Appendix III. Summary of physical and chemical data for survey sites.

Site No.	Year	Date	Locality	Weather	Wind	Air Temp. (C)	Water Temp. (C)	pH	Conductivity (u S/cm)	Color	Turbidity
1	1996	16-May	Freighter Spring Exclosure	overcast	calm			7.6	20	clear	clear
2	1996	16-May	McGowan Cr. stock pond	rain	strong	10		8.2	29	clear	clear
3	1996	16-May	Antelope Flat carex bog	rain	strong	10				clear	cloudy
4	1996	17-May	Alkali Spring exclosure	pt. cloudy	light	16		7.5	69	clear	clear
5	1996	17-May	Ryegrass Spring exclosure	pt. cloudy	light	18				clear	clear
6	1996	22-May	Lake Cr. beaver pond	pt. cloudy	strong	9	4	7.8	16	clear	clear
7	1996	22-May	Herd Lake, south shore	pt. cloudy	strong	9	10	8.4	8	clear	clear
8	1996	5-Jun	Bear Cr. Pond	clear	calm		dry				
9	1996	5-Jun	Horse Basin/Corral Basin exclosure	clear	light	19	16		23	clear	clear
10	1996	5-Jun	lower Road Cr.	clear	light	19	16		23	clear	clear
11	1996	5-Jun	White Colt Spring	clear	light	19				clear	clear
12	1996	6-Jun	Little Morgan Cr.	clear	calm					clear	cloudy
13	1996	7-Jun	Thousand Springs	clear	light	18	16	8.4	17	clear	clear
14	1996	7-Jun	Whiskey Springs	clear	calm	32				clear	clear
15	1996	8-Jun	Crane Basin	clear	calm						
16	1996	10-Jun	Texas Cr.	clear	calm	25	25		22	stained	cloudy
17	1996	11-Jun	Eighteenmile Cr.	clear	calm	11	9		6	clear	clear
18	1996	11-Jun	Eighteenmile Cr.	clear	light	11	15		4	clear	cloudy
19	1996	11-Jun	Salmon landfill pond	clear	calm	21				stained	cloudy
20	1996	11-Jun	Hot Springs Cr.	clear	calm	21				clear	clear
21	1996	13-Jun	Spring Hill pond #6	pt. cloudy	calm	22	24		7	stained	cloudy
22	1996	13-Jun	Spring Hill pond #5	pt. cloudy	calm	21	15		31	clear	clear
23	1996	13-Jun	Spring Hill pond #4	pt. cloudy	calm	21	20		29	clear	clear
24	1997	24-Jul	Spring Hill pond #3	pt. cloudy	light	26	22	9.7	17	clear	cloudy
25	1997	24-Jul	Spring Hill pond #2	pt. cloudy	light	26	19	9.3	20	clear	clear
26	1997	24-Jul	Spring Hill pond #1	pt. cloudy	light	26	22	8.8	24	clear	clear
27	1996	14-Jun	Carlson Lake				16		15	clear	clear
28	1996	14-Jun	upper Road Cr. exclosure	pt. cloudy	light					clear	clear
29	1996	14-Jun	upper Road Cr. pond	pt. cloudy	calm	26				clear	clear
30	1996	14-Jun	upper Road Cr. exclosure	pt. cloudy	light					clear	clear
31	1997	5-Aug	Mud Lake	overcast	light	15	18	9.5	100	stained	cloudy
32	1996	17-Jun	Twin Lakes	pt. cloudy	strong		19		51	clear	clear
33	1996	4-Jul	Doublesprings	pt. cloudy	light	23	5		100	clear	clear
34	1996	4-Jul	Mud Spring exclosure	pt. cloudy	light					clear	clear

Appendix III. Summary of physical and chemical data for survey sites.

