

**WATER-QUALITY MONITORING PROGRAM
CHATFIELD BASIN AND RESERVOIR
DENVER METROPOLITAN AREA
HISTORICAL BASIC-DATA REPORT
JUNE 1982 - DECEMBER 1989**



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CHATFIELD BASIN AND RESERVOIR
DENVER METROPOLITAN AREA
HISTORICAL BASIC-DATA REPORT
JUNE 1982 - DECEMBER 1989**

**Prepared for the
Chatfield Basin Association
Denver, Colorado**

**Prepared By:
Advanced Sciences, Inc.
Lakewood, Colorado**



April 25, 1991

Ms. Holly I. Holder, Esq.
Chair, Chatfield Basin Authority
c/o Saunders, Snyder, Ross and Dickson, PC
707 Seventeenth Street, Suite 3500
Denver, Colorado 80202

Subject: Water-Quality Monitoring Program, Chatfield Basin and Reservoir, near
Denver, Colorado; Summary Report, Historical Data, Chatfield Basin
ASI Project No. 969.02


Dear Ms. Holder:

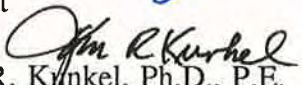
The revised historical basic-data tables collected for the period June 1982 through December 1989 are attached. The report is organized as follows:


- a) Tables 1-7 - Reservoir-inflow and tributary data;
- b) Tables 8-10 - In-reservoir water-quality data;
- c) Unnumbered Tables - In-reservoir biological data;
- d) Tables 11-14 - Water-quality data from other sources;
- e) Tables 15-18 - Storm-Event Data-base Sampling Survey
(Site 2, April-June 1988);
- f) Summary tabulation of Streamflow Data.

This revised submittal concludes the report requirements for ASI Project No. 969.02. We at ASI appreciate having this opportunity to provide the Chatfield Basin Authority with continuing water-quality monitoring services. If you have any questions, or need additional information, please give us a call.

Yours truly,


Grant Evenson
Scientist


James R. Kynkel, Ph.D., P.E.
Senior Hydrologist/Project Manager

Reviewed by:

Timothy D. Steele, Ph.D.
Manager, Physical Sciences

Ms. Holly I. Holder, Esq.
April 25, 1991
Page Two

Attachments - Historical Chatfield Data, June 1982 - December 1989
- Monitoring-Location Map-Figure 1

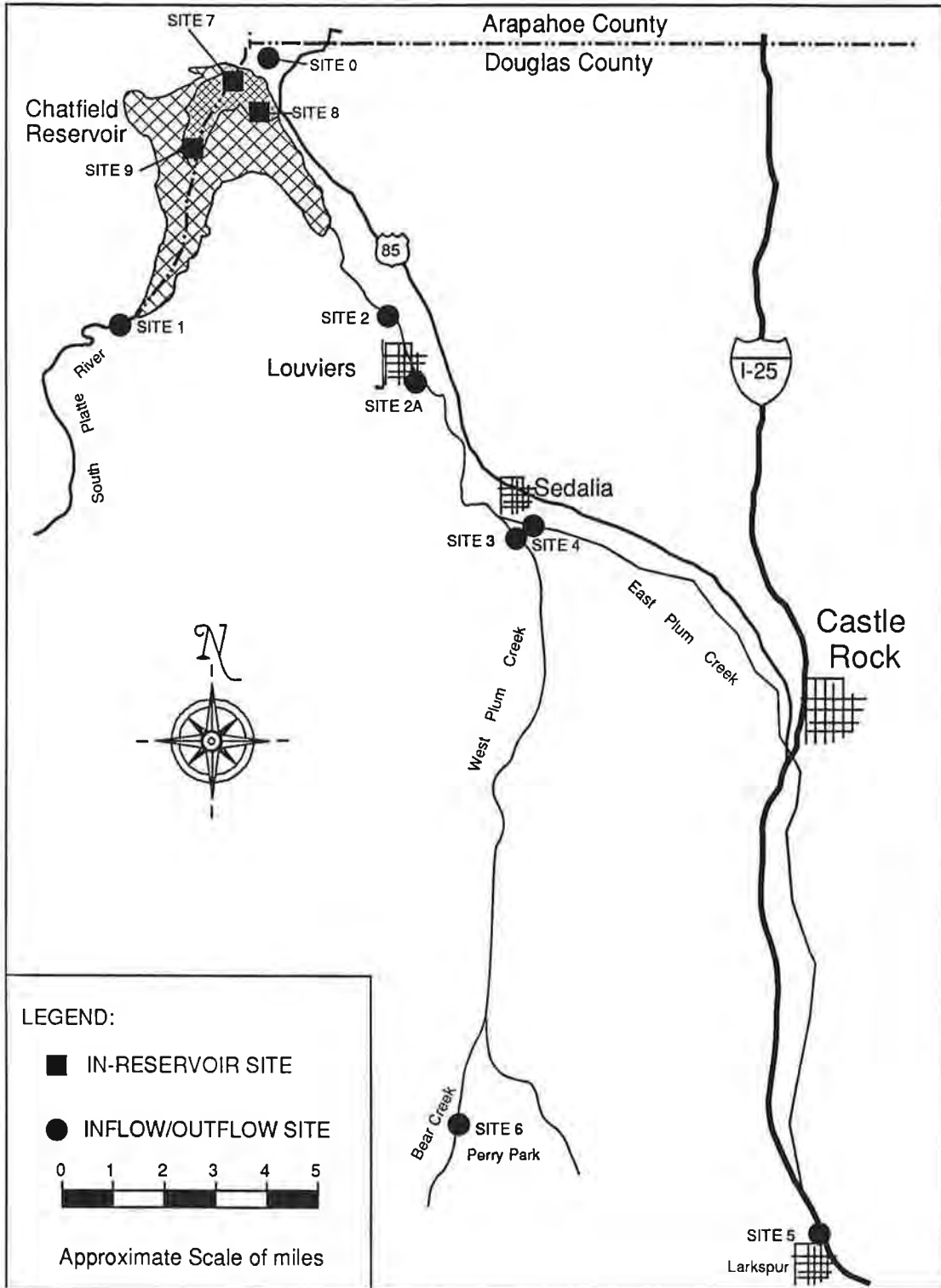
cc: Denver Regional Council of Governments
2480 West 26th Avenue, Suite 200B
Denver, Colorado 80211
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Centennial Water & Sanitation District
62 West Plaza Drive
Highlands Ranch, Colorado 80126
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Attn: Dr. Keith Little

File No. 969.02



CHATFIELD BASIN AND RESERVOIR
WATER-QUALITY MONITORING PROGRAM

INFLOW/OUTFLOW AND
IN-RESERVOIR MONITORING
STATION LOCATIONS



BASIC DATA TABLES

TABLE 1
06709601 CHATFIELD RESERVOIR OUTFLOW NEAR LITTLETON, CO. (SITE 0)
WATER-QUALITY DATA

DATE	TIME	INSTAN- TANEOUS STREAM- FLOW (CFS)	SPE- CIFIC CON- DUC- TANCE FIELD (US/CM)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	PH FIELD (STAND- ARD UNITS)	NITRO- GEN- TOTAL (MG/L AS N)	NITRO- GEN- AMMONIA TOTAL (MG/L AS N)	NITRO- GEN- NITRITE TOTAL (MG/L AS N)	NITRO- GEN- NITRATE TOTAL (MG/L AS N)	NITRO- GEN- TOTAL KJELDL. (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	SUS- PENDE SEDI- MENT (MG/L)	LABOR- ATORY SAMPLE NUMBER
13-Aug-87	830	450.0	320	19.0	7.5	7.1						0.020			0.010	7.20	
01-Sep-87	1300	100.0	290	20.5	6.2	7.6		0.09	0.02	0.06	0.30	0.030	0.030	-0.010	0.040	10.00	
01-Oct-87	1340	20.0	319	19.0	8.7	8.0		0.02	-0.01	0.05	0.50	0.050	0.030	-0.010	-0.010	56.00	
13-Nov-87	1245	44.0	320	10.0	10.3	7.9		0.05	0.01	0.15	0.30	0.010	0.020	-0.010	-0.010	5.40	
10-Feb-88	1315	25.0	424	9.0	8.1	8.0		0.03	0.01	0.45	0.40	0.020	0.010	-0.010	-0.010	4.00	
18-Mar-88	1210	75.0	405	10.0	10.1	9.1		0.04	0.01	0.35	0.60	0.030	0.010	-0.010	-0.010	2.00	
27-Apr-88	1700	150.0	369	16.0	8.4	8.6		0.05	0.03	0.15	0.40	0.040	-0.010	0.010	0.020	12.00	
13-May-88	1315	200.0	369	16.0	8.4	8.6		0.03	-0.01	0.12	0.30	0.020	-0.010	0.010	0.010	12.00	
25-May-88	1145	400.0	408	18.0	7.2	8.0		0.04	0.01	0.08	0.40	0.030	0.010	-0.010	0.050	20.00	
16-Jun-88	1300	110.0	296	23.0	6.2	7.5		0.11	-0.01	0.12	0.70	0.080	0.020	-0.010	0.030	11.00	
15-Jul-88	1200	325.0	324	21.0	5.4	8.0		-0.02	-0.01	0.10	0.50	-0.010	-0.010	0.010	0.020	11.00	
16-Aug-88	1335	200.0	352	20.0	6.6	7.3		0.07	-0.01	0.06	0.20	0.030	0.010	0.020	0.020	13.50	
16-Sep-88	1100	10.0	205	14.5	8.2	8.2	0.45	0.05	0.04	0.01	0.40	0.040	-0.010	0.020	0.030	19.8	5237
14-Oct-88	1120	110.0	290	15.0	7.8	8.7	0.71	0.05	0.10	-0.01	0.60	0.040	0.020	-0.010	-0.010	6.1	5896
17-Nov-88	1145	150.0	370	2.0	11.0	8.1	0.76	0.17	0.15	-0.01	0.60	0.030	0.010	0.010	0.020	7.7	6549
19-Dec-88	1230	5.0	340	2.0	12.8	8.0	0.60	0.03	0.19	-0.01	0.40	0.023	0.007	-0.005	-0.005	7.0	6975

NOTES:

BLANK RANGES INDICATE NO DATA WERE AVAILABLE

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TABLE 1
06709601 CHATFIELD RESERVOIR OUTFLOW NEAR LITTLETON, CO. (SITE 0)
WATER-QUALITY DATA

DATE	TIME	INSTAN- TANEOUS STREAM- FLOW (CFS)	SPE- CIFIC CON- DUC- TANCE FIELD (US/CM)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	PH FIELD (STAND- ARD UNITS)	NITRO- GEN- TOTAL (MG/L AS N)	NITRO- GEN- AMMONIA TOTAL (MG/L AS N)	NITRO- GEN- NITRITE TOTAL (MG/L AS N)	NITRO- GEN- NITRATE TOTAL (MG/L AS N)	NITRO- GEN- TOTAL KJELDL. (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED ORTHOD, (MG/L AS P)	SUS- PENDE MENT (MG/L)	LABOR- ATORY SAMPLE NUMBER	
10-Jan-89	1450	5.0	420	4.5	6.4	8.0		0.08		0.32	-0.10	0.014			-0.005	3.4	177
08-Feb-89	1245	-0.01	430	4.0	13.6	7.7	0.69	0.09	0.02	0.57	0.10	0.017			-0.005	7.2	531
27-Mar-89	1130	60.0	390	11.0	8.3	8.0		0.10	0.02	0.20		0.104			0.069	6.0	1426
13-Apr-89	1025	1.0	325	9.0	9.8	8.2		0.07	0.07	0.15		0.022			0.005	38.0	1868
10-May-89	1520	300.0	340	13.0	8.0	7.8		0.11	0.01	0.12		0.019			0.006	6.0	2498
15-Jun-89	1220	350.0	295	16.0	9.4	7.4		0.07	0.03	0.02		0.017			0.006	4.8	3596
06-Jul-89	1215	500.0	260	20.0	6.0	7.2		0.11	0.01	0.01		0.011			0.007	-0.1	4184
20-Jul-89	1100	350.0	260	19.0	7.8	7.5		0.09	-0.01	0.02		0.012			0.006	7.8	4568
03-Aug-89	1155	250.0	250	20.0	10.4	7.5		-0.01	0.01	0.02		0.018			0.006	7.4	4802
15-Sep-89	1230	50.0	260	17.0	8.2	7.9		0.02	0.02	-0.02		0.029			-0.005	10.6	5970
23-Oct-89	1115	25.0	320	13.0	7.6	8.2		0.03	-0.01	0.14		0.015			0.015	4.7	6998
29-Nov-89	1215	1.0	205	4.0	12.8	8.7		0.09	-0.01	-0.02		0.013			-0.005	7.7	7743
27-Dec-89	1150	5.0	230	5.0	10.8	8.6		0.13	-0.01	0.22		-0.005			-0.005	4.6	8418

NOTES:

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TABLE 2
0670800 SOUTH PLATTE RIVER AT WATERTON, CO. (SITE 1)
WATER-QUALITY DATA

