

BEAR RIVER BASIN

10092700 BEAR RIVER AT IDAHO-UTAH STATE LINE--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1971 to June 1973, November 1990 to September 1991, October 1993 to September 1994, April to September 1996 (discontinued)

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: May to September, 1996 (discontinued).

INSTRUMENTATION.--Temperature recording data logger.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 25.1 °C, July 31, August 15, 1996.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 25.1 °C, July 31, August 15.

WATER-QUALITY DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, SOLVED SATUR-ATION (MG/L) (00300)	OXYGEN, (PER-CENT) (00301)	COLI-FORM, FECAL, UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCI KF AGAR (COLS./100 ML) (31673)
APR 23...	1030	1560	637	8.1	16.0	7.5	25	11.1	109	81	--
MAY 22...	0930	2310	541	8.1	8.0	11.5	40	8.3	90	K490	160
JUN 18...	0905	842	596	8.1	19.0	17.0	24	8.0	98	600	600
JUL 17...	0955	300	780	8.1	20.5	20.0	4.9	6.6	85	240	260
AUG 21...	0845	184	838	8.2	13.0	19.0	5.2	7.4	93	200	250
SEP 17...	0915	286	1030	8.3	5.5	12.5	1.1	8.3	91	150	370

DATE	HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	BICAR-BONATE WATER WH FET FIELD (MG/L AS HCO3) (00440)	ALKA-LINITY WAT WH TOT FET FIELD (MG/L AS CACO3) (00410)
SEP 17...	320	59	41	84	35	13	360	294

DATE	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, RESIDUE AT 180 DEG. C (MG/L) (70300)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L) (70301)	SOLIDS, DIS-SOLVED PER AC-FT (MG/L) (70303)	SOLIDS, DIS-SOLVED PER DAY (MG/L) (70302)
SEP 17...	67	110	0.4	14	578	566	0.79	446

DATE	NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)
APR 23...	0.01	0.51	0.05	0.5	0.12	0.02	114	480
MAY 22...	0.02	0.34	0.07	0.5	0.12	0.02	142	886
JUN 18...	0.01	0.16	0.06	0.5	0.05	0.02	74	168
JUL 17...	0.03	0.17	0.08	0.4	0.02	0.02	29	23
AUG 21...	0.01	0.18	0.04	0.5	0.04	0.02	28	14
SEP 17...	0.01	0.15	0.07	0.4	0.02	0.01	8	6.2

K Results based on counts outside ideal colony range.

