

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

STREAM: Big Tom Folley Creek Phase 3 (U-245)  
BASIN: Umpqua River  
SURVEY TYPE: Post-Tx  
DATE: September 7, 2005  
SURVEY CREW: Andy Livesay, Jennifer Jacobs  
REPORT PREPARED BY: Paul Jacobsen  
BASIN AREA: 57.4 km<sup>2</sup>  
USGS MAPS: Putnam Valley  
ECOREGION: Coast Range Sedimentary

**GENERAL DESCRIPTION:**

The Big Tom Folley Creek habitat survey extended 1,919 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 3.7 (range: 1.0-6.0). Land use for the reach was second growth (15-30 cm dbh) trees and timber harvest. The average unit gradient was 0.8 percent. Scour pools (61%) and riffles (30%) dominated stream habitat. Bedrock (34%) and gravel (22%) dominated stream substrate. Wood volume was very low at 9.0 m<sup>3</sup>/100m. However, the dominant treatment was boulders.

**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 BIG TOM FOLLEY CR PHASE 3 POST-TX (4-UJP, 245)**

**HABITAT INVENTORY**

Report Date: 4/26/2006

Survey Date: 9/7/2005

**REACH 1**

**T21S-R07W-S36NE**

**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	3.7	VWI Range:	1 - 6

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	1,919	10,925	0
Secondary Channel	35	144	1
Off-Channel Units	97	138	1

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 9	<u>First Terrace</u> n = 8
Width: 5.0	Width: 8.7	9.8 ( 7 - 14.6 )	12.7 ( 8.8 - 19.4 )
Depth: 0.25	Height: 0.3	0.5 ( 0.5 - 0.6 )	1.1 ( 0.75 - 1.45 )

W:D ratio: 32.1

Stream Flow Type: LF

Average Unit Gradient: 0.8%

Water temperature (°C): 13.0 - 13.0

Entrenchment (ACW:FPW ratio): 1.1

Habitat Units/100m (total channel length): 6.3

Habitat Units/100m (primary channel length): 6.7

**Riparian, Bank, and Wood Summary**

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	TH
Riparian Vegetation:	D30	S

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	18%	Reach avg: 96%
Undercut Banks:	6%	Range: 61 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	214	11.2
Volume (m <sup>3</sup> ):	173	9.0
Key pieces (>=12m x 0.60m):	2	0.1

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REACH 1		T21S-R07W-S36NE					REACH 1					
HABITAT DETAIL												
Habitat Type	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Total Area (m <sup>2</sup> )	Large Boulders (#>0.5m)	Substrate Percent Wetted Area					
							S/O	Snd	Grvl	Cbl	Bldr	Bdrk
CASCADE/BOULDERS	1	7	1.7	0.02	11	4	0	10	60	20	10	0
CULVERT CROSSING	1	18	2.2	0.12	40	3	0	25	35	35	5	0
DRY CHANNEL	1	10	0.9	0.00	9	0	0	10	45	45	0	0
DRY UNIT	1	2	4.4	0.00	7	0	0	0	0	0	0	100
POOL-BACKWATER	3	18	2.3	0.28	46	1	10	24	19	3	2	42
POOL-ISOLATED	1	4	2.7	0.10	9	0	5	30	20	0	0	45
POOL-LATERAL SCOUR	49	942	5.6	0.46	5,498	353	3	21	22	12	12	31
POOL-STRAIGHT SCOUR	12	185	7.1	0.49	1,326	75	3	23	17	6	8	43
RAPID/BEDROCK	1	21	8.0	0.04	169	15	0	10	10	5	15	60
RAPID/BOULDERS	3	41	3.8	0.05	176	15	2	38	23	24	11	3
RIFFLE	31	686	4.5	0.06	3,408	306	1	16	24	17	9	33
STEP/BEDROCK	13	65	4.1	0.05	264	52	0	9	9	6	8	68
STEP/BOULDERS	3	19	4.2	0.09	84	19	0	9	17	21	26	28
STEP/COBBLE	9	34	4.3	0.03	161	19	1	17	46	27	7	2
<b>Total:</b>	129	2,051	5.0	0.25	11,207	862	<b>Avg:</b> 2	18	22	14	10	34

HABITAT SUMMARY									
Habitat Group	Number Units	Total Length (m)	Avg Width (m)	Avg Depth (m)	Wetted Area		Large Boulders		
					(m <sup>2</sup> )	Percent	Number	(# / 100m <sup>2</sup> )	
Dammed & BW Pools	4	22	2.4	0.24	55	0.49%	1	1.8	
Scour Pools	61	1,126	5.9	0.47	6,824	60.89%	428	6.3	
Glides	0	0			0	0.00%	0	0.0	
Riffles	31	686	4.5	0.06	3,408	30.41%	306	9.0	
Rapids	4	62	4.9	0.05	345	3.08%	30	8.7	
Cascades	1	7	1.7	0.02	11	0.10%	4	36.2	
Step/Falls	25	118	4.2	0.05	508	4.53%	90	17.7	
Dry	2	12	2.7	0.00	16	0.14%	0	0.0	
Culverts	1	18	2.2	0.12	40	0.36%	3	7.5	