DATE	TIME	INSTAN- TANEOUS STREAM- FLOW (CFS)	SPE- CIFIC CON- DUC- TANCE FIELD (US/CM)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	PH FIELD (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	NITRO- GEN- TOTAL (MG/L AS N)	NITRO- GEN- TOTAL (MG/L AS N)	NITRO- GEN- NITRATE TOTAL (MG/L AS N)	NITRO- GEN- TOTAL KJELDL. (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	SUS- PENDE MENT (MG/L)	LABOR- ATORY SAMPLE
25-Aug-86	1230	195	280	16.5	8.6	8.4							-0.02		-0.02	4.4	
15-Sep-86	900	72	410	12.0	7.8	7.2							-0.02		-0.02	47.0	
29-Sep-86	815	86	280	10.5	8.9	8.9							-0.02		-0.02	5.7	
13-Oct-86	830	71	220	5.5	9.9	8.4							0.03		-0.02	9.0	
27-Oct-86	900	27	180	5.0	10.2	8.3							0.03		-0.02	13.0	
17-Nov-86	840	31	360	3.5	8.1	8.2							-0.02		-0.02	3.6	
17-Nov-86	9999												-0.02		-0.02	3.4	
16-Dec-86	915	82	180	0.5	11.8	8.1							-0.02		-0.02	4.6	

NOTES:

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TABLE 2
0670800 SOUTH PLATTE RIVER AT WATERTON, CO. (SITE 1)
WATER-QUALITY DATA

DATE	TIME	INSTAN- TANEOUS STREAM- FLOW	SPE- CIFIC CON- DUC- TANCE FIELD	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	PH FIELD (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	NITRO- GEN- TOTAL (MG/L AS N)	NITRO- GEN- TOTAL (MG/L AS N)	NITRO- GEN- TOTAL (MG/L AS N)	NITRO- GEN- TOTAL (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	SUS- PENDE D SEDI- MENT (MG/L)	LABOR- ATORY SAMPLE
13-Jan-87	830	31	185	1.0	11.6	8.1						0.02			0.02	0.8	
17-Feb-87	745	40	200	2.0	11.3	8.5						-0.02			-0.02	12.0	
16-Mar-87	1610	33	311	4.0	10.5	8.5						-0.02			-0.02	2.0	
14-Apr-87	1440	33	250	11.0	11.6	8.9						-0.02			-0.02	32.0	
27-Apr-87	815	768	210	8.0	12.2	7.9						0.04			-0.02	232.0	
01-May-87	1120	292	291	11.5	7.8	8.3						0.05			-0.02	17.0	
07-May-87	1015	1240	90	10.0	8.9	7.5						0.03			-0.01	24.0	
14-May-87	1230	1560	110	14.5	8.2	7.9						0.04			0.02	1820.0	
26-May-87	945	2120	195	13.0	9.8	7.9						-0.01			-0.01	14.0	
03-Jun-87	1615	848	215	16.0	7.5	7.0						0.03			-0.01	8.0	
11-Jun-87	1230	1610	235	17.5	7.6	8.0						0.04			0.02	13.0	
18-Jun-87	1345	890	240	18.0	7.6	7.9						0.01			0.01	5.0	
25-Jun-87	900	531	246	11.5	8.5	7.9						0.07			-0.01	3.2	
14-Jul-87	1100	292	262	17.0	7.5	7.3						0.14			0.07	5.2	
27-Jul-87	1530	75	390	19.5	7.2	8.1						0.15			0.13	2.6	
13-Aug-87	905	339	280	12.5	9.6	8.2						-0.01			-0.01	3.8	

NOTES:

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TABLE 2
0670800 SOUTH PLATTE RIVER AT WATERTON, CO. (SITE 1)
WATER-QUALITY DATA

DATE	TIME	INSTAN- TANEOUS STREAM- FLOW (CFS)	SPE- CIFIC CON- DUC- TANCE FIELD (US/CM)	TEMPER- ATURE (DEG C)	DIS- SOLVED (MG/L)	PH FIELD (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	NITRO- GEN- TOTAL (MG/L AS N)	NITRO- AMMONIA TOTAL (MG/L AS N)	NITRO- GEN- TOTAL (MG/L AS N)	NITRO- GEN- TOTAL (MG/L AS N)	NITRO- GEN- TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	SUS- PENDE MENT (MG/L)	LABOR- ATORY SAMPLE
01-Sep-87	1330	63	245	21.0	6.1	8.2		0.03	-0.01	-0.02	0.3	0.02	0.03	-0.01	0.03		3.0	
01-Oct-87	1415	56	327	19.0	8.7	8.3		0.03	-0.01	-0.02	0.3	1.03	0.03	0.01	0.01		12.0	
13-Nov-87	1315	37	260	8.0	10.6	8.0		-0.02	-0.01	-0.02	-0.1	-0.01	-0.01	-0.01	-0.01		1.0	
10-Feb-88	1250	102	446	6.0	11.4	7.8		0.02	0.01	0.33	0.2	-0.01	-0.01	-0.01	-0.01		4.0	
18-Mar-88	1340	67	332	10.5	8.6	8.3		-0.02	-0.01	0.08	0.6	0.01	-0.01	-0.01	-0.01		4.0	
08-Apr-88	1300	55	290	8.5	11.2	8.3		0.05	-0.01	0.04	0.3	0.01	0.01	-0.01	-0.01		4.0	
27-Apr-88	1020	29	220	9.0	8.9	7.1		0.03	-0.01	0.03	0.2	0.02	-0.01	0.01	0.01		3.0	
13-May-88	1220	31	327	16.5	8.0	8.4		-0.02	-0.01	-0.02	0.5	-0.01	-0.01	-0.01	0.01		2.0	
19-May-88	2000	383	299	8.5	8.9	8.3		0.03	-0.01	-0.02	0.3	0.01	-0.01	-0.01	-0.01		53.0	
25-May-88	1030	93	298	15.0	8.1	8.1		-0.02	-0.01	0.06	0.2	0.03	0.01	-0.01	0.03		6.0	
02-Jun-88	1210	61	298	18.0	7.6	8.1		-0.02	-0.01	-0.02	-0.1	-0.01	-0.01	-0.01	0.01		5.0	
09-Jun-88	1815	287	364	16.5	8.0	7.8		0.03	-0.01	-0.02	0.3	-0.01	-0.01	0.01	-0.01		5.0	
16-Jun-88	1210	67	249	22.0	7.4	7.7		0.02	-0.01	-0.02	0.4	0.02	0.01	-0.01	-0.01		3.0	
30-Jun-88	1130	1130	239	16.0	8.2	7.4		-0.02	-0.01	0.09	0.5	0.02	-0.01	0.01	-0.01		9.0	
07-Jul-88	1225	54	344	18.0	8.0	7.5		-0.02	-0.01	0.06	0.6	0.04	-0.01	-0.01	-0.01		-1.0	
15-Jul-88	1045	74	249	19.0	6.8	7.5		-0.02	-0.01	0.05	1.3	-0.01	-0.01	-0.01	0.01		2.0	
16-Aug-88	1355	155	265	16.0	7.4	7.6		-0.02	-0.01	0.10	-1.0	0.02	-0.01	0.01	0.02		2.3	

NOTES:

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TABLE 2
0670800 SOUTH PLATTE RIVER AT WATERTON, CO. (SITE 1)
WATER-QUALITY DATA

DATE	TIME	INSTAN- TANEOUS STREAM- FLOW	SPE- CIFIC CON- DUC- TANCE FIELD	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	PH FIELD (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	NITRO- GEN- TOTAL (MG/L AS N)	NITRO- GEN- TOTAL (MG/L AS N)	NITRO- GEN- TOTAL (MG/L AS N)	NITRO- GEN- TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	SUS- PENDE MENT (MG/L)	LABOR- ATORY SAMPLE	
																		58
16-Sep-88	1035	58	205	14.0	8.7	8.2		0.26	0.05	0.01	0.05	0.20	-0.010	-0.010	-0.010	0.020	2.8	5238
14-Oct-88	1145	32	270	16.0	8.3	8.7		0.68	0.03	-0.01	0.07	0.60	0.020	0.020	-0.010	-0.010	0.2	5897
17-Nov-88	950	31	320	3.0	9.0	8.0		0.22	0.06	-0.01	-0.02	0.20	0.010	0.010	0.010	0.010	1.2	6548
19-Dec-88	1210	54	350	1.0	11.7	7.9		0.12	0.05	-0.01	-0.02	0.10	0.009	-0.005	-0.005	-0.005	1.2	6976
10-Jan-89	1135	29	335	1.5	12.4	8.1			0.06		0.09	0.50	0.006			-0.005	2.0	176
08-Feb-89	1530	37	340	1.0	15.0	7.8		0.35	0.08	-0.01	0.24	0.10	0.006			-0.005	0.8	533
27-Mar-89	1400	34	360	9.0	10.0	8.3			0.10	0.01	-0.02		-0.005			-0.005	6.0	1427
13-Apr-89	1000	32	320	7.0	11.4	8.2			0.05	-0.01	-0.01		0.062			0.005	16.0	1867
10-May-89	1540	75	380	11.0	8.8	8.2			0.04	-0.01	0.03		0.011			0.006	2.0	2499
23-May-89	1110	405	320	12.0	8.4		6.9		0.04	0.01	-0.02		0.018			0.008	2.2	2854
23-May-89	9999								0.03	0.01	-0.02		0.022			0.006	4.4	2856
31-May-89	1400	573	260	12.5	7.4	7.8	7.5		0.09	-0.01	-0.01		0.021			0.007	6.4	3147
07-Jun-89	1030	292	180	12.0	8.4	7.4			0.09	-0.01	0.04		0.036			0.015	5.8	3369
15-Jun-89	1245	127	165	14.0	11.0	7.2			0.04	-0.01	0.02		0.013			-0.005	4.4	3597
06-Jul-89	1230	123	170	18.0	7.0	7.6			0.05	-0.01	0.08		0.007			0.005	-0.1	4183
20-Jul-89	1030	355	275	15.0	9.8	7.6			0.09	-0.01	-0.02		0.010			-0.005	0.8	4569
03-Aug-89	1135	204	220	16.0	12.5	7.6			-0.01	-0.01	0.04		-0.005			-0.005	4.0	4800
03-Aug-89	9999								-0.01	-0.01	0.02		-0.005			-0.005	4.0	4801

NOTES:

BLANK RANGES INDICATE NO DATA WERE AVAILABLE

MINUS SIGN MEANS "LESS THAN" INDICATED VALUE

TIME = 9999 MEANS THE SAMPLE IS A DUPLICATE OR A SPLIT OF THE VALUE IMMEDIATELY ABOVE IT.

TABLE 2
0670800 SOUTH PLATTE RIVER AT WATERTON, CO. (SITE 1)
WATER-QUALITY DATA

DATE	TIME	INSTAN- TANEOUS STREAM- FLOW (CFS)	SPE- CIFIC CON- DUC- TANCE FIELD (US/CM)	TEMPER- ATURE (DEG C)	DIS- SOLVED (MG/L)	PH FIELD (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	NITRO- GEN- TOTAL (MG/L AS N)	NITRO- GEN- TOTAL (MG/L AS N)	NITRO- GEN- TOTAL (MG/L AS N)	NITRO- GEN- TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTH- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTH- SOLVED (MG/L AS P)	SUS- PEN- DED (MG/L)	SEDI- MENT (MG/L)	LABOR- ATORY SAMPLE
15-Sep-89	1200	70	250	15.0	8.8	8.1			-0.01	-0.02	-0.02	0.016				-0.005	4.2	5971
23-Oct-89	1055	36	290	9.0	9.1	8.3			0.10	-0.01	0.09	0.007				0.006	0.8	6999
29-Nov-89	1145	56	170	5.5	11.8	8.3			0.10	-0.01	-0.02	0.035				-0.005	7.5	7744
27-Dec-89	1410	67	230	0.5	13.4	8.3			0.11	-0.01	0.38	-0.005				-0.005	6.2	8419

NOTES:

BLANK RANGES INDICATE NO DATA WERE AVAILABLE

MINUS SIGN MEANS "LESS THAN" INDICATED VALUE

TIME = 9999 MEANS THE SAMPLE IS A DUPLICATE OR A SPLIT OF THE VALUE IMMEDIATELY ABOVE IT.

TABLE 3
06709530 PLUM CREEK AT TITAN ROAD NEAR LOUVIERS, CO. (SITE 2)
WATER-QUALITY DATA

DATE	TIME	INSTAN- TANEOUS STREAM- FLOW (CFS)	SPE- CIFIC CON- DUC- TANCE FIELD (US/CM)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	PH FIELD (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	NITRO- GEN- TOTAL (MG/L AS N)	NITRO- GEN- TOTAL (MG/L AS N)	NITRO- GEN- TOTAL (MG/L AS N)	NITRO- GEN- TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	SUS- PENDE MENT (MG/L)	LABOR- ATORY SAMPLE NUMBER
25-Aug-86	1120	0.8	390	21.0	7.1	7.8		0.04	-0.02	1.50		0.07			0.05		
15-Sep-86	738	0.0	420	14.0	5.0	6.5		-0.02	-0.02	0.87		0.06			-0.02		
29-Sep-86	900	0.0	300	10.5	9.8	8.1		0.04	-0.02	0.45		1.20			0.29		
13-Oct-86	1400	11.0	250	6.0	10.2	8.3		-0.02	0.04	0.64		0.17			0.05		
27-Oct-86	1000	9.8	250	5.5	10.2	8.2		0.02	-0.02	0.71		0.08			0.05		
17-Nov-86	930	14.0	240	3.0	10.1	8.0		0.04	-0.02	0.98		0.06			0.06		
16-Dec-86	1000	11.0	220	1.0	11.5	8.3		0.07	-0.02	1.00		0.10			0.06		
13-Jan-87	905	12.0	220	1.0	11.5	7.9		0.03	-0.02	1.10		1.30			0.09		
17-Feb-87	830	21.0	210	2.0	11.2	8.4		-0.02	-0.02	0.96		0.19			0.07		
11-May-87	1200	676.0	115	10.0	8.6	8.1						0.77			0.18	1230	
03-Jun-87	1630	96.0	220	20.0	6.9	7.1						0.25			0.09	209	
01-Sep-87	1345	10.0	240	26.5	4.6	7.6		0.05	0.01	0.85	0.60	0.16	0.12	0.10	0.15	34	
01-Oct-87	1445	9.0	330	22.0	7.4	7.8		0.02	0.01	0.54	0.50	0.14	0.11	0.06	0.07	786	
13-Nov-87	1345	16.0	300	15.0	8.8	7.9		0.03	0.07	0.76	0.50	0.14	0.10	0.04	0.10	48	

NOTES:

BLANK RANGES INDICATE NO DATA WERE AVAILABLE

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* 0. - MEANS NO DISCRETE TIME BECAUSE SAMPLE WAS COMPOSITED.

