

SLOUGH 8A REFERENCE DATA
COMPILED FROM SUSITNA PROJECT
BIOLOGICAL REPORTS



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**Alaska Dept. of Fish & Game
Susitna Hydro Aquatic Studies**

**SLOUGH 8A REFERENCE DATA
COMPILED FROM SUSITNA PROJECT
BIOLOGICAL REPORTS**

Prepared by:

**Woodward-Clyde Consultants
701 Sesame Street
Anchorage, AK 99503**

October 1984

FOR INTERNAL PROJECT USE ONLY

NOT FOR REFERENCE

INDEX

Resident and Anadromous Fish Data

- 1=Index counts
- 2=Catch per unit effort
- 3=Total population estimate
- 4=Spawning ground surveys
- 5=Weighted useable area
- 6=Habitat indice
- 7=Timing of salmon presence
- 8=Spawning areas maps
- 9=Escapement

Aquatic Habitat Data

- 1=WSEL vs Q
- 2=Surface area of aggregate type II
- 3=Habitat zone description
- pm=Planimetric map
- S=Substrate
- ST=Substrate water temperature
- OL=Open leads
- *=Winter data
- 4=Weighted useable area
- 5=Habitat index
- 6=WSEL
- 7=X-sectional elevation
- =Collected at chum salmon redds
- + =Collected at pink salmon redds
- x=Collected at sockeye salmon redds

WATER QUALITY DATA

[illegible]

Slacks 8 H.
3 = Habitat Zone Description

PM = planimetric map; Σ = surface area of aggregate type II

$T =$ substrate water temp.

OL = open leads

$S = \text{Substrate}$

[illegible]

1 = Index Counts
2 = Catch per unit effort
3 = Total population estimate

[illegible]

3 = Total population estimate

4 = spawning ground survey

[illegible]

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Appendix Table B-1 Summary of intragravel and corresponding surface water quality data collected along the left bank of specific sites in sloughs 8A, 9, 11 and 21 during early (April 15-18) and late (April 29-May 2) sampling periods in spring, 1983.

Slough	Site	Sampling Period	Slough Bank	Variable	Intragravel Water					Surface Water				
					Min	Mean	Max	SD	N	Min	Mean	Max	SD	N
Slough 8A	A	Early	Left	Dissolved Oxygen	4.0	4.3	4.6	0.2	10	7.4	9.5	10.5	1.0	10
	A	Late	Left	Dissolved Oxygen	4.0	4.4	4.6	0.2	10	10.5	11.1	11.3	0.3	10
	A	Early	Left	Water Temperature	2.0	2.3	2.5	0.2	10	2.0	2.4	3.0	0.384	10
	A	Late	Left	Water Temperature	3.0	3.6	5.8	0.8	10	4.2	4.6	5.0	0.245	10
	A	Late	Left	Specific Conductance	236	254	258	6	10	178	183	188	3.0	10
	A	Early	Left	pH	7.2		7.3	--	10	7.1		7.3	--	10
	A	Late	Left	pH	6.4		6.6	--	5	6.4		6.8	--	5
Slough 9	B	Early	Left	Dissolved Oxygen	5.5	6.2	6.8	0.4	10	9.0	9.5	10.0	0.3	10
	B	Late	Left	Dissolved Oxygen	5.3	6.0	6.6	0.5	10	10.4	10.7	10.9	0.1	10
	C	Late	Left	Dissolved Oxygen	1.3	3.3	6.4	27	3	8.0	8.1	8.2	0.1	3
	B	Early	Left	Water Temperature	3.0	3.9	4.9	0.6	10	5.0	5.2	5.4	0.129	10
	B	Late	Left	Water Temperature	3.5	4.0	4.5	0.3	10	6.0	6.3	6.5	0.204	10
	C	Late	Left	Water Temperature	4.0	4.1	4.2	0.1	3	5.2	5.6	6.2	0.513	3
	B	Late	Left	Specific Conductance	201	217	236	15	10	153	157	163	3.0	10
	C	Late	Left	Specific Conductance	218	242	257	21	3	192	196	198	3.0	3
	B	Early	Left	pH	6.5		7.0	--	10	6.5		7.0	--	10
	B	Late	Left	pH	6.2		6.4	--	5	5.9		6.3	--	5
Slough 11	A	Early	Left	Dissolved Oxygen	7.4	7.9	8.4	0.3	10	11.3	11.5	11.6	0.1	10
	A	Late	Left	Dissolved Oxygen	6.7	7.1	7.5	0.3	10	10.9	11.1	11.2	0.1	10
	B	Early	Left	Dissolved Oxygen	6.2	9.0	10.5	1.1	10	9.8	10.2	11.0	6.4	10
	B	Late	Left	Dissolved Oxygen	8.1	8.9	9.2	0.3	10	10.8	11.1	11.3	0.2	10
	A	Early	Left	Water Temperature	2.5	2.8	3.0	0.1	10	3.0	3.1	3.2	0.103	10
	A	Late	Left	Water Temperature	3.5	4.7	7.2	1.0	10	7.5	7.8	8.2	0.271	10
	B	Early	Left	Water Temperature	2.0	2.1	2.2	0.1	10	2.0	2.0	2.0	0.000	10
	B	Late	Left	Water Temperature	3.5	4.0	4.5	0.4	10	6.0	6.1	6.2	0.097	10
	A	Late	Left	Specific Conductance	245	260	268	6	10	241	245	247	2	10
	B	Early	Left	Specific Conductance	258	268	271	4	8	198	262	285	25	9
	A	Early	Left	pH	7.1		7.3	--	10	7.1		7.2	--	10
Slough 21	A	Early	Left	Dissolved Oxygen	2.3	6.1	6.9	1.4	10	6.2	8.5	9.4	1.1	10
	A	Late	Left	Dissolved Oxygen	6.7	7.0	7.4	0.2	9	7.3	9.2	10.2	1.1	9
	A	Early	Left	Water Temperature	2.5	3.0	3.5	0.3	10	2.5	4.5	5.5	1.047	10
	A	Late	Left	Water Temperature	2.5	2.9	4.0	0.5	9	2.5	4.8	6.8	1.571	9
	A	Late	Left	Specific Conductance	236	242	248	4	9	245	251	262	5	9
	A	Early	Left	pH	6.6		7.1	--	10	6.6		7.2	--	10
	A	Late	Left	pH	6.6		6.8	--	5	6.6		6.8	--	5

Appendix Table B-2 Summary of intragravel and corresponding surface water quality data collected along the right bank of specific sites in sloughs 8A, 9, 11 and 21 during early (April 15-18) and late (April 29-May 2) sampling periods in spring, 1983.

Slough	Site	Sampling Period	Slough Bank	Variable	Intragravel Water					Surface Water				
					Min	Mean	Max	SD	N	Min	Mean	Max	SD	N
Slough 8A	A	Early	Right	Dissolved Oxygen	4.2	5.0	9.2	1.5	10	10.2	11.1	11.6	0.4	10
	A	Late	Right	Dissolved Oxygen	4.4	4.9	7.9	1.1	10	11.3	11.4	11.6	0.1	10
	A	Early	Right	Water Temperature	0.4	1.8	2.0	0.5	10	0.3	0.5	1.8	0.478	10
	A	Late	Right	Water Temperature	2.2	2.9	3.2	0.3	10	2.0	3.7	4.5	0.696	10
	A	Late	Right	Specific Conductance	215	246	255	11	10	164	179	184	6	10
	A	Early	Right	pH	7.2		7.3	--	10	7.1		7.3	--	10
	A	Late	Right	pH	6.7		6.8	--	5	6.6		6.8	--	5
Slough 9	A	Early	Right	Dissolved Oxygen	3.7	4.9	6.7	0.9	10	9.3	9.6	9.8	0.2	10
	A	Late	Right	Dissolved Oxygen	7.1	8.8	10.8	1.3	10	10.9	11.0	11.0	0.1	10
	A	Early	Right	Water Temperature	4.1	4.3	5.2	0.4	10	5.1	5.3	5.3	0.070	10
	A	Late	Right	Water Temperature	3.5	4.0	5.0	0.5	10	5.8	6.0	6.2	0.133	10
	A	Late	Right	Specific Conductance	128	156	186	19	10	146	153	156	3	10
	A	Early	Right	pH	6.8		7.1	--	10	6.8		7.0	--	10
	A	Late	Right	pH	6.2		6.6	--	5	6.3		6.8	--	5
Slough 11	B	Early	Right	Dissolved Oxygen	9.5	10.0	10.8	0.4	10	9.8	10.3	10.6	0.2	10
	B	Late	Right	Dissolved Oxygen	9.4	9.8	10.4	0.3	10	10.3	10.8	11.0	0.2	10
	C	Early	Right	Dissolved Oxygen	1.3	4.9	11.2	4.5	4	11.0	11.6	12.4	0.6	4
	C	Late	Right	Dissolved Oxygen	1.1	4.3	10.2	4.1	4	10.5	10.6	10.8	0.1	4
	B	Early	Right	Water Temperature	1.8	2.1	2.2	0.1	10	1.8	2.0	2.2	0.094	10
	B	Late	Right	Water Temperature	3.5	4.2	4.8	0.4	10	5.2	5.7	6.2	0.357	10
	C	Early	Right	Water Temperature	2.2	2.4	2.5	0.1	4	1.8	1.9	2.0	0.100	4
	C	Late	Right	Water Temperature	4.0	4.7	5.2	0.6	4	5.2	5.4	5.5	0.173	4
	B	Early	Right	Specific Conductance	267	273	280	5	10	267	269	271	2	10
	C	Late	Right	Specific Conductance	159	191	234	35	4	232	239	245	5	4
	B	Early	Right	pH	6.8		6.8	--	1	6.3		6.3	--	1
	C	Early	Right	pH	6.2		6.4	--	4	6.3		6.4	--	4
Slough 21	A	Early	Right	Dissolved Oxygen	5.0	7.6	8.8	1.1	10	9.5	9.8	10.0	0.2	10
	A	Late	Right	Dissolved Oxygen	7.3	7.7	8.4	0.4	10	10.3	10.5	10.6	0.1	10
	A	Early	Right	Water Temperature	4.0	4.4	5.0	0.3	10	5.2	5.2	5.2	0.000	10
	A	Late	Right	Water Temperature	3.8	4.1	4.5	0.3	10	6.8	7.1	7.5	0.207	10
	A	Late	Right	Specific Conductance	174	201	216	16	10	238	243	248	3	10
	A	Early	Right	pH	6.9		7.1	--	10	6.7		7.2	--	10
	A	Late	Right	pH	6.8		6.8	--	5	6.7		6.9	--	5

Appendix Table B-3 Summary of intragravel and corresponding surface water quality data collected at specific sites in sloughs 8A, 9, 11 and 21 during early (April 15-18) and late (April 29-May 2) sampling periods in spring, 1983.

Slough	Site	Sampling Period	Variable	Intragravel Water					Surface Water				
				Min	Mean	Max	SD	N	Min	Mean	Max	SD	N
Slough 8A	A	Early	Dissolved Oxygen	4.0	4.6	9.2	1.1	20	7.4	10.3	11.6	1.1	20
	A	Late	Dissolved Oxygen	4.0	4.6	7.9	0.8	20	10.5	11.2	11.6	0.2	20
	A	Early	Water Temperature	0.4	2.0	2.5	0.5	20	0.3	1.4	3.0	1.0	20
	A	Late	Water Temperature	2.2	3.2	5.8	0.7	20	2.0	4.1	5.0	0.7	20
	A	Late	Specific Conductance	215	250	258	10	20	164	181	188	5	20
	A	Early	pH	7.2		7.3	--	20	7.1		7.3	--	20
	A	Late	pH	6.4		6.8	--	10	6.4		6.8	--	10
Slough 9	A	Early	Dissolved Oxygen	3.7	4.9	6.7	0.9	10	9.3	9.6	9.8	0.2	10
	A	Late	Dissolved Oxygen	7.1	8.8	10.8	1.3	10	10.9	11.0	11.0	0.1	10
	B	Early	Dissolved Oxygen	5.5	6.2	6.8	0.4	10	9.0	9.5	10.0	0.3	10
	B	Late	Dissolved Oxygen	5.3	6.0	6.6	0.5	10	10.4	10.7	10.9	0.1	10
	C	Late	Dissolved Oxygen	1.3	3.3	6.4	2.7	3	8.0	8.1	8.2	0.1	3
	A	Early	Water Temperature	4.1	4.3	5.2	0.4	10	5.1	5.3	5.3	0.1	10
	A	Late	Water Temperature	3.5	4.0	5.0	0.5	10	5.8	6.0	6.2	0.1	10
	B	Early	Water Temperature	3.0	3.9	4.9	0.6	10	5.0	5.2	5.4	0.1	10
	B	Late	Water Temperature	3.5	4.0	4.5	0.3	10	6.0	6.3	6.5	0.2	10
	C	Late	Water Temperature	4.0	4.1	4.2	0.1	3	5.2	5.6	6.2	0.5	3
	A	Late	Specific Conductance	128	156	186	19	10	146	153	156	3	10
	B	Late	Specific Conductance	201	217	236	15	10	153	157	163	3	10
	C	Late	Specific Conductance	218	242	257	21	3	192	196	198	3	3
	A	Early	pH	6.8		7.1	--	10	6.8		7.0	--	10
	A	Late	pH	6.2		6.6	--	5	6.3		6.8	--	5
	B	Early	pH	6.5		7.0	--	10	6.5		7.0	--	10
	B	Late	pH	6.2		6.4	--	5	5.9		6.3	--	5
Slough 11	A	Early	Dissolved Oxygen	7.4	7.9	8.4	0.3	10	11.3	11.5	11.6	0.1	10
	A	Late	Dissolved Oxygen	6.7	7.1	7.5	0.3	10	10.9	11.1	11.2	0.1	10
	B	Early	Dissolved Oxygen	6.2	9.5	10.8	1.0	20	9.8	10.3	11.0	0.3	20
	B	Late	Dissolved Oxygen	8.1	9.3	10.4	0.6	20	10.3	10.9	11.3	0.2	20
	C	Early	Dissolved Oxygen	1.3	4.9	11.2	4.5	4	11.0	11.6	12.4	0.6	4
	C	Late	Dissolved Oxygen	1.1	4.3	10.2	4.1	4	10.5	10.6	10.8	0.1	4
	A	Early	Water Temperature	2.5	2.8	3.0	0.1	10	3.0	3.1	3.2	0.1	10
	A	Late	Water Temperature	3.5	4.7	7.2	1.0	10	7.5	7.8	8.2	0.3	10
	B	Early	Water Temperature	1.8	2.1	2.2	0.1	20	1.8	2.0	2.2	0.1	20
	B	Late	Water Temperature	3.5	4.1	4.8	0.4	20	5.2	5.9	6.2	0.3	20
	C	Early	Water Temperature	2.2	2.4	2.5	0.1	4	1.8	1.9	2.0	0.1	4
	C	Late	Water Temperature	4.0	4.7	5.2	0.6	4	5.2	5.4	5.5	0.2	4
	A	Late	Specific Conductance	245	260	268	6	10	241	245	247	2	10
	B	Early	Specific Conductance	258	270	280	5	18	198	265	285	17	19
	C	Late	Specific Conductance	159	191	234	35	4	232	239	245	5	4
	A	Early	pH	7.1		7.3	--	10	7.1		7.2	--	10
	B	Early	pH	6.8		6.8	--	1	6.3		6.3	--	1
	C	Early	pH	6.2		6.4	--	4	6.3		5.4	--	4

Appendix Table B-4 Summary of intragravel and corresponding surface water quality data collected in sloughs 8A, 9, 11 and 21 during early (April 15-18) and late (April 29-May 2) sampling periods in spring, 1983.

Slough	Sampling Period	Variable	Intragravel Water					Surface Water				
			Min	Mean	Max	SD	N	Min	Mean	Max	SD	N
Slough 8A	Early	Dissolved Oxygen	4.0	4.6	9.2	1.1	20	7.4	10.3	11.6	1.1	20
	Late	Dissolved Oxygen	4.0	4.6	7.9	0.8	20	10.5	11.2	11.6	0.2	20
	Early	Water Temperature	0.4	2.0	2.5	0.5	20	0.3	1.4	3.0	1.0	20
	Late	Water Temperature	2.2	3.2	5.8	0.7	20	2.0	4.1	5.0	0.7	20
	Late	Specific Conductance	215	250	258	10	20	164	181	188	5	20
	Early	pH	7.2		7.3	--	20	7.1		7.3	--	20
	Late	pH	6.4		6.8	--	10	6.4		6.8	--	10
Slough 9	Early	Dissolved Oxygen	3.7	5.6	6.8	0.9	20	9.0	9.6	10.0	0.2	20
	Late	Dissolved Oxygen	1.3	6.9	10.8	2.3	23	8.0	10.5	11.0	1.0	23
	Early	Water Temperature	3.0	4.1	5.2	0.5	20	5.0	5.2	5.4	0.1	20
	Late	Water Temperature	3.5	4.0	5.0	0.4	23	5.2	6.1	6.5	0.3	23
	Late	Specific Conductance	128	194	257	39	23	146	160	198	14	23
	Early	pH	6.5		7.1	--	20	6.5		7.0	--	20
	Late	pH	6.2		6.6	--	10	5.9		6.8	--	10
Slough 11	Early	Dissolved Oxygen	1.3	8.5	11.2	2.2	34	9.8	10.8	12.4	0.7	34
	Late	Dissolved Oxygen	1.1	5.1	10.4	2.2	34	10.3	11.0	11.3	0.2	34
	Early	Water Temperature	1.8	2.3	3.0	0.4	34	1.8	2.3	3.2	0.5	34
	Late	Water Temperature	3.5	4.3	7.2	0.7	34	5.2	6.4	8.2	1.0	34
	Early	Specific Conductance	258	270	280	5	18	198	265	285	17	19
	Late	Specific Conductance	159	240	268	87	14	232	243	247	4	14
	Early	pH	6.2		7.3	--	15	6.3		7.2	--	15
Slough 21	Early	Dissolved Oxygen	2.3	6.9	8.8	1.4	20	6.2	9.1	10.0	1.0	20
	Late	Dissolved Oxygen	6.7	7.4	8.4	8.5	19	7.3	9.9	10.6	1.0	19
	Early	Water Temperature	2.5	3.7	5.0	0.8	20	2.5	4.8	5.5	0.8	20
	Late	Water Temperature	2.5	3.5	4.5	0.7	19	2.5	6.0	7.5	1.6	19
	Late	Specific Conductance	174	221	248	24	19	238	247	262	6	19
	Early	pH	6.6		7.1	--	20	6.6		7.2	--	20
	Late	pH	6.6		6.8	--	10	6.6		6.9	--	10

Appendix Table B-5. Intragravel and corresponding surface water quality measurements collected in Slough 8A (RM 125.9, Geographic Code S30N03W30BCD) of the Susitna River during two sampling periods (April 15-18 and April 29-May 2) in spring, 1983.

SITE	STANDPIPE NUMBER	SAMPLING DATE	SLOUGH BANK	INTRAGRAVEL				SURFACE WATER			
				WATER pH	D.O. TEMP(C)	SPEC.COND. (mg/l)	(umhos/cm)	WATER pH	D.O. TEMP(C)	SPEC.COND. (mg/l)	(umhos/cm)
A	01	830417	LEFT	7.3	2.0	4.4	—	7.3	2.0	10.4	—
A	02	830417	LEFT	7.2	2.0	4.2	—	7.3	2.2	9.2	—
A	03	830417	LEFT	7.2	2.2	4.3	—	7.3	2.0	10.5	—
A	04	830417	LEFT	7.2	2.2	4.5	—	7.2	2.5	7.4	—
A	05	830417	LEFT	7.2	2.5	4.6	—	7.3	2.5	9.5	—
A	06	830417	LEFT	7.2	2.5	4.4	—	7.3	2.2	10.4	—
A	07	830417	LEFT	7.2	2.5	4.2	—	7.2	2.2	9.5	—
A	08	830417	LEFT	7.2	2.5	4.3	—	7.3	3.0	8.4	—
A	09	830417	LEFT	7.2	2.5	4.3	—	7.2	3.0	9.4	—
A	10	830417	LEFT	7.2	2.5	4.0	—	7.1	2.0	10.2	—
A	01	830417	RIGHT	7.2	.4	9.2	—	7.3	.3	11.3	—
A	02	830417	RIGHT	7.2	1.8	4.5	—	7.2	.3	11.4	—
A	03	830417	RIGHT	7.3	1.8	4.8	—	7.3	.3	11.3	—
A	04	830417	RIGHT	7.2	2.0	4.4	—	7.2	.3	11.4	—
A	05	830417	RIGHT	7.2	1.8	4.5	—	7.2	.3	11.2	—
A	06	830417	RIGHT	7.2	2.0	4.8	—	7.2	.3	11.6	—
A	07	830417	RIGHT	7.2	1.8	4.6	—	7.2	.3	11.4	—
A	08	830417	RIGHT	7.2	2.0	4.2	—	7.1	.8	10.8	—
A	09	830417	RIGHT	7.2	2.0	4.4	—	7.1	.5	10.2	—
A	10	830417	RIGHT	7.2	2.0	4.4	—	7.2	1.8	10.6	—
A	01	830501	LEFT	6.4	5.8	4.3	236	6.4	5.0	10.5	178
A	02	830501	LEFT	6.4	3.8	4.6	255	6.5	5.0	11.0	181
A	03	830501	LEFT	6.4	3.8	4.3	252	6.6	4.5	11.2	181
A	04	830501	LEFT	6.5	3.2	4.3	257	6.8	4.5	10.9	188
A	05	830501	LEFT	6.6	3.2	4.4	257	6.8	4.5	11.3	184
A	06	830501	LEFT	—	3.2	4.4	257	—	4.5	11.3	184
A	07	830501	LEFT	—	3.0	4.3	258	—	4.5	11.3	181
A	08	830501	LEFT	—	3.2	4.5	257	—	4.5	11.3	184
A	09	830501	LEFT	—	3.2	4.4	257	—	4.5	11.2	184
A	10	830501	LEFT	—	3.2	4.0	257	—	4.2	11.2	186
A	01	830501	RIGHT	6.7	2.2	7.9	215	6.6	2.0	11.3	164
A	02	830501	RIGHT	6.8	2.8	4.6	249	6.8	3.5	11.3	183
A	03	830501	RIGHT	6.7	2.8	4.6	249	6.8	3.5	11.3	183
A	04	830501	RIGHT	6.8	2.8	4.5	249	6.6	3.8	11.4	181
A	05	830501	RIGHT	6.8	3.0	4.7	248	6.7	3.8	11.3	181
A	06	830501	RIGHT	—	2.8	4.5	249	—	3.2	11.3	184
A	07	830501	RIGHT	—	3.2	4.6	246	—	3.8	11.4	181
A	08	830501	RIGHT	—	3.0	4.4	251	—	4.2	11.5	179
A	09	830501	RIGHT	—	3.2	4.6	250	—	4.2	11.6	179
A	10	830501	RIGHT	—	3.0	4.4	255	—	4.5	11.3	181

Table 4-D-4 (Continued).

River Mile	Site	Zone	Geographic Code	Date	Time	Air Temp°C	Water (Mercury) Temp°C	Hydrolab Measurements					
								Water Temp°C	D.O. (mg/l)	D.O. (% Sat.)	pH	Spec. Cond. umhos/cm	Turbidit NTU
ADULT ANADROMOUS FISH INVESTIGATIONS													
113.6	Lane Creek Slough		S28N04W07BCB3	821002									
113.6	Transect 1		S28N04W07BCB3	821002	1459	5.0	--	5.3	10.2	80	5.7	80.0	
113.6	Transect 2		S28N04W07BCB3	821002	1514	--	--	5.0	9.4	74	5.7	74.0	
113.6	Transect 3		S28N04W07BCB3	821002	1526	--	--	5.6	8.9	71	5.5	56.0	
MAINSTEM ADULT ANADROMOUS FISH HABITAT INVESTIGATIONS													
114.4	Susitna River		S28N04W06CAB	820909	1615	16.2	--	10.6	13.4	120	7.5	85	
114.4	Susitna River		S28N04W06CAB	820909	1615	16.2	--	10.5	14.0	125	6.9	79	
DESIGNATED FISH HABITAT SITES													
120.7	Mainstem Curry	3	S29N04W10BCD	820608	1515	--	--	--	--	--	--	--	29
120.7	Mainstem Curry	8	S29N04W10BCD	820623	1530	--	--	11.2	11.1	101	7.5	79	16
120.7	Mainstem Curry	3	S29N04W10BCD	820623	1545	--	--	11.8	11.5	106	7.7	77	12
120.7	Mainstem Curry	8	S29N04W10BCD	820707	1115	21.8	--	13.4	9.8	94	6.5	114	140
120.7	Mainstem Curry	3	S29N04W10BCD	820707	1125	--	--	13.1	10.1	95	7.2	113	150
120.7	Mainstem Curry	4	S29N04W10BCD	820728	1830	16.2	--	12.1	8.5	79	7.5	112	22
120.7	Mainstem Curry	3	S29N04W10BCD	820728	1830	16.2	--	12.3	9.0	84	7.6	113	35
ADULT ANADROMOUS FISH INVESTIGATIONS													
125.2	Slough 8A	-	S30N03W20DCC										
125.2	Transect 1	-	S30N03W20DCC	820826	1643	20.8	--	14.5	10.3	101	7.0	153.0	--
125.2	Transect 1	-	S30N03W20DCC	820906	1530	--	--	8.3	10.9	93	7.0	126.0	--
125.2	Transect 2	-	S30N03W20DCC	820906	1514	--	--	7.3	10.3	85	6.9	119.0	--
125.2	Transect 3	-	S30N03W20DCC	820826	1632	--	--	13.1	8.4	80	6.9	142.0	--
125.2	Transect 3	-	S30N03W20DCC	820906	1506	--	--	7.4	9.6	80	6.9	120.0	--
125.2	Transect 4	-	S30N03W20DCC	820826	1610	--	--	11.5	9.5	87	6.8	145.0	--
125.2	Transect 4	-	S30N03W20DCC	820906	1459	--	--	7.2	10.5	87	6.8	120.0	--

Table 4-D-4 (Continued).

River Mile	Site	Zone	Geographic Code	Date	Time	Air Temp °C	Water (Mercury) Temp °C	Hydrolab Measurements					
								Water Temp °C	D.O. (mg/l)	D.O. (% Sat.)	pH	Spec. Cond. umhos/cm	Turbidit NTU
125.2	Transect 5	-	S30N03W20DCC	820822	1345	18.5	--	12.4	9.0	84	6.7	111.0	--
125.2	Transect 5	-	S30N03W20DCC	820826	1550	--	--	16.3	10.5	107	6.7	117.0	--
125.2	Transect 5	-	S30N03W20DCC	820906	1439	--	--	7.8	11.0	92	6.7	98.0	--
125.2	Transect 6	-	S30N03W20DCC	820822	1400	21.0	--	12.8	--	--	--	104.0	--
125.2	Transect 6	-	S30N03W20DCC	820826	1543	--	--	15.2	10.3	102	6.8	107.0	--
125.2	Transect 6	-	S30N03W20DCC	820906	1435	--	--	7.7	10.8	90	6.6	92.0	--
125.2	Transect 6	-	S30N03W20DCC	821003	1249	--	--	3.4	--	--	6.3	53.0	--
125.2	Transect 7	-	S30N03W20DCC	820826	1533	--	--	15.6	10.4	104	6.9	101.0	--
125.2	Transect 7	-	S30N03W20DCC	820906	1419	12.0	--	7.7	10.8	90	6.5	93.0	--
125.2	Transect 8	-	S30N03W20DCC	821003	1240	--	--	2.9	--	--	6.5	53.0	--
125.2	Transect 9	-	S30N03W20DCC	821003	1230	--	--	2.8	--	--	6.5	35.0	--
125.2	Transect 10	-	S30N03W20DCC	821003	1225	--	--	2.6	--	--	6.4	34.0	--
125.2	Transect 11	-	S30N03W20DCC	821003	1215	--	--	2.4	--	--	5.6	58.0	--
125.2	Transect 12	-	S30N03W20DCC	821003	1205	--	--	4.0	--	--	6.6	93.0	--
125.2	Transect 13	-	S30N03W20DCC	821003	1200	--	--	4.2	10.3	79	6.5	65.0	--
125.2	Transect 14	-	S30N03W20DCC	821003	1150	--	--	5.1	8.8	69	6.5	140.0	--
125.2	Transect 15	-	S30N03W20DCC	821003	1136	--	--	3.3	10.8	80	6.9	132.0	--
125.2	Transect 16	-	S30N03W20DCC	821003	1056	4.2	--	2.6	10.5	77	6.7	124.0	--
DESIGNATED FISH HABITAT SITES													
125.3	Slough 8A	4	S30N03W30BCD	820608	1700	--	--	7.7	10.6	89	6.5	86	34
125.3	Slough 8A	6	S30N03W30BCD	820608	1615	--	--	7.7	10.3	86	6.4	96	--
125.3	Slough 8A	3	S30N03W30BCD	820608	1600	--	--	7.9	10.4	87	6.4	96	32
125.3	Slough 8A	1	S30N03W30BCD	820623	0945	15.0	--	7.4	11.6	96	7.1	131	2
125.3	Slough 8A	2	S30N03W30BCD	820623	1210	--	--	8.9	11.8	98	7.4	128	2
125.3	Slough 8A	3	S30N03W30BCD	820623	1130	--	--	9.3	10.7	93	7.3	123	9
125.3	Slough 8A	1	S30N03W30BCD	820712	1330	11.9	--	10.1	8.6	76	6.9	158	16
125.3	Slough 8A	2	S30N03W30BCD	820712	1320	11.9	--	10.3	8.7	78	6.9	168	--
125.3	Slough 8A	3	S30N03W30BCD	820712	1230	11.9	--	11.0	9.9	89	7.5	121	200
125.3	Slough 8A	1	S30N03W30BCD	820728	1200	18.0	--	7.6	8.6	72	6.8		< 1
125.3	Slough 8A	2	S30N03W30BCD	820728	1700	21.0	--	10.1	8.9	79	6.7		< 1
125.3	Slough 8A	3	S30N03W30BCD	820728	1800	21.3	--	12.3	8.8	82	7.3		68
125.3	Slough 8A	1	S30N03W30BCD	820811	1320	--	--	10.5	--	--	--		1
125.3	Slough 8A	2	S30N03W30BCD	820811	1345	17.8	--	10.5	--	--	--		2
125.3	Slough 8A	3	S30N03W30BCD	820811	1520	--	--	12.1	--	--	--		148
125.3	Slough 8A	1	S30N03W30BCD	820821	1510	--	--	12.1	9.7	90	7.0		1
125.3	Slough 8A	2	S30N03W30BCD	820821	1420	18.0	--	14.0	10.6	101	7.1		< 1
125.3	Slough 8A	3	S30N03W30BCD	820821	1650	--	--	13.3	10.1	96	7.8		88
125.3	Slough 8A	1	S30N03W30BCD	820907	1350	13.2	--	8.8	10.9	94	6.7		2
125.3	Slough 8A	2	S30N03W30BCD	820907	1325	13.2	--	9.1	10.7	93	6.7		1
125.3	Slough 8A	3	S30N03W30BCD	820907	1425	--	--	9.4	10.5	92	7.2		22
125.3	Slough 8A	1	S30N03W30BCD	820924	1300	8.2	--	4.2	11.1	84	6.9		> 1

Table 4-D-4 (Continued).

River Mile	Site	Zone	Geographic Code	Date	Time	Air Temp°C	Water (Mercury) Temp°C	Hydrolab Measurements					
								Water Temp°C	D.O. (mg/l)	D.O. (% Sat.)	pH	Spec. Cond. umhos/cm	Turbidity NTU
125.3	Slough 8A	2	S30N03W30BCD	820924	1355	--	--	4.3	11.1	85	6.9		2
125.3	Slough 8A	3	S30N03W30BCD	820924	1545	--	--	4.7	12.8	99	7.5	130	81
MAINSTEM ADULT ANADROMOUS FISH HABITAT INVESTIGATIONS													
128.6	Susitna River	-	S30N03W16BCA	820907	1200	12.0	-	8.8	12.3	105	7.1	106	--
128.6	Susitna River	-	S30N03W16BCA	820907	1200	12.0	--	8.8	12.3	105	7.4	104	--
128.6	Susitna River	-	S30N03W16BCA	820907	1200	12.0	--	9.1	12.1	104	7.7	112	--
128.6	Susitna River	-	S30N03W16BCA	820907	1200	12.0	--	8.8	11.8	101	7.7	116	--
DESIGNATED FISH HABITAT SITES													
129.2	Slough 9	3	S30N03W16BDC	820622	1200	17.0	--	10.1	12.2	108	7.4	93	52
129.2	Slough 9	4	S30N03W16BDC	820622	1030	14.8	--	9.0	12.9	110	7.5	87	33
129.2	Slough 9	6	S30N03W16BDC	820622	1130	16.0	--	9.2	13.4	115	7.3	91	48
129.2	Slough 9	3	S30N03W16BDC	820610	1315	--	--	7.3	10.9	91	6.8	78	13
129.2	Slough 9	4	S30N03W16BDC	820610	1200	12.1	--	7.1	11.2	93	6.7	81	47
129.2	Slough 9	6	S30N03W16BDC	820610	1315	--	--	7.3	10.9	91	6.8	68	15
129.2	Slough 9	3	S30N03W16BDC	820713	1445	--	--	12.5	10.7	101	7.7	113	99
129.2	Slough 9	4	S30N03W16BDC	820713	1240	17.4	--	11.9	10.4	96	7.5	122	43
129.2	Slough 9	3	S30N03W16BDC	820727	1930	--	--	10.1	9.6	85	7.4	--	--
129.2	Slough 9	4	S30N03W16BDC	820727	1700	20.2	--	10.7	9.5	86	7.5	--	--
129.2	Slough 9	1	S30N03W16BDC	820810	1100	--	--	7.3	--	--	--	--	4
129.2	Slough 9	2	S30N03W16BDC	820810	1120	10.2	--	7.4	--	--	--	--	2
129.2	Slough 9	3	S30N03W16BDC	820810	1115	--	--	8.0	--	--	--	--	34
129.2	Slough 9	1	S30N03W16BDC	820821	1730	18.5	--	12.7	9.8	93	7.7	--	2
129.2	Slough 9	3	S30N03W16BDC	820821	1735	--	--	14.5	9.5	93	7.8	--	25
129.2	Slough 9	1	S30N03W16BDC	820907	1615	13.2	--	9.0	10.8	93	7.0	--	4
129.2	Slough 9	3	S30N03W16BDC	820907	1625	13.2	--	10.4	10.3	92	7.9	--	3
129.2	Slough 9	1	S30N03W16BDC	820923	1150	6.5	--	5.2	11.2	88	7.0	--	5
129.2	Slough 9	2	S30N03W16BDC	820923	1145	6.5	--	4.9	8.9	88	7.1	--	5
129.2	Slough 9	3	S30N03W16BDC	820923	1145	--	--	5.4	11.6	92	7.0	--	28
ADULT ANADROMOUS FISH INVESTIGATIONS													
129.2	Slough 9		S30N03W16BDC										
129.2	Transect 1	-	S30N03W16BDC	820820	--	--	--	--	--	--	--	--	--
129.2	Transect 1	-	S30N03W16BDC	820918	1845	--	--	6.1	--	--	--	107	--
129.2	Transect 2	-	S30N03W16BDC	820918	1940	--	--	5.9	--	--	--	63	--
129.2	Transect 3	-	S30N03W16BDC	820820	1545	23.5	--	14.4	9.5	93	7.2	129	--
129.2	Transect 3	-	S30N03W16BDC	820905	1914	--	--	8.1	10.9	92	6.8	114	--
129.2	Transect 3	-	S30N03W16BDC	820918	1828	--	--	6.1	--	--	--	110	--
129.2	Transect 4	-	S30N03W16BDC	820820	1610	--	--	12.0	9.2	85	6.9	142	--
129.2	Transect 5	-	S30N03W16BDC	820820	1615	--	--	12.5	9.2	86	6.9	137	--

Appendix Table 4-D-6. Summary of provisional water quality data for sloughs 8A, 9, 16B, 19, 21, and mainstem Susitna River at Gold Creek, collected by ADF&G and USGS in June, July, and September, 1981, and in January and February, 1982.

Parameter	Date ^a	Slough 8A	Slough 9	Slough 16B	Slough 19	Slough 21	Susitna River at Gold Creek
Physical and Field Parameters^b							
*Water Temperature °C	June	15.5	14.2	14.0	5.5	10.7	12.4
	July	11.2	10.9	9.0	9.8	11.3	10.5
	September	3.5	5.6	4.8	1.8	2.4	0.4
	January	0.5	0.5	1.5	2.0	1.5	0.0
	March	0.5	0.5	2.0	1.0	1.5	0.0
Air Temperature °C	June	21.0	20.1	---	---	23.0	---
	July	16.0	14.0	15.5	---	---	---
	September	8.0	7.5	---	3.0	---	---
	January	---	---	---	---	---	---
	March	---	---	---	---	-11.0	---
Streamflow (discharge) cfs	June	6.4	2.9	0.7	0.2	3.2	1,780.0
	July	551.0	714.0	503.0	0.0	142.0	42,500.0
	September	2.8	1.5	0.3	<0.1	0.43	8,540.0
	January	---	---	---	---	---	---
	March	---	---	---	---	---	1,520.0
*Specific Conductance (field) umho/cm	June	140	145	71	146	226	---
	July	117	124	72	127	130	119
	September	135	113	64	150	205	172
	January	193	121	59	148	221	260
	March	142	143	59	129	196	266

^aSloughs and mainstem Susitna River were sampled on 2 or 3 consecutive days in each month (except January) as follows.

	8A	9	16B	19	21	Susitna River at Gold Creek
June	25	24	23	23	24	23
July	21	21	22	22	22	21
September	30	30	28	29	29	28
January	20	20	20	20	20	20
March	31	30	30	30	30	30

^bParameters marked with an * are averages of transect point measurements (see methods).

--- indicates data not available.

4-D-70

Appendix Table 4-D-6 (Continued).

Parameter	Date	Slough 8A	Slough 9	Slough 16B	Slough 19	Slough 21	Susitna River at Gold Creek
Physical and Field Parameters - Cont'd							
Specific Conductance (lab) umho/cm	June	153	158	70	146	226	141
	July	118	124	71	129	131	114
	September	132	113	64	130	205	170
	January	193	121	59	148	221	260
	March	142	143	59	129	196	266
*Dissolved Oxygen mg/l	June	10.8	10.6	10.8	9.4	10.7	10.8
	July	11.4	11.4	11.7	10.4	11.3	11.7
	September	12.1	11.3	11.5	9.5	10.3	---
	January	7.0	11.7	6.6	7.7	9.0	15.8
	March	10.2	10.9	7.3	9.6	9.8	14.2
*Dissolved Oxygen (%) saturation	June	108	103	107	76	98	104
	July	104	105	102	90	105	104
	September	94	93	88	98	76	---
	January	49	82	47	57	65	110
	March	72	77	59	70	72	99
*pH (field)	June	6.9	6.8	6.4	6.5	7.0	7.4
	July	---	---	---	---	---	7.7
	September	7.6	7.4	7.1	7.3	7.7	6.5
	January	6.5	6.6	6.0	6.0	6.7	7.5
	March	6.6	7.0	6.4	6.5	7.4	6.7
pH (lab)	June	7.4	7.5	7.2	7.2	7.6	7.5
	July	7.6	7.7	7.3	7.0	7.7	7.7
	September	7.4	6.7	6.6	7.2	7.0	7.2
	January	7.2	7.3	6.9	7.1	7.6	7.6
	March	7.2	7.1	7.1	7.2	7.3	7.5
Alkalinity (field) mg/l CaCO ₃	June	---	39	24	50	62	---
	July	41	39	24	52	47	35
	September	43	34	26	62	62	---
	January	62	34	24	39	62	82
	March	43	39	23	46	61	78

4-D-71

Appendix Table 4-D-6 (Continued).

Parameter	Date	Slough 8A	Slough 9	Slough 16B	Slough 19	Slough 21	Susitna River at Gold Creek
Physical and Field Parameters - Cont'd							
Alkalinity (lab) mg/l CaCO_3	June	47	33	24	52	63	45
	July	41	39	24	52	47	35
	September	42	36	26	62	61	44
	January	64	36	30	53	63	83
	March	46	42	27	50	64	82
Turbidity NTU	June	0.9	0.6	0.5	0.4	0.4	100.0
	July	130.0	130.0	43.0	2.5	150.0	170.0
	September	1.1	0.6	0.6	0.5	0.5	5.5
	January	0.4	0.5	0.5	0.3	0.5	0.7
	March	0.1	0.1	0.1	0.1	0.1	0.1
Sediments, suspended mg/l	June	1	2	1	1	5	327
	July	220	417	107	8	356	680
	September	1	1	1	2	4	44
	January	1	2	0	1	0	2
	March	7	3	6	1	6	8
Sediments, discharge suspended tons/day	June	0.02	0.02	0.0	0.0	0.04	1,570.0
	July	327.0	804.0	145.0	0.0	136.0	78,000.0
	September	0.01	0.0	0.0	0.0	0.0	1,020.0
	January	---	---	---	---	---	---
	March	---	---	---	---	---	33.0
Solids, residue at 180°C mg/l	June	88	100	51	94	137	79
	July	70	75	41	81	78	74
	September	82	69	42	95	119	101
	January	111	73	38	78	114	152
	March	92	93	42	80	124	160
Solids, sum of constituents mg/l	June	93	91	47	90	130	83
	July	61	68	43	89	68	65
	September	71	71	48	94	120	80
	January	120	76	---	92	130	165
	March	86	83	43	85	127	160

4-D-72

Appendix Table 4-D-6 (Continued).

Parameter	Date	Slough 8A	Slough 9	Slough 16B	Slough 19	Slough 21	Susitna River at Gold Creek
<u>Physical and Field Parameters - Cont'd</u>							
Solids, dissolved tons/day	June	1.5	0.8	0.1	0.1	1.1	380.0
	July	104.0	145.0	55.7	0.0	29.9	8,490.0
	September	0.62	0.3	<0.1	<0.1	0.1	2,330.0
	January	---	---	---	---	---	---
	March	---	---	---	---	---	657.0
Solids, dissolved tons/acre-foot	June	0.12	0.14	0.07	0.13	0.19	0.11
	July	0.10	0.10	0.06	0.11	0.11	0.10
	September	0.11	0.09	0.06	0.13	0.16	0.14
	January	0.15	0.10	0.05	0.11	0.16	0.21
	March	0.13	0.13	0.06	0.11	0.17	0.22
Suspended sediment (%) less than 0.062 mm sieve diameter	June	---	---	---	---	---	70
	July	89	55	56	---	85	49
	September	---	---	---	---	---	81
	January	---	---	---	---	---	---
	March	---	---	---	---	---	---
<u>Major Constituents</u>							
Hardness mg/a CaCO ₃	June	57	56	32	69	83	57
	July	48	50	30	61	54	51
	September	54	45	30	72	77	60
	January	79	47	34	67	87	120
	March	60	52	26	58	82	100
Hardness, non-carbonate mg/l CaCO ₃	June	10.0	17.0	8.0	19.0	21.0	12
	July	7.0	11.0	6.0	9.0	7.0	16
	September	11.0	11.0	4.0	10.0	15.0	16
	January	17.0	13.0	10.0	14.0	25.0	33
	March	15.0	13.0	3.0	12.0	21.0	19
Bicarbonate, incremental titration mg/l CaCO ₃	June	---	---	---	---	---	---
	July	---	---	---	---	---	---
	September	53	42	32	75	75	---
	January	---	---	---	---	---	---
	March	---	---	---	---	---	---

4-D-73

Appendix Table 4-D-6 (Continued).

<u>Parameter</u>	<u>Date</u>	<u>Slough 8A</u>	<u>Slough 9</u>	<u>Slough 16B</u>	<u>Slough 19</u>	<u>Slough 21</u>	<u>Susitna River at Gold Creek</u>
Major Constituents - Cont'd							
Carbonate, incremental titration mg/1 CaCO ₃	June	---	---	---	---	---	---
	July	---	---	---	---	---	---
	September	0	0	0	0	0	---
	January	---	---	---	---	---	---
	March	---	---	---	---	---	---
Calcium, dissolved mg/1 Ca	June	18	18	10	23	27	19
	July	16	17	10	20	18	16
	September	17	14	9	24	25	15
	January	26	15	11	22	29	39
	March	19	17	8	19	27	33
Magnesium, dissolved mg/1 Mg	June	2.8	2.7	1.6	2.7	3.9	2.2
	July	1.9	1.9	1.3	2.6	2.1	1.7
	September	2.8	2.4	1.6	3.0	3.5	1.9
	January	3.4	2.3	1.6	3.0	3.5	4.6
	March	3.1	2.4	1.5	2.6	3.6	4.5
Sodium, dissolved mg/1 Na	June	6.8	8.2	2.5	2.5	12.0	4.2
	July	3.0	3.0	1.8	1.8	3.4	3.4
	September	6.1	5.6	2.6	3.0	11.0	7.4
	January	11.0	5.7	2.9	4.3	12.0	15.0
	March	6.2	7.2	2.1	2.2	11.0	17.0
Sodium, (%)	June	20	24	14	7	23	14
	July	12	11	11	6	12	13
	September	19	21	15	8	23	21
	January	23	20	15	12	23	22
	March	18	23	14	7	22	26
Sodium, adsorption ratio	June	0.4	0.5	0.2	0.1	0.6	0.3
	July	0.2	0.2	0.1	0.1	0.2	0.2
	September	0.4	0.4	0.2	0.2	0.5	0.4
	January	0.5	0.4	0.2	0.2	0.6	0.6
	March	0.4	0.5	0.2	0.1	0.5	0.8

Appendix Table 4-D-6 (Continued).

Parameter	Date	Slough 8A	Slough 9	Slough 16B	Slough 19	Slough 21	Susitna River at Gold Creek
Nutrients - Cont'd							
Nitrogen, total mg/l NO ₃	June	8.5	8.4	4.1	10.0	4.2	2.4
	July	3.4	3.5	3.3	9.3	2.9	2.3
	September	7.4	7.3	2.9	9.0	4.9	2.7
	January	5.8	7.9	2.9	7.0	4.2	1.9
	March	5.7	6.4	3.3	7.6	4.3	1.9
Nitrogen, dissolved mg/l N	June	1.8	1.6	1.0	2.0	1.0	0.5
	July	---	0.7	---	2.2	0.7	0.6
	September	1.5	1.7	0.6	1.9	1.0	0.6
	January	1.3	1.6	0.6	1.2	0.9	0.4
	March	1.2	1.2	0.6	1.5	0.8	0.4
Nitrogen, total organic mg/l N	June	0.53	0.82	0.50	0.88	0.37	0.34
	July	0.40	0.54	0.31	0.45	0.44	0.10
	September	---	0.41	0.17	0.44	0.18	0.28
	January	---	---	0.18	0.50	---	0.18
	March	0.24	0.41	---	0.43	0.30	0.21
Nitrogen, dissolved organic mg/l N	June	0.45	0.51	0.55	0.62	0.49	0.34
	July	0.44	0.48	---	0.41	0.43	0.21
	September	0.36	0.44	0.10	0.49	0.19	0.34
	January	0.22	0.39	0.15	0.14	0.20	0.15
	March	0.20	0.16	---	0.22	---	0.19
Nitrogen, dissolved ammonia mg/l N	June	0.07	0.11	0.10	0.10	0.09	0.08
	July	0.10	0.13	0.13	0.32	0.14	0.24
	September	0.15	0.14	0.16	0.13	0.11	0.09
	January	0.15	0.08	0.09	0.08	0.08	0.09
	March	0.07	0.07	<0.06	0.08	<0.06	0.07
Nitrogen, dissolved ammonia mg/l NH ₄	June	0.09	0.14	0.13	0.13	0.12	0.10
	July	0.13	0.17	0.17	0.41	0.18	0.31
	September	0.19	0.18	0.21	0.17	0.14	0.12
	January	0.19	0.10	0.12	0.10	0.10	0.12
	March	0.09	0.09	0.08	0.10	0.08	0.09

4-D-75

20

Appendix Table 4-D-6 (Continued).

Parameter	Date	Slough 8A	Slough 9	Slough 16B	Slough 19	Slough 21	Susitna River at Gold Creek
Major Constituents - Cont'd							
Potassium, dissolved mg/l K	June	1.5	1.4	0.9	1.0	2.1	2.0
	July	1.6	1.6	0.9	1.6	1.9	1.6
	September	1.1	0.9	0.9	1.1	2.1	1.5
	January	2.1	1.0	0.8	1.2	2.0	2.1
	March	1.3	1.1	0.8	1.1	2.1	2.2
Chloride, dissolved mg/l Cl	June	9.1	16.0	1.3	0.9	20.0	5.6
	July	2.9	2.9	0.9	0.6	3.7	12.0
	September	7.7	6.9	1.5	0.9	17.0	11.0
	January	14.0	9.6	1.1	3.5	20.0	24.0
	March	10.0	13.0	1.2	1.1	17.0	27.0
Sulfate, dissolved mg/l SO ₄	June	11.0	9.0	4.7	13.0	14.0	17.0
	July	1.0	11.0	6.0	14.0	3.1	1.0
	September	6.0	5.0	5.0	9.0	10.0	<5.0
	January	11.0	5.0	5.0	11.0	12.0	17.0
	March	8.0	6.0	0.0	13.0	13.0	13.0
Fluoride, dissolved mg/l F	June	0.0	0.1	0.1	0.1	0.1	0.0
	July	0.0	0.0	0.1	0.0	0.0	0.1
	September	0.1	0.1	0.1	0.1	0.1	0.1
	January	0.1	0.1	0.1	0.1	0.1	0.1
	March	0.1	0.1	0.1	0.1	0.1	0.1
Silica, dissolved mg/l SiO ₂	June	9.7	11.0	10.0	10.0	11.0	5.5
	July	6.6	6.6	6.2	10.0	6.6	6.2
	September	0.0	10.0	10.0	10.0	11.0	6.1
	January	10.0	11.0	11.0	10.0	11.0	12.0
	March	11.0	11.0	11.0	10.0	12.0	13.0
Nutrients							
Nitrogen, total mg/l N	June	1.9	1.9	0.9	2.3	0.94	0.5
	July	0.8	0.8	0.8	2.1	0.2	0.5
	September	1.7	1.7	0.7	2.0	1.1	0.6
	January	1.3	1.8	0.7	1.6	1.0	0.4
	March	1.3	1.4	0.7	1.7	1.0	0.4

4-D-76

Appendix Table 4-D-6 (Continued).

<u>Parameter</u>	<u>Date</u>	<u>Slough 8A</u>	<u>Slough 9</u>	<u>Slough 16B</u>	<u>Slough 19</u>	<u>Slough 21</u>	<u>Susitna River at Gold Creek</u>
Nutrients - Cont'd							
Nitrogen, total ammonia mg/1 N	June	0.08	0.10	0.09	0.07	0.10	0.14
	July	0.15	0.18	0.15	0.26	0.13	0.33
	September	---	0.15	0.16	0.19	0.20	0.17
	January	<0.07	<0.07	0.12	0.09	<0.07	0.08
	March	0.12	0.08	<0.06	0.08	0.06	0.06
Nitrogen, ammonia + dissolved organics mg/1 N	June	0.52	0.62	0.65	0.72	0.58	0.42
	July	0.54	0.61	---	0.73	0.57	0.45
	September	0.51	0.58	0.26	0.62	0.30	0.43
	January	0.37	0.47	0.24	0.22	0.28	0.24
	March	0.27	0.23	0.24	0.30	0.22	0.26
Nitrogen, ammonia + total suspended organics mg/1 N	June	0.09	0.30	0.00	0.23	0.00	0.06
	July	0.01	0.11	---	0.00	0.00	0.00
	September	0.07	0.00	0.07	0.01	0.08	0.02
	January	0.05	0.21	0.06	0.37	0.03	0.02
	March	0.09	0.26	0.14	0.21	0.14	0.01
Nitrogen, ammonia + total organics mg/1 N	June	0.61	0.92	0.59	0.95	0.47	0.48
	July	0.55	0.72	0.46	0.71	0.57	0.43
	September	0.58	0.56	0.33	0.63	0.38	0.45
	January	0.42	0.68	0.30	0.59	0.31	0.26
	March	0.36	0.49	0.38	0.51	0.36	0.27
Nitrogen, total nitrate and nitrite mg/1 N	June	1.3	1.0	0.33	1.3	0.5	0.1
	July	0.2	0.1	0.3	1.4	0.1	0.1
	September	1.1	1.1	0.3	1.4	0.7	0.2
	January	0.9	1.1	0.4	1.0	0.6	0.2
	March	0.9	1.0	0.4	1.2	0.6	0.2
Nitrogen, dissolved nitrate and nitrite mg/1 N	June	1.3	1.0	0.4	1.3	0.4	0.1
	July	---	0.1	0.3	1.5	0.1	0.1
	September	1.0	1.1	0.3	1.3	0.7	0.2
	January	0.9	1.1	0.4	1.0	0.6	0.2
	March	0.9	1.0	0.4	1.2	0.6	0.2

4-D-77

Appendix Table 4-D-6 (Continued).

Parameter	Date	Slough 8A	Slough 9	Slough 16B	Slough 19	Slough 21	Susitna River at Gold Creek
Nutrients - Cont'd							
Phosphorus, total mg/1 P	June	0.05	0.01	0.01	0.01	<0.01	0.12
	July	0.27	0.48	0.14	0.01	0.38	0.02
	September	<0.01	<0.01	<0.01	<0.01	<0.01	0.02
	January	<0.01	<0.01	<0.01	0.02	0.01	0.01
	March	0.01	0.01	0.01	0.01	0.01	0.01
Phosphorus, total mg/1 PO ₄	June	0.2	<0.1	<0.1	<0.1	<0.1	0.4
	July	0.8	1.5	0.4	<0.1	1.2	0.1
	September	---	---	---	---	---	0.1
	January	---	---	---	0.1	<0.1	0.1
	March	<0.1	<0.1	<0.1	<0.1	<0.1	---
Phosphorus, dissolved mg/1 P	June	0.03	0.01	0.01	0.01	<0.01	0.02
	July	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
	September	0.01	<0.01	<0.01	<0.01	<0.01	0.01
	January	<0.01	<0.01	<0.01	0.02	0.04	0.01
	March	<0.01	<0.01	<0.01	<0.01	<0.01	0.01
Carbon, dissolved organic mg/1 C	June	1.9	2.1	1.4	1.3	2.0	2.8
	July	13.0	9.0	3.3	6.2	6.0	18.0
	September	1.5	1.7	1.9	2.2	1.1	---
	January	1.4	1.3	0.5	0.7	0.5	---
	March	1.4	0.7	0.7	1.4	1.1	1.6
Carbon, total suspended organics mg/1 C	June	---	0.2	---	0.2	0.2	0.9
	July	0.2	0.5	0.0	0.0	0.3	---
	September	0.1	0.1	0.1	0.1	0.1	---
	January	0.0	0.0	0.0	0.0	0.0	---
	March	0.0	0.0	0.0	0.1	0.1	0.1
Trace Metals							
Arsenic, total ug/1 As	June	1	1	1	2	2	6
	July	2	5	4	1	5	7
	September	2	1	1	2	2	---
	January	2	2	1	2	2	---
	March	1	1	2	1	2	2

4-D-78

Appendix Table 4-D-6 (Continued).