POOL SUMMARY			
	Total	Total of all Channel Lengths # / Km	Primary Channel Length # / Km
All Pools:	65	31.7	33.9
Pools >=1m deep:	0	0.0	0.0
Complex pools (LWD pieces>=3):	18	8.8	9.4
Pool frequency (channel widths/pool):	3.6		
Residual pool depth (avg):	0.39		

Survey Date 9/7/2005  
Report Date: 4/26/2006

**RIPARIAN ZONE  
VEGETATION SUMMARY**

REACH 1

**Summary of Riparian Zone (0-30m) 7 transects**

Total hardwoods/1000	906
Total conifers/1000 ft	96
Total conifers >20" dbh/1000 ft	26
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	0.0	2.3	0.0	0.6	0.1	4.9
15-30cm	0.0	4.4	0.3	1.6	0.1	1.1	0.4	7.1
30-50cm	0.1	1.4	0.1	0.6	0.3	0.9	0.6	2.9
50-90cm	0.0	0.0	0.0	0.0	0.4	0.0	0.4	0.0
>90cm	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total/100m2	0.3	7.9	0.4	4.4	0.9	2.6	0.5	5.0

**Canopy closure and ground cover**

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Canopy closure	65	55	46
Shrub cover	43	37	23
Grass/forb cover	39	44	41

**Predominant landform in each zone**

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Hillslope	36	50	57
High terrace	64	50	0
Low terrace	0	0	0
Floodplain	0	0	0
Wetland/meadow	0	0	0
Stream channel	0	0	0
Roadbed/Railroad	0	0	43
Riprap	0	0	0
Surface slope (%)	11	13	18

Summary of Riparian Zone (0-30m) for all reaches      7 transects

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

Total hardwoods/1000	906
Total conifers/1000 ft	96
Total conifers >20" dbh/1000 ft	26
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	0.1	4.9
15-30cm	0.4	7.1
30-50cm	0.6	2.9
50-90cm	0.4	0.0
>90cm	0.0	0.0

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**OREGON DEPT OF FISH AND WILDLIFE    BIG TOM FOLLEY CR PHASE 3 POST-TX (4-UJP, 245)**

**HABITAT INVENTORY**    Report Date: 4/27/2006

Survey Date: 9/7/2005

**GCG:    4-UM                    SITE ID: 245**

**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		
14	LF	1	HS	20	70	58	40	Conifer							0462159, 4838841
								Hardwood		2					
14	LF	2	HS	20	80	40	40	Conifer							
								Hardwood		1					
14	LF	3	RB	0	70	15	20	Conifer				1			ALSO HS
								Hardwood		1					
14	RT	1	HS	45	80	15	60	Conifer	1						
								Hardwood	1	1					
14	RT	2	HS	45	75	10	75	Conifer				1			
								Hardwood		2					
14	RT	3	HS	45	75	10	75	Conifer				1			
								Hardwood							
23	RT	2	HS	20	70	5	70	Conifer			1	1			
								Hardwood	1						
23	LF	1	HT	0	75	60	30	Conifer							0462366, 4839059
								Hardwood	2	4					
23	LF	2	HT	0	75	60	30	Conifer							
								Hardwood	5	2					
23	RT	3	HS	20	75	5	75	Conifer			1		1		
								Hardwood							
23	RT	1	HS	50	75	0	85	Conifer				1			
								Hardwood	1	1	1				
23	LF	3	RB	0	55	10	10	Conifer							
								Hardwood	1	1					
44	RT	3	HS	70	80	80	5	Conifer							
								Hardwood	2						
44	LF	1	HT	0	65	40	25	Conifer							0462739, 4839283
								Hardwood		1	3				
44	LF	2	HT	0	25	5	50	Conifer							ALSO RB, REPLANTED TREES
								Hardwood							ALSO HS, CLEARCUT
44	LF	3	RB	0	0	5	10	Conifer							
								Hardwood							
44	RT	1	HS	10	65	15	60	Conifer							
								Hardwood	1	2					
44	RT	2	HS	15	75	80	10	Conifer							
								Hardwood	1						