DISCRETE STREAMFLOW AND FIELD MEASUREMENTS INCLUDED IN SEPARATE TABLES 15-18.

TABLE 3
06709530 PLUM CREEK AT TITAN ROAD NEAR LOUVIERS, CO. (SITE 2)
WATER-QUALITY DATA

DATE	TIME	INSTAN- TANEOUS STREAM- FLOW (CFS)	SPE- CIFIC CON- DUC- TANCE FIELD (US/CM)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	PH FIELD (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	NITRO- GEN- TOTAL (MG/L AS N)	NITRO- GEN- TOTAL (MG/L AS N)	NITRO- GEN- TOTAL (MG/L AS N)	NITRO- GEN- TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	SUS- PENDE SEDI- MENT (MG/L)	LABOR- ATORY SAMPLE NUMBER
08-Jan-88	1500	50.0	386	3.0	11.5	7.7		0.03	-0.02	0.95		0.07	0.06	0.06	0.08	5.0	
10-Feb-88	1225	40.0	348	7.0	8.4	8.0		0.03	0.01	1.21		0.12	0.10	0.10	0.13	118.0	
18-Mar-88	1310	31.0	295	13.0	7.6	7.4		0.02	0.06	0.38		0.27	0.13	0.03	0.13	152.0	
08-Apr-88	1230	112.0	210	10.0	9.9	8.0		0.04	-0.01	-0.02		0.42	0.06	-0.01	0.10	1063.0	
18-Apr-88	0 *	142.0	160	*	*	7.6		0.04	0.02	0.34		0.47	0.05	0.02	0.09	576.0	
21-Apr-88	1015	165.0	150	19.5	7.6	7.7		-0.02	-0.01	0.24		0.42	0.04	0.03	0.21	651.0	
27-Apr-88	1100	138.0	244	12.5	7.4	7.7		0.04	-0.01	0.28		0.22	0.03	0.03	0.09	326.0	
04-May-88	1045	160.0	195	12.0	7.6	7.7		0.04	0.08	0.26		0.31	0.03	0.03	0.11	483.0	
11-May-88	1815	110.0	147	12.0	7.5	7.5		0.07	-0.01	0.33		0.24	0.03	0.03	0.08	276.0	
13-May-88	1245	83.0	202	23.0	6.0	8.2		-0.02	-0.01	0.29		0.14	0.03	0.03	0.07	172.0	
20-May-88	0 *	175.0	315	*	*	8.0		0.04	0.03	0.48		0.31	0.02	0.03	0.09	387.0	
25-May-88	1045	270.0	235	17.0	7.0	7.4		-0.02	-0.01	0.17		0.66	0.01	0.01	0.26	1310.0	

NOTES:

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DISCRETE STREAMFLOW AND FIELD MEASUREMENTS INCLUDED IN SEPARATE TABLES 15-18.

TABLE 3
06709530 PLUM CREEK AT TITAN ROAD NEAR LOUVIERS, CO. (SITE 2)
WATER-QUALITY DATA

DATE	TIME	INSTAN- TANEOUS STREAM- FLOW (CFS)	SPE- CIFIC CON- DUC- TANCE FIELD (US/CM)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	PH FIELD (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	NITRO- GEN- TOTAL (MG/L AS N)	NITRO- GEN- TOTAL (MG/L AS N)	NITRO- GEN- TOTAL (MG/L AS N)	NITRO- GEN- TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	SUS- PENDE MENT (MG/L)	LABOR- ATORY SAMPLE NUMBER
02-Jun-88	1145	118.0	206	22.0	7.4	7.7		0.03	-0.01	0.19		0.21	-0.01	0.03	0.08	310.0	
09-Jun-88	1730	33.0	394	20.5	7.1	7.5		0.07	-0.01	0.35		0.09	0.02	0.03	0.05	147.0	
16-Jun-88	1150	72.0	253	23.0	6.9	7.6		0.03	-0.01	0.27		0.25	0.04	0.02	0.09	261.0	
22-Jun-88	1840	32.0	235	*	*	7.6		0.02	-0.01	0.51		0.20	0.06	0.04	0.07	125.0	
23-Jun-88	0*	37.0	238	*	*	7.8		0.02	0.01	0.48		0.18	0.05	0.04	0.09	161.0	
26-Jun-88	0*	38.0	238	*	*	7.8		0.04	0.06	0.56	0.80	0.17	0.06	0.05	0.05	112.0	
07-Jul-88	1225	12.1	300	21.5	5.8	7.5		-0.02	-0.01	0.06	0.60	0.04	-0.01	-0.01	-0.01	-1.0	
15-Jul-88	1245	11.8	356	26.0	3.2	8.1		-0.02	-0.01	0.75	-0.01	0.08	0.01	0.05	0.08	19.0	
16-Aug-88	1115	0.7	352	25.0	5.1	7.6		0.03	0.01	0.92	0.10	0.07	0.04	0.06	0.06	3.3	
16-Sep-88	1015	10.0	240	16.0	8.4	8.1	1.24	0.02	0.01	0.83	0.40	0.080	0.030	0.050	0.060	56.5	5239
14-Oct-88	1210	0.0	330	15.5	7.4	8.4	1.59	0.03	0.02	1.07	0.50	0.050	0.040	0.040	0.040	9.2	5898
17-Nov-88	1050	4.6	370	4.5	8.5	8.0	1.27	0.07	-0.01	0.76	0.50	0.180	0.040	0.040	0.070	163.0	6547
19-Dec-88	1145	0.0	430	1.5	11.9	7.9	1.78	0.11	0.03	1.45	0.30	0.086	0.042	0.032	0.052	49.0	6977

NOTES:

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DISCRETE STREAMFLOW AND FIELD MEASUREMENTS INCLUDED IN SEPARATE TABLES 15-18.

TABLE 3
06709530 PLUM CREEK AT TITAN ROAD NEAR LOUVIERS, CO. (SITE 2)
WATER-QUALITY DATA

DATE	TIME	INSTAN- TANEOUS STREAM- FLOW (CFS)	SPE- CIFIC CON- DUC- TANCE FIELD (US/CM)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	PH FIELD (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	NITRO- GEN- TOTAL (MG/L AS N)	NITRO- GEN- TOTAL (MG/L AS N)	NITRO- GEN- TOTAL (MG/L AS N)	NITRO- GEN- TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	SUS- PENDE MENT (MG/L)	LABOR- ATORY SAMPLE NUMBER
10-Jan-89	1120	0.0	420	1.5	11.2	8.2		0.15		1.43	0.10	0.076			0.047	30.6	175
08-Feb-89	1600	2.3	420	1.0	12.3	7.4	1.62	0.08	0.05	1.47	0.10	0.073			0.069	6.4	532
27-Mar-89	1415	15.0	420	14.0	8.5	8.1		0.10	0.04	1.34		0.083			0.065	280.0	1428
13-Apr-89	945	23.0	315	8.0	9.9	8.1		0.07	0.02	0.97		0.070			0.053	508.0	1869
10-May-89	1600	7.1	330	14.5	7.8	7.9		0.11	0.06	1.58		0.140			0.063	96.0	2500
23-May-89	1140	7.1	370	20.0	6.8		6.8	0.05	0.05	1.21		0.064			0.053	7.6	2855
31-May-89	1420	7.1	380	16.0	6.1	7.6	7.5	0.09	-0.01	-0.01		0.066			0.030	4.6	3148
07-Jun-89	1040	9.1	360	15.0	7.1	7.7		0.12	-0.01	1.27		0.062			0.042	3.6	3370
15-Jun-89	1300	10.6	325	25.5	7.8	7.5		0.05	0.02	1.17		0.078			0.055	27.8	3598
03-Aug-89	1120	9.8	260	26.0	9.2	7.4		-0.01	0.01	1.24		0.061			0.065	4.3	4799
15-Sep-89	1130	5.0	360	19.0	7.8	7.8		0.02	0.02	1.09		0.075			0.067	7.0	5972
23-Oct-89	1030	4.3	320	11.0	8.8	8.3		-0.01	-0.01	0.56		0.030			0.029	3.7	6997
29-Nov-89	1110	2.6	255	4.0	10.0	8.3		0.10	-0.01	0.06		0.046			0.027	35.8	7745
27-Dec-89	1430	14.0	180	1.0	11.8	8.3		0.13	0.03	1.44		0.081			0.032	54.0	8420

NOTES:

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DISCRETE STREAMFLOW AND FIELD MEASUREMENTS INCLUDED IN SEPARATE TABLES 15-18.

TABLE 3a
06709500 PLUM CREEK NEAR LOUVIERS, COLORADO (SITE 2A)
WATER-QUALITY DATA

DATE	TIME	INSTAN- TANEOUS STREAM- FLOW (CFS)	SPE- CIFIC CON- DUC- TANCE FIELD (US/CM)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	PH FIELD (STAND- ARD UNITS)	NITRO- GEN- AMMONIA TOTAL (MG/L AS N)	NITRO- GEN- NITRITE TOTAL (MG/L AS N)	NITRO- GEN- NITRATE TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	SUS- PENDE SEDI- MENT (MG/L)	BIOLOG- ICAL OXYGEN DEMAND (MG/L)	FECAL COLIFORM (COL/ 100 ML)
17-Feb-87	930	21.0	210	0.5	11.7	8.3	-0.02	-0.02	0.56	0.24	0.08		4	60
17-Mar-87	1445	25.0	220	5.0	7.9	8.3	-0.02	-0.02	0.36	0.31	0.13		1	16
14-Apr-87	1045	68.0	190	5.0	11.6	8.1	0.06	-0.02	0.32	0.27	0.09		3	36
27-Apr-87	645	263.0	110	9.0	10.4	7.9				0.36	0.09	6140		
01-May-87	1200	230.0	1635	18.5	7.4	8.0				0.25	0.09	460		
07-May-87	930	2000.0	150	10.0	9.6	8.4				1.70	0.13	1010		
14-May-87	1150	404.0	140	17.0	7.3	7.7	0.07	0.04	0.21	0.45	0.11	530	4	440
26-May-87	900	189.0	135	12.0	8.7	7.6				0.23	0.08	329		
03-Jun-87	1700	30.0	205	19.0	7.2	7.1				0.24	0.10	178		
11-Jun-87	1145	99.0	265	24.0	7.4	7.9	-0.02	0.01	0.26	0.27	0.10		-1	425
25-Jun-87	830	43.0	259	16.5	7.2	7.8	-0.02	-0.01	0.33	0.22	0.34		-1	476
14-Jul-87	630	22.0	240	15.5	7.4	7.8	0.08	0.01	0.22	0.25	0.15			1880
27-Jul-87	1600	2.7	390	21.0	7.0	8.1	0.07	-0.01	0.07	0.09	0.09		2	>4000
13-Aug-87	930	9.3	320	21.5	6.4	8.0	0.02	0.01	0.20	0.09	0.08		2	>20000

NOTES:

BLANK RANGES INDICATE NO DATA WERE AVAILABLE

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TIME = 9999 MEANS THE SAMPLE IS A DUPLICATE OR A SPLIT OF THE VALUE IMMEDIATELY ABOVE IT

TABLE 4
WEST PLUM CREEK AT SEDALIA, COLORADO (SITE 3)
WATER-QUALITY DATA

Location: SW 1/4, NE 1/4, Sec. 23, T. 7S, R. 68W, Douglas County, on upstream side of bridge on State Highway 67, 0.6 mi. south of Sedalia and 0.1 mi. upstream from mouth.

