

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

STREAM: North Fork Big Tom Folley Creek (U-267)
BASIN: Umpqua River
SURVEY TYPE: Post-Tx
DATE: August 30, 2007
SURVEY CREW: Ryan Lande, Andy Livesay
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 13.8 km²
USGS MAPS: Putnam Valley
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The North Fork Big Tom Folley Creek habitat survey extended 3,540 meters. The channel was constrained by hillslopes in a moderate V-shaped valley. The average valley width index was 3.0 (range: 1.0-6.0). Land use for the reach was second growth (15-30 cm dbh) and large (30-50 cm dbh) trees. The average unit gradient was 1.1 percent. Scour pools (47%) and riffles (46%) dominated stream habitat. Gravel (35%) and bedrock (34%) dominated stream substrate. Wood volume was moderate at 20.7 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

T21S-R07W-S35SW

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	3.0	VWI Range:	1 - 6

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 Channel	3,540	15,397	3
Secondary Channel	0	0	0
Off-Channel Units	55	70	3

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 15	<u>First Terrace</u> n = 12
Width: 4.3	Width: 8.8	12.0 (7.5 - 19.6)	15.5 (12.9 - 27.6)
Depth: 0.26	Height: 0.5	1.1 (0.8 - 1.5)	1.7 (1.1 - 2.4)

W:D ratio: 17.2

Entrenchment (ACW:FPW ratio): 1.4

Stream Flow Type: LF

Habitat Units/100m (total channel length): 5.0

Average Unit Gradient: 1.1%

Habitat Units/100m (primary channel length): 5.1

Water temperature (°C): 16.0 - 16.0

Riparian, Bank, and Wood Summary

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

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	3%	Reach avg: 92%
Undercut Banks:	4%	Range: 39 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	753	21.3
Volume (m ³):	733	20.7
Key pieces (>=12m x 0.60m):	57	1.6

OREGON DEPT OF FISH AND WILDLIFE NF BIG TOM FOLLEY CREEK POST-TX (4-UJP, 267)

HABITAT INVENTORY

Report Date: 11/14/2007

Survey Date:

8/29/2007

REACH 1		T21S-R07W-S35SW					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
CULVERT CROSSING	3	63	2.8	0.26	198	0	6	3	12	0	20	58
DRY UNIT	5	35	4.0	0.00	171	10	11	35	28	14	12	0
POOL-ISOLATED	1	2	1.7	0.30	4	0	10	60	20	10	0	0
POOL-LATERAL SCOUR	79	1,302	5.5	0.47	7,207	641	4	14	34	7	4	37
PUDDLED UNIT	1	9	0.7	0.07	6	2	0	50	50	0	0	0
RAPID/BEDROCK	2	51	1.4	0.15	69	24	0	5	15	5	0	75
RAPID/BOULDERS	3	124	4.3	0.15	493	19	0	12	28	13	34	13
RIFFLE	62	1,921	3.5	0.10	7,067	761	1	11	41	15	6	27
STEP/BEDROCK	11	34	2.9	0.04	110	0	0	2	5	0	0	92
STEP/BOULDERS	2	3	3.9	0.06	9	21	0	5	13	18	65	0
STEP/COBBLE	10	52	2.6	0.06	131	39	0	8	65	18	4	5
STEP/STRUCTURE	1	0	0.2	0.02	0	0	0	0	70	0	30	0
Total:	180	3,594	4.3	0.26	15,467	1,517	Avg: 3	12	35	10	6	34

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	1	2	1.7	0.30	4	0.02%	0	0.0	
Scour Pools	79	1,302	5.5	0.47	7,207	46.60%	641	8.9	
Glides	0	0			0	0.00%	0	0.0	
Riffles	62	1,921	3.5	0.10	7,067	45.69%	761	10.8	
Rapids	5	175	3.1	0.15	563	3.64%	43	7.6	
Cascades	0	0			0	0.00%	0	0.0	
Step/Falls	24	89	2.7	0.05	250	1.62%	60	24.0	
Dry	6	44	3.4	0.01	177	1.15%	12	6.8	
Culverts	3	63	2.8	0.26	198	1.28%	0	0.0	

POOL SUMMARY			
	Total	Total of all Channel Lengths # / Km	Primary Channel Length # / Km
All Pools:	80	22.3	22.6
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	39	10.9	11.0
Pool frequency (channel widths/pool):	5.1		
Residual pool depth (avg):	0.43		