BEAR RIVER BASIN

10092700 BEAR RIVER AT IDAHO-UTAH STATE LINE--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996

DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
	APRIL			MAY			JUNE		
	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
1	---	---	---	---	---	---	16.0	11.0	13.2
2	---	---	---	---	---	---	16.4	11.4	14.1
3	---	---	---	---	---	---	17.0	12.3	14.9
4	---	---	---	---	---	---	17.8	13.1	15.4
5	---	---	---	---	---	---	18.0	14.1	16.1
6	---	---	---	---	---	---	17.8	13.4	15.7
7	---	---	---	---	---	---	18.8	13.8	16.3
8	---	---	---	---	---	---	19.9	14.9	17.2
9	---	---	---	---	---	---	20.2	14.1	17.6
10	---	---	---	---	---	---	20.7	14.6	18.1
11	---	---	---	---	---	---	---	---	---
12	---	---	---	---	---	---	---	---	---
13	---	---	---	---	---	---	---	---	---
14	---	---	---	---	---	---	---	---	---
15	---	---	---	---	---	---	---	---	---
16	---	---	---	---	---	---	---	---	---
17	---	---	---	---	---	---	---	---	---
18	---	---	---	---	---	---	---	---	---
19	---	---	---	---	---	---	---	---	---
20	---	---	---	---	---	---	---	---	---
21	---	---	---	---	---	---	---	---	---
23	---	---	---	14.3	10.9	12.6	---	---	---
24	---	---	---	14.1	11.2	12.8	---	---	---
25	---	---	---	13.2	11.5	12.2	---	---	---
26	---	---	---	12.4	11.0	11.6	---	---	---
27	---	---	---	14.3	10.6	12.3	---	---	---
28	---	---	---	13.9	11.4	12.2	---	---	---
29	---	---	---	13.4	11.0	12.0	---	---	---
30	---	---	---	13.5	10.9	12.2	---	---	---
31	---	---	---	14.1	10.6	12.4	---	---	---
MONTH	---	---	---	---	---	---	---	---	---
DAY	MAX	MIN	MEAN	MAX	MIN	MEAN	MAX	MIN	MEAN
JULY			AUGUST			SEPTEMBER			
1	---	---	---	24.0	21.5	22.7	21.2	18.8	20.1
2	---	---	---	23.9	20.7	22.2	20.6	18.6	19.7
3	---	---	---	22.7	20.9	21.8	21.2	18.8	19.8
4	---	---	---	23.2	20.1	21.8	20.2	18.6	19.5
5	---	---	---	21.9	19.6	20.8	20.2	18.2	19.1
6	---	---	---	21.9	19.1	20.5	18.4	16.2	17.3
7	---	---	---	23.2	19.9	21.4	18.3	16.8	17.4
8	---	---	---	22.6	20.1	21.2	20.2	17.0	18.3
9	---	---	---	23.2	20.2	22.0	19.3	16.8	18.0
10	---	---	---	23.6	20.7	22.3	19.6	17.3	18.7
11	---	---	---	24.1	20.6	22.5	19.4	17.7	18.9
12	---	---	---	25.1	20.9	23.1	19.7	15.9	17.6
13	---	---	---	24.8	21.9	23.6	20.2	18.6	19.4
14	---	---	---	24.3	21.5	22.9	19.2	17.1	17.8
15	---	---	---	25.1	20.7	22.6	17.8	15.6	16.7
16	---	---	---	24.6	21.5	23.1	17.3	13.4	15.1
17	---	---	---	23.7	17.3	21.5	---	---	---
18	24.8	22.9	23.9	22.7	20.6	21.6	---	---	---
19	25.0	21.5	23.1	21.2	18.6	19.9	---	---	---
20	23.1	20.4	21.9	21.9	19.3	20.6	---	---	---
21	24.3	21.0	22.6	22.4	19.1	20.7	---	---	---
22	25.3	21.5	23.3	22.7	19.1	20.8	---	---	---
23	24.4	21.7	23.3	22.9	19.1	20.7	---	---	---
24	24.6	21.7	23.4	22.4	19.1	20.9	---	---	---
25	24.1	21.4	22.7	22.2	18.9	20.7	---	---	---
26	24.6	21.0	22.9	22.2	19.3	20.7	---	---	---
27	24.8	22.6	23.7	22.4	19.1	20.7	---	---	---
28	24.1	22.2	22.9	21.5	19.3	20.6	---	---	---
29	24.4	21.0	22.7	21.4	18.6	20.2	---	---	---
30	24.1	20.1	22.1	21.9	18.9	20.5	---	---	---
31	25.1	23.1	24.1	21.4	19.6	20.5	---	---	---
MONTH	---	---	---	25.1	17.3	21.5	---	---	---

BEAR RIVER BASIN

10092700 BEAR RIVER AT IDAHO-UTAH STATE LINE--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1971 to June 1973, November 1990 to September 1991, October 1993 to September 1994, April to September 1996 (discontinued).

COLLECTION METHODS.--Composite of 5, 0.25 m² samples. Richest targeted habitat--riffles, whole sample.

MESH SIZE.--425 um

AVERAGE DEPTH.--0.25 m

AVERAGE PERCENT SHADING.--5

AVERAGE VELOCITY.--0.31 m/s

SUBSTRATE EMBEDDEDNESS CLASS RANGE.--2-4

PERCENT FINES RANGE.--10-30

HABITAT QUALITY INDEX.--17

REMARKS.--Heavy turbidity, fine sediment and extremely heavy grazing throughout reach. River banks severely eroded.