DATE	TIME	INSTAN- TANEOUS STREAM FLOW (cfs)	SPE- CIFIC CONduc- TANCE FIELD (US/CM)	TEMP. (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	pH (STD. UNITS)	NITRO- GEN- NITRATE TOTAL (MG/L AS N)	NITRO- GEN- NITRITE TOTAL (MG/L AS N)	NITRO- GEN- AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, (MG/L AS P)	BIO- LOGICAL OXYGEN DEMAND (MG/L)	FECAL COLI- FORMS (#/100ML)
25-Aug-86	900	1.50	100	16.0	7.9	6.8	-0.02	-0.02	0.04	-0.02	-0.02	9	47
15-Sep-86	944	0.24	325 A	15.5	8.1	7.0	-0.02	-0.02	-0.02	-0.02	-0.02	1	24
29-Sep-86	940	2.00	230	10.5	9.5	8.5	-0.02	-0.02	-0.02	-0.02	-0.02	2	180
13-Oct-86	945	4.60	200	6.0	10.2	8.2	-0.02	-0.02	-0.02	0.08	0.03	1	102
27-Oct-86	1100	4.30	225	11.0	8.8	8.0	-0.02	-0.02	-0.02	0.03	-0.02	2	9
17-Nov-86	1115	5.80	360	7.0	9.7	8.2	-0.02	-0.02	0.02	-0.02	-0.02	2	14
16-Dec-86	1100	8.00	180	1.0	11.6	8.0	0.05	-0.02	0.06	0.03	-0.02	2	5
13-Jan-87	950	6.90	190	1.0	11.6	8.4	0.07	-0.02	-0.02	0.04	-0.02	-1	120
17-Feb-87	1015	9.90	190	2.0	11.0 B	8.4	0.09	-0.02	-0.02	-0.02	-0.02	4	-1
17-Mar-87	1300	18.00	190	4.5	10.1	8.2	0.05	-0.02	-0.02	0.05	-0.02	1	16
14-Apr-87	1245	29.00	215	14.0	9.2	8.1	0.09	-0.02	0.06	0.08	-0.02	6	20

NOTES:

- A Laboratory value.
- B Field-instrument malfunction, estimated from water temperature assuming saturation.
- C High-flow discharge estimated, based on extrapolation from preliminary rating curve.
- D Laboratory-incubator malfunction, unable to complete analysis.

BLANK RANGES INDICATE NO DATA WERE AVAILABLE

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TABLE 4
WEST PLUM CREEK AT SEDALIA, COLORADO (SITE 3)
WATER-QUALITY DATA

Location: SW 1/4, NE 1/4, Sec. 23, T. 7S, R. 68W, Douglas County, on upstream side of bridge on State Highway 67, 0.6 mi. south of Sedalia and 0.1 mi. upstream from mouth.

DATE	TIME	INSTAN- TANEOUS STREAM FLOW (cfs)	SPE- CIFIC CONduc- TANCE FIELD (US/CM)	TEMP. (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	pH (STD. UNITS)	NITRO- GEN- NITRATE TOTAL (MG/L AS N)	NITRO- GEN- NITRITE TOTAL (MG/L AS N)	NITRO- GEN- AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, (MG/L AS P)	BIO- LOGICAL OXYGEN DEMAND (MG/L)	FECAL COLI- FORMS (#/100ML)
14-May-87	1010	102.00 C	10	11.0	10.1	8.2	0.10	0.04	0.05	0.53	0.07	2	166
11-Jun-87	1050	46.00	240	20.0	7.0	7.8	0.18	-0.01	-0.02	0.14	0.05	-1	100
25-Jun-87	630	27.00	217	13.5	7.6	7.9	0.12	-0.01	-0.02	0.13	0.02	-1	440
14-Jul-87	715	12.00	230	15.5	7.8	7.8	0.06	-0.01	0.05	0.06	0.02	- D	1580
27-Jul-87	1630	2.30	291	23.0	6.9	7.8	0.02	-0.01	0.09	0.02	0.02	2	432
13-Aug-87	1045	5.10	250	22.0	6.5	7.8	0.09	-0.01	0.02	0.02	0.02	-1	75

NOTES:

- A Laboratory value.
- B Field-instrument malfunction, estimated from water temperature assuming saturation.
- C High-flow discharge estimated, based on extrapolation from preliminary rating curve.
- D Laboratory-incubator malfunction, unable to complete analysis.

BLANK RANGES INDICATE NO DATA WERE AVAILABLE

MINUS SIGN MEANS "LESS THAN" INDICATED VALUE

TIME = 9999 MEANS THE SAMPLE IS A DUPLICATE OR A SPLIT OF THE VALUE IMMEDIATELY ABOVE IT

TABLE 5
EAST PLUM CREEK AT SEDALIA, COLORADO (SITE 4)
WATER-QUALITY DATA

Location: NE 1/4, NE 1/4, Sec. 23, T. 7S, R. 68W, Douglas County, on upstream side of bridge on State Highway 67, 0.3 mi. south of Sedalia and 0.3 mi. upstream from mouth.

DATE	TIME	INSTAN- TANEOUS STREAM FLOW (cfs)	SPE- CIFIC CONDUCT- TANCE FIELD (US/CM)	pH (STD. UNITS)	TEMP- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	BIO- LOGICAL OXYGEN DEMAND (MG/L)	FECAL COLI- FORMS (#/ 100ML)	NITRO- GEN- NITRATE TOTAL (MG/L AS N)	NITRO- GEN- NITRITE TOTAL (MG/L AS N)	NITRO- GEN- AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, (MG/L AS P)
25-Aug-86	1025	2.50	360	7.5	21.5	7.0	7	84	0.44	-0.02	0.04	0.29	0.20
15-Sep-86	1044	0.26	410 A	7.1	18.5	7.8	1	76	-0.02	-0.02	-0.02	0.18	0.16
29-Sep-86	1010	1.70	280	8.2	10.0	9.6	3	200	-0.02	-0.02	-0.02	0.13	0.08
13-Oct-86	1030	6.80	295	8.5	8.0	9.5	1	326	0.54	-0.02	-0.02	0.38	0.26
27-Oct-86	1145	5.20	285	8.5	9.5	9.0	1	49	0.60	-0.02	-0.02	0.35	0.29
17-Nov-86	1030	4.70	400	8.4	7.0	9.1	-1	8	1.50	-0.02	0.03	0.34	0.40
16-Dec-86	1200	5.10	230	9.0	1.5	11.5	2	40	1.20	0.04	0.12	0.42	0.40
13-Jan-87	1030	3.80	225	7.9	1.0	11.6	-1	1100	1.10	-0.02	0.03	0.42	0.34
17-Feb-87	1100	8.70	240	8.4	4.5	10.3 B	3	-1	1.10	-0.02	-0.02	0.46	0.28
17-Mar-87	1345	16.00	220	8.4	5.5	10.1	3	12	0.79	0.04	0.16	0.56	0.32
14-Apr-87	1345	25.00	275	8.1	17.0	9.0	4	20	0.90	0.03	0.05	0.62	0.30
14-May-87	1040	92.00	110	7.7	16.0	9.8	2	200	0.24	0.04	0.05	0.61	0.18
11-Jun-87	1115	42.00	245	7.8	23.0	6.8	-1	420	0.52	0.01	-0.02	0.38	0.14

NOTES:

- A Laboratory value.
- B Field-instrument malfunction, estimated from water temperature assuming saturation.
- C Laboratory-incubator malfunction, unable to complete analysis.

BLANK RANGES INDICATE NO DATA WERE AVAILABLE

MINUS SIGN MEANS "LESS THAN" INDICATED VALUE

TIME = 9999 MEANS THE SAMPLE IS A DUPLICATE OR A SPLIT OF THE VALUE IMMEDIATELY ABOVE IT

TABLE 5
 EAST PLUM CREEK AT SEDALIA, COLORADO (SITE 4)
 WATER-QUALITY DATA

Location: NE 1/4, NE 1/4, Sec. 23, T. 7S, R. 68W, Douglas County, on upstream side of bridge on State Highway 67, 0.3 mi. south of Sedalia and 0.3 mi. upstream from mouth.

DATE	TIME	INSTAN- TANEOUS STREAM FLOW (cfs)	SPE- CIFIC CONDUCTANCE FIELD (US/CM)	pH (STD. UNITS)	TEMP- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	BIO- LOGICAL OXYGEN DEMAND (MG/L)	FECAL COLI- FORMS (#/100ML)	NITRO- GEN- NITRATE TOTAL (MG/L AS N)	NITRO- GEN- NITRITE TOTAL (MG/L AS N)	NITRO- GEN- AMMONIA TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, (MG/L AS P)
25-Jun-87	730	17.00	253	8.0	14.5	7.4	-1	480	0.67	-0.01	-0.02	0.39	0.14
14-Jul-87	745	11.00	279	7.8	17.0	7.6	C	1040	0.40	0.01	0.05	0.35	0.22
27-Jul-87	1700	3.10	405	7.9	23.0	6.9	1	620	0.19	-0.01	0.07	0.33	0.21
13-Aug-87	1115	6.90	440	8.0	25.0	6.7	-1	1300	0.53	-0.01	0.02	0.36	0.25

NOTES:

- A Laboratory value.
- B Field-instrument malfunction, estimated from water temperature assuming saturation.
- C Laboratory-incubator malfunction, unable to complete analysis.

BLANK RANGES INDICATE NO DATA WERE AVAILABLE

MINUS SIGN MEANS "LESS THAN" INDICATED VALUE

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TABLE 6
EAST PLUM CREEK AT LARKSPUR, COLORADO (SITE 5)

Location: NW 1/4, NW 1/4, Sec. 34, T. 95, R. 67W, Douglas County, on upstream side of bridge, 0.3 mi. downstream from Carpenter Creek.

DATE	TIME	INSTAN- TANEOUS STREAM- FLOW (CFS)	SPE- CIFIC CON- DUC- TANCE FIELD (US/CM)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	PH FIELD (STAND- ARD UNITS)	NITRO- GEN- AMMONIA TOTAL (MG/L AS N)	NITRO- GEN- NITRITE TOTAL (MG/L AS N)	NITRO- GEN- NITRATE TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	BIOLOG- ICAL OXYGEN DEMAND (MG/L)	FECAL COLIFORM (COL/ 100 ML)
25-Aug-86	1500	1.3											
15-Sep-86	1200	1.0	195	18.0	7.8	7.2	-0.02	-0.02	-0.02	0.03	-0.02	1	280
13-Oct-86	1145		130	7.5	9.7	8.2	-0.02	-0.02	0.03	0.07	-0.02	2	6
13-Oct-86	125	2.7	130	11.0	8.8	8.4	-0.02	-0.02	-0.02	0.04	-0.02	2	16
17-Nov-86	1240	2.6	10	9.0	8.8	7.9	-0.02	-0.02	-0.02	-0.02	-0.02	-1	8
16-Dec-86	1400	3.1	100	3.5	10.6	8.0	0.05	-0.02	-0.02	0.05	-0.02	1	5
13-Jan-87	1230	3.5	100	7.0	9.7	8.1	-0.02	-0.02	-0.02	0.05	0.02	-1	360
17-Feb-87	1230	5.2	120	6.0	9.9	8.4	-0.02	-0.02	0.04	-0.02	-0.02	-1	-1
17-Mar-87	1020	14.0	110	2.5	10.1	8.4	-0.02	-0.02	0.03	0.03	-0.02	-1	8
14-Apr-87	845	14.0	180	2.0	12.8	7.8	-0.02	-0.02	0.14	-0.02	-0.02	5	24
14-May-87	750	71.0	65	7.0	10.1	7.2	0.04	0.03	0.06	0.18	0.06	2	300
11-Jun-87	945	31.0	135	14.0	7.8	7.3	-0.02	0.01	0.08	0.07	0.03	-1	180
14-Jul-87	1000	6.3	180	17.0	7.5	7.7	0.04	-0.01	-0.02	0.05	0.02		280
13-Aug-87	1200	4.0	180	23.0	8.3	8.0	-0.02	-0.01	0.05	0.06	0.03	-1	-1

NOTES:

BLANK RANGES INDICATE NO DATA WERE AVAILABLE

MINUS SIGN MEANS "LESS THAN" INDICATED VALUE

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TABLE 7
 BEAR CREEK NEAR PERRY PARK, COLORADO (SITE 6)
 WATER-QUALITY DATA

Location: SE 1/4, SE 1/4, Sec. 15, T. 9S, R. 68W, Douglas County, on Left Bank 0.2 mi. downstream from Golf Course Reservoir,
 and 0.2 mi. upstream from Perry Park Wastewater Treatment Plant.

DATE	TIME	INSTAN- TANEOUS STREAM FLOW (cfs)	SPE- CIFIC CONDUCT- TANCE FIELD (US/CM)	TEMPER- ATURE (DEG C)	OXYGEN, DIS- SOLVED (MG/L)	pH (STD. UNITS)	NITRO- GEN- NITRATE (MG/L AS N)	NITRO- GEN- NITRITE (MG/L AS N)	NITRO- GEN- AMMONIA (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, (MG/L AS P)	BIO- LOGICAL OXYGEN DEMAND (MG/L)	FECAL COLI- FORMS (#/100ML)
25-Aug-86	1) 1615	0.04	--	--	--	--	--	--	--	--	--	--	--
15-Sep-86	1300	0.10 3)	320 2)	13.0	5.1	7.0	0.10	-0.02	-0.02	-0.02	-0.02	1	64
13-Oct-86	1245	0.00 3)	210	10.0	11.4	7.6	-0.02	-0.02	-0.02	0.03	-0.02	2	-2
17-Nov-86	1315	0.32	240	7.0	7.5	7.3	0.02	-0.02	0.06	-0.02	-0.02	1	-1
16-Dec-86	1300	0.77	160	7.0	9.8	7.8	0.08	-0.02	0.08	0.03	-0.02	1	-1
13-Jan-87	1200	0.54	160	4.5	10.3	8.1	0.04	-0.02	0.04	0.04	-0.02	-1	110
17-Feb-87	1330	0.97	190	6.0	9.9 4)	8.3	0.05	-0.02	-0.02	-0.02	-0.02	-1	-1
17-Mar-87	1150	3.50	100	5.0	9.0	6.6	0.03	-0.02	0.02	0.04	-0.02	-1	-1
14-Apr-87	745	5.20	120	5.0	11.9	7.8	0.03	-0.02	0.05	-0.02	-0.02	3	-1
14-May-87	845	60.00 5)	50	7.5	10.4	7.6	-0.02	0.03	0.04	0.02	0.02	1	2
11-Jun-87	900	5.60	100	14.5	8.4	7.4	0.01	0.02	-0.02	0.03	0.01	-1	12
14-Jul-87	900	2.20	125	18.5	6.6	7.6	-0.02	-0.01	0.03	0.02	0.02	-- 6	4
13-Aug-87	1300	1.40	180	20.0	6.9	7.7	0.07	-0.01	0.02	-0.01	-0.01	-1	15

NOTES:

- 1) Initial site visit for staff-gage installation only.
- 2) Laboratory value.
- 3) Estimated low-flow.
- 4) Field-instrument malfunction, estimated from water temperature assuming saturation.
- 5) High-flow discharge estimated, based on extrapolation from preliminary rating curve.
- 6) Laboratory-incubator malfunction, unable to complete analysis.

