

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

STREAM: Little Paradise Creek (U-353)
BASIN: Umpqua River
SURVEY TYPE: Pre-Tx
DATE: June 26, 2006
SURVEY CREW: Andy Livesay, Jennifer Jacobs
REPORT PREPARED BY: Paul Jacobsen
BASIN AREA: 16.4 km²
USGS MAPS: Elkton
ECOREGION: Coast Range Sedimentary

GENERAL DESCRIPTION:

The Little Paradise Creek habitat survey extended 2,116 meters. The channel was alternately constrained by hillslopes and terraces in a broad valley floor. The average valley width index was 2.9 (range: 1.0-5.0). Land use for the reach was second growth (15-30 cm dbh) and mature (50-90 cm dbh) trees. The average unit gradient was 1.2 percent. Scour pools (50%) and riffles (29%) dominated stream habitat. Gravel (28%), sand (26%) and bedrock (25%) dominated stream substrate. Wood volume was moderate at 23.9 m³/100m.

COMMENTS:

There were no potential barriers to upstream fish migration in the surveyed length.

REACH 1

T22S-R08W-S01SW

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	2.9	VWI Range:	1 - 5

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	2,116	7,653	0
Secondary Channel	223	301	9
Off-Channel Units	93	202	0

Channel Dimensions (m)

<u>Wetted</u>	<u>Active</u>	<u>Floodprone</u> n = 9	<u>First Terrace</u> n = 4
Width: 3.3	Width: 6.9	10.8 (6.4 - 26)	11.7 (9.8 - 13.7)
Depth: 0.24	Height: 0.5	1.0 (0.7 - 1.2)	1.8 (1.3 - 2.8)

W:D ratio: 14.6

Entrenchment (ACW:FPW ratio): 1.6

Stream Flow Type: MF

Habitat Units/100m (total channel length): 8.0

Average Unit Gradient: 1.2%

Habitat Units/100m (primary channel length): 9.2

Water temperature (°C): 15.0 - 15.0

Riparian, Bank, and Wood Summary

	<u>Primary</u>	<u>Secondary</u>
Land Use:	ST	MT
Riparian Vegetation:	D30	C50

Bank Condition and Shade

<u>Bank Status</u>	<u>Percent Reach Length</u>	<u>Shade (% of 180)</u>
Actively Eroding:	11%	Reach avg: 89%
Undercut Banks:	3%	Range: 42 - 100

Large Wood Debris

	<u>Total</u>	<u>Total / 100m primary channel</u>
All pieces (>=3m x 0.15m):	295	13.9
Volume (m ³):	506	23.9
Key pieces (>=12m x 0.60m):	28	1.3

OREGON DEPT OF FISH AND WILDLIFE

LITTLE PARADISE CREEK PRE-TX (4-UJP, 353)

HABITAT INVENTORY

Report Date: 3/5/2007

Survey Date:

6/26/2006

REACH 1		T22S-R08W-S01SW					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/BEDROCK	2	12	0.9	0.01	10	0	0	2	2	2	0	93
CASCADE/BOULDERS	1	4	0.5	0.01	2	0	0	30	40	30	0	0
DRY UNIT	7	172	1.9	0.00	256	0	22	48	19	11	0	0
POOL-BACKWATER	2	10	1.2	0.21	13	0	23	65	13	0	0	0
POOL-ISOLATED	1	6	1.4	1.90	9	0	5	24	24	0	0	48
POOL-LATERAL SCOUR	85	1,081	3.6	0.45	3,848	57	7	32	24	8	3	25
POOL-PLUNGE	2	12	2.8	0.55	35	0	5	25	25	12	7	27
POOL-STRAIGHT SCOUR	3	49	4.4	0.38	210	0	11	31	23	4	3	28
PUDDLED UNIT	2	23	0.9	0.03	20	0	32	51	17	0	0	0
RAPID/BEDROCK	8	109	3.3	0.04	431	2	1	8	11	4	1	75
RAPID/BOULDERS	9	127	3.8	0.06	528	64	1	13	29	27	19	11
RIFFLE	34	681	3.2	0.05	2,343	90	1	20	39	17	5	18
STEP/BEDROCK	12	54	3.4	0.03	181	4	0	4	5	2	1	87
STEP/COBBLE	25	91	3.0	0.04	269	14	0	22	49	23	3	3
STEP/LOG	2	1	1.7	0.02	2	0	5	30	55	5	0	5
Total:	195	2,432	3.3	0.24	8,157	231	Avg: 5	26	28	12	4	25