Site No.	Year	Date	Locality	Weather	Wind	Air Temp. (C)	Water Temp. (C)	pH	Conductivity (u S/cm)	Color	Turbidity
35	1996	4-Jul	Burnt Cr. - spring	clear	calm					clear	clear
36	1996	4-Jul	Burnt Cr. - spring	clear	calm					clear	clear
37	1996	5-Jul	Burnt Cr. Lake	clear	light	15	15		170	clear	clear
38	1996	5-Jul	Burnt Cr. exclosure	pt. cloudy	light	16	17		230	clear	clear
39	1996	5-Jul	Summit Cr.	pt. cloudy	strong	25	22		210	clear	clear
40	1996	5-Jul	Summit Resevoir Dam	pt. cloudy	strong					stained	cloudy
41	1996	9-Jul	South Butte Mine pond	pt. cloudy	calm	18	20		40	stained	clear
42	1996	9-Jul	South Butte Mine pond	pt. cloudy	calm	16	21		130	stained	clear
43	1996	9-Jul	South Butte Mine pond	pt. cloudy	calm	16	dry				
44	1996	9-Jul	South Butte Mine pond	pt. cloudy	strong	19	22		80	stained	clear
45	1996	16-Jul	Grouse Cr. Lake	pt. cloudy	strong	18	21		230	clear	clear
46	1996	16-Jul	Crane Basin exclosure	pt. cloudy	strong	18				clear	clear
47	1996	16-Jul	Wino Basin	pt. cloudy	strong	18					
48	1996	19-Jul	Horse Basin Spring No. 1	clear	calm	26				clear	clear
49	1997	30-May	Horse Basin pond	pt. cloudy	calm	19	19	8.6	1	stained	clear
50	1996	20-Jul	Birch Cr. Springs	clear	calm	11	9		200	clear	clear
51	1996	20-Jul	Yearian pond	pt. cloudy	strong	21				stained	clear
52	1996	20-Jul	Yearian pond	pt. cloudy	strong	21	21		240	clear	cloudy
53	1996	22-Jul	Hyde Cr. pond	clear	light	24	21		230	stained	cloudy
54	1996	25-Jul	Upper Cedar Cr.								
55	1996	21-Aug	Tower Cr. Slough	clear	calm					clear	clear
56	1997	13-May	Warm Springs Cr. - mouth	pt. cloudy	light	26	29		110	stained	cloudy
57	1997	14-May	Tower Slough pond	clear	light	26	25		280	clear	clear
58	1997	13-Jul	Chilly Slough - south end	clear	calm	25	21	9.3	35	clear	clear
59	1997	15-Jul	Birch Cr. CA	pt. cloudy	strong	28	23	7.6	36	clear	clear
60	1997	15-Jul	Birch Cr. CA	pt. cloudy	light	28	16	8.2	21	stained	clear
61	1997	15-Jul	Birch Cr. CA	pt. cloudy	strong	25	24	8.6	21	clear	clear
62	1997	16-Jul	Cow Cr. pond	clear	light	23	19	7.2	25	stained	clear
63	1997	23-Jul	Grouse Cr. pond	pt. cloudy	light	26	8	8.4	12	clear	clear
64	1997	5-Aug	Bear Cr.	overcast	calm	14	8	8.6	19	clear	clear
65	1997	22-Aug	Bear Cr. pond	pt. cloudy	calm	25	19	8.4	7	stained	clear
66	1997	22-Aug	Bear Cr. pond	pt. cloudy	light	25	21	9.1	5	stained	clear
67	1997	5-Sep	Merriam Lake	pt. cloudy	light	13	11	8.7	12	clear	clear
68	1997	15-Sep	Trail Cr. ACEC	pt. cloudy	light	7	4	8.6	0.5	clear	clear

Appendix III. Summary of physical and chemical data for survey sites.

Site No.	Year	Date	Locality	Weather	Wind	Air Temp. (C)	Water Temp. (C)	pH	Conductivity (uS/cm)	Color	Turbidity
69	1997	24-Jul	Spring Hill pond	clear	light	26	21	8.7	19	clear	clear
70	1997	24-Jul	Spring Hill pond	clear	calm	26	18	8.9	16	stained	clear

Appendix IV. Summary of amphibian and reptile species detected at survey sites.

