Appendix M

APPENDIX M:
DEA Stream Habitat Survey Data

Stream Name: Little Bear Creek
Reach: 1 Habitat Survey
GPS D/S: Mouth
GPS U/S: Downstream Side SR 202

Date: 6/25/01
Time In: 10 am
Time out: 5:15 pm
Crew: Scott & Joe

Temp air: 21° C
Temp Water: 14° C
Weather: Overcast

								Width (meters)				Depth (meters)				
NSO	Hab ID	Sta D/S	Sta U/S	Length (m)	Hab Type	% Pool	Area m^2	W1	W2	W3	BKF	Avg	Max	Tail	Resid.	Comments
1	R1	0	192.7	192.7	Riffle		948.084	5.2	4.5	5.05	6.6	0.38				long-linear-rip/rap
2	R2	192.7	205.1	12.4	Glide		55.8	4.5	4.5	4.5		0.26				under first road
3	P1	205.1	218.8	13.7	RB Scour		57.54	4.2				0.60	0.90	0.28	0.62	
4	R3	218.8	225.8	7.0	Riffle		29.4	4.2			4.50	0.40				rip/rap in-stream
5	P2	225.8	245.7	19.9	Plunge Pool		83.58	4.2				0.55	0.90	0.38	0.52	walled in, created.
6	P3	245.7	260.5	14.8	Plunge Pool		50.32	3.4				0.70	0.90	0.28	0.62	walled in. V- weir
7	R4	260.5	277.1	16.6	Glide		44.82	2.7				0.50				
8	P4	277.1	288.3	11.2	Plunge Pool		45.92	4.1				0.55	0.67	0.40	0.27	walled in.
9	P5	288.3	303.5	15.2	Plunge Pool		63.84	4.2				0.60	0.90	0.20	0.70	walled in
10	R5	303.5	317.5	14.0	Glide		56	4.0				0.60	0.77			
11	R6	317.5	354.5	37.0	Riffle		222	6.0				0.30	0.60			sand still dominates
12	R7	354.5	370.8	16.3	Glide		76.61	4.7			5.80	0.45	0.60			
13	R8	370.8	380.9	10.1	Riffle		63.63	6.3				0.30	0.40			
14	R9	380.9	388.2	7.3	Glide		33.58	4.6				0.35	0.40			end reach
				388.2			1831.124									

Stream Name: Little Bear Creek
Reach: 2 Habitat
GPS D/S: Downstream side of Hwy 202
GPS U/S:

Temp air: 19° C
Temp Water: 13° C
Weather: Nice

								Width (Meter)			Depth (Meter)				
NSO	Hab ID	STA D/S	STA U/S	Length (meter)	Hab Type	Area (m^2)	% Pool	W1	W2	BKF	Avg	Max	Tail	Resid.	Comments
1	R1	0.0	39.7	39.7	Glide	123.07	0	3.1		3.1	0.41	0.5			Under Hwy 202
2	R2	39.7	54.7	15.0	Riffle	52.5	0	3.5		8.65	0.25	0.4			Pebble count site
3	P1	54.7	64.0	9.3	Scour	76.539		8.23			0.5	0.8	0.21	0.59	Sandy
4	R3	64.0	117.1	53.1	Riffle	288.067	10	4.75	6.1	5.6	0.27	0.4			Gravel nice, but sandy
5	P2	117.1	126.0	8.9	Scour	45.39		5.1			0.3	0.85	0.29	0.56	
6	R4	126.0	142.4	16.4	Riffle	73.8	0	4.5			0.2	0.3			LB armor 128.6-138.2.
7	P3	142.4	154.0	11.6	Scour	83.52		7.2			0.4	0.92	0.18	0.74	LB cleared, RB J. Knotweed.
8	R5	154.0	188.5	34.5	Riffle	144.9	0	4.2		7.3	0.3	0.4			
9	P4	188.5	196.1	7.6	Scour	60.8		8			0.6	1.0	0.25	0.75	Ended day at 132nd Ave.
				196.1		948.586									

Stream Name: Little Bear Creek
Reach: 2, day 2. Habitat
GPS D/S: 196.1 meters upstream of Hwy 202
GPS U/S: 132nd Ave NE