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	3	16	1.3	0.77	22	0.26%	0	0.0	
Scour Pools	90	1,142	3.6	0.45	4,093	50.18%	57	1.4	
Glides	0	0			0	0.00%	0	0.0	
Riffles	34	681	3.2	0.05	2,343	28.73%	90	3.8	
Rapids	17	235	3.6	0.05	959	11.75%	66	6.9	
Cascades	3	16	0.7	0.01	12	0.15%	0	0.0	
Step/Falls	39	147	3.0	0.04	452	5.54%	18	4.0	
Dry	9	195	1.6	0.01	277	3.39%	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:	93	38.2	44.0
Pools >=1m deep:	1	0.4	0.5
Complex pools (LWD pieces>=3):	20	8.2	9.5
Pool frequency (channel widths/pool):	3.8		
Residual pool depth (avg):	0.37		

OREGON DEPARTMENT OF FISH AND WILDLIFE
HABITAT INVENTORY

LITTLE PARADISE CREEK PRE-TX
GCG: 4-UMP SITE ID: 353

Survey Date 6/26/2006
Report Date: 3/5/2007

**RIPARIAN ZONE
VEGETATION SUMMARY**

REACH 1

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

Total hardwoods/1000	549
Total conifers/1000 ft	174
Total conifers >20" dbh/1000 ft	44
Total conifers >35" dbh/1000 ft	26

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	2.7	0.3	2.7	0.0	1.6	0.3	7.0
15-30cm	0.0	0.0	0.0	0.4	1.0	0.4	1.0	0.9
30-50cm	0.0	0.1	0.3	0.3	0.6	0.1	0.9	0.6
50-90cm	0.1	0.1	0.0	0.1	0.1	0.3	0.3	0.6
>90cm	0.3	0.0	0.0	0.0	0.1	0.0	0.4	0.0
Total/100m2	0.4	3.0	0.6	3.6	1.9	2.4	1.0	3.0

Canopy closure and ground cover

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Canopy closure	56	71	75
Shrub cover	48	41	31
Grass/forb cover	35	38	40

Predominant landform in each zone

	Zone 1 0-10 meters (%)	Zone 2 10 - 20 meters (%)	Zone 3 20 - 30 meters (%)
Hillslope	64	79	100
High terrace	21	21	0
Low terrace	0	0	0
Floodplain	14	0	0
Wetland/meadow	0	0	0
Stream channel	0	0	0
Roadbed/Railroad	0	0	0
Riprap	0	0	0
Surface slope (%)	25	28	30

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	549
Total conifers/1000 ft	174
Total conifers >20" dbh/1000 ft	44
Total conifers >35" dbh/1000 ft	26

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	0.3	7.0
15-30cm	1.0	0.9
30-50cm	0.9	0.6
50-90cm	0.3	0.6
>90cm	0.4	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		
19	LF	1	HS	40	60	45	35	Conifer							HS/LT
								Hardwood	1						
19	LF	3	HS	40	65	70	20	Conifer							
								Hardwood	2						
19	RT	1	HS	45	70	60	20	Conifer							
								Hardwood	1						
19	RT	2	HS	50	75	70	20	Conifer							
								Hardwood	2						
19	RT	3	HS	50	75	75	15	Conifer							
								Hardwood	2						
19	LF	2	HS	45	65	60	20	Conifer							
								Hardwood							
36	LF	2	HS	35	60	70	10	Conifer							FP/HS
								Hardwood	2						
36	LF	3	HS	40	80	60	20	Conifer				1			
								Hardwood		1					
36	RT	1	FP	0	60	80	5	Conifer							
								Hardwood	1						
36	RT	2	HS	45	70	70	10	Conifer							
								Hardwood	1						
36	RT	3	HS	45	80	60	10	Conifer			1	1			
								Hardwood							
36	LF	1	FP	0	50	80	5	Conifer							
								Hardwood	2						
68	RT	1	HT	0	10	50	30	Conifer							HT/FP
								Hardwood							
68	LF	1	HS	30	5	90	5	Conifer							HT/HS
								Hardwood	1						
68	LF	3	HS	25	80	10	25	Conifer							
								Hardwood				1			
68	RT	2	HT	0	60	30	30	Conifer				2			
								Hardwood	2						
68	RT	3	HS	20	80	5	30	Conifer			2				HT/HS
								Hardwood	3						
68	LF	2	HS	40	65	60	30	Conifer							
								Hardwood		1					