Site No.	Year	Date	Locality	Species	No. Adults	No. Juveniles	No. Metamorphs	No. Larvae	No. Egg Masses	Technique	Fish Present	Fish Species
1	1996	16-May	Freighter Spring Exclosure							visual search, dipnetting	no	
1	1996	25-Jul	Freighter Spring Exclosure							visual search, dipnetting	no	
2	1996	16-May	McGowan Cr. stock pond							visual search, dipnetting	yes	??
2	1996	16-Jul	McGowan Cr. stock pond							visual search, dipnetting	yes	??
2	1996	25-Jul	McGowan Cr. stock pond							visual search, dipnetting	yes	??
3	1996	16-May	Antelope Flat carex bog							visual search, dipnetting	no	
4	1996	17-May	Alkali Spring exclosure							visual search, dipnetting	no	
5	1996	17-May	Ryegrass Spring exclosure							visual search, dipnetting	no	
5	1996	5-Jun	Ryegrass Spring exclosure							visual search, dipnetting	no	
6	1996	22-May	Lake Cr. beaver pond							visual search, dipnetting	yes	??
7	1996	22-May	Herd Lake, south shore							visual search, dipnetting	yes	??
8	1996	5-Jun	Bear Cr. Pond							visual search, dipnetting	no	
9	1996	5-Jun	Horse Basin/Corral Basin exclosure							visual search, dipnetting	no	
10	1996	5-Jun	lower Road Cr.							visual search, dipnetting	yes	??
11	1996	5-Jun	White Colt Spring							visual search, dipnetting	no	
12	1996	6-Jun	Little Morgan Cr.							visual search, dipnetting	??	
13	1996	7-Jun	Thousand Springs	Columbia Spotted Frog	6					visual search, dipnetting	no	
14	1996	7-Jun	Whiskey Springs	Columbia Spotted Frog	1					visual search, dipnetting	??	
15	1996	8-Jun	Crane Basin							visual search, dipnetting	no	
16	1996	10-Jun	Texas Cr.	Columbia Spotted Frog	1					visual search, dipnetting	no	
17	1996	11-Jun	Eighteenmile Cr.	Columbia Spotted Frog	2					visual search, dipnetting	no	
18	1996	11-Jun	Eighteenmile Cr.	Long-toed Salamander				100+		visual search, dipnetting	no	
18	1996	11-Jun	Eighteenmile Cr.	Columbia Spotted Frog	2					visual search, dipnetting	no	
19	1996	11-Jun	Salmon landfill pond							visual search, dipnetting	no	
20	1996	11-Jun	Hot Springs Cr.							visual search, dipnetting, automated recording	no	
20	1996	23-Jul	Hot Springs Cr.							visual search, dipnetting, automated recording	no	
21	1996	13-Jun	Spring Hill pond #6							visual search, dipnetting	no	
22	1996	13-Jun	Spring Hill pond #5							visual search, dipnetting	no	
23	1996	13-Jun	Spring Hill pond #4							visual search, dipnetting	no	
24	1996	13-Jun	Spring Hill pond #3							visual search, dipnetting	no	
24	1997	24-Jul	Spring Hill pond #3							visual search, dipnetting	no	
25	1996	13-Jun	Spring Hill pond #2							visual search, dipnetting	no	
25	1997	24-Jul	Spring Hill pond #2							visual search, dipnetting	no	
26	1996	13-Jun	Spring Hill pond #1							visual search, dipnetting	no	
26	1997	24-Jul	Spring Hill pond #1	W. T. Garter Snake	2					visual search, dipnetting	no	
27	1996	14-Jun	Carlson Lake							visual search, dipnetting	yes	cutthroat trout
28	1996	14-Jun	upper Road Cr. exclosure							visual search, dipnetting	yes	??
29	1996	14-Jun	upper Road Cr. pond							visual search, dipnetting	no	
30	1996	14-Jun	upper Road Cr. exclosure							visual search, dipnetting	no	
31	1996	17-Jun	Mud Lake							visual search dipnetting	no	
31	1997	5-Aug	Mud Lake							visual search, dipnetting	no	
32	1996	17-Jun	Twin Lakes							visual search, dipnetting	??	
33	1996	4-Jul	Doublesprings							visual search, dipnetting	no	
33	1996	16-Aug	Doublesprings							visual search, dipnetting	no	
34	1996	4-Jul	Mud Spring exclosure							visual search, dipnetting	no	

Appendix IV. Summary of amphibian and reptile species detected at survey sites.