Parameter	Date	Slough 8A	Slough 9	Slough 16B	Slough 19	Slough 21	Susitna River at Gold Creek
Trace Metals - Cont'd							
Arsenic, total suspended ug/l As	June	0	0	0	1	1	5
	July	0	3	2	0	3	5
	September	1	0	0	1	1	---
	January	1	1	0	1	1	---
	March	---	0	1	0	1	0
Arsenic, dissolved ug/l As	June	2	1	1	1	1	1
	July	2	2	2	1	2	2
	September	1	1	1	1	1	---
	January	1	1	1	1	1	---
	March	< 1	1	1	1	1	2
Barium, total recoverable ug/l Ba	June	0	0	0	0	100	200
	July	200	200	100	100	300	300
	September	100	200	100	100	100	---
	January	100	100	<100	100	100	---
	March	< 100	< 100	<100	<100	<100	100
Barium, suspended recoverable ug/l Ba	June	0	0	0	0	100	200
	July	200	200	70	50	300	300
	September	100	200	100	100	0	---
	January	0	---	---	---	0	---
	March	---	---	---	---	---	40
Barium, dissolved ug/l Ba	June	90	0	0	0	0	0
	July	40	40	30	50	40	0
	September	0	0	0	0	100	---
	January	100	<100	<100	<100	100	---
	March	29	27	14	29	47	60
Cadmium, total recoverable ug/l Cd	June	0	0	2	0	1	0
	July	0	0	0	1	0	5
	September	0	0	0	0	1	---
	January	<1	<1	<1	<1	<1	---
	March	<1	<1	<1	<1	<1	<1

4-D-79

Appendix Table 4-D-6 (Continued).

Parameter	Date	Slough 8A	Slough 9	Slough 16B	Slough 19	Slough 21	Susitna River at Gold Creek
Trace Metals - Cont'd							
Cadmium, suspended recoverable ug/1 Co	June	---	0	2	0	0	---
	July	---	---	---	---	---	4
	September	0	0	0	0	1	---
	January	---	---	---	---	---	---
	March	---	---	---	---	---	---
Cadmium, dissolved ug/1 Cd	June	1	0	0	0	5	<1
	July	<1	<1	<1	<1	<1	1
	September	0	0	1	0	0	---
	January	<1	1	1	1	<1	---
	March	<3	<3	<3	<3	<3	<3
Chromium, total recoverable ug/1 Cr	June	0	10	0	0	0	40
	July	30	30	20	20	40	30
	September	0	10	10	10	10	---
	January	10	<1	10	<10	<10	---
	March	10	<1	10	10	<10	10
Chromium, suspended recoverable ug/1 Cr	June	0	10	0	0	0	---
	July	20	20	10	10	30	40
	September	0	10	10	10	10	20
	January	---	---	---	---	---	---
	March	---	---	---	---	---	---
Chromium, dissolved ug/1 Cr	June	10	0	0	0	0	0
	July	10	10	10	10	10	10
	September	0	0	0	0	0	---
	January	<10	1	<10	<10	<10	---
	March	<10	<3	<10	<10	<10	<10
Cobalt, total recoverable ug/1 Co	June	2	0	0	0	2	8
	July	5	6	2	0	7	11
	September	0	0	0	0	1	---
	January	2	1	1	1	<1	---
	March	1	1	2	2	1	1

4-D-80

Appendix Table 4-D-6 (Continued).

Parameter	Date	Slough 8A	Slough 9	Slough 16B	Slough 19	Slough 21	Susitna River at Gold Creek
Trace Metals - Cont'd							
Cobalt, suspended recoverable ug/l Co	June	---	0	0	0	1	---
	July	---	---	---	---	---	11
	September	0	0	0	0	1	---
	January	0	0	0	---	---	---
	March	---	---	---	---	---	0
Cobalt, dissolved ug/l Co	June	<3	0	0	0	1	<3
	July	<3	<3	<3	<3	<3	0
	September	0	0	0	0	0	---
	January	2	2	1	<1	2	---
	March	<1	<1	<1	<1	<1	1
Copper, total recoverable ug/l Cu	June	3	2	4	2	2	31
	July	20	23	10	3	23	190
	September	6	4	5	4	4	---
	January	4	2	1	2	1	---
	March	2	1	2	8	6	2
Copper, suspended recoverable ug/l Cu	June	1	1	1	0	0	27
	July	12	20	4	0	0	190
	September	5	3	3	2	18	---
	January	3	0	0	0	3	---
	March	1	0	1	7	0	1
Copper, dissolved ug/l Cu	June	2	1	3	2	2	4
	July	8	3	6	7	5	5
	September	1	1	2	2	1	---
	January	1	2	2	2	1	---
	March	1	1	1	1	1	1
Iron, total recoverable ug/l Fe	June	20	40	50	40	60	15,000
	July	13,000	16,000	5,800	220	18,000	19,000
	September	20	90	280	260	100	---
	January	20	140	20	10	10	---
	March	10	30	40	30	10	40

4-D-8/

Appendix Table 4-D-6 (Continued).

Parameter	Date	Slough 8A	Slough 9	Slough 16B	Slough 19	Slough 21	Susitna River at Gold Creek
Trace Metals - Cont'd							
Iron, suspended recoverable ug/l Fe	June	10	0	0	0	40	15,000
	July	13,000	16,000	5,700	140	18,000	19,000
	September	10	60	260	250	90	---
	January	0	80	0	0	0	---
	March	0	20	30	20	0	30
Iron, dissolved ug/l Fe	June	10	60	50	60	20	90
	July	48	110	52	79	97	120
	September	10	30	20	10	10	---
	January	40	60	20	30	20	---
	March	12	14	9	15	11	15
Lead, total recoverable ug/l Pb	June	0	5	3	3	15	18
	July	3	3	3	3	2	47
	September	4	1	1	2	4	---
	January	2	1	<1	1	<1	---
	March	<1	1	5	6	9	3
Lead, suspended recoverable ug/l Pb	June	0	5	3	3	15	18
	July	0	1	3	2	0	47
	September	2	0	0	0	0	---
	January	1	0	---	0	---	---
	March	---	---	4	---	---	0
Lead, dissolved ug/l Pb	June	0	0	0	0	0	0
	July	3	2	0	1	5	0
	September	2	3	4	3	5	---
	January	1	2	1	1	1	---
	March	1	<1	1	<1	<1	3
Manganese, total recoverable ug/l Mn	June	10	10	10	0	0	250
	July	230	290	100	20	300	320
	September	0	0	10	10	0	---
	January	10	20	10	10	20	---
	March	10	10	<10	10	<10	10

4-D-82

Appendix Table 4-D-6 (Continued).

Parameter	Date	Slough 8A	Slough 9	Slough 16B	Slough 19	Slough 21	Susitna River at Gold Creek
Trace Metals - Cont'd							
Manganese, suspended recoverable ug/l Mn	June	0	10	10	0	0	250
	July	220	280	90	10	290	310
	September	0	0	10	0	0	---
	January	0	10	---	0	10	---
	March	6	5	---	6	---	7
Manganese, dissolved ug/l Mn	June	10.0	0.0	0.0	0.0	0	4
	July	8.0	10.0	7.0	9.0	8	10
	September	0.0	0.0	0.0	10.0	0	---
	January	10.0	< 0.1	< 10.0	< 10.0	10	---
	March	4.0	< 0.1	3.0	4.0	3	3
Mercury, total recoverable ug/l Hg	June	0.1	0.1	0.1	0.1	0.2	0.4
	July	0.1	0.1	0.1	0.0	0.2	0.3
	September	0.1	0.0	0.0	0.0	0.0	---
	January	< 0.1	< 0.1	< 0.1	< 0.1	0.1	---
	March	0.1	0.1	0.1	0.1	0.1	0.1
Mercury, suspended recoverable ug/l Hg	June	0.1	0.1	0.1	0.1	0.2	0.4
	July	0.0	0.1	0.1	0.0	0.2	0.1
	September	0.1	0.0	0.0	0.0	0.0	---
	January	---	---	---	---	---	---
	March	---	---	---	---	---	---
Mercury, dissolved ug/l Hg	June	0.0	0.0	0.0	0.0	0.0	0.0
	July	0.1	0.0	0.1	0.0	0.0	0.2
	September	0.0	0.0	0.0	0.0	0.0	---
	January	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	---
	March	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Nickel, total recoverable ug/l Ni	June	3	2	2	1	6	23
	July	14	18	6	2	18	22
	September	1	0	7	3	4	36
	January	1	2	< 1	< 1	< 1	---
	March	1	< 1	2	2	1	2

4-D-83

Appendix Table 4-D-6 (Continued).

Parameter	Date	Slough 8A	Slough 9	Slough 16B	Slough 19	Slough 21	Susitna River at Gold Creek
Trace Metals - Cont'd							
Nickel, suspended recoverable ug/l Ni	June	2	2	1	0	1	23
	July	12	18	6	0	17	29
	September	1	0	7	3	4	29
	January	---	1	---	---	---	---
	March	0	---	1	1	0	1
Nickel, dissolved ug/l Ni	June	1	0	1	1	5	0
	July	2	0	0	3	1	<1
	September	0	0	0	0	0	7
	January	<1	1	<1	<1	<1	---
	March	2	<1	1	1	1	1
Selenium, total ug/l Se	June	0	0	0	1	1	<1
	July	0	0	0	0	0	0
	September	0	0	0	0	0	1
	January	<1	<1	<1	1	1	---
	March	1	<1	<1	<1	<1	<1
Selenium, total suspended ug/l Se	June	0	0	0	0	1	0
	July	0	0	0	0	0	0
	September	0	0	0	0	0	0
	January	---	---	---	---	---	---
	March	---	---	---	---	---	---
Selenium, dissolved ug/l Se	June	0	0	0	1	0	0
	July	1	0	0	1	0	0
	September	0	0	0	1	1	---
	January	<1	<1	<1	<1	<1	---
	March	<1	<1	<1	1	1	<1
Silver, total recoverable ug/l Ag	June	0	0	1	0	0	0
	July	0	0	0	1	0	0
	September	0	0	0	0	0	---
	January	<1	<1	<1	<1	<1	---
	March	<1	<1	<1	<1	<1	<1

4-D-84

Appendix Table 4-D-6 (Continued).

Parameter	Date	Slough 8A	Slough 9	Slough 16B	Slough 19	Slough 21	Susitna River at Gold Creek
Trace Metals - Cont'd							
Silver, suspended recoverable ug/l Ag	June	0	0	1	0	0	0
	July	0	0	0	1	0	0
	September	0	0	0	0	0	---
	January	---	---	---	---	---	---
	March	---	---	---	---	---	---
Silver, dissolved ug/l Ag	June	0	0	0	0	0	0
	July	0	0	0	0	0	0
	September	0	0	0	0	0	---
	January	<1	<1	<1	1	<1	---
	March	<1	<1	1	<1	<1	1
Zinc, total recoverable ug/l Zn	June	20	40	10	10	10	60
	July	80	60	20	10	60	120
	September	20	30	30	10	20	---
	January	20	10	20	10	10	---
	March	10	10	40	30	20	10
Zinc, suspended recoverable ug/l Zn	June	10	30	0	0	10	50
	July	80	30	10	0	40	110
	September	10	10	0	10	0	---
	January	10	0	10	0	0	---
	March	0	---	---	20	---	---
Zinc, dissolved ug/l Zn	June	7	10	10	10	0	6
	July	4	35	10	10	17	14
	September	10	20	30	0	20	5
	January	10	20	10	10	10	---
	March	<12	<12	<12	12	<12	<12

Appendix 4-I. Cont.

LOCATION: SLOUGH 8A
RIVER MILE: 125.3

ZONE	HABITAT PARAMETER	JUNE 1-15	JUNE 16-30	JULY 1-15	JULY 16-31	AUGUST 1-15	AUGUST 16-31	SEPTEMBER 1-15	SEPTEMBER 16-30
1	AIR TEMPERATURE (C)	-----	15.0	11.9	18.0	-----	-----	13.2	8.2
	WATER TEMPERATURE (C)	-----	7.4	10.1	7.6	10.5	12.1	8.8	4.2
	DISSOLVED OXYGEN (mg/l)	-----	11.6	8.6	8.6	-----	9.7	10.9	11.1
	pH	-----	7.1	6.9	6.8	-----	7.0	6.7	6.9
	SPECIFIC CONDUCTANCE (micromhos/cm)	-----	131	158	-----	-----	-----	-----	-----
	TURBIDITY (NTU)	-----	2	16	< 1	1	1	2	< 1
	WATER VELOCITY (ft/s)	-----	1.0	.3	.5	.4	.4	.5	.8
2	AIR TEMPERATURE (C)	-----	-----	11.9	21.0	17.8	18.0	13.2	-----
	WATER TEMPERATURE (C)	-----	8.9	10.3	10.1	10.5	14.0	9.1	4.3
	DISSOLVED OXYGEN (mg/l)	-----	11.8	8.7	8.9	-----	10.6	10.7	11.1
	pH	-----	7.4	6.9	6.7	-----	7.1	6.7	6.9
	SPECIFIC CONDUCTANCE (micromhos/cm)	-----	128	168	-----	-----	-----	-----	-----
	TURBIDITY (NTU)	-----	2	-----	< 1	2	< 1	1	2
	WATER VELOCITY (ft/s)	-----	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	AIR TEMPERATURE (C)	-----	-----	11.9	21.3	-----	-----	-----	-----
	WATER TEMPERATURE (C)	7.9	9.3	11.0	12.3	12.1	13.3	9.4	4.7
	DISSOLVED OXYGEN (mg/l)	10.4	10.7	9.9	8.8	-----	10.1	10.5	12.8
	pH	6.4	7.3	7.5	7.3	-----	7.8	7.2	7.5
	SPECIFIC CONDUCTANCE (micromhos/cm)	96	123	121	-----	-----	-----	-----	-----
	TURBIDITY (NTU)	32	9	200	68	150	88	22	81
	WATER VELOCITY (ft/s)	-----	2.1	1.2	.8	3.3	1.5	2.2	1.8
4	AIR TEMPERATURE (C)	-----	-----	-----	-----	-----	-----	-----	-----
	WATER TEMPERATURE (C)	7.7	-----	-----	-----	-----	-----	-----	-----
	DISSOLVED OXYGEN (mg/l)	10.6	-----	-----	-----	-----	-----	-----	-----
	pH	6.5	-----	-----	-----	-----	-----	-----	-----
	SPECIFIC CONDUCTANCE (micromhos/cm)	86	-----	-----	-----	-----	-----	-----	-----
	TURBIDITY (NTU)	34	-----	-----	-----	-----	-----	-----	-----
	WATER VELOCITY (ft/s)	1.0	-----	-----	-----	-----	-----	-----	-----
6	AIR TEMPERATURE (C)	-----	-----	-----	-----	-----	-----	-----	-----
	WATER TEMPERATURE (C)	7.7	-----	-----	-----	-----	-----	-----	-----
	DISSOLVED OXYGEN (mg/l)	10.3	-----	-----	-----	-----	-----	-----	-----
	pH	6.4	-----	-----	-----	-----	-----	-----	-----
	SPECIFIC CONDUCTANCE (micromhos/cm)	96	-----	-----	-----	-----	-----	-----	-----
	TURBIDITY (NTU)	-----	-----	-----	-----	-----	-----	-----	-----
	WATER VELOCITY (ft/s)	0.0	-----	-----	-----	-----	-----	-----	-----

Appendix Table 4-J-1 (Continued).

River Mile	Site	Geographic Code	Date	Time	Air Temp (°C)	Water Temp (°C)	Hydrolab Measurements				Turbidity (NTU)	Water Depth (ft)	Ice Thickness (ft)
							D.O. (mg/l)	D.O. (% sat)	pH	Spec. Cond. (micromhos/cm)			
101.4	Whisker Creek	S26N05W03AAC	820204	1110	6.4	1.6	10.0	72	6.3	30	-	1.3	1.7
			820322	1130	0.0	0.9	9.6	67	7.3	37	1	1.3	0.0
			820422	1200	---	3.8	9.3	70	7.2	---	1	3.0	0.0
112.3	Slough 6A	S28N05W13CAC	820223	1345	-10.5	0.3	---	---	---	---	1	2.0	2.0
			820324	1030	8.5	1.5	7.2	51	6.9	83	3	2.5	0.0
113.6	Lane Creek - Mouth	S28N05W12ADD	820324	1110	1.8	1.8	11.4	82	7.1	64	2	0.4	0.0
114.4	Susitna River	S28N04W06CAB	820324	1145	3.0	3.9	9.2	70	7.3	206	2	1.0	0.0
121.6	Susitna River - Side Channel	S23N04W11BBB	820208	1333	---	1.5	9.4	66	6.5	101	1	0.6	0.0
			820312	1200	-1.2	1.4	9.3	66	6.4	161	-	0.4	0.0
			820422	1305	-9.8	5.8	9.3	75	7.2	82	1	1.2	0.0
122.3	Slough 8D	S29N04W02CBA	820420	1346	13.0	4.6	7.7	60	7.2	166	1	0.9	0.0
123.8	Susitna River	S30N04W26DDD	820222	1200	---	0.3	12.3	84	6.9	274	1	3.5	2.7
125.3	Slough 8A	S30N03W20CCD	820222	1300	-15.0	0.4	6.4	45	6.4	163	1	0.4	0.0
			820312	1300	0.0	1.8	6.3	45	6.4	192	2	0.6	0.0
129.2	Slough 9	S30N03W09DCB	820312	1330	-0.4	2.4	7.6	66	6.5	199	1	0.7	0.0
129.2	Slough 9B	S30N03W09DCB	820416	1540	8.0	4.5	8.3	64	6.0	175	1	1.3	0.0
131.1	Susitna River near mouth of 4th of July Creek	S30N03W03DAC	820312	1400	-0.4	1.3	9.2	65	7.1	353	1	0.9	0.0
			820209	1120	---	1.8	9.3	67	6.2	291	1	4.7	0.0
			820416	1653	6.6	2.3	11.3	83	7.5	279	1	1.5	0.0
133.6	Slough 9A	S30N03W36DAA	820416	1800	4.0	3.7	10.0	86	7.4	184	1	1.1	0.0
133.8	Slough 10	S31N03W36AAC	820208	1354	---	0.8	11.6	81	6.7	197	1	2.4	0.0
			820312	1415	-0.4	1.4	10.0	71	6.8	213	1	1.2	0.0
			820416	1715	5.8	3.6	10.0	75	7.3	187	-	1.5	0.0
135.3	Slough 11	S32N02W19DDD	820205	1556	-1.6	0.9	12.4	87	6.9	224	1	0.8	---
			820308	1120	5.0	1.6	10.5	75	6.4	217	1	0.8	0.0
			820414	1500	4.4	2.2	13.3	69	6.9	207	1	---	1.2
136.9	Susitna River - Inside Bend	S31N02W17CDA	820205	1446	-3.2	0.0	15.1	101	7.0	259	1	1.8	2.6
			820308	1215	4.0	0.1	13.1	89	7.1	292	1	1.5	2.5

4-5-4

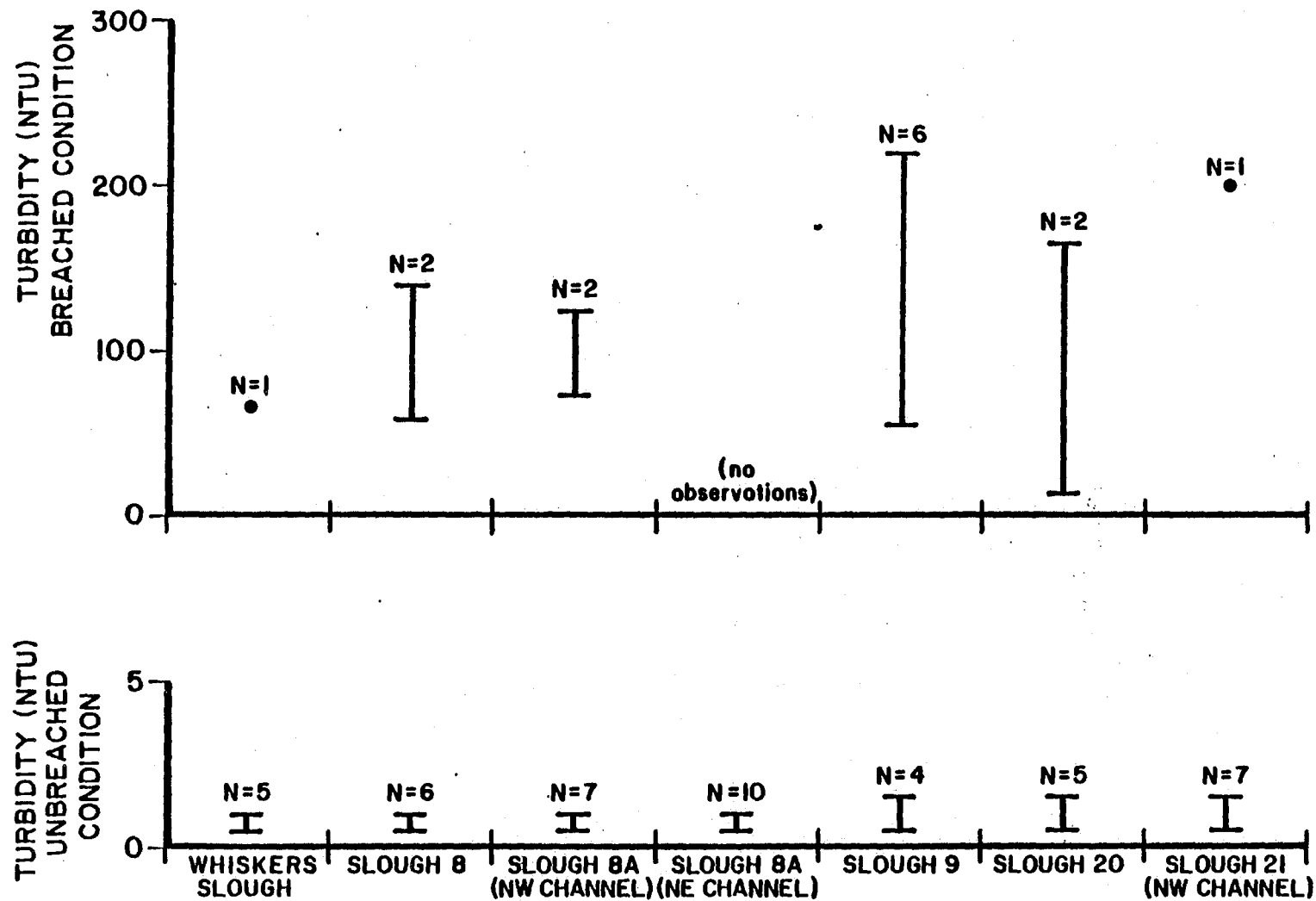


Figure 4-11. Range of turbidity during unbreached and breached hydraulic condition for side slough habitats.

Table EB-39. Habitat Location - Slough 8A

River Mile 125.3

Geographic Code - 30N 03W 30 BCD

DATE	TIME	D O (MG/L)	PH	SPEC COND MICROMHOS/CM	AIR	TEMP - °C H2O	TURBIDITY (NTU)
810617	1520	9.30	7.00		26.40	16.40	1.70
810706	1330	10.30	6.90	118.00	17.00	11.10	
810723	1145	9.40	7.00	123.00	13.80	10.60	78.00
810809	1800	10.50	7.60	108.00	13.60	10.10	205.00
810828	1630	8.80	6.80	152.00	19.00	12.60	7.00
810915	1115	8.80	6.90	160.00	11.00	6.60	1.40
810927	1430		6.90	159.00	3.00	4.50	.70

Table EB-40. Habitat Location - Fourth of July Creek

River Mile 131.1

Geographic Code - 30N 03W 03 DAC

DATE	TIME	D O (MG/L)	PH	SPEC COND MICROMHOS/CM	AIR	TEMP - °C H2O	TURBIDITY (NTU)
810617	1245	9.90	6.70		25.10	15.00	.45
810706	1625	10.10	6.50	18.00		11.60	
810720	1300	9.90	6.30		15.80	10.90	3.00
810811	1700		6.40	20.00	11.40	11.40	2.60
810828	1445	9.50	6.60	27.00	23.40	12.80	.40
810915	1330	9.70	6.70	15.00	12.00	8.20	.47
810927	1245		6.50	17.00	2.20	2.00	3.00

Table EJ-1. (Continued)

SITE DESCRIPTION	DATE	WATER DEPTH (ft)	ICE THICKNESS (ft)	WATER TEMP (°C)	CONDUCTIVITY (umhos /cm)	pH	D.O. (mg /liter)	WATER VELOCITY (ft /sec)	TOTAL DISCHARGE (cfs)
Mainstem Susitna at Curry	9 April 81	12.0	2.5	0.5	150	7.6	11.8	0.7	--
Mainstem Susitna at Curry	1 Mar 81	7-8	3.0	0.0	280	--	--	--	--
Side Channel Below Slough 8-B,C,D Complex									
Trap 1	9 April 81	1.5	0.0	0.0	150	7.5	13.2	0.7	--
Trap 2	10 April 81	0.8	0.0	1.5	145	--	--	1.2	--
Side Channel Below 8A (Intersection)	26 Feb 81	--	--	1.0	180	--	--	--	--
Side Channel Below Slough 8A									
Trap 1	10 April 81	0.8	0.0	2.0	120	--	--	0.6	3.6
Slough 8A, Beaver Dam	26 Feb 81	--	0.67	0.0	130	--	--	--	--
Slough 8A									
Trap 1	8 April 81	1.2	0.25	0.5	100	--	--	0.0	--
Trap 3	9 April 81	1.3	0.1	2.5	140	6.0	8.0	0.0	--
Mainstem Susitna, Above Slough 8A	26 Feb 81	3-4	--	0.0	185	--	--	4.5	--
Mainstem Susitna, 300 yds. Below 4th of July Creek	26 Feb 81	1-3	1.5	0.0	170	--	--	2	--

INSTREAM TEMPERATURE

SECTION 2

Appendix Table A-1 Datapod intragravel and surface water temperature (C) data summary, at Slough 8A - Mouth, RM 125.4, Geocode S3ON03W30BCD.

- AUGUST 1982 -

DATE	INTRAGRAVEL			SURFACE WATER		
	MIN	MEAN	MAX	MIN	MEAN	MAX
820821	6.4	6.6	6.7	7.8	10.7	14.7
820822	6.5	6.7	6.8	8.0	11.1	14.8
820823	6.6	6.7	6.8	9.8	11.2	13.8
820824	6.5	6.7	6.8	9.1	10.8	12.9
820825	6.7	6.8	6.8	9.4	10.8	13.2
820826	6.7	6.8	7.0	9.3	11.2	14.8
820827	6.6	6.8	7.1	7.8	11.1	14.6
820828	6.5	6.7	6.8	8.2	10.0	13.0
820829	6.5	6.6	6.7	8.6	9.6	11.2
820830	6.5	6.6	6.6	8.3	8.8	9.9
820831	6.5	6.6	6.7	7.7	8.5	9.7
MONTHLY VALUE	6.4	—	7.1	7.7	—	14.8

Appendix Table A-1 (Continued).

- SEPTEMBER 1982 -

DATE	INTRAGRAVEL			SURFACE WATER		
	MIN	MEAN	MAX	MIN	MEAN	MAX
820901	6.5	6.7	6.7	7.7	8.9	10.4
820902	6.4	6.5	6.8	7.1	8.4	9.9
820903	6.2	6.3	6.4	7.3	8.0	8.9
820904	6.2	6.3	6.4	6.4	7.5	9.0
820905	6.1	6.2	6.3	6.3	7.4	8.4
820906	6.2	6.2	6.3	6.5	7.4	7.9
820907	6.2	6.3	6.3	6.8	8.0	9.8
820908	6.2	6.3	6.4	7.5	8.2	8.9
820909	6.3	6.3	6.4	7.3	8.0	9.1
820910	6.2	6.3	6.4	6.9	7.8	8.9
820911	6.1	6.2	6.3	6.3	7.0	7.5
820912	6.0	6.1	6.2	5.3	6.6	8.5
820913	6.0	6.1	6.2	5.8	6.2	6.6
820914	6.0	6.0	6.1	6.1	6.4	6.8
820915	6.0	6.0	6.1	6.3	7.0	8.4
820916	5.9	6.0	6.1	7.3	7.6	8.1
820917	5.9	6.0	6.0	6.6	6.9	7.6
820918	5.8	6.0	6.0	5.5	6.2	6.8
820919	5.8	5.9	6.0	5.6	6.0	6.6
820920	5.9	5.9	6.0	5.6	6.0	6.5
820921	5.9	5.9	6.0	5.4	5.8	6.3
820922	5.9	6.0	6.0	5.3	5.7	6.5
820923	5.9	6.0	6.1	3.9	4.9	5.9
820924	6.0	6.1	6.1	2.9	4.2	5.4
820925	6.1	6.2	6.3	3.4	4.4	5.1
820926	6.3	6.3	6.4	4.6	5.0	5.4
820927	6.3	6.4	6.4	4.8	5.2	6.1
820928	6.3	6.4	6.5	2.9	3.9	4.9
820929	6.4	6.5	6.6	4.1	4.7	5.6
820930	6.4	6.5	6.5	4.5	5.2	6.0
MONTHLY VALUE	5.8	6.2	6.8	2.9	6.5	10.4

Appendix Table A-1 (Continued).

- OCTOBER 1982 -

DATE	INTRAGRAVEL			SURFACE WATER		
	MIN	MEAN	MAX	MIN	MEAN	MAX
821001	6.4	6.5	6.5	4.4	4.8	5.3
821002	6.4	6.5	6.5	3.5	4.4	5.6
821003	6.4	6.5	6.5	3.1	4.0	5.2
821004	6.4	6.4	6.5	2.1	3.1	4.6
821005	6.3	6.4	6.5	1.8	2.5	4.2
821006	6.3	6.4	6.4	1.4	2.3	3.3
821007	6.3	6.3	6.4	1.7	2.3	2.7
821008	6.2	6.3	6.3	1.5	2.3	3.5
821009	6.1	6.2	6.3	1.2	2.3	3.7
821010	6.1	6.2	6.2	2.4	2.8	3.3
821011	6.0	6.1	6.1	.7	2.0	2.7
821012	6.0	6.0	6.1	.8	1.9	2.9
821013	5.9	6.0	6.1	.9	1.7	2.9
821014	5.8	5.9	6.0	1.5	2.5	4.9
821015	5.8	5.9	5.9	1.3	2.0	3.0
821016	5.6	5.8	5.8	1.0	1.5	1.9
821017	5.6	5.7	5.7	1.1	1.9	2.9
821018	5.5	5.6	5.6	.9	1.9	3.2
821019	5.4	5.5	5.6	1.0	1.7	2.2
821020	5.4	5.5	5.6	1.2	1.9	2.6
821021	5.3	5.4	5.5	1.2	1.5	2.0
821022	5.2	5.4	5.4	1.2	1.5	2.1
821023	5.2	5.3	5.4	1.2	1.6	2.2
821024	5.1	5.2	5.2	1.7	2.2	2.8
821025	5.0	—	5.1	2.2	—	2.8
821030	4.2	—	4.3	2.0	—	2.4
821031	4.3	4.4	4.5	1.9	2.2	2.5
MONTHLY VALUE	4.2	5.8	6.5	.7	2.4	5.6

Appendix Table A-1 (Continued).

- NOVEMBER 1982 -

DATE	INTRAGRAVEL			SURFACE WATER		
	MIN	MEAN	MAX	MIN	MEAN	MAX
821101	4.4	4.4	4.5	1.7	2.0	2.2
821102	4.4	4.5	4.6	1.9	2.0	2.3
821103	4.5	4.6	4.6	2.0	2.1	2.3
821104	4.5	4.6	4.6	2.0	2.2	2.5
821105	4.6	4.6	4.7	2.1	2.3	2.6
821106	4.6	4.7	4.7	1.9	2.2	2.4
821107	4.6	4.7	4.7	1.9	2.0	2.2
821108	4.6	4.7	4.7	1.9	2.1	2.4
821109	4.6	4.6	4.7	1.7	2.0	2.3
821110	4.6	4.6	4.7	1.9	2.0	2.2
821111	4.6	4.6	4.7	1.7	2.0	2.1
821112	4.6	4.6	4.7	1.8	2.1	2.3
821113	4.6	4.6	4.6	1.6	1.9	2.1
821114	4.6	4.6	4.6	1.7	1.8	2.2
821115	4.6	4.6	4.6	1.7	1.9	2.4
821116	4.5	4.6	4.6	1.8	2.2	2.6
821117	4.4	4.5	4.6	1.6	1.8	2.1
821118	4.3	4.4	4.5	1.7	1.9	2.3
821119	4.2	4.3	4.3	1.7	2.1	2.4
821120	4.0	4.2	4.3	.2	2.0	2.6
821121	2.6	4.0	4.3	0.0	1.3	2.7
821122	3.9	4.0	4.2	1.0	1.8	2.7
821123	4.0	4.1	4.1	.8	2.0	2.8
821124	4.0	4.1	4.2	1.0	1.5	2.5
821125	4.0	4.1	4.1	.6	1.1	1.6
821126	3.9	4.0	4.0	.6	.8	1.0
821127	3.8	3.9	4.0	.6	.8	1.0
821128	3.6	3.7	3.8	.7	.8	.9
821129	2.5	3.2	3.7	0.0	.8	2.6
821130	1.7	2.3	2.9	0.0	0.0	.1
MONTHLY VALUE	1.7	4.3	4.7	0.0	1.7	2.8

Appendix Table A-1 (Continued).

- DECEMBER 1982 -						
DATE	INTRAGRAVEL			SURFACE WATER		
	MIN	MEAN	MAX	MIN	MEAN	MAX
821201	2.1	2.4	2.6	0.0	0.0	.1
821202	1.8	—	2.1	0.0	—	.1
821221	-.1	—	0.0	0.0	—	0.0
821222	-.1	0.0	.1	-.1	0.0	.1
821223	-.1	0.0	0.0	-.1	0.0	0.0
821224	-.1	0.0	.1	-.1	0.0	0.0
821225	0.0	0.0	0.0	-.1	0.0	0.0
821226	-.1	0.0	.1	0.0	0.0	0.0
821227	-.1	0.0	0.0	0.0	0.0	.1
821228	0.0	0.0	0.0	0.0	0.0	0.0
821229	0.0	0.0	0.0	0.0	0.0	0.0
821230	0.0	0.0	0.0	0.0	0.0	.1
821231	-.1	0.0	0.0	0.0	0.0	.1
MONTHLY VALUE	-.1	—	2.6	-.1	—	.1

Appendix Table A-1 (Continued).

- JANUARY 1983 -

DATE	INTRAGRAVEL			SURFACE WATER		
	MIN	MEAN	MAX	MIN	MEAN	MAX
830101	-.1	0.0	0.0	0.0	0.0	.1
830102	-.1	0.0	0.0	0.0	<.05	.1
830103	-.1	0.0	0.0	0.0	0.0	0.0
830104	-.1	0.0	0.0	-.1	0.0	0.0
830105	-.1	0.0	0.0	-.1	0.0	0.0
830106	-.1	0.0	0.0	-.1	0.0	0.0
830107	-.1	0.0	0.0	-.1	0.0	.1
830108	-.1	0.0	0.0	-.1	0.0	.1
830109	-.1	0.0	0.0	-.1	0.0	.1
830110	-.1	0.0	0.0	-.1	0.0	.1
830111	-.1	0.0	0.0	-.1	0.0	.1
830112	-.1	0.0	0.0	-.1	0.0	0.0
830113	-.1	0.0	0.0	-.1	0.0	0.0
830114	-.1	0.0	0.0	-.1	0.0	.1
830115	-.1	0.0	0.0	-.1	0.0	.1
830116	-.1	0.0	0.0	0.0	0.0	.1
830117	-.1	-.1	0.0	0.0	0.0	.1
830118	-.1	0.0	0.0	0.0	0.0	.1
830119	-.1	0.0	0.0	0.0	0.0	.1
830120	-.1	0.0	0.0	-.1	0.0	0.0
830121	-.1	0.0	0.0	-.1	0.0	.1
830122	-.1	0.0	0.0	-.1	0.0	.1
830123	-.1	0.0	0.0	-.1	0.0	.1
830124	-.1	0.0	0.0	-.1	0.0	0.0
830125	-.1	0.0	0.0	0.0	0.0	0.0
830126	-.1	0.0	0.0	0.0	0.0	.1
830127	-.1	0.0	0.0	0.0	0.0	.1
830128	-.1	0.0	0.0	0.0	0.0	.1
830129	-.1	0.0	0.0	0.0	0.0	.1
830130	-.1	0.0	0.0	0.0	0.0	.1
830131	-.1	0.0	0.0	0.0	<.05	.1
MONTHLY VALUE	-.1	0.0	0.0	-.1	<.05	.1

Appendix Table A-1 (Continued).

- FEBRUARY 1983 -						
DATE	INTRAGRAVEL			SURFACE WATER		
	MIN	MEAN	MAX	MIN	MEAN	MAX
830201	-.1	0.0	0.0	0.0	0.0	.1
830202	-.1	0.0	0.0	0.0	0.0	.1
830203	-.1	0.0	0.0	0.0	<.05	.1
830204	-.1	0.0	0.0	0.0	<.05	.1
830205	-.1	0.0	0.0	0.0	<.05	.1
830206	-.1	0.0	0.0	0.0	0.0	.1
830207	-.1	0.0	0.0	0.0	<.05	.1
830208	-.1	0.0	0.0	0.0	0.0	.1
830209	-.1	0.0	0.0	0.0	0.0	.1
830210	-.1	0.0	0.0	0.0	0.0	.1
830211	-.1	0.0	0.0	0.0	0.0	.1
830212	-.1	0.0	0.0	0.0	0.0	.1
830213	-.1	0.0	0.0	0.0	0.0	.1
830214	-.1	0.0	0.0	0.0	<.05	.1
830215	-.1	0.0	0.0	0.0	0.0	.1
830216	-.1	0.0	.1	0.0	0.0	.1
830217	-.1	0.0	.1	0.0	<.05	.1
830218	0.0	0.0	.1	0.0	<.05	.1
830219	-.1	0.0	.1	0.0	0.0	.1
830220	0.0	0.0	.1	0.0	<.05	.1
830221	0.0	0.0	.1	0.0	0.0	.1
830222	0.0	0.0	.1	0.0	<.05	.1
830223	0.0	0.0	.1	0.0	.1	.1
830224	0.0	<.05	.1	0.0	.1	.1
830225	0.0	0.0	.1	0.0	<.05	.1
830226	0.0	<.05	.1	0.0	.1	.1
830227	0.0	<.05	.1	0.0	.1	.1
830228	0.0	.1	.1	0.0	.1	.1
MONTHLY VALUE	-.1	<.05	.1	0.0	<.05	.1

Appendix Table A-1 (Continued).

- MARCH 1983 -

DATE	INTRAGRAVEL			SURFACE WATER		
	MIN	MEAN	MAX	MIN	MEAN	MAX
830301	0.0	.1	.2	0.0	.1	.1
830302	.1	.1	.2	0.0	.1	.1
830303	.1	.1	.2	.1	.1	.2
830304	.1	.2	.2	.1	.1	.2
830305	.1	.2	.3	0.0	.1	.2
830306	.1	.2	.3	.1	.1	.2
830307	.2	.3	.3	.1	.2	.3
830308	.2	.3	.4	.1	.2	.3
830309	.3	—	.4	.2	.3	.3
830310	—	—	—	.2	.3	.3
830311	—	—	—	.3	—	.4
830312	—	—	—	.3	.4	.4
830313	—	—	—	.3	.3	.5
830314	—	—	—	.3	.4	.5
830315	—	—	—	.4	.4	.5
830316	—	—	—	.4	.4	.5
830317	—	—	—	.4	.5	.6
830318	—	—	—	.4	.5	.6
830319	—	—	—	.5	.5	.6
830320	—	—	—	.5	.5	.6
830321	—	—	—	.5	.6	.6
830322	—	—	—	.5	.6	.6
830323	—	—	—	.5	.6	.7
830324	—	—	—	.5	.6	.7
830325	—	—	—	.6	.6	.7
830326	—	—	—	.6	.6	.7
830327	—	—	—	.6	.6	.7
830328	—	—	—	.6	.6	.8
830329	—	—	—	.6	.6	.8
830330	—	—	—	.6	.6	.8
830331	—	—	—	.6	.6	.8
MONTHLY VALUE	0.0	—	.4	0.0	.4	.8

Appendix Table A-1 (Continued).

- APRIL 1983 -

DATE	INTRAGRAVEL			SURFACE WATER		
	MIN	MEAN	MAX	MIN	MEAN	MAX
830401	—	—	—	.6	.7	.9
830402	—	—	—	.6	.7	.9
830403	—	—	—	.6	.8	1.0
830404	—	—	—	.7	.7	.9
830405	—	—	—	.7	.7	.9
830406	—	—	—	.7	.9	1.2
830407	—	—	—	.7	1.0	1.5
830408	—	—	—	.7	1.0	1.5
830409	—	—	—	.8	1.0	1.4
830410	—	—	—	.7	1.0	1.6
830411	—	—	—	.7	.9	1.2
830412	—	—	—	.7	.8	1.0
830413	—	—	—	.8	1.0	1.6
830414	—	—	—	.9	1.1	1.5
830415	—	—	—	.8	1.0	1.4
830416	—	—	—	.8	1.1	1.6
830417	—	—	—	.9	1.2	1.7
830418	—	—	—	.9	1.2	1.8
830419	—	—	—	1.0	1.4	2.1
830420	—	—	—	.8	1.5	2.5
830421	—	—	—	.9	1.6	2.9
830422	—	—	—	1.0	1.5	2.4
830423	—	—	—	1.1	1.4	2.1
830424	—	—	—	1.2	2.0	3.5
830425	—	—	—	1.2	2.2	3.8
830426	—	—	—	1.2	2.2	4.0
830427	—	—	—	1.3	2.4	4.3
830428	—	—	—	1.6	2.1	4.2
MONTHLY VALUE	—	—	—	.6	1.3	4.3

Appendix Table A-2 Datapod intragravel and surface water temperature (C) data summary, at Slough 8A - Middle, RM 125.6, Geocode S30N03W30BCD.

- APRIL 1983 -

DATE	INTRAGRAVEL			SURFACE WATER		
	MIN	MEAN	MAX	MIN	MEAN	MAX
830429	3.0	3.1	3.1	1.8	2.9	4.1
830430	3.1	3.1	3.2	1.7	2.8	4.5
MONTHLY VALUE	3.0	—	3.2	1.7	—	4.5

Appendix Table A-2 (Continued).

- MAY 1983 -

DATE	INTRAGRAVEL			SURFACE WATER		
	MIN	MEAN	MAX	MIN	MEAN	MAX
830501	3.2	3.2	3.2	4.4	4.4	4.9
830502	3.1	3.2	3.3	2.5	3.5	4.5
830503	3.2	3.2	3.3	2.3	3.4	4.7
830504	3.2	3.3	3.4	2.0	3.7	5.7
830505	3.3	3.3	3.4	1.8	3.7	6.1
830506	3.3	3.3	3.4	1.4	3.7	6.5
830507	3.3	3.3	3.4	1.3	4.0	7.2
830508	3.3	3.4	3.5	1.8	4.5	7.4
830509	3.4	3.5	3.5	2.1	4.5	7.2
830510	3.4	3.5	3.6	2.5	4.8	7.0
830511	3.5	3.5	3.6	2.7	5.2	8.0
830512	3.5	3.6	3.7	3.4	5.4	7.4
830513	3.6	3.6	3.7	3.0	5.2	7.6
830514	3.6	3.6	3.7	2.8	4.7	7.1
830515	3.6	3.6	3.7	2.5	4.2	6.0
830516	3.6	3.6	3.7	2.4	4.2	5.7
830517	3.6	3.7	3.7	2.7	4.2	5.9
830518	3.6	3.7	3.7	2.5	4.3	6.5
830519	3.6	3.6	3.7	2.9	4.8	6.6
830520	3.6	3.7	3.7	3.0	5.5	8.0
830521	3.6	3.7	3.8	3.4	4.9	7.0
830522	3.7	3.7	3.8	3.7	5.6	8.5
830523	3.7	3.7	3.8	3.7	5.7	7.8
830524	3.8	3.8	3.9	4.1	6.3	9.2
830525	3.8	3.8	3.9	3.8	6.5	9.2
830526	3.8	3.9	3.9	5.1	6.7	8.4
830527	3.8	3.9	4.0	4.4	6.3	8.3
830528	3.8	3.9	4.0	4.5	7.0	9.8
830529	3.8	3.9	4.0	5.6	7.5	9.3
830530	3.9	4.0	4.2	6.7	8.3	9.7
830531	4.1	4.2	4.2	6.2	7.6	8.7
MONTHLY VALUE	3.1	3.6	4.2	1.3	5.2	9.8

Appendix Table A-2 (Continued).

- JUNE 1983 -

DATE	INTRAGRAVEL			SURFACE WATER		
	MIN	MEAN	MAX	MIN	MEAN	MAX
830601	4.0	4.1	4.2	6.5	7.9	9.9
830602	4.0	—	4.1	5.9	—	9.1
MONTHLY VALUE	4.0	—	4.2	5.9	—	9.9

Appendix Table A-3 Datapod intragravel and surface water
temperature (C) data summary, at LRX 29,
RM 126.1, Geocode S30N03W19DCA

- OCTOBER 1982 -

DATE	INTRAGRAVEL			SURFACE WATER		
	MIN	MEAN	MAX	MIN	MEAN	MAX
821030	1.7	—	1.9	.2	—	.6
821031	1.8	1.9	2.1	.2	.5	.7
MONTHLY VALUE	1.7	—	2.1	.2	—	.7

Appendix Table A-3 (Continued).

- NOVEMBER 1982 -

DATE	INTRAGRAVEL			SURFACE WATER		
	MIN	MEAN	MAX	MIN	MEAN	MAX
821101	1.9	2.0	2.1	.4	.5	.7
821102	1.7	1.9	2.0	.3	.4	.5
821103	1.7	1.8	1.9	.3	.5	.7
821104	1.5	1.7	1.8	0.0	.2	.3
821105	1.5	1.5	1.6	.2	.3	.4
821106	1.5	1.6	1.6	0.0	.2	.4
821107	1.5	1.5	1.6	-.1	<.05	.1
821108	1.4	1.5	1.6	-.1	.1	.3
821109	1.4	1.5	1.6	-.1	<.05	.3
821110	1.4	1.5	1.5	.2		.3
821111	1.5	1.5	1.6			
821112	1.5	1.5	1.5			
821113	1.5	1.5	1.5			
821114	1.4	1.5	1.5			
821115	1.4	1.5	1.5			
821116	1.5	1.5	1.6			
821117	1.6	1.6	1.7			
821118	1.6	1.6	1.7			
821119	1.6	1.6	1.7			
821120	-.1	1.5	1.7			
821121	0.0	.1	.4			
821122	-.1	0.0	.2			
821123	-.1	-.1	0.0			
821124	-.1	0.0	0.0			
821125	-.1	0.0	0.0			
821126	-.1	-.1	0.0			
821127	-.1	-.1	0.0			
821128	-.1	0.0	0.0			
821129	-.1	0.0	0.0			
821130	-.1	0.0	0.0			
MONTHLY VALUE	-.1	1.1	2.1	-.1		.7

Appendix Table A-3 (Continued).

- DECEMBER 1982 -

DATE	INTRAGRAVEL			SURFACE WATER		
	MIN	MEAN	MAX	MIN	MEAN	MAX
821201	-.1	0.0	0.0	—	—	—
821202	-.1	0.0	0.0	—	—	—
821203	-.1	0.0	0.0	—	—	—
821204	-.1	0.0	0.0	—	—	—
821205	-.1	0.0	0.0	—	—	—
821206	-.1	-.1	0.0	—	—	—
821207	-.1	-.1	0.0	—	—	—
821208	-.1	-.1	0.0	—	—	—
821209	-.1	-.1	0.0	—	—	—
821210	-.1	-.1	0.0	—	—	—
821211	-.1	-.1	-.1	—	—	—
821212	-.1	0.0	0.0	—	—	—
821213	-.1	0.0	0.0	—	—	—
821214	-.1	0.0	0.0	—	—	—
821215	-.1	0.0	0.0	—	—	—
821216	-.1	0.0	0.0	—	—	—
821217	0.0	0.0	0.0	—	—	—
821218	-.1	0.0	0.0	—	—	—
821219	-.1	0.0	0.0	—	—	—
821220	0.0	0.0	0.0	—	—	—
821221	-.1	0.0	0.0	—	—	—
821222	-.1	0.0	0.0	—	—	—
821223	0.0	0.0	0.0	—	—	—
821224	0.0	0.0	0.0	—	—	—
821225	0.0	0.0	0.0	—	—	—
821226	-.1	0.0	0.0	—	—	—
821227	0.0	0.0	0.0	—	—	—
821228	0.0	0.0	0.0	—	—	—
821229	0.0	0.0	.1	—	—	—
821230	0.0	0.0	0.0	—	—	—
821231	0.0	0.0	0.0	—	—	—
MONTHLY VALUE	-.1	0.0	.1	—	—	—

Appendix Table A-3 (Continued).

- JANUARY 1983 -

DATE	INTRAGRAVEL			SURFACE WATER		
	MIN	MEAN	MAX	MIN	MEAN	MAX
830101	-.1	0.0	0.0	—	—	—
830102	0.0	0.0	0.0	—	—	—
830103	0.0	0.0	0.0	—	—	—
830104	0.0	<.05	.1	—	—	—
830105	0.0	0.0	.1	—	—	—
830106	0.0	<.05	.1	—	—	—
830107	0.0	<.05	.1	—	—	—
830108	0.0	0.0	0.0	—	—	—
830109	-.1	0.0	.1	—	—	—
830110	0.0	<.05	.1	—	—	—
830111	0.0	<.05	.1	—	—	—
830112	0.0	0.0	0.0	—	—	—
830113	0.0	—	0.0	—	—	—
830114	0.0	—	0.0	—	—	—
830115	-.1	0.0	.1	—	—	—
830116	-.1	<.05	.1	—	—	—
830117	0.0	0.0	.1	—	—	—
830118	0.0	0.0	.1	—	—	—
830119	0.0	<.05	.1	—	—	—
830120	0.0	<.05	.1	—	—	—
830121	0.0	<.05	.1	—	—	—
830122	0.0	0.0	0.0	—	—	—
830123	0.0	.1	.1	—	—	—
830124	0.0	<.05	.1	—	—	—
830125	0.0	0.0	.1	—	—	—
830126	0.0	<.05	.1	—	—	—
830127	0.0	.1	.1	—	—	—
830128	0.0	.1	.1	—	—	—
830129	0.0	<.05	.1	—	—	—
830130	0.0	0.0	0.0	—	—	—
830131	0.0	<.05	.1	—	—	—
MONTHLY VALUE	-.1	<.05	.1	—	—	—

Appendix Table A-3 (Continued).

- FEBRUARY 1983 -

DATE	INTRAGRAVEL			SURFACE WATER		
	MIN	MEAN	MAX	MIN	MEAN	MAX
830201	0.0	.1	.1	---	---	---
830202	0.0	<.05	.1	---	---	---
830203	0.0	.1	.1	---	---	---
830204	0.0	.1	.1	---	---	---
830205	0.0	<.05	.1	---	---	---
830206	0.0	.1	.1	---	---	---
830207	.1	.1	.1	---	---	---
830208	.1	.1	.1	---	---	---
830209	0.0	.1	.1	---	---	---
830210	0.0	<.05	.1	---	---	---
830211	0.0	.1	.1	---	---	---
830212	0.0	<.05	.1	---	---	---
830213	0.0	0.0	0.0	---	---	---
830214	0.0	0.0	0.0	---	---	---
830215	0.0	0.0	0.0	---	---	---
830216	0.0	0.0	0.0	---	---	---
830217	0.0	0.0	0.0	---	---	---
830218	0.0	0.0	0.0	---	---	---
830219	0.0	0.0	0.0	---	---	---
830220	0.0	.1	.1	---	---	---
830221	0.0	.1	.1	---	---	---
830222	0.0	.1	.1	---	---	---
830223	.1	.1	.1	---	---	---
830224	0.0	.1	.1	---	---	---
830225	.1	.1	.1	---	---	---
830226	.1	.1	.1	---	---	---
830227	.1	.1	.1	---	---	---
830228	.1	.1	.1	---	---	---
MONTHLY VALUE	0.0	.1	.1	---	---	---

Appendix Table A-3 (Continued).

- MARCH 1983 -

DATE	INTRAGRAVEL			SURFACE WATER		
	MIN	MEAN	MAX	MIN	MEAN	MAX
830301	.1	.1	.1	—	—	—
830302	.1	.1	.1	—	—	—
830303	.1	.1	.1	—	—	—
830304	.1	.1	.1	—	—	—
830305	.1	.1	.1	—	—	—
830306	.1	.1	.1	—	—	—
830307	.1	.1	.1	—	—	—
830308	.1	.1	.1	—	—	—
830309	.1	.1	.1	—	—	—
830310	.1	.1	.1	—	—	—
830311	.1	.1	.1	—	—	—
830312	.1	.1	.1	—	—	—
830313	.1	.1	.1	—	—	—
830314	.1	.1	.1	—	—	—
830315	.1	.1	.1	—	—	—
830316	.1	.1	.1	—	—	—
830317	.1	.1	.1	—	—	—
830318	0.0	.1	.1	—	—	—
830319	.1	.1	.1	—	—	—
830320	.1	.1	.1	—	—	—
830321	.1	.1	.1	—	—	—
830322	0.0	.1	.1	—	—	—
830323	.1	.1	.1	—	—	—
830324	.1	.1	.1	—	—	—
830325	.1	.1	.1	—	—	—
830326	.1	.1	.1	—	—	—
830327	.1	.1	.1	—	—	—
830328	.1	.1	.1	—	—	—
830329	.1	.1	.1	—	—	—
830330	.1	.1	.1	—	—	—
830331	0.0	.1	.1	—	—	—
MONTHLY VALUE	0.0	.1	.1	—	—	—

Appendix Table A-3 (Continued).

- APRIL 1983 -

DATE	INTRAGRAVEL			SURFACE WATER		
	MIN	MEAN	MAX	MIN	MEAN	MAX
830401	0.0	.1	.1	—	—	—
830402	0.0	.1	.1	—	—	—
830403	0.0	.1	.2	—	—	—
830404	.1	.1	.1	—	—	—
830405	.1	.1	.1	—	—	—
830406	.1	.1	.1	—	—	—
830407	.1	.1	.1	—	—	—
830408	.1	.1	.1	—	—	—
830409	.1	.1	.1	—	—	—
830410	.1	.1	.1	—	—	—
830411	.1	.1	.1	—	—	—
830412	.1	.1	.1	—	—	—
830413	.1	.1	.1	—	—	—
830414	.1	.1	.1	—	—	—
830415	.1	.1	.1	—	—	—
830416	.1	.1	.1	—	—	—
830417	.1	.1	.2	—	—	—
830418	.1	.2	.2	—	—	—
830419	.1	.1	.2	—	—	—
830420	0.0	.1	.1	—	—	—
830421	0.0	<.05	.1	—	—	—
830422	0.0	.1	.1	—	—	—
830423	0.0	.1	.1	—	—	—
830424	.1	.1	.1	—	—	—
830425	0.0	.1	.1	—	—	—
830426	0.0	.1	.1	—	—	—
830427	.1	.1	.2	—	—	—
830428	.1	—	.1	—	—	—
MONTHLY VALUE	0.0	.1	.2	—	—	—

Appendix Table A-4 Datapod intragravel and surface water temperature (C) data summary, at Slough 8A - Upper, RM 126.4, Geocode S30N03W20CDD.