60	RT	3	HS	35	65	60	25	Conifer						
								Hardwood		1	2			
60	RT	2	HS	40	75	60	20	Conifer						
								Hardwood		1	1			
60	RT	1	HS	30	55	80	10	Conifer						
								Hardwood	5	1				
60	LF	3	RB	0	0	10	80	Conifer						CLEARCUT
								Hardwood						
60	LF	1	HT	0	30	50	30	Conifer						0462884, 4839478
								Hardwood		1	1			
60	LF	2	HT	0	0	70	30	Conifer						CLEARCUT
								Hardwood						
76	RT	1	HT	0	75	70	20	Conifer						
								Hardwood		4				
76	LF	1	HT	0	55	60	25	Conifer						0463027, 4839647
								Hardwood	2	1	3			
76	RT	3	HS	35	80	40	40	Conifer						
								Hardwood		3	2			
76	RT	2	HT	0	65	70	20	Conifer						
								Hardwood		3	1			
76	LF	2	HT	0	10	50	50	Conifer						
								Hardwood	2					
76	LF	3	RB	0	0	5	60	Conifer						ALSO HS
								Hardwood						
97	LF	1	HT	0	50	30	50	Conifer						0463198, 4839815
								Hardwood	1	1	1			
97	LF	2	HT	0	0	10	70	Conifer						
								Hardwood						
97	LF	3	RB	0	0	10	30	Conifer						
								Hardwood						
97	RT	1	HT	0	75	0	55	Conifer						
								Hardwood		5	1			
97	RT	2	HT	0	75	5	50	Conifer						
								Hardwood	3	1				
97	RT	3	HS	10	70	10	50	Conifer						ALSO HT
								Hardwood		2	2			
118	RT	2	HS	10	80	20	40	Conifer						
								Hardwood	4					
118	RT	3	HS	20	60	30	35	Conifer					2	
								Hardwood						
118	LF	1	HT	0	65	70	20	Conifer						0463420, 4839870
								Hardwood	1	2				
118	LF	2	HS	25	60	30	60	Conifer						
								Hardwood		1	2			
118	LF	3	HS	15	10	30	60	Conifer						ALSO RB
								Hardwood	1					

118 RT 1 HT 0 70 50 30 **Conifer**  
**Hardwood** 5



# Comment Summary

## Restoration Monitoring Sites 2005

MONITORING AREA: **4-UMP**    SITE ID: **245**    **BIG TOM FOLLEY CR PHASE 3 POST**

<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
1	SR	00	3.2		0462159, 4838841	START SIGN ON CEDAR RT
2	LP	00	21.7	HS		T = 13 C
4	SP	00	53.8	LI/, HS		
5	RR	00	74.9	DJ, HS		
6	LP	00	110.4		UBTF SITE 3	
7	RI	00	127.6	HS		BOULDERS
8	SP	00	139.8	HS		
9	RI	00	189.8	HS		
10	RI	00	218.8	HS		
11	LP	00	234.8	HS		BOULDERS
13	SP	00	248.4	HS		BOULDERS
14	SC	00	253.4		0462366, 4839059	
16	RI	00	358.9	HS		
17	LP	00	372.1	LI/, HS		
18	RI	01	396.1	TJ/, HS		
19	CB	11	396.1			T = 12.5 C
20	CC	11	396.1	CC	CC DIAM = 2.3 M	CULV IS METAL AND CONCR
21	LP	00	419.9			U 20= OPEN BOTTOM, DIAM
23	LP	00	465.9		0462514, 4839143	T = 13.5 C
25	SP	01	509.6	/TJ, DJ		
33	RB	01	612.5	TJ/		

# Comment Summary

## Restoration Monitoring Sites 2005

MONITORING AREA: **4-UMP**    SITE ID: **245**    **BIG TOM FOLLEY CR PHASE 3 POST**

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
34	RB	11	612.5			T = 12.5 C
38	LP	00	674.8		COHO FRY	
43	RI	00	737.4	HS		ENTERING CLEARCUT
44	LP	00	751.9	HS		BOULDERS
45	RI	01	779.9			0462739, 4839283
49	RI	00	824.6	DJ		
51	LP	01	909.1	/TJ, HS		
52	RI	11	909.1	HS		T = 13 C
53	SR	00	913.5	HS		BOULDERS
54	LP	00	929.7	HS		
55	RI	00	943	HS		
56	LP	00	983	HS		
60	LP	00	1025.3		0462884, 4839478	
65	RI	01	1112.7	SS/		
69	LP	00	1173.7	LS/		
73	LP	00	1227.3	HS		BOULDERS
74	LP	00	1237.4	DJ		
76	LP	00	1273.8	DJ	0463027, 4839647	
82	LP	00	1329	HS		BOULDERS
83	RI	00	1341.5	HS		BOULDERS
90	RI	01	1440.1	TJ/		