BIOLOGICAL DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
BENTHIC INVERTEBRATE COLLECTION DATA

ORGANISM TAXON	DATE	NUMBER OF INDIV- IDUALS	PERCENT COMPO- SITION	FUNC- TIONAL FEEDING GROUP	POLLU- TION TOLER- ANCE VALUE
<i>GENUS SPECIES</i>	AUG. 15				
NON-INSECTS					
Oligochaeta		262.5	2.72	CG	5
Hirudinea		56.25	0.58	PR	10
<i>Hyalella azteca</i>		37.5	0.39	CG	8
Acari		281.3	2.91	PA	5
EPHEMEROPTERA					
Baetidae		637.5	6.6	CG	4
<i>Baetis tricaudatus</i>		525	5.44	CG	6
<i>Stenonema</i>		150	1.55	SC	5
Leptophlebiidae		18.75	0.19	CG	2
<i>Ephoron</i>		37.5	0.39	CG	2
<i>Tricorythodes minutus</i>		4969	51.46	CG	4
TRICHOPTERA					
<i>Brachycentrus occidentalis</i>		18.75	0.19	OM	1
<i>Protoptila</i>		318.8	3.3	SC	1
<i>Hydropsyche</i>		581.3	6.02	CF	4
<i>Hydroptila</i>		318.8	3.3	PH	6
<i>Ochrotrichia</i>		168.8	1.75	PH	4
<i>Nectopsyche</i>		56.25	0.58	OM	3
LEPIDOPTERA					
<i>Petrophila</i>		75	0.78	SC	5
COLEOPTERA					
<i>Microcylloepus</i>		37.5	0.39	SC	7
<i>Optioservus</i>		18.75	0.19	SC	4
DIPTERA					
<i>Simulium</i>		37.5	0.39	CF	6
CHIRONOMIDAE					
Chironomidae-pupae		112.5	1.17	UN	6
<i>Cladotanytarsus</i>		450	4.66	CG	7
<i>Cryptochironomus</i>		18.75	0.19	PR	8
<i>Pentaneura</i>		18.75	0.19	CG	6
<i>Polypedilum</i>		243.8	2.52	OM	6
<i>Rheotanytarsus</i>		75	0.78	CF	6
<i>Tvetenia</i>		131.3	1.36	CG	5
TOTAL NUMBER OF TAXA		27		EPT ABUNDANCE	7800/m ²
TOTAL NUMBER OF ORGANISMS		9656/m ²		NUMBER EPT TAXA	12
HILSENHOFF BIOTIC INDEX		4.46		SHANNON DIVERSITY INDEX (H)	2.94

BEAR RIVER BASIN

10092700 BEAR RIVER AT IDAHO-UTAH STATE LINE--Continued

COLLECTION METHODS.--Qualitative multiple habitat, relative abundance, whole sample.

MESH SIZE.--210 um

GEAR TYPE.--D-frame net and visual collections.

REACH LENGTH.--NA

AVERAGE WIDTH.--NA

HABITAT QUALITY INDEX.--17

REMARKS.-- Heavy turbidity, fine sediment and extremely heavy grazing throughout reach. River banks severely eroded.