- AUGUST 1982 -

DATE	INTRAGRAVEL			SURFACE WATER		
	MIN	MEAN	MAX	MIN	MEAN	MAX
820821	4.7	4.7	4.8	5.0	6.3	9.4
820822	4.7	4.8	4.8	4.9	6.1	9.3
820823	4.7	4.8	4.8	5.6	6.4	7.7
820824	4.7	4.8	4.8	5.4	6.3	8.5
820825	4.7	4.8	4.8	5.5	6.3	8.6
820826	4.7	4.8	4.9	5.5	6.5	9.7
820827	4.7	4.8	4.9	4.9	6.0	9.2
820828	4.8	4.8	4.9	5.1	6.0	8.2
820829	4.8	4.9	4.9	5.6	6.0	6.5
820830	4.9	4.9	4.9	5.7	5.9	6.4
820831	4.8	4.9	4.9	5.5	5.8	6.7
MONTHLY VALUE	4.7	——	4.9	4.9	——	9.7

Appendix Table A-4 (Continued).

- OCTOBER 1982 -

DATE	INTRAGRAVEL			SURFACE WATER		
	MIN	MEAN	MAX	MIN	MEAN	MAX
821001	4.8	4.9	4.9	4.9	5.2	5.6
821002	4.8	4.8	4.9	4.7	5.2	5.9
821003	4.7	4.8	4.8	4.7	5.1	5.9
821004	4.7	4.8	4.8	4.4	4.9	6.0
821005	4.7	4.7	4.8	4.3	4.8	5.8
821006	4.6	4.7	4.8	4.3	4.8	5.4
821007	4.7	4.7	4.7	4.5	4.7	5.1
821008	4.7	4.7	4.7	3.9	4.6	5.5
821009	4.7	4.7	4.7	4.0	4.7	5.4
821010	4.7	4.7	4.7	4.4	4.7	5.1
821011	4.6	4.7	4.7	3.5	4.5	4.9
821012	4.6	4.7	4.7	3.6	4.3	4.8
821013	4.6	4.6	4.7	3.6	4.2	4.6
821014	4.6	4.6	4.7	3.5	4.2	5.2
821015	4.6	4.6	4.7	3.5	4.0	4.8
821016	4.6	4.6	4.7	3.9	4.1	4.3
821017	4.6	4.7	4.7	3.9	4.4	5.3
821018	4.6	4.6	4.7	3.9	4.2	4.8
821019	4.6	4.6	4.6	3.8	4.2	4.5
821020	4.6	4.6	4.7	3.9	4.2	4.7
821021	4.6	4.6	4.7	3.8	4.1	4.4
821022	4.6	4.6	4.6	3.8	4.1	4.4
821023	4.6	4.6	4.6	3.8	4.0	4.3
821024	4.5	4.6	4.6	3.7	3.9	4.3
821025	4.5	4.6	4.6	3.6	3.9	3.8
MONTHLY VALUE	4.5	4.7	4.9	3.5	4.4	6.0

Appendix Table A-4 (Continued).

- SEPTEMBER 1982 -

DATE	INTRAGRAVEL			SURFACE WATER		
	MIN	MEAN	MAX	MIN	MEAN	MAX
820901	4.8	4.9	5.0	5.6	6.2	7.1
820902	4.8	4.9	5.0	5.8	6.3	7.6
820903	4.9	4.9	5.0	5.9	6.3	7.0
820904	4.9	4.9	5.0	5.5	6.1	7.1
820905	4.9	5.0	5.0	5.2	6.0	6.8
820906	4.9	5.0	5.1	5.4	5.9	6.4
820907	5.0	5.1	5.1	5.5	6.0	7.3
820908	5.1	5.1	5.2	5.5	5.9	6.5
820909	5.1	5.2	5.2	5.5	5.9	6.7
820910	5.1	5.2	5.3	5.4	5.9	6.5
820911	5.2	5.3	5.3	5.1	5.7	6.2
820912	5.2	5.3	5.3	5.0	5.6	6.8
820913	5.2	5.2	5.3	5.3	5.6	6.2
820914	5.2	5.2	5.3	5.5	5.9	6.3
820915	5.2	5.2	5.3	5.7	6.4	7.7
820916	5.2	5.3	5.3	5.9	6.7	8.3
820917	5.2	5.2	5.3	5.8	6.1	7.0
820918	5.1	5.2	5.2	5.3	5.8	6.5
820919	5.1	5.1	5.2	5.5	5.7	6.1
820920	5.1	5.1	5.2	5.5	5.7	6.2
820921	5.1	5.1	5.2	5.3	5.6	6.0
820922	5.0	5.1	5.1	5.2	5.6	6.5
820923	5.0	5.1	5.1	4.7	5.3	6.8
820924	5.0	5.1	5.1	4.3	5.1	6.2
820925	5.0	5.0	5.1	4.7	5.2	5.8
820926	5.0	5.0	5.1	5.2	5.3	5.8
820927	4.9	5.0	5.0	4.9	5.3	6.0
820928	4.9	4.9	5.0	4.4	5.0	5.5
820929	4.9	4.9	5.0	5.0	5.3	5.9
820930	4.8	4.9	4.9	5.0	5.4	6.0
MONTHLY VALUE	4.8	5.1	5.3	4.3	5.8	8.3

Appendix Table A-4 (Continued).

- MARCH 1983 -

DATE	INTRAGRAVEL			SURFACE WATER		
	MIN	MEAN	MAX	MIN	MEAN	MAX
830311	2.7	—	2.7	2.4	—	2.7
830312	2.6	2.7	2.7	2.3	2.5	4.2
830313	2.6	2.7	2.7	1.4	2.4	4.6
830314	2.5	2.6	2.7	1.3	2.2	4.0
830315	2.6	2.6	2.7	1.3	2.9	4.6
830316	2.5	2.6	2.7	1.4	2.5	4.5
830317	2.4	2.6	2.7	1.2	2.2	4.5
830318	2.4	2.5	2.7	1.0	1.9	4.6
830319	2.4	2.5	2.7	1.0	1.8	4.6
830320	2.4	2.6	2.7	1.3	2.3	4.3
830321	2.4	2.6	2.8	1.3	2.6	4.6
830322	2.4	2.5	2.7	1.0	2.0	4.3
830323	2.5	2.5	2.7	1.0	2.0	4.4
830324	2.5	2.5	2.7	1.0	2.0	4.6
830325	2.4	2.6	2.8	1.2	2.7	5.5
830326	2.4	2.6	2.8	1.2	2.5	4.6
830327	2.4	2.6	2.8	1.0	2.6	5.7
830328	2.4	2.6	2.9	1.3	3.1	6.0
830329	2.4	2.6	2.9	1.1	3.0	6.0
830330	2.4	2.6	2.9	1.1	3.0	6.0
830331	2.4	2.7	3.1	1.3	3.2	6.0
MONTHLY VALUE	2.4	2.6	3.1	1.0	2.5	6.0

Appendix Table A-4 (Continued).

- APRIL 1983 -

DATE	INTRAGRAVEL			SURFACE WATER		
	MIN	MEAN	MAX	MIN	MEAN	MAX
830401	2.5	2.7	3.1	2.3	3.5	6.0
830402	2.5	2.8	3.1	1.1	3.3	6.0
830403	2.6	2.9	4.1	2.3	3.4	6.2
830404	2.6	2.8	3.1	2.6	3.2	4.5
830405	2.5	2.7	3.0	2.6	3.7	5.5
830406	2.7	3.1	4.2	2.3	3.8	7.5
830407	2.8	3.3	4.4	2.4	4.1	7.6
830408	2.8	3.6	4.3	2.3	4.0	7.5
830409	2.7	3.5	4.2	2.9	3.4	5.9
830410	2.7	3.2	4.3	2.7	4.1	7.2
830411	2.7	3.5	4.2	2.7	3.6	5.6
830412	2.4	2.7	4.0	1.1	2.2	4.3
830413	2.4	2.7	4.0	1.4	3.5	6.1
830414	2.7	3.2	4.1	2.3	3.7	6.1
830415	2.7	3.2	4.1	2.8	3.4	5.9
830416	2.8	3.5	4.4	2.3	4.3	6.1
830417	2.8	3.5	4.3	2.5	3.6	5.8
830418	2.7	3.2	4.1	2.6	3.5	5.6
830419	2.7	3.2	4.3	2.6	4.2	7.6
830420	2.8	3.6	4.5	2.4	4.3	7.8
830421	2.9	4.0	4.7	2.4	4.6	9.0
830422	3.1	4.3	4.6	2.7	5.1	7.6
830423	3.0	4.1	4.4	2.5	4.2	6.1
830424	2.8	3.6	4.5	2.3	4.2	9.4
830425	2.8	3.5	4.4	2.3	4.2	8.9
830426	2.6	3.4	4.3	2.4	4.3	7.6
830427	2.5	2.9	4.1	2.4	4.4	7.3
830428	2.5		3.1	2.5		3.9
830429	2.4	2.5	2.7	1.8	3.1	5.6
830430	2.3	2.5	2.7	1.5	3.0	6.5
MONTHLY VALUE	2.3	3.2	4.7	1.1	3.8	9.4

Appendix Table A-4 (Continued).

- MAY 1983 -

DATE	INTRAGRAVEL			SURFACE WATER		
	MIN	MEAN	MAX	MIN	MEAN	MAX
830501	2.3	2.4	2.6	1.3	2.7	5.7
830502	2.2	2.4	2.5	1.7	2.5	4.0
830503	2.2	2.3	2.5	1.6	2.4	3.6
830504	2.2	2.4	2.5	1.6	2.5	4.6
830505	2.3	2.4	2.5	1.7	2.6	4.8
830506	2.4	2.5	2.6	1.7	2.7	5.0
830507	2.4	2.5	2.7	1.7	2.8	5.2
830508	2.5	2.5	2.7	1.8	3.0	5.3
830509	2.4	2.5	2.7	2.0	3.1	5.4
830510	2.5	2.6	2.7	2.0	3.0	5.3
830511	2.5	2.6	2.8	2.0	3.2	5.5
830512	2.5	2.7	2.8	2.2	3.1	4.8
830513	2.6	2.7	2.8	2.2	3.1	5.4
830514	2.6	2.7	2.8	2.3	3.0	4.6
830515	2.6	2.7	2.8	2.2	3.0	4.2
830516	2.6	2.7	2.9	2.2	3.0	4.3
830517	2.7	2.8	2.9	2.4	3.1	4.1
830518	2.7	2.8	2.9	2.4	3.3	4.7
830519	2.8	2.9	3.0	2.4	3.4	4.9
830520	2.8	2.9	3.0	2.4	3.6	5.7
830521	2.9	3.0	3.1	2.6	3.3	4.4
830522	2.9	3.0	3.1	2.8	3.8	5.9
830523	2.9	3.0	3.2	2.8	3.7	6.0
830524	2.9	3.1	3.3	2.8	3.9	6.5
830525	3.0	3.1	3.3	2.6	3.9	6.2
830526	3.0	3.1	3.3	3.1	4.0	6.4
830527	3.0	3.2	3.3	2.8	3.8	5.8
830528	3.0	3.2	3.3	2.8	3.9	5.6
830529	3.1	3.2	3.4	2.9	4.0	5.4
830530	3.2	3.2	3.3	3.3	3.9	5.0
830531	3.2	3.2	3.3	3.4	3.9	5.1
MONTHLY VALUE	2.2	2.8	3.4	1.3	3.3	6.5

Appendix Table A-4 (Continued).

- JUNE 1983 -

DATE	INTRAGRAVEL			SURFACE WATER		
	MIN	MEAN	MAX	MIN	MEAN	MAX
830601	3.1	3.3	3.4	3.2	4.3	6.7
830602	3.2	——	3.4	3.2	——	3.9
MONTHLY VALUE	3.1	——	3.4	3.2	——	6.7

Appendix Table 4-D-7. Temperature (°C), specific conductance (umhos/cm), and depth (ft) collected at specified locations in Slough 8A, October 5, 1982.

Location ^a	Depth	Temperature			Specific Conductance
		Surface	Intra-gravel	Substrate/ Water ^b	
Transect 1L	-	-	-	2.9	101
Transect 2L	-	-	-	3.0	98
Transect 3L	-	-	-	3.9	136
Transect 4L	-	-	-	3.4	112
Transect 5L	-	-	-	3.2	107
Transect 6L	-	-	-	4.2	131
Transect 7L	-	-	-	3.8	137
Transect 8L	-	-	-	3.3	114
Transect 9L	-	-	-	2.4	116
Transect 10L	-	-	-	2.7	104
Transect 11L	-	-	-	3.9	147
Transect 1M	-	-	-	2.8	89
Transect 2M	-	-	-	2.8	89
Transect 3M	-	-	-	3.4	108
Transect 4M	-	-	-	2.7	91
Transect 5M	-	-	-	2.6	86
Transect 6M	-	-	-	2.5	88
Transect 7M	-	-	-	2.5	86
Transect 8M	-	-	-	2.4	84
Transect 9M	-	-	-	2.1	85
Transect 10M	-	-	-	2.2	85
Transect 11M	-	-	-	2.2	86
Transect 1R	-	-	-	2.8	90
Transect 2R	-	-	-	2.7	88
Transect 3R	-	-	-	2.8	83
Transect 4R	-	-	-	2.8	83
Transect 5R	-	-	-	3.1	80
Transect 6R	-	-	-	3.2	83
Transect 7R	-	-	-	3.1	89
Transect 8R	-	-	-	3.0	62
Transect 9R	-	-	-	2.8	56
Transect 10R	-	-	-	3.2	44
Transect 11R	-	-	-	3.3	57
Pool L	-	-	-	4.2	152
Pool M	-	-	-	4.4	133
Pool R	-	-	-	4.1	132
Channel L	-	-	-	2.6	88
Channel M	-	-	-	2.2	85
Channel R	-	-	-	2.4	84

Appendix Table 4-D-7 (Continued).

<u>Location</u> ^a	<u>Depth</u>	<u>Temperature</u>			<u>Specific Conductance</u>
		<u>Surface</u>	<u>Intra-gravel</u>	<u>Substrate/Water</u> ^b	
Side Channel	-	3.4	-	-	218
Side Channel	-	3.1	-	-	115
Spawning A	-	3.4	4.1	-	133
Spawning A	-	2.5	3.9	-	123
Spawning B	-	2.6	3.1	-	110
Spawning B	-	2.4	2.5	-	110
Spawning B	-	2.1	2.1	-	112
Spawning C	-	2.9	4.9	-	117
Spawning C	-	2.7	4.6	-	111
Spawning C	-	2.7	4.4	-	113

^aRefer to Figure ____ for schematic drawing of Slough 8A.

^bTemperature readings obtained at substrate/water interface.

Appendix Table 4-D-12. Surface and intragravel temperatures (°C) and related data (ft) collected along study transects in Slough 8A, October 5, 1982.

Transect	Distance ^a	Depth	Temperature			Comments
			Surface	Intragravel	Substrate/Water ^b	
3	10.0	0.82	3.7	3.8	-	Gravel
3	26.0	1.10	3.4	3.8	-	Gravel
3	42.0	0.95	3.3	3.8	-	Rubble/gravel
3	58.0	0.70	2.7	3.7	-	Rubble
3	74.0	0.55	2.7	4.2	-	Rubble/gravel
3	82.0	0.40	2.8	4.7	-	Rubble/gravel
4	42.0	0.15	3.2	3.2	-	Rubble
4	58.0	1.70	2.6	2.8	-	Rubble/gravel
4	74.0	1.70	2.7	3.3	-	Cobble/rubble
4	84.0	0.70	2.7	3.4	-	Rubble/gravel
7	30.0	0.20	4.1	3.4	-	Rubble
7	46.0	0.44	2.5	4.0	-	Cobble
7	62.0	0.60	2.4	3.5	-	Rubble/gravel
7	78.0	0.20	2.9	4.3	-	Gravel/cobble
7	94.0	0.20	3.2	4.4	-	Rubble/cobble
9	40.0	0.15	0.9	1.5	-	Gravel
9	56.0	0.55	2.1	2.0	-	Cobble
9	72.0	0.45	2.0	1.9	-	Cobble
9	88.0	0.70	2.2	2.1	-	Cobble
9	114.0	0.20	2.7	2.7	-	Cobble

^aDistance (ft) from left bank head pin (facing upstream).

^bTemperature readings obtained at the substrate/water interface.

Appendix Table 4-C-12 Thermograph data summary, summer surface water temperature (C),
Slough 8A-Area of R&M Stage Recorder, RM 126.0, Geocode
S30N03W30BCA.

- JULY 1982 -

TIME PERIOD	DAYS 1 - 8			DAYS 9 - 16			DAYS 17 - 24			DAYS 25 - 31		
	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX
0001 - 0600	---	---	---	---	---	---	---	---	---	---	---	---
0601 - 1200	---	---	---	---	---	---	---	---	---	---	---	---
1201 - 1800	---	---	---	---	---	---	---	---	---	---	---	---
1801 - 2400	---	---	---	---	---	---	---	---	---	---	---	---
DAILY VALUE	---	---	---	---	---	---	---	---	---	---	---	---
0001 - 0600	---	---	---	---	---	---	---	---	---	---	---	---
0601 - 1200	---	---	---	---	---	---	---	---	---	---	---	---
1201 - 1800	---	---	---	---	---	---	---	---	---	---	---	---
1801 - 2400	---	---	---	---	---	---	---	---	---	---	---	---
DAILY VALUE	---	---	---	---	---	---	---	---	---	---	---	---
0001 - 0600	---	---	---	---	---	---	---	---	---	---	---	---
0601 - 1200	---	---	---	---	---	---	---	---	---	---	---	---
1201 - 1800	---	---	---	---	---	---	---	---	---	---	---	---
1801 - 2400	---	---	---	---	---	---	---	---	---	---	---	---
DAILY VALUE	---	---	---	---	---	---	---	---	---	---	---	---
0001 - 0600	---	---	---	---	---	---	---	---	---	---	---	---
0601 - 1200	---	---	---	---	---	---	---	---	---	---	---	---
1201 - 1800	---	---	---	---	---	---	---	---	---	8.8	9.0	9.3
1801 - 2400	---	---	---	---	---	---	---	---	---	6.8	7.3	7.8
DAILY VALUE	---	---	---	---	---	---	---	---	---	6.8	---	9.3
0001 - 0600	---	---	---	---	---	---	---	---	---	6.3	6.5	6.8
0601 - 1200	---	---	---	---	---	---	---	---	---	6.3	6.8	7.3
1201 - 1800	---	---	---	---	---	---	---	---	---	7.3	7.6	7.8
1801 - 2400	---	---	---	---	---	---	---	---	---	6.3	6.8	7.3
DAILY VALUE	---	---	---	---	---	---	---	---	---	6.3	6.9	7.8
0001 - 0600	---	---	---	---	---	---	---	---	---	6.3	6.3	6.3
0601 - 1200	---	---	---	---	---	---	---	---	---	6.3	6.5	6.8
1201 - 1800	---	---	---	---	---	---	---	---	---	6.8	6.8	6.8
1801 - 2400	---	---	---	---	---	---	---	---	---	6.3	6.5	6.8
DAILY VALUE	---	---	---	---	---	---	---	---	---	6.3	6.5	6.8
0001 - 0600	---	---	---	---	---	---	---	---	---	5.8	6.0	6.3
0601 - 1200	---	---	---	---	---	---	---	---	---	5.8	6.8	7.8
1201 - 1800	---	---	---	---	---	---	---	---	---	7.8	8.1	8.3
1801 - 2400	---	---	---	---	---	---	---	---	---	5.8	6.6	7.3
DAILY VALUE	---	---	---	---	---	---	---	---	---	5.8	6.9	8.3
0001 - 0600	---	---	---	---	---	---	---	---	---	MONTHLY VALUE		
0601 - 1200	---	---	---	---	---	---	---	---	---			
1201 - 1800	---	---	---	---	---	---	---	---	---			
1801 - 2400	---	---	---	---	---	---	---	---	---			
DAILY VALUE	---	---	---	---	---	---	---	---	---	5.8	---	9.3

Appendix Table 4-C-12 Cont.

- AUGUST 1982 -

TIME PERIOD	DAYS 1 - 8			DAYS 9 - 16			DAYS 17 - 24			DAYS 25 - 31		
	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX
0001 - 0600	4.8	5.0	5.3	6.8	6.8	6.8	7.3	7.6	7.8	8.3	8.6	8.8
0601 - 1200	5.3	6.5	7.8	6.8	7.1	7.8	7.3	7.5	7.8	8.3	9.0	9.8
1201 - 1800	8.8	9.3	9.8	8.3	8.6	8.8	8.3	9.0	9.3	11.3	11.8	12.3
1801 - 2400	6.3	7.0	7.8	7.3	7.5	7.8	7.3	8.0	8.8	8.8	9.5	10.3
DAILY VALUE	4.8	6.9	9.8	6.8	7.5	8.8	7.3	8.0	9.3	8.3	9.7	12.3
0001 - 0600	4.8	5.0	5.3	6.8	6.8	6.8	6.8	6.8	6.8	8.3	8.3	8.3
0601 - 1200	5.3	6.6	8.3	6.8	7.1	7.8	6.8	7.6	8.3	8.3	9.5	10.8
1201 - 1800	9.8	10.0	10.3	7.8	7.8	7.8	8.8	8.8	8.8	10.8	12.0	12.8
1801 - 2400	6.3	7.5	8.8	6.8	7.0	7.3	6.3	7.3	8.3	8.8	9.6	10.3
DAILY VALUE	4.8	7.3	10.3	6.8	7.2	7.8	6.3	7.6	8.8	8.3	9.8	12.8
0001 - 0600	5.3	5.5	5.8	6.3	6.5	6.8	5.8	5.8	5.8	6.3	7.0	7.8
0601 - 1200	5.3	7.0	8.8	6.3	8.1	9.8	6.3	7.5	8.8	6.3	7.8	9.8
1201 - 1800	9.8	10.3	10.8	11.3	11.8	12.3	9.8	10.1	10.3	10.3	11.6	12.3
1801 - 2400	7.3	7.8	8.3	6.8	8.3	10.3	6.8	7.8	8.8	8.3	9.1	9.8
DAILY VALUE	5.3	7.6	10.8	6.3	8.7	12.3	5.8	7.8	10.3	6.3	8.9	12.3
0001 - 0600	5.8	6.0	6.3	5.3	5.8	6.3	5.8	6.0	6.3	6.8	7.3	7.8
0601 - 1200	6.3	7.6	9.3	5.8	7.6	9.8	6.3	7.8	9.3	6.8	7.6	8.8
1201 - 1800	10.8	11.0	11.3	11.8	12.3	12.8	11.8	12.6	13.3	9.8	10.3	10.8
1801 - 2400	7.3	8.0	8.8	7.3	8.1	9.3	7.3	9.0	10.8	8.3	9.0	9.8
DAILY VALUE	5.8	8.1	11.3	5.3	8.5	12.8	5.8	8.8	13.3	6.8	8.5	10.8
0001 - 0600	6.3	6.5	6.8	6.8	7.0	7.3	6.3	6.5	6.8	7.8	8.0	8.3
0601 - 1200	6.8	8.1	9.8	6.8	8.6	10.8	6.3	8.1	10.3	7.8	8.1	8.8
1201 - 1800	10.3	10.8	11.3	12.3	12.8	13.3	12.3	12.8	13.3	9.3	9.3	9.3
1801 - 2400	6.8	7.8	8.8	8.3	9.3	10.3	7.3	9.0	10.8	7.8	8.3	8.8
DAILY VALUE	6.3	8.3	11.3	6.8	9.4	13.3	6.3	9.1	13.3	7.8	8.4	9.3
0001 - 0600	6.3	6.5	6.8	8.3	8.3	8.3	5.8	6.3	6.8	7.8	7.8	7.8
0601 - 1200	6.8	8.3	9.8	7.8	8.0	8.3	6.3	8.1	10.3	7.8	7.8	7.8
1201 - 1800	10.8	11.6	12.3	8.3	8.6	8.8	11.8	12.6	13.3	7.8	8.1	8.3
1801 - 2400	7.3	8.5	9.8	6.8	7.5	8.3	—	—	—	7.3	7.5	7.8
DAILY VALUE	6.3	8.7	12.3	6.8	8.1	8.8	5.8	9.0	13.3	7.3	7.8	8.3
0001 - 0600	6.3	6.5	6.8	6.8	6.8	6.8	—	—	—	6.8	7.0	7.3
0601 - 1200	6.8	8.0	9.3	6.8	7.6	8.8	—	—	—	6.8	7.3	7.8
1201 - 1800	8.3	9.3	10.3	10.8	11.5	12.3	11.8	—	11.8	8.3	8.6	8.8
1801 - 2400	6.8	7.3	7.8	7.8	8.5	9.3	8.8	9.5	10.3	7.3	7.5	7.8
DAILY VALUE	6.3	7.8	10.3	6.8	8.6	12.3	8.8	—	11.8	6.8	7.6	8.8
0001 - 0600	5.8	6.0	6.3	7.3	7.3	7.3	8.3	8.3	8.3	MONTHLY VALUE		
0601 - 1200	6.3	8.1	9.8	7.3	8.8	10.8	8.3	9.1	10.3			
1201 - 1800	9.8	10.8	11.3	11.3	12.1	12.8	11.3	11.6	11.8	MONTHLY VALUE		
1801 - 2400	7.3	7.8	8.8	8.3	9.0	9.8	9.3	10.0	10.8			
DAILY VALUE	5.8	8.2	11.3	7.3	9.3	12.8	8.3	9.8	11.8	4.8	8.4	13.3

Appendix Table 4-C-12 Cont.

- SEPTEMBER 1982 -

TIME PERIOD	DAYS 1 - 8			DAYS 9 - 16			DAYS 17 - 24			DAYS 25 - 31		
	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX
0001 - 0600	6.8	7.1	7.3	6.3	6.3	6.3	5.3	5.3	5.3	3.3	3.6	3.8
0601 - 1200	7.3	8.0	8.8	6.3	6.5	6.8	5.3	5.3	5.3	3.3	3.5	3.8
1201 - 1800	8.8	9.1	9.3	7.8	7.8	7.8	5.3	5.3	5.3	4.3	4.6	4.8
1801 - 2400	6.8	7.5	8.3	6.3	6.8	7.3	5.3	5.3	5.3	4.3	4.3	4.3
DAILY VALUE	6.8	7.9	9.3	6.3	6.8	7.8	5.3	5.3	5.3	3.3	4.0	4.8
0001 - 0600	6.3	6.5	6.8	5.8	6.1	6.3	4.8	5.1	5.3	4.3	4.3	4.3
0601 - 1200	6.3	6.8	7.3	5.8	6.5	7.3	5.3	5.5	5.8	4.3	4.3	4.3
1201 - 1800	8.3	8.8	9.3	7.8	7.8	7.8	5.8	5.8	5.8	4.8	4.8	4.8
1801 - 2400	7.3	7.5	7.8	6.3	6.5	6.8	5.8	5.8	5.8	4.3	4.5	4.8
DAILY VALUE	6.3	7.4	9.3	5.8	6.7	7.8	4.8	5.5	5.8	4.3	4.5	4.8
0001 - 0600	6.8	7.0	7.3	5.8	5.8	5.8	5.3	5.5	5.8	4.3	4.3	4.3
0601 - 1200	6.8	6.8	6.8	5.8	6.0	6.3	5.3	5.5	5.8	4.3	4.3	4.3
1201 - 1800	7.3	7.5	7.8	6.3	6.6	6.8	5.8	5.8	5.8	4.8	4.8	4.8
1801 - 2400	6.8	6.8	6.8	5.3	5.8	6.3	5.8	5.8	5.8	3.8	4.3	4.8
DAILY VALUE	6.8	7.0	7.8	5.3	6.0	6.8	5.3	5.6	5.8	3.8	4.4	4.8
0001 - 0600	5.8	6.1	6.3	4.8	4.8	4.8	5.3	5.3	5.3	2.8	3.3	3.8
0601 - 1200	5.8	6.1	6.8	4.8	5.0	5.3	5.3	5.5	5.8	2.8	3.0	3.3
1201 - 1800	7.3	7.8	8.3	6.8	6.8	6.8	5.8	5.8	5.8	3.8	3.8	3.8
1801 - 2400	6.3	6.5	6.8	5.3	5.6	5.8	—	—	—	3.8	3.8	3.8
DAILY VALUE	5.8	6.6	8.3	4.8	5.5	6.8	5.3	—	5.8	2.8	3.5	3.8
0001 - 0600	5.8	6.1	6.3	5.3	5.3	5.3	—	—	—	3.8	3.8	3.8
0601 - 1200	5.8	6.5	7.3	5.3	5.3	5.3	5.8	—	5.8	3.8	3.8	3.8
1201 - 1800	7.3	7.6	7.8	5.8	6.0	6.3	5.8	5.8	5.8	4.8	4.8	4.8
1801 - 2400	6.3	6.6	6.8	5.8	5.8	5.8	5.8	5.8	5.8	4.8	4.8	4.8
DAILY VALUE	5.8	6.7	7.8	5.3	5.6	6.3	5.8	—	5.8	3.8	4.3	4.8
0001 - 0600	6.3	6.3	6.3	5.8	5.8	5.8	5.3	5.3	5.3	4.3	4.3	4.3
0601 - 1200	6.3	6.8	7.3	5.8	5.8	5.8	5.3	5.3	5.3	4.3	4.3	4.3
1201 - 1800	7.3	7.3	7.3	6.3	6.3	6.3	5.8	5.8	5.8	5.2	5.2	5.2
1801 - 2400	6.3	6.6	6.8	5.8	6.0	6.3	4.8	5.0	5.3	4.7	4.7	4.7
DAILY VALUE	6.3	6.8	7.3	5.8	6.0	6.3	4.8	5.3	5.8	4.3	4.7	5.2
0001 - 0600	6.3	6.3	6.3	5.8	5.8	5.8	3.8	4.3	4.8	—	—	—
0601 - 1200	6.8	7.1	7.8	5.8	6.3	6.8	3.8	3.8	3.8	—	—	—
1201 - 1800	8.3	8.6	8.8	7.3	7.3	7.3	4.3	5.0	5.3	—	—	—
1801 - 2400	6.8	7.3	7.8	6.8	6.8	6.8	3.8	4.1	4.8	—	—	—
DAILY VALUE	6.3	7.3	8.8	5.8	6.5	7.3	3.8	4.3	5.3	—	—	—
0001 - 0600	6.8	6.8	6.8	5.8	6.1	6.3	2.8	3.3	3.8	MONTHLY VALUE		
0601 - 1200	6.8	7.1	7.8	5.8	6.0	6.3	2.8	3.1	3.8			
1201 - 1800	7.8	7.8	7.8	6.3	6.5	6.8	4.3	4.6	4.8			
1801 - 2400	6.8	7.0	7.3	5.8	5.8	5.8	3.8	4.1	4.3			
DAILY VALUE	6.8	7.2	7.8	5.8	6.1	6.8	2.8	3.8	4.8			
										2.8	5.8	9.3

Appendix Table 4-C-12 Cont.

- OCTOBER 1982 -

TIME PERIOD	DAYS 1 - 8			DAYS 9 - 16			DAYS 17 - 24			DAYS 25 - 31		
	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX
0001 - 0600	4.2	4.4	4.7	1.2	1.5	1.7	.7	.7	.7	---	---	---
0601 - 1200	4.2	4.2	4.2	1.7	2.2	2.7	.7	1.2	1.7	---	---	---
1201 - 1800	4.2	4.5	4.7	3.2	3.2	3.2	1.7	2.0	2.2	---	---	---
1801 - 2400	3.7	3.9	4.2	2.2	2.4	2.7	.2	.7	1.2	---	---	---
DAILY VALUE	3.7	4.2	4.7	1.2	2.3	3.2	.2	1.2	2.2	---	---	---
0001 - 0600	3.7	3.7	3.7	2.2	2.2	2.2	.2	.2	.2	---	---	---
0601 - 1200	3.7	3.9	4.2	2.2	2.4	2.7	.2	.4	.7	---	---	---
1201 - 1800	4.2	4.5	4.7	2.7	2.7	2.7	.7	.7	.7	---	---	---
1801 - 2400	3.7	3.7	3.7	1.7	2.0	2.2	.7	.7	.7	---	---	---
DAILY VALUE	3.7	3.9	4.7	1.7	2.3	2.7	.2	.5	.7	---	---	---
0001 - 0600	3.2	3.5	3.7	1.7	1.7	1.7	.7	.7	.7	---	---	---
0601 - 1200	3.2	3.2	3.2	1.2	1.5	1.7	.2	.2	.2	---	---	---
1201 - 1800	3.7	4.0	4.2	1.2	1.9	2.2	.7	.7	.7	---	---	---
1801 - 2400	3.2	3.4	3.7	.7	1.2	1.7	.7	.7	.7	---	---	---
DAILY VALUE	3.2	3.5	4.2	.7	1.6	2.2	.2	.6	.7	---	---	---
0001 - 0600	2.2	2.5	2.7	.7	.7	.7	.7	.7	.7	---	---	---
0601 - 1200	2.2	2.4	2.7	.7	1.2	1.7	.7	.7	.7	---	---	---
1201 - 1800	3.2	3.2	3.2	2.2	2.2	2.2	.7	1.0	1.2	---	---	---
1801 - 2400	2.2	2.4	2.7	1.7	2.0	2.2	.2	.2	.2	---	---	---
DAILY VALUE	2.2	2.6	3.2	.7	1.5	2.2	.2	.7	1.2	---	---	---
0001 - 0600	2.2	2.2	2.2	.7	1.2	1.7	---	---	---	---	---	---
0601 - 1200	1.7	2.0	2.2	1.2	1.2	1.2	---	---	---	---	---	---
1201 - 1800	2.7	2.7	2.7	1.2	1.4	1.7	---	---	---	---	---	---
1801 - 2400	1.7	1.9	2.2	1.2	1.5	1.7	---	---	---	---	---	---
DAILY VALUE	1.7	2.2	2.7	.7	1.3	1.7	---	---	---	---	---	---
0001 - 0600	1.2	1.4	1.7	1.2	1.2	1.2	---	---	---	---	---	---
0601 - 1200	1.2	1.7	2.2	.7	1.0	1.7	---	---	---	---	---	---
1201 - 1800	2.7	2.7	2.7	1.7	2.0	2.2	---	---	---	---	---	---
1801 - 2400	2.2	2.2	2.2	.7	1.0	1.2	---	---	---	---	---	---
DAILY VALUE	1.2	2.0	2.7	.7	1.3	2.2	---	---	---	---	---	---
0001 - 0600	2.2	2.2	2.2	.2	.2	.2	---	---	---	---	---	---
0601 - 1200	1.7	2.0	2.2	.2	.2	.2	---	---	---	---	---	---
1201 - 1800	2.2	2.5	2.7	.7	.7	.7	---	---	---	---	---	---
1801 - 2400	2.2	2.4	2.7	.2	.4	.7	---	---	---	---	---	---
DAILY VALUE	1.7	2.3	2.7	.2	.4	.7	---	---	---	---	---	---
0001 - 0600	1.7	1.9	2.2	.7	.7	.7	---	---	---	MONTHLY VALUE		
0601 - 1200	1.7	2.2	2.7	.7	.7	.7	---	---	---			
1201 - 1800	2.7	3.0	3.2	.7	.7	.7	---	---	---			
1801 - 2400	1.2	1.7	2.2	.7	.7	.7	---	---	---			
DAILY VALUE	1.2	2.2	3.2	.7	.7	.7	---	---	---			

APPENDIX Table 4-C-25 Datapod intragravel and surface water temperature (C) continuous record, at Slough 8A-Mouth, RM 125.4, Geocode S30N03W30BCD.
 Note, that time periods are six hours and three minutes in duration; accordingly, daily minimum, maximum and mean values can not be directly calculated from this data.

DATE PERIOD	TIME PERIOD	INTRAGRAVEL			SURFACE WATER		
		MIN	MEAN	MAX	MIN	MEAN	MAX
820821 - 820821	0604 - 1206	6.5	6.6	6.7	8.0	8.8	9.8
820821 - 820821	1207 - 1809	6.4	6.5	6.6	7.8	9.3	12.0
820821 - 820822	1810 - 0012	6.5	6.6	6.7	12.1	13.9	14.7
820822 - 820822	0013 - 0615	6.8	6.8	6.8	9.6	11.5	13.9
820822 - 820822	0616 - 1218	6.5	6.7	6.8	8.0	8.9	9.7
820822 - 820822	1219 - 1821	6.5	6.6	6.6	8.2	9.8	12.5
820822 - 820823	1822 - 0024	6.6	6.7	6.8	12.5	14.1	14.8
820823 - 820823	0025 - 0627	6.8	6.8	6.8	10.7	11.7	13.8
820823 - 820823	0628 - 1230	6.6	6.7	6.8	10.0	10.3	10.7
820823 - 820823	1231 - 1833	6.6	6.6	6.7	9.8	10.4	11.5
820823 - 820824	1834 - 0036	6.7	6.7	6.8	11.6	12.3	12.7
820824 - 820824	0037 - 0639	6.7	6.7	6.8	10.0	10.8	12.2
820824 - 820824	0640 - 1242	6.6	6.6	6.7	9.1	9.5	10.0
820824 - 820824	1243 - 1845	6.5	6.6	6.7	9.2	10.2	11.8
820824 - 820825	1846 - 0048	6.6	6.7	6.8	11.9	12.6	12.9
820825 - 820825	0049 - 0651	6.7	6.8	6.8	10.0	11.1	12.5
820825 - 820825	0652 - 1254	6.8	6.8	6.8	9.5	9.8	10.1
820825 - 820825	1255 - 1857	6.7	6.8	6.8	9.4	9.9	11.0
820825 - 820826	1858 - 0100	6.7	6.8	6.8	11.1	12.5	13.2
820826 - 820826	0101 - 0703	6.8	6.8	6.9	9.7	11.0	12.6
820826 - 820826	0704 - 1306	6.8	6.8	6.9	9.3	9.4	9.7
820826 - 820826	1307 - 1909	6.7	6.8	6.8	9.3	10.4	12.6
820826 - 820827	1910 - 0112	6.7	6.9	7.0	12.7	14.1	14.8
820827 - 820827	0113 - 0715	6.9	7.0	7.1	9.7	11.5	14.0
820827 - 820827	0716 - 1318	6.7	6.8	6.9	7.8	8.7	9.7
820827 - 820827	1319 - 1921	6.6	6.7	6.8	7.8	10.2	13.4
820827 - 820828	1922 - 0124	6.6	6.8	6.8	13.0	14.1	14.6

APPENDIX Table 4-C-25 Cont.

DATE PERIOD	TIME PERIOD	INTRAGRAVEL			SURFACE WATER		
		MIN	MEAN	MAX	MIN	MEAN	MAX
820828 - 820828	0125 - 0727	6.8	6.8	6.8	9.3	10.8	13.0
820828 - 820828	0728 - 1330	6.6	6.7	6.8	8.2	8.5	9.3
820828 - 820828	1331 - 1933	6.5	6.6	6.6	8.3	9.1	10.8
820828 - 820829	1934 - 0136	6.6	6.7	6.7	10.8	11.5	12.0
820829 - 820829	0137 - 0739	6.6	6.7	6.7	9.0	9.9	11.2
820829 - 820829	0740 - 1342	6.5	6.6	6.7	8.6	8.8	9.0
820829 - 820829	1343 - 1945	6.5	6.5	6.5	8.6	9.3	10.0
820829 - 820830	1946 - 0148	6.5	6.6	6.6	9.8	10.2	10.4
820830 - 820830	0149 - 0751	6.6	6.6	6.6	8.7	9.2	9.9
820830 - 820830	0752 - 1354	6.5	6.5	6.6	8.3	8.5	8.7
820830 - 820830	1355 - 1957	6.5	6.5	6.6	8.3	8.5	8.7
820830 - 820831	1958 - 0200	6.5	6.6	6.6	8.7	8.9	9.0
820831 - 820831	0201 - 0803	6.6	6.6	6.6	8.0	8.3	8.8
820831 - 820831	0804 - 1406	6.5	6.6	6.6	7.7	7.9	8.1
820831 - 820831	1407 - 2009	6.5	6.5	6.6	7.7	8.2	9.0
820831 - 820901	2010 - 0212	6.5	6.6	6.7	8.9	9.4	9.7
820901 - 820901	0213 - 0815	6.6	6.7	6.7	8.3	8.6	8.9
820901 - 820901	0816 - 1418	6.5	6.6	6.6	7.7	8.0	8.3
820901 - 820901	1419 - 2021	6.5	6.6	6.6	8.0	8.9	10.0
820901 - 820902	2022 - 0224	6.6	6.7	6.7	9.8	10.1	10.4
820902 - 820902	0225 - 0827	6.7	6.7	6.8	8.1	8.8	9.8
820902 - 820902	0828 - 1430	6.5	6.6	6.7	7.1	7.5	8.2
820902 - 820902	1431 - 2033	6.4	6.4	6.5	7.1	7.8	9.2
820902 - 820903	2034 - 0236	6.4	6.4	6.4	8.9	9.4	9.9
820903 - 820903	0237 - 0839	6.3	6.4	6.4	8.0	8.6	8.9
820903 - 820903	0840 - 1442	6.3	6.3	6.4	7.3	7.6	8.1
820903 - 820903	1443 - 2045	6.2	6.3	6.3	7.3	7.6	8.3
820903 - 820904	2046 - 0248	6.2	6.3	6.3	7.6	8.2	8.5

APPENDIX Table 4-C-25 Cont.

DATE PERIOD	TIME PERIOD	INTRAGRAVEL			SURFACE WATER		
		MIN	MEAN	MAX	MIN	MEAN	MAX
820904 - 820904	0249 - 0851	6.3	6.3	6.4	6.8	7.3	7.7
820904 - 820904	0852 - 1454	6.2	6.3	6.3	6.4	6.6	6.8
820904 - 820904	1455 - 2057	6.2	6.2	6.2	6.5	7.5	8.5
820904 - 820905	2058 - 0300	6.2	6.2	6.3	7.8	8.5	9.0
820905 - 820905	0301 - 0903	6.2	6.3	6.3	6.7	7.3	7.8
820905 - 820905	0904 - 1506	6.2	6.2	6.3	6.3	6.5	6.8
820905 - 820905	1507 - 2109	6.1	6.2	6.2	6.7	7.7	8.3
820905 - 820906	2110 - 0312	6.1	6.2	6.2	7.8	8.2	8.4
820906 - 820906	0313 - 0915	6.2	6.2	6.3	7.0	7.4	7.8
820906 - 820906	0916 - 1518	6.2	6.2	6.2	6.5	6.8	7.1
820906 - 820906	1519 - 2121	6.2	6.2	6.3	6.9	7.6	7.8
820906 - 820907	2122 - 0324	6.2	6.3	6.3	7.4	7.7	7.9
820907 - 820907	0325 - 0927	6.2	6.3	6.3	7.0	7.3	7.5
820907 - 820907	0928 - 1530	6.2	6.2	6.3	6.8	7.0	7.5
820907 - 820907	1531 - 2133	6.2	6.2	6.3	7.5	8.9	9.8
820907 - 820908	2134 - 0336	6.3	6.3	6.3	8.5	8.9	9.6
820908 - 820908	0337 - 0939	6.3	6.3	6.4	7.9	8.2	8.6
820908 - 820908	0940 - 1542	6.2	6.3	6.3	7.5	7.7	8.1
820908 - 820908	1543 - 2145	6.3	6.3	6.3	8.2	8.7	8.9
820908 - 820909	2146 - 0348	6.3	6.3	6.4	8.0	8.3	8.7
820909 - 820909	0349 - 0951	6.3	6.3	6.3	7.6	7.8	7.9
820909 - 820909	0952 - 1554	6.3	6.3	6.3	7.3	7.4	7.6
820909 - 820909	1555 - 2157	6.3	6.3	6.3	7.6	8.4	9.1
820909 - 820910	2158 - 0400	6.3	6.3	6.4	7.8	8.5	9.1
820910 - 820910	0401 - 1003	6.3	6.3	6.4	7.2	7.4	7.7
820910 - 820910	1004 - 1606	6.2	6.3	6.4	6.9	7.1	7.6
820910 - 820910	1607 - 2209	6.2	6.3	6.3	7.7	8.5	8.9
820910 - 820911	2210 - 0412	6.2	6.3	6.3	7.5	8.2	8.9

APPENDIX Table 4-C-25 Cont.

DATE PERIOD	TIME PERIOD	INTRAGRAVEL			SURFACE WATER		
		MIN	MEAN	MAX	MIN	MEAN	MAX
820911 - 820911	0413 - 1015	6.2	6.3	6.3	6.9	7.2	7.5
820911 - 820911	1016 - 1618	6.1	6.2	6.2	6.7	6.8	7.0
820911 - 820911	1619 - 2221	6.1	6.1	6.2	6.9	7.2	7.4
820911 - 820912	2222 - 0424	6.1	6.1	6.2	6.3	6.8	7.2
820912 - 820912	0425 - 1027	6.1	6.1	6.2	5.5	5.8	6.2
820912 - 820912	1028 - 1630	6.0	6.1	6.1	5.3	5.7	7.2
820912 - 820912	1631 - 2233	6.0	6.1	6.1	7.3	8.0	8.5
820912 - 820913	2234 - 0436	6.1	6.1	6.1	6.4	6.8	7.5
820913 - 820913	0437 - 1039	6.1	6.1	6.2	5.9	6.2	6.4
820913 - 820913	1040 - 1642	6.1	6.1	6.1	5.8	5.9	6.1
820913 - 820913	1643 - 2245	6.0	6.1	6.1	5.9	6.4	6.6
820913 - 820914	2246 - 0448	6.0	6.1	6.1	6.3	6.4	6.6
820914 - 820914	0449 - 1051	6.1	6.1	6.1	6.1	6.3	6.4
820914 - 820914	1052 - 1654	6.0	6.0	6.1	6.1	6.2	6.5
820914 - 820914	1655 - 2257	6.0	6.0	6.0	6.5	6.7	6.8
820914 - 820915	2258 - 0500	6.0	6.0	6.0	6.6	6.7	6.8
820915 - 820915	0501 - 1103	6.0	6.0	6.0	6.3	6.5	6.6
820915 - 820915	1104 - 1706	6.0	6.0	6.1	6.3	6.6	7.3
820915 - 820915	1707 - 2309	6.0	6.0	6.1	7.3	8.1	8.4
820915 - 820916	2310 - 0512	6.0	6.1	6.1	7.4	7.6	8.0
820916 - 820916	0513 - 1115	6.0	6.0	6.1	7.3	7.4	7.4
820916 - 820916	1116 - 1718	5.9	5.9	6.0	7.3	7.4	7.8
820916 - 820916	1719 - 2321	6.0	6.0	6.0	7.6	8.0	8.1
820916 - 820917	2322 - 0524	6.0	6.0	6.0	7.0	7.2	7.6
820917 - 820917	0525 - 1127	5.9	6.0	6.0	6.7	6.9	7.0
820917 - 820917	1128 - 1730	5.9	6.0	6.0	6.6	6.7	6.8
820917 - 820917	1731 - 2333	5.9	5.9	6.0	6.7	6.8	6.8
820917 - 820918	2334 - 0536	5.9	6.0	6.0	6.0	6.4	6.7

APPENDIX Table 4-C-25 Cont.

DATE PERIOD	TIME PERIOD	INTRAGRAVEL			SURFACE WATER		
		MIN	MEAN	MAX	MIN	MEAN	MAX
820918 - 820918	0537 - 1139	5.9	6.0	6.0	5.6	5.8	6.0
820918 - 820918	1140 - 1742	5.8	5.9	6.0	5.5	5.8	6.4
820918 - 820918	1743 - 2345	5.9	5.9	5.9	6.4	6.7	6.8
820918 - 820919	2346 - 0548	5.9	5.9	5.9	5.9	6.3	6.6
820919 - 820919	0549 - 1151	5.8	5.9	5.9	5.6	5.7	5.9
820919 - 820919	1152 - 1754	5.8	5.9	5.9	5.6	5.8	6.1
820919 - 820919	1755 - 2357	5.9	5.9	6.0	6.0	6.2	6.3
820919 - 820920	2358 - 0600	5.9	5.9	5.9	5.8	6.0	6.2
820920 - 820920	0601 - 1203	5.9	5.9	6.0	5.6	5.7	5.8
820920 - 820920	1204 - 1806	5.9	5.9	6.0	5.6	5.8	6.3
820920 - 820921	1807 - 0009	5.9	5.9	5.9	6.3	6.4	6.5
820921 - 820921	0010 - 0612	5.9	5.9	5.9	5.6	6.0	6.3
820921 - 820921	0613 - 1215	5.9	5.9	6.0	5.4	5.5	5.6
820921 - 820921	1216 - 1818	5.9	5.9	6.0	5.4	5.6	5.9
820921 - 820922	1819 - 0021	5.9	5.9	5.9	5.9	6.1	6.2
820922 - 820922	0022 - 0624	5.9	5.9	6.0	5.6	5.8	6.1
820922 - 820922	0625 - 1227	5.9	6.0	6.0	5.3	5.4	5.6
820922 - 820922	1228 - 1830	5.9	6.0	6.0	5.3	5.4	5.9
820922 - 820923	1831 - 0033	5.9	6.0	6.0	5.9	6.3	6.5
820923 - 820923	0034 - 0636	6.0	6.0	6.1	4.7	5.2	5.9
820923 - 820923	0637 - 1239	6.0	6.0	6.0	3.9	4.3	4.6
820923 - 820923	1240 - 1842	5.9	6.0	6.0	3.9	4.5	5.6
820923 - 820924	1843 - 0045	5.9	6.0	6.1	5.3	5.7	5.9
820924 - 820924	0046 - 0648	6.0	6.1	6.1	3.8	4.5	5.4
820924 - 820924	0649 - 1251	6.0	6.1	6.1	2.9	3.3	3.8
820924 - 820924	1252 - 1854	6.0	6.0	6.1	2.9	3.7	4.9
820924 - 820925	1855 - 0057	6.0	6.1	6.1	4.9	5.1	5.2

4-C-95

APPENDIX Table 4-C-25 Cont.

DATE PERIOD	TIME PERIOD	INTRAGRAVEL			SURFACE WATER		
		MIN	MEAN	MAX	MIN	MEAN	MAX
820925 - 820925	0058 - 0700	6.1	6.1	6.2	4.2	4.6	5.0
820925 - 820925	0701 - 1303	6.1	6.2	6.2	3.4	3.7	4.2
820925 - 820925	1304 - 1906	6.1	6.2	6.2	3.4	4.2	4.8
820925 - 820926	1907 - 0109	6.2	6.2	6.3	4.7	5.0	5.1
820926 - 820926	0110 - 0712	6.3	6.3	6.3	4.7	4.9	5.0
820926 - 820926	0713 - 1315	6.3	6.3	6.3	4.6	4.6	4.7
820926 - 820926	1316 - 1918	6.3	6.3	6.4	4.6	5.1	5.4
820926 - 820927	1919 - 0121	6.3	6.4	6.4	5.2	5.3	5.4
820927 - 820927	0122 - 0724	6.3	6.4	6.4	4.9	5.0	5.2
820927 - 820927	0725 - 1327	6.4	6.4	6.4	4.8	4.9	4.9
820927 - 820927	1328 - 1930	6.4	6.4	6.4	4.9	5.2	5.9
820927 - 820928	1931 - 0133	6.4	6.4	6.4	5.0	5.6	6.1
820928 - 820928	0134 - 0736	6.4	6.4	6.5	3.5	4.3	4.9
820928 - 820928	0737 - 1339	6.4	6.4	6.5	2.9	3.2	3.5
820928 - 820928	1340 - 1942	6.3	6.4	6.5	3.2	3.8	4.1
820928 - 820929	1943 - 0145	6.4	6.4	6.5	4.1	4.3	4.3
820929 - 820929	0146 - 0748	6.4	6.5	6.5	4.2	4.3	4.3
820929 - 820929	0749 - 1351	6.5	6.5	6.5	4.1	4.2	4.3
820929 - 820929	1352 - 1954	6.4	6.5	6.5	4.2	5.0	5.6
820929 - 820930	1955 - 0157	6.5	6.5	6.6	5.2	5.4	5.6
820930 - 820930	0158 - 0800	6.5	6.5	6.5	4.8	5.0	5.3
820930 - 820930	0801 - 1403	6.5	6.5	6.5	4.5	4.6	4.7
820930 - 820930	1404 - 2006	6.4	6.5	6.5	4.7	5.4	6.0
820930 - 821001	2007 - 0209	6.5	6.5	6.5	5.3	5.6	5.9
821001 - 821001	0210 - 0812	6.5	6.5	6.5	4.7	5.0	5.3
821001 - 821001	0813 - 1415	6.4	6.4	6.5	4.4	4.5	4.7
821001 - 821001	1416 - 2018	6.4	6.5	6.5	4.5	4.9	5.2
821001 - 821002	2019 - 0221	6.4	6.5	6.5	4.4	4.7	5.0

APPENDIX Table 4-C-25 Cont.

DATE PERIOD	TIME PERIOD	INTRAGRAVEL			SURFACE WATER		
		MIN	MEAN	MAX	MIN	MEAN	MAX
821002 - 821002	0222 - 0824	6.4	6.5	6.5	3.8	4.0	4.4
821002 - 821002	0825 - 1427	6.4	6.4	6.5	3.5	3.7	3.9
821002 - 821002	1428 - 2030	6.4	6.5	6.5	4.0	5.0	5.6
821002 - 821003	2031 - 0233	6.4	6.5	6.5	4.2	4.8	5.5
821003 - 821003	0234 - 0836	6.4	6.4	6.5	3.5	3.8	4.2
821003 - 821003	0837 - 1439	6.4	6.4	6.5	3.1	3.3	3.5
821003 - 821003	1440 - 2042	6.4	6.5	6.5	3.4	4.6	5.2
821003 - 821004	2043 - 0245	6.4	6.5	6.5	3.6	4.2	4.8
821004 - 821004	0246 - 0848	6.4	6.4	6.5	2.6	3.0	3.7
821004 - 821004	0849 - 1451	6.4	6.4	6.5	2.1	2.3	2.6
821004 - 821004	1452 - 2054	6.4	6.4	6.5	2.5	4.0	4.6
821004 - 821005	2055 - 0257	6.4	6.4	6.5	2.5	3.1	4.0
821005 - 821005	0258 - 0900	6.3	6.4	6.4	1.9	2.2	2.6
821005 - 821005	0901 - 1503	6.3	6.4	6.4	1.8	2.1	3.7
821005 - 821005	1504 - 2106	6.4	6.4	6.5	2.2	3.4	4.2
821005 - 821006	2107 - 0309	6.4	6.4	6.5	2.1	2.5	3.2
821006 - 821006	0310 - 0912	6.3	6.4	6.4	1.4	1.7	2.2
821006 - 821006	0913 - 1515	6.3	6.4	6.4	1.4	1.8	2.4
821006 - 821006	1516 - 2118	6.3	6.4	6.4	2.4	3.1	3.3
821006 - 821007	2119 - 0321	6.3	6.4	6.4	2.6	2.7	3.0
821007 - 821007	0322 - 0924	6.3	6.3	6.4	2.4	2.5	2.7
821007 - 821007	0925 - 1527	6.3	6.3	6.3	1.7	2.1	2.4
821007 - 821007	1528 - 2130	6.3	6.3	6.3	1.8	2.3	2.7
821007 - 821008	2131 - 0333	6.2	6.3	6.3	2.1	2.3	2.6
821008 - 821008	0334 - 0936	6.2	6.3	6.3	1.5	1.9	2.3
821008 - 821008	0937 - 1539	6.2	6.3	6.3	1.6	2.0	2.7
821008 - 821008	1540 - 2142	6.2	6.2	6.3	2.7	3.1	3.5
821008 - 821009	2143 - 0345	6.2	6.3	6.3	1.2	2.0	2.7

APPENDIX Table 4-C-25 Cont.