Temp air: 21 C
Temp Water: 14.5
Weather: Overcast, rained hard yesterday

								Width (Meter)			Depth (Meter)				
NSO	Hab ID	Sta D/S	Sta U/S	Length (Meter)	Hab Type	Area (m2)	% Pool	W1	W2	BKF	Avg	Max	Tail	Resid.	Comments
10	R6	196.1	231.0	34.9	riffle	171.01	5	4.9	-	5.8	0.4	0.7	-	-	Culvert (3) 26.5M long.
11	P5	231.0	242.2	11.2	l. scour	60.48	-	5.4	-	-	0.5	0.6	0.32	0.28	LB scour
12	R7	242.2	255.5	13.3	glide	53.2	30	4.0	-	-	0.6	0.8	0.2	0.6	deep trench/ riffle-turbulent
13	R8	255.5	301.1	45.6	riffle	241.68	-	5.3	-	-	0.3	0.4	-	-	
14	P6	301.1	313.3	12.2	l. scour	73.2	-	6.0	-	-	0.7	1.0	0.25	0.75	lateral scour & trench
15	R9	313.3	390.0	76.7	riffle	373.913	-	4.4	5.35	6.7	0.35	0.5	-		getting wider
16	P7	390.0	400.8	10.8	scour	113.4	-	10.5	-	-	0.4	0.7	0.22	0.48	most wood - lots of sand.
17	R10	400.8	408.8	8.0	riffle	22.4	-	2.8	-	-	0.15	0.3	-	-	
18	P8	408.8	419.8	11.0	scour	52.8	-	4.8	-	-	0.4	0.7	0.2	0.6	unstable LB 419.8-426.5.
19	R11	419.8	439.0	19.2	riffle	80.64	-	4.2	-	-	0.3	0.5	-	-	
20	P9	439.0	446.5	7.5	scour	51	-	6.8	-	-	0.4	0.6	0.3	0.3	
21	R12	446.5	469.4	22.9	riffle	87.02	-	3.8	-	-	0.35	0.5	-	-	first old growth cedar stump, LB
22	P10	469.4	478.1	8.7	scour	98.31	-	11.3	-	-	0.6	1.1	0.25	0.85	3 culverts 134th 11.5m long.
23	R13	478.1	503.0	24.9	riffle	119.52	-	4.8	-	-	0.3	0.6	-	-	starts downstream end culverts
24	P11	503.0	517.2	14.2	s. debris	110.76	-	7.8	-	-	0.5	0.8	0.15	0.65	part scour, part debris
25	R14	517.2	521.3	4.1	riffle	23.37	-	5.7	-	-	0.15	0.3	-	-	
26	P12	521.3	530.3	9.0	scour	51.3	-	5.7	-	-	0.4	0.8	0.15	0.65	several small fry; end day.
				334.2		1784.003									

Stream Name: Little Bear Creek
Reach 2. Habitat
GPS D/S: ~100 feet upstream of 134th Ave.
GPS U/S:

Temp air: 19° C
Temp Water:14° C
Weather: Sunny

								Width (Meter)			Depth (Meter)				
NSO	Hab ID	Sta D/S	Sta U/S	Length (Meter)	Hab Type	Area (m^2)	% Pool	W1	W2	BKF	Avg	Max	Tail	Resid.	Comments
27	R15	530.3	600.0	69.7	riffle	369.925	-	5.1	5.4	5.8	0.35	0.4			Small side channel (2nd)
28	P13	600.0	612.0	12.0	scour	55.2	-	4.6	-	-	0.4	0.6	0.23	0.37	
29	R16	612.0	625.3	13.3	riffle	49.21	-	3.7	-	5.5	0.2	0.3	-		
30	P14	625.3	642.0	16.7	scour	78.49	-	4.7	-	-	0.4	0.65	0.2	0.45	trench/scour
31	R17	642.0	662.0	20.0	glide	130	-	6.5	-	-	0.4	0.65	-		jungle dogwwod & ninebark
32	R18	662.0	685.9	23.9	riffle	109.94	20	4.6	-	-	0.2	0.5	-		photo 10
33	P15	685.9	694.0	8.1	plunge	48.6	-	~6	-	-	0.7	1	0.2	0.8	photo 11,12,13. Small fry.
34	P16	694.0	715.7	21.7	l. scour	104.16	-	4.8	-	-	0.3	0.65	0.23	0.42	scour-lateral, fallen fence LB,
35	R19	715.7	729.1	13.4	riffle	58.96	-	4.4	-	-	0.25	0.3	-		see discharge pipe LB
36	P17	729.1	742.0	12.9	scour	67.08	-	5.2	-	-	0.3	0.7	0.17	0.53	
37	P18	742.0	755.3	13.3	scour	62.51	-	4.7	-	-	0.35	0.63	0.2	0.43	
38	R20	755.3	759.3	4.0	riffle	20	-	5	-	-	0.1	0.2	-		
39	P19	759.3	771.6	12.3	scour	209.1	-	~17			0.3	1.1	0.2	0.9	wide area flooded
40	P20	771.6	786.0	14.4	l. scour	57.6	-	4			0.3	0.5	0.2	0.3	yellow iris
41	P21	786.0	808.7	22.7	b. water	86.26	-	3.8			0.45	0.8	0.24	0.56	backwater 70%, scour 70%
42	R21	808.7	826.9	18.2	glide	182	10	3.7			0.35	0.5	-		row of large cedars RB
43	R22	826.9	839.0	12.1	riffle	53.24	-	4.4		7.2	0.3	0.35	-		kingfisher, beaver sign
44	P22	839.0	852.0	13.0	l. scour	65	-	5		-	0.4	0.8	0.25	0.55	classic pool
45	R23	852.0	858.3	6.3	riffle	30.24	-	4.8			0.15	0.25	-		
46	R24	858.3	884.4	26.1	glide	122.67	-	4.7			0.3	0.45	-		
47	P23	884.4	892.4	8.0	scour	46.4	-	5.8			0.5	0.75	0.2	0.55	CMP- .47M dia.- LB, sta 890.2
48	R25	892.4	895.7	3.3	riffle	9.9	-	3		6.2	0.2	0.27	-		
49	P24	895.7	905.5	9.8	l. scour	43.12	-	4.4			0.45	0.6	0.2	0.4	
50	P25	905.5	913.2	7.7	l. scour	40.04	-	5.2			0.3	0.75	0.23	0.52	plunge 50%, scour 50%,
				382.9		2099.645									

Riparian: shrubs can be thick both sides. LB tends to have sections with a wall of Himalayen blackberry. Few if any conifers. When deciduous trees present, dominated by meduim and small alders. Some mature cottenwood, but usually set back. Large willows (pacific) present. Salmonberry co-dominates shrub later. Hazelnut also present. RCG present.

Stream Name: Little Bear Creek
Reach: 2. Habitat
GPS D/S:
GPS U/S:

Temp air: 22° C
Temp Water: 16° C
Weather: Sunny & Hot

								Width (m)		Depth (m)				
NSO	Hab ID	Sta D/S	Sta U/S	Length (meter)	Hab Type	Area (m2)	% Pool	W1	BKF	Avg	Max	Tail	Resid.	Comments
51	R26	913.2	936.9	23.7	riffle	111.39	-	4.7	6	0.23	0.3	-		Racoon tracks, clawfish claw. Clearing with new plants LB.
52	R27	936.9	955.4	18.5	glide	92.5	20	5	-	0.35	0.5	-		lots of salmonids 1-3 ", >12
53	P26	955.4	970.1	14.7	scour	108.78	-	7.4	-	0.45	0.79	0.4	0.39	
54	R28	970.1	978.2	8.1	riffle	36.45	-	4.5	-	0.15	0.25	-		
55	P27	978.2	1007.0	28.8	scour	210.24	-	7.3	5.9	0.5	1	0.2	0.8	shallow area LB-wide log-jam.
56	R29	1007.0	1028.6	21.6	riffle	118.8	-	5.5	-	0.1	0.3	-		narrow riparian
57	P28	1028.6	1046.7	18.1	scour	114.03	-	6.3	-	0.4	0.8	0.15	0.65	
58	P29	1046.7	1065.0	18.3	trench	78.69	-	4.3	-	0.6	0.8	0.2	0.6	ditch LB
59	R30	1065.0	1079.3	14.3	riffle	67.21	-	4.7	6.4	0.2	0.35	-		ditch LB
60	P30	1079.3	1091.7	12.4	scour	80.6	-	6.5	-	0.45	0.7	0.15	0.55	6" salmonid (trout?)
61	R31	1091.7	1103.0	11.3	riffle	58.76	-	5.2	-	0.15	0.2	-		SR522 close by RB
62	R32	1103.0	1116.8	13.8	glide	55.2	-	4	-	0.35	0.52	-		
63	R33	1116.8	1133.3	16.5	riffle	75.9	15	4.6	-	0.25	0.45	-		
64	P31	1133.3	1140.8	7.5	plunge	64.5	-	8.6	-	0.4	0.78	0.18	0.6	lamprey & juvenile salmonid
65	P32	1140.8	1158.5	17.7	b.water	56.64	-	3.2	-	0.4	0.7	0.15	0.55	backwater/trench
66	R34	1158.5	1161.3	2.8	riffle	14	-	5	-	0.1	0.2	-		
67	P33	1161.3	1168.0	6.7	scour	46.9	-	7	-	0.4	0.65	0.12	0.53	narrow band of trees
68	R35	1168.0	1169.9	1.9	glide	12.16	-	6.4	-	0.2	0.34	-		
69	P34	1169.9	1183	13.1	scour	52.4	-	4	-	0.35	0.64	0.25	0.39	
				269.8		1455.15								

Stream Name: Little Bear Creek
Reach 2. Habitat
GPS D/S:
GPS U/S: Upstream side of SR 522 crossing.

Temp air:16 C
Temp Water:14 C
Weather: Nice

								Width (m)		Depth (Meter)				
NSO	Hab ID	Sta D/S	Sta U/S	Length (Meter)	Hab Type	Area (m2)	% Pool	W1	BKF	Avg	Max	Tail	Resid.	Comments
70	R36	1183.0	1187.0	4.0	riffle	23.6	-	5.9	-	0.1	0.25	-		photo 1 & 2 of roll 3
71	R37	1187.0	1195.6	8.6	glide	51.6	-	6	-	0.25	0.45	-		
72	R38	1195.6	1204.9	9.3	riffle	93	10	5.3	-	0.15	0.3	-		
73	P35	1204.9	1218.7	13.8	l. scour	59.34	-	4.3	-	0.3	0.7	0.2	0.5	
74	R39	1218.7	1220.2	1.5	riffle	6.9	-	4.6	5.6	0.15	0.18	-		
75	R40	1220.2	1239.7	19.5	glide	62.4	-	3.2	-	0.3	0.5	0.15	0.35	glide like
76	R41	1239.7	1262.2	22.5	riffle	135	-	6	-	0.2	0.3	-		sloughing
77	P36	1262.2	1271.4	9.2	scour	35.88	-	3.9	-	0.35	0.7	0.3	0.4	LB rip/rap.
78	R42	1271.4	1275.7	4.3	riffle	22.36	-	5.2	-	0.1	0.2	-		LB unstable
79	P37	1275.7	1290.9	15.2	scour	69.92	-	4.6	-	0.45	0.98	0.2	0.78	LB rip/rap
80	R43	1290.9	1299.9	9.0	riffle	56.7	5	6.3	-	0.15	0.5	-		LB unstable
81	P38	1299.9	1309.2	9.3	scour	53.01	-	5.7	-	0.6	1	0.17	0.83	
82	P39	1309.2	1315.6	6.4	scour	46.08	-	7.2	-	0.5	0.85	0.2	0.65	RB unstable
83	P40	1315.6	1322.7	7.1	scour	36.21	-	5.1	-	0.3	0.5	0.15	0.35	
84	R44	1322.7	1337.3	14.6	riffle	87.6	-	6	-	0.2	0.4	-		
85	P41	1337.3	1346.1	8.8	scour	50.16	-	5.7	-	0.5	0.8	0.22	0.58	
86	R45	1346.1	1355.2	9.1	glide	47.32	-	5.2	-	0.3	0.55	-		
87	R46	1355.2	1360.0	4.8	riffle	28.8	-	6	8.8	0.1	0.2	-		
88	P42	1360.0	1370.8	10.8	scour	56.16	-	5.2	-	0.45	0.75	0.13	0.62	
89	P43	1370.8	1379.7	8.9	scour	50.73	-	5.7	-	0.4	0.7	0.3	0.4	
90	R47	1379.7	1391.2	11.5	riffle	47.15	-	4.1	-	0.25	0.5	-		Rip/rap 1380.7-1390.2
91	P44	1391.2	1403.3	12.1	scour	72.6	-	6	-	0.45	1.0	0.18	0.82	pipe LB sta. 1382
92	R48	1403.3	1408.7	5.4	riffle	24.84	-	4.6	-	0.15	0.22	-		
93	P45	1408.7	1416.2	7.5	scour	45	-	6	-	0.35	0.85	0.18	0.67	fish
94	R49	1416.2	1462.0	45.8	riffle	233.58	5	5.1	-	0.2	0.4	-		photo 17 & 18 of roll 3
95	R50	1462.0	1499.3	37.3	glide	208.88	-	5.6	-	0.3	0.5	-		banks ~ undercut good.
96	R51	1499.3	1514.1	14.8	riffle	76.96	-	5.2	-	0.2	0.25	-		