Survey Date 8/29/2007
Report Date: 11/7/2007

**RIPARIAN ZONE
VEGETATION SUMMARY**

REACH 1

Summary of Riparian Zone (0-30m) 13 transects

Total hardwoods/1000	521
Total conifers/1000 ft	192
Total conifers >20" dbh/1000 ft	0
Total conifers >35" dbh/1000 ft	0

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	0.1	2.0	0.2	1.5	0.1	1.6	0.4	5.1
15-30cm	0.2	1.8	0.9	0.8	1.3	0.8	2.5	3.4
30-50cm	0.2	0.1	0.1	0.0	0.1	0.0	0.3	0.1
50-90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	0.5	3.9	1.2	2.2	1.5	2.4	1.1	2.8

Canopy closure and ground cover

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Canopy closure	77		69		65	
Shrub cover	42		27		18	
Grass/forb cover	51		58		71	

Predominant landform in each zone

	Zone 1 0-10 meters		Zone 2 10 - 20 meters		Zone 3 20 - 30 meters	
	(%)		(%)		(%)	
Hillslope	46		54		81	
High terrace	38		19		12	
Low terrace	0		0		0	
Floodplain	0		0		0	
Wetland/meadow	0		0		0	
Stream channel	0		0		0	
Roadbed/Railroad	15		27		8	
Riprap	0		0		0	
Surface slope (%)	29		36		52	

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

13 transects

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

Total hardwoods/1000	521
Total conifers/1000 ft	192
Total conifers >20" dbh/1000 ft	0
Total conifers >35" dbh/1000 ft	0

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	0.4	5.1
15-30cm	2.5	3.4
30-50cm	0.3	0.1
50-90cm	0.0	0.0
>90cm	0.0	0.0

OREGON DEPT OF FISH AND WILDLIFE NF BIG TOM FOLLEY CREEK POST-TX (4-UJP, 267)

HABITAT INVENTORY Report Date: 11/14/2007

Survey Date: 8/29/2007

GCG: 4-UM SITE ID: 267

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		
23	LT	1	RB	0	65	30	30	Conifer							
								Hardwood							
23	LT	2	HS	120	80	45	55	Conifer		1					
								Hardwood	3						
23	LT	3	HS	85	80	35	65	Conifer			1				
								Hardwood	2						
23	RT	1	HT	0	85	20	80	Conifer							
								Hardwood	5						
23	RT	2	HT	0	90	35	65	Conifer							
								Hardwood	4						
23	RT	3	HT	0	85	30	70	Conifer							
								Hardwood	7						
38	LT	1	RB	0	55	30	25	Conifer							
								Hardwood		1					
38	LT	2	HS	30	50	65	35	Conifer							
								Hardwood							
38	LT	3	HS	60	80	30	60	Conifer	1						
								Hardwood	1						
38	RT	1	HT	0	80	40	60	Conifer							
								Hardwood	3						
38	RT	2	HS	65	80	20	80	Conifer							
								Hardwood		1					
38	RT	3	HS	70	85	15	85	Conifer							
								Hardwood	1						
46	LT	1	HS	25	75	80	10	Conifer							
								Hardwood		1					
46	LT	2	RB	0	20	30	20	Conifer							
								Hardwood							
46	LT	3	HS	55	85	25	75	Conifer							
								Hardwood		2					
46	RT	1	HT	0	85	85	15	Conifer							
								Hardwood		1					
46	RT	2	HT	0	80	90	10	Conifer							
								Hardwood	2						
46	RT	3	HT	0	90	80	20	Conifer							
								Hardwood		1					