DATE PERIOD	TIME PERIOD	INTRAGRAVEL			SURFACE WATER		
		MIN	MEAN	MAX	MIN	MEAN	MAX
821009 - 821009	0346 - 0948	6.2	6.2	6.2	1.3	1.6	1.8
821009 - 821009	0949 - 1551	6.2	6.2	6.2	1.6	2.1	2.9
821009 - 821009	1552 - 2154	6.1	6.2	6.2	3.0	3.5	3.7
821009 - 821010	2155 - 0357	6.1	6.2	6.2	2.7	2.8	3.1
821010 - 821010	0358 - 1000	6.1	6.2	6.2	2.5	2.7	2.9
821010 - 821010	1001 - 1603	6.1	6.1	6.2	2.4	2.7	3.2
821010 - 821010	1604 - 2206	6.1	6.1	6.1	2.6	2.9	3.3
821010 - 821011	2207 - 0409	6.0	6.1	6.1	2.2	2.3	2.6
821011 - 821011	0410 - 1012	6.1	6.1	6.1	1.6	1.9	2.3
821011 - 821011	1013 - 1615	6.0	6.1	6.1	1.6	1.9	2.4
821011 - 821011	1616 - 2218	6.0	6.0	6.1	.7	2.1	2.7
821011 - 821012	2219 - 0421	6.0	6.1	6.1	.8	1.7	2.2
821012 - 821012	0422 - 1024	6.0	6.0	6.0	1.0	1.3	1.6
821012 - 821012	1025 - 1627	6.0	6.0	6.0	1.5	2.2	2.9
821012 - 821012	1628 - 2230	6.0	6.0	6.1	2.1	2.5	2.8
821012 - 821013	2231 - 0433	5.9	6.0	6.1	1.9	2.0	2.2
821013 - 821013	0434 - 1036	5.9	6.0	6.0	.9	1.3	1.9
821013 - 821013	1037 - 1639	5.9	5.9	5.9	1.1	1.6	2.9
821013 - 821013	1640 - 2242	5.9	5.9	5.9	1.5	1.9	2.4
821013 - 821014	2243 - 0445	5.9	5.9	6.0	1.8	2.0	2.2
821014 - 821014	0446 - 1048	5.9	5.9	5.9	1.6	2.0	2.3
821014 - 821014	1049 - 1651	5.8	5.9	5.9	1.5	2.9	4.9
821014 - 821014	1652 - 2254	5.8	5.9	5.9	2.2	3.3	4.8
821014 - 821015	2255 - 0457	5.8	5.9	5.9	1.5	2.0	2.4
821015 - 821015	0458 - 1100	5.8	5.9	5.9	1.3	1.6	1.8
821015 - 821015	1101 - 1703	5.8	5.9	5.9	1.3	1.8	3.0
821015 - 821015	1704 - 2306	5.8	5.8	5.9	1.5	2.4	3.0
821015 - 821016	2307 - 0509	5.7	5.8	5.8	1.3	1.6	1.9

APPENDIX Table 4-C-25 Cont.

DATE PERIOD	TIME PERIOD	INTRAGRAVEL			SURFACE WATER		
		MIN	MEAN	MAX	MIN	MEAN	MAX
821016 - 821016	0510 - 1112	5.7	5.8	5.8	1.3	1.6	1.8
821016 - 821016	1113 - 1715	5.6	5.7	5.7	1.1	1.5	1.8
821016 - 821016	1716 - 2318	5.6	5.7	5.7	1.0	1.3	1.6
821016 - 821017	2319 - 0521	5.6	5.7	5.7	1.1	1.3	1.5
821017 - 821017	0522 - 1124	5.6	5.7	5.7	1.4	1.6	1.8
821017 - 821017	1125 - 1727	5.6	5.6	5.7	1.6	2.2	2.8
821017 - 821017	1728 - 2330	5.6	5.6	5.7	1.7	2.4	2.9
821017 - 821018	2331 - 0533	5.6	5.6	5.6	1.1	1.6	1.8
821018 - 821018	0534 - 1136	5.6	5.6	5.6	1.1	1.3	1.7
821018 - 821018	1137 - 1739	5.5	5.6	5.6	.9	2.2	3.2
821018 - 821018	1740 - 2342	5.5	5.6	5.6	1.9	2.4	3.2
821018 - 821019	2343 - 0545	5.5	5.6	5.6	1.8	2.0	2.2
821019 - 821019	0546 - 1148	5.5	5.5	5.6	1.0	1.7	2.2
821019 - 821019	1149 - 1751	5.5	5.5	5.6	1.1	1.4	1.8
821019 - 821019	1752 - 2354	5.4	5.5	5.5	1.7	1.9	2.1
821019 - 821020	2355 - 0557	5.5	5.5	5.6	1.6	1.8	2.0
821020 - 821020	0558 - 1200	5.4	5.5	5.5	1.5	1.8	2.0
821020 - 821020	1201 - 1803	5.4	5.5	5.5	1.7	2.2	2.6
821020 - 821021	1804 - 0006	5.4	5.5	5.5	1.2	1.8	2.6
821021 - 821021	0007 - 0609	5.3	5.4	5.5	1.2	1.4	1.6
821021 - 821021	0610 - 1212	5.4	5.4	5.5	1.2	1.4	1.5
821021 - 821021	1213 - 1815	5.3	5.4	5.4	1.3	1.7	2.0
821021 - 821022	1816 - 0018	5.3	5.4	5.4	1.3	1.6	1.9
821022 - 821022	0019 - 0621	5.3	5.4	5.4	1.2	1.4	1.6
821022 - 821022	0622 - 1224	5.3	5.4	5.4	1.2	1.4	1.5
821022 - 821022	1225 - 1827	5.3	5.3	5.4	1.3	1.7	2.1
821022 - 821023	1828 - 0030	5.2	5.3	5.4	1.2	1.5	1.9
821023 - 821023	0031 - 0633	5.2	5.3	5.4	1.2	1.3	1.5

APPENDIX Table 4-C-25 Cont.

DATE PERIOD	TIME PERIOD	INTRAGRAVEL			SURFACE WATER		
		MIN	MEAN	MAX	MIN	MEAN	MAX
821023 - 821023	0634 - 1236	5.3	5.3	5.3	1.3	1.5	1.8
821023 - 821023	1237 - 1839	5.2	5.3	5.3	1.6	1.9	2.2
821023 - 821024	1840 - 0042	5.2	5.2	5.3	1.7	1.8	2.1
821024 - 821024	0043 - 0645	5.1	5.2	5.2	1.7	1.8	2.0
821024 - 821024	0646 - 1248	5.1	5.2	5.2	2.0	2.1	2.5
821024 - 821024	1249 - 1851	5.1	5.2	5.2	2.0	2.5	2.8
821024 - 821025	1852 - 0054	5.1	5.1	5.2	2.2	2.3	2.5
821025 - 821025	0055 - 0657	5.0	5.1	5.1	2.2	2.4	2.7
821025 - 821025	0658 - 1300	5.0	5.0	5.1	2.3	2.5	2.8

Table 4-C-26 Datapod intragravel and surface water temperature (C) continuous record, at Slough 8A-Upper, RM 126.4, Geocode S30N03W20CDD.
 Note, that time periods are six hours and three minutes in duration; accordingly, daily minimum, maximum and mean values can not be directly calculated from this data.

DATE PERIOD	TIME PERIOD	INTRAGRAVEL			SURFACE WATER		
		MIN	MEAN	MAX	MIN	MEAN	MAX
820821 - 820821	0604 - 1206	4.7	4.7	4.8	5.0	5.2	5.5
820821 - 820821	1207 - 1809	4.7	4.7	4.8	5.0	5.3	6.4
820821 - 820822	1810 - 0012	4.7	4.8	4.8	6.5	8.5	9.4
820822 - 820822	0013 - 0615	4.7	4.8	4.8	5.4	6.0	7.2
820822 - 820822	0616 - 1218	4.7	4.7	4.8	4.9	5.1	5.4
820822 - 820822	1219 - 1821	4.7	4.7	4.8	5.0	5.3	6.3
820822 - 820823	1822 - 0024	4.7	4.8	4.8	6.4	8.1	9.3
820823 - 820823	0025 - 0627	4.7	4.8	4.8	5.8	6.1	6.8
820823 - 820823	0628 - 1230	4.7	4.8	4.8	5.6	5.8	5.9
820823 - 820823	1231 - 1833	4.7	4.8	4.8	5.7	6.3	7.2
820823 - 820824	1834 - 0036	4.7	4.8	4.8	6.2	7.2	7.7
820824 - 820824	0037 - 0639	4.7	4.8	4.8	5.6	5.9	6.3
820824 - 820824	0640 - 1242	4.8	4.8	4.8	5.4	5.6	5.8
820824 - 820824	1243 - 1845	4.8	4.8	4.8	5.5	6.0	7.3
820824 - 820825	1846 - 0048	4.7	4.8	4.8	6.4	7.6	8.5
820825 - 820825	0049 - 0651	4.8	4.8	4.8	5.8	6.0	6.4
820825 - 820825	0652 - 1254	4.8	4.8	4.8	5.6	5.7	5.9
820825 - 820825	1255 - 1857	4.8	4.8	4.8	5.5	6.1	6.8
820825 - 820826	1858 - 0100	4.7	4.8	4.8	6.0	7.3	8.6
820826 - 820826	0101 - 0703	4.8	4.8	4.8	5.6	5.8	6.2
820826 - 820826	0704 - 1306	4.7	4.8	4.8	5.5	5.6	5.7
820826 - 820826	1307 - 1909	4.8	4.8	4.8	5.7	6.4	8.1
820826 - 820827	1910 - 0112	4.8	4.8	4.9	6.1	8.1	9.7
820827 - 820827	0113 - 0715	4.7	4.8	4.9	5.3	5.7	6.3
820827 - 820827	0716 - 1318	4.8	4.8	4.8	4.9	5.1	5.4
820827 - 820827	1319 - 1921	4.7	4.8	4.8	5.0	5.6	7.8
820827 - 820828	1922 - 0124	4.8	4.9	4.9	6.0	7.6	9.2

APPENDIX Table 4-C-26 Cont.

DATE PERIOD	TIME PERIOD	INTRAGRAVEL			SURFACE WATER		
		MIN	MEAN	MAX	MIN	MEAN	MAX
820828 - 820828	0125 - 0727	4.8	4.8	4.9	5.4	5.7	6.2
820828 - 820828	0728 - 1330	4.8	4.8	4.8	5.1	5.3	5.5
820828 - 820828	1331 - 1933	4.8	4.8	4.9	5.4	5.9	6.5
820828 - 820829	1934 - 0136	4.8	4.8	4.9	6.0	7.1	8.2
820829 - 820829	0137 - 0739	4.8	4.8	4.9	5.6	5.8	6.0
820829 - 820829	0740 - 1342	4.8	4.9	4.9	5.6	5.7	5.8
820829 - 820829	1343 - 1945	4.8	4.9	4.9	5.7	6.1	6.5
820829 - 820830	1946 - 0148	4.8	4.9	4.9	6.0	6.3	6.5
820830 - 820830	0149 - 0751	4.9	4.9	4.9	5.7	5.8	6.1
820830 - 820830	0752 - 1354	4.9	4.9	4.9	5.7	5.7	5.8
820830 - 820830	1355 - 1957	4.9	4.9	4.9	5.8	6.0	6.1
820830 - 820831	1958 - 0200	4.9	4.9	4.9	5.8	6.1	6.4
820831 - 820831	0201 - 0803	4.8	4.9	4.9	5.5	5.6	5.8
820831 - 820831	0804 - 1406	4.9	4.9	4.9	5.5	5.6	5.6
820831 - 820831	1407 - 2009	4.8	4.9	4.9	5.6	6.0	6.4
820831 - 820901	2010 - 0212	4.8	4.9	4.9	5.6	6.1	6.7
820901 - 820901	0213 - 0815	4.9	4.9	4.9	5.6	5.7	5.8
820901 - 820901	0816 - 1418	4.8	4.9	4.9	5.7	5.9	6.1
820901 - 820901	1419 - 2021	4.9	4.9	5.0	6.1	6.7	7.1
820901 - 820902	2022 - 0224	4.9	4.9	5.0	6.1	6.6	7.0
820902 - 820902	0225 - 0827	4.8	4.9	4.9	5.9	6.0	6.1
820902 - 820902	0828 - 1430	4.9	4.9	4.9	5.8	5.9	6.2
820902 - 820902	1431 - 2033	4.9	4.9	5.0	6.1	6.6	7.5
820902 - 820903	2034 - 0236	4.9	4.9	5.0	6.2	6.7	7.6
820903 - 820903	0237 - 0839	4.9	4.9	5.0	5.9	6.1	6.3
820903 - 820903	0840 - 1442	4.9	4.9	4.9	6.0	6.1	6.2
820903 - 820903	1443 - 2045	4.9	4.9	5.0	6.1	6.5	6.9
820903 - 820904	2046 - 0248	4.9	5.0	5.0	5.9	6.4	7.0

APPENDIX Table 4-C-26 Cont.

DATE PERIOD	TIME PERIOD	INTRAGRAVEL			SURFACE WATER		
		MIN	MEAN	MAX	MIN	MEAN	MAX
820904 - 820904	0249 - 0851	4.9	4.9	4.9	5.6	5.9	6.0
820904 - 820904	0852 - 1454	4.9	4.9	5.0	5.5	5.6	5.8
820904 - 820904	1455 - 2057	4.9	4.9	5.0	5.5	6.5	7.1
820904 - 820905	2058 - 0300	4.9	5.0	5.0	5.6	6.4	7.1
820905 - 820905	0301 - 0903	4.9	4.9	5.0	5.2	5.5	5.9
820905 - 820905	0904 - 1506	4.9	5.0	5.0	5.3	5.5	5.9
820905 - 820905	1507 - 2109	4.9	5.0	5.0	5.8	6.5	6.8
820905 - 820906	2110 - 0312	5.0	5.0	5.0	5.9	6.3	6.7
820906 - 820906	0313 - 0915	5.0	5.0	5.0	5.6	5.8	5.9
820906 - 820906	0916 - 1518	4.9	5.0	5.0	5.4	5.6	6.0
820906 - 820906	1519 - 2121	5.0	5.0	5.0	5.9	6.2	6.4
820906 - 820907	2122 - 0324	5.0	5.0	5.1	5.7	6.0	6.3
820907 - 820907	0325 - 0927	5.0	5.1	5.1	5.5	5.7	5.9
820907 - 820907	0928 - 1530	5.0	5.0	5.1	5.5	5.8	6.2
820907 - 820907	1531 - 2133	5.0	5.1	5.1	6.1	6.7	7.3
820907 - 820908	2134 - 0336	5.0	5.1	5.1	5.7	6.0	6.7
820908 - 820908	0337 - 0939	5.1	5.1	5.1	5.5	5.6	5.8
820908 - 820908	0940 - 1542	5.1	5.1	5.2	5.5	5.7	6.2
820908 - 820908	1543 - 2145	5.1	5.2	5.2	6.1	6.3	6.5
820908 - 820909	2146 - 0348	5.1	5.2	5.2	5.6	5.9	6.3
820909 - 820909	0349 - 0951	5.1	5.1	5.2	5.5	5.6	5.7
820909 - 820909	0952 - 1554	5.1	5.2	5.2	5.5	5.6	5.8
820909 - 820909	1555 - 2157	5.1	5.2	5.2	5.8	6.3	6.7
820909 - 820910	2158 - 0400	5.1	5.2	5.2	5.5	5.9	6.5
820910 - 820910	0401 - 1003	5.2	5.2	5.2	5.4	5.6	5.6
820910 - 820910	1004 - 1606	5.1	5.2	5.2	5.4	5.7	6.1
820910 - 820910	1607 - 2209	5.2	5.2	5.3	6.1	6.4	6.5
820910 - 820911	2210 - 0412	5.2	5.2	5.3	5.4	5.8	6.3

APPENDIX Table 4-C-26 Cont.

DATE PERIOD	TIME PERIOD	INTRAGRAVEL			SURFACE WATER		
		MIN	MEAN	MAX	MIN	MEAN	MAX
820911 - 820911	0413 - 1015	5.2	5.3	5.3	5.4	5.5	5.6
820911 - 820911	1016 - 1618	5.2	5.3	5.3	5.4	5.6	5.8
820911 - 820911	1619 - 2221	5.2	5.2	5.2	5.7	6.0	6.2
820911 - 820912	2222 - 0424	5.2	5.2	5.3	5.1	5.5	6.0
820912 - 820912	0425 - 1027	5.2	5.3	5.3	5.0	5.1	5.2
820912 - 820912	1028 - 1630	5.2	5.3	5.3	5.0	5.2	5.3
820912 - 820912	1631 - 2233	5.2	5.3	5.3	5.3	6.3	6.8
820912 - 820913	2234 - 0436	5.2	5.3	5.3	5.4	5.6	6.0
820913 - 820913	0437 - 1039	5.2	5.2	5.2	5.3	5.4	5.5
820913 - 820913	1040 - 1642	5.2	5.2	5.3	5.3	5.5	5.7
820913 - 820913	1643 - 2245	5.2	5.3	5.3	5.6	5.8	6.2
820913 - 820914	2246 - 0448	5.2	5.2	5.3	5.5	5.7	5.8
820914 - 820914	0449 - 1051	5.2	5.2	5.2	5.5	5.7	5.8
820914 - 820914	1052 - 1654	5.2	5.2	5.3	5.5	5.8	6.3
820914 - 820914	1655 - 2257	5.3	5.3	5.3	6.0	6.2	6.3
820914 - 820915	2258 - 0500	5.2	5.2	5.3	5.8	6.0	6.2
820915 - 820915	0501 - 1103	5.2	5.2	5.2	5.7	5.9	6.1
820915 - 820915	1104 - 1706	5.2	5.2	5.3	5.8	6.2	6.9
820915 - 820915	1707 - 2309	5.2	5.2	5.3	6.8	7.3	7.7
820915 - 820916	2310 - 0512	5.3	5.3	5.3	6.2	6.7	7.1
820916 - 820916	0513 - 1115	5.2	5.3	5.3	5.9	6.2	6.5
820916 - 820916	1116 - 1718	5.2	5.2	5.3	5.9	6.3	7.3
820916 - 820916	1719 - 2321	5.2	5.3	5.3	7.0	7.7	8.3
820916 - 820917	2322 - 0524	5.2	5.2	5.3	6.1	6.4	7.0
820917 - 820917	0525 - 1127	5.2	5.2	5.3	5.8	6.0	6.2
820917 - 820917	1128 - 1730	5.2	5.2	5.3	5.8	5.9	6.3
820917 - 820917	1731 - 2333	5.2	5.2	5.2	5.9	6.1	6.3
820917 - 820918	2334 - 0536	5.2	5.2	5.2	5.5	5.6	5.9

APPENDIX Table 4-C-26 Cont.

DATE PERIOD	TIME PERIOD	INTRAGRAVEL			SURFACE WATER		
		MIN	MEAN	MAX	MIN	MEAN	MAX
820918 - 820918	0537 - 1139	5.1	5.2	5.2	5.3	5.4	5.5
820918 - 820918	1140 - 1742	5.1	5.1	5.2	5.4	5.9	6.5
820918 - 820918	1743 - 2345	5.1	5.2	5.2	6.1	6.3	6.5
820918 - 820919	2346 - 0548	5.1	5.1	5.2	5.6	5.8	6.1
820919 - 820919	0549 - 1151	5.1	5.1	5.1	5.5	5.5	5.6
820919 - 820919	1152 - 1754	5.1	5.1	5.2	5.5	5.7	6.0
820919 - 820919	1755 - 2357	5.1	5.2	5.2	5.7	5.9	6.0
820919 - 820920	2358 - 0600	5.1	5.1	5.1	5.5	5.6	5.7
820920 - 820920	0601 - 1203	5.1	5.1	5.1	5.5	5.5	5.6
820920 - 820920	1204 - 1806	5.1	5.1	5.1	5.5	5.8	6.1
820920 - 820921	1807 - 0009	5.1	5.2	5.2	5.7	6.0	6.2
820921 - 820921	0010 - 0612	5.1	5.1	5.1	5.5	5.6	5.7
820921 - 820921	0613 - 1215	5.1	5.1	5.1	5.3	5.4	5.5
820921 - 820921	1216 - 1818	5.1	5.1	5.2	5.4	5.7	6.0
820921 - 820922	1819 - 0021	5.1	5.1	5.1	5.6	5.8	6.0
820922 - 820922	0022 - 0624	5.1	5.1	5.1	5.4	5.5	5.6
820922 - 820922	0625 - 1227	5.0	5.1	5.1	5.3	5.4	5.5
820922 - 820922	1228 - 1830	5.0	5.1	5.1	5.4	5.6	6.0
820922 - 820923	1831 - 0033	5.0	5.1	5.1	5.2	5.9	6.5
820923 - 820923	0034 - 0636	5.1	5.1	5.1	4.9	5.1	5.3
820923 - 820923	0637 - 1239	5.1	5.1	5.1	4.7	4.9	5.0
820923 - 820923	1240 - 1842	5.0	5.1	5.1	4.8	5.4	6.8
820923 - 820924	1843 - 0045	5.0	5.1	5.1	5.0	5.9	6.8
820924 - 820924	0046 - 0648	5.0	5.1	5.1	4.6	4.8	5.0
820924 - 820924	0649 - 1251	5.0	5.0	5.1	4.3	4.6	4.7
820924 - 820924	1252 - 1854	5.0	5.0	5.1	4.5	5.4	6.2
820924 - 820925	1855 - 0057	5.0	5.1	5.1	5.2	5.6	6.0

APPENDIX Table 4-C-26 Cont.

DATE PERIOD	TIME PERIOD	INTRAGRAVEL			SURFACE WATER		
		MIN	MEAN	MAX	MIN	MEAN	MAX
821002 - 821002	0222 - 0824	4.8	4.8	4.9	4.8	4.9	5.0
821002 - 821002	0825 - 1427	4.8	4.8	4.9	4.8	4.9	5.1
821002 - 821002	1428 - 2030	4.8	4.8	4.9	5.1	5.7	5.9
821002 - 821003	2031 - 0233	4.8	4.8	4.9	4.7	5.1	5.6
821003 - 821003	0234 - 0836	4.8	4.8	4.8	4.8	4.9	4.9
821003 - 821003	0837 - 1439	4.8	4.8	4.8	4.7	4.8	4.9
821003 - 821003	1440 - 2042	4.8	4.8	4.8	4.9	5.4	5.9
821003 - 821004	2043 - 0245	4.7	4.8	4.8	4.7	5.1	5.5
821004 - 821004	0246 - 0848	4.7	4.8	4.8	4.5	4.6	4.8
821004 - 821004	0849 - 1451	4.7	4.8	4.8	4.4	4.6	4.6
821004 - 821004	1452 - 2054	4.7	4.8	4.8	4.6	5.4	6.0
821004 - 821005	2055 - 0257	4.7	4.8	4.8	4.5	4.8	5.3
821005 - 821005	0258 - 0900	4.7	4.8	4.8	4.3	4.5	4.6
821005 - 821005	0901 - 1503	4.7	4.7	4.8	4.3	4.5	4.7
821005 - 821005	1504 - 2106	4.7	4.7	4.8	4.6	5.3	5.8
821005 - 821006	2107 - 0309	4.7	4.7	4.8	4.6	4.7	5.0
821006 - 821006	0310 - 0912	4.7	4.7	4.8	4.3	4.5	4.6
821006 - 821006	0913 - 1515	4.7	4.7	4.8	4.3	4.6	5.0
821006 - 821006	1516 - 2118	4.7	4.7	4.7	5.0	5.2	5.4
821006 - 821007	2119 - 0321	4.6	4.7	4.7	4.7	4.8	5.1
821007 - 821007	0322 - 0924	4.7	4.7	4.7	4.7	4.7	4.7
821007 - 821007	0925 - 1527	4.7	4.7	4.7	4.5	4.6	4.7
821007 - 821007	1528 - 2130	4.7	4.7	4.7	4.6	4.8	5.1
821007 - 821008	2131 - 0333	4.7	4.7	4.7	4.6	4.7	4.8
821008 - 821008	0334 - 0936	4.7	4.7	4.7	4.0	4.4	4.6
821008 - 821008	0937 - 1539	4.7	4.7	4.7	4.1	4.5	5.1
821008 - 821008	1540 - 2142	4.7	4.7	4.7	4.8	5.2	5.5
821008 - 821009	2143 - 0345	4.7	4.7	4.7	3.9	4.3	4.8

APPENDIX Table 4-C-26 Cont.

DATE PERIOD	TIME PERIOD	INTRAGRAVEL			SURFACE WATER		
		MIN	MEAN	MAX	MIN	MEAN	MAX
820925 - 820925	0058 - 0700	5.0	5.0	5.1	4.9	5.0	5.2
820925 - 820925	0701 - 1303	5.0	5.0	5.1	4.7	4.8	4.9
820925 - 820925	1304 - 1906	5.0	5.0	5.1	4.8	5.3	5.8
820925 - 820926	1907 - 0109	5.0	5.0	5.1	5.3	5.5	5.7
820926 - 820926	0110 - 0712	5.0	5.0	5.1	5.2	5.2	5.4
820926 - 820926	0713 - 1315	5.0	5.0	5.0	5.2	5.2	5.3
820926 - 820926	1316 - 1918	5.0	5.0	5.1	5.3	5.5	5.8
820926 - 820927	1919 - 0121	5.0	5.0	5.1	5.3	5.4	5.5
820927 - 820927	0122 - 0724	5.0	5.0	5.0	5.2	5.2	5.3
820927 - 820927	0725 - 1327	5.0	5.0	5.0	5.2	5.2	5.3
820927 - 820927	1328 - 1930	5.0	5.0	5.0	5.3	5.5	5.8
820927 - 820928	1931 - 0133	4.9	5.0	5.0	4.9	5.4	6.0
820928 - 820928	0134 - 0736	4.9	4.9	5.0	4.4	4.8	4.9
820928 - 820928	0737 - 1339	4.9	5.0	5.0	4.6	4.7	4.9
820928 - 820928	1340 - 1942	4.9	4.9	5.0	4.7	5.2	5.5
820928 - 820929	1943 - 0145	4.9	4.9	5.0	5.0	5.2	5.3
820929 - 820929	0146 - 0748	4.9	4.9	5.0	5.0	5.1	5.2
820929 - 820929	0749 - 1351	4.9	4.9	5.0	5.0	5.1	5.2
820929 - 820929	1352 - 1954	4.9	4.9	5.0	5.2	5.6	5.9
820929 - 820930	1955 - 0157	4.9	4.9	5.0	5.2	5.4	5.6
820930 - 820930	0158 - 0800	4.9	4.9	4.9	5.1	5.2	5.3
820930 - 820930	0801 - 1403	4.8	4.9	4.9	5.0	5.1	5.2
820930 - 820930	1404 - 2006	4.8	4.9	4.9	5.2	5.7	6.0
820930 - 821001	2007 - 0209	4.8	4.9	4.9	5.2	5.4	5.7
821001 - 821001	0210 - 0812	4.8	4.9	4.9	5.1	5.1	5.2
821001 - 821001	0813 - 1415	4.9	4.9	4.9	5.0	5.1	5.3
821001 - 821001	1416 - 2018	4.8	4.8	4.9	5.2	5.4	5.6
821001 - 821002	2019 - 0221	4.8	4.9	4.9	4.9	5.1	5.4

4-C-107

Apt. 2012 Table 4C-26 Cont.

DATE PERIOD	TIME PERIOD	INTRAGRAVEL			SURFACE WATER		
		MIN	MEAN	MAX	MIN	MEAN	MAX
821009 - 821009	0346 - 0948	4.7	4.7	4.7	4.0	4.3	4.5
821009 - 821009	0949 - 1551	4.7	4.7	4.7	4.4	4.7	5.1
821009 - 821009	1552 - 2154	4.7	4.7	4.7	4.8	5.2	5.4
821009 - 821010	2155 - 0357	4.7	4.7	4.7	4.6	4.6	4.8
821010 - 821010	0358 - 1000	4.7	4.7	4.7	4.5	4.5	4.6
821010 - 821010	1001 - 1603	4.7	4.7	4.7	4.4	4.7	5.0
821010 - 821010	1604 - 2206	4.7	4.7	4.7	4.6	4.8	5.1
821010 - 821011	2207 - 0409	4.6	4.7	4.7	4.3	4.5	4.6
821011 - 821011	0410 - 1012	4.7	4.7	4.7	4.2	4.4	4.5
821011 - 821011	1013 - 1615	4.6	4.7	4.7	4.2	4.4	4.7
821011 - 821011	1616 - 2218	4.6	4.7	4.7	3.5	4.5	4.9
821011 - 821012	2219 - 0421	4.7	4.7	4.7	3.6	4.2	4.6
821012 - 821012	0422 - 1024	4.7	4.7	4.7	3.7	4.0	4.3
821012 - 821012	1025 - 1627	4.6	4.7	4.7	3.9	4.3	4.8
821012 - 821012	1628 - 2230	4.6	4.6	4.7	4.6	4.7	4.8
821012 - 821013	2231 - 0433	4.6	4.7	4.7	4.4	4.5	4.6
821013 - 821013	0434 - 1036	4.6	4.6	4.7	3.6	4.0	4.5
821013 - 821013	1037 - 1639	4.6	4.6	4.7	3.7	4.0	4.3
821013 - 821013	1640 - 2242	4.6	4.6	4.7	4.0	4.3	4.5
821013 - 821014	2243 - 0445	4.6	4.6	4.7	3.8	4.1	4.4
821014 - 821014	0446 - 1048	4.6	4.6	4.7	3.5	4.0	4.3
821014 - 821014	1049 - 1651	4.6	4.6	4.7	3.5	4.0	4.8
821014 - 821014	1652 - 2254	4.6	4.6	4.7	4.1	4.7	5.2
821014 - 821015	2255 - 0457	4.6	4.6	4.7	3.5	3.7	4.0
821015 - 821015	0458 - 1100	4.6	4.6	4.6	3.7	3.8	3.9
821015 - 821015	1101 - 1703	4.6	4.6	4.7	3.7	3.9	4.1
821015 - 821015	1704 - 2306	4.6	4.6	4.7	4.0	4.4	4.8
821015 - 821016	2307 - 0509	4.6	4.6	4.7	3.9	4.0	4.1

4-C-108

APPENDIX Table 4-C-26 Cont.

DATE PERIOD	TIME PERIOD	INTRAGRAVEL			SURFACE WATER		
		MIN	MEAN	MAX	MIN	MEAN	MAX
821016 - 821016	0510 - 1112	4.6	4.7	4.7	4.0	4.1	4.2
821016 - 821016	1113 - 1715	4.6	4.6	4.6	4.0	4.1	4.3
821016 - 821016	1716 - 2318	4.6	4.6	4.7	4.0	4.1	4.3
821016 - 821017	2319 - 0521	4.6	4.7	4.7	3.9	4.1	4.2
821017 - 821017	0522 - 1124	4.6	4.7	4.7	4.1	4.2	4.3
821017 - 821017	1125 - 1727	4.6	4.6	4.7	4.2	4.6	5.2
821017 - 821017	1728 - 2330	4.6	4.6	4.7	4.0	4.7	5.3
821017 - 821018	2331 - 0533	4.6	4.7	4.7	3.9	4.0	4.1
821018 - 821018	0534 - 1136	4.6	4.6	4.7	3.9	4.0	4.1
821018 - 821018	1137 - 1739	4.6	4.6	4.7	3.9	4.3	4.6
821018 - 821018	1740 - 2342	4.6	4.6	4.6	4.1	4.4	4.8
821018 - 821019	2343 - 0545	4.6	4.6	4.6	4.1	4.2	4.3
821019 - 821019	0546 - 1148	4.6	4.6	4.6	3.8	4.1	4.3
821019 - 821019	1149 - 1751	4.6	4.6	4.6	3.8	4.1	4.4
821019 - 821019	1752 - 2354	4.6	4.6	4.6	4.1	4.3	4.5
821019 - 821020	2355 - 0557	4.6	4.6	4.7	3.9	4.1	4.2
821020 - 821020	0558 - 1200	4.6	4.6	4.7	3.9	4.1	4.2
821020 - 821020	1201 - 1803	4.6	4.6	4.7	4.0	4.4	4.7
821020 - 821021	1804 - 0006	4.6	4.6	4.7	3.9	4.2	4.7
821021 - 821021	0007 - 0609	4.6	4.6	4.6	3.8	3.9	4.0
821021 - 821021	0610 - 1212	4.6	4.6	4.6	3.9	4.0	4.1
821021 - 821021	1213 - 1815	4.6	4.6	4.7	4.0	4.2	4.4
821021 - 821022	1816 - 0018	4.6	4.6	4.7	3.9	4.1	4.4
821022 - 821022	0019 - 0621	4.6	4.6	4.6	3.9	4.0	4.1
821022 - 821022	0622 - 1224	4.6	4.6	4.6	3.8	3.9	4.0
821022 - 821022	1225 - 1827	4.6	4.6	4.6	4.0	4.2	4.4
821022 - 821023	1828 - 0030	4.6	4.6	4.6	3.9	4.1	4.4
821023 - 821023	0031 - 0633	4.6	4.6	4.6	3.8	3.9	4.0

APPENDIX Table 4-C-26 Cont.

DATE PERIOD	TIME PERIOD	INTRAGRAVEL			SURFACE WATER		
		MIN	MEAN	MAX	MIN	MEAN	MAX
821023 - 821023	0634 - 1236	4.6	4.6	4.6	3.9	3.9	4.0
821023 - 821023	1237 - 1839	4.6	4.6	4.6	3.9	4.1	4.3
821023 - 821024	1840 - 0042	4.6	4.6	4.6	3.8	4.0	4.3
821024 - 821024	0043 - 0645	4.6	4.6	4.6	3.8	3.9	4.0
821024 - 821024	0646 - 1248	4.6	4.6	4.6	3.7	3.8	4.0
821024 - 821024	1249 - 1851	4.6	4.6	4.6	4.0	4.1	4.3
821024 - 821025	1852 - 0054	4.5	4.6	4.6	3.7	3.9	4.2
821025 - 821025	0055 - 0657	4.5	4.5	4.6	3.7	3.7	3.8
821025 - 821025	0658 - 1300	4.5	4.5	4.6	3.6	3.7	3.8

4-C-110

APPENDIX Table 4-C-32 Mean intragravel and surface water temperature (C) datapod data summary, at Slough 8A-Mouth, RM 125.4, Geocode S30N03W30BCD. A two part linear equation interpolation method was used in order to "correct" readings from actual six hour and three minute time intervals to six hour intervals

- AUGUST 1982 -

TIME PERIOD	DAYS 1 - 8		DAYS 9 - 16		DAYS 17 - 24		DAYS 25 - 31	
	INTRA- GRAVEL	SURFACE WATER	INTRA- GRAVEL	SURFACE WATER	INTRA- GRAVEL	SURFACE WATER	INTRA- GRAVEL	SURFACE WATER
0001 - 0600	---	---	---	---	---	---	6.8	11.4
0601 - 1200	---	---	---	---	---	---	6.8	10.2
1201 - 1800	---	---	---	---	---	---	6.8	9.9
1801 - 2400	---	---	---	---	---	---	6.8	11.7
DAILY VALUE	---	---	---	---	---	---	6.8	10.8
0001 - 0600	---	---	---	---	---	---	6.8	11.4
0601 - 1200	---	---	---	---	---	---	6.8	10.0
1201 - 1800	---	---	---	---	---	---	6.8	10.1
1801 - 2400	---	---	---	---	---	---	6.9	12.8
DAILY VALUE	---	---	---	---	---	---	6.8	11.1
0001 - 0600	---	---	---	---	---	---	7.0	12.3
0601 - 1200	---	---	---	---	---	---	6.9	9.9
1201 - 1800	---	---	---	---	---	---	6.7	9.7
1801 - 2400	---	---	---	---	---	---	6.8	12.4
DAILY VALUE	---	---	---	---	---	---	6.8	11.1
0001 - 0600	---	---	---	---	---	---	6.8	12.0
0601 - 1200	---	---	---	---	---	---	6.7	9.7
1201 - 1800	---	---	---	---	---	---	6.7	9.0
1801 - 2400	---	---	---	---	---	---	6.7	10.4
DAILY VALUE	---	---	---	---	---	---	6.7	10.2
0001 - 0600	---	---	---	---	---	---	6.7	10.5
0601 - 1200	---	---	---	---	---	---	6.6	9.4
1201 - 1800	---	---	---	---	---	---	6.6	9.1
1801 - 2400	---	---	---	---	6.6	13.6	6.6	9.7
DAILY VALUE	---	---	---	---	---	---	6.6	9.7
0001 - 0600	---	---	---	---	6.8	11.7	6.6	9.6
0601 - 1200	---	---	---	---	6.7	9.1	6.6	9.0
1201 - 1800	---	---	---	---	6.6	9.7	6.5	8.6
1801 - 2400	---	---	---	---	6.7	13.6	6.5	8.7
DAILY VALUE	---	---	---	---	6.7	11.0	6.5	9.0
0001 - 0600	---	---	---	---	6.8	12.0	6.6	8.6
0601 - 1200	---	---	---	---	6.7	10.5	6.6	8.2
1201 - 1800	---	---	---	---	6.6	10.4	6.6	8.1
1801 - 2400	---	---	---	---	6.7	12.0	6.6	8.7
DAILY VALUE	---	---	---	---	6.7	11.2	6.6	8.4
0001 - 0600	---	---	---	---	6.7	11.1	MONTHLY VALUE	
0601 - 1200	---	---	---	---	6.6	9.8		
1201 - 1800	---	---	---	---	6.6	10.1		
1801 - 2400	---	---	---	---	6.7	12.0		
DAILY VALUE	---	---	---	---	6.6	10.7		

HYDRAULICS

SECTION 3

Table EH-3. Study Site - Slough 8A

River Mile 125.3

Geographic Code 30N 03W 30 BCD

<u>Date</u>	<u>Time</u>	<u>Depth (ft)</u>	<u>Velocity</u>	<u>Location</u>
810808		1.5-2.0	0-.01	Chum Redd (1)
810808		1.0-1.5	0-0+	Chum Redds (4)

Table EH-4. Study Site - Indian River Mouth

River Mile 138.6

Geographic Code 31N 02W 09 CDA

<u>Date</u>	<u>Time</u>	<u>Depth (ft)</u>	<u>Velocity</u>	<u>Location</u>
810810		1.6	2.20	Chinook holding in current
810810		1.4	3.89	Chinook holding in current

Table ED-8 (Continued)

Site	Staff Gage Number	Date	Time	Height
Slough 8A	GC041A	810617	1520	1.73
		810618	1915	1.70
		810619	1330	1.60
		810706	1330	1.26
		810707	1700	1.55
		810708	1715	2.49
		810722	1345	3.53
		810723	1215	3.35
		810724	1430	3.34
		810807	1100	1.71
		810808	1110	2.80
		810809	1730	4.03
		810810	1615	4.23
	GC042A	810707	1645	1.49
		810708	1720	2.15
		810722	1530	3.13
		810724	1430	2.98
		810808	1245	2.47
		810809	1815	3.79
		810810	1530	3.88
4th of July Creek	GC051A	810617	1245	1.30
		810706	1615	1.37
		810706	1625	1.40
		810707	1330	1.33
		810708	1830	1.95
	GC051B	810914	1030	1.39
		810915	1330	1.31
		810916	1045	1.32
		810926	1445	1.32
		810927	1300	1.28
		810928	1500	1.25
	GC052A	810706	2030	1.59
		810707	1600	1.67
		810708	2000	2.92
		810828	1515	2.52
		810829	1645	2.45
		810914	1300	1.00
		810915	1315	0.88
		810916	1030	0.80
		810926	1445	0.52
		810927	1300	0.40
	GC052B	810811	1800	1.94
		810812	1300	2.22

Appendix Table 4-A-1 (Continued).

River Mile ^a	Site	Geographic Code ^b	Date	Time	Discharge (cfs) Non Mainstem	Discharge (cfs) Mainstem
					Fishery ^c Habitat Utilization	USCS Gold Creek
125.2	Slough 8A	S30N03W30BCC	820827			12,900
	Transect 1			1130	03.21	
	Transect 2			1200	04.57	
	Transect 3			1225	04.03	
	Transect 4			1255	04.95	
	Transect 5			1400	11.92	
	Transect 6			1500	03.62	
	Transect 7			1530	04.52	
	Transect 8			1600	02.09	
	Transect 9			1620	02.79	
	Transect 10			1640	03.03	
	Transect 11			1705	02.49	
	Transect A		820826	1720	09.81	13,600
	Transect B			1636	0.55	
	Transect C			1620	01.68	
	Transect 1		820907	1630	08.52	11,700
	Transect 2			1605	09.23	
	Transect 3			1545	07.93	
	Transect 4			1530	06.78	
	Transect 5			1456	11.42	
	Transect 6			1433	06.15	
	Transect 7			1405	06.81	
	Transect 8			1340	05.49	
	Transect 9			1314	05.98	
	Transect 10			1153	06.07	
	Transect 11			1127	06.58	
	Transect A			1830	04.18	
	Transect B			1723	04.98	
	Transect C			1713	02.55	
	Transect 1		820919	1152	20.05	24,100
	Transect 2			1224	20.05	
	Transect 3			1250	21.97	
	Transect 4			1315	20.35	
	Transect 5			1450	20.61	
	Transect 6			1352	25.39	
	Transect 7			1409	20.19	

^aRiver mile taken from the most downstream portion of study site.^bGeographic code taken from the center of the study site.^cNo stage measurements were obtained.

Appendix Table 4-A-1 (Continued).

River Mile ^a	Site	Geographic Code ^b	Date	Time	Discharge (cfs) Non Mainstem	Discharge (cfs) Mainstem
					Fishery ^c Habitat Utilization	USGS Gold Creek
125.2	Slough 8A - Cont'd	S30N03W30BCC	820919			24,100
	Transect 8			1430	20.16	
	Transect 9			1535	19.13	
	Transect 10			1458	19.11	
	Transect 11			1601	19.19	
					18.91	
129.2	Slough 9	S30N03W16BDC				
	Transect 1		820812	1000	07.68	13,200
	Transect 2			1245	06.25	
	Transect 3			1430	07.69	
	Transect 4			1645	06.18	
	Transect 5			1845	04.77	
	Transect 6			1905	04.66	
	Transect 7			1930	02.96	
	Transect 8			2000	00.00	
	Transect 9			2030	00.00	
	Transect 10			2200	00.00	
	Transect 1		820825	1144	04.03	13,400
	Transect 2			1219	03.19	
	Transect 3			----	---	
	Transect 4			1247	02.59	
	Transect 5			----	---	
	Transect 6			1316	03.01	
	Transect 7			1340	02.61	
	Transect 8			1415	02.74	
	Transect 9			1438	03.42	
	Transect 10			1508	05.71	
	Transect A			1829	07.83	
	Transect B			2000	10.63	
	Transect C			1914	08.04	
	Transect D			1938	04.35	
	Transect 1		820904	1219	09.44	14,400
	Transect 2			1245	07.51	
	Transect 3			----	---	
	Transect 4			1316	06.87	
	Transect 5			----	---	

^aRiver mile taken from the most downstream portion of study site.^bGeographic code taken from the center of the study site.^cNo stage measurements were obtained.

Table 4-B-6. Hydraulic habitat variables collected
at transects in Slough 8A, Aug 22, 1982.

TRANSECT	DEPTH (ft)	VELOCITY (ft/s)	FLOW (cfs)	SUBSTRATE	
				PRIMARY	SECONDARY
1	.40	0.00	0.00	SILT	
1	.80	0.00	0.00	SILT	
1	.90	.10	.18	SILT	
1	1.00	0.00	0.00	SILT	
1	1.00	0.00	0.00	SILT	
1	1.00	0.00	0.00	SILT	
1	1.05	.05	.12	SILT	
1	1.20	.05	.13	SILT	
1	1.30	.05	.09	SILT	
1	1.45	.03	.28	SILT	
1	1.40	.10	.30	SILT	
1	1.50	.10	.16	SILT	
1	1.60	.05	.16	SILT	
1	1.55	.05	0.00	SILT	
1	1.60	0.00	.17	SILT	
1	1.65	.05	.16	SILT	
1	1.60	.05	.16	SILT	
1	1.60	.05	.32	SILT	
1	1.60	.10	.16	SILT	
1	1.55	.05	.15	SILT	
1	1.50	.05	.15	SILT	
1	1.50	.05	.15	SILT	
1	1.50	.05	.14	SILT	
1	1.40	.05	.13	SILT	
1	1.25	.05	0.00	SILT	
1	1.10	0.00	0.00		
1	1.00	0.00	0.00	SILT	
1	.95	.05	.10	SILT	
1	.95	0.00	0.00	SILT	
1	.95	0.00	0.00	SILT	
1	.85	0.00	0.00	SILT	
1	.90	0.00	0.00	SILT	
1	.80	0.00	0.00	SILT	
1	.85	0.00	0.00	SILT	
1	.80	0.00	0.00	SILT	
1	.60	0.00	0.00	SILT	
1	.65	0.00	0.00	SILT	
1	.50	0.00	0.00	SILT	
1	.45	0.00	0.00	SILT	
1	.30	0.00	0.00	SILT	
1	.10	0.00	0.00	SILT	
1	0.00	0.00	0.00	SILT	
2	.30				
2	.50	.05	.05	COBBLE	SILT

Table 4-B-6. (Continued).

TRANSECT	DEPTH (ft)	VELOCITY (ft/s)	FLOW (cfs)	SUBSTRATE	
				PRIMARY	SECONDARY
2	.50	.10	.10	COBBLE	SILT
2	.50	0.00	0.00	COBBLE	SILT
2	.50	.05	.05	COBBLE	SILT
2	.40	.05	.04	COBBLE	SILT
2	.35	.05	.03	COBBLE	SILT
2	.50	.05	.05	COBBLE	SILT
2	.70	.05	.07	COBBLE	SILT
2	1.25	.10	.25	COBBLE	SILT
2	1.40	.15	.42	COBBLE	SILT
2	1.45	.10	.29	COBBLE	SILT
2	1.60	.15	.48	COBBLE	SILT
2	1.70	.15	.51		
2	1.60	.15	.48		
2	1.65	.15	.50	COBBLE	SILT
2	1.65	.10	.33	COBBLE	SILT
2	1.90	.10	.38	SILT	
2	1.90	0.00	0.00	SILT	
2	1.90	.05	.19	SILT	
2	1.80	.05	.18	SILT	
2	1.65	.05	.17	SILT	
2	1.60	0.00	0.00	SILT	
2	1.45	0.00	0.00	SILT	
2	1.30	0.00	0.00	SILT	
2	1.30	0.00	0.00	SILT	
2	1.20	0.00	0.00	SILT	
2	1.10	0.00	0.00	SILT	
2	1.10	0.00	0.00	SILT	
2	1.00	0.00	0.00	SILT	
2	1.00	0.00	0.00	SILT	
2	.95	0.00	0.00	SILT	
2	.05	0.00	0.00	SILT	
2	0.00	0.00	0.00	SILT	
3	.60				
3	.80	.05	.09	COBBLE	SILT
3	.95	.10	.19	COBBLE	SILT
3	1.00	.10	.20	COBBLE	SILT
3	1.00	.05	.10	COBBLE	SILT
3	1.00	.05	.10	COBBLE	SILT
3	.90	0.00	0.00	COBBLE	SILT
3	.95	0.00	0.00	COBBLE	SILT
3	.90	0.00	0.00	COBBLE	SILT
3	.80	0.00	0.00	COBBLE	SILT
3	.80	0.00	0.00	COBBLE	SILT
3	.85	0.00	0.00	COBBLE	SILT
3	.85	0.00	0.00	COBBLE	SILT

Table 4-B-6. (Continued).

TRANSECT	DEPTH (ft)	VELOCITY (ft/s)	FLOW (cfs)	SUBSTRATE	
				PRIMARY	SECONDARY
3	.70	0.00	0.00	COBBLE	SILT
3	.75	0.00	0.00	COBBLE	SILT
3	.80	0.00	0.00	COBBLE	SILT
3	.70	0.00	0.00	COBBLE	SILT
3	.25	0.00	0.00	COBBLE	SILT
3	0.00	0.00	0.00	COBBLE	SILT
3	0.00	0.00	0.00	COBBLE	SILT
3	.20	0.00	0.00	COBBLE	SILT
3	.20	.15	.05	COBBLE	SILT
3	.35	.25	.13	COBBLE	SILT
3	.45	.35	.24	COBBLE	SILT
3	.60	.45	.54	COBBLE	SILT
3	.55	.40	.44	COBBLE	SILT
3	.45	.45	.41	COBBLE	SILT
3	.50	.55	.44	COBBLE	SILT
3	.50	.45	.37	COBBLE	SILT
3	.35	.40	.22	COBBLE	SILT
3	.30	.40	.19	COBBLE	SILT
3	.35	.20	.13	COBBLE	SILT
3	.40	.20	.15	COBBLE	SILT
3	.20	.10	.04	COBBLE	SILT
4	.20	0.00	0.00	COBBLE	SILT
4	.55	0.00	0.00	COBBLE	SILT
4	.95	0.00	0.00	COBBLE	SILT
4	1.25	.05	.13	COBBLE	SILT
4	1.30	.05	.13	COBBLE	SILT
4	1.50	.05	.15	COBBLE	SILT
4	1.45	.10	.29	COBBLE	SILT
4	1.40	.10	.28	COBBLE	SILT
4	1.40	.10	.28	COBBLE	SILT
4	1.65	.10	.33	COBBLE	SILT
4	1.90	.10	.38	COBBLE	SILT
4	1.75	.10	.35	COBBLE	SILT
4	1.55	.05	1.55	COBBLE	SILT
4	1.30	.10	.26	COBBLE	SILT
4	1.40	.05	.14	COBBLE	SILT
4	1.50	.10	.30	COBBLE	SILT
4	1.30	.10	.26	COBBLE	SILT
4	1.15	.05	.12	COBBLE	SILT
4	.60	0.00	0.00	COBBLE	SILT
4	.40	0.00	0.00	COBBLE	SILT
4	0.00				
5	.25	0.00	0.00	SAND	SILT
5	1.30	0.00	0.00	SAND	SILT
5	2.35	0.00	0.00	SAND	SILT

Table 4-B-6. (Continued).

TRANSECT	DEPTH (ft)	VELOCITY (ft/s)	FLOW (cfs)	SUBSTRATE	
				PRIMARY	SECONDARY
5	3.50	.05	.38	SAND	SILT
5	4.20	.05	.42	SAND	SILT
5	4.40	.08	.66	SAND	SILT
5	4.40	.08	.66	COBBLE	SILT
5	4.70	.05	.47	COBBLE	SILT
5	4.80	.08	.72	COBBLE	SILT
5	4.90	.08	.74	COBBLE	SILT
5	4.60	.08	.69	COBBLE	SILT
5	4.50	.08	.68	COBBLE	SILT
5	4.15	.08	.62	COBBLE	SILT
5	3.70	.08	.56	COBBLE	SILT
5	3.50	.08	.53	COBBLE	SILT
5	3.10	.08	.47	COBBLE	SILT
5	2.25	.05	.23	COBBLE	SILT
5	1.85	.05	.19	COBBLE	SILT
5	1.50	.10	.30	COBBLE	SILT
5	1.50	.15	.45	COBBLE	SILT
5	1.50	.15	.45	COBBLE	SILT
5	1.45	.20	.58	COBBLE	SILT
5	1.25	.10	.25	COBBLE	SILT
5	1.20	.10	.24	COBBLE	SILT
5	.75	.10	.15	COBBLE	SILT
5	.70	.10	.14	COBBLE	SILT
5	.50	.10	.10	COBBLE	SILT
5	.60	.10	.12	COBBLE	SILT
5	.60	.10	.12	COBBLE	SILT
5	.50	.50	.50	COBBLE	SILT
5	.50	.50	.50	COBBLE	SILT
5	.20	0.00	0.00	COBBLE	SILT
6	0.00	0.00	0.00	COBBLE	SILT
6	.10	0.00	0.00	COBBLE	SILT
6	.10	0.00	0.00	COBBLE	SILT
6	.30	.10	.06	COBBLE	SILT
6	.35	.05	.04	COBBLE	SILT
6	.35	.05	.04	COBBLE	SILT
6	.40	.40	.32	RUBBLE	SILT
6	.20	.30	.12	RUBBLE	SILT
6	.20	.10	.04	RUBBLE	SILT
6	.40	.20	.16	RUBBLE	SILT
6	.20	.25	.10	RUBBLE	SILT
6	.30	.35	.11	RUBBLE	SILT
6	.20	.20	.04	RUBBLE	SILT
6	.35	.25	.18	RUBBLE	SILT
6	.40	.25	.20	RUBBLE	SILT
6	.25	.15	.08	RUBBLE	SILT

Table 4-B-6. (Continued).

TRANSECT	DEPTH (ft)	VELOCITY (ft/s)	FLOW (cfs)	SUBSTRATE	
				PRIMARY	SECONDARY
6	.30	.20	.12	RUBBLE	SILT
6	.40	.30	.24	RUBBLE	SILT
6	.40	.80	.64	RUBBLE	SILT
6	.50	.70	.70	RUBBLE	SILT
6	.40	.45	.36	RUBBLE	SILT
6	.05	0.00	0.00	RUBBLE	SILT
6	.05	0.00	0.00	RUBBLE	SILT
6	.15	.05	.02	RUBBLE	SILT
6	.15	.10	.03	RUBBLE	SILT
6	.10	.10	.02	RUBBLE	SILT
6	0.00	0.00	0.00	RUBBLE	SILT
6	.15	0.00	0.00	RUBBLE	SILT
6	0.00				
7	.25	0.00	0.00	COBBLE	RUBBLE
7	.25	0.00	0.00	COBBLE	RUBBLE
7	.40	.15	.12	COBBLE	RUBBLE
7	.50	.15	.15	COBBLE	RUBBLE
7	.30	.25	.15	COBBLE	RUBBLE
7	.10	.15	.03	COBBLE	RUBBLE
7	.10	.40	.07	COBBLE	RUBBLE
7	.05	.50	.04	COBBLE	RUBBLE
7	.15	.60	.15	COBBLE	RUBBLE
7	.05	0.00	0.00	COBBLE	RUBBLE
7	.15	.85	.23	COBBLE	RUBBLE
7	.10	.15	.03	COBBLE	RUBBLE
7	.20	.10	.04	COBBLE	RUBBLE
7	.15	.70	.19	COBBLE	RUBBLE
7	.15	.20	.06	COBBLE	RUBBLE
7	.30	1.50	.77	COBBLE	RUBBLE
7	.30	.90	.54	COBBLE	RUBBLE
7	.30	.70	.42	COBBLE	RUBBLE
7	.30	.60	.36	COBBLE	RUBBLE
7	0.00	0.00	0.00	COBBLE	RUBBLE
7	.15	.90	.27	COBBLE	RUBBLE
7	.20	1.20	.48	COBBLE	RUBBLE
7	0.00	0.00	0.00	COBBLE	RUBBLE
7	0.00	0.00	0.00	COBBLE	RUBBLE
7	.05	0.00	0.00	COBBLE	RUBBLE
7	0.00	0.00	0.00	COBBLE	RUBBLE
7	.20	0.00	0.00	COBBLE	RUBBLE
7	.20	.20	.40	COBBLE	RUBBLE
7	0.00	0.00	0.00	COBBLE	RUBBLE
7	.05	0.00	0.00	COBBLE	RUBBLE
7	0.00	0.00	0.00	COBBLE	RUBBLE
7	.05	0.00	0.00	COBBLE	RUBBLE

Table 4-B-6. (Continued).