Site No.	Year	Date	Locality	Species	No. Adults	No. Juveniles	No. Metamorphs	No. Larvae	No. Egg Masses	Technique	Fish Present	Fish Species
35	1996	4-Jul	Burnt Cr. - spring							visual search	no	
36	1996	4-Jul	Burnt Cr. - spring							visual search	no	
37	1996	5-Jul	Burnt Cr. Lake							visual search, dipnetting	no	
38	1996	5-Jul	Burnt Cr. exclosure							visual search, dipnetting	??	
39	1996	5-Jul	Summit Cr.	Unknown Garter Snake						visual search, dipnetting	yes	brook trout
40	1996	5-Jul	Summit Reservoir Dam							visual search, dipnetting	??	
41	1996	9-Jul	South Butte Mine pond	Long-toed Salamander				100's		visual search, dipnetting	no	
42	1996	9-Jul	South Butte Mine pond	Long-toed Salamander				100's		visual search, dipnetting	no	
43	1996	9-Jul	South Butte Mine pond							visual search		
44	1996	9-Jul	South Butte Mine pond							visual search, dipnetting	no	
45	1996	16-Jul	Grouse Cr. Lake							visual search, dipnetting	no	
46	1996	16-Jul	Crane Basin exclosure							visual search	no	
47	1996	16-Jul	Wino Basin							visual search, dipnetting	no	
48	1996	19-Jul	Horse Basin Spring No. 1							visual search	no	
49	1996	19-Jul	Horse Basin pond							visual search, dipnetting	no	
49	1997	30-May	Horse Basin pond							visual search, dipnetting	no	
50	1996	20-Jul	Birch Cr. Springs							visual search, dipnetting	yes	brook trout
51	1996	20-Jul	Yearian pond							visual search, dipnetting	no	
52	1996	20-Jul	Yearian pond	Columbia Spotted Frog	2					visual search, dipnetting	??	
53	1996	22-Jul	Hyde Cr. pond	Columbia Spotted Frog	4					visual search, dipnetting	yes	??
54	1996	25-Jul	Upper Cedar Cr.							visual search, dipnetting	??	
55	1996	21-Aug	Tower Cr. Slough	W. T. Garter Snake	1					visual search, dipnetting	yes	??
56	1997	13-May	Warm Springs Cr. - mouth	Pacific Treefrog				4		visual search, dipnetting	no	
57	1997	14-May	Tower Slough pond	Columbia Spotted Frog				10+		visual search, dipnetting	??	
57	1997	14-May	Tower Slough pond	Painted Turtle	3					visual search, dipnetting	??	
58	1997	13-Jul	Chilly Slough - south end	Columbia Spotted Frog	3+			100's		visual search	yes	brook, rainbow?
59	1997	15-Jul	Birch Cr. CA	W. T. Garter Snake		1				visual search	yes	brook trout
59	1997	15-Jul	Birch Cr. CA	Columbia Spotted Frog	3	2				visual search	yes	brook trout
60	1997	15-Jul	Birch Cr. CA	W. T. Garter Snake		1				visual search	no	
60	1997	15-Jul	Birch Cr. CA	Columbia Spotted Frog	1					visual search	no	
61	1997	15-Jul	Birch Cr. CA	Columbia Spotted Frog				20+		visual search, dipnetting	no	
62	1997	16-Jul	Cow Cr. pond	W. T. Garter Snake	5					visual search, dipnetting	no	
62	1997	16-Jul	Cow Cr. pond	Columbia Spotted Frog	12			1		visual search, dipnetting	no	
63	1997	23-Jul	Grouse Cr. pond							visual search, dipnetting	no	
64	1997	5-Aug	Bear Cr.							visual search, dipnetting	??	
65	1997	22-Aug	Bear Cr. pond							visual search, dipnetting	no	
66	1997	22-Aug	Bear Cr. pond	W. T. Garter Snake	3	3				visual search, dipnetting	no	
66	1997	22-Aug	Bear Cr. pond	Western Toad			3			visual search, dipnetting	no	
66	1997	22-Aug	Bear Cr. pond	Columbia Spotted Frog				20+		visual search, dipnetting	no	
67	1997	5-Sep	Merriam Lake							visual search, dipnetting	yes	
68	1997	15-Sep	Trail Cr. ACEC							visual search, dipnetting	no	
69	1997	24-Jul	Spring Hill pond							visual search, dipnetting	no	
70	1997	24-Jul	Spring Hill pond							visual search, dipnetting	no	

Appendix V. Summary of habitat characteristics of survey sites.