59	LT	1	HS	75	80	15	85	Conifer	1		
								Hardwood			
59	LT	2	HS	60	80	15	85	Conifer			
								Hardwood			
59	LT	3	RB	0	70	20	30	Conifer	1		
								Hardwood			
59	RT	1	HS	85	85	10	90	Conifer	1		
								Hardwood	1		
59	RT	2	HS	80	85	0	95	Conifer	2		
								Hardwood	1		
59	RT	3	HS	80	90	0	95	Conifer	1		
								Hardwood	1		
70	LT	1	HT	0	85	35	65	Conifer			
								Hardwood	1	1	
70	LT	2	HT	0	90	0	100	Conifer	1	1	
								Hardwood			
70	LT	3	HT	0	85	5	95	Conifer	2		
								Hardwood			
70	RT	1	HS	125	80	20	80	Conifer	1		
								Hardwood	4		
70	RT	2	HS	55	80	10	90	Conifer	1		
								Hardwood			
70	RT	3	HS	45	85	5	95	Conifer	2		
								Hardwood			
74	LT	1	HS	50	85	80	20	Conifer			
								Hardwood	3		
74	LT	2	RB	0	60	30	35	Conifer			
								Hardwood			
74	LT	3	RB	0	15	0	5	Conifer			
								Hardwood			
74	RT	1	HT	0	75	55	45	Conifer			
								Hardwood	1	2	
74	RT	2	HT	0	85	15	85	Conifer			
								Hardwood			
74	RT	3	HS	15	85	10	90	Conifer	1		
								Hardwood			
91	LT	1	HT	0	75	55	35	Conifer			
								Hardwood	1	1	
91	LT	2	RB	0	15	10	30	Conifer			
								Hardwood			
91	LT	3	HS	0	0	10	20	Conifer			
								Hardwood			
91	RT	1	HS	100	80	40	60	Conifer			
								Hardwood	1		
91	RT	2	HS	90	85	20	80	Conifer			
								Hardwood	1	2	

LARGE ROAD
BED WITH
PULLOUT

CLEARCUT
HILLSIDE

91	RT	3	HS	90	85	10	90	Conifer	1		
								Hardwood	4		
104	LT	1	HT	0	75	30	70	Conifer			
								Hardwood	2		
104	LT	2	RB	0	40	15	30	Conifer			
								Hardwood	1		
104	LT	3	HS	50	0	20	50	Conifer			CLEARCUT
								Hardwood			
104	RT	1	HS	45	75	40	60	Conifer		1	RIPARIAN BUFFER
								Hardwood	1		
104	RT	2	HS	60	35	10	80	Conifer			CLEARCUT
								Hardwood			
104	RT	3	HS	65	0	5	90	Conifer			CLEARCUT
								Hardwood			
118	LT	1	HT	0	70	40	60	Conifer			
								Hardwood	3		
118	LT	2	RB	0	60	20	25	Conifer	2	1	
								Hardwood			
118	LT	3	HS	55	0	10	70	Conifer			CLEARCUT
								Hardwood			
118	RT	1	HS	85	75	30	70	Conifer			
								Hardwood	2		
118	RT	2	HS	70	70	20	80	Conifer		1	
								Hardwood			
118	RT	3	HS	40	0	10	90	Conifer			CLEARCUT
								Hardwood			
129	LT	1	RB	0	70	40	20	Conifer			
								Hardwood	1		
129	LT	2	HS	60	75	80	20	Conifer		3	
								Hardwood			
129	LT	3	HS	75	85	20	80	Conifer		1	
								Hardwood	1		
129	RT	1	HS	40	85	60	40	Conifer			1
								Hardwood			
129	RT	2	HS	65	85	15	85	Conifer			
								Hardwood	1	1	
129	RT	3	HS	70	85	10	90	Conifer			
								Hardwood		4	
136	LT	1	HS	65	75	35	65	Conifer	1		
								Hardwood		1	
136	LT	2	RB	0	65	20	20	Conifer		1	
								Hardwood			
136	LT	3	HS	110	80	10	85	Conifer			
								Hardwood	2	3	
136	RT	1	HT	0	80	40	50	Conifer			
								Hardwood	5	1	

136	RT	2	HS	40	85	30	70	Conifer	1	
								Hardwood		3
136	RT	3	HS	70	80	15	85	Conifer		
								Hardwood		2
148	LT	1	HS	40	65	30	70	Conifer		
								Hardwood		1
148	LT	2	RB	0	70	10	25	Conifer		
								Hardwood	1	
148	LT	3	HS	95	85	30	70	Conifer		2
								Hardwood		
148	RT	1	HS	20	80	35	65	Conifer		
								Hardwood	2	1
148	RT	2	HS	40	85	10	90	Conifer		1
								Hardwood		
148	RT	3	HS	65	85	10	90	Conifer		2
								Hardwood		
161	LT	1	RB	0	75	20	30	Conifer		
								Hardwood	1	1
161	LT	2	HS	90	75	15	85	Conifer		
								Hardwood	3	1
161	LT	3	HS	95	85	5	95	Conifer		1
								Hardwood	2	
161	RT	1	HT	0	75	85	15	Conifer		
								Hardwood		2
161	RT	2	HT	0	70	80	20	Conifer		
								Hardwood	3	1
161	RT	3	HS	60	80	35	65	Conifer		
								Hardwood		