TRANSECT	DEPTH (ft)	VELOCITY (ft/s)	FLOW (cfs)	SUBSTRATE	
				PRIMARY	SECONDARY
7	.20	.05	.02	COBBLE	RUBBLE
7	.05	0.00	0.00	COBBLE	RUBBLE
7	.10	0.00	0.00	COBBLE	RUBBLE
7	.05	0.00	0.00	COBBLE	RUBBLE
7		0.00	0.00		
8				COBBLE	RUBBLE
8	.05	0.00	0.00	COBBLE	RUBBLE
8	.20	0.00	0.00	COBBLE	RUBBLE
8	.20	0.00	0.00	COBBLE	RUBBLE
8	.10	0.00	0.00	COBBLE	RUBBLE
8	.05	0.00	0.00	COBBLE	RUBBLE
8	.10	0.00	0.00	COBBLE	RUBBLE
8	.05	0.00	0.00	COBBLE	RUBBLE
8	.10	0.00	0.00	COBBLE	RUBBLE
8	.10	.10	.02	COBBLE	RUBBLE
8	0.00	0.00	0.00	COBBLE	RUBBLE
8	.05	0.00	0.00	COBBLE	RUBBLE
8	0.00	0.00	0.00	COBBLE	RUBBLE
8	.10	.25	.05	COBBLE	RUBBLE
8	0.00	0.00	0.00	COBBLE	RUBBLE
8	0.00	0.00	0.00	COBBLE	RUBBLE
8	0.00	0.00	0.00	COBBLE	RUBBLE
8	.05	0.00	0.00	COBBLE	RUBBLE
8	0.00	0.00	0.00	COBBLE	RUBBLE
8	.10	.05	.01	COBBLE	RUBBLE
8	.05	0.00	0.00	COBBLE	RUBBLE
8	.20	0.00	.04	COBBLE	RUBBLE
8	.40	0.00	.16	COBBLE	RUBBLE
8	.50	0.00	.30	COBBLE	RUBBLE
8	.55	0.00	.33	COBBLE	RUBBLE
8	.65	0.00	.39	COBBLE	RUBBLE
8	.70	.40	.56	COBBLE	RUBBLE
8	.55	.40	.44	COBBLE	RUBBLE
8	.40	.30	.24	COBBLE	RUBBLE
8	.05	0.00	0.00	COBBLE	RUBBLE
8	.30	.15	.09	COBBLE	RUBBLE
8	.30	.30	.18	COBBLE	RUBBLE
8	.20	.20	.08	COBBLE	RUBBLE
8	.05	0.00	0.00	COBBLE	RUBBLE
8	.05	.05	.01	COBBLE	RUBBLE
8	.10	0.00	0.00	COBBLE	RUBBLE
8	.05	0.00	0.00	COBBLE	RUBBLE
9	.10	0.00	0.00	COBBLE	GRAVEL
9	.05	0.00	0.00	COBBLE	GRAVEL
9	.05	0.00	0.00	COBBLE	GRAVEL

Table 4-B-6. (Continued).

TRANSECT	DEPTH (ft)	VELOCITY (ft/s)	FLOW (cfs)	SUBSTRATE	
				PRIMARY	SECONDARY
9	0.00	0.00	0.00	COBBLE	GRAVEL
9	.05	0.00	0.00	COBBLE	RUBBLE
9	.10	0.00	0.00	COBBLE	RUBBLE
9	.25	.10	.05	COBBLE	RUBBLE
9	.30	.10	.06	COBBLE	RUBBLE
9	.30	.10	.06	COBBLE	RUBBLE
9	.30	.10	.06	COBBLE	RUBBLE
9	.35	.05	.04	COBBLE	RUBBLE
9	.45	.10	.09	COBBLE	RUBBLE
9	.10	0.00	0.00	COBBLE	RUBBLE
9	.20	0.00	0.00	COBBLE	RUBBLE
9	.20	.05	.02	COBBLE	RUBBLE
9	.25	.10	.05	COBBLE	RUBBLE
9	.40	.15	.12	COBBLE	RUBBLE
9	.60	.20	.24	COBBLE	RUBBLE
9	.65	.20	.26	COBBLE	RUBBLE
9	1.05	.15	.32	COBBLE	RUBBLE
9	1.00	.20	.40	COBBLE	RUBBLE
9	.95	.15	.29	COBBLE	RUBBLE
9	.90	.15	.27	COBBLE	RUBBLE
9	.55	.15	.17	COBBLE	RUBBLE
9	.40	.15	.12	COBBLE	RUBBLE
9	.25	.10	.05	COBBLE	RUBBLE
9	.10	0.00	0.00	COBBLE	RUBBLE
9	.50	.05	.05	COBBLE	RUBBLE
9	.40	.05	.04	COBBLE	RUBBLE
9	.30	.05	.03	COBBLE	RUBBLE
9	.20	0.00	0.00	COBBLE	RUBBLE
9	.10	0.00	0.00	COBBLE	RUBBLE
9	0.00				
10	.20			COBBLE	RUBBLE
10	.35	0.00	0.00	COBBLE	RUBBLE
10	.20	0.00	0.00	COBBLE	RUBBLE
10	.20	0.00	0.00	COBBLE	RUBBLE
10	.20	0.00	0.00	COBBLE	RUBBLE
10	.35	.05	.04	COBBLE	RUBBLE
10	.40	.05	.04	COBBLE	RUBBLE
10	.40	.05	.04	COBBLE	RUBBLE
10	.55	.10	.11	COBBLE	RUBBLE
10	.80	.10	.16	COBBLE	RUBBLE
10	.50	0.00	0.00	SILT	GRAVEL
10	.45	0.00	0.00	SILT	GRAVEL
10	.30	0.00	0.00	SILT	GRAVEL
10	.40	.05	.04	SILT	GRAVEL
10	.55	.05	.06	SILT	GRAVEL

Table 4-B-6. (Continued).

TRANSECT	DEPTH (ft)	VELOCITY (ft/s)	FLOW (cfs)	SUBSTRATE	
				PRIMARY	SECONDARY
10	.40	.05	.04	SILT	GRAVEL
10	.45	.10	.09	SILT	GRAVEL
10	.50	.05	.05	SILT	GRAVEL
10	.50	.10	.01	SILT	GRAVEL
10	.60	.10	.12	SILT	GRAVEL
10	.70	.15	.21	SILT	GRAVEL
10	.80	.15	.24	SILT	GRAVEL
10	.80	.15	.24	RUBBLE	SILT
10	1.10	.15	.33	RUBBLE	SILT
10	1.10	.15	.33	RUBBLE	SILT
10	1.00	.15	.30	RUBBLE	SILT
10	1.00	.10	.20	RUBBLE	SILT
10	.75	.10	.15	RUBBLE	SILT
10	.85	.10	.17	RUBBLE	SILT
10	.65	.05	.06	RUBBLE	SILT
10	.20	0.00	0.00	RUBBLE	SILT
10	.25	0.00	0.00	RUBBLE	SILT
10	.30	0.00	0.00	RUBBLE	SILT
10	.20	0.00	0.00	RUBBLE	SILT
10	.10	0.00	0.00	RUBBLE	SILT
11	.05	0.00	0.00	COBBLE	
11	.30	0.00	0.00	COBBLE	
11	0.00	0.00	0.00	COBBLE	
11	0.00	0.00	0.00	COBBLE	
11	.35	0.00	0.00	COBBLE	
11	.10	0.00	0.00	COBBLE	
11	0.00	0.00	0.00	COBBLE	
11	0.00	0.00	0.00	COBBLE	SILT
11	0.00	0.00	0.00	COBBLE	SILT
11	.05	0.00	0.00	COBBLE	SILT
11	.20	0.00	0.00	SAND	
11	0.00	0.00	0.00	SAND	
11	.05	0.00	0.00	COBBLE	SILT
11	.05	0.00	0.00	COBBLE	SILT
11	0.00	0.00	0.00	SAND	
11	.10	0.00	0.00	SAND	
11	.30	0.00	0.00	SAND	
11	.50	.05	.05	COBBLE	SAND
11	1.00	.05	.10	COBBLE	SAND
11	1.00	.05	.10	COBBLE	SAND
11	1.05	.10	.21	COBBLE	SAND
11	1.60	.15	.48	COBBLE	SAND
11	1.40	.20	.56	COBBLE	SAND
11	1.35	.20	.54	COBBLE	SAND
11	1.05	.10	.21	COBBLE	SAND

Table 4-B-6. (Continued).

TRANSECT	DEPTH (ft)	VELOCITY (ft/s)	FLOW (cfs)	SUBSTRATE	
				PRIMARY	SECONDARY
11	.90	.10	.18	COBBLE	SAND
11	.60	.05	.06	COBBLE	SAND
11	.10	0.00	0.00	COBBLE	SAND
11	0.00	0.00	0.00	COBBLE	SAND

Table 4-B-7. Hydraulic habitat variables collected
at transects in Slough 8A, Aug 26, 1982.

TRANSECT	DEPTH (ft)	VELOCITY (ft/s)	FLOW (cfs)	SUBSTRATE	
				PRIMARY	SECONDARY
A	0.00			COBBLE	RUBBLE
A	.10	0.00	0.00	COBBLE	RUBBLE
A	.30	0.00	0.00	COBBLE	RUBBLE
A	.70	.05	.14	COBBLE	RUBBLE
A	.95	.05	.19	COBBLE	RUBBLE
A	1.05	.05	.21	COBBLE	RUBBLE
A	1.80	0.00	0.00	COBBLE	RUBBLE
A	2.00	.02	.16	COBBLE	RUBBLE
A	2.00	.02	.16	COBBLE	RUBBLE
A	2.30	.10	.92	COBBLE	RUBBLE
A	2.45	.05	.49	RUBBLE	COBBLE
A	2.45	.05	.49	RUBBLE	COBBLE
A	2.35	.07	.66	RUBBLE	COBBLE
A	2.30	.05	.46	RUBBLE	COBBLE
A	2.20	.10	.88	RUBBLE	COBBLE
A	2.00	.02	.16	RUBBLE	COBBLE
A	1.75	.10	.70	RUBBLE	COBBLE
A	1.55	.07	.43	RUBBLE	COBBLE
A	1.55	.07	.43	RUBBLE	COBBLE
A	1.40	.20	1.12	RUBBLE	COBBLE
A	1.40	0.00	0.00	RUBBLE	
A	1.40	.02	.11	RUBBLE	
A	1.20	.05	.24	RUBBLE	
A	1.20	.05	.24	RUBBLE	
A	1.10	.05	.22	RUBBLE	
A	1.00	0.00	0.00	RUBBLE	
A	1.00	.02	.08	RUBBLE	
A	1.00	0.00	0.00	RUBBLE	
A	.08	.02	.06	RUBBLE	
A	.85	.02	.07	RUBBLE	
A	.70	0.00	0.00	RUBBLE	
A	.70	0.00	0.00	RUBBLE	
A	.60	0.00	0.00	RUBBLE	
A	.70	0.00	0.00	RUBBLE	
A	.70	0.00	0.00	RUBBLE	
A	.85	0.00	0.00	RUBBLE	
A	.90	.02	.07	RUBBLE	
A	.80	0.00	0.00	RUBBLE	
A	.95	0.00	0.00	RUBBLE	
A	1.10	0.00	0.00	GRAVEL	RUBBLE
A	1.20	.02	1.00	GRAVEL	RUBBLE
A	1.50	.02	.12	GRAVEL	RUBBLE
A	1.80	0.00	0.00	GRAVEL	RUBBLE
A	0.00	0.00	0.00	GRAVEL	RUBBLE

Table 4-B-7. (Continued).

TRANSECT	DEPTH (ft)	VELOCITY (ft/s)	FLOW (cfs)	SUBSTRATE	
				PRIMARY	SECONDARY
B		0.00	0.00		
B	.10	.15	.03	COBBLE	RUBBLE
B	.30	0.00	0.00	COBBLE	RUBBLE
B	.20	.75	.30	COBBLE	RUBBLE
B	.40	.05	.04	COBBLE	RUBBLE
B	.30	.50	.30	COBBLE	RUBBLE
B	.20	.15	.06	COBBLE	RUBBLE
B	0.00	0.00	0.00		
B	.15	.60	.18	COBBLE	RUBBLE
B	.05		0.00	BOULDER	RUBBLE
B	.40	.80	.64	RUBBLE	GRAVEL
C	0.00	0.00		SILT	COBBLE
C	.15	0.00	0.00	SILT	COBBLE
C	.50	.05	.05	RUBBLE	COBBLE
C	.70	.10	.14	RUBBLE	GRAVEL
C	.50	.15	.15	RUBBLE	GRAVEL
C	.65	.20	.26	RUBBLE	GRAVEL
C	.75	.20	.30	RUBBLE	GRAVEL
C	.55	.10	.11	RUBBLE	GRAVEL
C	.60	.15	.18	GRAVEL	RUBBLE
C	.55	.10	.11	GRAVEL	RUBBLE
C	.55	.15	.17	GRAVEL	RUBBLE
C	.35	.15	.11	COBBLE	RUBBLE
C	.35	.10	.07	RUBBLE	COBBLE
C	.30	.05	.03	RUBBLE	GRAVEL
C	.20	0.00	0.00	RUBBLE	GRAVEL
C	.10	0.00	0.00	RUBBLE	GRAVEL
C	1.00	0.00			

Table 4-B-8. Hydraulic habitat variables collected
at transects in Slough 8A, Sep 07, 1982.

TRANSECT	DEPTH (ft)	VELOCITY (ft/s)	FLOW (cfs)	SUBSTRATE	
				PRIMARY	SECONDARY
1	.65	.03	.02	SAND	
1	1.00	.09	.18	SAND	
1	1.10	.09	.20	SAND	COBBLE
1	1.10	.05	.11	SAND	
1	1.15	.10	.23	SAND	
1	1.20	.10	.24	SAND	
1	1.20	.10	.24	SAND	
1	1.40	.05	.14	SAND	
1	1.65	.08	.26	SAND	
1	1.65	.08	.26	SAND	
1	1.65	.05	.17	SAND	
1	1.65	.01	.03	SAND	
1	1.70	.08	.27	SAND	
1	1.75	.08	.28	SAND	
1	1.75	.08	.28	SAND	
1	1.80	.08	.29	SAND	
1	1.90	.11	.42	SAND	
1	1.85	.10	.37	SAND	
1	1.75	.12	.42	SAND	
1	1.70	.15	.51	SAND	
1	1.70	.15	.51	SAND	
1	1.65	.15	.50	SAND	
1	1.50	.15	.45	SAND	
1	1.50	.11	.33	SAND	
1	1.35	.11	.30	SAND	
1	1.30	.11	.29	SAND	
1	1.25	.11	.28	SAND	
1	1.15	.10	.23	SAND	
1	1.10	.10	.22	SAND	
1	1.05	.11	.23	SAND	
1	1.00	.05	.10	SAND	
1	1.00	.02	.04	SAND	
1	1.00	.01	.02	SAND	
1	1.00	0.00	0.00	SAND	
1	.90	.01	.02	SAND	
1	.80	.01	.02	SAND	
1	.80	0.00	0.00	SAND	
1	.60	.02	.02	SAND	
1	.50	.03	.03	SAND	
1	.40	0.00	0.00	SAND	
1	.30	.01	.01	SAND	
1	.10	0.00	0.00	SAND	
2	.50	.12	.11	COBBLE	SILT
2	.60	.20	.24	COBBLE	SILT

Table 4-B-8. (Continued).

TRANSECT	DEPTH (ft)	VELOCITY (ft/s)	FLOW (cfs)	SUBSTRATE	
				PRIMARY	SECONDARY
2	.70	.19	.27	SAND	
2	.70	.18	.25	SAND	COBBLE
2	.55	.18	.20	COBBLE	RUBBLE
2	.55	.09	0.00	COBBLE	BOULDER
2	.60	.10	.12	COBBLE	RUBBLE
2	.70	.20	.28	COBBLE	RUBBLE
2	1.10	.22	.48	GRAVEL	BOULDER
2	1.30	.32	.83	COBBLE	GRAVEL
2	1.70	.30	.02	COBBLE	BOULDER
2	1.70	.28	.95	GRAVEL	COBBLE
2	1.80	.22	.79	COBBLE	RUBBLE
2	1.90	.20	.76	SAND	COBBLE
2	1.75	.18	.63	SAND	
2	1.80	.12	.43	SAND	
2	2.00	.10	.40	SAND	
2	2.10	.05	.21	SAND	
2	2.10	.02	.08	SAND	
2	2.10	.01	.04	SAND	
2	2.00	.01	.04	SAND	COBBLE
2	1.90	0.00	0.00	SAND	
2	1.70	.02	.07	SAND	
2	1.60	0.00	0.00	SAND	
2	1.40	0.00	0.00	SAND	
2	1.30	0.00	0.00	SAND	
2	1.30	0.00	0.00	SAND	
2	1.30	.01	.03	SAND	
2	1.25	0.00	0.00	SAND	
2	1.20	0.00	0.00	SAND	
2	1.20	0.00	0.00	SAND	
2	1.10	0.00	0.00	SAND	
2	.60	0.00	0.00	SAND	
2				SAND	
3	.80	.05	.04	BOULDER	SAND
3	1.00	.08	.16	RUBBLE	COBBLE
3	1.10	.09	.20	RUBBLE	COBBLE
3	1.00	.05	.10	BOULDER	SAND
3	1.25	.03	.08	COBBLE	SILT
3	1.15	.05	.12	COBBLE	SILT
3	1.10	.08	.18	SILT	RUBBLE
3	1.10	.08	.18	SILT	COBBLE
3	1.10	.05	.11	SILT	RUBBLE
3	1.00	.02	.04	SILT	RUBBLE
3	.95	.03	.06	SILT	COBBLE
3	1.00	0.00	0.00	SILT	COBBLE
3	.09	0.00	0.00	SILT	COBBLE

Table 4-B-8. (Continued).

TRANSECT	DEPTH (ft)	VELOCITY (ft/s)	FLOW (cfs)	SUBSTRATE	
				PRIMARY	SECONDARY
3	.95	0.00	0.00	SILT	COBBLE
3	.90	.04	.07	SILT	COBBLE
3	.85	.02	.03	SILT	COBBLE
3	.80	.01	.02	SILT	COBBLE
3	.40	0.00	0.00	COBBLE	SILT
3	.10	0.00	0.00	COBBLE	SILT
3	.05		0.00	COBBLE	SILT
3	.05		0.00	COBBLE	SILT
3	.15	0.00	0.00	RUBBLE	SILT
3	.10	0.00	0.00	RUBBLE	COBBLE
3	.10	0.00	0.00	COBBLE	RUBBLE
3	.20	.01	.04	RUBBLE	COBBLE
3	.50	.15	.15	COBBLE	RUBBLE
3	.60	.25	.30	RUBBLE	COBBLE
3	.70	.28	.39	RUBBLE	COBBLE
3	.60	.55	.66	COBBLE	GRAVEL
3	.70	.51	.71	RUBBLE	COBBLE
3	.70	.45	.63	COBBLE	RUBBLE
3	.70	.39	.55	GRAVEL	COBBLE
3	.70	.48	.68	RUBBLE	GRAVEL
3	.60	.62	.74	GRAVEL	COBBLE
3	.55	.32	.35	GRAVEL	COBBLE
3	.45	.11	1.00	COBBLE	RUBBLE
3	.40	.42	.34	RUBBLE	COBBLE
4	.10	0.00	0.00	RUBBLE	COBBLE
4	.30	.01	.01	RUBBLE	COBBLE
4	.55	.01	.01	RUBBLE	BOULDER
4	.75	.05	.01	RUBBLE	COBBLE
4	1.20	.10	.24	COBBLE	RUBBLE
4	1.40	.10	.28	COBBLE	
4	1.50	.08	.24	BOULDER	RUBBLE
4	1.65	.10	.33	COBBLE	RUBBLE
4	1.50	.12	.36	COBBLE	RUBBLE
4	1.60	.11	.35	RUBBLE	COBBLE
4	1.65	.15	.50	RUBBLE	COBBLE
4	1.90	.14	.53	RUBBLE	COBBLE
4	1.90	.15	.57	BOULDER	COBBLE
4	1.90	.12	.46	BOULDER	COBBLE
4	1.80	.15	.54	BOULDER	COBBLE
4	1.60	.15	.48	BOULDER	COBBLE
4	1.60	.17	.54	BOULDER	COBBLE
4	1.55	.18	.56	COBBLE	RUBBLE
4	1.50	.10	.30	RUBBLE	
4	1.20	.10	.24	BOULDER	RUBBLE
4	.85	.10	.17	RUBBLE	

Table 4-B-8. (Continued).

TRANSECT	DEPTH (ft)	VELOCITY (ft/s)	FLOW (cfs)	SUBSTRATE	
				PRIMARY	SECONDARY
4	.60	.05	.06	COBBLE	RUBBLE
5	.60	.05	.03	SAND	
5	1.60	.02	.06	SAND	
5	2.85	.01	.06	SAND	
5	3.75	.03	.23	SAND	
5	4.50	.05	.45	SAND	
5	4.50	.05	.45	SAND	
5	4.50	.06	.54	SAND	
5	4.80	.07	.67	SAND	
5	4.90	.10	.98	SAND	
5	4.90	.06	.59	SAND	BOULDER
5	4.80	.07	.67	SAND	BOULDER
5	4.60	.09	.83	SAND	COBBLE
5	4.30	.05	.43	SAND	COBBLE
5	4.00	.06	.48	COBBLE	SAND
5	3.75	.06	.45	COBBLE	SAND
5	3.00	.04	.24	SAND	COBBLE
5	2.55	.05	.26	SAND	COBBLE
5	2.25	.05	.23	COBBLE	SAND
5	1.50	.15	.45	RUBBLE	SAND
5	1.50	.21	.63	RUBBLE	SAND
5	1.60	.20	.64	RUBBLE	SAND
5	1.60	.21	.67	COBBLE	SAND
5	1.50	.15	.45	COBBLE	SAND
5	1.30	.05	.13	COBBLE	SAND
5	1.00	.05	.10	RUBBLE	SAND
5	.80	.08	.13	COBBLE	SAND
5	.80	.10	.16	COBBLE	RUBBLE
5	.80	.15	.24	COBBLE	RUBBLE
5	.70	.08	.11	COBBLE	
5	.60	.05	.06	COBBLE	
5	.50	0.00	0.00	BOULDER	COBBLE
5	.35	0.00	0.00	BOULDER	RUBBLE
6	.10	0.00	0.00	BOULDER	RUBBLE
6	.25	.08	.04	COBBLE	SILT
6	.25	.11	.06	COBBLE	SILT
6	.50	.12	.12	COBBLE	RUBBLE
6	.40	.09	.07	COBBLE	
6	.45	.21	.19	RUBBLE	COBBLE
6	.40	.21	.16	COBBLE	RUBBLE
6	.50	.20	.19	RUBBLE	COBBLE
6	.50	.28	.27	RUBBLE	COBBLE
6	.40	.32	.25	COBBLE	RUBBLE
6	.35	.30	.20	COBBLE	RUBBLE
6	.40	.24	.19	COBBLE	RUBBLE

Table 4-B-8. (Continued).

TRANSECT	DEPTH (ft)	VELOCITY (ft/s)	FLOW (cfs)	SUBSTRATE	
				PRIMARY	SECONDARY
6	.40	.30	.23	RUBBLE	COBBLE
6	.50	.25	.25	RUBBLE	COBBLE
6	.50	.35	.35	RUBBLE	COBBLE
6	.50	.21	.21	RUBBLE	COBBLE
6	.30	.18	.11	COBBLE	
6	.50	.20	.20	COBBLE	BOULDER
6	.50	.62	.62	COBBLE	BOULDER
6	.60	.71	.85	COBBLE	GRAVEL
6	.40	.58	.46	BOULDER	COBBLE
6	.30	.37	.21	RUBBLE	BOULDER
6	.25	.22	.11	COBBLE	
6	.15	.15	.05	BOULDER	COBBLE
6	.40	.25	.20	COBBLE	RUBBLE
6	.40	.38	.30	COBBLE	RUBBLE
6	.20	.31	.12	COBBLE	
6	.25	.28	.14	RUBBLE	COBBLE
7	.30	0.00	0.00	GRAVEL	RUBBLE
7	.30	.02	.01	RUBBLE	GRAVEL
7	.60	.15	.18	COBBLE	GRAVEL
7	.40	.43	.34	COBBLE	GRAVEL
7	.20	.35	.07	GRAVEL	RUBBLE
7	.20	.72	.25	GRAVEL	RUBBLE
7	.30	.80	.43	GRAVEL	RUBBLE
7	.15	.80	.14	GRAVEL	COBBLE
7	.15	.85	.25	GRAVEL	COBBLE
7	.20	.95	.32	GRAVEL	RUBBLE
7	.20	.41	.15	RUBBLE	GRAVEL
7	.10	.60	.11	RUBBLE	GRAVEL
7	.20	.85	.32	GRAVEL	RUBBLE
7	.25	1.19	.60	COBBLE	GRAVEL
7	.40	.40	.31	GRAVEL	RUBBLE
7	.40	1.25	0.00	COBBLE	GRAVEL
7	.30	.90	.54	GRAVEL	COBBLE
7	.30	1.78	1.07	RUBBLE	GRAVEL
7	.20	.40	.16	GRAVEL	COBBLE
7	.15	.30	.09	GRAVEL	RUBBLE
7	.25	1.70	.85	COBBLE	GRAVEL
7	.05			COBBLE	
7	.10	.30	.06	RUBBLE	GRAVEL
7	.15	.20	.06	GRAVEL	RUBBLE
7	.10			RUBBLE	
7	.20	.15	.03	COBBLE	GRAVEL
7	.10	.20	.04	RUBBLE	COBBLE
7	.10	1.00	.20	COBBLE	GRAVEL
7	.15	.05	.02	GRAVEL	RUBBLE

Table 4-B-8. (Continued).

TRANSECT	DEPTH (ft)	VELOCITY (ft/s)	FLOW (cfs)	SUBSTRATE	
				PRIMARY	SECONDARY
7				RUBBLE	GRAVEL
7	.10	0.00	0.00	RUBBLE	GRAVEL
7	.20	.20	.08	GRAVEL	RUBBLE
7	.10	.10	.02	GRAVEL	RUBBLE
7	.20	.20	.08	GRAVEL	COBBLE
7	.15	.10	.03	RUBBLE	
8	.20	.27	.11	GRAVEL	RUBBLE
8	.30	.25	.06	GRAVEL	RUBBLE
8	.20	.20	.04	RUBBLE	GRAVEL
8	.20	.20	.07	GRAVEL	RUBBLE
8	.20	.15	.06	GRAVEL	RUBBLE
8	.10	.05	.01	RUBBLE	GRAVEL
8	.20	.14	.06	GRAVEL	RUBBLE
8	.15	.10	.03	RUBBLE	GRAVEL
8	.10	.02	0.00	GRAVEL	RUBBLE
8	.05			GRAVEL	RUBBLE
8	.10	.20	.02	RUBBLE	
8	.20	.20	.08	GRAVEL	RUBBLE
8	.15	.25	.04	GRAVEL	RUBBLE
8	.05			GRAVEL	RUBBLE
8	.05			GRAVEL	RUBBLE
8	.10	.15	.03	GRAVEL	RUBBLE
8	.15	.10	.03	GRAVEL	RUBBLE
8	.15	.15	.05	GRAVEL	RUBBLE
8	.15	.05	.02	GRAVEL	RUBBLE
8	.30	.08	.05	RUBBLE	COBBLE
8	.45	.20	.18	GRAVEL	RUBBLE
8	.50	.40	.40	RUBBLE	GRAVEL
8	.50	.49	.49	GRAVEL	
8	.60	.50	.60	RUBBLE	SAND
8	.65	.50	.65	RUBBLE	COBBLE
8	.70	.55	.77	RUBBLE	GRAVEL
8	.50	.50	.50	RUBBLE	GRAVEL
8	.60	.35	.42	GRAVEL	BOULDER
8	.25	.35	.18	RUBBLE	BOULDER
8	.40	.25	.20	RUBBLE	BOULDER
8	.30	.35	.21	RUBBLE	BOULDER
8	.15	.13	.04	GRAVEL	COBBLE
8	.15	.15	.05	GRAVEL	COBBLE
8	.20	.05	.02	GRAVEL	RUBBLE
8	.15	.08	.02	GRAVEL	COBBLE
9	.05	0.00	0.00	GRAVEL	COBBLE
9	.10	0.00	0.00	GRAVEL	
9	.15	0.00	0.00	GRAVEL	RUBBLE
9	.10	0.00	0.00	GRAVEL	RUBBLE

Table 4-B-8. (Continued).

TRANSECT	DEPTH (ft)	VELOCITY (ft/s)	FLOW (cfs)	SUBSTRATE	
				PRIMARY	SECONDARY
9	.10	0.00	0.00	GRAVEL	RUBBLE
9	.10	0.00	0.00	GRAVEL	RUBBLE
9	.30	.10	.06	GRAVEL	RUBBLE
9	.40	.18	.14	GRAVEL	COBBLE
9	.40	.10	.08	GRAVEL	COBBLE
9	.50	.15	.15	RUBBLE	COBBLE
9	.40	.15	.12	COBBLE	GRAVEL
9	.50	.12	.12	COBBLE	GRAVEL
9	.50	.15	.15	COBBLE	GRAVEL
9	.40	.10	.08	GRAVEL	COBBLE
9	.35	.18	.13	COBBLE	RUBBLE
9	.35	.18	.13	RUBBLE	
9	.40	.20	.16	RUBBLE	BOULDER
9	.40	.28	.22	RUBBLE	BOULDER
9	.60	.30	.36	BOULDER	RUBBLE
9	.95	.25	.48	GRAVEL	COBBLE
9	1.10	.30	.66	SAND	RUBBLE
9	1.10	.34	.75	RUBBLE	COBBLE
9	.90	.30	.54	GRAVEL	BOULDER
9	.75	.20	.30	RUBBLE	COBBLE
9	.80	.20	.32	GRAVEL	COBBLE
9	.65	.20	.26	GRAVEL	COBBLE
9	.50	.15	.15	COBBLE	RUBBLE
9	.30	.20	.12	COBBLE	
9	.60	.10	.12	BOULDER	RUBBLE
9	.60	.13	.16	RUBBLE	COBBLE
9	.50	.10	.10	GRAVEL	RUBBLE
9	.40	.15	.12	COBBLE	RUBBLE
9	0.00	0.00	0.00	COBBLE	BOULDER
10	.30	0.00	0.00	SILT	
10	.30	.05	.03	SILT	GRAVEL
10	.40	.02	.02	COBBLE	RUBBLE
10	.30	.01	.01	GRAVEL	RUBBLE
10	.40	0.00	0.00	GRAVEL	RUBBLE
10	.40	.05	.04	GRAVEL	COBBLE
10	.50	.05	.05	GRAVEL	SILT
10	.50	.10	.10	RUBBLE	GRAVEL
10	.65	.08	.10	RUBBLE	GRAVEL
10	.70	.04	.06	RUBBLE	BOULDER
10	.60	.04	.05	GRAVEL	COBBLE
10	.60	.04	.05	GRAVEL	BOULDER
10	.30	0.00	0.00	GRAVEL	BOULDER
10	.30	.01	.01	GRAVEL	SAND
10	.50	.01	.01	SAND	GRAVEL
10	.60	.09	.11	SAND	GRAVEL

Table 4-B-8. (Continued).

TRANSECT	DEPTH (ft)	VELOCITY (ft/s)	FLOW (cfs)	SUBSTRATE	
				PRIMARY	SECONDARY
10	.50	.11	.11	SAND	GRAVEL
10	.60	.12	.14	SAND	RUBBLE
10	.60	.12	.14	SAND	RUBBLE
10	.70	.20	.28	SAND	
10	.80	.22	.35	SAND	
10	.95	.20	.38	SAND	RUBBLE
10	1.00	.20	.40	RUBBLE	COBBLE
10	1.15	.20	.46	COBBLE	SAND
10	1.15	.20	.46	RUBBLE	COBBLE
10	1.45	.22	.51	RUBBLE	COBBLE
10	1.10	.21	.46	RUBBLE	COBBLE
10	.90	.24	.43	RUBBLE	COBBLE
10	1.00	.20	.40	RUBBLE	BOULDER
10	.70	.20	.28	RUBBLE	COBBLE
10	.60	.12	.14	RUBBLE	COBBLE
10	.60	.18	.22	RUBBLE	COBBLE
10	.45	.10	.09	RUBBLE	COBBLE
10	.35	0.00	0.00	RUBBLE	COBBLE
10	.30	.03	.18	RUBBLE	COBBLE
10	.05	0.00	0.00	RUBBLE	COBBLE
11	.05	0.00	0.00	COBBLE	RUBBLE
11	.10	0.00	0.00	COBBLE	
11	.40	0.00	0.00	COBBLE	RUBBLE
11	0.00	0.00	0.00	COBBLE	
11	.45	0.00	0.00	COBBLE	
11	.45	0.00	0.00	GRAVEL	COBBLE
11	.35	0.00	0.00	RUBBLE	COBBLE
11	.15	0.00	0.00	RUBBLE	
11	.20	0.00	0.00	RUBBLE	SILT
11	.20	0.00	0.00	COBBLE	SILT
11	.25	0.00	0.00	SILT	RUBBLE
11	.25	.03	.02	SAND	RUBBLE
11	.10	0.00	0.00	SAND	
11	.20	.01	0.00	SAND	
11	.45	.08	.07	SAND	
11	.80	.10	.16	COBBLE	SAND
11	1.15	.10	.23	RUBBLE	SAND
11	1.30	.20	.52	SAND	COBBLE
11	1.60	.28	.90	RUBBLE	SAND
11	1.65	.34	1.12	COBBLE	BOULDER
11	1.45	.45	1.31	GRAVEL	COBBLE
11	1.40	.30	.84	RUBBLE	COBBLE
11	1.15	.29	.67	COBBLE	RUBBLE
11	1.05	.22	.46	RUBBLE	COBBLE
11	.70	.20	.28	RUBBLE	GRAVEL

Table 4-B-8. (Continued).

TRANSECT	DEPTH (ft)	VELOCITY (ft/s)	FLOW (cfs)	SUBSTRATE	
				PRIMARY	SECONDARY
11	.30	0.00	0.00	GRAVEL	COBBLE
A				COBBLE	RUBBLE
A	.20	0.00	0.00	COBBLE	RUBBLE
A	.50	.02	.02	COBBLE	RUBBLE
A	.20	0.00	0.00	COBBLE	RUBBLE
A	.40	.02	.02	COBBLE	SILT
A	1.60	.05	.16	COBBLE	SILT
A	1.75	.10	.35	RUBBLE	SILT
A	1.80	.10	.36	RUBBLE	SILT
A	2.00	.10	.40	RUBBLE	SILT
A	2.00	.10	.40	RUBBLE	COBBLE
A	1.80	.05	.18	RUBBLE	COBBLE
A	1.80	.10	.36	RUBBLE	SILT
A	1.80	.10	.36	RUBBLE	SILT
A	1.70	.10	.34	RUBBLE	SILT
A	1.50	.05	.15	SILT	RUBBLE
A	1.30	.03	.08	SILT	RUBBLE
A	1.20	.10	.24	RUBBLE	SILT
A	1.20	.10	.24	RUBBLE	SILT
A	1.05	.05	.11	RUBBLE	SILT
A	1.00	.02	.04	SILT	RUBBLE
A	.90	.05	.09	RUBBLE	COBBLE
A	.80	0.00	0.00	RUBBLE	SILT
A	.80	.10	.16	RUBBLE	SILT
A	.60	.10	.12	SILT	GRAVEL
A	.70	0.00	0.00	SILT	GRAVEL
A	.70	0.00	0.00	RUBBLE	SILT
A	.50	0.00	0.00	COBBLE	SILT
A	.50	0.00	0.00	SILT	RUBBLE
A	.40	0.00	0.00	RUBBLE	SILT
A	.30	0.00	0.00	RUBBLE	SILT
A	.30	0.00	0.00	SILT	GRAVEL
A	.40	0.00	0.00	SILT	GRAVEL
A	.40	0.00	0.00	RUBBLE	SILT
A	.40	0.00	0.00	GRAVEL	SILT
A	.50	0.00	0.00	SILT	GRAVEL
A	.50	0.00	0.00	SILT	GRAVEL
A	.50	0.00	0.00	GRAVEL	SILT
A	.60	0.00	0.00	SILT	GRAVEL
A	.75	0.00	0.00	GRAVEL	SILT
A	1.00	0.00	0.00	GRAVEL	SILT
A	1.30	0.00	0.00	SILT	GRAVEL
B	.10	.02	0.00	GRAVEL	COBBLE
B	.30	.40	.24	GRAVEL	COBBLE
B	.30	.80	.47	GRAVEL	COBBLE

Table 4-B-8. (Continued).

TRANSECT	DEPTH (ft)	VELOCITY (ft/s)	FLOW (cfs)	SUBSTRATE	
				PRIMARY	SECONDARY
B	.40	.90	.72	GRAVEL	RUBBLE
B	.30	.40	.24	RUBBLE	COBBLE
B	.30	1.35	.77	COBBLE	RUBBLE
B	.30	1.00	.45	COBBLE	RUBBLE
B	.30	1.05	.61	RUBBLE	COBBLE
B	.35	.60	.38	GRAVEL	RUBBLE
B	.40	1.15	.92	GRAVEL	COBBLE
B	.30	.40	.18	GRAVEL	COBBLE
C	.10	0.00	0.00	SAND	COBBLE
C	.40	.15	.12	GRAVEL	SAND
C	.50	.20	.20	GRAVEL	
C	.50	.20	.20	GRAVEL	RUBBLE
C	.65	.25	.33	GRAVEL	RUBBLE
C	.80	.22	.35	GRAVEL	RUBBLE
C	.55	.20	.22	RUBBLE	GRAVEL
C	.60	.18	.22	RUBBLE	GRAVEL
C	.70	.19	.27	GRAVEL	RUBBLE
C	.70	.18	.25	GRAVEL	COBBLE
C	.45	.16	.14	COBBLE	SAND
C	.50	.10	.10	GRAVEL	SAND
C	.40	.10	.08	RUBBLE	COBBLE
C	.35	.10	.07	GRAVEL	RUBBLE
C	.35	0.00	0.00	GRAVEL	COBBLE
C	.30	0.00	0.00	GRAVEL	SAND
C	.25	0.00	0.00	GRAVEL	SAND
C	.35	0.00	0.00	GRAVEL	SAND

Table 4-B-9. Hydraulic habitat variables collected
at transects in Slough 8A, Sep 19, 1982.

TRANSECT	DEPTH (ft)	VELOCITY (ft/s)	FLOW (cfs)	SUBSTRATE	
				PRIMARY	SECONDARY
1	.70	0.00	0.00	SILT	
1	1.05	0.00	0.00	SILT	
1	1.20	0.00	0.00	SILT	
1	1.20	.05	.12	SILT	
1	1.30	.05	.13	SILT	
1	1.30	.10	.26	SILT	
1	1.40	.10	.28	SILT	
1	1.40	.10	.28	SILT	
1	1.50	.10	.30	SILT	COBBLE
1	1.70	.10	.34	SILT	COBBLE
1	1.70	.10	.34	SILT	
1	1.65	.10	.33	SILT	COBBLE
1	1.80	.10	.36	SILT	COBBLE
1	1.80	.10	.36	SILT	
1	1.90	.20	.76	SILT	
1	1.80	.20	.72	SILT	
1	1.85	.30	1.11	SILT	
1	1.90	.20	.76	SILT	
1	1.90	.35	1.33	SILT	
1	1.80	.30	1.08	SILT	
1	1.80	.40	1.44	SILT	
1	1.70	.45	1.53	SILT	COBBLE
1	1.75	.30	1.05	SILT	COBBLE
1	1.65	.30	.99	SILT	COBBLE
1	1.50	.35	1.05	SILT	COBBLE
1	1.35	.30	.81	SILT	COBBLE
1	1.30	.25	.65	SILT	RUBBLE
1	1.30	.20	.52	SILT	RUBBLE
1	1.30	.20	.52	SILT	RUBBLE
1	1.30	.20	.52	SILT	RUBBLE
1	1.10	.20	.44	SILT	GRAVEL
1	1.10	.15	.33	SILT	GRAVEL
1	1.10	.15	.33	SILT	GRAVEL
1	1.00	.10	.20	SILT	GRAVEL
1	1.00	.10	.20	SILT	GRAVEL
1	.90	.10	.18	SILT	GRAVEL
1	1.00	.10	.20	SILT	
1	.80	.10	.16	SILT	
1	.65	.05	.07	SILT	
1	.60	0.00	0.00	SILT	
1	.40	0.00	0.00	SILT	
1	.20	0.00	0.00	SILT	
1				SILT	
2	.60	.15	.18	SILT	COBBLE

Table 4-B-9. (Continued).

TRANSECT	DEPTH (ft)	VELOCITY (ft/s)	FLOW (cfs)	SUBSTRATE	
				PRIMARY	SECONDARY
2	.80	.20	.32	SILT	COBBLE
2	.80	.25	.40	SILT	COBBLE
2	.80	.20	.32	COBBLE	
2	.70	.25	.35	COBBLE	
2	.65	.30	.39	COBBLE	
2	.60	.50	.60	COBBLE	
2	.80	.50	.80	COBBLE	
2	1.10	.50	1.10	COBBLE	
2	1.50	.60	1.80	COBBLE	
2	1.70	.70	2.38	RUBBLE	
2	1.70	.80	2.72	RUBBLE	
2	1.90	.75	2.85	SILT	RUBBLE
2	1.80	.70	2.52	SILT	RUBBLE
2	1.80	.45	1.62	SILT	
2	1.90	.35	1.33	SILT	
2	1.90	.05	.19	SILT	RUBBLE
2	2.10	.20	.84	SILT	
2	2.20	.05	.22	SILT	
2	2.10	0.00	0.00	SILT	
2	2.00	.10	.40	SILT	RUBBLE
2	1.90	0.00	0.00	SILT	RUBBLE
2	1.90	0.00	0.00	SILT	RUBBLE
2	1.70	0.00	0.00	SILT	RUBBLE
2	1.60	0.00	0.00	SILT	
2	1.50	0.00	0.00	SILT	
2	1.50	0.00	0.00	SILT	
2	1.30	0.00	0.00	SILT	
2	1.40	0.00	0.00	SILT	
2	1.30	.10	.26	SILT	
2	1.30	.10	.26	SILT	
2	1.20	.05	.12	SILT	
2	1.00	0.00	0.00	SILT	
2	.25	0.00	0.00	SILT	
3	.90	0.00	0.00	SILT	COBBLE
3	1.00	.20	.40	SILT	COBBLE
3	1.20	.15	.36	SILT	RUBBLE
3	1.20	.20	.48	SILT	COBBLE
3	1.40	.20	.56	SILT	RUBBLE
3	1.30	.20	.52	SILT	
3	1.20	.20	.78	SILT	
3	1.20	.15	.36	SILT	RUBBLE
3	1.20	.15	.36	SILT	RUBBLE
3	1.10	0.00	0.00	SILT	RUBBLE
3	1.10	0.00	0.00	SILT	RUBBLE
3	1.10	0.00	0.00	SILT	RUBBLE

Table 4-B-9. (Continued).

TRANSECT	DEPTH (ft)	VELOCITY (ft/s)	FLOW (cfs)	SUBSTRATE	
				PRIMARY	SECONDARY
3	1.10	.05	.11	SILT	RUBBLE
3	1.00	0.00	0.00	SILT	RUBBLE
3	1.20	0.00	0.00	SILT	RUBBLE
3	1.10	0.00	0.00	SILT	RUBBLE
3	1.10	0.00	0.00	SILT	RUBBLE
3	.90	0.00	0.00	SILT	RUBBLE
3	.40	0.00	0.00	SILT	RUBBLE
3	.30	0.00	0.00	SILT	RUBBLE
3	.30	0.00	0.00	SILT	RUBBLE
3	.30	.05	.03	SILT	RUBBLE
3	.30	.10	.06	SILT	RUBBLE
3	.50	.20	.20	RUBBLE	
3	.50	.50	.50	RUBBLE	
3	.60	.50	.60	RUBBLE	
3	.70	.60	.84	RUBBLE	
3	.75	1.20	1.80	RUBBLE	
3	.80	1.20	1.92	RUBBLE	
3	.80	1.00	1.60	RUBBLE	
3	.80	1.05	1.68	RUBBLE	
3	.80	1.00	1.60	RUBBLE	
3	.80	.90	1.44	RUBBLE	
3	.65	.90	1.17	RUBBLE	
3	.70	1.00	1.40	RUBBLE	
3	.70	.70	.98	RUBBLE	
3	.50	.90	.90	RUBBLE	
4				COBBLE	
4	.10	0.00	0.00	RUBBLE	
4	.10	0.00	0.00	RUBBLE	
4	.10	0.00	0.00	COBBLE	
4	.10	0.00	0.00	COBBLE	
4	.10	0.00	0.00	COBBLE	
4	.10	0.00	0.00	COBBLE	
4	.20	0.00	0.00	RUBBLE	SILT
4	.20	0.00	0.00	RUBBLE	
4	.60	.05	.06	RUBBLE	
4	1.00	.15	.30	RUBBLE	
4	1.40	.20	.56	RUBBLE	
4	1.70	.20	.68	RUBBLE	
4	1.70	.20	.68	RUBBLE	
4	2.00	.30	1.20	RUBBLE	
4	1.80	.30	1.08	RUBBLE	
4	1.85	.30	1.11	RUBBLE	
4	1.65	.30	.99	RUBBLE	
4	2.10	.40	1.68	RUBBLE	SILT
4	2.10	.40	1.68	RUBBLE	SILT

Table 4-B-9. (Continued).

TRANSECT	DEPTH (ft)	VELOCITY (ft/s)	FLOW (cfs)	SUBSTRATE	
				PRIMARY	SECONDARY
4	2.15	.40	1.72	RUBBLE	SILT
4	2.00	.40	1.60	RUBBLE	SILT
4	1.60	.40	1.28	RUBBLE	SILT
4	1.80	.30	1.08	RUBBLE	SILT
4	1.90	.30	1.14	SILT	RUBBLE
4	1.60	.35	1.12	SILT	RUBBLE
4	1.50	.40	1.20	SILT	RUBBLE
4	1.10	.30	.66	SILT	RUBBLE
4	.90	.35	.63	SILT	RUBBLE
4	.80	.10	.16	SILT	RUBBLE
5	.65	0.00	0.00	SAND	
5	1.60	0.00	0.00	SAND	
5	2.30	0.00	0.00	SAND	
5	3.70	0.00	0.00	SAND	
5	4.50	0.00	0.00	SAND	
5	4.70	0.00	0.00	SAND	
5	4.80	0.00	0.00	GRAVEL	RUBBLE
5	5.00	.01	.10	GRAVEL	RUBBLE
5	5.20	.03	.31	GRAVEL	RUBBLE
5	5.30	.13	1.38	GRAVEL	RUBBLE
5	5.00	.18	1.80	GRAVEL	SAND
5	4.60	.20	1.84	GRAVEL	SAND
5	4.30	.32	2.72	GRAVEL	RUBBLE
5	3.90	.25	1.95	GRAVEL	RUBBLE
5	3.60	.25	1.80	SILT	RUBBLE
5	3.40	.20	1.36	SILT	RUBBLE
5	2.50	.20	1.00	SILT	RUBBLE
5	2.20	.25	1.10	SILT	RUBBLE
5	1.90	.20	.76	SILT	RUBBLE
5	1.70	.30	1.02	SILT	RUBBLE
5	1.90	.40	1.52	SILT	RUBBLE
5	2.00	.35	1.40	SILT	RUBBLE
5	1.80	.40	1.44	SILT	RUBBLE
5	1.50	.20	.60	SILT	RUBBLE
5	1.20	.30	.72	SILT	RUBBLE
5	1.10	.35	.77	SILT	RUBBLE
5	1.10	.20	.44	SILT	RUBBLE
5	1.00	.30	.60	SILT	RUBBLE
5	.70	.20	.28	SILT	COBBLE
5	.70	.20	.28	SILT	RUBBLE
5	1.00	.10	.20	SILT	RUBBLE
5	.60	0.00	0.00	SILT	RUBBLE
6	.50	0.00	0.00	SILT	RUBBLE
6	.50	.30	.30	SILT	RUBBLE
6	.50	.25	.25	SILT	RUBBLE

Table 4-B-9. (Continued).

TRANSECT	DEPTH (ft)	VELOCITY (ft/s)	FLOW (cfs)	SUBSTRATE	
				PRIMARY	SECONDARY
6	.40	.20	.16	SILT	RUBBLE
6	.65	.35	.46	RUBBLE	
6	.70	.30	.42	SILT	RUBBLE
6	.70	.30	.42	SILT	RUBBLE
6	.70	.50	.70	RUBBLE	SILT
6	.50	.50	.50	RUBBLE	SILT
6	.60	.60	.72	RUBBLE	SILT
6	.70	.50	.70	RUBBLE	SILT
6	.65	.60	.78	RUBBLE	SILT
6	.60	.70	.84	RUBBLE	SILT
6	.60	.70	.84	RUBBLE	SILT
6	.70	.50	.70	RUBBLE	SILT
6	.80	.60	.96	RUBBLE	SILT
6	.80	.65	1.04	RUBBLE	SILT
6	.80	.45	.72	RUBBLE	SILT
6	.80	.75	1.20	RUBBLE	
6	.80	.90	1.44	RUBBLE	SILT
6	.80	.90	1.44	RUBBLE	SILT
6	.70	.80	1.12	RUBBLE	
6	.50	.60	.60	RUBBLE	SILT
6	.50	.80	.80	RUBBLE	SILT
6	.50	.50	.50	RUBBLE	SILT
6	.50	.80	.80	RUBBLE	SILT
6	.50	.70	.70	RUBBLE	SILT
6	.50	.50	.50	COBBLE	SILT
6	.50	.40	.40	RUBBLE	SILT
6	.30	.30	.18	COBBLE	SILT
7	.10	0.00	0.00	RUBBLE	SILT
7	.20	0.00	0.00	RUBBLE	SILT
7	.50	.20	.20	RUBBLE	SILT
7	.70	.70	.98	RUBBLE	SILT
7	.50	.90	.90	RUBBLE	
7	.20	1.00	.40	RUBBLE	
7	.30	1.15	.69	RUBBLE	
7	.30	.95	.57	RUBBLE	
7	.20	1.40	.56	RUBBLE	
7	.30	1.20	.72	RUBBLE	
7	.40	.40	.32	RUBBLE	
7	.40	.30	.24	RUBBLE	
7	.30	.60	.36	RUBBLE	
7	.30	1.40	.84	RUBBLE	
7	.50	.90	.90	COBBLE	
7	.60	.60	.72	RUBBLE	
7	.60	1.10	1.32	RUBBLE	
7	.60	1.25	1.50	RUBBLE	

Table 4-B-9. (Continued).

TRANSECT	DEPTH (ft)	VELOCITY (ft/s)	FLOW (cfs)	SUBSTRATE	
				PRIMARY	SECONDARY
7	.50	1.90	1.90	RUBBLE	
7	.20	.50	.20	RUBBLE	
7	.50	2.10	2.10	RUBBLE	
7	.40	1.90	1.52	RUBBLE	
7	.20	1.90	.76	RUBBLE	
7	.30	.40	.24	RUBBLE	
7	.30	.20	.12	RUBBLE	SILT
7	.20	.70	.28	RUBBLE	SILT
7	.40	.85	.68	RUBBLE	SILT
7	.20	.55	.22	RUBBLE	SILT
7	.20	.70	.28	RUBBLE	SILT
7	.20	0.00	0.00	RUBBLE	SILT
7	.10	.20	.04	RUBBLE	SILT
7	.10	0.00	0.00	RUBBLE	SILT
7	.40	.50	.40	RUBBLE	SILT
7	.10	0.00	0.00	RUBBLE	SILT
7	.20	.50	.20	RUBBLE	SILT
7	.20	0.00	0.00	RUBBLE	SILT
8	.10	.20	0.00	GRAVEL	SILT
8	.50	.50	.50	RUBBLE	
8	.50	.40	.40	RUBBLE	SILT
8	.40	.60	.48	RUBBLE	SILT
8	.40	.65	.52	RUBBLE	SILT
8	.30	.80	.48	RUBBLE	SILT
8	.40	.70	.56	RUBBLE	SILT
8	.40	.60	.48	RUBBLE	SILT
8	.40	.60	.48	RUBBLE	SILT
8	.10	.60	.12	RUBBLE	SILT
8	.10	.30	.06	RUBBLE	SILT
8	.20	.60	.24	RUBBLE	SILT
8	.40	.65	.52	RUBBLE	SILT
8	.20	.90	.36	RUBBLE	SILT
8	.10	.50	.10	RUBBLE	SILT
8	.25	.40	.20	RUBBLE	SILT
8	.30	.50	.30	RUBBLE	SILT
8	.30	.50	.30	RUBBLE	SILT
8	.35	.40	.28	RUBBLE	
8	.40	.20	.16	RUBBLE	SILT
8	.40	.35	.28	RUBBLE	SILT
8	.60	.50	.60	SILT	RUBBLE
8	.75	.75	1.13	SILT	RUBBLE
8	1.10	.70	1.54	SILT	RUBBLE
8	.90	.70	1.26	SILT	RUBBLE
8	.90	.80	1.44	SILT	RUBBLE
8	.70	.90	1.26	RUBBLE	SILT

Table 4-B-9. (Continued).

TRANSECT	DEPTH (ft)	VELOCITY (ft/s)	FLOW (cfs)	SUBSTRATE	
				PRIMARY	SECONDARY
8	.70	.80	1.12	RUBBLE	SILT
8	.60	.65	.78	RUBBLE	SILT
8	.60	.50	.60	RUBBLE	SILT
8	.60	.50	.60	RUBBLE	SILT
8	.50	.60	.60	RUBBLE	SILT
8	.10	.60	.48	RUBBLE	SILT
8	.30	.50	.30	RUBBLE	GRAVEL
8	.30	.40	.24	GRAVEL	SILT
8	.30	.50	.30	GRAVEL	SILT
8	.20	.15	.06	GRAVEL	SILT
8	.10	0.00	0.00	RUBBLE	SILT
8	.10	0.00	0.00	RUBBLE	SILT
9	.10	0.00	0.00	RUBBLE	SAND
9	.10	0.00	0.00	RUBBLE	SAND
9	.20	.10	.04	RUBBLE	SAND
9	.30	.20	.12	GRAVEL	SAND
9	.20	.30	.12	RUBBLE	SAND
9	.30	.30	.18	RUBBLE	SAND
9	.30	.30	.18	RUBBLE	SAND
9	.35	.30	.35	RUBBLE	
9	.50	.40	.40	RUBBLE	
9	.54	.60	.65	RUBBLE	
9	.50	.50	.50	RUBBLE	
9	.60	.25	.30	RUBBLE	SAND
9	.60	.20	.24	RUBBLE	SAND
9	.70	.40	.56	RUBBLE	SAND
9	.60	.50	.60	RUBBLE	SAND
9	.20	.45	.18	RUBBLE	SAND
9	.50	.40	.40	RUBBLE	SAND
9	.50	.60	.60	RUBBLE	SAND
9	.50	.60	.60	RUBBLE	SAND
9	.90	.40	.72	RUBBLE	SAND
9	1.00	.60	1.20	RUBBLE	SAND
9	1.10	.50	1.10	COBBLE	SAND
9	1.20	.50	1.20	COBBLE	SAND
9	1.20	.60	1.44	RUBBLE	SAND
9	1.10	.70	1.54	RUBBLE	SAND
9	1.00	.50	1.00	RUBBLE	SAND
9	1.00	.60	1.20	RUBBLE	SAND
9	.70	.50	.70	RUBBLE	SAND
9	.80	.30	.48	RUBBLE	SAND
9	.60	.50	.60	RUBBLE	
9	.40	.50	.40	RUBBLE	
9	.70	.45	.63	RUBBLE	
9	.60	.40	.48	RUBBLE	

Table 4-B-9. (Continued).