								Width (m)		Depth (Meter)				
NSO	Hab ID	Sta D/S	Sta U/S	Length (Meter)	Hab Type	Area (m2)	% Pool	W1	BKF	Avg	Max	Tail	Resid.	Comments
97	R52	1514.1	1554.8	40.7	glide	179.08	-	4.4	-	0.3	0.4			
98	R53	1554.8	1563.8	9.0	riffle	47.7	-	5.3	-	0.2	0.25			
99	R54	1563.8	1570.9	7.1	glide	32.66	-	4.6	-	0.3	0.45			
100	R55	1570.9	1583.2	12.3	riffle	70.11	-	5.7	-	0.2	0.3			
101	R56	1583.2	1630.0	46.8	glide	468	10	4.6	-	0.4	0.7			4 lampreys spawning
102	R57	1630.0	1640.5	10.5	riffle	57.75	-	5.5	-	0.2	0.25			pipe overhead.
103	R58	1640.5	1656.0	15.5	glide	77.5	-	5	-	0.4	0.6			
104	P46	1656.0	1663.2	7.2	pool	33.84	-	4.7	-	0.5	0.7	0.3		
105	R59	1663.2	1725.7	62.5	riffle	231.25		3.7		0.2				Within 2 CMP - SR-522
				542.7		2979.67								

Culvert 7.1m wide downstream side opening

Lots of deadly nightshade, Himalayan blackberry, and reed canarygrass.

Stream Name: Little Bear Creek
Reach: 3. Habitat
GPS D/S: Upstream side of SR 522.
GPS U/S: Downstream end of culverts under 195th Street