BLANK RANGES INDICATE NO DATA WERE AVAILABLE

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TABLE 8
 105033539331901 CHATFIELD RESERVOIR NEAR DAM (SITE 7)
 WATER-QUALITY DATA

DATE	TIME	SAMP- TOTAL DEPTH (FEET)	LING DEPTH (FEET)	TEMPER- ATURE (DEG C)	SECCHI DISK (FEET)	CON- TANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	SOLIDS, RESIDUE				NITRO- GEN- AMMONIA				PHOS- PHORUS, ORTHOS, PHOS- PHORUS,				PHYTO- PLANK- TON, (SPEC- IES NUMBER)	LABOR- ATORY SAMPLE NUMBER
									AT 105 DEG. C, SUS- PENDED (MG/L)	NITRO- GEN- TOTAL (MG/L) AS N)	NITRO- GEN- TOTAL (MG/L) AS N)	NITRO- GEN- TOTAL (MG/L) AS N)	NITRO- GEN- TOTAL (MG/L) AS N)	PHOS- PHORUS, TOTAL (MG/L) AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L) AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L) AS P)	PHOS- PHORUS, ORTHOS, TOTAL (MG/L) AS P)	CHLORO- PHYLL A CORR. (UG/L)				
01-Sep-87	1200		3.2	21.0	6.3	310	7.0	8.2		0.55	0.02	-0.01	-0.02	0.50	0.02	0.02	-0.01		4.9	22		
01-Sep-87	1200	39	37.0	17.5		310	3.4	7.4		0.55	-0.02	0.02	0.01	0.50	0.17	0.04	-0.01					
14-Sep-87	1415		2.6	21.0	5.2	345	6.2	8.6		0.54	-0.02	0.01	0.01	0.50	0.05	0.05	0.01	0.01	15.0	25		
14-Sep-87	1415	40	39.0	18.5		300	3.9	8.1		0.43	0.10	-0.01	-0.02	0.30	0.09	0.02	0.01	0.04				
01-Oct-87	1145		2.3	18.0	4.5	330	8.7	7.6	-2	0.56	0.03	-0.01	-0.02	0.50	0.15	0.10	0.07	0.08	12.3	16		
01-Oct-87	1145	39	37.0	17.0		330	7.2	7.8	24	0.36	0.04	0.01	0.01	0.30	0.07	0.03	0.01	0.01				
13-Nov-87	1200		2.5	10.0	5.0	335	8.8	7.9	-2	0.52	0.05	0.01	0.16	0.30	0.01	0.02	-0.01	-0.01	2.3	21		
13-Nov-87	1200	35	33.0	9.0		359	8.8	7.7	44	0.62	0.05	0.01	0.16	0.40	0.06	0.01	-0.01	0.01				

NOTES:
 BLANK RANGES INDICATE NO DATA WERE AVAILABLE
 MINUS SIGN MEANS "LESS THAN" INDICATED VALUE
 TIME = 9999 MEANS THE SAMPLE IS A DUPLICATE OR A SPLIT OF THE VALUE IMMEDIATELY ABOVE IT
 * CHLOROPHYLL-a ANALYSES INADVERTENTLY OMITTED DURING MONTHS OF OCTOBER, NOVEMBER, & DECEMBER.

TABLE 8
105033539331901 CHATFIELD RESERVOIR NEAR DAM (SITE 7)
WATER-QUALITY DATA

DATE	TIME	SAMP-				SPE-		SOLIDS,		PH	NITRO-	NITRO-	NITRO-	NITRO-	PHOS-	PHOS-	PHOS-	PHOS-	PHOS-	PHOS-	PHYTO-	LABOR-
		TOTAL	LING	TEMPER-	SECCHI	CON-	CIFIC	RESIDUE	RESIDUE													
DEPTH	DEPTH	ATURE	DISK	TANCE	DUC-	OXYGEN,	FIELD	AT 105	NITRO-	GEN-	GEN-	GEN-	GEN-	PHOS-	PHOS-	PHOS-	PHOS-	PHOS-	PHOS-	CHLORO-	TON,	
(FEET)	(FEET)	(DEG C)	(FEET)	(US/CM)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(UG/L)	(SPEC-	
									AS N)	AS N)	AS N)	AS N)	AS N)	AS P)	AS P)	AS P)	AS P)	AS P)	AS P)	CORR.	IES	
									(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(UG/L)	NUMBER)	
									(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(UG/L)	NUMBER)	
08-Jan-88	1530		3.5	3.0	7.5	420	12.1	7.7	4	0.65	0.05	-0.02	0.27	0.30	0.02	-0.01	-0.01	-0.01	1.9	20		
08-Jan-88	1530	35	33.0	5.0		406	11.6	7.9	-2	0.68	0.04	-0.02	0.22	0.40	0.02	-0.02	-0.01	-0.01				
10-Feb-88	950		4.5	5.0	9.0	409	12.0	7.9	-2	0.74	0.08	0.01	0.25	0.40	-0.01	-0.01	-0.01	-0.01	4.5	12		
10-Feb-88	1000	18	16.0	6.0		407	11.0	7.9	2	0.85	0.02	0.01	0.41	0.40	-0.01	-0.01	-0.01	-0.01				
30-Mar-88	1105		2.0	3.0	4.0	370	13.6	8.6	1	0.80	0.12	0.01	0.27	0.40	-0.01	-0.01	-0.01	-0.01	7.2	18		
30-Mar-88	1105	63	61.0	4.0		380	12.4	8.0	1	0.65	0.13	0.01	0.11	0.40	0.03	-0.01	-0.01	-0.01				
27-Apr-88	1305		1.5	14.5	3.0	494	8.7	7.1	8	0.63	0.03	0.05	0.15	0.40	0.02	-0.01	0.01	0.01	3.8	12		
27-Apr-88	1305	35	33.0	11.5		464	8.3	7.8	8	0.57	0.04	0.10	0.13	0.30	0.06	-0.01	0.01	0.02				
13-May-88	1500		3.0	17.0	6.0	344	8.4	8.8	10	0.46	0.02	-0.01	0.03	0.40	0.01	-0.01	0.01	0.01	4.4	12		
13-May-88	1500	38	36.0	14.0		318	7.4	8.4	18	0.81	0.04	-0.01	0.16	0.60	0.02	-0.01	0.01	0.02				
25-May-88	1430		1.4	15.0	2.8	280	7.6	8.1	6	0.49	0.02	0.01	0.06	0.40	0.06	-0.01	-0.01	0.05	1.7	14		
25-May-88	1430	27	25.0	12.0		265	6.8	7.9	14	0.64	0.05	0.01	0.08	0.50	0.06	0.01	-0.01	0.05				
16-Jun-88	1345		3.3	21.0	6.5	318	8.6	7.6	2	0.52	0.03	-0.01	0.08	0.40	0.02	-0.01	-0.01	0.01	13.8	8		
16-Jun-88	1350	40	38.0	18.5		287	4.4	7.5	2	0.49	0.04	-0.01	0.04	0.40	0.03	0.01	-0.01	0.01				
30-Jun-88	930		2.6	20.0	5.2	231	5.4	7.7	6	0.84	0.06	0.01	0.70	0.07	-0.01	-0.01	-0.01	0.01	3.3	17		
30-Jun-88	940	30	28.0	19.0		240	3.9	7.6	14	0.22	-0.02	0.01	0.09	-0.10	0.02	-0.01	-0.01	0.03				

NOTES:
 BLANK RANGES INDICATE NO DATA WERE AVAILABLE
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 TIME = 9999 MEANS THE SAMPLE IS A DUPLICATE OR A SPLIT OF THE VALUE IMMEDIATELY ABOVE IT
 * CHLOROPHYLL-a ANALYSES INADVERTENTLY OMITTED DURING MONTHS OF OCTOBER, NOVEMBER, & DECEMBER.

TABLE 8
105033539331901 CHATFIELD RESERVOIR NEAR DAM (SITE 7)
WATER-QUALITY DATA

DATE	TIME	SAMP- TOTAL DEPTH	LING DEPTH	TEMPER- ATURE	SECCHI DISK	SPE- CIFIC CON- TANCE	OXYGEN, DIS- SOLVED	PH (STAND- ARD	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED	NITRO- GEN- TOTAL	NITRO- GEN- TOTAL	NITRO- GEN- TOTAL	NITRO- GEN- TOTAL	PHOS- PHORUS, TOTAL	PHOS- PHORUS, DIS- SOLVED	PHOS- PHORUS, DIS- SOLVED	PHOS- PHORUS, ORTHO, TOTAL	CHLORO- PHYLL A CORR.	PHYTO- PLANK- TON, (SPEC- IES	LABOR- ATORY SAMPLE NUMBER	
																					DEPTH
15-Jul-88	1445		2.5	21.0	4.9	320	5.4	7.5	2	0.13	0.04	-0.01	0.07	-0.01	-0.01	-0.01	-0.01	-0.01	7.2	13	
15-Jul-88	1440	35	33.0	21.0		313	2.8	7.0	8	0.88	-0.02	0.01	0.15	0.70	-0.01	-0.01	0.01	0.03			
27-Jul-88	1215		3.0	21.0	6.0	310	5.0	7.4	4	0.27	0.12	-0.01	0.04	0.10	0.02	0.01	-0.01	-0.01	4.0	11	
27-Jul-88	1220	32	30.0	18.5		284	3.6	7.2	6	0.73	0.04	-0.01	0.18	0.50	0.04	0.01	-0.01	0.02			
16-Aug-88	1235		1.8	23.0	3.6	353	7.5	8.0	0	0.32	-0.02	-0.01	-0.02	-0.10	0.02	0.01	0.01	0.02	12.0	10	
16-Aug-88	1230	35	33.0	19.5		333	3.6	6.9	14	0.15	0.12	-0.01	0.09	-0.10	0.03	0.02	0.02	0.02			
29-Aug-88	1135		1.8	19.0	3.5	306	6.0	7.6	2	0.17	0.04	-0.01	0.02	0.10	0.02	-0.01	-0.01	-0.01	13.0	6	
29-Aug-88	1120	27	25.0	19.0		287	3.8	7.2	22	0.28	0.12	0.01	0.05	0.10	0.03	-0.01	-0.01	0.02			
16-Sep-88	1220		1.5	14.0	3.0	210	6.7	8.3	10	0.47	-0.02	-0.01	0.06	0.40	0.010	-0.010	-0.010	0.020	6.0	17.0	5231
16-Sep-88	1225	36.0	34.0	14.0		240	5.4	8.1	24	0.45	0.06	0.01	0.04	0.40	0.030	-0.010	0.010	0.030			5232
29-Sep-88	1430		2.0	12.0	3.9	340	7.9	8.6	14	0.42	-0.02	-0.02	-0.02	0.40	-0.010	-0.010	0.020	0.020	12.0	14.0	5627
29-Sep-88	1435	36.0	34.0	11.5		345	7.7	8.5	28	0.42	-0.02	-0.02	-0.02	0.40	0.010	-0.010	0.010	0.020			5628
14-Oct-88	1055		2.9	13.0	5.9	300	7.4	8.9	8	0.67	0.03	-0.01	0.06	0.60	0.030	0.010	-0.010	-0.010	6.0	11.0	5890
14-Oct-88	1050	26.0	24.0	13.0		290	7.6	8.9	16	0.76	0.04	-0.01	0.06	0.70	0.040	0.020	-0.010	-0.010			5891

NOTES:
 BLANK RANGES INDICATE NO DATA WERE AVAILABLE
 MINUS SIGN MEANS "LESS THAN" INDICATED VALUE
 TIME = 9999 MEANS THE SAMPLE IS A DUPLICATE OR A SPLIT OF THE VALUE IMMEDIATELY ABOVE IT
 * CHLOROPHYLL-a ANALYSES INADVERTENTLY OMITTED DURING MONTHS OF OCTOBER, NOVEMBER, & DECEMBER.