TRANSECT	DEPTH (ft)	VELOCITY (ft/s)	FLOW (cfs)	SUBSTRATE	
				PRIMARY	SECONDARY
9	.50	.40	.40	RUBBLE	
9	.10	0.00	0.00	RUBBLE	
10	.30	0.00	0.00	SILT	
10	.60	0.00	0.00	SILT	COBBLE
10	.50	.10	.10	RUBBLE	SILT
10	.50	.05	.05	SILT	RUBBLE
10	.60	.10	.12	SILT	RUBBLE
10	.60	.10	.12	SILT	RUBBLE
10	.70	.10	.14	SILT	RUBBLE
10	.70	.05	.07	SILT	RUBBLE
10	.90	.05	.09	SILT	RUBBLE
10	1.00	.10	.20	SILT	RUBBLE
10	.75	0.00	0.00	SILT	RUBBLE
10	.60	.20	.24	SILT	RUBBLE
10	.50	.15	.15	SILT	
10	.65	.25	.33	SILT	
10	.80	.25	.40	SILT	
10	.70	.40	.56	SILT	
10	.70	.30	.42	SILT	
10	.70	.35	.49	SILT	
10	.80	.45	.72	SILT	RUBBLE
10	.90	.40	.72	SILT	
10	.90	.60	1.08	SILT	
10	1.10	.55	1.21	SILT	
10	1.10	.60	1.32	RUBBLE	SILT
10	1.30	.50	1.30	RUBBLE	SILT
10	1.40	.55	1.54	RUBBLE	SILT
10	1.40	.70	1.96	RUBBLE	SILT
10	1.10	.60	1.32	RUBBLE	SILT
10	1.20	.40	.96	RUBBLE	SILT
10	.80	.65	1.04	COBBLE	SILT
10	1.00	.35	.70	RUBBLE	SILT
10	.60	.45	.54	RUBBLE	SILT
10	.60	.45	.54	RUBBLE	SILT
10	.70	.30	.42	RUBBLE	SILT
10	.70	.10	.14	RUBBLE	
10	.50	.20	.20	RUBBLE	
10	.30	0.00	0.00	RUBBLE	
10	.10	0.00	0.00	RUBBLE	
11		0.00	0.00		
11	.10	0.00	0.00	RUBBLE	
11	.40	0.00	0.00	RUBBLE	
11	.50	0.00	0.00	RUBBLE	
11	.20	0.00	0.00	RUBBLE	
11	0.00	0.00	0.00	RUBBLE	

Table 4-B-9. (Continued).

TRANSECT	DEPTH (ft)	VELOCITY (ft/s)	FLOW (cfs)	SUBSTRATE	
				PRIMARY	SECONDARY
11	.60	0.00	0.00	RUBBLE	
11	.40	0.00	0.00	RUBBLE	
11	0.00	0.00	0.00	RUBBLE	
11	0.00	0.00	0.00	RUBBLE	
11	0.00	0.00	0.00	RUBBLE	
11	.01	0.00	0.00	RUBBLE	
11	0.00	0.00	0.00	RUBBLE	
11	.04	0.00	0.00	SAND	
11	.50	.50	.50	SAND	
11	.40	.40	.32	SILT	RUBBLE
11	.50	.10	.10	SILT	RUBBLE
11	.40	.10	.08	SILT	
11	.40	.20	.16	SILT	
11	.40	.30	.24	SILT	
11	.60	.40	.48	SILT	
11	1.10	.35	.77	SILT	
11	1.30	.50	1.30	SILT	
11	1.40	.45	1.26	SILT	RUBBLE
11	1.60	.90	2.88	SILT	RUBBLE
11	1.90	.90	3.42	SILT	RUBBLE
11	1.70	.80	2.72	SILT	RUBBLE
11	1.50	.70	2.10	RUBBLE	SILT
11	1.50	.40	1.20	RUBBLE	SILT
11	1.70	.30	1.02	RUBBLE	SILT
11	.90	.20	.36	RUBBLE	
11	.50	0.00	0.00	RUBBLE	
11	.10	0.00	0.00		

Appendix Table 4-B-18. Depths (ft) and velocities (ft/sec) associated with chum salmon redds in four sloughs at three discharges (Q, cfs) in 1982.

		Depth				Velocity			
		<u>Q₁*</u>	<u>Q₂**</u>	<u>Q₃***</u>	<u>Average</u>	<u>Q₁*</u>	<u>Q₂**</u>	<u>Q₃***</u>	<u>Average</u>
Slough 8A	$\bar{x}$	0.67	0.72		0.70	0.03	0.36		0.30
	Range	0.30-1.30	0.20-1.60		0.20-1.60	0.00-1.45	0.05-0.72		0.00-1.45
	N	26	11		37	26	11		37
	Q (cfs)	4	7			4	7		
Slough 9	$\bar{x}$	1.24	1.27		1.25	0.13	0.16		0.14
	Range	0.30-2.40	0.40-2.10		0.30-2.4	0.05-0.40	0.00-0.78		0.00-0.78
	N	28	20		48	28	20		48
	Q (cfs)	3	8			3	8		
Slough 11	$\bar{x}$		1.21	1.33	1.28		0.13	0.45	.32
	Range		0.60-2.20	0.55-2.10	.55-2.20		0.00-0.61	0.05-1.00	0.00-1.00
	N		6	9	15		6	9	15
	Q (cfs)								
Slough 21	$\bar{x}$		1.02		1.02		0.22		0.22
	Range		0.40-2.60		0.40-2.60		0.00-1.10		0.00-1.10
	N		33		33		33		33
	Q (cfs)		5				5		

*Q₁ = 25-26 August**Q₂ = 2-7 September***Q₃ = 20 September

Table 4-B-19. Depths (ft) and velocities (ft/sec) associated with pink salmon and sockeye salmon redds in three sloughs at three discharges (Q , cfs) in 1982.

		PINK SALMON							
		<u>Depth</u>				<u>Velocity</u>			
		<u>Q_1^*</u>	<u>Q_2^{**}</u>	<u>Q_3^{***}</u>	<u>Average</u>	<u>Q_1^*</u>	<u>Q_2^{**}</u>	<u>Q_3^{***}</u>	<u>Average</u>
Slough 8A	$\bar{x}$	0.30			0.30	0.80			0.80
	Range	-			-	-			-
	N	1			1	1			1
	Q	4			4	4			4
Slough 9	$\bar{x}$	0.68			0.68	0.25			0.25
	Range	0.55-0.80			0.55-0.80	0.20-0.30			0.20-0.30
	N	2			2	2			2
	Q	3			3	3			3
		SOCKEYE SALMON							
		<u>Depth</u>				<u>Velocity</u>			
		<u>Q_1^*</u>	<u>Q_2^{**}</u>	<u>Q_3^{***}</u>	<u>Average</u>	<u>Q_1^*</u>	<u>Q_2^{**}</u>	<u>Q_3^{***}</u>	<u>Average</u>
Slough 9	$\bar{x}$	0.5			0.5	0.05			0.05
	Range	-			-	-			-
	N	1			1	1			1
	Q	7			7	7			7
Slough 11	$\bar{x}$	0.85	1.51	1.48		0.00	0.23	0.22	
	Range	-	0.75-2.80	0.75-2.80		-	0.00-0.80	0.00-0.80	
	N	1	22	23		1	22	23	
	Q	-	-	-		-	-	-	

* Q_1 = 25-26 August** Q_2 = 2-7 September*** Q_3 = 20 September

Table 4-B-20. Hydraulic habitat variables collected at chum redds. (Transect number indicates the transect area in which the redd was located).

LOCATION	DATE	TRANSECT	DEPTH (ft)	VELOCITY (ft/s)	SUBSTRATE		INTRAGRAVEL	SURFACE WATER	REDD NUMBER
					PRIMARY	SECONDARY	TEMPERATURE (°C)	TEMPERATURE (°C)	
SLOUGH 8A	820826	OC	.50	1.45	GRAVEL	RUBBLE	11.4	12.6	C03
SLOUGH 8A	820826	OC	.80	0.00	GRAVEL	RUBBLE	11.2	13.0	C02
SLOUGH 8A	820826	OC	.40	.10	GRAVEL	RUBBLE		13.2	C04
SLOUGH 8A	820826	OC	.30	.05	GRAVEL	RUBBLE		13.2	C15
SLOUGH 8A	820826	OC	.40	.05	GRAVEL	RUBBLE		13.2	C14
SLOUGH 8A	820826	OC	.50	.10	GRAVEL	COBBLE		12.8	C13
SLOUGH 8A	820826	OC	1.00	.10	GRAVEL	RUBBLE		13.2	C11
SLOUGH 8A	820826	OC	1.10	.10	GRAVEL	RUBBLE		13.2	C09
SLOUGH 8A	820826	OC	1.10	.10	GRAVEL	RUBBLE		13.2	C08
SLOUGH 8A	820826	OC	1.10	.10	GRAVEL	RUBBLE		13.2	C07
SLOUGH 8A	820826	OC	1.00	.10	GRAVEL	RUBBLE		13.1	C06
SLOUGH 8A	820826	OC	.60	.15	GRAVEL	RUBBLE		13.0	C05
SLOUGH 8A	820826	OC	.60	.10	GRAVEL	RUBBLE		13.2	C10
SLOUGH 8A	820826	OC	.90	.10	GRAVEL	RUBBLE		13.0	C01
SLOUGH 8A	820826	OC	.40	.10	GRAVEL	RUBBLE		13.0	C12
SLOUGH 8A	820826	BC	.30	.03	GRAVEL	RUBBLE		12.4	C22
SLOUGH 8A	820826	BC	.50	0.00	GRAVEL	RUBBLE		12.4	C21
SLOUGH 8A	820826	BC	.45	1.05	GRAVEL	RUBBLE		12.4	C16
SLOUGH 8A	820826	BC	.50	.55	RUBBLE	GRAVEL		12.4	C18
SLOUGH 8A	820826	BC	.45	.75	RUBBLE	GRAVEL		12.0	C17
SLOUGH 8A	820826	BC	.30	.72	GRAVEL	RUBBLE		12.4	C19
SLOUGH 8A	820826	BC	.35	.05	RUBBLE	GRAVEL			C23
SLOUGH 8A	820826	BC	.40	.90	RUBBLE	GRAVEL		12.0	C24
SLOUGH 8A	820826	BC	1.30	.18	RUBBLE	GRAVEL		12.0	C25
SLOUGH 8A	820826	BC	1.05	.18	RUBBLE	GRAVEL		11.5	C26
SLOUGH 8A	820826	BC	1.00	.19	RUBBLE	GRAVEL		11.0	C27

4-B-91

Table 4-B-20. (Continued).

LOCATION	DATE	TRANSECT	DEPTH (ft)	VELOCITY (ft/s)	SUBSTRATE		INTRAGRAVEL	SURFACE WATER	REDD NUMBER
					PRIMARY	SECONDARY	TEMPERATURE (°C)	TEMPERATURE (°C)	
SLOUGH 8A	820906		1.60	.10	GRAVEL	RUBBLE		7.6	C40
SLOUGH 8A	820906		1.00	.05	GRAVEL	RUBBLE	5.1	7.6	C41
SLOUGH 8A	820906		.60	.30	GRAVEL	RUBBLE	6.7	7.6	C42
SLOUGH 8A	820906		.80	.33	RUBBLE	GRAVEL	4.9	7.6	C43
SLOUGH 8A	820906		.70	.20	GRAVEL	COBBLE	6.1	7.6	C44
SLOUGH 8A	820906		.60	.65	RUBBLE	COBBLE		7.6	C45
SLOUGH 8A	820906		.50	.45	GRAVEL	RUBBLE	4.9	7.6	C46
SLOUGH 8A	820906		.20	.20	RUBBLE	GRAVEL	5.7	7.6	C47
SLOUGH 8A	820906		.70	.40	GRAVEL	RUBBLE	6.9	7.6	C48
SLOUGH 8A	820906		.90	.55	RUBBLE	COBBLE	5.2	7.6	C49
SLOUGH 8A	820906		.40	.72	GRAVEL	RUBBLE		7.6	C50
SLOUGH 9	820825	02						8.8	C01
SLOUGH 9	820826	02	.60	.40	COBBLE	GRAVEL	3.8	8.2	C01
SLOUGH 9	820826	02	.80	.10	COBBLE	GRAVEL	4.0	7.6	C02
SLOUGH 9	820826	02	.70	.10	COBBLE	GRAVEL	3.4	7.6	C03
SLOUGH 9	820826	02	.90	.05	COBBLE	GRAVEL	4.2	7.8	C04
SLOUGH 9	820826	02			COBBLE	GRAVEL			C05
SLOUGH 9	820826	01	1.10	.10	RUBBLE	GRAVEL	3.9	8.8	C06
SLOUGH 9	820826	01	.75	.10	COBBLE	GRAVEL	4.8	9.8	C27
SLOUGH 9	820826	01	1.90	.05	COBBLE	GRAVEL	4.4	8.8	C26
SLOUGH 9	820826	01	1.90	.05	RUBBLE	GRAVEL	4.5	9.4	C07
SLOUGH 9	820826	01	1.80	.10	GRAVEL	RUBBLE	5.2	9.8	C08
SLOUGH 9	820826	01	1.25	.10	COBBLE	GRAVEL	4.3	9.4	C09
SLOUGH 9	820826	01	1.30	.10	GRAVEL	RUBBLE	4.7	9.2	C10

4-B-92

Table 4-B-20. (Continued).

LOCATION	DATE	TRANSECT	DEPTH (ft)	VELOCITY (ft/s)	SUBSTRATE		INTRAGRAVEL TEMPERATURE (°C)	SURFACE WATER TEMPERATURE (°C)	REDD NUMBER
					PRIMARY	SECONDARY			
SLOUGH 9	820826	01	1.40	.10	COBBLE	GRAVEL	4.7	9.4	C11
SLOUGH 9	820826	01	1.50	.10	RUBBLE	GRAVEL	6.0	9.2	C12
SLOUGH 9	820826	01	1.70	.15	GRAVEL	RUBBLE	5.4	9.4	C13
SLOUGH 9	820826	01	1.10	.15	RUBBLE	GRAVEL	4.0	9.2	C14
SLOUGH 9	820826	01	1.10	.15	RUBBLE	GRAVEL	4.5	9.2	C15
SLOUGH 9	820826	01	1.30	.20	RUBBLE	GRAVEL	4.5	9.6	C16
SLOUGH 9	820826	01	.70	.10	COBBLE	GRAVEL	5.4	10.0	C17
SLOUGH 9	820826	0C	1.70	.15	RUBBLE	GRAVEL	3.9	11.0	C19
SLOUGH 9	820826	0C	1.80	.10	BOULDER	COBBLE	3.5	10.2	C20
SLOUGH 9	820826	0C	1.50	.10	COBBLE	RUBBLE	4.0	9.6	C21
SLOUGH 9	820826	0C	2.40	.10	COBBLE	GRAVEL	4.4	10.4	C22
SLOUGH 9	820826	0C	1.40	.15	COBBLE	GRAVEL	6.3	10.1	C25
SLOUGH 9	820905		1.70	0.00	GRAVEL	RUBBLE	8.2	8.7	C46
SLOUGH 9	820905		2.10	.02	GRAVEL	RUBBLE	8.2	8.9	C47
SLOUGH 9	820905		2.10	.02	GRAVEL	RUBBLE	7.8	8.9	C28
SLOUGH 9	820905		1.20	.10	COBBLE	RUBBLE	6.4	8.8	C29
SLOUGH 9	820905		1.30	.11	COBBLE	RUBBLE	5.9	8.6	C30
SLOUGH 9	820905		1.00	.08	RUBBLE	COBBLE	6.0	8.8	C31
SLOUGH 9	820905		1.05	.11	RUBBLE	COBBLE	6.1	8.8	C32
SLOUGH 9	820905		1.30	.10	COBBLE	RUBBLE	6.1	8.9	C33
SLOUGH 9	820905		1.30	.10	RUBBLE	COBBLE	7.0	9.0	C34
SLOUGH 9	820905		1.30	.05	COBBLE	RUBBLE	6.1	8.8	C35
SLOUGH 9	820905		.75	.17	GRAVEL	RUBBLE	4.6	8.4	C36
SLOUGH 9	820905		.50	.41	GRAVEL	RUBBLE	5.5	8.8	C37
SLOUGH 9	820905		.40	.78	GRAVEL	RUBBLE	4.2	8.8	C38
SLOUGH 9	820905		1.80	.14	RUBBLE	GRAVEL		9.0	C39

4-B-93

Table 4-B-20. (Continued).

LOCATION	DATE	TRANSECT	DEPTH (ft)	VELOCITY (ft/s)	SUBSTRATE		INTRAGRAVEL TEMPERATURE (°C)	SURFACE WATER TEMPERATURE (°C)	REDD NUMBER
					PRIMARY	SECONDARY			
SLOUGH 9	820905		1.60	.21	RUBBLE	GRAVEL		9.0	C40
SLOUGH 9	820905		1.25	.22	RUBBLE	COBBLE		8.8	C41
SLOUGH 9	820905		1.25	.14	COBBLE	GRAVEL		8.6	C42
SLOUGH 9	820905		1.40	.20	COBBLE	GRAVEL		8.6	C43
SLOUGH 9	820906		1.10	.20	GRAVEL	COBBLE		7.0	C44
SLOUGH 9	820906		1.00	.11	GRAVEL	COBBLE		6.6	C45
4-B-94	SLOUGH 11	820905	.60	.15	GRAVEL	RUBBLE	5.0	7.1	
	SLOUGH 11	820905	.70	.61	GRAVEL	RUBBLE	6.1	7.0	
	SLOUGH 11	820905	.80	0.00	RUBBLE	GRAVEL		7.0	
	SLOUGH 11	820905	2.20	0.00	GRAVEL	COBBLE	4.3	6.8	
	SLOUGH 11	820905	.85	0.00	COBBLE	RUBBLE	4.3	6.8	
	SLOUGH 11	820905	2.10	0.00	COBBLE	GRAVEL	4.1	7.0	
SLOUGH 11	820920		1.45	.12	COBBLE	GRAVEL	4.6		C01
SLOUGH 11	820920		2.10	.20	GRAVEL	RUBBLE	4.3		C02
SLOUGH 11	820920		2.05	.05	GRAVEL	RUBBLE	4.9		C03
SLOUGH 11	820920		1.20	.45	GRAVEL	RUBBLE	4.5		C04
SLOUGH 11	820920		1.35	.70	GRAVEL	RUBBLE	4.4		C05
SLOUGH 11	820920		.90	.75	GRAVEL	RUBBLE	5.0		C06
SLOUGH 11	820920		.60	1.00	GRAVEL	RUBBLE			C07
SLOUGH 11	820920		.55	.70	GRAVEL	COBBLE	5.5		C08
SLOUGH 11	820920		1.80	.09	GRAVEL	COBBLE	3.1		C09
SLOUGH 21	820903	08	1.00	0.00	GRAVEL	RUBBLE	5.5	6.6	001
SLOUGH 21	820903	08	1.15	0.00	GRAVEL	RUBBLE	4.9	6.3	002

Table 4-B-20. (Continued).

LOCATION	DATE	TRANSECT	DEPTH (ft)	VELOCITY (ft/s)	SUBSTRATE		INTRAGRAVEL TEMPERATURE (°C)	SURFACE WATER TEMPERATURE (°C)	REDD NUMBER
					PRIMARY	SECONDARY			
SLOUGH 21	820903	08	1.40	0.00	GRAVEL	RUBBLE	4.7	6.3	003
SLOUGH 21	820903	08	2.00	.43	BOULDER	COBBLE	4.5	5.1	004
SLOUGH 21	820903	07	1.30	0.00	RUBBLE	COBBLE	5.0	5.5	005
SLOUGH 21	820904	08	1.10	0.00	BOULDER	COBBLE	4.7	7.4	006
SLOUGH 21	820904	08	1.50	0.00	BOULDER	COBBLE	4.8	7.2	007
SLOUGH 21	820904	08	1.10	.17	RUBBLE	GRAVEL	4.7	7.5	009
SLOUGH 21	820904	07	.90	.23	RUBBLE	COBBLE	4.9	7.4	010
SLOUGH 21	820904	07	.70	0.00	RUBBLE	COBBLE	5.6	7.2	011
SLOUGH 21	820904	07	.50	0.00	COBBLE	GRAVEL	5.5	7.4	012
SLOUGH 21	820904	07	.60	0.00	RUBBLE	GRAVEL	5.5	7.2	013
SLOUGH 21	820904	07	1.20	.27	RUBBLE	GRAVEL	4.6	7.3	014
SLOUGH 21	820904	07	.45	.57	RUBBLE		4.7	7.3	015
SLOUGH 21	820904	04	1.10	0.00	GRAVEL	COBBLE	4.6	7.6	016
SLOUGH 21	820904	04	.70	.36	GRAVEL	RUBBLE	4.8	7.4	017
SLOUGH 21	820904	04	1.00	.58	RUBBLE	COBBLE	4.5	7.3	018
SLOUGH 21	820904	04	1.00	.53	GRAVEL	RUBBLE	4.7	7.3	019
SLOUGH 21	820904	04	1.80	.10	GRAVEL	RUBBLE	5.2	7.4	020
SLOUGH 21	820904	04	1.20	0.00	GRAVEL	COBBLE	4.6	7.3	022
SLOUGH 21	820904	04	2.60	.02	SAND	GRAVEL	4.3	7.3	021
SLOUGH 21	820904	03	1.15	.11	COBBLE	RUBBLE	4.2	7.5	023
SLOUGH 21	820904	03	.95	.16	COBBLE	GRAVEL	4.6	7.4	024
SLOUGH 21	820904	03	1.00	.19	COBBLE	GRAVEL	4.7	7.5	025
SLOUGH 21	820904	03	.60	.40	RUBBLE	GRAVEL	4.6	7.4	026
SLOUGH 21	820904	03	.70	.31	COBBLE	GRAVEL	4.9	7.3	027
SLOUGH 21	820904	03	.70	.46	COBBLE	GRAVEL	4.2	7.3	028
SLOUGH 21	820904	02	.50	1.11	COBBLE	GRAVEL	4.4	7.5	029

4-B-95

Table 4-B-20. (Continued).

LOCATION	DATE	TRANSECT	DEPTH (ft)	VELOCITY (ft/s)	SUBSTRATE		INTRAGRAVEL TEMPERATURE (°C)	SURFACE WATER TEMPERATURE (°C)	REDD NUMBER
					PRIMARY	SECONDARY			
SLOUGH 21	820904	02	.65	.44	BOULDER	COBBLE	4.0	7.5	030
SLOUGH 21	820904	01	.40	.35	COBBLE	RUBBLE	4.4	7.5	031
SLOUGH 21	820904	01	.85	.40	RUBBLE	GRAVEL	4.4	7.6	032
SLOUGH 21	820904	01	1.10	.12	COBBLE	GRAVEL	4.7	7.6	033
SLOUGH 21	820904	01	.85	0.00	COBBLE	RUBBLE	4.8	8.7	034

4-B-96

Table 4-B-21. Hydraulic habitat variables collected at sockeye redds. (Transect number indicates the transect area in which the redd was located).

LOCATION	DATE	TRANSECT	DEPTH (ft)	VELOCITY (ft/s)	SUBSTRATE		INTRAGRAVEL	SURFACE WATER	REDD NUMBER
					PRIMARY	SECONDARY	TEMPERATURE (°C)	TEMPERATURE (°C)	
SLOUGH 8A	820906		.50	.05	GRAVEL	SAND	7.4	7.6	S01
SLOUGH 11	820905		.85	0.00	COBBLE	GRAVEL	5.3	6.8	
SLOUGH 11	820920		2.80	.09	GRAVEL	RUBBLE	3.1		S01
SLOUGH 11	820920		2.80	.07	GRAVEL	RUBBLE	4.1		S02
SLOUGH 11	820920		2.50	.08	GRAVEL	RUBBLE	3.2		S03
SLOUGH 11	820920		2.50	0.00	GRAVEL		3.4		S04
SLOUGH 11	820920		2.60	.01	GRAVEL		3.1		S05
SLOUGH 11	820920		1.80	.06	GRAVEL	RUBBLE	3.2		S06
SLOUGH 11	820920		2.10	.08	GRAVEL	RUBBLE	3.2		S07
SLOUGH 11	820920		.75	.05	GRAVEL	RUBBLE	4.0		S08
SLOUGH 11	820920		1.00	.45	GRAVEL	COBBLE	4.2		S09
SLOUGH 11	820920		1.15	.40	GRAVEL	BOULDER	3.0		S10
SLOUGH 11	820920		1.15	.70	RUBBLE	COBBLE	3.1		S11
SLOUGH 11	820920		.50	.50	GRAVEL	SAND	3.0		S12
SLOUGH 11	820920		1.10	.80	GRAVEL	COBBLE	3.6		S13
SLOUGH 11	820920		.95	.06	RUBBLE	GRAVEL	3.5		S14
SLOUGH 11	820920		1.25	.10	RUBBLE	GRAVEL	3.1		S15
SLOUGH 11	820920		1.30	.30	RUBBLE	GRAVEL	3.2		S16
SLOUGH 11	820920		1.20	.04	GRAVEL	RUBBLE	3.2		S17
SLOUGH 11	820920		.85	.10	GRAVEL	COBBLE	3.2		S18
SLOUGH 11	820920		.90	.30	GRAVEL	SAND	3.4		S19
SLOUGH 11	820920		1.00	.30	RUBBLE	GRAVEL	3.4		S20
SLOUGH 11	820920		1.55	.19	GRAVEL	SAND	3.0		S21
SLOUGH 11	820920		1.45	.28	SAND	GRAVEL	3.2		S22

4-B-97

14

Table 4-B-22. Hydraulic habitat variables collected at pink redds. (Transect number indicates the transect area in which the redd was located).

LOCATION	DATE	TRANSECT	DEPTH (ft)	VELOCITY (ft/s)	SUBSTRATE		INTRAGRAVEL TEMPERATURE (°C)	SURFACE WATER TEMPERATURE (°C)	REDD NUMBER
					PRIMARY	SECONDARY			
SLOUGH 8A	820826	0C	.30	.80	GRAVEL	RUBBLE		13.0	P01
SLOUGH 9	820825	06	.80	.20	GRAVEL	RUBBLE	11.0	10.0	P02
SLOUGH 9	820825	06	.55	.30	GRAVEL	RUBBLE	11.1	10.0	P03

Appendix Table 4-B-3. Velocities (ft/sec) and depths (ft) in Slough 8A at three different discharges, 1982.

Flow (cfs)	Transect Number											
	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>9</u>	<u>10</u>	<u>11</u>	<u>1-11</u>
VELOCITIES												
4	$\bar{x}$ 0.03	0.05	0.14	0.07	0.11	0.19	0.31	0.08	0.07	0.06	0.05	0.11
	Range 0.00-0.10	0.00-0.15	0.00-0.55	0.00-0.10	0.00-0.50	0.00-0.80	0.00-1.50	0.00-0.40	0.00-0.20	0.00-0.15	0.00-0.20	0.00-0.80
	N 41	33	34	20	32	28	33	30	32	35	23	341
7	$\bar{x}$ 0.07	0.11	0.15	0.10	0.07	0.27	0.54	0.23	0.15	0.11	0.11	0.17
	Range 0.00-0.15	0.00-0.32	0.00-0.62	0.00-0.18	0.00-0.21	0.00-0.71	0.00-1.78	0.02-0.55	0.00-0.34	0.00-0.24	0.00-0.45	0.00-1.78
	N 42	33	35	22	32	28	32	32	32	36	24	348
20	$\bar{x}$ 0.16	0.23	0.36	0.21	0.17	0.53	0.74	0.53	0.40	0.29	0.26	0.35
	Range 0.00-0.45	0.00-0.80	0.00-1.20	0.00-0.40	0.00-0.40	0.20-0.90	0.00-2.10	0.00-0.90	0.00-0.70	0.00-0.70	0.00-0.90	0.00-1.20
	N 42	34	37	29	33	30	36	39	35	37	29	381
DEPTHS												
4	$\bar{x}$ 1.1	1.2	0.6	1.2	2.4	0.2	0.2	0.2	0.4	0.5	0.5	0.8
	Range 0.1-1.65	0.05-1.90	0.2-1.0	0.2-1.9	0.2-4.9	0.05-0.5	0.05-0.5	0.05-0.7	0.05-1.05	0.1-1.1	0.5-1.6	0.05-4.9
	N 41	33	34	20	33	28	33	36	32	35	23	348
7	$\bar{x}$ 1.2	1.3	0.7	1.3	2.5	0.4	0.2	0.3	0.5	0.6	0.6	0.9
	Range 0.1-1.9	0.5-2.1	0.05-1.25	0.1-1.9	0.35-4.9	0.1-0.6	0.05-0.6	0.05-0.7	0.05-1.1	0.05-1.15	0.05-1.65	0.05-4.9
	N 42	33	37	22	32	28	34	35	32	36	25	356
20	$\bar{x}$ 1.3	1.4	0.9	1.2	2.6	0.6	0.3	0.4	0.6	0.8	0.7	1.0
	Range 0.2-1.9	0.25-2.2	0.3-1.4	0.1-2.15	0.6-5.3	0.3-0.8	0.1-0.7	0.1-1.1	0.1-1.2	0.1-1.4	0.1-1.9	0.1-5.3
	N 42	35	37	29	33	30	36	39	35	37	29	382

4-B-3

Appendix Table 4-F-1. Description of habitat zones sampled at Designated Fish Habitat Sites, June through September, 1982.

ZONE

CODE

DESCRIPTION

- 1 Areas with a tributary or groundwater water source, which are not influenced by mainstem stage, and which usually have significant surface water velocity.
- 2 Areas with a tributary or groundwater water source, which have no appreciable surface water velocity as a result of a hydraulic barrier created at the mouth of a tributary or slough by mainstem stage.
- 3 Areas of significant surface water velocities, primarily influenced by mainstem, where tributary or slough water mixes with the mainstem water.
- 4 Areas of significant surface water velocities, which are located in a slough or side channel above a tributary confluence (or in a slough or side channel where no tributary is present), when the slough head is open.

4-F-4

Appendix Table 4-F-1. Description of habitat zones sampled at
Designated Fish Habitat Sites, June through September, 1982.
(continued)

ZONE

CODEDESCRIPTION

- 5 Areas of significant water surface velocities, which are located in slough or side channel below a tributary confluence, when the slough head is open.
- 6 Backwater areas with no appreciable surface water velocities resulting from a hydraulic barrier created by mainstem stage, which occur in a slough or side channel above a tributary confluence (or in a slough or side channel where no tributary is present), when the head of the slough is open.
- 7 Backwater areas with no appreciable surface water velocities resulting from a hydraulic barrier created by mainstem stage, which occur in a slough or side channel below a tributary confluence, when the head of the slough is open.
- 8 Backwater areas consisting of mainstem eddies.
- 9 A pool with no appreciable surface water surface velocities, which is created by a geomorphological feature of a free-flowing zone or from a hydraulic barrier created by a tributary; not created as a result of mainstem stage.

Appendix Table 4-F-10. Hydraulic zones, mainstem discharges at the Gold Creek station^a and the status of the controlling streambed elevation at the upstream entrance (head) of slough 8A for the Slough 8A site for sampling dates from June to September, 1982.

Sampling Date	June 08	June 23	July 12	July 28	August 11	August 21	September 07	September 24
Mainstem Discharge (cfs)	28,000	26,000	26,500	25,600	15,400	12,200	11,700	17,100
Status of Channel Head	Open	Closed	Closed	Closed	Closed	Closed	Closed	Closed
Hydraulic Zones								
1	0	+	+	+	+	+	+	+
2	0	+	+	+	+	+	+	+
3	+	+	+	+	+	+	+	+
4	+	0	0	0	0	0	0	0
5	0	0	0	0	0	0	0	0
6	+	0	0	0	0	0	0	0
7	0	0	0	0	0	0	0	0
8	0	0	0	0	0	0	0	0
9	0	0	0	0	0	0	0	0

^aUSGS provisional data at Gold Creek 15292000.

+Zone present.

0Zone absent.

4-F-67

P.P.

Appendix Table 1-A-7 continued

<u>LOCATION</u>	<u>DATE</u>	<u>TIME</u>	<u>WSEL (ft)</u>	<u>DISCHARGE (cfs)</u>
SLOUGH 8A (MOUTH-LEFT BANK) (125.3W5 AT R.M. 125.3)	831020	1240	561.34	7,230
	830915	1435	561.64	10,600
	830924	1155	562.47	15,200
	830721	1100	562.70	18,100
	830718	1200	562.86	18,900
	830719	1420	563.03	20,600
	830804	1523	563.03	20,900
	830803	1505	563.12	21,600
	830823	1055	563.21	22,700
	830607	1430	563.40	23,000
	830630	1220	563.36	24,700
	830902	1630	563.53	25,400
	830623	1000	563.54	25,400
	830606	1700	563.58	26,000
	830825	1218	563.63	27,400
	830814	1345	563.75	27,400
	830809	1040	563.98	29,900
	830809	1405	564.01	29,900
	830809	1730	564.12	29,900
	830605	1005	564.05	30,000
	830827	1115	564.12	31,000
	830604	1750	564.68	36,000
	830604	1000	564.76	36,000

Appendix Table 1-A-7 continued

<u>LOCATION</u>	<u>DATE</u>	<u>TIME</u>	<u>WSEL (ft)</u>	<u>DISCHARGE (cfs)</u>
SLOUGH 8A (UPPER BACKWATER) (125.386 AT R.M. 125.6)	831020	1318	561.48	7,230
	830915	1440	561.65	10,600
	830909	1130	562.09	13,200
	830924	1214	562.42	15,200
	830924	1020	562.44	15,200
	830721	1120	562.69	18,100
	830718	1330	562.89	18,900
	830804	1523	563.04	20,900
	830803	1500	563.13	21,600
	830823	1100	563.19	22,700
	830902	1630	563.54	25,400
	830825	1205	563.64	27,400
	830814	1345	563.75	27,400
	830809	1045	563.84	29,900
	830809	1405	563.98	29,900
	830827	1110	564.09	31,000

Appendix Table 1-A-7 continued

<u>LOCATION</u>	<u>DATE</u>	<u>TIME</u>	<u>WEEL (ft)</u>	<u>DISCHARGE (cfs)</u>
SLOUGH 8A LOWER Q SITE W.CHANN. (125.384 AT R.M. 125.7)	831020	1314	563.49	7,230
	830915	1450	563.49	10,600
	831003	1310	563.68	13,000
	830909	1130	563.52	13,200
	830924	1224	563.60	15,200
	830716	1900	563.33	16,400
	830721	1430	563.51	18,100
	830721	1515	563.51	18,100
	830718	1700	563.51	18,900
	830804	1320	563.57	20,900
	830725	1130	563.55	21,900
	830823	1400	563.66	22,700
	830902	1830	563.68	25,400
	830825	1158	563.71	27,400
	830809	1103	563.97	29,900
	830827	1427	564.14	31,000

Appendix Table 1-A-7 continued

<u>LOCATION</u>	<u>DATE</u>	<u>TIME</u>	<u>WSEL (ft)</u>	<u>DISCHARGE (cfs)</u>
SLOUGH 8A LOWER Q SITE E.CHANN. (125.385 AT R.M. 125.7)	831020	1314	563.73	7,230
	830915	1450	563.64	10,600
	830909	1350	563.70	13,200
	830924	1234	563.71	15,200
	830804	1400	563.61	20,900
	830823	1500	563.65	22,700
	830902	1700	563.81	25,400
	830825	1159	563.73	27,400
	830809	1100	564.01	29,900
	830827	1450	564.18	31,000

Appendix Table 1-A-7 continued

<u>LOCATION</u>	<u>DATE</u>	<u>TIME</u>	<u>WSEL (ft)</u>	<u>DISCHARGE (cfs)</u>
SLOUGH 8A NW CHANNEL (Q SITE) (125.3S3 AT R.M. 125.3)	830915	1515	566.01	10,600
	831003	1350	566.10	13,000
	830909	1230	566.03	13,200
	830924	1246	566.08	15,200
	830716	1800	566.11	16,400
	830721	1150	566.00	18,100
	830718	1920	566.00	18,900
	830804	1130	566.03	20,900
	830823	1340	566.05	22,700
	830809	1245	566.44	29,900
	830827	1320	566.81	31,000

Appendix Table 1-A-7 continued

<u>LOCATION</u>	<u>DATE</u>	<u>TIME</u>	<u>WSEL (ft)</u>	<u>DISCHARGE (cfs)</u>
SLOUGH 8A NW CHANNEL (HEAD) (125.3H2 AT R.M. 126.2)	830823		573.11	22,700
	830902		573.11	25,400
	830825	1234	573.13	27,400
	830809	1415	573.33	29,900
	830827	1240	573.53	31,000
	830531	1308	573.63	32,000

1/Streambed elevation obtained from cross sectional profile.

Appendix Table 1-A-7 continued

<u>LOCATION</u>	<u>DATE</u>	<u>TIME</u>	<u>WSEL (ft)</u>	<u>DISCHARGE (cfs)</u>
SLOUGH & NE CHANNEL (Q SITE) (125.381 AT R.M. 125.8)	830506	1330	565.91	5,400
	830915	1505	567.22	10,600
	830909	1200	567.19	13,200
	830924	1315	567.29	15,200
	830716	1820	566.20	16,400
	830721	1250	566.33	18,100
	830615	1615	566.09	19,600
	830711	1130	566.15	20,000
	830804	1220	566.60	20,900
	830823	1210	566.97	22,700
	830630	1404	566.08	24,700
	830809	1130	566.91	29,900
	830827	1145	567.07	31,000

Appendix Table 1-A-7 continued

<u>LOCATION</u>	<u>DATE</u>	<u>TIME</u>	<u>WSEL (ft)</u>	<u>DISCHARGE (cfs)</u>
SLOUGH 8A NE CHANNEL (125.358 AT R.M. 126.7)	830719	1300	574.26	20,600
	830825	1253	574.77	27,400
	830809	1430	574.71	29,900
	830827	1140	574.81	31,000

Appendix Table 1-A-7 continued

<u>LOCATION</u>	<u>DATE</u>	<u>TIME</u>	<u>WSEL (ft)</u>	<u>DISCHARGE (cfs)</u>
SLOUGH 8A NE CHANNEL (HEAD) (125.3H7 AT R.M. 126.9)	830719	1315	577.06	20,600
	830825	1300	577.06	27,400
	830809	1435	577.06	29,900
	830827	1200	577.06	31,000

1/ Streambed elevation obtained from cross sectional profile.

Appendix Table 1-A-8 (Continued)

	<u>DATE</u>	<u>TIME</u>	<u>WSEL</u> <u>(ft)</u>	<u>MEASURED</u> <u>FLOW</u> <u>(cfs)</u>	<u>MAINSTEM</u> <u>DISCHARGE</u> <u>(cfs)</u>
SIDE SLOUGH 8 (GAGE 113.6S2 AT R.M. 113.6)	820903	1456	468.28	2.0	14,600
	830809	1815	470.41	6.7	29,900
	820920	1333	469.41	9.9	24,000
	830825	1620	470.58	10.0	27,400
	820917	1517	470.75	20.7	32,000
MAINSTEM 2 SIDE CHANNEL-NW CHANNEL (GAGE 114.4S5 AT R.M. 115.3)	830611	1745	480.64	352.0	19,000
	830806	1150	481.53	958.0	23,800
	830808	1215	481.92	1415.0	26,000
	830825	1315	481.96	1608.0	27,400
MAINSTEM 2 SIDE CHANNEL-NE CHANNEL (GAGE 114.4S8 AT R.M. 115.4)	830721	2000	480.44	.2	18,100
	830806	1820	480.57	.7	23,800
	830825	1515	481.30	15.8	27,400
	830808	1530	481.33	32.3	26,000
	830826	1935	482.88	429.0	31,700
SIDE SLOUGH 8A-NE CHANNEL (GAGE R&M STAGE AT R.M. 125.9)	830721	1250	568.53	2.7	18,100
	830630	1404	568.60	3.8	24,700
	830827	1145	568.75	5.4	31,000
	830823	1145	568.70	6.6	22,700
	830809	1130	568.91	19.5	29,900
SIDE SLOUGH 8A-NE CHANNEL (GAGE 125.3S1 AT R.M. 125.9)	830721	1250	566.33	2.7	18,100
	830630	1404	566.08	3.8	24,700
	830827	1145	567.07	5.4	31,000
	830823	1145	566.97	6.6	22,700
	830809	1130	566.91	19.5	29,900

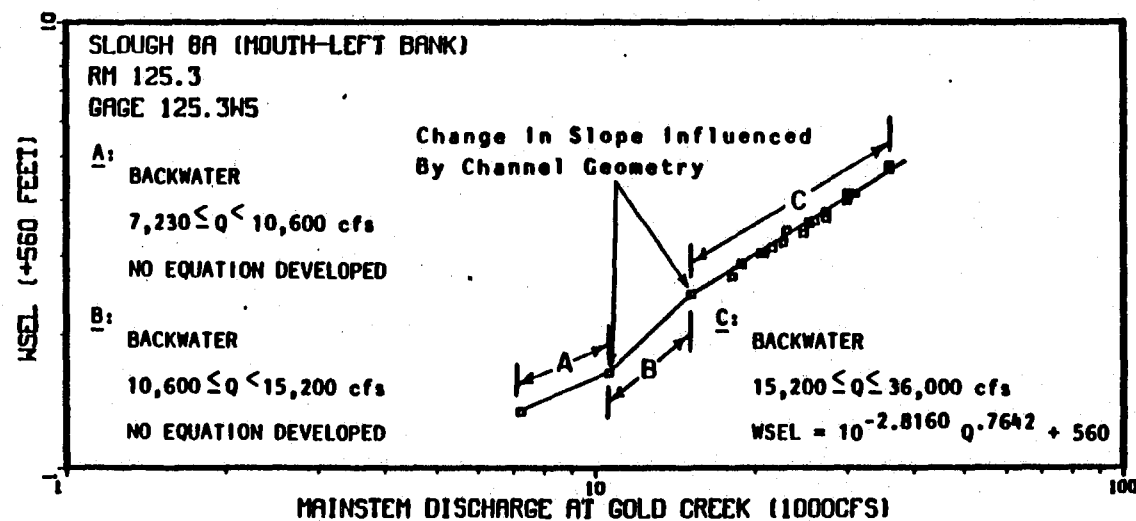
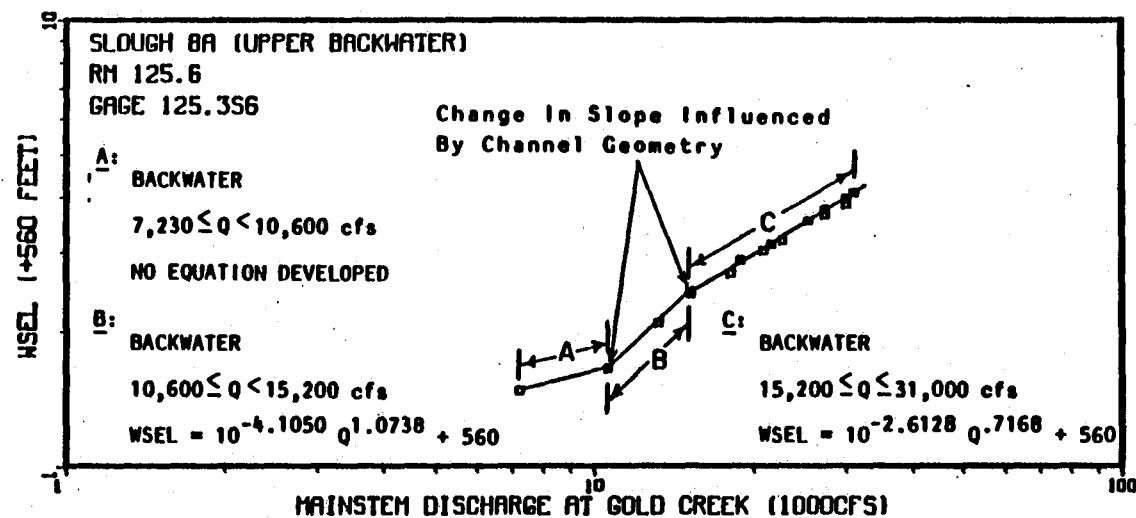
1-A-130

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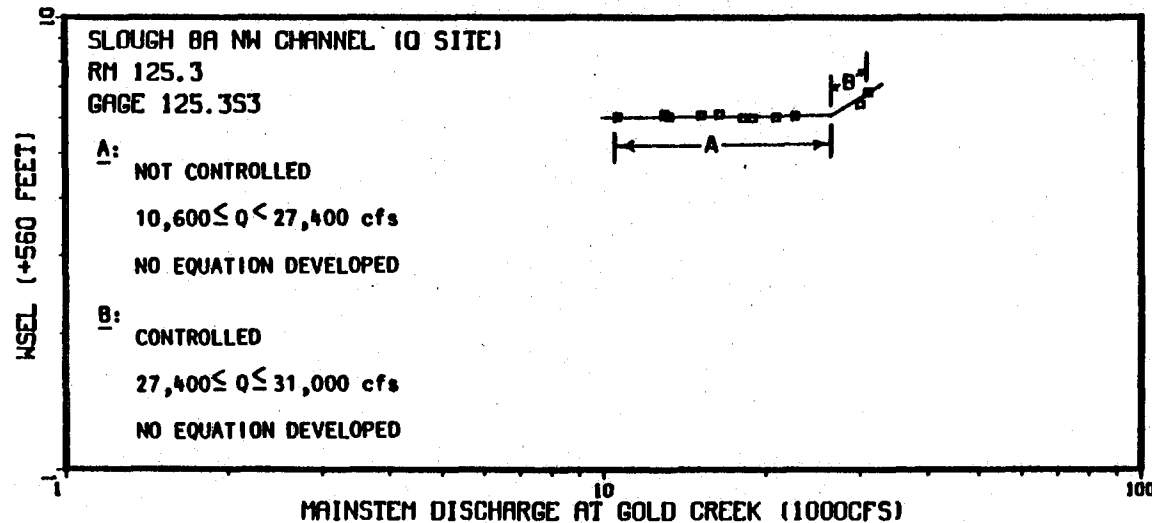
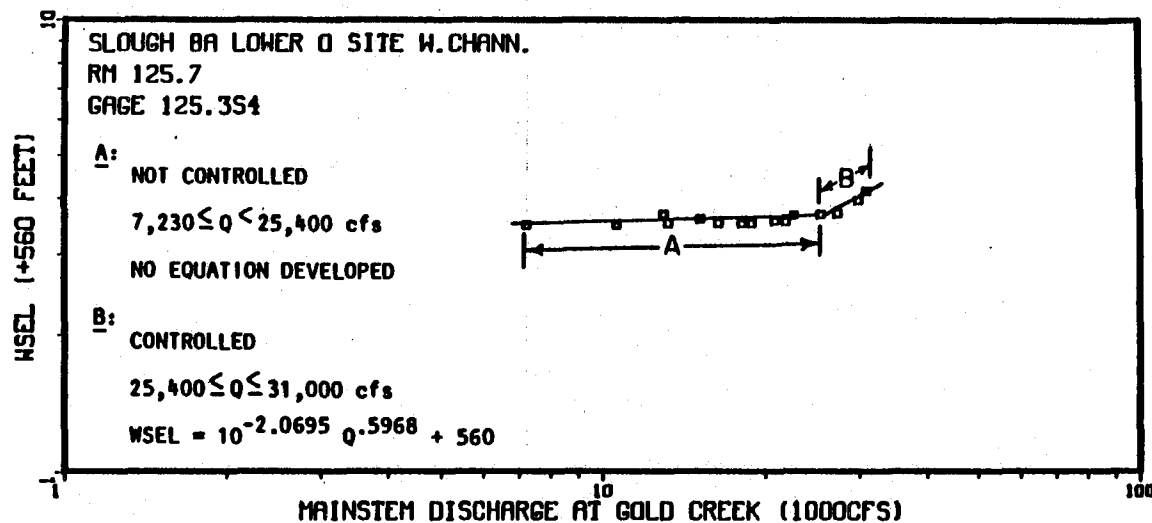
Appendix Table 1-A-8 (Continued)

	<u>DATE</u>	<u>TIME</u>	<u>WSEL</u> <u>(ft)</u>	<u>MEASURED</u> <u>FLOW</u> <u>(cfs)</u>	<u>MAINSTEM</u> <u>DISCHARGE</u> <u>(cfs)</u>
SIDE SLOUGH 8A-NW CHANNEL (GAGE 125.3S3 AT R.M. 125.9)	830721	1150	566.00	.4	18,100
	830823	1300	566.05	.8	22,700
	830809	1245	566.46	13.4	29,900
	830827	1315	566.81	43.6	31,000
SIDE SLOUGH 8A (LOWER PORTION) (GAGE 125.3S4 AT R.M. 125.9)	830721	1515	563.51	4.2	18,100
	830804	1325	563.57	5.4	20,900
	830823	1400	563.66	9.0	22,700
	830827	1420	564.14	45.5	31,000
SIDE SLOUGH 9 (GAGE 128.3S1 AT R.M. 129.2)	820825		593.51	1.7	13,400
	820909		593.56	3.0	13,400
	830721	1745	593.36	5.6	18,100
	830730	0930	593.37	7.8	19,100
	820904	1430	593.37	8.0	14,400
	820720		593.92	28.0	22,900
	830630	1030	594.00	77.4	24,700
	830607	1225	593.96	89.0	23,000
	820715		594.10	108.0	25,600
	820920	1520	594.15	148.0	24,000
	820623		594.27	182.0	27,000
	820918	1305	594.42	232.0	26,800
	830809	1547	595.25	501.5	29,900

1-A-131

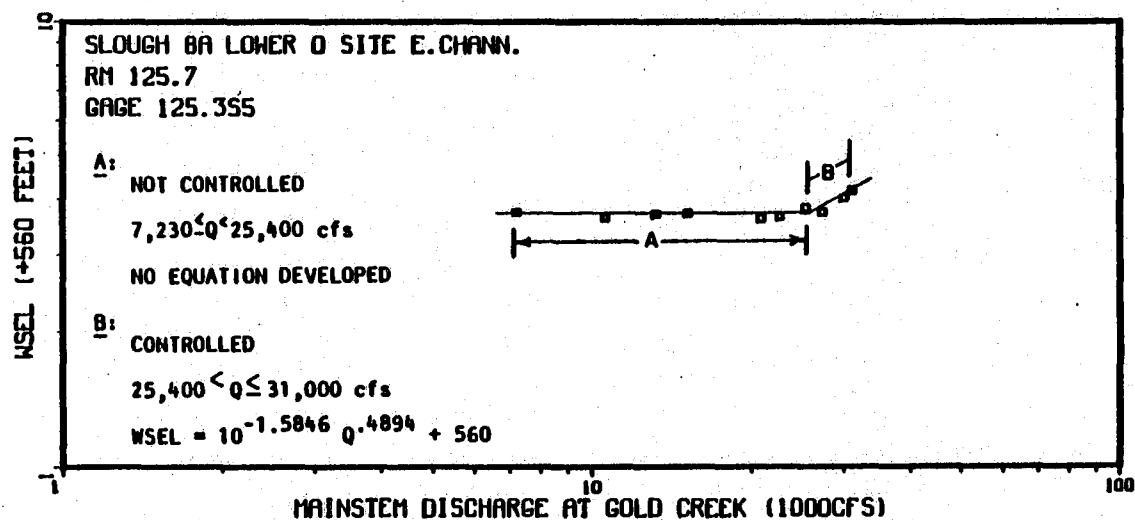
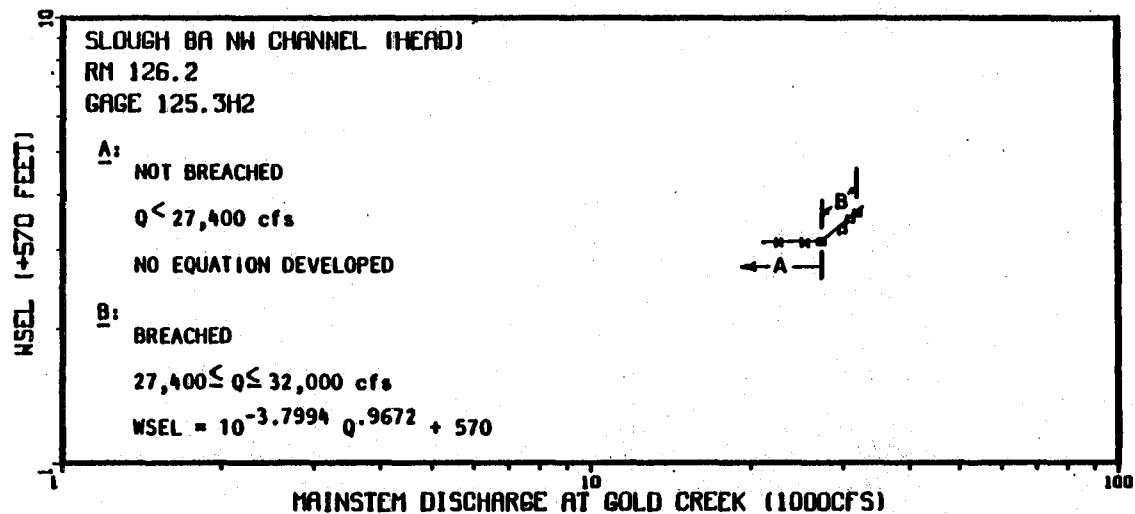


Appendix Figure 1-A-32 Non-Mainstem discharge (Provisional USGS 1983) versus the water surface elevation at Slough 8A mouth and upper backwater.



Appendix Figure 1-A-33 Non-Mainstem discharge (Provisional USGS 1983) versus the water surface elevation at Slough 8A NW Channel discharge site and lower discharge site west channel.

1-A-194



Appendix Figure 1-A-34 Non-Mainstem discharge (Provisional USGS 1983) versus the water surface elevation at Slough 8A lower discharge site east channel and NW channel head.

JP

Appendix Table 4-A-2 (Continued)

<u>Location</u>	<u>Date</u>	<u>Time</u>	<u>Temperature (°C)</u>		<u>Turbidity NTU</u>	<u>WSEL (ft.)</u>	<u>Estimated¹ flow (cfs)</u>	<u>Susitna River Discharge¹ (cfs)</u>
			<u>Water</u>	<u>Air</u>				
Mainstem 2 Side Channel	830917	1025	3.0	3.9	1	478.84	33.7	10000
NW Channel Q site	831004	1340	3.9	8.2	2	479.10	48.6	11400
gage no. 114.4S5	830722	1405	13.8	20.4	220	480.64	350	18600
RM 115.4	830611	1830	9.9	15.6	53	480.66	359	19000
	830805	1315	12.3	14.1	294	481.31	758	21700
	830806	1730	11.1	18.8	280	481.60	1044	23800
	830808	1440	11.3	13.4	192	481.89	1426	26000
	830825	1300	8.4	13.4	84	481.97	1553	27400
Mainstem 2 Side Channel	830917	1040	3.9	5.2	1	480.41	3.4	10000
NE Channel Q site	831004	1450	3.2	8.1	1	480.38	3.1	11400
gage no. 114.4S8	830721	2000	15.0	16.2	2	480.44	3.6	18100
RM 115.5	830805	1335	14.0	13.8	3	480.46	3.7	21700
	830806	1900	14.8	14.4	156	480.57	4.8	23800
	830808	1530	11.4	14.2	168	481.28	21	26000
	830825	1605	9.3	12.4	76	481.31	22	27400
	830826	1925	8.2	12.6	184	482.88	432	31700
Slough 8A	830915	1515	9.4	10.2	2	566.01	0.6	10600
NW Channel Q site	831003	1350	6.2	7.8	2	566.10	1.0	13000
gage no. 125.3S3	830924	1246	2.4	0.2	1	566.08	0.8	15200
RM 125.3	830716	1800	14.0	18.0	1	566.11	1.0	16400
	830721	1150	13.4	18.5	1	566.00	0.5	18100
	830804	1130	9.4	13.2	1	566.03	0.6	20900
	830823	1340	9.0	11.4	1	566.05	0.7	22700
	830809	1245	11.7	15.9	126	566.44	7.3	29900
	830827	1320	9.3	19.0	75	566.80	8.1	31000

¹ Flow estimated using stage/flow rating curve determined for the study site (refer to Chapter 1 of this report).