BIOLOGICAL DATA, WATER YEAR OCTOBER 1995 TO SEPTEMBER 1996
BENTHIC INVERTEBRATE COLLECTION DATA

ORGANISM TAXON GENUS SPECIES	DATE AUG. 15	NUMBER OF INDIV- IDUALS	PERCENT COMPO- SITION	FUNC- TIONAL FEEDING GROUP	POLLU- TION TOLER- ANCE VALUE
NON-INSECTS					
Turbellaria		260	5.1	CG	4
Ostracoda		10	0.2	CG	8
<i>Hyalella azteca</i>		30	0.59	CG	8
Acari		70	1.37	PA	5
EPHEMEROPTERA					
Baetidae		330	6.47	CG	4
<i>Baetis tricaudatus</i>		710	13.92	CG	6
<i>Heptagenia</i>		10	0.2	SC	4
<i>Tricorythodes minutus</i>		920	18.04	CG	4
TRICHOPTERA					
<i>Protoptila</i>		20	0.39	SC	1
<i>Hydropsyche</i>		290	5.69	CF	4
<i>Hydroptila</i>		110	2.16	PH	6
<i>Ochrotrichia</i>		310	6.08	PH	4
<i>Nectopsyche</i>		30	0.59	OM	3
COLEOPTERA					
<i>Microcylloepus</i>		390	7.65	SC	7
<i>Optioservus</i>		20	0.39	SC	4
DIPTERA					
<i>Simulium</i>		690	13.53	CF	6
CHIRONOMIDAE					
Chironomidae-pupae		30	0.59	UN	6
<i>Cladotanytarsus</i>		30	0.59	CG	7
<i>Cricotopus Bicinctus</i> Gr.		10	0.2	CG	7
<i>Cricotopus Trifascia</i> Gr.		40	0.78	CG	6
<i>Cryptochironomus</i>		10	0.2	PR	8
<i>Harnischia</i>		10	0.2	CG	6
<i>Nanocladius</i>		10	0.2	CG	3
<i>Paralauterborniella</i>		30	0.59	CG	8
<i>Pentaneura</i>		20	0.39	CG	6
<i>Polypedilum</i>		190	3.73	OM	6
<i>Rheotanytarsus</i>		150	2.94	CF	6
<i>Thienemanniella</i>		70	1.37	CG	6
<i>Thienemannimyia</i> Gr.		40	0.78	PR	6
<i>Tvetenia</i>		260	5.1	CG	5
TOTAL NUMBER OF TAXA		30		EPT ABUNDANCE	2730
TOTAL NUMBER OF ORGANISMS		5100		NUMBER EPT TAXA	9
HILSENHOFF BIOTIC INDEX		5.17		SHANNON DIVERSITY INDEX (H)	3.83

BEAR RIVER BASIN

10092700 BEAR RIVER AT IDAHO-UTAH STATE LINE--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--May 1971 to June 1973, November 1990 to September 1991, October 1993 to September 1994, April to September 1996, April 1999 to October 1999 (discontinued).

PERIOD OF DAILY RECORD.--

WATER TEMPERATURE: May 23 to September 16, 1996, May 1, 1999 to June 18, 1999 (discontinued).

INSTRUMENTATION.--Temperature recording data logger.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum, 25.1 °C, July 31, August 15, 1996.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum, 20.4 °C, June 18.

WATER-QUALITY DATA, APRIL 1999 to OCTOBER 1999

DATE	TIME	DIS-CHARGE, INST. CUBIC FEET PER SECOND (00061)	SPE-CIFIC CON-DUCT-ANCE (US/CM) (00095)	PH WATER WHOLE FIELD (STAND-ARD UNITS) (00400)	TEMPER-ATURE AIR (DEG C) (00020)	TEMPER-ATURE WATER (DEG C) (00010)	TUR-BID-ITY (NTU) (00076)	OXYGEN, DIS-SOLVED (MG/L) (00300)	OXYGEN, (PER-CENT SATUR-ATION) (00301)	COLI-FORM, FECAL, UM-MF (COLS./100 ML) (31625)	STREP-TOCOCCHI, FECAL, KF AGAR (COLS. PER 100 ML) (31673)
APR 20...	1325	1230	741	8.4	10.0	9.5	19	8.8	92	71	60
MAY 24...	1335	2400	605	8.4	23.0	14.2	75	8.2	95	120	63
JUN 23...	1302	1250	600	8.4	21.9	17.7	15	8.4	104	85	32
AUG 09...	1055	1380	732	8.3	25.9	19.9	9.3	7.9	101	180	140
SEP 21...	1220	907	773	8.4	14.2	14.6	4.7	8.3	96	81	100
OCT 06...	0916	1210	800	8.3	9.5	10.5	2.4	7.5	81	57	150
DATE		HARD-NESS TOTAL (MG/L AS CACO3) (00900)	CALCIUM DIS-SOLVED (MG/L AS CA) (00915)	MAGNE-SIUM, DIS-SOLVED (MG/L AS MG) (00925)	SODIUM, DIS-SOLVED (MG/L AS NA) (00930)	SODIUM PERCENT (00932)	ANC POTAS-SIUM, DIS-SOLVED (MG/L AS K) (00935)	ANC WATER UNFLTRD FET FIELD (MG/L AS HCO3) (00440)	UNFLTRD CARB FET FIELD (MG/L AS CO3) (00445)		
SEP 21...	300	55	39	45	24	6.5	320	3			
DATE		ANC WATER UNFLTRD FET FIELD (MG/L AS CACO3) (00410)	SULFATE DIS-SOLVED (MG/L AS SO4) (00945)	CHLO-RIDE, DIS-SOLVED (MG/L AS CL) (00940)	FLUO-RIDE, DIS-SOLVED (MG/L AS F) (00950)	SILICA, DIS-SOLVED (MG/L AS SIO2) (00955)	SOLIDS, SUM OF CONSTI-TUENTS, DIS-SOLVED (MG/L AS P) (70301)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70303)	SOLIDS, DIS-SOLVED (TONS PER DAY) (70302)		
SEP 21...	265	62	55	.23	14	436	.59	1070			
DATE		NITRO-GEN, NITRITE DIS-SOLVED (MG/L AS N) (00613)	NITRO-GEN, NO2+NO3 DIS-SOLVED (MG/L AS N) (00631)	NITRO-GEN, AMMONIA DIS-SOLVED (MG/L AS N) (00608)	NITRO-GEN, AM-MONIA + ORGANIC TOTAL (MG/L AS N) (00625)	PHOS-PHORUS TOTAL (MG/L AS P) (00665)	PHOS-PHORUS ORTHO, DIS-SOLVED (MG/L AS P) (00671)	SEDI-MENT, SUS-PENDED (MG/L) (80154)	SEDI-MENT, DIS-CHARGE, SUS-PENDED (T/DAY) (80155)		
APR 20...	<.010	.301	.050	.61	.073	.010	198	658			
MAY 24...	<.010	.248	.036	.62	.125	.010	76	492			
JUN 23...	<.010	.273	.025	.49	.110	.023	53	179			
AUG 09...	.010	.242	<.020	.57	.130	.021	109	406			
SEP 21...	<.010	.306	<.020	.41	E.041	<.010	35	86			
OCT 06...	<.010	.295	<.020	.37	E.041	<.010	22	72			