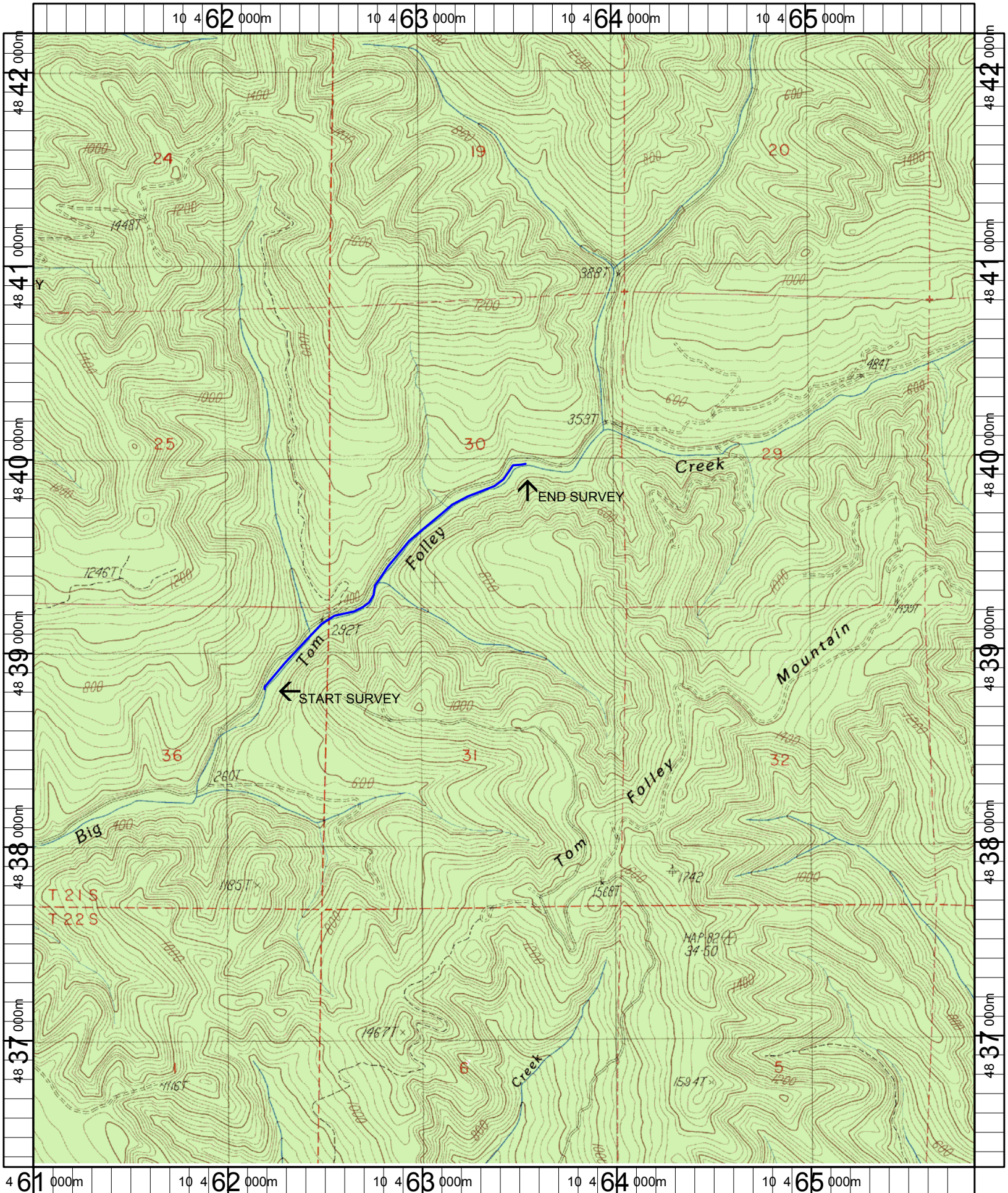
# Comment Summary

## Restoration Monitoring Sites 2005

MONITORING AREA: **4-UMP**    SITE ID: **245**    **BIG TOM FOLLEY CR PHASE 3 POST**

<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
94	SP	00	1464.4	SS/		
95	RI	00	1507.4		COHO FRY	
97	RI	00	1526.9		0463198, 4839815	
107	LP	00	1677.8	DJ		
109	SP	00	1690.6	/LS		
115	LP	00	1739.1	BV		
117	LP	00	1769.6		0463420, 4839870	
122	RI	00	1875.6	BV		
127	LP	01	1918.6	TJ/	0463526, 4839973	
128	SC	11	1918.6		H = .95 M	
129	RI	11	1918.6			T = 14.5 C





Name: PUTNAM VALLEY  
Date: 6/13/2005  
Scale: 1 inch equals 2000 feet

Location: 10 463434 E 4839262 N  
Caption: BIG TOM FOLLEY CREEK PHASE III RESTORATION SITE -  
UMPQUA BASIN