TABLE 8
105033539331901 CHATFIELD RESERVOIR NEAR DAM (SITE 7)
WATER-QUALITY DATA

DATE	TIME	DEPTH (FEET)	SAMP- LING DEPTH (FEET)	TEMPER- ATURE (DEG C)	SECCHI DISK (FEET)	CON- TANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	NITRO- GEN- TOTAL (MG/L AS N)	NITRO- GEN- TOTAL (MG/L AS N)	NITRO- GEN- TOTAL (MG/L AS N)	NITRO- GEN- TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTH- THO, TOTAL (MG/L AS P)	PHYTO- PLANK- TON, PHYLL A (SPEC- IES NUMBER)	LABOR- ATORY SAMPLE NUMBER
10-Jan-89	1420		4.0	5.0	8.0	400	8.4	8.2	4				0.20	0.007			-0.005	8.0	182
10-Jan-89	1410	15.0	13.0	5.0		400	8.2	8.1	6				0.40	0.009			-0.005		183
08-Feb-89	1315		3.3	2.0	6.5	390	13.7	8.1	-2	0.41	0.05	-0.01	0.20	0.20	0.019		0.005	6.0	527
08-Feb-89	1330	26.5	24.5	3.0		390	11.4	7.8	-2	0.43	0.10	0.01	0.32	0.10	0.032		0.013		528
27-Mar-89	1215		2.4	8.0	4.8	450	10.7	8.1	-2	0.50				0.012			-0.005	5.0	1429
27-Mar-89	1230	40.0	38.0	6.5		455	9.5	8.2	4	0.50				0.017			-0.005		1430
13-Apr-89	1245		5.9	8.5	11.8	325	9.0	8.2	-2	0.20				0.020			-0.005	4.8	1863
13-Apr-89	1300	35.0	33.0	7.5		320	8.5	8.1	-2	0.30				0.019			0.006		1864
10-May-89	1455		4.5	14.5	9.0	340	9.0	8.2	-2	0.60				0.011			0.006	2.5	2494
10-May-89	1500	35.0	34.0	12.0		340	8.4	7.9	4	0.50				0.018			0.010		2495
15-Jun-89	1200		5.5	17.0	11.0	295	9.4	7.1	-2	0.40				0.014			-0.005	2.1	3592
15-Jun-89	1145	26.5	25.0	16.0		280	7.6	7.3	4	0.40				0.013			0.005		3593

NOTES:
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 * CHLOROPHYLL-a ANALYSES INADVERTENTLY OMITTED DURING MONTHS OF OCTOBER, NOVEMBER, & DECEMBER.

TABLE 8
 105033539331901 CHATFIELD RESERVOIR NEAR DAM (SITE 7)
 WATER-QUALITY DATA

DATE	TIME	SAMP- TOTAL DEPTH (FEET)	LING DEPTH (FEET)	TEMPER- ATURE (DEG C)	SECCHI DISK (FEET)	SPE- CIFIC CON- DUC- TANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	SOLIDS, RESIDUE SUS- PENDED (MG/L)	NITRO- GEN- TOTAL (MG/L AS N)	NITRO- GEN- TOTAL (MG/L AS N)	NITRO- GEN- TOTAL (MG/L AS N)	NITRO- GEN- TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTH- THO, TOTAL (MG/L AS P)	PHYTO- PLANK- TON, (SPEC- IES NUMBER)	LABOR- ATORY SAMPLE NUMBER
06-Jul-89	1140		3.0	23.0	6.0	260	6.0	7.7	2	0.30				-0.005			-0.005	2.3	4179
06-Jul-89	1145	39.0	37.0	17.0		250	4.0	7.2	12	0.40				0.011			0.010		4180
20-Jul-89	1210		3.5	22.0	7.0	255	7.9	7.7	-2	0.20				0.014			0.009	1.8	4562
20-Jul-89	1215	36.0	34.5	17.0		260	4.8	7.7	-2	0.40				0.019			0.010		4567
03-Aug-89	1315		4.0	22.0	8.0	260	7.2	7.6	6	0.20				-0.005			-0.005	1.3	4807
03-Aug-89	1320	22.5	21.0	18.5		260	7.7	7.5	4	0.30				-0.005			-0.005		4808
15-Aug-89	1205		5.0	21.5	10.0	255	6.6	7.7	-2	5.40				0.022			0.006	2.6	5145
15-Aug-89	1210	37.5	36.0	18.0		250	4.0	7.7	6	0.50				0.075			0.031		5146
30-Aug-89	1225		2.0	21.0	4.0	290	8.0	8.2	6	0.50				-0.005			0.005	4.0	5582
30-Aug-89	1230	35.0	33.0	19.5		260	6.3	7.8	6	0.10				-0.005			0.007		5583
15-Sep-89	1440		1.5	17.5	3.0	255	7.5	8.0	2	0.60				0.019			0.008	1.7	5968
15-Sep-89	1450	26.5	25.0	15.5		255	6.4	7.9	2	0.20				0.020			0.008		5969
28-Sep-89	1150		4.3	17.5	8.5	210	7.3	7.9	6	0.40				0.008			0.005	2.5	6359
28-Sep-89	1155	22.5	21.0	17.5		205	8.3	7.7	12	0.20				0.012			0.005		6360
23-Oct-89	1230		2.2	13.0	4.4	240	7.0	8.1	8	0.50				-0.005			-0.005	3.6	7004
23-Oct-89	1240	22.5	21.0	12.0		240	6.6	8.1	4	0.50				-0.005			-0.005		7005
29-Nov-89	1500		2.2	5.0	4.3	200	15.0	8.8	6	0.40				-0.005			-0.005	19.9	7739
29-Nov-89	1510	22.5	21.0	4.5		200	14.8	8.6	12	1.50				-0.005			-0.005		7740
27-Dec-89	1210		5.0	3.5	10.0	195	12.8	8.4	6	-0.10				-0.005			-0.005	1.7	8411
27-Dec-89	1215	10.0	8.5	4.0		195	12.9	8.9	10	-0.10				-0.005			-0.005		8412

NOTES:
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 * CHLOROPHYLL-a ANALYSES INADVERTENTLY OMITTED DURING MONTHS OF OCTOBER, NOVEMBER, & DECEMBER.

TABLE 9
 105030239324801 CHATFIELD RESERVOIR NEAR PLUM CREEK INFLOW (SITE 8)
 WATER-QUALITY DATA

DATE	TIME	SAMP- TOTAL DEPTH (FEET)	LING DEPTH (FEET)	TEMPER- ATURE (DEG C)	SECCHI DISK (FEET)	SPE- CIFIC CON- DUC- TANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	PH (STAND- ARD UNITS)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDE (MG/L)	NITRO- GEN- TOTAL (MG/L AS N)	NITRO- GEN- TOTAL (MG/L AS N)	NITRO- GEN- TOTAL (MG/L AS N)	NITRO- GEN- TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTH SOLVED (MG/L AS P)	PHYTO- PLANK- TON, (SPEC- IES NUMBER)	LABOR- ATORY SAMPLE NUMBER
01-Sep-87	1115		2.8	19.5	5.5	344	6.8	8.2			0.15	0.01	0.03	0.4	0.02	0.03	-0.01		3.0	24.0
01-Sep-87	1115	13	12.0	19.0		340	6.1	7.3		0.66	0.07	0.02	0.17	0.4	0.05	0.03	-0.01			
14-Sep-87	1345		1.6	21.0	3.2	259	6.2	8.4		0.45	0.02	0.01	0.02	0.4	0.05	0.01	-0.01	0.01	7.4	18.0
14-Sep-87	1345	13	12.0	19.0		338	4.4	8.1		0.43	0.06	0.02	0.05	0.3	0.07	0.02	-0.01	0.03		
01-Oct-87	1235		2.0	19.0	4.0	329	8.0	7.8	6	0.48	0.04	-0.01	0.03	0.4	0.06	0.03	0.01	0.01	7.1	14.0
01-Oct-87	1235	13	10.0	16.0		325	8.4	7.8	12	0.47	0.02	0.01	0.04	0.4	0.06	0.03	0.01	0.01		
13-Nov-87	1100		1.2	8.5	2.3	341	8.8	7.9	-2	0.68	0.05	-0.01	0.32	0.3	0.06	0.01	0.01	-0.01	2.7	15.0
13-Nov-87	1100	7	6.0	8.5		341	8.8	7.9	6	0.57	0.05	0.01	0.21	0.3	0.02	0.01	-0.01	-0.01		

NOTES:
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 TIME = 9999 MEANS THE SAMPLE IS A DUPLICATE OR A SPLIT OF THE VALUE IMMEDIATELY ABOVE IT

TABLE 9
105030239324801 CHATFIELD RESERVOIR NEAR PLUM CREEK INFLOW (SITE 8)
WATER-QUALITY DATA

DATE	TIME	SAMP- TOTAL DEPTH (FEET)	LING DEPTH (FEET)	TEMPER- ATURE (DEG C)	SECCHI DISK (FEET)	SPE- CIFIC CON- DUC- TANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	PH (STAND- ARD UNITS)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	NITRO- GEN- TOTAL (MG/L AS N)	NITRO- GEN- TOTAL (MG/L AS N)	NITRO- GEN- TOTAL (MG/L AS N)	NITRO- GEN- TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTH- THO, TOTAL (MG/L AS P)	PHYTO- PLANK- TON, (SPEC- IES NUMBER)	LABOR- ATORY SAMPLE NUMBER	
																					CHLORO- PHYLL A CORR. (UG/L)
08-Jan-88	1400		2.0	2.0	5.0	397	12.4	7.9		6	0.65	0.07	-0.02	0.26	0.3	0.02	-0.01	-0.01	-0.01	1.1	13.0
08-Jan-88	1400	5	4.0	4.0		398	13.4	7.9		-2	0.71	0.04	-0.02	0.25	0.4	0.02	-0.01	-0.01	-0.01		
10-Feb-88	1150		4.0	5.0	8.0	407	11.7	8.0		-2	0.72	0.03	0.01	0.28	0.4	-0.01	-0.01	-0.01	-0.01	8.3	11.0
10-Feb-88	1200	18	16.0	6.0		412	12.0	7.8		2	0.63	0.03	0.01	0.29	0.3	-0.01	-0.01	-0.01	-0.01		
30-Mar-88	1050		1.5	4.0	3.0	355	13.1	8.1		10	0.87	0.11	0.01	0.25	0.5	0.01	-0.01	-0.01	-0.01	5.2	25.0
30-Mar-88	1050	16	14.0	3.0		370	14.4	8.1		4	0.68	0.11	0.01	0.26	0.3	0.02	-0.01	-0.01	-0.01		
27-Apr-88	1335		1.6	13.5	3.3	428	8.0	8.0		10	0.56	0.04	0.07	0.15	0.3	0.04	-0.01	0.01	0.03	5.8	16.0
27-Apr-88	1335	14	12.0	9.5		374	8.4	8.1		24	0.57	0.04	0.02	0.21	0.3	0.06	0.01	0.01	0.05		
13-May-88	1440		2.5	17.0	5.0	343	8.2	8.8		12	0.70	0.04	-0.01	0.05	0.6	0.02	-0.01	-0.01	0.01	3.6	10.0
13-May-88	1440	15	13.0	14.0		310	8.2	8.6		18	0.77	0.03	-0.01	0.13	0.6	0.04	-0.01	-0.01	0.02		
25-May-88	1400		1.0	16.0	2.0	290	7.4	8.0		10	0.50	0.02	0.01	0.07	0.4	0.05	0.01	-0.01	0.04	1.7	9.0
25-May-88	1415	13	11.0	15.0		275	7.6	7.9		32	0.35	0.02	0.01	0.12	0.2	0.10	0.01	0.01	0.06		
16-Jun-88	1415		2.3	20.0	4.5	314	7.9	7.5		-2	0.48	0.02	-0.01	0.05	0.4	0.03	0.01	-0.01	-0.01	10.2	9.0
16-Jun-88	1415	14	12.0	20.0		281	7.2	7.8		10	0.51	0.03	-0.01	0.17	0.3	0.04	-0.01	-0.01	0.01		
30-Jun-88	950		1.3	21.0	2.6	287	5.0	7.6		6	0.37	-0.02	0.01	0.14	0.2	0.01	-0.01	0.01	0.02	5.4	13.0
30-Jun-88	1000	16	14.0	20.0		284	4.4	7.6		50	1.01	0.07	0.02	0.42	0.5	0.07	-0.01	0.01	0.01		

NOTES:
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TABLE 9
 105030239324801 CHATFIELD RESERVOIR NEAR PLUM CREEK INFLOW (SITE 8)
 WATER-QUALITY DATA