Site No.	Year	Date	Locality	Origin	Drainage	Description	Primary Substrate	Site Length (m)	Site Width (m)	Max. Depth (m)	Emergent Vegetation	% Shoreline w/ Emergent Vegetation	Stream Order	Distance to Forest Edge (m)	Riparian Vegetation	Comments
1	1996	16-May	Freighter Spring Exclosure	natural	permanent	spring/seep	silt/mud	150	100	< 1	sedge, rush			> 1000	willow, sedge, rush	exclosure
2	1996	16-May	McGowan Cr. stock pond	man-made	permanent	permanent pond	silt/mud	20	15	< 1	rush, sedge	25-50		> 1000		previously grazed
3	1996	16-May	Antelope Flat carex bog	man-made	occasional	temporary pond	silt/mud	100	40	< 1	sedge			> 1000		previously grazed
4	1996	17-May	Alkali Spring exclosure	natural	permanent	spring/seep	sand/gravel	1000	20	< 1				> 1000	sedge, rush, birch, greasewood	exclosure
5	1996	17-May	Ryegrass Spring exclosure	man-made	occasional	spring/seep	sand/gravel	75	10	< 1				> 1000	sagebrush, saltgrass, sedge	exclosure
6	1996	22-May	Lake Cr. beaver pond	natural	permanent	inactive beaver pond	silt/mud	30	20	< 1	sedge		1	> 1000	sedge, willow	
7	1996	22-May	Hard Lake, south shore	natural	permanent	permanent lake	silt/mud	50	5	1-2	sedge	> 50		> 1000	sedge	
8	1996	5-Jun	Bear Cr. Pond	natural	permanent	inactive beaver pond	silt/mud	10	8	< 1	sedge		1	>1000	sedge, willow	dry
9	1996	5-Jun	Horse Basin/Corral Basin exclosure	natural	permanent	stream	sand/gravel	2,000	20	< 1			3	> 1000	sagebrush, sedge, greasewood	exclosure
10	1996	5-Jun	lower Road Cr.	natural	permanent	active beaver pond	silt/mud	1000	30	1-2	sedge			> 1000	sedge, willow, birch	
11	1996	5-Jun	White Colt Spring	man-made	occasional	spring/seep	sand/gravel	25	1	< 1				> 1000	sagebrush, gooseberry, willow	
12	1996	6-Jun	Little Morgan Cr.	natural	permanent	stream	sand/gravel	100	20	< 1					cottonwood, willow, birch	
13	1996	7-Jun	Thousand Springs	natural	permanent	spring/seep	silt/mud	1000	700	1-2				> 1000	sedge, grass	
14	1996	7-Jun	Whiskey Springs	natural	permanent	marsh/bog	silt/mud	200	50	< 1	sedge, cattails, rush	> 50		> 1000	sedge	
15	1996	8-Jun	Crane Basin	natural		spring/seep								> 1000	??	
16	1996	10-Jun	Texas Cr.	man-made	permanent	stream	cobble	100	4	< 1	sedge		1	> 1000	sedge	
17	1996	11-Jun	Eighteen mile Cr.	natural	permanent	spring/seep	silt/mud	50	25	< 1	sedge			??	sedge, willow	
18	1996	11-Jun	Eighteen mile Cr.	natural	permanent	pond	silt/mud	20	15	1-2	willow, sedge	> 50		> 1000	willow, sedge	
19	1996	11-Jun	Salmon landfill pond	man-made	occasional	pond	silt/mud	75	50	1-2	sedge, rush	1-25		> 1000		
20	1996	11-Jun	Hot Springs Cr.	natural	permanent	stream	silt/mud	100	5	< 1	rush, cattails			> 1000	rush, cattails	
21	1996	13-Jun	Spring Hill pond #6	natural	none	pond	silt/mud	30	15	< 1	sedge	> 50		> 1000	sedge	
22	1996	13-Jun	Spring Hill pond #5	natural	occasional	pond	silt/mud			< 1				> 1000		
23	1996	13-Jun	Spring Hill pond #4	natural	occasional	pond	silt/mud			< 1				> 1000		
24	1997	24-Jul	Spring Hill pond #3	natural	none	pond	silt/mud	100	20	1-2	sedge, bull rush, horsetail	1-25		500	sedge	cattle trampling on shore
25	1997	24-Jul	Spring Hill pond #2	natural	permanent	pond	silt/mud	75	50	1-2	sedge	> 50		500	sedge	
26	1997	24-Jul	Spring Hill pond #1	natural	permanent	pond	silt/mud	15	10	< 1	sedge	> 50		> 1000	sedge, willow, aspen	