E Positive detection, but below stated detection limits.

BEAR RIVER BASIN
10092700 BEAR RIVER AT IDAHO-UTAH STATE LINE--Continued

WATER TEMPERATURE, DEGREES CELSIUS, WATER YEAR OCTOBER 1998 TO SEPTEMBER 1999

DAY	MAX	MIN	MEAN	MAY		
				MAX	MIN	MEAN
1	12.8	9.3	11.0	16.9	13.0	14.9
2	12.5	9.6	10.5	16.3	13.3	14.3
3	10.5	9.3	9.8	16.9	13.1	14.9
4	10.8	8.7	9.7	15.8	12.7	13.8
5	11.1	8.2	9.5	13.6	12.7	13.0
6	12.5	8.0	10.2	13.3	11.9	12.7
7	13.3	8.8	11.0	15.5	11.7	13.3
8	12.8	9.3	10.7	15.3	11.7	13.4
9	12.2	9.7	10.9	15.8	11.6	13.6
10	10.7	8.2	9.4	15.5	11.9	13.8
11	12.2	7.9	10.0	16.7	11.9	14.3
12	11.9	8.8	10.5	17.4	12.5	15.0
13	12.1	9.7	10.9	18.3	13.1	15.8
14	12.4	9.3	10.9	18.5	14.1	16.4
15	11.9	9.3	10.3	19.5	14.9	17.3
16	12.5	8.8	10.5	19.5	15.5	17.7
17	13.3	9.0	11.1	18.8	15.8	17.3
18	14.5	10.2	12.3	20.4	16.0	18.0
19	14.2	10.5	12.7	---	---	---
20	15.8	11.0	13.3	---	---	---
21	16.1	12.1	14.2	---	---	---
22	17.2	12.4	14.6	---	---	---
23	18.0	13.3	15.7	---	---	---
24	17.7	13.9	15.9	---	---	---
25	18.0	14.2	16.3	---	---	---
26	17.9	14.5	16.3	---	---	---
27	19.3	14.5	16.8	---	---	---
28	19.5	14.9	17.3	---	---	---
29	18.8	15.6	17.3	---	---	---
30	17.5	14.9	16.0	---	---	---
31	15.0	13.8	14.4	---	---	---
MONTH	19.5	7.9	12.6	---	---	---