DATE	TIME	SAMP-		SPE-		PH		PH		SOLIDS,		NITRO-		NITRO-		NITRO-		NITRO-		PHOS-		PHOS-		PHOS-		PHYTO-	
		TOTAL	DEPTH	TEMPER-	SECCHI	TANCE	DIS-	(STAND-	(STAND-	AT 105	NITRO-	GEN-	GEN-	GEN-	GEN-	PHOS-	PHORUS,	DIS-	DIS-	ORTH,	CHLORO-	TON,	LABOR-				
		DEPTH	ATURE	DISK	FIELD	SOLVED	ARD	ARD	DEG. C,	GEN-	AMMONIA	NITRITE	NITRATE	TOTAL	PHORUS,	SOLVED	SOLVED	ORTH,	PHYLL A	(SPEC-	ATORY						
		(FEET)	(DEG C)	(FEET)	(US/CM)	(MG/L)	UNITS)	UNITS)	(MG/L)	AS N)	AS N)	AS N)	AS N)	(MG/L)	AS P)	AS P)	AS P)	AS P)	(UG/L)	NUMBER)	NUMBER						
15-Jul-88	1435		1.9	21.0	3.7	322	5.5	7.7		-2	0.49	-0.02	0.01	0.06	0.4	-0.01	-0.01	-0.01	0.04	12.4	12.0						
15-Jul-88	1430	14	12.0	22.0		324	4.9	7.4		20	0.25	0.08	0.02	0.01	0.1	-0.01	-0.01	0.01	0.01								
27-Jul-88	1120		1.7	23.0	3.3	312	5.8	7.2		6	0.92	0.06	-0.01	0.05	0.8	0.04	-0.01	-0.01	0.01	11.2	11.0						
27-Jul-88	1120	11	9.0	21.0		306	4.2	7.5		18	0.43	0.07	0.01	0.05	0.3	0.04	0.04	-0.01	0.02								
16-Aug-88	1250		1.8	22.0	3.5	322	7.1	8.0		8	0.15	-0.02	-0.01	-0.02	-0.1	0.02	-0.01	0.01	0.02	16.1	11.0						
16-Aug-88	1255	12	10.0	20.0		300	6.8	7.8		8	0.20	0.02	-0.01	0.07	-0.1	0.02	0.01	0.01	0.02								
29-Aug-88	1100		1.4	19.0	2.7	310	5.5	7.6		16	0.38	0.05	0.01	0.02	0.3	0.02	0.01	-0.01	0.02	8.9	6.0						
29-Aug-88	1050	12	10.0	20.0		325	5.9	7.5		12	0.28	0.05	-0.01	0.02	0.2	0.03	-0.01	-0.01	0.01								
16-Sep-88	1205		1.0	14.0	2.0	230	6.4	8.4		12.0	0.40	0.04	0.02	0.04	0.3	0.020	-0.010	0.010	-0.010	6.0	10.0	5233					
16-Sep-88	1210	14.5	12.5	14.0		235	6.4	8.3		22.0	0.47	0.03	0.01	0.03	0.4	0.020	-0.010	0.020	0.030								5234
29-Sep-88	1400		1.4	12.0	3.7	358	8.3	8.2		18.0	0.46	-0.02	-0.02	-0.02	0.4	-0.010	-0.010	0.010	-0.010	11.0	10.0	5629					
29-Sep-88	1405	14.0	12.0	12.0		330	7.7	8.4		18.0	0.46	-0.02	-0.02	-0.02	0.4	0.010	-0.010	-0.010	-0.010								5630
14-Oct-88	1025		1.9	13.5	3.9	300	7.4	8.8		8.0	0.66	0.07	-0.01	0.08	0.5	0.040	0.020	-0.010	0.010	10.0	12.0	5892					
14-Oct-88	1030	12.0	14.0	13.5		310	8.0	8.8		14.0	0.67	0.05	-0.01	0.11	0.5	0.040	0.020	-0.010	-0.010								5893

NOTES:
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TABLE 9
 105030239324801 CHATFIELD RESERVOIR NEAR PLUM CREEK INFLOW (SITE 8)
 WATER-QUALITY DATA

DATE	TIME	SPE- CIFIC					SOLIDS, RESIDUE					PHOS-					PHYTO-				
		SAMP- TOTAL DEPTH	LING DEPTH	TEMPER- ATURE	SECCHI DISK	CON- TANCE	PH (STAND- ARD)	PH (STAND- ARD)	AT 105 DEG. C, SUS- PENDED	NITRO- GEN- TOTAL	NITRO- GEN- TOTAL	NITRO- GEN- TOTAL	NITRO- GEN- TOTAL	PHOS- PHORUS, TOTAL	PHOS- PHORUS, DIS- SOLVED	PHOS- PHORUS, DIS- SOLVED	PHOS- PHORUS, ORTH- TOTAL	CHLORO- PHYLL A CORR.	TON, (SPEC- IES	LABOR- ATORY SAMPLE	
		(FEET)	(FEET)	(DEG C)	(FEET)	(US/CM)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(UG/L)	NUMBER)	NUMBER
10-Jan-89	1310		2.5	5.0	5.0	380	14.9	7.8		4.0				0.2	0.007			-0.005	7.0		180
10-Jan-89	1320	9.0	7.0	4.0		400	14.6	7.7		6.0				0.3	0.010			-0.005			181
08-Feb-89	1400		2.3	1.0	4.5	390	15.0	7.9		-2.0	0.79	0.09	0.01	0.18	0.6	0.045		0.016	18.0		525
08-Feb-89	1415	16.0	14.0	2.0		400	14.1	8.0		-2.0	0.56	0.10	0.01	0.35	0.2	0.022		0.007			526
27-Mar-89	1250		2.4	8.0	4.8	450	10.1	8.1		4.0	0.50				0.012			-0.005	4.5		1431
27-Mar-89	1305	14.0	12.0	6.5		450	10.5	8.2		4.0	0.50				0.012			-0.005			1432
13-Apr-89	1200		2.5	9.5	5.0	340	8.1	8.1		4.0	0.60				0.022			0.007	5.2		1865
13-Apr-89	1215	13.0	11.0	8.0		330	9.5	8.1		6.0	0.50				0.025			0.007			1866
10-May-89	1440		3.0	14.0	6.0	340	8.4	8.2		-2.0	0.40				0.019			0.006	4.5		2496
10-May-89	1445	11.5	10.5	14.0		340	8.4	8.2		10.0	0.40				0.019			0.008			2497
15-Jun-89	1130		3.8	17.5	7.5	295	9.5	7.7		2.0	0.30				0.014			0.005	2.7		3594
15-Jun-89	1115	19.0	18.0	16.5		300	7.6	7.2		22.0	0.70				0.049			0.013			3595
06-Jul-89	1120		3.0	23.0	6.0	265	6.2	7.8		6.0	0.60				0.008			-0.005	1.8		4181

NOTES:
 BLANK RANGES INDICATE NO DATA WERE AVAILABLE
 MINUS SIGN MEANS "LESS THAN" INDICATED VALUE
 TIME = 9999 MEANS THE SAMPLE IS A DUPLICATE OR A SPLIT OF THE VALUE IMMEDIATELY ABOVE IT

TABLE 9
 105030239324801 CHATFIELD RESERVOIR NEAR PLUM CREEK INFLOW (SITE 8)
 WATER-QUALITY DATA

DATE	TIME	TOTAL DEPTH (FEET)	SAMP- LING DEPTH (FEET)	TEMPER- ATURE (DEG C)	SECCHI DISK (FEET)	SPE- CIFIC DUC- TANCE (US/CM)	OXYGEN DIS- SOLVED (MG/L)	PH FIELD (STAND- ARD UNITS)	PH LAB (STAND- ARD UNITS)	SOLIDS, RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	NITRO- GEN- TOTAL (MG/L AS N)	NITRO- GEN- TOTAL (MG/L AS N)	NITRO- GEN- TOTAL (MG/L AS N)	NITRO- GEN- TOTAL (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	CHLORO- PHYLL A CORR. (UG/L)	PHYTO- TON, (SPEC- IES NUMBER)	LABOR- ATORY SAMPLE NUMBER
06-Jul-89	1125	14.0	12.5	21.0		260	6.2	8.0		12.0	0.30				0.025		0.008				4182
20-Jul-89	1145		2.5	21.5	5.0	260	8.0	7.8		-2.0	0.20				0.005		-0.005		2.0		4566
20-Jul-89	1150	12.5	11.5	20.5		260	7.4	7.7		16.0	0.40				0.032		0.006				4563
03-Aug-89	1250		1.8	22.0	3.5	255	7.2	7.5		4.0	0.20				-0.005		-0.005		1.7		4805
03-Aug-89	1255	12.0	11.0	20.5		260	7.5	7.5		20.0	0.30				0.029		0.008				4806
15-Aug-89	1150		3.6	21.0	7.3	255	6.6	7.7		2.0	2.60				0.009		0.005		2.5		5143
15-Aug-89	1155	11.0	9.5	20.0		255	6.0	7.8		4.0	0.30				0.009		0.013				5144
30-Aug-89	1205		2.3	21.0	4.5	285	7.2	7.6		6.0	0.10				-0.005		0.006		4.3		5584
30-Aug-89	1210	12.5	11.0	20.0		255	7.2	7.6		8.0	0.20				-0.005		0.010				5585
15-Sep-89	1425		1.8	18.0	3.5	250	7.1	8.0		2.0	0.30				0.016		-0.005		2.2		5966
15-Sep-89	1430	10.5	9.0	16.0		255	6.5	8.0		4.0	0.20				0.022		0.005				5967
28-Sep-89	1130		4.5	17.0	9.0	215	8.9	7.6		6.0	0.30				0.012		0.005		1.3		6361
28-Sep-89	1135	9.0	7.5	17.0		205	8.8	7.6	7.6	16.0	0.30				0.012		0.128				6362
23-Oct-89	1210		1.4	11.5	2.8	239	7.4	7.6		10.0	0.50				0.010		0.010		6.6		7002
23-Oct-89	1215	9.2	7.7	11.0		235	7.5	8.0		12.0	0.50				-0.005		-0.005				7003
29-Nov-89	1440		1.9	5.5	3.8	200	15.0	8.5		4.0	0.20				0.019		-0.005		7.1		7741
29-Nov-89	1450	11.3	9.8	5.0		200	15.0	8.4		8.0	-0.10				0.026		-0.005				7742
27-Dec-89	1340		2.8	4.0	5.5	195	12.2	9.0		-2.0	0.10				-0.005		-0.005		3.6		8413
27-Dec-89	1350	6.0	5.0	4.0		195	12.0	9.0		10.0	-0.10				-0.005		-0.005				8414

NOTES:
 BLANK RANGES INDICATE NO DATA WERE AVAILABLE
 MINUS SIGN MEANS "LESS THAN" INDICATED VALUE
 TIME = 9999 MEANS THE SAMPLE IS A DUPLICATE OR A SPLIT OF THE VALUE IMMEDIATELY ABOVE IT

TABLE 10
105042739321201 CHATFIELD RESERVOIR NEAR SOUTH PLATTE RIVER INFLOW (SITE 9)
WATER-QUALITY DATA

DATE	TIME	SAMP-		TEMPER- ATURE (DEG C)	SECCHI DISK (FEET)	CON- DUC- TANCE (US/CM)	OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	SOLIDS, RESIDUE		NITRO- GEN- AMMONIA (MG/L AS N)	NITRO- GEN- NITRITE (MG/L AS N)	NITRO- GEN- NITRATE (MG/L AS N)	NITRO- GEN- TOTAL (MG/L AS N)	PHOS- PHORUS,				PHYTO- PLANK- TON, (SPEC- IES NUMBER)	LABOR- ATORY SAMPLE NUMBER
		DEPTH (FEET)	TEMPER- ATURE (DEG C)						AT 105 SUS- PENDED (MG/L AS N)	PHOS- PHORUS, TOTAL (MG/L AS P)					PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, SOLVED (MG/L AS P)	CHLORO- PHYLL A CORR. (UG/L)		
01-Sep-87	1045		3.3	21.5	6.5	340	6.1	8.1			0.09	-0.01	-0.02	2.20	0.130	0.160	0.070		2.0	19
01-Sep-87	1045	7.0	6.0	20.0		335	4.4	7.9		0.43	0.05	0.01	0.07	0.30	0.030	0.040	-0.010			
14-Sep-87	1315		2.1	19.5	4.1	389	6.6	7.9		0.55	0.02	-0.01	-0.02	0.50	0.190	0.140	0.020	0.080	1.8	9
14-Sep-87	1315	6.0	5.0	20.0		329	5.2	8.4		0.67	0.03	0.01	-0.03	0.60	0.040	0.010	0.010	-0.010		
01-Oct-87	1045		1.1	18.0	2.1	360	7.4	8.1	10	0.89	0.06	-0.01	0.02	0.80	0.070	0.020	-0.010	-0.010	27.8	10
01-Oct-87	1045	7.0	6.0	19.0		320	7.4	7.9	6	0.79	0.06	-0.01	-0.02	0.70	0.120	0.080	0.050	0.050		
13-Nov-87	1130		0.8	11.0	3.0	341	9.9	7.8	-2	0.69	0.14	0.07	0.18	0.30	0.010	0.010	-0.010	-0.010	1.6	14
13-Nov-87	1130	3.0	2.0	10.5		320	10.4	7.6	-2	0.65	0.15	0.02	0.18	0.30	0.010	0.010	-0.010	-0.010		
08-Jan-88	1445		4.0	1.5	8.5	383	12.4	7.9	-2		0.06	-0.02	0.25	0.30	0.030	0.010	-0.010	-0.010	3.6	16
08-Jan-88	1445	38.0	35.0	2.5		374	11.9	7.9	2	0.78	0.12	-0.02	0.24	0.40	0.020	-0.020	-0.010	-0.010		
10-Feb-88	1100		3.0	5.5	6.0	407	11.8	7.9	-2	0.61	0.13	0.01	0.23	0.40	-0.010	-0.010	-0.010	-0.010	5.8	18
10-Feb-88	1050	6.0	5.0	6.5		408	11.2	8.1	2	0.77	0.07	0.01	0.23	0.30	-0.010	-0.010	-0.010	-0.010		
30-Mar-88	1030		2.5	4.0	5.0	325	15.0	8.1	-2	0.85	0.11	0.01	0.23	0.50	-0.010	-0.010	-0.010	-0.010	4.2	20
30-Mar-88	1030	12.0	10.0	2.5		340	14.6	8.1	2	0.84	0.10	0.01	0.23	0.50	-0.010	-0.010	-0.010	-0.010		
27-Apr-88	1445		3.6	14.0	7.2	400	7.9	8.4	4	0.80	0.04	0.13	0.12	0.30	0.020	-0.010	0.010	0.010	3.2	8
27-Apr-88	1445	12.5	10.5	12.0		400	8.6	8.3	2	0.59	0.05	0.22	0.13	0.40	0.060	-0.010	0.010	0.020		
13-May-88	1535		3.4	17.0	6.8	366	8.2	8.1	12	0.29	0.03	-0.01	0.05	0.20	0.010	-0.010	-0.010	0.010	1.7	11
13-May-88	1540	16.0	14.0	13.5		324	7.2	8.6	12	0.83	0.03	-0.01	0.09	0.70	0.010	-0.010	-0.010	0.010		