87	LF	3	HS	10	85	10	60	Conifer	1		
								Hardwood	3		1
87	LF	1	HT	25	80	20	60	Conifer			
								Hardwood	4		
87	LF	2	HT	0	90	10	60	Conifer			HT/HS
								Hardwood	4		
87	RT	1	HS	30	55	10	55	Conifer			1
								Hardwood	1	1	
87	RT	3	HS	30	60	5	70	Conifer			
								Hardwood	1		
87	RT	2	HS	25	60	10	65	Conifer	2		
								Hardwood	1		
108	RT	3	HS	25	70	20	60	Conifer	2		
								Hardwood			
108	RT	2	HS	25	80	20	60	Conifer			
								Hardwood	1	1	
108	RT	1	HS	40	75	40	40	Conifer			
								Hardwood			
108	LF	3	HS	25	85	10	60	Conifer	1	1	
								Hardwood			
108	LF	2	HS	30	85	15	55	Conifer			
								Hardwood	3		
108	LF	1	HS	40	90	10	55	Conifer			1
								Hardwood	3	1	
132	RT	3	HS	30	70	10	50	Conifer			1
								Hardwood	1		
132	RT	2	HS	30	70	50	20	Conifer			
								Hardwood	2		
132	RT	1	HS	25	40	80	10	Conifer			
								Hardwood	2		
132	LF	3	HS	35	60	50	20	Conifer			
								Hardwood	1		
132	LF	1	HS	45	20	80	10	Conifer			
								Hardwood	1		
132	LF	2	HS	45	55	60	20	Conifer			
								Hardwood	2		
159	LF	1	HT	0	80	25	65	Conifer			1
								Hardwood	1		
159	RT	3	HS	25	80	25	65	Conifer		1	
								Hardwood			
159	RT	2	HS	25	80	20	75	Conifer			
								Hardwood	1	1	
159	RT	1	HS	25	90	5	90	Conifer			
								Hardwood	1		
159	LF	3	HS	25	80	30	60	Conifer			1
								Hardwood	1		

159	LF	2	HT	0	85	30	60	Conifer		HT/HS
								Hardwood	1	

Comment Summary

Restoration Monitoring Sites 2006

MONITORING AREA: **4-UMP** SITE ID: **353** **LITTLE PARADISE CREEK PRE-TX**

UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
1	RI	01	10.4	TJ/	START TEMP=15.0C	START AT TJ/67
2	RB	11	10.4			TRIB TEMP=13.5C
8	LP	01	79.5		WOOD ON BANK	
11	LP	00	105.9		ORANGE FLAG #38	
14	RB	00	161.4		RSN	
18	RI	00	260.1		ORANGE FLAG #37	
19	RI	00	301.8		UTM 0451754-4836225	
24	SC	00	341.8	DJ	COHO FRY	
27	LP	00	398.3	BV		
28	LP	00	425.3	WL	RSN	BEAR TRACKS
35	LP	00	497.2			COHO FRY
37	LP	01	519.8			UTM 0451925-4836285
39	LP	01	536.9	SS/		
49	LP	01	638.6		PINK FLAG #A1	
52	DU	02	648.6	BV		
53	LP	02	648.6	SS/	SALAMANDER GILLED 7 CM	
59	LP	00	672.7	BV	BEAVER HOLE	POSSIBLE BEAVER DEN
63	LP	00	716.7		RSN	
66	SP	01	742.1	TJ/	PINK FLAG A2	
67	RR	11	742.1			T=15.0C
68	RR	00	758.9		CT-CT,D3,S,ST,MT	UTM 0452115-4836400-3D