Temp air:21°C
Temp Water:16°C
Weather:cloudy
Date: 7/19/01

								Width (meter)			Depth (meter)				
NSO	Hab ID	Sta D/S	Sta U/S	Length (meter)	Hab Type	Area (m^2)	% Pool	W1	W2	BKF	Avg	Max	Tail	Resid.	Comments
1	R1	0.0	3.05	3.05	riffle	16.3462	-	5.36	-	-	.25	.3	-		Ditch/trib entering LB at culverts
2	P1	3.05	17.07	14.02	l. scour	60.8945	-	4.34	-	-	.3	.6	0.2	0.4	RB. Small alders
3	R2	17.07	45.4	28.33	riffle	130.247	0	3.531	5.664	7.82	.15	.2	-		Photo 5
4	R3	45.4	63.1	17.7	glide	114.643	5	6.477	-	-	.2	.45	-		Part pool, run/glide~shallow, flat
5	R4	63.1	84.1	21	riffle	128.549	-	6.121	-	-	.1	.15	-		Water/trib RB
6	R5	84.1	100.3	16.2	glide	98.755	0	6.096	-	-	.25	.4	-		Run/glide, like R3
7	R6	100.3	130.8	30.5	riffle	146.418	0	4.801	-	-	.12	.2	-		Blackberry thick RB
8	P2	130.8	149.7	18.9	l. scour	108.01	0	5.715	-	-	.25	.48	0.15	0.33	LB. Rip/rap LB, freeway close
9	R7	149.7	170.4	20.7	riffle	100.416		4.851	-	5.92	.15	.20	-		blackberry + Japanese knotweed
10	R8	170.4	177.7	7.3	glide	38.938	0	5.334	-	-	.2	.25	-		
11	P3	177.7	189.0	11.3	scour	46.928	0	4.547	3.759		.25	.5	0.2	0.3	%pool in glide.
12	R9	189.0	199.0	10	riffle	37.084	-	3.708	-	-	.15	.25	-		
13	P4	199.0	216.4	17.4	scour	90.602	-	5.207	-	-	.4	.71	0.19	0.52	Nice pool, old cedar stump
14	R10	216.4	236.8	20.4	riffle	97.414	-	4.775	-	-	.15	.3	-		Photo 6
15	P5	236.8	251.1	14.3	scour	67.559	-	4.724	-	-	.3	.70	0.15	0.55	Yards now present RB
16	R11	251.1	260.3	9.2	riffle	43.932	-	4.775	-	-	.15	.25	-		Photo 9 & 10
17	R12	260.3	271.2	10.9	glide	60.355	-	5.537	-	-	.3	.4	-		Run/glide
18	P10	271.2	277.7	6.5	plunge	39.624	-	6.096	-	-	.45	.70	0.25	0.45	Scour/plunge, rip/rap
19	P11	277.7	290.0	12.3	plunge	76.23	-	6.198	-	-	.45	.80	0.25	0.55	Foot Bridge 278.9
20	P12	290.0	296.6	6.6	plunge	22.128	-	3.353	-	-	.30	.65	0.25	0.4	
21	P13	296.6	303.9	7.3	plunge	35.601	-	4.877	-	-	.65	.80	0.2	0.6	Photo 11 & 12 = cascade
22	P14	303.9	313.6	9.7	plunge	59.427	-	6.126	-	-	.4	.7	0.4	0.3	Downstream end under 195th.
				313.6		1620.1									

*3 garter snakes on bank of stream, next to on ramp. 9 scales on 1/2 labia.

* Roll #1: P1 = both culverts; P2= LB culvert inside; P3= RB culvert inside; P4= LB trib.
*culverts round CMP 2M diameter each.
*LB trib is 1.4M wide-too small for adults, but could be used by juveniles.

Stream Name:Little Bear Creek
Reach: 3. Habitat.
GPS D/S: Upstream side of culverts under 195th St.
GPS U/S:

Temp air: 22°C
Temp Water: 15°C
Weather:partly coudy/sunny
Date: 7/20/01

								Width (meter)			Depth (meter)				
NSO	Hab ID	Sta. D/S	Sta. U/S	Length (meter)	Hab Type	Area (m^2)	% Pool	W1	W2	BKF	Avg	Max	Tail	Resid.	Comments
23	R13	313.9	330.7	53.38	glide	210.157		3.937			.28	.30			Shallow run/glide, plus 36.58 m in culvert
24	R14	330.7	338.0	7.3	riffle	33.93		4.648			.15	.20			~ at foot/old bridge
25	R15	338.0	345.3	7.3	glide	24.661		3.378			.25	.35			
26	R16	345.3	360.0	14.7	riffle	57.127		3.886			.17	.28			
27	R17	360.0	372.8	12.8	glide	55.921		4.369			.25	.4			
28	R18	372.8	375.5	2.7	riffle	14.813		5.486			.1	.2			
29	P15	375.5	380.7	5.2	s. pool	24.435		4.699			.35	.7	.15	0.55	Nice pool with cover
30	R19	380.7	385.6	4.9	riffle	21.656		4.42			.15	.26			
31	P16	385.6	402.3	16.7	d/s pool	180.701		10.82			.5	.9	.20	0.7	Two giant pools, debris/scour
32	P17	402.3	413.3	11	s. pool	109.525		9.957			.6	1.0	.22	0.78	Mink~brown, black tip on tail
33	R20	413.3	420.6	7.3	riffle	13.35		1.829			.2	.3			Red-tailed hawk. Photo 5-8
34	P18	420.6	424.2	3.6	plunge	16.276		4.521			.4	.65	.20	0.45	Photo 9
35	R21	424.4	450.5	26.1	glide	155.791		5.969			.3	.5	.20	0.3	Tough backwater/debris- glide
36	R22	450.5	455.7	5.2	riffle	26.152		5.029			.2	.3			Good cover, few large conifers
37	P19	455.7	473.0	17.3	scour	146.327		8.458			.65	1.1	.15	0.95	
38	R23	473.0	544.0	71	riffle	316.5		3.988	4.93	5.639	.16	.3			
39	P20	544.0	552.9	8.9	scour	37.3		4.191			.25	.6	.20	0.4	
40	R24	552.9	558.7	5.8	riffle	28.58		4.928			.15	.2			School of juvenile salmonids
41	R25	558.7	568.8	10.1	glide	55.669		5.512			.2	.35			School of juvenile salmonids
42	R26	568.8	593.8	25	riffle	112.395		4.496		6.17	.18	.3			
43	P21	593.8	603.1	9.3	scour	48.66		5.23			.35	.67	.10	0.57	Real close to SR 522
44	R27	603.1	615.4	12.3	riffle	67.636		7.264	3.73		.15	.2			
45	P22	615.4	634.9	19.5	l. scour	87.75		4.5			.30	1.1	.25	0.85	Invasives thick
				357.38		1845.312									