27	1996	14-Jun	Carlson Lake	natural	permanent	lake										
28	1996	14-Jun	upper Road Cr. exclosure	natural	permanent	stream/bog	silt/mud	30	15	< 1	sedge				willow, sedge	
29	1996	14-Jun	upper Road Cr. pond	man-made	occasional	pond	silt/mud	25	25	1-2	grass, sedge, rush	> 50		500	same	intact exclosure
30	1996	14-Jun	upper Road Cr. exclosure	natural	permanent	stream/bog	silt/mud	30	15	< 1	sedge				willow, cottonwood, sedge	
31	1997	5-Aug	Mud Lake	natural	none	lake	silt/mud	100	80	> 2	horsetail	> 50		600	none	breached exclosure, trampled
32	1996	17-Jun	Twin Lakes	natural						1-2						
33	1996	4-Jul	Doublesprings	natural	permanent	spring/seep	silt/mud	125	2	< 1	grass, sedge				grass, sedge	exclosure
34	1996	4-Jul	Mud Spring exclosure	natural	permanent	spring/seep	silt/mud	75	30	< 1	grass, sedge					
35	1996	4-Jul	Burnt Cr. - spring	natural	permanent	spring/seep	silt/mud	10	10	< 1					sedge, willow	livestock trampled
36	1996	4-Jul	Burnt Cr. - spring	natural	permanent	spring/seep	silt/mud	10	10	< 1					sedge, willow	livestock trampled
37	1996	5-Jul	Burnt Cr. Lake	natural	occasional	lake	silt/mud	100	50	1-2	bulrushes	1-25		1	sedge	no fish
38	1996	5-Jul	Burnt Cr. exclosure	natural	permanent	active beaver pond	silt/mud	500	50	1-2	sedge,willow	25-50	1	> 1000	willow, sedge	exclosure
39	1996	5-Jul	Summit Cr.	natural	permanent	stream	sand/gravel	1000	25	< 1	sedge	> 50	1		willow, birch, sedge	brook trout abundant
40	1996	5-Jul	Summit Reservoir Dam	man-made	permanent	lake	cobble	100	5	1-2		0			none	extensive livestock use
41	1996	9-Jul	South Butte Mine pond	natural	none	pond	silt/mud	70	60	< 1	sedge	> 50		500	sedge	temporary pond
42	1996	9-Jul	South Butte Mine pond	natural	occasional	pond	silt/mud	100	30	< 1	sedge	> 50		300	sedge	temporary pond
43	1996	9-Jul	South Butte Mine pond	natural	none	pond										dry
44	1996	9-Jul	South Butte Mine pond	natural	none	pond	silt/mud	30	25	1-2	sedge	25-50		> 500	willow, aspen, sedge	
45	1996	16-Jul	Grouse Cr. Lake	natural	none	lake	silt/mud	150	75	1-2	bulrushes, sedge	> 50		50	sedge	breached exclosure, trampled
46	1996	16-Jul	Crane Basin exclosure	natural	occasional	spring/seep	silt/mud	50	1	< 1	sedge				willow, sedge	
47	1996	16-Jul	Wino Basin	natural	none	pond	silt/mud	50	50	< 1	sedge, rush	> 50				
48	1996	19-Jul	Horse Basin Spring No. 1	natural	permanent	spring/seep	silt/mud	50	10	< 1				> 1000	willow, sedge	
49	1996	19-Jul	Horse Basin pond	natural	none	pond	silt/mud	15	15	< 1	sedge	> 50		> 1000	sedge	
49	1997	30-May	Horse Basin pond	natural	occasional	pond	silt/mud	40	25	< 1	sedge	> 50		> 1000	sedge	
50	1996	20-Jul	Birch Cr. Springs	natural	permanent	stream	sand/gravel	400	25	< 1	monkeyflower, sedge		1	> 1000	sedge	brook trout common
51	1996	20-Jul	Yearian pond	natural	none	pond	silt/mud	100	75	< 1	rush	> 50		500	grass, sedge	
52	1996	20-Jul	Yearian pond	man-made	occasional	lake	silt/mud	250	100	> 2	rush, willow	1-25		150	sedge, grass, willow	
53	1996	22-Jul	Hyde Cr. pond	man-made	permanent	pond	silt/mud	50	50	> 2	cattail	> 50		> 1000	grass, sedge	fish present
54	1996	25-Jul	Upper Cedar Cr.	natural	permanent	stream	boulder/bedrock	100	4	< 1			2	0	Douglas-fir, cottonwood, willow, rose	entire stream diverted at canyon mouth