Comment Summary

Restoration Monitoring Sites 2006

MONITORING AREA: **4-UMP** SITE ID: **353** **LITTLE PARADISE CREEK PRE-TX**

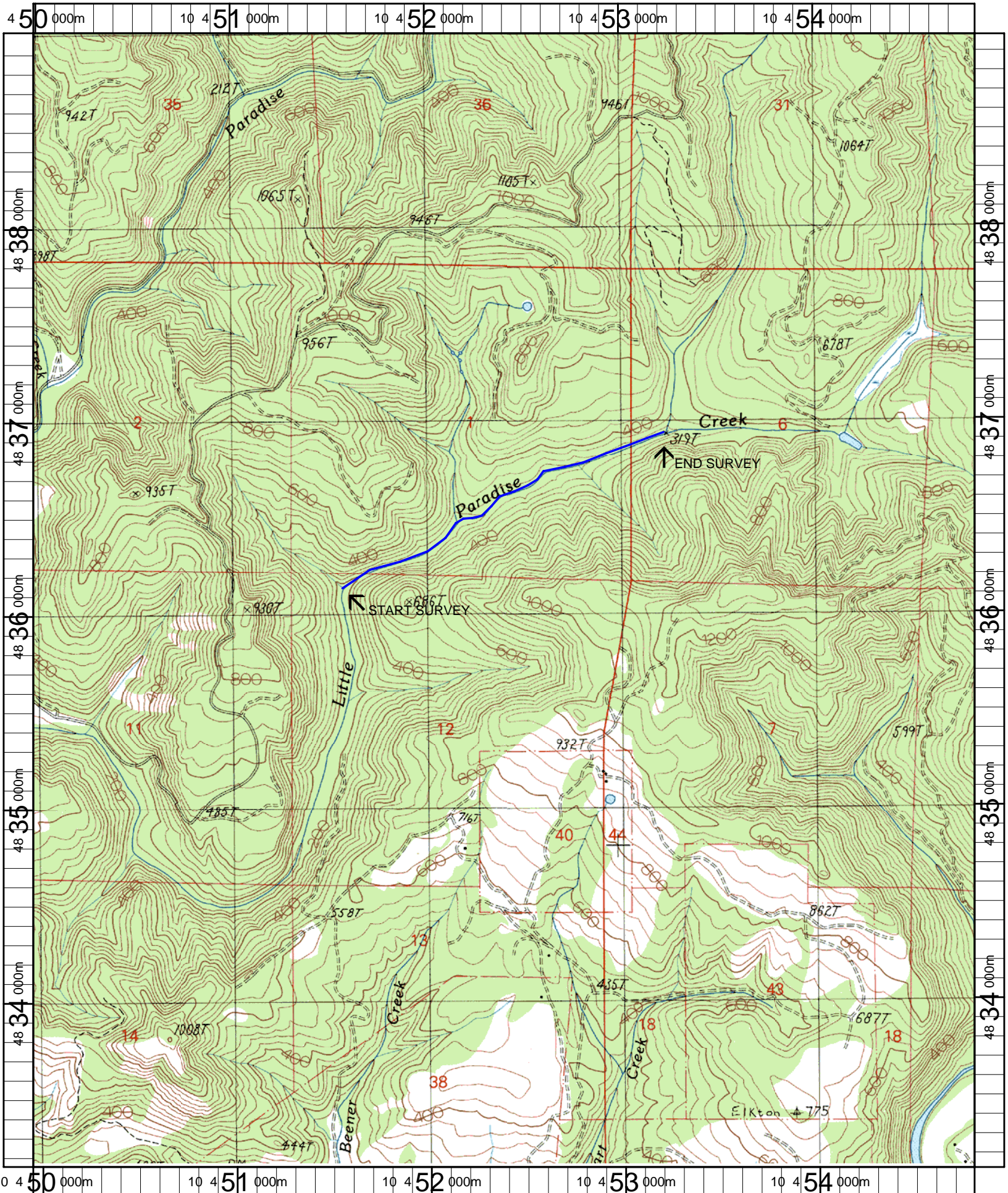
UNIT#	TYPE	CHAN	DIST. (m)	COMMENTS	NOTE ESTIMATOR	NOTE NUMERATOR
76	RI	00	867.1		PINK FLAG A3	
83	LP	00	964.3		COHO FRY, RSN	RSN
87	RI	00	1004.1	UTM 045229	CA-MT,D30,D5,ST,MT	
93	SL	00	1031.9		H=0.20M, PINK FLAG A4	
96	RI	00	1084.4		10 RSN	
100	LP	00	1153.5	SS/		
104	LP	00	1228.2	WL		3 RSN
108	LP	00	1270.7		CH-MV, C90,D3	
109	RB	00	1288.7	/TJ		NO GPS COVERAGE
122	SC	00	1401.3		PINK FLAG A5	
128	SR	00	1481.1	SS/, LI/		
131	LP	00	1508.7		CH,MV,D3,C50,MF,S	UTM 0452662-4836744-2D
134	RI	00	1541.6	SS/		
137	LP	01	1585.2	/TJ	PINK FLAG A6	COHO, TRIB ON MAP
138	CR	11	1585.2			T=14.0C
147	SL	00	1637.4	DJ	H=0.35M	
160	LP	00	1779.4	DJ		UTM 0452899-4836788-2D
163	LP	10	1797.9	SS/		
164	SC	10	1797.9		PINK FLAG A7	
168	RI	01	1820.9	TJ/		
169	CB	11	1820.9			T=15.0C

Comment Summary

Restoration Monitoring Sites 2006

MONITORING AREA: 4-UMP SITE ID: 353 LITTLE PARADISE CREEK PRE-TX

<u>UNIT#</u>	<u>TYPE</u>	<u>CHAN</u>	<u>DIST. (m)</u>	<u>COMMENTS</u>	<u>NOTE ESTIMATOR</u>	<u>NOTE NUMERATOR</u>
172	LP	01	1873.1	/SS		
179	SC	00	1944.9	SS/		
184	LP	00	2007.5	/SS		
194	LP	01	2115.7	/TJ		UTM 0453206-4836959-2D
195	RR	11	2115.7		TRIB #7	



Name: ELKTON
 Date: 5/30/2006
 Scale: 1 inch equals 2000 feet

Location: 10 452391 E 4836069 N
 Caption: LITTLE PARADISE CREEK RESTORATION SITE - UMPQUA BASIN