COMMENT SUMMARY

MONITORING AREA: 4-UMP SITE ID: 267 STREAM: NF BIG TOM FOLLEY CREEK POST-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
3	CC	00	32.1	CC	DIA.= 5.5. NATURAL BOTTOM CULVERT
5	LP	01	40.6	/TJ	
6	RI	11	40.6		ACW= .8 TRIB. TEMP. 13°C
9	RR	00	103.1	HS	PLACED LOGS
10	LP	00	111.6	HS	PLACED LOGS
14	LP	00	151.3	HS	PLACED LOGS
16	LP	00	171.3	HS	PLACED LOGS, BOULDERS
20	LP	00	203.3	HS	PLACED LOGS
21	SR	00	208.3	HS	PLACED LOGS
23	RI	00	278.3	HS, CS/	PLACED BOULDERS
24	RI	00	306.3	HS, CS/	PLACED BOULDERS
25	LP	00	315.3	HS	PLACED LOG, BOULDERS
26	RI	00	342.3	HS	PLACED LOGS
27	LP	00	359.3	HS	PLACED LOGS, BOULDERS
28	RI	00	404.3	HS	PLACED LOGS, BOULDERS
29	LP	00	414.3	HS	PLACED LOGS, BOUDERS
32	RI	00	515.3	HS, DJ	
35	LP	00	554.8	CS/	
40	RI	00	646	HS	PLACED BOULDERS
45	LP	00	738	CS/, HS	PLACED LOGS
51	RI	00	869.7	HS	PLACED LOGS, BOULDERS
52	LP	00	882.7	HS	PLACED LOGS