Stream Name:Little Bear Creek
Reach 3: Habitat
GPS D/S:
GPS U/S:

Temp air:18°C
Temp Water:14°C
Weather:cloudy
Date: 7/31/01

								Width		Depth				
NSO	Hab ID	Sta. D/S	Sta. U/S	Length (meter)	Hab Type	Area (m^2)	% Pool	W1	BKF	Avg	Max	Tail	Resid.	Comments
46	R28	634.9	664.8	29.9	riffle	146.576		4.902		0.15	0.3			Area near SR522-robin's nest
47	P23	664.8	679.7	14.9	l. scour	71.529		4.801		0.3	0.55	0.1	0.45	Lateral scour, nice cut bank
48	R29	679.7	690.7	11	riffle	43.586	5	3.962		0.2	0.4			
49	P24	690.7	705.3	14.6	s. pool	157.236		10.77		0.6	1.7	0.19	1.51	Scour pool, best so far
50	R30	705.3	714.4	9.1	riffle	47.615		5.23		0.1	0.2			
51	R31	714.4	734.6	20.2	run/glide	98.511		4.877		0.3	0.45	0.2	0.25	
52	R32	734.6	741.2	6.6	riffle	40.234		6.096		0.1	0.15			
53	P25	741.2	756.2	15	l. scour	72.39		4.826		0.3	0.6	0.19	0.41	RB trib (see photo) sta 750.
54	R33	756.2	783.3	27.1	riffle	128.03	20	4.724		0.15	0.16			
55	P26	783.3	792.4	9.1	l. scour	47.153		5.182		0.25	0.5	0.2	0.3	
56	R34	792.4	803.8	11.4	riffle	63.124		5.54		0.1	0.2			1998 UW B-IBI site
57	P27	803.8	809	5.2	scour	34.87		6.706		0.25	0.66	0.25	0.41	
58	R35	809	818.7	9.7	riffle	92.639		9.55		0.2	0.4			
59	R36	818.7	827.5	8.8	glide	50.963		5.79		0.25	0.4			
60	P28	827.5	847.6	20.1	scour	178.18		8.865		0.5	0.8	0.27	0.53	Clearing RB, big segment
61	R37	847.6	859.5	11.9	riffle	63.17		5.309		0.2	0.25			
62	R38	859.5	869.9	10.4	glide	47.55		4.572		0.27	0.4			
63	P29	869.9	876.6	6.7	pool	27.91		4.166		0.5	0.7	0.27	0.43	
64	R39	876.6	900.3	23.7	riffle	98.725		4.166		0.2	0.3			
65	R40	900.3	908.6	8.3	glide/run	39.845		4.801		0.25	0.35			
66	R41	908.6	934.5	25.9	riffle	169.728		6.55		0.15	0.18			
67	P30	915.3	934.5	19.2	s. pool	112.166		5.842		0.6	1.1	0.2	0.9	House RB-pool under old bridge.
				318.8		1831.73								

Stream Name: Little Bear Creek
Reach:3 Habitat
GPS D/S: Immediately upstream of old bridge, house RB.
GPS U/S: Immediately downstream of 205th Street.