Appendix Table 4-A-2 (Continued)

Location	Date	Time	Temperature (°C)		Turbidity NTU	WSEL (ft.)	Estimated ¹	Susitna ¹
			Water	Air			flow (cfs)	River Discharge (cfs)
Slough 8A NE Channel Q site gage no. 125.3S1 RM 125.8	830915	1505	9.8	10.6	1	567.22	2/	10600
	830924	1315	0.6	1.0	1	567.29	2/	15200
	830716	1820	15.4	18.0	1	566.20	2/	16400
	830721	1250	15.6	18.7	1	566.33	2/	18100
	830615	1615	NA	NA	1	566.09	2/	19600
	830804	1220	11.2	13.8	1	566.60	2/	20900
	830823	1210	9.2	18.4	2	566.97	2/	22700
	830630	1404	NA	NA	1	566.08	2/	24700
	830809	1130	11.6	16.2	1	566.91	2/	29900
	830827	1125	9.6	15.2	1	567.07	2/	31000
Slough 8A B/L Beaver Dam W. Channel gage no. 125.3S4 RM 125.7	831003	1310	6.2	3.0	2	563.68	8.6	13000
	830924	1224	1.4	0.2	1	563.60	6.3	15200
	830721	1430	6.2	17.2	1	563.51	4.4	18100
	830804	1320	NA	13.2	1	563.57	5.6	20900
	830823	1400	10.2	14.0	1	563.66	8.0	22700
	830827	1427	11.0	18.8	78	564.14	46.6	31000
Slough 9 Q site gage no. 128.3S1 RM 128.9	830914	0955	5.8	9.9	1	593.27	6.9	10700
	831003	1515	4.2	6.6	1	593.50	14.3	13000
	830924	1550	2.6	1.0	2	593.33	8.5	15200
	830716	2200	11.0	14.6	3	593.27	7.0	16400
	830721	1745	16.0	15.4	54	593.36	9.3	18100
	830805	0900	NA	NA	126	-- ^{3/}	3/	18200
	830618	1450	NA	NA	64	-- ^{3/}	3/	22900
	830630	1030	12.1	NA	200	594.00	58.9	24700
	830824	1135	9.0	8.6	64	594.05	67.2	24700
	830809	1540	11.9	17.2	224	595.11	788	29900

¹ Flow estimated using stage/flow rating curve determined for the study site (refer to Chapter 1 of this report.

² Stage/flow rating curve not developed for this site.

³ Data not available.

Table 7-C-1. Weighted Usable Area (ft²) (WUA), gross surface area (ft²) and percent usable area for various flows (cfs) in Slough 8A using four different curve sets.

<u>CHUM</u>									
<u>FLOW</u>	<u>GROSS SURFACE AREA</u>	<u>SUBSTRATE</u>		<u>UPWELLING</u>		<u>JOINT</u>		<u>UTILIZATION</u>	
		<u>WUA</u>	<u>PERCENT</u>	<u>WUA</u>	<u>PERCENT</u>	<u>WUA</u>	<u>PERCENT</u>	<u>WUA</u>	<u>PERCENT</u>
70	82,817	28,134	33.97	62,616	75.61	7,420	8.96	388.84	0.47
60	81,428	26,084	32.03	59,619	73.22	7,332	9.00	450.52	0.55
50	79,966	23,633	29.55	55,810	69.79	7,251	9.07	531.01	0.66
40	78,354	21,341	27.24	51,316	65.49	7,152	9.13	642.38	0.82
20	72,799	13,010	17.87	36,759	50.47	4,426	6.08	845.79	1.16
15	71,963	11,810	16.41	34,299	47.66	3,990	5.55	922.15	1.28
10	71,042	10,455	14.72	31,110	43.79	3,358	4.73	969.01	1.36
5	68,582	8,857	12.92	26,290	38.33	2,479	3.62	919.09	1.34
<u>SOCKEYE</u>									
<u>FLOW</u>	<u>GROSS SURFACE AREA</u>	<u>SUBSTRATE</u>		<u>UPWELLING</u>		<u>JOINT</u>		<u>UTILIZATION</u>	
		<u>WUA</u>	<u>PERCENT</u>	<u>WUA</u>	<u>PERCENT</u>	<u>WUA</u>	<u>PERCENT</u>	<u>WUA</u>	<u>PERCENT</u>
70	82,817	50,848	61.40	45,765	55.26	9,997	12.07	552.11	0.67
60	81,428	50,288	61.76	45,371	55.72	9,860	12.11	807.55	0.99
50	79,966	49,283	61.63	43,964	54.98	9,532	11.92	1,090.50	1.36
40	78,354	46,439	59.27	41,479	52.94	8,888	11.34	1,099.94	1.40
20	72,799	31,689	43.53	34,125	46.88	5,868	8.06	1,098.27	1.51
15	71,963	29,154	40.51	27,735	38.54	5,476	7.61	1,192.27	1.66
10	71,042	25,921	36.49	17,095	24.06	5,009	7.05	956.78	1.35
5	68,582	21,255	30.99	7,347	10.71	4,157	6.06	751.88	1.10

7-C-2

149.

7-D-2

CHUM SPAWNING SLOUGH 8A

AREA PER 1000 FEET OF STREAM

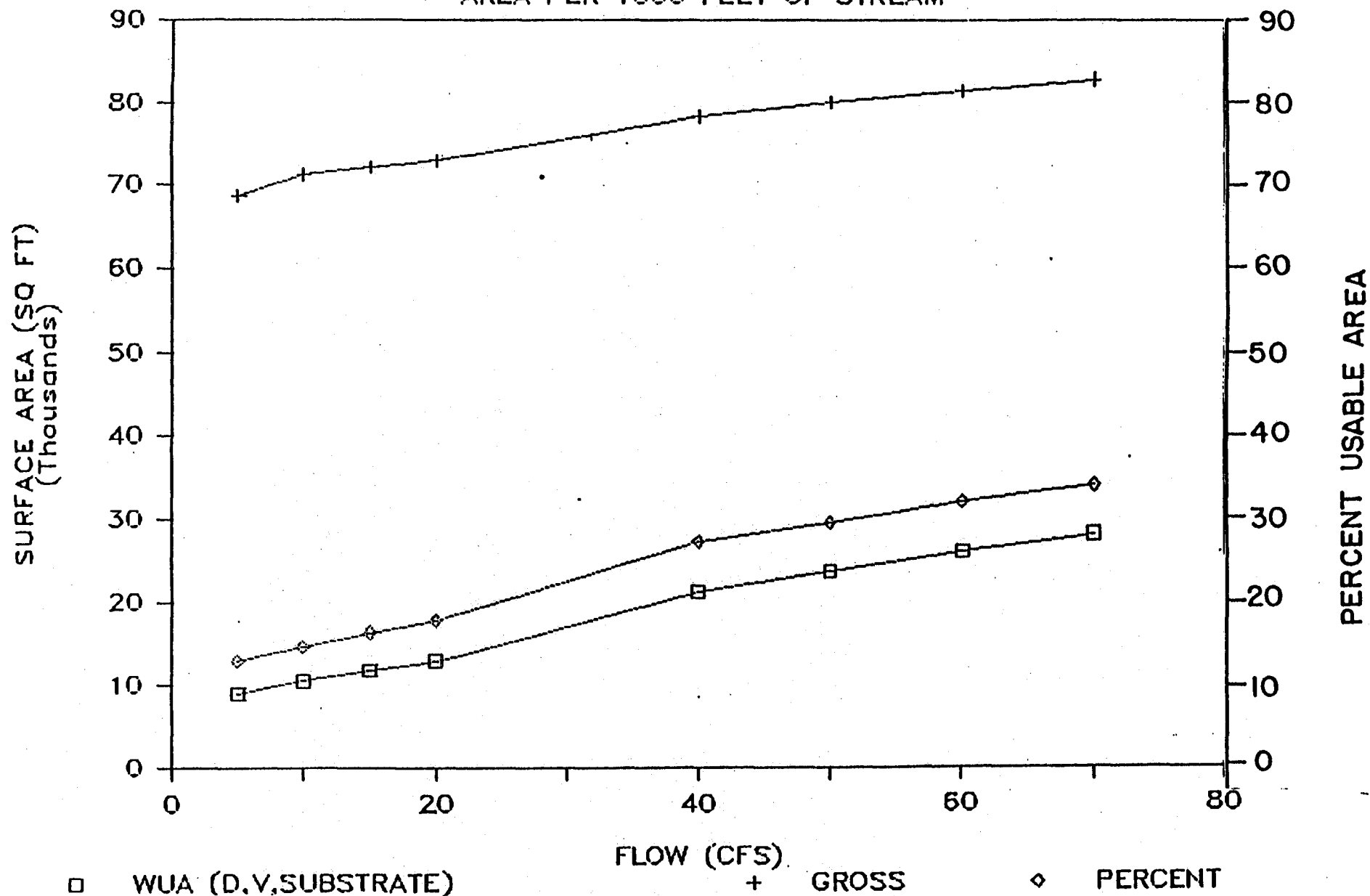
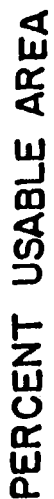


Figure 7-D-1 Weighted usable area plots using substrate curve set for chum salmon in Slough 8A.

7-D-9



9

AREA PER 1000 FEET OF STREAM

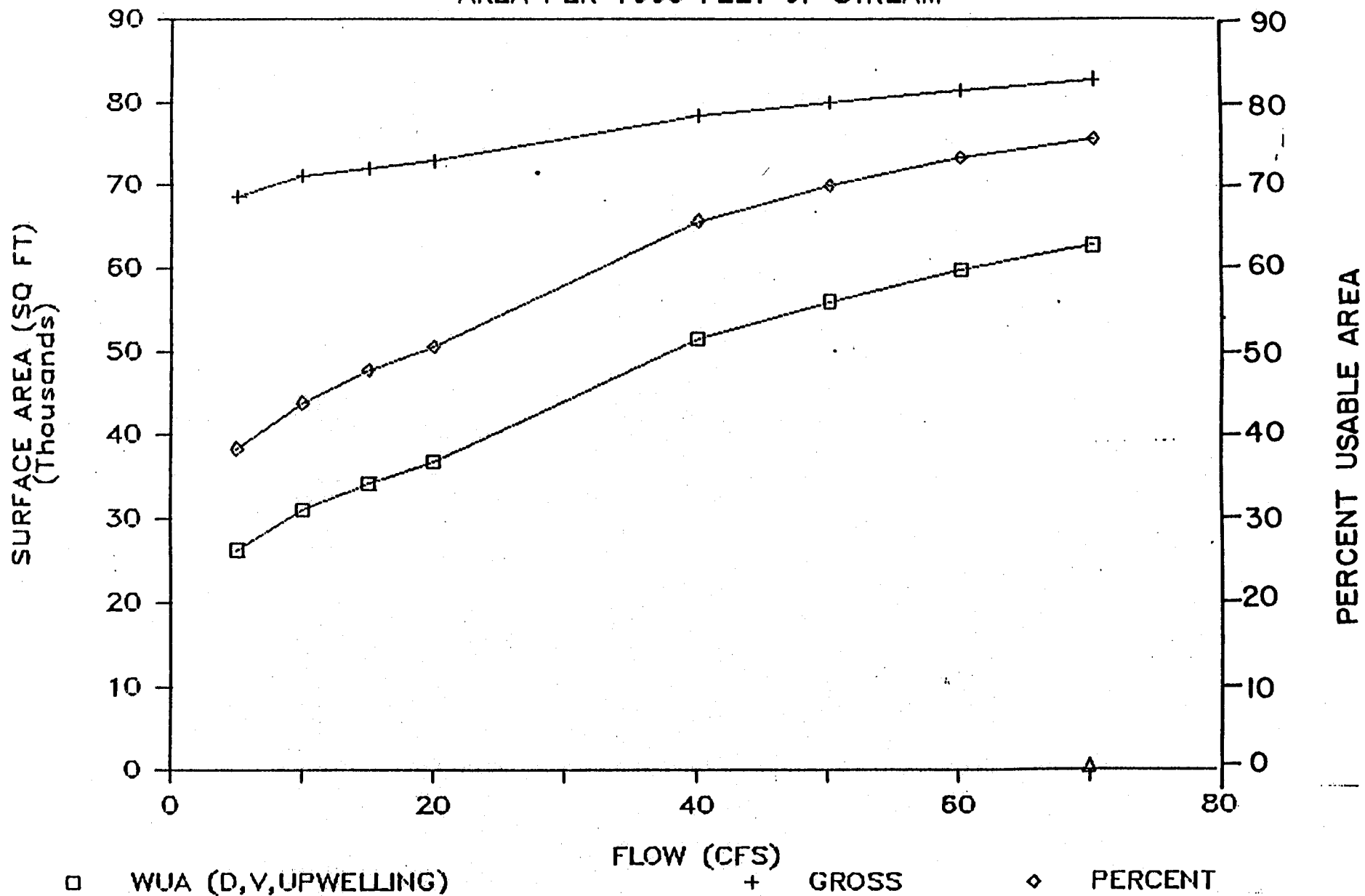


Figure 7-D-15 Weighted usable area plots using upwelling curve set for chum salmon in Slough 8A.

7-D-16

SOCKEYE SPAWNING SLOUGH 8A

AREA PER 1000 FEET OF STREAM

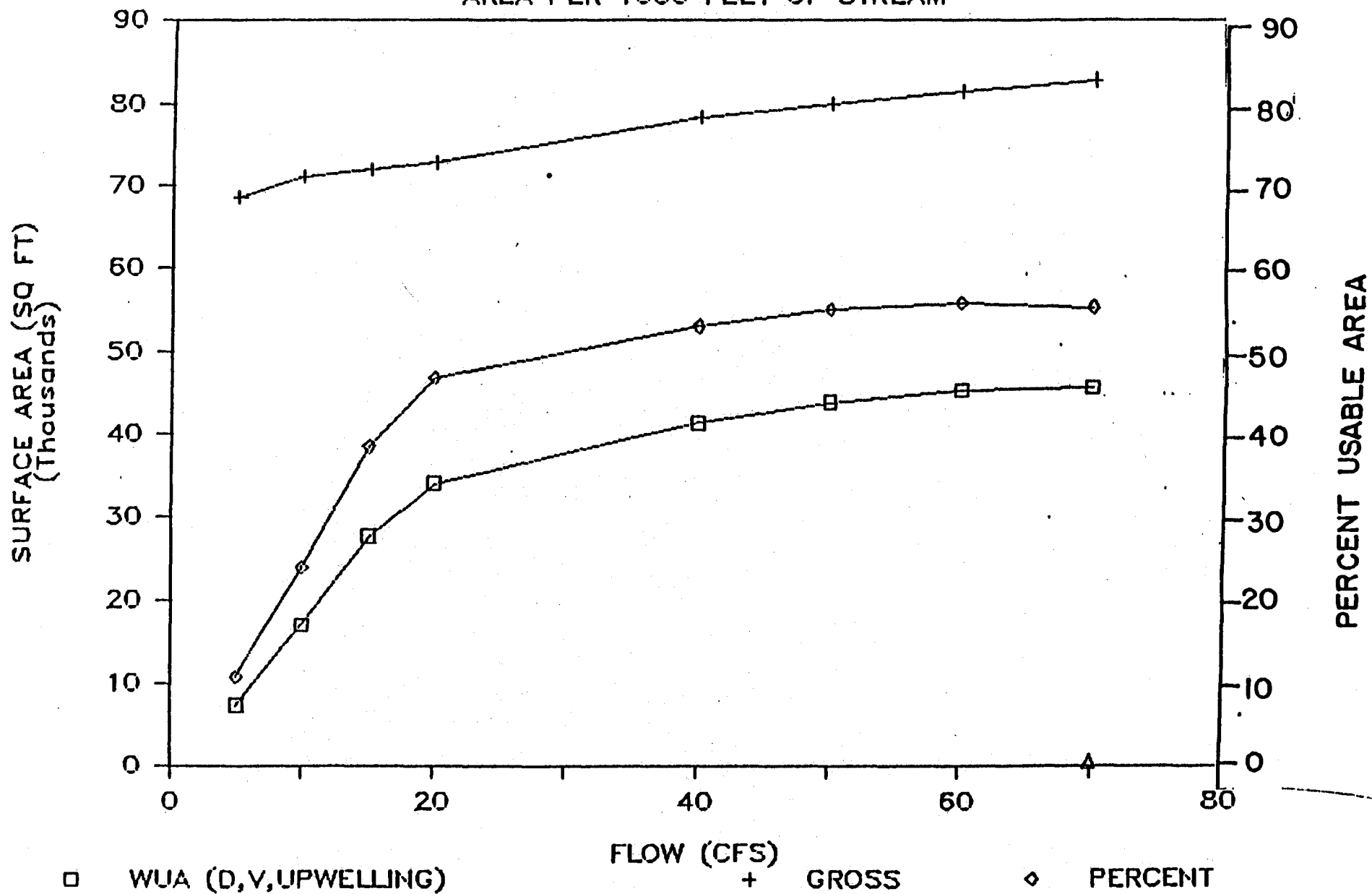


Figure 7-D-21 • Weighted usable area plots using upwelling curve
set for sockeye salmon in Slough 8A.....

CHUM SPAWNING SLOUGH 8A

AREA PER 1000 FEET OF STREAM

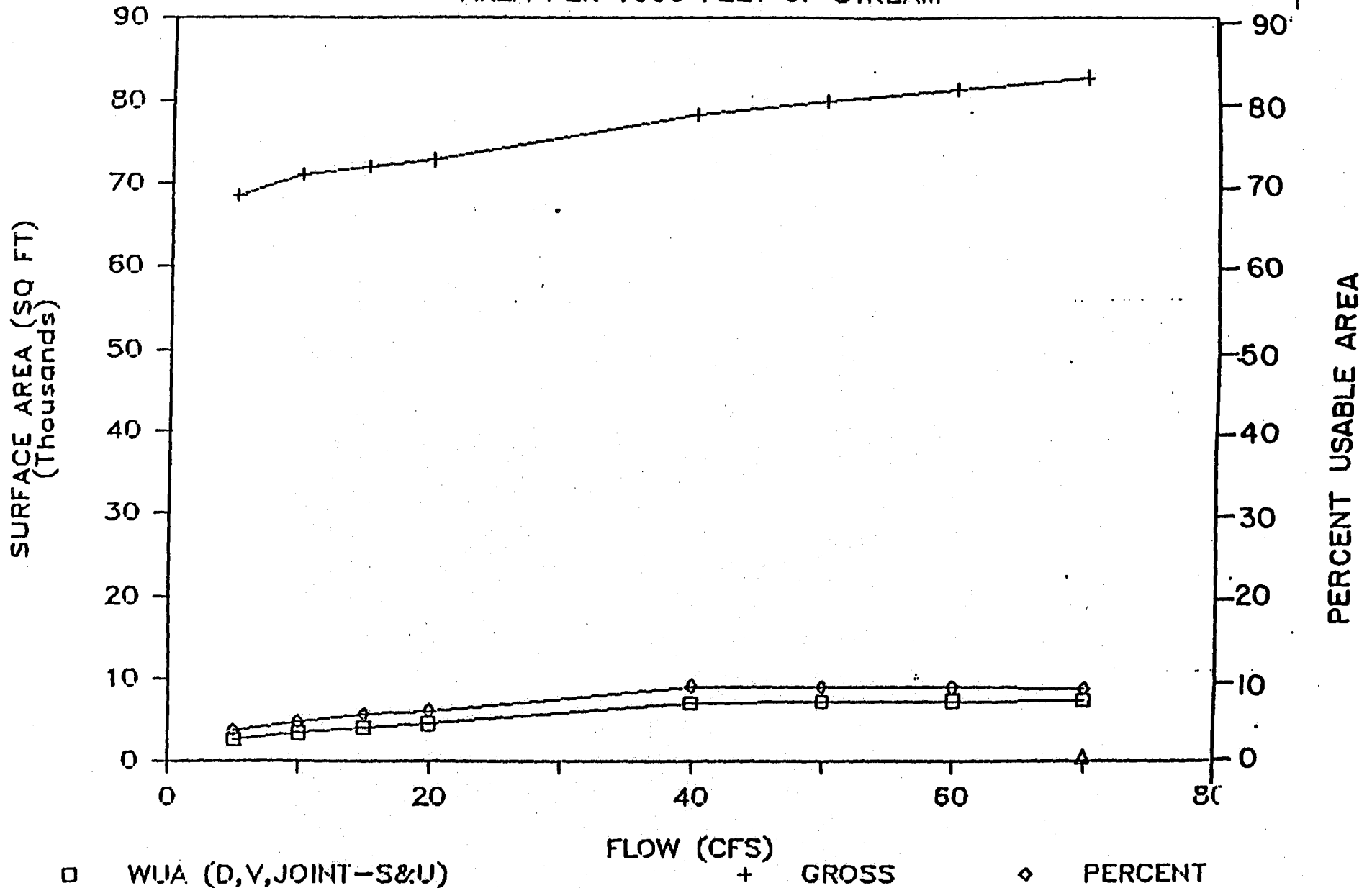


Figure 7-D-27 Weighted usable area plots using joint curve set for chum salmon spawning in Slough 8A.....

AREA PER 1000 FEET OF STREAM

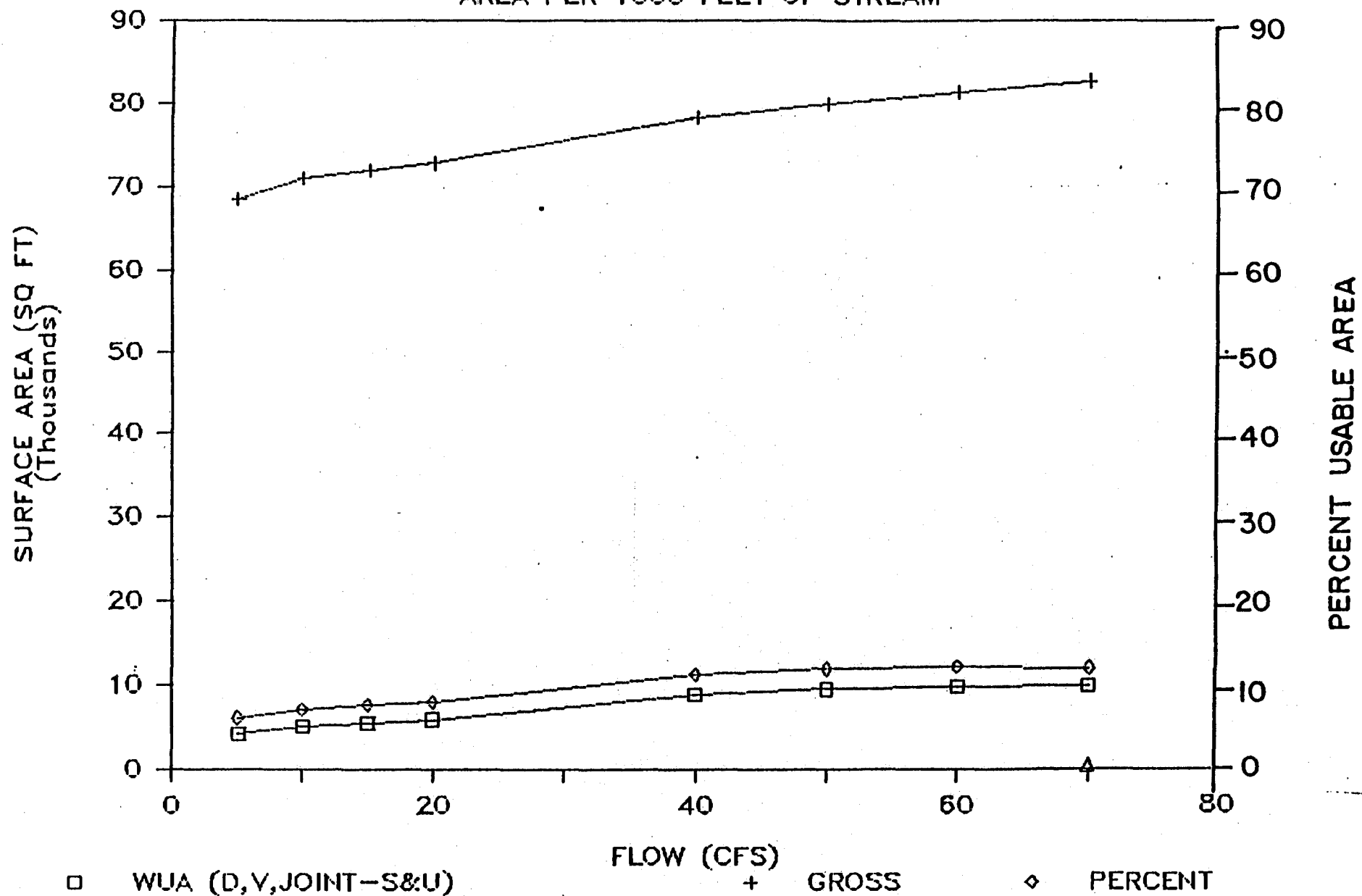


Figure 7-D-33 Weighted usable area plots using joint curve set
for sockeye salmon spawning in Slough 8A.

CHUM SPAWNING SLOUGH 8A

AREA PER 1000 FEET OF STREAM

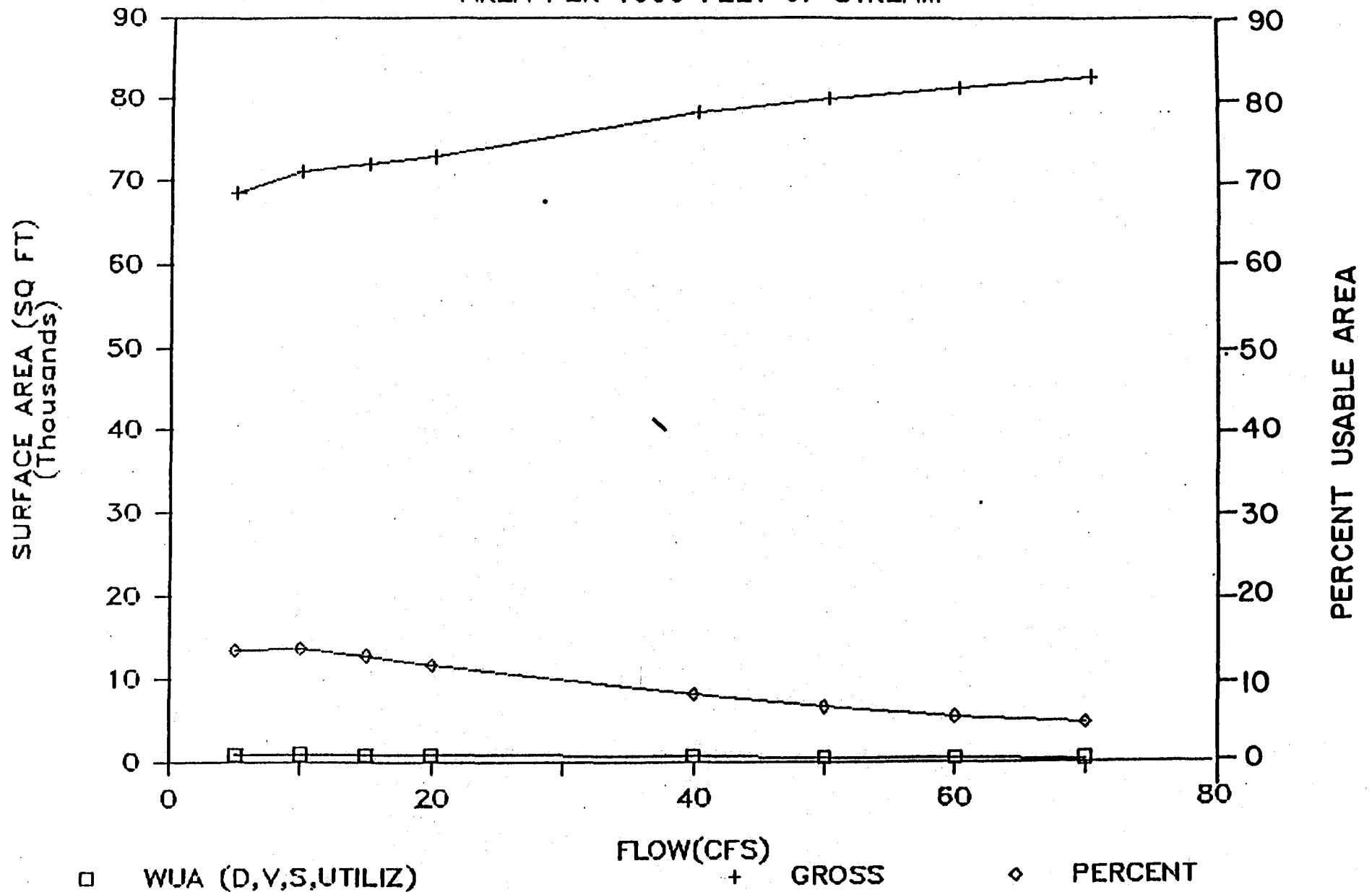
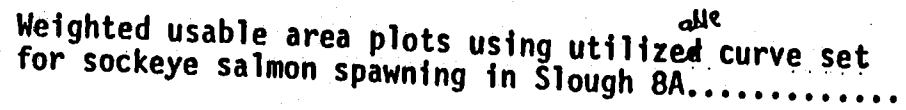


Figure 7-D-39

Weighted usable area plots using utilized ^{de} curve set
for chum salmon spawning in Slough 8A.

AREA PER 1000 FEET OF STREAM



CHANNEL CHARACTERISTICS

SECTION 4

GENERAL DESCRIPTION

The two channels of Mainstem 2 have different controlling breaching discharges. The controlling breaching discharge of the left (NW) channel is 16,000 cfs, while the right (NE) channel is 25,000 cfs. When the left channel breaches, it affects the backwater pool at the mouth and the left channel itself. Except at the confluence of the two channels, it has little if any effect on the right channel. Below controlling breaching discharges, base side channel flow is maintained by seepage from the mainstem and runoff from the surrounding area.

A typical pool/riffle sequence is evident in both channels below breaching flows. The water in both channels remains clear until it enters the area at the mouth where it mixes with the turbid water that enters from the mainstem, and forms the backwater area.

Slough 8A - RM 125.3

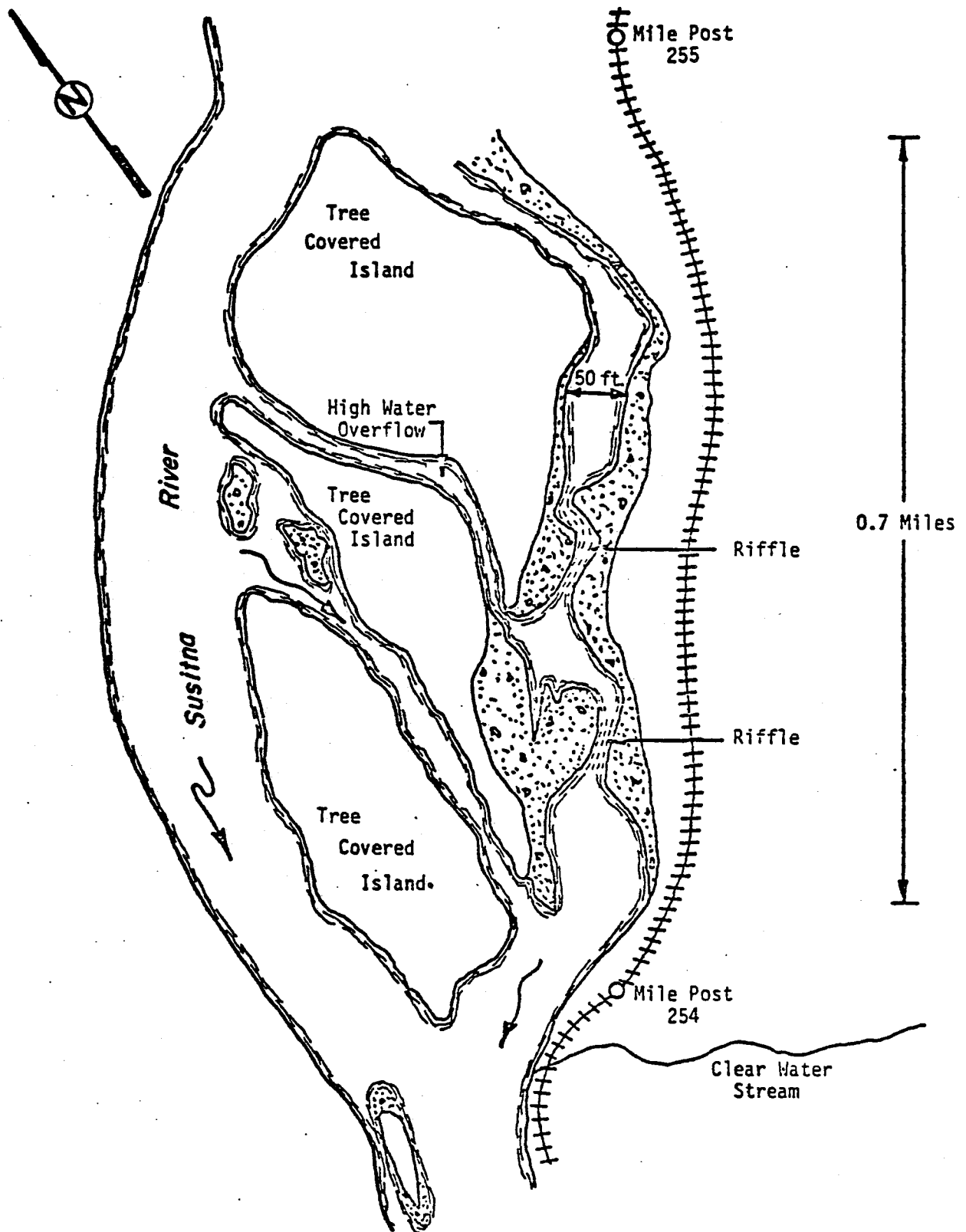
Slough 8A is located on the east bank of the Susitna River (Appendix Figures 6-C-3 to 6-C-5). The slough is approximately two miles in length and is separated from the mainstem Susitna River by a large vegetated gravel bar. The slough mouth is adjacent to a side channel. Two principal channels connect the slough with the mainstem Susitna River. The slough channel is relatively straight with a gentle bend near the head of the slough. Approximately 2,000 feet upstream of the mouth, a series of beaver dams are located across the braided channel which inhibit upstream migration of salmon. Some dams are completely filled in with cobble resulting in a semi-permanent barrier while others are frequently modified by stage changes. During the 1983 season, another beaver dam was constructed approximately 3,200 feet upstream of the mouth. The banks range from low, gently sloping banks to five-foot high steep cut banks. The Alaska Railroad parallels the south bank of the slough. The overall slough gradient is 10.5 ft/mi. Cobble/boulder substrate predominates in the upper half of the slough. Gravel/rubble is the predominant substrate in the lower half of the slough. Silt/sand deposits are found in the backwater area at the mouth and in the pools formed by the beaver dams.

A backwater area extends approximately 1,000 feet upstream of the mouth during periods of moderate to high mainstem discharge. Above the backwater area is a 100-300 foot riffle followed by a large beaver dam. The northwest overflow channel flows into a large pool behind the beaver dam. Another dam 1,200 feet further upstream impounds the water from the northeast channel. The controlling breaching discharge of the northwest channel is 27,000 cfs, while that of the northeast channel is approximately 33,000 cfs. Base slough flow is maintained by surface runoff, groundwater seepage and upwelling.

Slough 9 - RM 128.3

Slough 9 is a 1.2-mile long unobstructed "S"-shaped channel on the south bank of the Susitna River (Appendix Figures 6-C-6 to 6-C-8). Both the head and mouth of the slough open into side channels of the mainstem Susitna River. The lower half of the slough has a relatively shallow gradient which steepens past a point roughly 3,000 feet upstream of the mouth where the slough makes a sharp bend. The overall slough gradient

MAPS



Appendix Figure 15. Map of Slough, Number 8A, Susitna River, as composed on December 6, Devil's Canyon Winter Project, 1974.

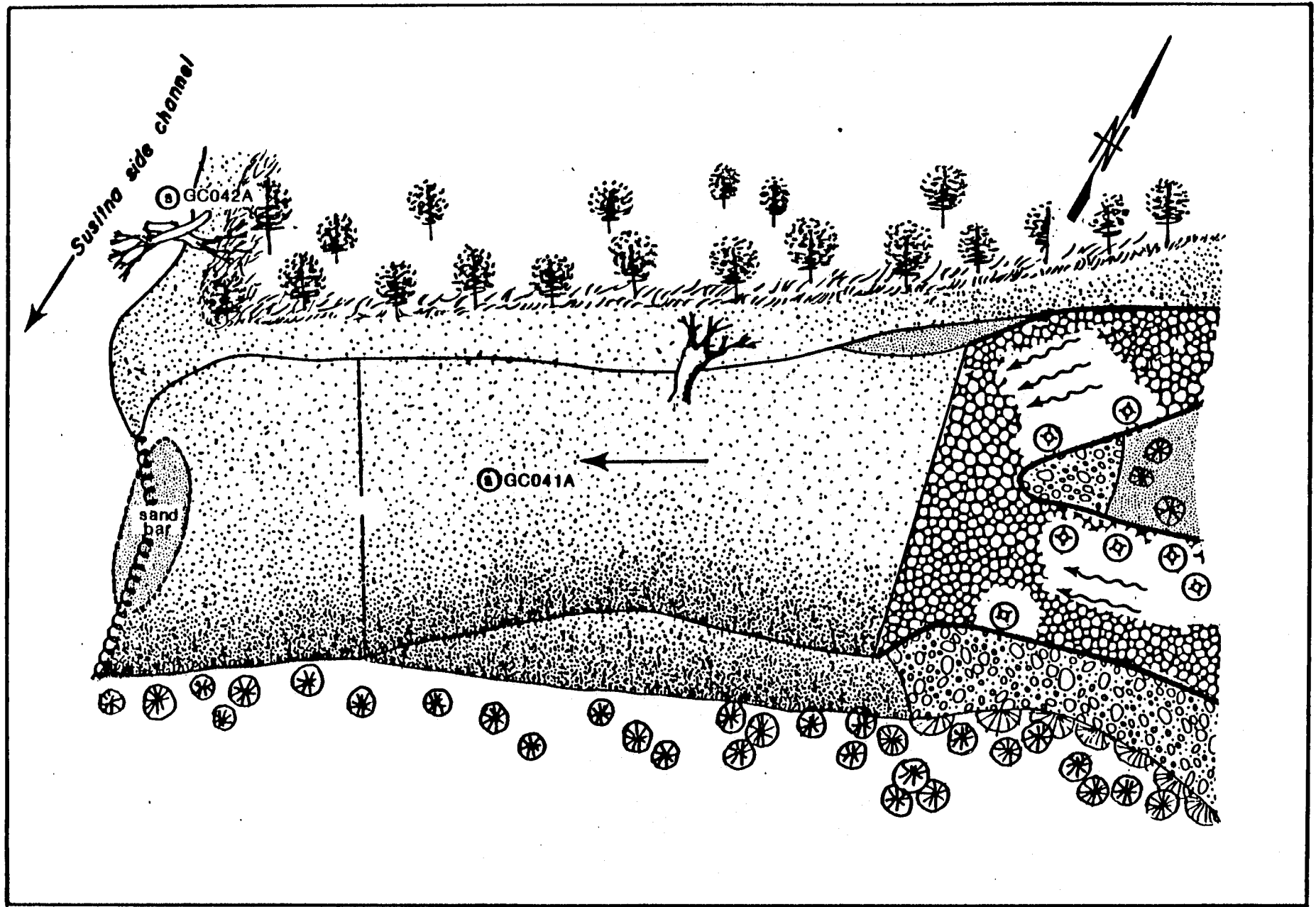


Figure EA-37. Planimetric map of Slough 8A (R.M. 125.3, G.C. 30N03W30BCD).

EA-79

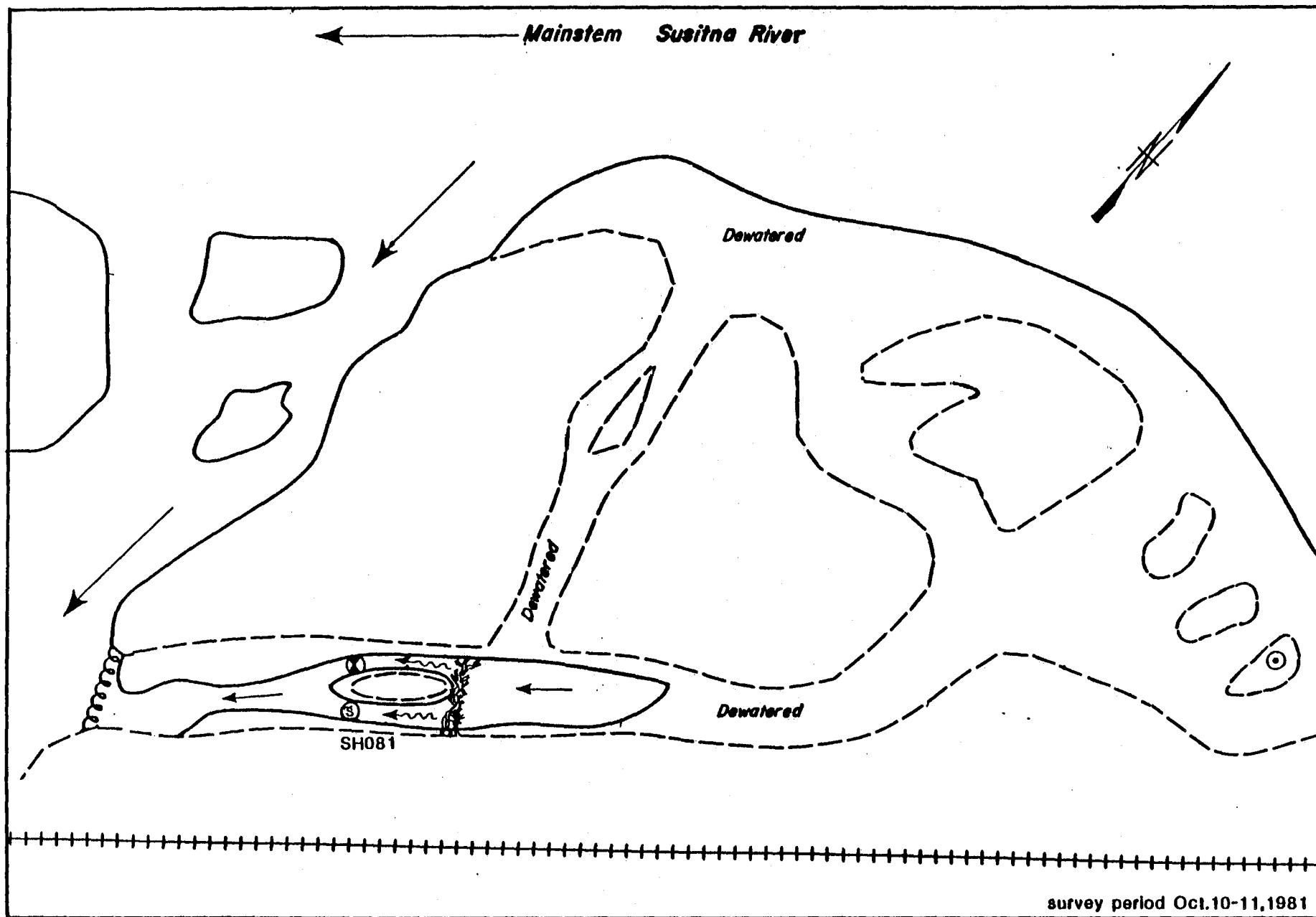
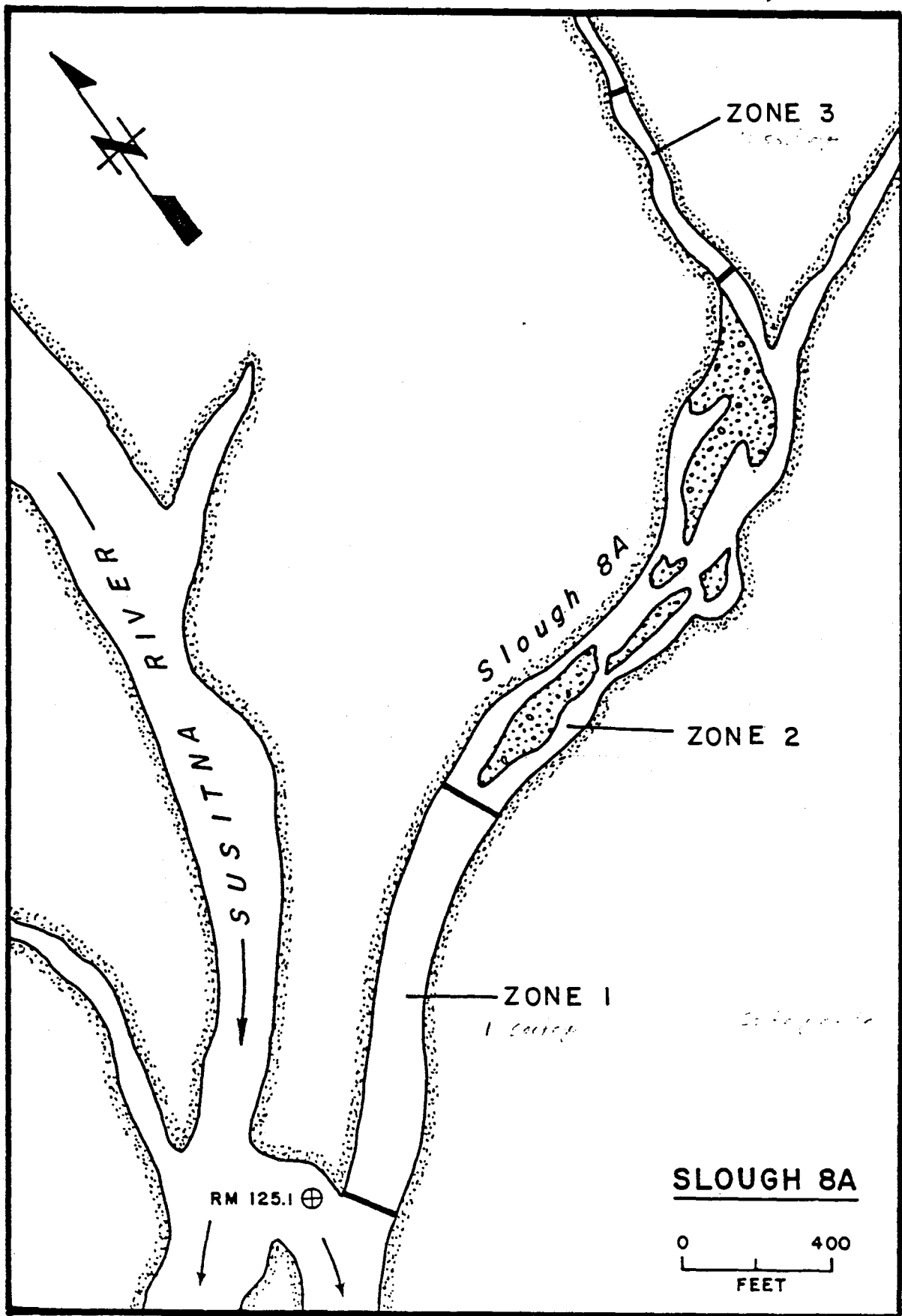


Figure EA-77. Planimetric map of Slough 8A (R.M. 125.3, G.C. 30N03W30AAB).



Appendix Figure 2-G-3. Slough 8A map with habitat locations defined, 1983.

THALWEG DATA

43

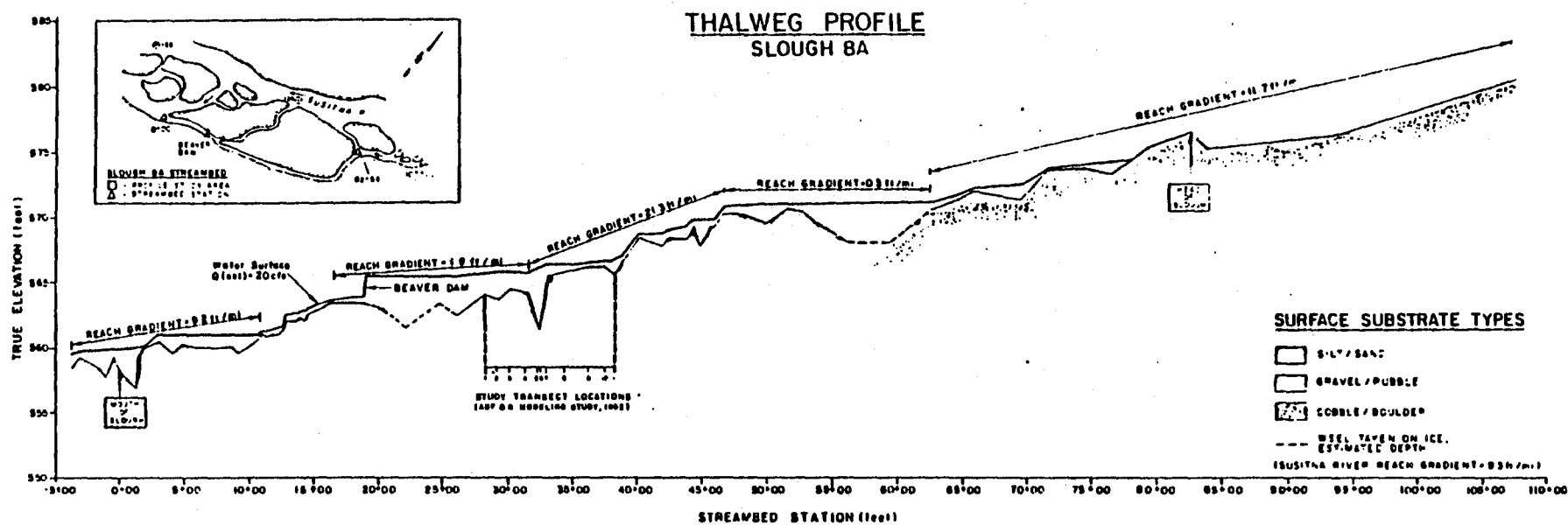
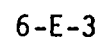
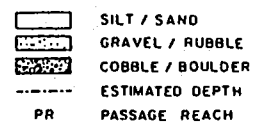
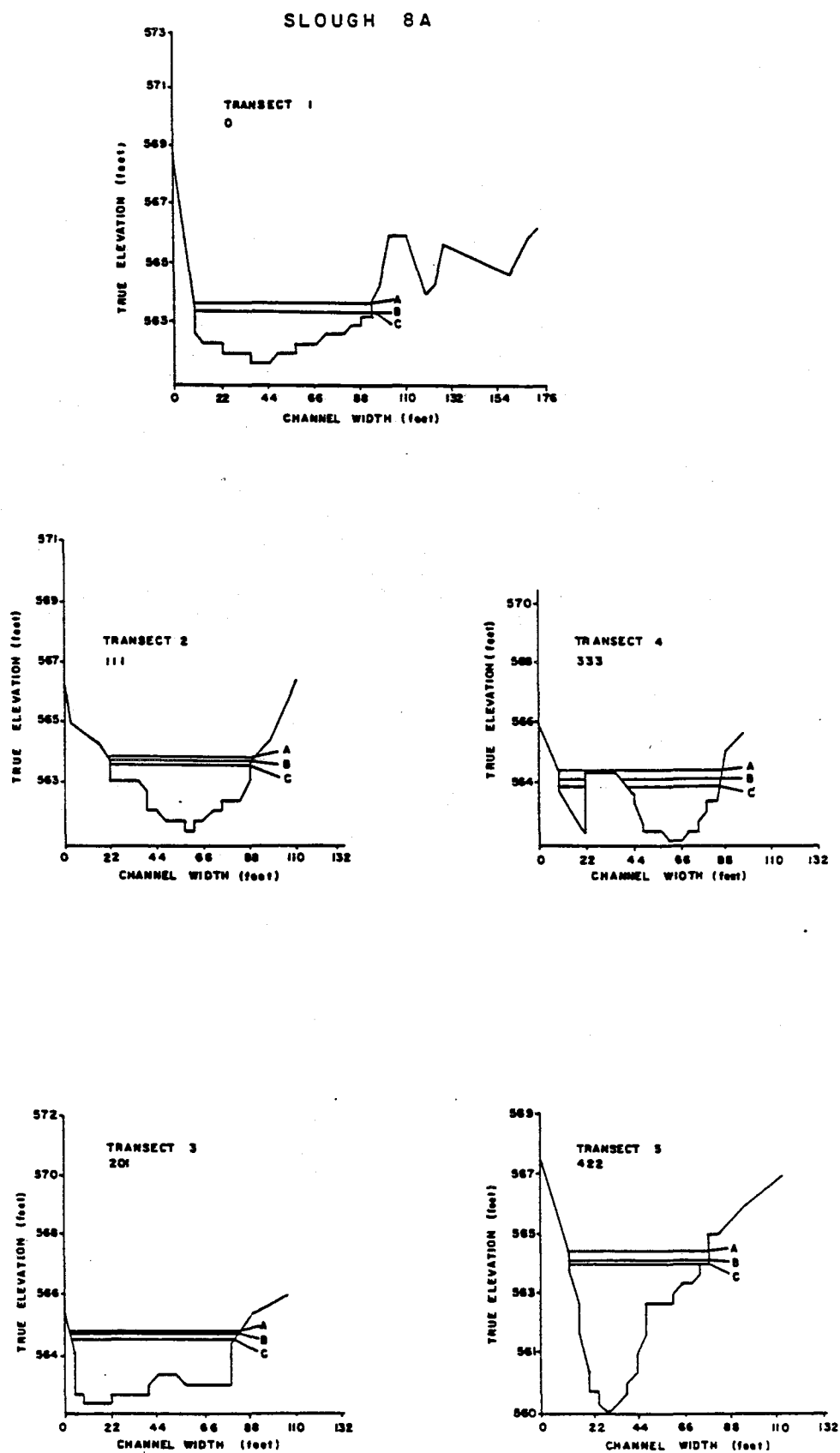


Figure 2-14 Streambed (thalweg) profile of Side Slough 8A (RM 126.2).



Thalweg profile of Slough 8A

CROSS-SECTIONAL DATA



Appendix Figure 4-A-37 Cross sections of Slough 8A at 1982 survey transects at these discharges: A = 4 cfs, B = 7 cfs, C=20 cfs.