COMMENT SUMMARY

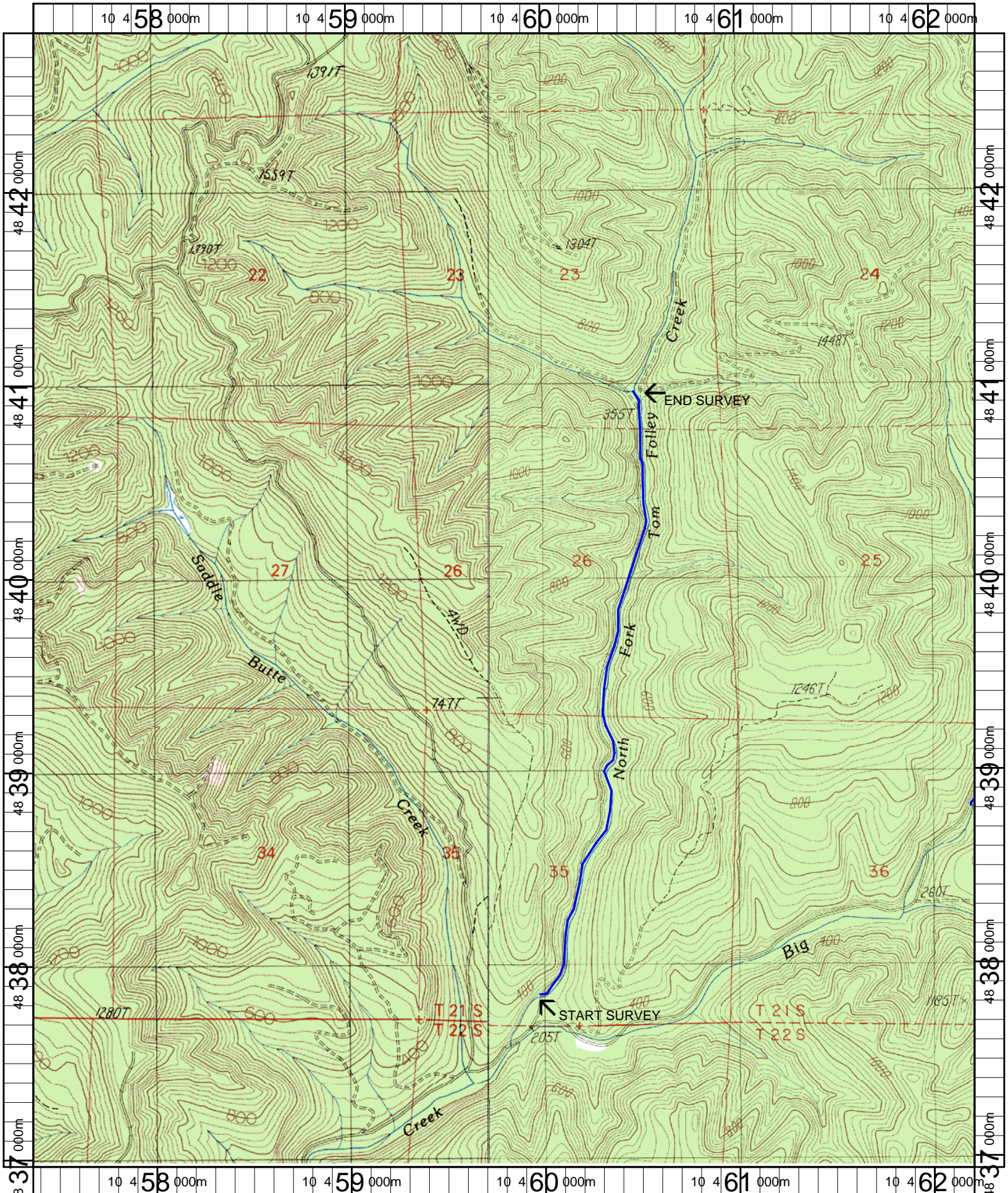
MONITORING AREA: 4-UMP SITE ID: 267 STREAM: NF BIG TOM FOLLEY CREEK POST-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
58	LP	00	1013.7	LI	15 METERS WIDE BY 12 METERS TALL. INACTIVE
62	LP	01	1110.7	/TJ	
76	RI	00	1541.7	HS, CS/,DJ	PLACED LOGS, BOULDERS
79	RI	00	1578.7	HS	LOGS
80	LP	00	1592.7	CS/	
81	RI	00	1614.7	CS/	
82	LP	00	1625.7	HS, CS/	PLACED LOGS
83	SC	00	1633.7	CS/	
84	LP	00	1652.7	HS	PLACED LOGS
86	LP	00	1676.2	HS, DJ	PLACED LOGS, BOULDERS. IN-STREAM THERMOMETER
88	LP	00	1704.2	HS	PLACED BOULDERS
89	RI	00	1738.2	HS	PLACED BOULDERS
90	LP	00	1757.2	HS	PLACED BOULDERS
91	RI	00	1787.2	HS	PLACED BOULDERS
93	RI	00	1842.2	HS	PLACED BOULDERS
95	RI	00	1901.7	HS	PLACED BOULDERS
98	LP	00	1957.7	HS	PLACED BOULDERS, TIMBER HARVEST BOTH SIDES
99	RI	01	1979.7	CE/, TJ/	PLACED BOULDERS. HS ALSO
101	DU	00	1981.2	HS	PLACED BOULDERS
102	RI	00	1998.2	HS	PLACED BOULDERS
104	RI	00	2038.2	DJ	
105	LP	00	2050.2	HS	PLACED BOULDERS

COMMENT SUMMARY

MONITORING AREA: 4-UMP SITE ID: 267 STREAM: NF BIG TOM FOLLEY CREEK POST-TX

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTES
106	SC	00	2051.5	HS	PLACED BOULDERS
107	LP	00	2066	HS	PLACED BOULDERS
108	RI	00	2090	HS	PLACED BOULDERS
109	LP	00	2118	HS	PLACED BOULDERS, ROOTWAD
110	RI	00	2139	HS	PLACED BOULDERS
113	RI	00	2186	HS	PLACED BOULDERS
114	RI	00	2196	HS	PLACED BOULDERS
125	LP	00	2494.5	CS/	
126	SR	01	2500.5	CS/, /TJ	
127	SR	11	2500.5	PN	
129	RB	00	2560.5	CS/, CE/	
135	LP	00	2716.5	DJ	
145	LP	01	2936.1	TJ/	
172	CC	00	3401.6	CC	DIA.=4.2, OPEN BOTTOM
177	RI	01	3539.6	TJ/,/TJ	
180	CC	11	3539.6	CC	CULVERT DIAMETER 1.0



Name: PUTNAM VALLEY
 Date: 5/9/2007
 Scale: 1 inch equals 2000 feet

Location: 10 459800 E 4839881 N
 Caption: NORTH FORK BIG TOM FOLLEY CREEK RESTORATION SITE -
 UMPQUA BASIN