Temp air:17°C
Temp Water:14°C
Weather:overcast
Date: 8/01/01

								Width (meter)		Depth (meter)				
NSO	Hab. ID	Sta. D/S	Sta. U/S	Length (meter)	Hab. Type	Area (m^2)	% Pool	W1	BKF	Avg	Max	Tail	Resid.	Comments
68	R42	934.5	954.6	20.1	riffle	108.745		5.41		0.15	0.25			Large riffle. LB trib, sta 948.2
69	R43	954.6	973.2	18.6	glide	87.874		4.72		0.25	0.55	0.2	0.35	Sta. 973.2, large cobble placed across stream by landowner.
70	P31	973.2	979.6	6.4	l. scour	29.7485		4.648		0.35	0.6	0.2	0.4	Yard RB. 1/2 width functioning
71	R44	979.6	1013.2	33.6	riffle	172.395		5.131		0.2	0.28			Not much spawning gravel.
72	P32	1013.2	1020.1	6.9	l/s pool	28.042		4.064		0.3	0.5	0.25	0.25	Freeway noise, raccoon tracks.
73	R45	1020.1	1029.3	9.2	riffle	28.976		3.15		0.15	0.25			Clay substrate prevalent.
74	R46	1029.3	1039	9.7	glide	53.711		5.537		0.35	0.45	0.24	0.21	Large doug firs and cedar LB.
75	P33	1039	1054	15	p. pool	135.636		9.04		0.6	1.4	0.25	1.15	Big simple plunge pool, less clay.
76	P34	1054	1060.7	6.7	l. scour	40.843		6.096		0.3	0.6	0.25	0.35	
77	R47	1060.7	1075	14.3	riffle	83.177		5.817		0.1	0.2			
78	P35	1075	1089.7	14.7	s. pool	91.85		6.248		0.4	0.5	0.2	0.3	Nice Wetland RB
79	R48	1089.7	1098.1	8.4	riffle	35.204		4.19		0.1	0.2			
80	P36	1098.1	1111.9	13.8	scour	76.413		5.537		0.25	0.5	0.2	0.3	Not much of a pool.
81	R49	1111.9	1116.5	4.6	riffle	25.588		5.563	8.2	0.05	1			
82	P37	1116.5	1138.1	21.6	s. pool	121.249		5.613		0.3	0.6	0.15	0.45	
83	R50	1138.1	1151.5	13.4	riffle	64.668		4.826		0.2	0.3			Some large cobble, clay gone
84	R51	1151.5	1180.8	29.3	glide	150.33	20	5.1308	7.39	0.2	0.5	0.2	0.3	
85	R52	1180.8	1186.9	6.1	riffle	35.791		5.867		0.1	0.15			
86	P38	1186.9	1199.7	12.8	scour	61.448		4.801		0.25	0.4	0.15	0.25	Not much of a pool.
87	R53	1199.7	1237.1	37.4	riffle	172.893	5	4.623		0.2	0.4			Steep, sandy, bedrock, black clay gravel. House RB
88	R54	1237.1	1258.8	21.7	glide	109.134		5.029		0.2	0.4			Run - Flat. 85% hard clay bottom.
89	R55	1258.8	1267.4	8.6	riffle	44.125		5.131		0.2	0.3			Steep. Sandy gravel
90	R56	1267.4	1279.2	11.8	glide	48.854		4.14		0.2	0.35			Flat, run.
91	R57	1279.2	1284.1	4.9	riffle	22.901		4.674		0.2	0.3			Steep.
92	R58	1284.1	1297.5	13.4	glide	73.177		5.461		0.25	0.3			Flat. LB rip/rap length of unit.
93	R59	1297.5	1305.5	8	riffle	25.6		3.2		0.2	0.3			and 10 feet into this unit
94	P39	1305.5	1314.9	9.4	plunge	154		16.38		0.5	1.2	0.25	0.95	End, 0.6 M vertical jump distant
				380.4		2082.373								Added 36.58 meters for 195th Street in NSO 23 not reflected in station #s.