Appendix V. Summary of habitat characteristics of survey sites.

Site No.	Year	Date	Locality	Origin	Drainage	Description	Primary Substrate	Site Length (m)	Site Width (m)	Max. Depth (m)	Emergent Vegetation	% Shoreline w/ Emergent Vegetation	Stream Order	Distance to Forest Edge (m)	Riparian Vegetation	Comments
35	1996	21-Aug	Tower Cr. Slough	natural	occasional	marsh/bog	silt/mud	1000	40	1-2					cottonwood, willow, birch	
36	1997	13-May	Warm Springs Cr. - mouth	natural	none	pond	silt/mud	30	15	< 1	rush	> 50		> 1000	greasewood	temporary pond
37	1997	14-May	Tower Slough pond	natural	none	pond	silt/mud	50	50	1-2	cattail	1-25		10	cottonwood	osprey nest box
38	1997	13-Jul	Chilly Slough - south end	natural	permanent	marsh/bog	silt/mud	1000	500	1-2	cattail, bulrush	> 50		> 1000	sedge	
39	1997	15-Jul	Birch Cr. CA	natural	permanent	stream	sand/gravel	300	2	< 1			1	> 1000	sedge	
50	1997	15-Jul	Birch Cr. CA	natural	permanent	bog	silt/mud	100	50	< 1	sedge			> 1000	sedge	
51	1997	15-Jul	Birch Cr. CA	natural	permanent	stream	sand/gravel	100	2	< 1	sedge		1	> 1000	sedge	fish present
52	1997	16-Jul	Cow Cr. pond	natural	occasional	pond	silt/mud	25	12	1-2	sedge, cattail	> 50		25	sedge, grass, aspen	
53	1997	23-Jul	Grouse Cr. pond	man-made	permanent	pond	silt/mud	100	40	> 2		0		- 10		
54	1997	5-Aug	Bear Cr.	natural	permanent	stream	cobble	100	2	< 1			2	30	aspen, willow, Douglas-fir	
55	1997	22-Aug	Bear Cr. pond	natural	none	pond	silt/mud	15	10	< 1	baltic rush?	> 50		100		
56	1997	22-Aug	Bear Cr. pond	natural	none	pond	silt/mud	50	20	< 1	baltic rush?	> 50		5		
57	1997	5-Sep	Merriam Lake	natural	permanent	lake	boulder/bedrock	200	100	> 2		0		1		
68	1997	15-Sep	Trail Cr. ACEC	natural	permanent	stream	boulder/bedrock	100	1	< 1			2	0	Douglas-fir, E. spruce	
69	1997	24-Jul	Spring Hill pond	natural	none	pond	silt/mud	16	8	< 1	sedge	1-25		> 1000	sedge	livestock trampled
70	1997	24-Jul	Spring Hill pond	natural	permanent	pond	silt/mud	40	10	> 2	sedge	1-25		> 1000	willow, thistle, nettle, rose	