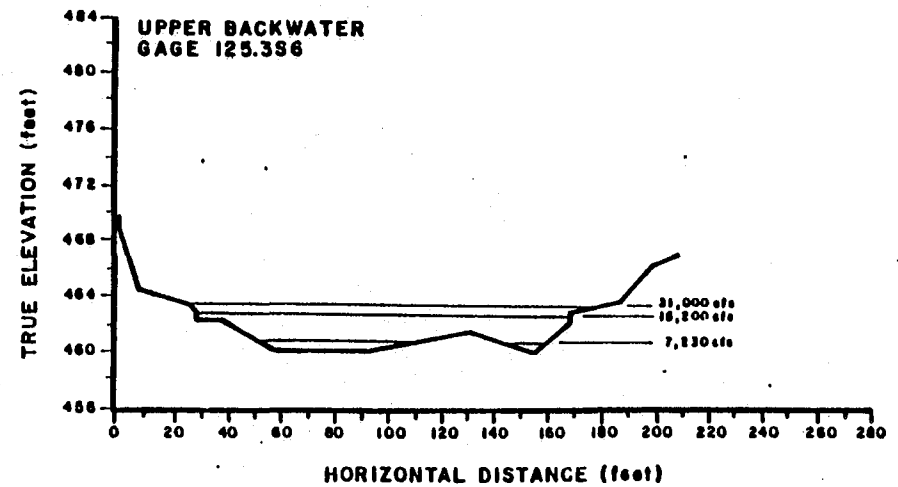
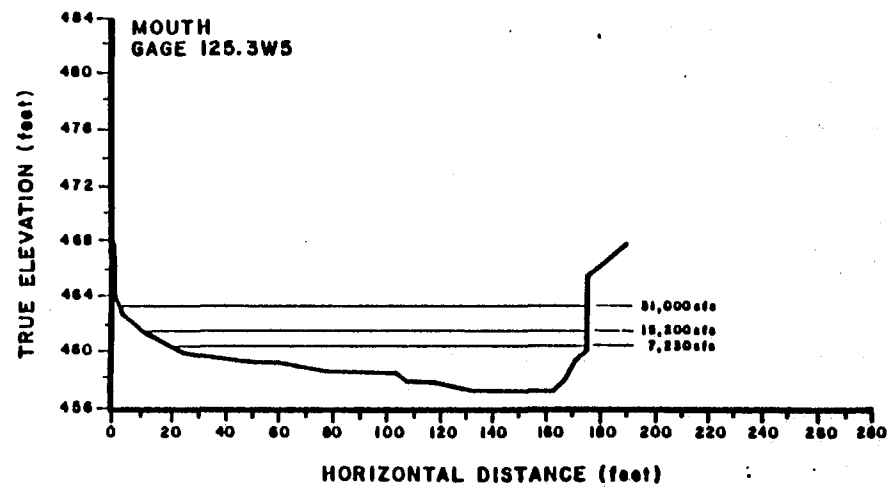
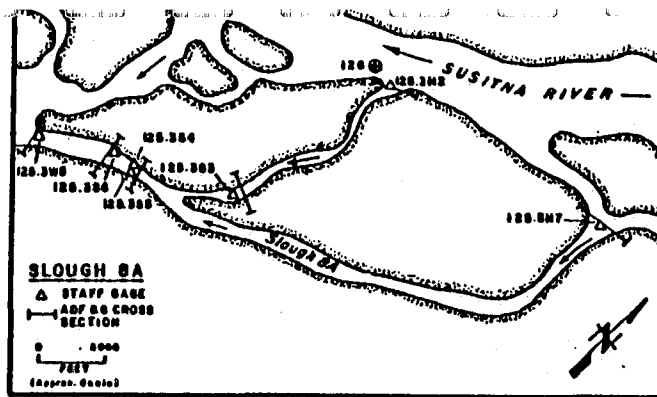


Figure 2-15 Cross section profiles developed for staff gage sites within Side Slough 8A.

57

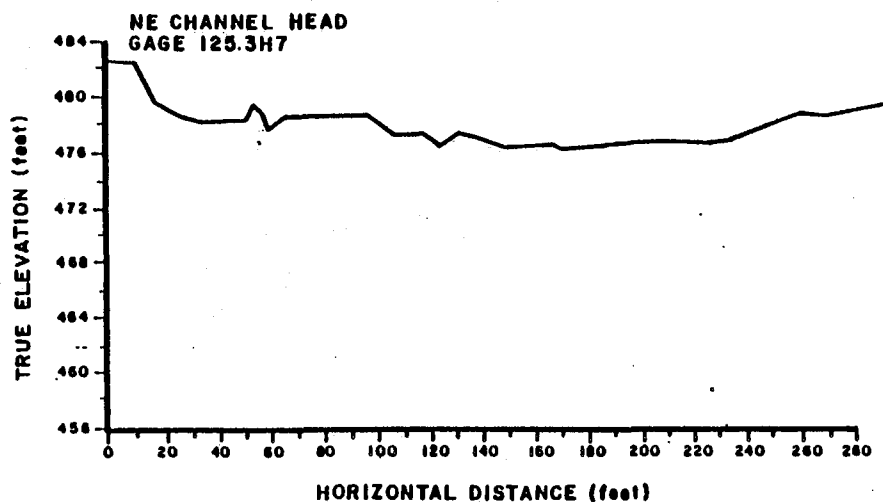
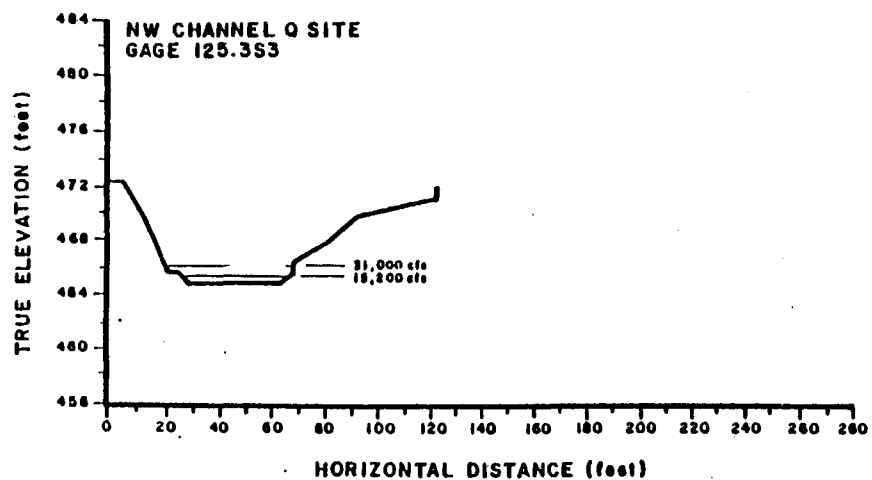
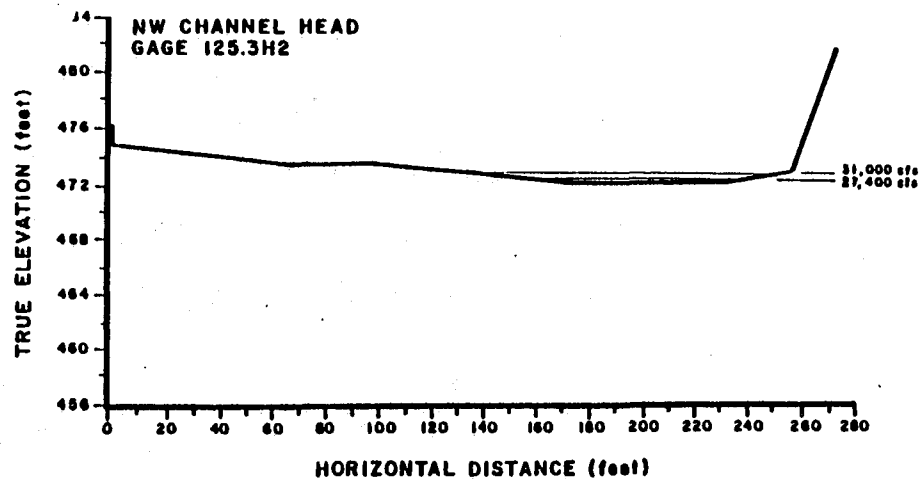
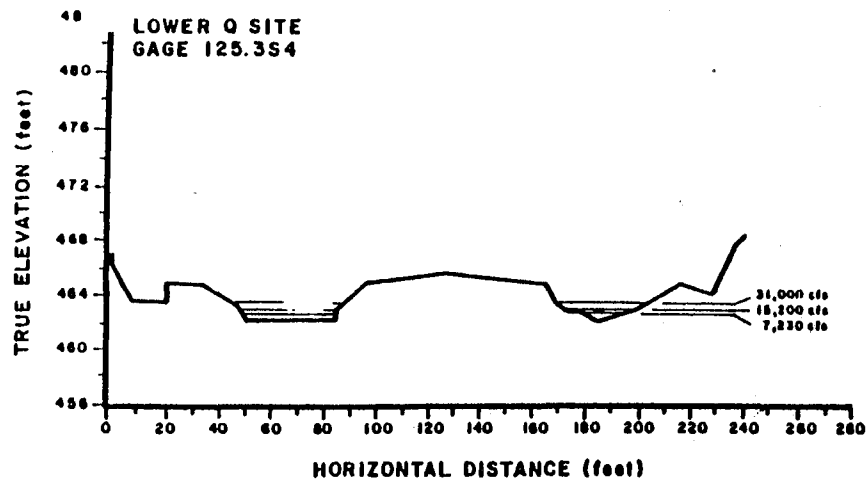


Figure 2-15. Continued

Table EE-1. Cross section survey of slough 8A.

October 10, 1981

Transect 1 Dewatered

<u>Station</u>	<u>Elevation</u>
LBHP*	586.91
GB**	586.595
2.70 Bankfull	586.42
15.50	580.26
18.5	580.83
21.95	581.32
26.20	582.00
31.40	582.61
39.10	582.90
46.45	584.18
50.2	582.83
52.6	582.51
54.95	582.81
57.40	583.14
59.0	584.10
65.0	584.12
67.1	585.59
68.8 Bankfull	586.38
78.0 GB**	586.41
RBHP***	586.81

LBHP* - Left Bank Head Pin

GB** - Ground Elevation Beside Head Pin

RBHP*** - Right Bank Head Pin

Table EE-2. Cross section survey of slough 8A.

October 10, 1981

Transect 2 Dewatered

<u>Station</u>	<u>Elevation</u>
LBHP2*	585.81
GB**	585.42
11.3	585.77
21.1	585.15
26.6 Bankfull	585.07
37.2	584.31
48.55	583.80
57.4	583.60
70.8	583.91
77.8	583.20
88.35	583.76
95.2	584.03
103.4	583.87
116.85	584.31
125.5	584.23
131.3	583.77
137.9	583.49
150.9	583.65
166.3	583.77
170.55	583.50
137.8	583.91
194.1	583.50
199.95	583.20
207.0	583.57
233.25	583.57
247.65	583.51
257.6	583.29
269.4	583.62
264.3	583.32
328.5	583.16
336.05	582.86
381.7	582.86
396.3	583.21
427.6	583.21
443.9	582.76
452.7	583.49
463.45	583.79
480.4	584.07
486.7	584.11
490.6 Bankfull	584.70
487.3	585.44
507. GB**	586.23
RBHP***	586.58

Table EE-3. Cross section survey of slough 8A.

October 10, 1981

Transect 3 Dewatered

<u>Station</u>	<u>Elevation</u>
LBHP3*	585.43
GB**	585.06
11.8	584.79
21.5 Bankfull	584.12
24.6	583.41
26.4	582.43
34.5	580.88
45.0	580.29
48.3	581.48
52.4	581.27
56.45	581.05
61.70	581.49
70.6	581.68
81.25	581.76
91.4	581.66
99.70	581.32
107.6	581.17
111.6	580.98
116.0	581.07
119.1	581.50
121.5	582.16
123.4	582.52
125.85	582.77
129.0	583.55
131.2 Bankfull	584.31
138.2	584.89
147.1 GB**	585.15
RBHP***	585.48

Table EE-4. Cross section survey of slough 8A.

October 10, 1981

Transect 4 Dewatered

<u>Station</u>	<u>Elevation</u>
LBHP4*	583.43
GB**	583.01
3.7	582.70
19.2	582.07
41.6	581.90
46.5	581.83
49.7	581.42
53.5	581.04
59.0	580.59
69.0	580.10
74.8	580.48
77.55	581.13
80.80	581.42
116.7	581.39
145.9	581.55
168.4	581.12
184.4	580.95
200.85	581.01
221.7	585.26
228.8	581.57
233.2	581.77
236.0	582.14
237.4	582.84
240.3	583.03
242.4 Bankfull	583.66
246.9	583.90
255.0	584.68
259.9 GB**	584.78
RBHP***	585.19

Table EE-5. Cross section survey of slough 8A.

October 11, 1981

Transect 5 Dewatered

<u>Station</u>	<u>Elevation</u>
LBHP5*	583.08
GB**	582.56
5.0 Bankfull	582.37
8.2	580.21
10.1	579.37
13.5	578.27
16.35	577.67
19.5	576.98
24.1	576.76
28.8	577.53
31.1	576.86
34.8	577.50
39.3	576.06
45.7	574.99
47.3	575.28
50.45	574.97
52.4	575.61
55.2	576.25
57.7	577.05
61.5	576.73
63.65	577.11
66.9	576.41
70.3	575.94
74.2	576.11
78.3	576.47
81.9	576.62
84.0	576.21
86.5	576.33
88.75	575.51
90.7	574.66
93.0	574.02
95.0	573.74
98.7	574.23
100.9	575.17
102.3	575.56
104.2	575.91
106.1	575.77
108.0	575.05
109.3	574.54
110.7	573.48
114.7	573.54
116.1	574.26

Table EE-5 (Continued)

Slough 8A

Transect 5 (Continued).

<u>Station</u>	<u>Elevation</u>
118.4	573.88
121.8	573.54
126.3	573.17
129.5	573.40
140.3	573.24
147.8	573.61
153.3	573.59
156.0	573.95
164.0	574.14
170.6	574.58
175.55	574.95
178.5	574.77
182.0	575.30
185.55	574.75
187.35	574.66
188.7	575.09
144.9	575.12
198.1	575.43
202.7	575.03
208.4	575.25
211.7	574.79
216.2	575.81
217.2	576.93
218.6 Bankfull	577.72
226.1 GB**	578.22
RBHP***	578.68

Table EE-6. Cross section survey of slough 8A.

October 10, 1981

Transect 6 Dewatered

<u>Station</u>	<u>Elevation</u>
LBHP6*	576.39
GB**	575.85
14.0 Bankfull	575.66
33.6	574.74
58.3	574.07
105.3	573.82
123.45	573.44
130.5	573.47
194.55	573.03
222.5	573.39
240.35	573.77
257.3	573.30
269.15	573.19
278.4	574.23
286.9	575.09
291.2	575.39
294.3 Bankfull	576.57
298.4	477.15
304.0	577.80
309.0	578.37
314.1 GB**	578.27
RBHP***	578.77

Table EE-7. Cross section survey of slough 8A.

October 10, 1981

Transect 7 Mouth of Slough 8A

<u>Station</u>	<u>Elevation</u>
LBHP7*	566.56
GB**	566.09
11.7 Bankfull	566.21
16.3	565.38
22.0	564.21
28.85	563.47
36.6	563.10
38.9	563.13
44.8	562.40
53.6	562.36
62.85	562.25
100.55 L. Water Edge	561.07
L. Water Sur. Elev.	561.11
112.4	560.76
131.65	560.38
141.7	659.89
156.3	559.48
165.6	559.12
171.6	558.93
178	558.59
181	559.60
183.1 R. Water Edge	561.04
R. Water Sur. Elev.	561.13
185.8	562.72
190.6 Bankfull	568.47
194.16 GB**	568.52
RBHP***	569.00

Table EA-1. Head pin elevations in Slough 8A, surveyed October 7-10, 1981.

<u>Bench Mark</u>	<u>Elevation</u>	<u>True Elevation</u>
TBM	100.00	586.46
LBHP 1 (Head)	100.45	586.91
GB	100.08	586.54
RBHP 1 (Head)	100.33	586.79
GB	99.99	586.40
LBHP 2 (Head)	99.35	585.81
GB	98.96	585.42
RBHP 2 (Head)	100.12	586.58
GB	99.77	586.23
LBHP 3 (Head)	98.97	585.43
GB	98.60	585.06
RBHP 3 (Head)	99.02	585.48
GB	98.69	585.15
LBHP 4 (Head)	96.97	583.43
GB	96.55	583.01
RBHP 4 (Head)	98.73	585.19
GB	98.32	584.78
LBHP 5 (Head)	96.62	583.08
GB	96.10	582.56
RBHP 5 (Head)	92.22	578.68
GB	91.76	578.22
LBHP 6 (Head)	89.93	576.39
GB	89.39	575.86
RBHP 6 (Head)	92.31	578.77
GB	91.81	578.27
LBHP 7 (Mouth)	80.10	566.56
GB	79.63	566.09
RBHP 7 (Mouth)	82.54	569.00
GB	82.06	568.52
R&M LRX 29	91.97	578.43

Table EA-2. Cross section elevations in transect 1 (first head) of Slough 8A, surveyed October 10, 1981. Transect dewatered.

<u>Station</u>	<u>Elevation</u>	<u>True Elevation</u>
0.0 LBHP 1	100.45	586.91
0.0 GB	100.13	586.59
7.7 Bankfull	99.96	586.42
15.5	93.80	580.26
18.5	94.37	580.83
21.9	94.86	581.32
26.2	95.54	582.00
31.4	96.15	582.61
39.1	96.44	582.90
46.4	97.72	584.18
48.0 Mainstem RWS	93.31	579.77
50.2	96.37	582.83
52.6	96.05	582.51
54.9	96.35	582.81
57.4	96.68	583.14
59.0	97.64	584.10
65.0	97.66	584.12
67.1	99.13	585.59
68.8 Bankfull	99.92	586.38
78.0 GB	99.95	586.41
78.0 RBHP 1	100.35	586.81

Provisional mainstem Susitna River discharge recorded at Gold Creek on October 10, 1981 was 9,700 cfs (USGS 1981).

Table EA-3. Cross section elevations in transect 2 (second head) of Slough 8A, surveyed October 10, 1981. Transect was dewatered.

<u>Station</u>	<u>Elevations</u>	<u>True Elevation</u>
0.0 LBHP 2	99.35	585.81
0.0 GB	98.96	585.42
11.3	99.31	585.77
21.1	98.69	585.15
26.6 Bankfull	98.61	585.07
37.2	97.85	584.31
48.5	97.34	583.80
57.4	97.14	583.60
70.8	97.45	583.91
77.8	96.74	583.20
88.3	97.30	583.76
95.2	97.57	584.03
103.4	94.41	583.87
116.8	97.85	584.31
125.5	97.77	584.23
131.3	97.31	583.77
137.9	97.03	583.49
150.9	97.19	583.65
166.3	97.31	583.77
170.5	97.04	583.05
137.8	97.45	583.91
194.1	97.04	583.50
199.9	96.74	583.20
207.0	97.11	583.57
233.2	97.11	583.57
247.6	97.05	583.51
257.6	96.83	583.29
269.4	97.16	583.62
264.3	96.86	583.32
300.0 Mainstem RWS	92.18	578.64
328.5	96.70	583.16
336.0	96.40	582.86
381.7	96.40	582.86
396.3	96.75	583.21
427.6	96.75	583.21
443.9	96.30	582.76
452.7	97.03	583.49
463.4	97.33	583.79
480.4	97.61	584.07
486.7	97.65	584.11
490.6 Bankfull	98.24	584.70
497.3	98.98	585.44
507.0 GB	99.77	586.23
507.0 RBHP 2	100.12	586.58

Provisional Susitna River mainstem discharge recorded at Gold Creek on October 10, 1981 was 9,700 cfs (USGS 1981).

Table EA-4. Cross section elevations in transect 3 (third head) of Slough 8A, surveyed October 10, 1981. Transect was dewatered.

<u>Station</u>	<u>Elevation</u>	<u>True Elevation</u>
0.0 LBHP 3	98.97	585.43
0.0 GB	98.60	585.06
11.8	98.33	584.79
21.5 Bankfull	97.66	584.12
24.6	96.95	583.41
26.4	95.97	582.43
34.5	94.42	580.88
45.0	93.83	580.29
48.3	95.02	581.48
52.4	94.81	581.27
56.4	94.59	581.05
61.7	95.03	581.49
70.6	95.22	581.68
81.2	95.30	581.76
86.0 Mainstem RWS*	90.85	577.31
91.4	95.20	581.66
99.7	94.86	581.32
107.6	94.71	581.17
111.6	94.52	580.98
116.0	94.61	581.07
119.1	95.04	581.50
121.5	95.70	582.16
123.4	96.06	582.52
125.8	96.31	582.77
129.0	97.09	583.55
131.2 Bankfull	97.85	584.31
138.2	98.43	584.89
147.1 GB	98.69	585.15
147.1 RBHP 3	99.02	585.48

Provisional mainstem Susitna River discharge recorded at Gold Creek on October 10, 1981 was 9,700 cfs (USGS 1981).

* A right bank mainstem water surface elevation of 577.31 ft was determined at 334° magnetic north at an unknown distance from transect station 86.

Table EA-5. Cross section elevations in transect 4 (fourth head) of Slough 8A, surveyed October 10, 1981. Transect was dewatered.

<u>Station</u>	<u>Elevation</u>	<u>True Elevation</u>
0.0 LBHP 4	96.97	583.43
0.0 GB	96.55	583.01
3.7	96.24	582.70
19.2	95.61	582.07
41.6	95.44	581.90
46.5	95.37	581.83
49.7	94.96	581.42
53.5	94.58	581.04
59.0	94.13	580.59
69.0	93.64	580.10
74.8	94.02	580.48
77.5	94.67	581.13
80.8	94.96	581.42
116.7	94.93	581.39
145.9	95.09	581.55
146.0 Mainstem RWS	90.35	576.81
168.4	94.66	581.12
184.4	94.49	580.95
200.8	94.55	581.01
221.7	94.80	585.26
228.8	95.11	581.57
233.2	95.31	581.77
236.0	95.68	582.14
237.4	96.38	582.84
240.3	96.57	583.03
242.4 Bankfull	97.20	583.66
246.9	97.44	583.90
255.0	98.22	584.68
259.9 GB	98.32	584.78
259.9 RBHP 4	98.73	585.19

Provisional mainstem Susitna River discharge recorded at Gold Creek on October 10, 1981 was 9,700 cfs (USGS 1981).

Table EA-6. Cross section elevations in transect 5 (fifth head) of Slough 8A, surveyed October 11, 1981. Transect was dewatered.

<u>Station</u>	<u>Elevation</u>	<u>True Elevation</u>
0.0 LBHP 5	96.62	583.08
0.0 GB	96.10	582.56
5.0 Bankfull	95.91	582.37
8.2	93.75	580.21
10.1	92.91	579.37
13.5	91.81	578.27
16.3	91.21	577.67
19.5	90.52	576.98
24.1	90.30	576.76
28.8	91.07	577.53
31.1	90.40	576.86
34.8	90.04	577.50
39.3	89.60	576.06
45.7	88.53	574.99
47.3	88.82	575.28
50.4	88.51	574.97
52.4	89.15	575.61
55.2	89.79	576.25
57.7	90.59	577.05
61.5	90.27	576.73
63.6	90.65	577.11
66.9	89.95	576.41
70.3	89.28	575.94
74.2	89.65	576.11
78.3	90.01	576.47
81.9	90.16	576.62
84.0	89.75	576.21
86.5	89.87	576.33
88.7	89.05	575.51
90.7	88.20	574.66
93.0	87.56	574.02
95.0	87.28	573.74
98.7	87.77	574.23
100.9	88.71	575.17
102.3	89.10	575.56
104.2	89.45	575.91
106.1	89.31	575.77
108.0	88.59	575.05
109.3	88.08	574.54
110.7	87.02	573.48
114.7	87.08	573.54
116.1	87.80	574.26
118.4	87.42	573.88
121.8	87.08	573.54
126.3	86.71	573.17
129.5	86.94	573.40
140.3	86.78	573.24

Table EA-6. (Continued).

<u>Station</u>	<u>Elevation</u>	<u>True Elevation</u>
147.8	87.15	573.61
153.3	87.13	573.59
156.0	87.49	573.95
164.0	87.68	574.14
170.6	88.12	574.58
175.5	88.49	574.95
178.5	88.31	574.77
182.0	88.84	575.30
185.5	88.28	574.75
187.3	88.20	574.66
188.7	88.63	575.09
194.9	88.66	575.12
198.1	88.97	575.43
202.7	88.57	575.03
208.4	88.79	575.25
211.7	88.33	574.79
216.2	89.35	575.81
217.2	90.47	576.93
218.6 Bankfull	91.26	577.72
226.1 GB	91.76	578.22
226.1 RBHP 5	92.22	578.68

Provisional mainstem Susitna River discharge recorded at Gold Creek on October 11, 1981 was 8,820 cfs (USGS 1981).

Table EA-7. Cross section elevations in transect 6 (sixth head) of Slough 8A, surveyed October 10, 1981. Transect was dewatered.

<u>Station</u>	<u>Elevation</u>	<u>True Elevation</u>
0.0 LBHP 6	89.93	576.39
0.0 GB	89.39	575.85
14.0 Bankfull	89.20	575.66
33.6	88.28	574.74
58.3	87.61	574.07
105.3	87.36	573.82
123.4	86.98	573.44
170.5	87.01	573.47
181.0 Mainstem RWS	82.56	569.02
194.5	86.57	573.03
222.5	86.93	573.39
240.3	87.31	573.77
257.3	86.84	573.30
269.1	86.73	573.19
278.4	87.77	574.23
286.9	88.63	575.09
291.2	88.93	575.39
294.3 Bankfull	90.11	576.57
298.4	90.69	447.15
304.0	91.34	577.80
309.0	91.91	578.37
314.1 GB	91.81	578.27
314.1 RBHP 6	92.31	578.77

Provisional mainstem Susitna River discharge recorded at Gold Creek on October 10, 1891 was 9,700 cfs (USGS 1981).

Table EA-8. Cross section elevations in transect 7 (mouth) of Slough 8A, surveyed October 10, 1981.

<u>Station</u>	<u>Elevation</u>	<u>True Elevation</u>
0.0 LBHP 7	80.10	566.56
0.0 GB	79.63	566.09
11.7 Bankfull	79.75	566.21
16.3	78.92	565.38
22.0	77.75	564.21
28.2	77.01	563.47
36.6	76.64	563.10
38.9	76.67	563.13
44.8	75.94	562.40
53.6	75.90	562.36
62.8	75.79	562.25
100.5 LWE	74.61	561.07
100.5 LWS	74.65	561.11
112.4	74.30	560.76
131.6	73.92	560.38
141.7	73.43	559.89
156.3	73.02	559.48
165.6	72.66	559.12
171.6	72.47	558.93
178.0	72.13	558.59
181.0	73.14	559.60
183.1 RWE	74.58	561.04
183.1 RWS	74.67	561.13
185.8	76.26	562.72
190.6 Bankfull	82.01	568.47
194.1 GB	82.06	568.52
194.1 RBHP 7	82.54	569.00

Provisional mainstem Susitna River discharge recorded at Gold Creek on October 10, 1981 was 9,700 cfs (USGS 1981).

Table 4-E-19. Head pin elevations in Slough 8A surveyed August 23, 1982 (see pages E-1, -2 for definitions of terms).

<u>Bench Mark</u>	<u>Elevation (ft)</u>	<u>True Elevation (ft)</u>
LBHP 1	105.48	573.03
RBHP 1 (WP ^a)	100.72	568.27
LBHP 2	105.90	573.45
RBHP 2	100.95	568.50
LBHP 3	100.62	568.17
RBHP 3	100.86	568.41
LBHP 4	100.00	567.55
RBHP 4	100.83	568.38
LBHP 5	102.05	569.60
RBHP 5	101.67	569.22
LBHP 6	101.47	569.02
RBHP 6	102.13	569.68
LBHP 7	101.02	568.57
RBHP 7	102.43	569.98
LBHP 8	101.09	568.64
RBHP 8	102.38	569.93
LBHP 9	101.47	569.02
RBHP 9	103.31	570.86
LBHP 10	103.08	570.63
RBHP 10	106.60	574.15
LBHP 11	102.55	570.10
RBHP 11	107.44	574.99

^aWorking pin

Table 4-E-20. Cross section elevations in transect 1 of Slough 8A surveyed August 22, 1982 (see pages E-1, -2, for definitions of terms).

<u>Station (ft)</u>	<u>Elevation (ft)</u>	<u>True Elevation (ft)</u>	<u>Comments and Substrate</u>
0.0 LBHP 1	105.48	573.03	--
0.0 GB	105.08	572.63	Vegetation ^a
2.1	104.93	572.48	Vegetation ^b
3.2	104.12	571.67	Vegetation ^c
3.9	101.44	568.99	Cut bank
10.7 LWS, LWE	97.90	565.45	SA SI
13.2	97.16	564.71	SA SI
28.0	96.48	564.03	SA SI
58.6	96.52	564.07	SA SI
80.2	97.18	564.73	SA SI
93.0 RWS, RWE	97.93	565.48	SA SI
99.2	98.83	566.38	Vegetation ^a
101.9	99.81	567.36	Vegetation ^b
107.7	100.43	567.98	High bank
110.7 RBWP 1	100.73	568.28	Vegetation ^b
110.7 GB	100.37	567.92	Vegetation ^b
117.2	99.46	567.01	Vegetation ^b
122.2	98.53	567.08	Vegetation ^b
127.4	98.89	566.44	Vegetation ^c
131.4	99.97	567.52	Vegetation ^c
162.4	99.28	566.83	Vegetation ^c
169.0	100.27	567.82	Vegetation ^c
172.1 GB	100.90	568.45	Vegetation ^d
172.1 RBHP 1	101.04	568.59	Vegetation ^d

^aVegetation of undetermined type.

^bVegetation dominated by horsetail.

^cVegetation dominated by sedges.

^dVegetation dominated by willows.

Table 4-E-21. Cross section elevations in transect 2 of Slough 8A surveyed August 22, 1982 (see pages E-1, -2, for definitions of terms).

<u>Station (ft)</u>	<u>Elevation (ft)</u>	<u>True Elevation (ft)</u>	<u>Comments and Substrate</u>
0.0 LBHP 2	105.90	573.45	Vegetation
0.0 GB	105.41	572.96	Vegetation
2.3	104.89	572.44	Vegetation
3.3	101.21	568.76	Cut bank
10.0	99.59	561.14	Vegetation
20.0	98.73	566.28	Vegetation
24.2 LWS, LWE	97.94	565.49	RU CO
28.7	97.37	564.92	RU CO
44.0	96.69	564.24	RU CO
53.0	96.27	563.82	RU CO
67.1	96.18	563.73	CO SI
78.5	96.72	564.27	CO SI
89.4	97.11	564.66	CO SI
92.0 RWS, RWE	97.92	565.47	SA
97.6	98.80	566.35	Vegetation
111.5 GB	100.71	588.26	Vegetation
111.5 RBHP 2	100.97	568.52	Vegetation

Table 4-E-22. Cross section elevations in transect 3 of Slough 8A surveyed August 22, 1982 (see pages E-1, -2, for definitions of terms).

<u>Station (ft)</u>	<u>Elevation (ft)</u>	<u>True Elevation (ft)</u>	<u>Comments and Substrate</u>
0.0 LBHP 3	100.62	568.17	--
0.0 GB	100.55	568.10	--
5.5	99.92	567.47	Vegetation
8.4	98.69	566.24	Cut bank
9.0 LWS, LWE	97.96	565.51	Cut bank
9.1	97.63	565.18	RU CO
10.9	97.12	564.67	RU CO
24.9	97.00	564.55	RU CO
42.8	97.18	564.73	RU CO
46.9	97.94	565.49	RU CO
50.6	98.05	565.60	RU CO
54.9	97.94	565.49	GR RU
63.9	97.37	564.92	GR RU
77.0	97.56	565.11	GR RU
82.1 RWS, RWE	97.98	565.53	Vegetation
83.9	98.71	566.26	Cut bank
90.0	99.86	567.41	Vegetation
107.3 GB	100.61	568.16	Vegetation
107.3 RBHP 3	100.88	568.43	Vegetation

Table 4-E-23. Cross section elevations in transect 4 of Slough 8A surveyed by R & M Consultants (see pages E-1, -2, for definitions of terms).

<u>Station (ft)</u>	<u>Elevation (ft)</u>	<u>True Elevation (ft)</u>	<u>Comments and Substrate</u>
0.0 GB (LBHP 4)	100.82	568.37	CO RU
5.0	100.40	567.95	CO RU
14.0	99.10	566.65	High bank
15.0 LWS, LWE	98.09	565.64	--
24.0	96.90	564.45	CO RU
34.0	96.50	564.05	CO RU
43.0	96.80	564.35	CO RU
56.0 RWS, RWE	98.49	566.04	--
73.0	111.80	579.35	CO RU
90.0	99.60	567.15	CO RU
100.0 GB (RBHP 4)	100.01	567.56	CO RU

Table 4-E-24. Cross section elevations in transect 5 of Slough 8A surveyed August 22, 1982 (see pages E-1, -2, for definitions of terms).

<u>Station (ft)</u>	<u>Elevation (ft)</u>	<u>True Elevation (ft)</u>	<u>Comments and Substrate</u>
0.0 LBHP 5	102.05	569.60	Vegetation
0.0 GB	101.81	569.36	Vegetation
11.6	99.79	567.34	SA
17.2 LWS, LWE	98.44	566.49	SA
26.4	94.28	561.83	CO SI
31.2	93.78	561.33	CO SI
36.4	93.68	561.23	CO SI
39.3	94.00	561.55	CO SI
49.2	96.34	563.89	CO SI
54.8	97.03	564.58	RU SI
58.8	96.95	564.50	RU SI
66.3	97.61	565.16	RU CO
80.4	98.40	565.95	RU CO
80.5 RWS, RWE	98.47	566.02	Vegetation
80.6	98.62	566.17	Cut bank
82.4	98.89	566.44	Vegetation
83.9	99.32	566.87	Vegetation
86.4	99.52	567.07	Vegetation
99.8	100.41	567.96	Vegetation
115.2 GB	101.31	568.86	Vegetation
115.2 RBHP 5	101.69	569.24	Vegetation

Table 4-E-25. Cross section elevations in transect 6 of Slough 8A surveyed August 22, 1982 (see pages E-1, -2, for definitions of terms).

<u>Station (ft)</u>	<u>Elevation (ft)</u>	<u>True Elevation (ft)</u>	<u>Comments and Substrate</u>
0.0 LBHP 6	101.47	569.02	--
0.0 GB	101.25	568.80	Vegetation
27.9	98.98	566.53	Cut bank
28.1 LWS	98.48	566.03	RU CO
28.1 LWE	98.34	565.89	RU CO
33.2	98.33	565.88	RU CO
37.9	98.10	565.65	RU CO
41.9	98.06	565.61	RU CO
54.7	98.24	565.79	RU CO
68.2	97.94	565.49	RU CO
73.7	98.32	565.87	RU CO
81.9	98.25	565.80	RU CO
86.6 LWS, LWE	98.51	566.06	RU CO
87.7	99.13	566.68	Vegetation
93.7	99.59	567.14	Vegetation
95.8	98.92	566.47	SI CO
97.1	98.70	566.25	SI CO
98.2	98.83	566.38	SI CO
98.8	99.21	566.76	Vegetation
100.5	99.25	566.80	Vegetation
102.3	100.04	567.59	Vegetation
104.6	100.43	567.98	Vegetation
119.2 GB	101.85	569.40	Vegetation
119.2 RBHP 6	102.15	569.70	Vegetation

Table 4-E-26. Cross section elevations in transect 7 of Slough 8A surveyed August 22, 1982 (see pages E-1, -2, for definitions of terms).

<u>Station (ft)</u>	<u>Elevation (ft)</u>	<u>True Elevation (ft)</u>	<u>Comments and Substrate</u>
0.0 LBHP 7	101.02	568.57	--
0.0 GB	100.74	568.29	--
16.3	100.09	567.64	--
19.1	99.52	567.07	Vegetation
23.1	99.11	566.66	Vegetation
28.0 LWS, LWE	98.78	566.33	GR RU
34.7	98.48	566.03	GR RU
46.4	98.61	566.16	GR RU
55.9	98.43	565.98	GR RU
62.0	98.13	566.00	GR RU
67.2	98.59	566.14	GR RU
69.1	98.34	565.89	GR RU
73.7	98.63	566.18	GR RU
81.0	98.38	565.93	GR RU
92.2	98.53	566.08	GR RU
98.7 RWS, RWE	98.74	566.29	GR RU
99.3	99.27	566.82	Vegetation
101.8	99.66	567.21	Vegetation
120.3 GB	102.19	569.74	Vegetation
120.3 RBHP 7	102.44	569.99	Vegetation

Table 4-E-27. Cross section elevations in transect 8 of Slough 8A surveyed August 22, 1982 (see pages E-1, -2, for definitions of terms).

<u>Station (ft)</u>	<u>Elevation (ft)</u>	<u>True Elevation (ft)</u>	<u>Comments and Substrate</u>
0.0 LBHP 8	101.09	568.64	--
0.0 GB	100.81	568.36	Vegetation
4.9	100.27	567.82	Vegetation
6.6	99.54	567.09	Vegetation
9.3	99.44	566.99	Vegetation
11.3	100.04	567.59	Vegetation
16.0	100.17	567.72	Vegetation
23.5	99.23	566.78	Vegetation
24.2 LWE	99.09	566.64	GR RU
24.2 LSE	99.07	566.62	GR RU
26.5	98.81	566.36	GR RU
33.7	98.90	566.45	GR RU
42.1	99.06	566.61	GR RU
44.0	99.18	566.73	GR RU
47.4	99.01	566.56	GR RU
51.1	98.87	566.42	GR RU
53.4	98.95	566.50	GR RU
58.1	98.97	566.52	GR RU
62.6	98.77	566.32	GR RU
73.3	98.29	565.84	GR RU
85.0	98.65	566.20	GR RU
89.5	98.85	566.40	GR RU
94.0	98.96	566.51	GR RU
95.9 RWS, RWE	99.06	566.61	GR RU
103.2	99.23	566.78	GR RU
106.4	99.77	567.32	Vegetation
111.8	100.85	568.40	Vegetation
118.0	102.00	569.55	Vegetation

Table 4-E-27. (Continued).

<u>Station (ft)</u>	<u>Elevation (ft)</u>	<u>True Elevation (ft)</u>	<u>Comments and Substrate</u>
122.3 GB	102.21	569.76	Vegetation
122.3 RBHP 8	102.40	569.95	Vegetation

Table 4-E-28. Cross section elevations in transect 9 of Slough 8A surveyed August 22, 1982 (see pages E-1, -2, for definitions of terms).

<u>Station (ft)</u>	<u>Elevation (ft)</u>	<u>True Elevation (ft)</u>	<u>Comments and Substrate</u>
0.0 LBHP 9	101.46	569.01	--
0.0 GB	101.30	568.85	Vegetation
3.6	100.24	567.79	Vegetation
5.4	100.44	567.99	Vegetation
6.5	100.91	568.46	Vegetation
9.9	100.61	568.16	Vegetation
33.3 LWS, LWE	99.93	567.48	GR RU
44.6	99.49	567.04	GR RU
48.5	99.60	567.15	GR RU
56.2	99.14	566.69	GR RU
64.8	99.29	566.84	GR RU
66.2	99.57	567.12	GR RU
67.8	99.31	566.86	GR RU
74.5	99.03	566.58	GR RU
80.8	98.59	566.14	GR RU
89.0	98.95	566.50	GR RU
95.3	99.17	566.72	GR RU
103.0	99.25	566.80	GR RU
104.9 RWS, RWE	99.66	567.21	GR RU
105.7	100.01	567.56	Vegetation
106.1	100.45	568.00	Vegetation
109.7	100.91	568.46	Vegetation
120.2	101.25	568.80	Vegetation
121.4	101.75	569.30	Vegetation
127.5 GB	102.63	570.18	Vegetation
127.5 RBHP 9	103.33	570.88	Vegetation

Table 4-E-29. Cross section elevations in transect 10 of Slough 8A surveyed August 22, 1982 (see pages E-1, -2, for definitions of terms).

<u>Station (ft)</u>	<u>Elevation (ft)</u>	<u>True Elevation (ft)</u>	<u>Comments and Substrate</u>
0.0 LBHP 10	103.07	570.62	--
0.0 GB	102.84	570.39	Vegetation
3.2	102.50	570.05	Vegetation
12.9	100.79	568.34	Vegetation
15.0	101.30	568.85	Vegetation
19.7	101.18	568.73	Vegetation
20.1	100.37	567.87	Vegetation
25.0 LWS, LWE	99.64	567.19	SI
27.8	99.27	566.82	GR RU
43.4	98.95	566.50	RU CO
48.4	99.26	566.81	GR SA
50.8	99.40	566.95	GR SA
68.9	98.74	566.29	RU CO
97.0	99.65	567.20	RU CO
101.3 RWS, RWE	100.23	567.78	RU CO
109.0	102.37	569.92	Vegetation
109.8	103.28	570.83	--
116.2 GB	106.35	573.90	--
116.2 RBHP 10	106.59	574.14	--

Table 4-E-30. Cross section elevations in transect 11 of Slough 8A surveyed August 22, 1982 (see pages E-1, -2, for definitions of terms).

<u>Station (ft)</u>	<u>Elevation (ft)</u>	<u>True Elevation (ft)</u>	<u>Comments and Substrate</u>
0.0 LBHP 11	102.55	570.10	--
0.0 GB	102.32	569.87	Vegetation
24.9	101.14	568.69	Vegetation
26.3	100.42	567.97	Vegetation
27.5	100.12	567.67	Vegetation
34.1 LWS, LWE ^a	99.65	567.20	SA GR
34.3	99.63	567.18	RU CO
38.8	99.38	566.93	RU CO
40.0 RWS, RWE	99.64	567.19	RU CO
41.7	99.89	567.44	RU CO
42.8 LWS, LWE ^b	99.65	567.20	RU CO
44.5	99.21	566.76	RU CO
47.7	99.55	567.10	RU CO
47.7	99.65	567.20	RU CO
47.9	100.14	567.69	Vegetation
51.2	100.49	568.04	Vegetation
53.0	100.23	567.78	RU CO
58.3	99.65	567.20	RU CO
63.2	99.42	566.97	RU CO
65.1	99.57	567.12	RU CO
68.5	99.52	567.07	SA
69.3 RWS, RWE	99.65	567.20	SA
70.1	99.64	567.19	SA
71.0 LWS, LWE ^c	99.65	567.20	SA
74.4	99.18	566.73	SA CO
80.8	98.15	565.70	RU CO
84.1	97.92	565.47	RU CO
98.0 RWS, RWE	99.65	567.20	RU CO

Table 4-E-30. (Continued).

<u>Station (ft)</u>	<u>Elevation (ft)</u>	<u>True Elevation (ft)</u>	<u>Comments and Substrate</u>
99.6	100.34	567.89	RU CO
105.2	102.22	569.77	RU CO
113.0	102.60	570.15	Vegetation
118.0	104.35	571.90	Vegetation
119.6	105.80	573.35	Vegetation
120.7	107.11	574.66	Vegetation
121.4 GB	107.21	574.76	Vegetation
121.4 RBHP 11	107.45	575.00	Vegetation

^aStations 34.1 and 40.0 are edges of small channel.

^bStations 42.8 and 69.3 are edges of larger channel.

^cStations 71.0 and 98.0 are edges of small channel.

Table 4-E-31. Data (ft) for streambed (thalweg) profile of Slough 8A, 1982 (see pages E-3, -4 for definitions of terms).

<u>Point</u>	<u>Distance</u>	<u>Station</u>	<u>Thalweg Elevation</u>	<u>Depth</u>	<u>WSE^a</u>	<u>Comments</u>
1	74	-3 + 74	558.60	1.05	559.65	Riffle
2	75	-3 + 00	559.40	0.35	559.75	Top riffle
3	75	-2 + 25	558.95	0.85	559.80	Backwater
4	50	-1 + 50	558.40	1.40	559.80	Backwater
5	63	-1 + 00	557.85	2.05	559.90	Backwater
6	37	-0 + 37	559.40	0.50	559.90	Backwater
7	133	0 + 00	558.50	1.45	559.95	Mouth
8	6	1 + 33	556.95	3.00	559.95	Pool
9	50	1 + 39	559.30	0.70	560.00	Head pool
10	113	1 + 89	559.95	0.20	560.15	Top pool
11	107	3 + 02	560.60	0.35	560.95	Top riffle
12	74	4 + 09	559.70	1.25	560.95	Pool
13	114	4 + 83	560.40	0.55	560.95	Pool
14	151	5 + 97	560.05	0.90	560.95	Pool
15	112	7 + 48	560.05	0.90	560.95	Pool
16	53	8 + 60	560.15	0.80	560.95	Pool
17	144	9 + 13	559.70	1.25	560.95	Pool
18	22	10 + 57	560.55	0.40	560.95	Pool
19	18	10 + 79	560.75	0.20	560.95	Top pool
20	37	10 + 97	561.15	0.20	561.35	Top riffle
21	43	11 + 34	560.85	0.55	561.40	Run
22	43	11 + 77	561.05	0.45	561.50	Run
23		12 + 20	561.00	0.55	561.55	Run

Table 4-E-31. (Continued).

<u>Point</u>	<u>Distance</u>	<u>Station</u>	<u>Thalweg Elevation</u>	<u>Depth</u>	<u>WSE^a</u>	<u>Comments</u>
24	40	12 + 60	561.50	0.20	561.70	Btm. riffle
25	20	12 + 80	562.05	0.60	562.65	Btm. pool
26	72	13 + 52	562.05	0.65	562.70	Pool
27	24	13 + 76	562.40	0.30	562.70	Pool
28	7	13 + 83	562.40	0.40	562.80	Run
29	41	14 + 24	562.15	0.70	562.85	Run
30	15	14 + 39	562.60	0.40	563.00	-
31	36	14 + 75	562.80	0.35	563.15	-
32	47	15 + 22	563.00	0.40	563.40	-
33	123	16 + 45	563.50	0.20	563.70	-
34	244	18 + 89	563.60	0.30	563.90	-
35	10	18 + 99	563.50 ^b	2.00 ^b	565.50	Top dam
36	156	20 + 55	563.00 ^b	2.50 ^b	565.50	-
37	150	22 + 05	559.50 ^b	4.00 ^b	565.50	Rt. bank
38	269	24 + 74	563.50 ^b	2.00 ^b	565.50	Pool
39	132	26 + 06	562.50 ^b	3.00 ^b	565.50	Pool
40	208	28 + 14	564.00 ^b	2.00 ^b	565.75	Water edge
41	111	29 + 25	563.75 ^b	2.00 ^b	565.75	-
42	90	30 + 15	564.55	1.23	565.78	-
43	132	31 + 47	564.05	2.31	566.36	-
44	89	32 + 36	561.25	5.13	566.35	-
45	66	33 + 02	565.60	0.76	566.35	-
46	41	33 + 43	565.70	0.79	566.45	-

Table 4-E-31. (Continued).

<u>Point</u>	<u>Distance</u>	<u>Station</u>	<u>Thalweg Elevation</u>	<u>Depth</u>	<u>WSE^a</u>	<u>Comments</u>
47	103	34 + 46	565.85	0.95	566.80	-
48	176	36 + 22	566.15	1.29	567.45	-
49	113	37 + 35	566.30	1.16	567.45	-
50	88	38 + 23	565.45	1.98	567.45	-
52	50	38 + 73	566.60	0.43	567.05	Btm. riffle
53	131	40 + 04	568.40	0.16	568.60	Top riffle
54	185	41 + 89	567.80	0.82	568.60	Top pool
55	44	42 + 33	568.35	0.56	568.90	Top riffle
56	140	43 + 73	568.25	0.84	569.10	Top pool
57	45	44 + 18	569.10	0.64	569.75	Top riffle
58	69	44 + 87	567.80	1.95	569.75	Pool
59	67	45 + 54	569.15	0.60	569.75	Top pool
60	35	45 + 89	569.15	0.64	569.80	Btm. riffle
61	71	46 + 60	570.15	0.58	569.75 ^b	Top riffle
62	159	48 + 19	570.05	0.79	570.80	Pool
63	151	49 + 70	569.60	1.27	570.85	Pool
64	178	51 + 48	570.55	0.32	570.85	Riffle
65	116	52 + 64	570.20	0.74	570.90	-
66	340	56 + 04	567.90 ^b	3.00 ^b	567.95	On ice
67	331	59 + 35	567.90 ^b	3.00 ^b	567.50	On ice
68	291	62 + 26	570.40	0.50	570.90	-
69	178	64 + 04	570.95	0.35	571.30	-
70	178	65 + 82	571.90	--	--	- ^c

Table 4-E-31. (Continued).

<u>Point</u>	<u>Distance</u>	<u>Station</u>	<u>Thalweg Elevation</u>	<u>Depth</u>	<u>WSE^a</u>	<u>Comments</u>
71	365	69 + 47	571.25	0.97	572.25	-
72	217	71 + 64	573.80	--	--	No water ^c
73	290	74 + 54	573.70	0.24	573.95	-
74	170	76 + 24	573.15	--	--	No water ^c
75	293	79 + 17	575.35	--	--	No water ^c
76	339	82 + 56	576.45	--	--	Head ^c
77	120	83 + 76	575.05	--	--	No water ^c
78	975	93 + 51	576.15	--	--	No water ^c
79	1012	103 + 63	579.20	--	--	No water ^c
80	300	106 + 63	580.25	--	--	No water ^c

^aWater surface elevation.

^bEstimated value.

^cNo water at time of survey.

Appendix Table 2-B-26. Cross sectional elevations obtained at
Side Slough 8A mouth, staff gage 125.3W5.
Surveyed by ADF&G on October 19, 1983.

STATION	ELEVATION	DESCRIPTION
0.0	566.01	LBHP R&M ALCAP 125.2W1RB
0.0	565.82	GROUND BY LBHP ALCAP
8.0	563.99	MID LEFT BANK
14.0	563.25	
16.0	562.49	BOTTOM OF LEFT BANK
30.0	561.34	LEW
52.0	560.68	
61.0	560.69	
81.0	560.11	
106.0	559.67	
113.0	559.12	
118.0	559.25	
137.0	558.93	
156.0	558.62	
165.0	558.93	
170.0	559.26	
75.0	560.61	
177.0	561.36	REW
178.0	562.22	BOTTOM OF RIGHT BANK
179.0	566.21	MID-BANK
184.0	567.57	TOP OF RIGHT BANK
189.0	568.37	GROUND BY RBHP
189.0	568.54	RBHP R&M ALCAP 125.2W1LB

Appendix Table 2-B-27. Cross sectional elevations obtained at Side Slough 8A (upper backwater), staff gage 125.3S6. Surveyed by ADF&G on July 18, 1983.

STATION	ELEVATION	DESCRIPTION
0.0	570.07	LBHP ADF&G ALCAP 125.3S6LB
0.0	569.82	GROUND BY ALCAP
3.0	569.73	TOP OF LEFT BANK
13.0	564.95	MID-BANK
28.0	564.73	EDGE OF VEGETATION
32.0	563.77	
33.0	563.33	
40.0	562.93	LWE
62.0	561.05	
94.0	561.52	
132.0	562.29	
155.0	561.49	
170.0	562.88	RWE
171.0	563.86	BOTTOM OF RIGHT BANK
187.0	564.75	MID-BANK
197.0	566.77	TOP OF RIGHT BANK
206.0	567.53	GROUND BY RB ALCAP
206.0	567.95	RBHP ADF&G ALCAP 125.3S6RB

pendix Table 2-B-28. Cross sectional elevations obtained at Side Slough 8A (lower Q site), staff gage 125.3S4. Surveyed by ADF&G on July 18, 1983.

STATION	ELEVATION	DESCRIPTION
0.0	567.97	LBHP ADF&G ALCAP 125.3S4LB
0.0	567.44	GROUND BY ALCAP
10.0	566.12	TOP OF LEFT BANK
12.0	564.20	BOTTOM OF LEFT BANK
19.0	564.50	DRY STREAM BED
23.0	564.26	BOTTOM OF RIGHT BANK
26.0	565.71	HIGH BANK
38.0	565.72	MID-GRAVEL BAR
50.0	564.84	HIGH BANK
52.0	563.51	BOTTOM OF LEFT BANK
54.0	562.99	
68.0	563.25	
85.0	563.53	RWE
87.0	563.88	BOTTOM OF RIGHT BANK
101.0	565.98	TOP OF RIGHT BANK
126.0	566.41	MID-ISLAND
167.0	565.93	TOP OF LEFT BANK
171.0	564.55	MID-BANK
175.0	564.02	BOTTOM OF LEFT BANK
177.0	563.61	LWE
185.0	562.91	
199.0	563.55	RWE
215.0	565.45	EDGE OF VEGETATION
226.0	565.26	MID-BANK
235.0	568.38	TOP OF BANK

Appendix Table 2-B-28. continued.

STATION	ELEVATION	DESCRIPTION
239.0	568.89	GROUND BY ALCAP
239.0	569.28	RBHP 125.3S4 ADF&G ALCAP

Table 2-B-29. Cross sectional elevations obtained at Side Slough 8A (northwest channel Q site), staff gage 125.3S3. Surveyed by ADF&G on July 18, 1983.

STATION	ELEVATION	DESCRIPTION
0.0	573.32	LBHP ADF&G ALCAP 125.3S3LB
0.0	572.90	GROUND BY ALCAP
9.0	573.06	TOP OF LEFT BANK
16.0	570.13	MID BANK
22.0	568.48	BOTTOM OF BANK
25.0	566.61	
29.0	566.15	LWE
35.0	565.81	
44.0	565.70	
64.0	566.03	RWE
69.0	566.34	EDGE OF VEGETATION
71.0	567.19	BOTTOM OF BANK
82.0	568.61	MID-BANK
95.0	570.70	TOP OF BANK
122.0	571.47	GROUND BY ALCAP
122.0	572.08	RBHP ADF&G ALCAP 125.3SLB

Appendix Table 2-B-30. Cross sectional elevations obtained at Side Slough 8A (northwest channel head), staff gage 125.3H2. Surveyed by ADF&G on May 15, 1983.

STATION	ELEVATION	DESCRIPTION
0.0	577.11	LBHP R&M ALCAP 126.1H4RB
0.0	575.46	EDGE OF VEGETATION
66.0	574.29	
100.0	574.23	
135.0	573.55	
172.0	573.18	
232.0	573.11	
260.0	573.92	EDGE OF VEGETATION
279.0	582.40	RBHP REBAR

Appendix Table 2-B-31. Cross sectional elevations obtained at Side Slough 8A (northeast channel head), staff gage 125.3H7. Surveyed by ADF&G on August 4, 1983.

STATION	ELEVATION	DESCRIPTION
0.0	583.87	LBHP ADF&G REBAR
0.0	583.52	GROUND BY LBHP
16.5	583.48	TOP OF LEFT BANK
20.0	580.33	MID-BANK
24.0	579.30	BOTTOM OF BANK
36.0	578.98	
50.0	578.99	
54.0	580.33	
56.0	579.75	
60.0	578.51	
62.5	577.80	
67.0	579.28	
75.5	579.46	
86.0	579.64	
97.0	579.59	
103.0	578.97	
108.0	578.05	
119.0	578.33	
126.0	577.37	
132.0	577.98	
140.0	577.95	
151.0	577.18	
168.0	577.39	
180.0	577.06	
187.0	577.12	

Appendix Table 2-B-31. continued.

STATION	ELEVATION	DESCRIPTION
200.0	577.13	
209.0	577.31	
225.0	577.19	
234.0	577.60	
247.8	578.39	
260.0	579.33	
271.0	579.10	
294.5	579.96	GROUND BY RBHP
294.5	580.28	RBHP ADF&G REBAR

Appendix Table 2-B-31. continued.

STATION	ELEVATION	DESCRIPTION
200.0	577.13	
209.0	577.31	
225.0	577.19	
234.0	577.60	
247.8	578.39	
260.0	579.33	
271.0	579.10	
294.5	579.96	GROUND BY RBHP
294.5	580.28	RBHP ADF&G REBAR