CREEK RESTORATION SITE - UMPQUA BASIN