NOTES:

BLANK RANGES INDICATE NO DATA WERE AVAILABLE

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TIME = 9999 MEANS THE SAMPLE IS A DUPLICATE OR A SPLIT OF THE VALUE IMMEDIATELY ABOVE IT

TABLE 10
105042739321201 CHATFIELD RESERVOIR NEAR SOUTH PLATTE RIVER INFLOW (SITE 9)
WATER-QUALITY DATA

DATE	TIME	SAMP-			SPE-			SOLIDS,			NITRO-			NITRO-			PHOS-			PHYTO-	
		TOTAL DEPTH	TEMPER-	SECCHI	CON-	PH	AT 105	NITRO-	GEN-	GEN-	GEN-	GEN-	PHOS-	PHORUS,	PHOS-	PHOS-	CHLORO-	TON,	LABOR-		
		(FEET)	(DEG C)	(FEET)	(US/CM)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(UG/L)	(SPEC-	ATORY
																				NUMBER)	NUMBER
25-May-88	1500		3.5	15.0	7.0	290	7.1	8.1	2	0.50	0.05	0.01	0.04	0.40	0.040	0.010	-0.010	0.040	0.4	6	
25-May-88	1500	13.0	11.0	13.0		280	7.7	8.0	-2	0.51	0.05	0.01	0.05	0.40	0.060	0.010	-0.010	0.040			
16-Jun-88	1515		4.3	21.0	8.5	308	7.6	7.8	4		0.03	-0.01	0.06	0.40	0.010	-0.010	-0.010	-0.010	6.7	10	
16-Jun-88	1515	17.0	15.0	20.0		290	7.6	8.0	4		0.14	-0.01	0.11	0.50	0.050	0.020	-0.010	0.040			
30-Jun-88	1010		2.8	19.0	5.5	271	5.4	7.8	2	0.20	-0.02	0.01	0.07	-0.10	0.010	0.010	0.010	0.030	3.6	10	
30-Jun-88	1020	15.5	13.5	18.0		260	5.2	7.8	18	0.50	-0.02	0.01	0.07	0.40	-0.010	-0.010	0.010	0.010			
15-Jul-88	1415		2.5	21.0	5.0	317	5.4	7.5	2	0.51	0.05	-0.01	0.05	0.40	-0.010	-0.010	-0.010	0.010	6.2	15	
15-Jul-88	1410	13.0	11.0	21.0		309	3.8	7.0	4	0.17	0.08	-0.01	0.07	-0.01	-0.010	-0.010	-0.010	0.010			
27-Jul-88	1155		2.5	22.0	5.0	315	4.9	7.7	2	0.20	0.05	-0.01	0.04	0.14	0.020	0.030	-0.010	-0.010	6.5	12	
27-Jul-88	1200	13.0	11.0	17.0		278	5.4	7.4	6	0.66	0.07	-0.01	0.08	0.50	0.030	0.040	-0.010	-0.010			
16-Aug-88	1220		1.9	22.0	3.5	360	6.1	7.9	12	0.14	0.02	-0.01	-0.01	-0.10	0.020	0.010	0.010	0.020	14.7	17	
16-Aug-88	1215	12.0	10.0	22.0		377	6.1	7.6	14	0.15	-0.02	-0.01	-0.02	0.10	0.020	-0.010	0.010	0.020			
29-Aug-88	1205		2.0	20.0	4.0	307	7.0	7.5	14		0.02	-0.01	-0.02	0.30	-0.010	-0.010	-0.010	-0.010	13.6	12	
29-Aug-88	1215	12.5	10.5	18.0		285	5.6	7.4	2	0.41	0.05	-0.01	0.05								
16-Sep-88	1140		1.0	12.0	2.0	215	8.4	8.8	20	1.45	0.02	-0.01	-0.02	1.40	0.120	-0.010	-0.010	0.030	8.0	16	5235
16-Sep-88	1135	6.5	5.0	13.0		240	8.0	8.8	22	1.25	0.02	-0.01	-0.02	1.20	0.060	-0.010	-0.010	0.020			5236
29-Sep-88	1350		1.5	12.0		352	7.7	8.4	24	0.46	-0.02	-0.02	-0.02	0.40	0.040	-0.010	0.020	0.020	4.0	19	5625
29-Sep-88	1345	7.0	5.0	12.0		352	7.5	8.5	20	0.46	-0.02	-0.02	-0.02	0.40	0.020	-0.010	0.030	0.020			5626

NOTES:

BLANK RANGES INDICATE NO DATA WERE AVAILABLE

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TIME = 9999 MEANS THE SAMPLE IS A DUPLICATE OR A SPLIT OF THE VALUE IMMEDIATELY ABOVE IT

TABLE 10
105042739321201 CHATFIELD RESERVOIR NEAR SOUTH PLATTE RIVER INFLOW (SITE 9)
WATER-QUALITY DATA

DATE	TIME	SAMP-		TRANS-		CON-		PH	SOLIDS,		NITRO-	NITRO-	NITRO-	NITRO-	PHOS-				PHYTO-	LABOR-		
		TOTAL	DEPTH	SECCHI	DUC-	OXYGEN,	AT 105		RESIDUE	GEN-					GEN-	GEN-	GEN-	PHOS-			PHORUS,	PHOS-
		(FEET)	(FEET)	(DEG C)	(FEET)	(US/CM)	(MG/L)	(STAND- ARD	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(MG/L)	(UG/L)	(SPEC- IES	ATORY
14-Oct-88	1000		1.2	15.5	2.3	320	7.4	8.6	12	0.25	0.03	-0.01	0.12	0.90	0.080	0.050	0.030	0.030	5.0	20	5894	
14-Oct-88	1005	12.0	10.0	15.0		340	6.7	8.7	10	0.23	0.04	-0.01	0.13	0.50	0.050	0.020	-0.010	-0.010			5895	
10-Jan-89	1215		4.0	4.0	8.0	410	14.3	8.0	4					0.20	0.007			-0.005	3.0		178	
10-Jan-89	1230	35.0	33.0	5.0		420	7.2	7.8	6					0.40	0.021			0.009			179	
08-Feb-89	1445		2.3	2.5	4.5	400	12.7	7.7	2		0.15	0.05	0.21	0.10	0.012			0.006	9.0		529	
08-Feb-89	1500	11.0	9.0	3.5		390	10.6	7.8	-2		0.11	0.01	0.18	0.10	0.017			-0.005			530	
27-Mar-89	1325		2.5	10.0	5.0	450	8.6	8.2	6	0.40					0.011			-0.005	7.3		622	
27-Mar-89	1345	17.0	15.0	7.5		455	9.4	8.1	6	0.50					0.009			-0.005			1433	
13-Apr-89	1115		4.4	9.0	8.7	325	8.6	8.2	-2	0.50					0.012			-0.005	3.5		1434	
13-Apr-89	1130	13.0	11.0	9.0		325	8.6	8.2	-2	0.30					0.017			-0.005			1861	
10-May-89	1425		1.8	15.5	3.5	350	9.2	8.1	2	0.40					0.025			0.005	3.3		1862	
10-May-89	1430	7.0	6.0	15.0		350	8.2	8.1	2	0.60					0.024			0.015			2492	
15-Jun-89	1100		5.0	17.0	10.0	295	9.3	7.0	-2	0.40					0.018			0.010	1.5		2493	
15-Jun-89	1045	17.0	16.0	15.0		220	9.0	7.3	6	2.00					0.017			-0.005			3590	
15-Jun-89	9999								-2	0.50					0.014			0.008			3591	
20-Jul-89	1135		2.8	23.5	5.5	265	7.7	7.8	-2	0.30					0.005			-0.005	1.6		4564	
20-Jul-89	1130	17.0	15.5	17.0		275	8.0	7.7	2	0.30					0.010			0.006			4565	
20-Jul-89	9999								2	0.30					0.005			0.005				4178

NOTES:

BLANK RANGES INDICATE NO DATA WERE AVAILABLE

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TIME = 9999 MEANS THE SAMPLE IS A DUPLICATE OR A SPLIT OF THE VALUE IMMEDIATELY ABOVE IT

TABLE 10
105042739321201 CHATFIELD RESERVOIR NEAR SOUTH PLATTE RIVER INFLOW (SITE 9)
WATER-QUALITY DATA

DATE	TIME	SAMP-			SPE-			SOLIDS,			NITRO-			PHOS-			PHYTO-		
		TOTAL DEPTH (FEET)	LING DEPTH (FEET)	TEMPER- ATURE (DEG C)	CON- DUC- TANCE (US/CM)	CIFIC OXYGEN, DIS- SOLVED (MG/L)	PH (STAND- ARD UNITS)	RESIDUE AT 105 DEG. C, SUS- PENDED (MG/L)	GEN- TOTAL (MG/L AS N)	GEN- AMMONIA (MG/L AS N)	GEN- NITRITE (MG/L AS N)	GEN- NITRATE (MG/L AS N)	GEN- TOTAL KJELD. (MG/L AS N)	PHOS- PHORUS, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P)	PHOS- PHORUS, ORTHO, CHLORO- PHYLL A (MG/L CORR. UG/L)	TON, (SPEC- IES NUMBER)	LABOR- ATORY SAMPLE NUMBER	
03-Aug-89	1230		1.8	1.8	3.6	245	7.4	7.5	4	0.30					0.012		0.008	1.8	4561
03-Aug-89	1235	11.0	10.0	19.0		245	7.6	7.6	2	0.40					0.010		0.006		4565
15-Aug-89	1130		3.5	21.0	7.0	260	6.8	7.9	2	0.30					0.008		0.006	1.8	4803
15-Aug-89	1135	9.0	7.5	19.5		240	7.0	7.8	4	0.30					-0.005		-0.005		4804
30-Aug-89	1110		3.3	21.5	6.5	250	7.5	7.5	10	0.20					0.008		0.006	3.2	5141
30-Aug-89	1145	15.0	13.5	18.5		250	7.5	7.9	4	0.10					0.009		0.006		5142
15-Sep-89	1400		1.9	19.0	3.8	250	7.6	7.7	8	0.30					-0.005		0.010	3.9	5580
15-Sep-89	1405	10.1	8.6	16.0		250	7.3	7.9	8	0.20					-0.005		0.007		5581
28-Sep-89	1100		2.8	18.0	5.5	220	8.8	7.6	8	0.40					0.016		-0.005	1.5	5964
28-Sep-89	1110	13.0	11.5	16.5		210	7.3	7.5	8	0.20					0.016		-0.005		5965
23-Oct-89	1140		2.3	13.0	4.5	250	7.2	8.1	6	0.90					0.012		0.005	1.5	6357
23-Oct-89	1145	7.1	5.5	12.0		250	7.5	8.2	10	0.50					0.015		0.005		6358
29-Nov-89	1415		2.1	5.0	4.2	200	15.0	8.9	6	0.20					0.011		0.010	5.9	7000
29-Nov-89	1425	7.4	5.9	7.0		200	15.0	8.9	10	1.80					0.008		0.007		7001
27-Dec-89	1250		2.6	3.5	5.1	195	12.2	8.7	4	-0.10					0.008		-0.005	19.4	7737
27-Dec-89	1300	5.1	4.0	3.5		190	12.2	8.7	10	0.10					-0.005		-0.005		7738

NOTES:

BLANK RANGES INDICATE NO DATA WERE AVAILABLE

MINUS SIGN MEANS "LESS THAN" INDICATED VALUES

TIME = 9999 MEANS THE SAMPLE IS A DUPLICATE OR A SPLIT OF THE VALUE IMMEDIATELY ABOVE IT

WATER-QUALITY DATA FROM OTHER SOURCES

TABLE 11
CHATFIELD RESERVOIR (SITE 1R)
WATER-QUALITY DATA

DATE	PHOS-PHORUS, TOTAL (MG/L AS P)	PHOS-PHORUS, ORTHO, TOTAL (MG/L AS P)	DEPTH (FEET)	SOURCE	TOTAL INORGANIC NITROGEN (MG/L)	CHLORO-PHYLL-A (UG/L)
09-Jun-83	0.034	0.017	3	CDH	0.085	4.8
30-Jun-83	0.034	0.022	3	CDH	0.067	1.8
12-Jul-83	0.066	0.027	3	CDH		10.6
12-Jul-83			3	CDH		11.9
26-Jul-83			3	CDH		14.4
26-Jul-83	0.04		3	CDH	0.038	13.6
09-Aug-83			3	CDH		15.4
09-Aug-83	0.037	0.02	3	CDH	0.053	20
24-Aug-83	0.023	0.005	3	CDH	0.061	22.8
24-Aug-83			3	CDH		18.7
14-Sep-83	0.095	0.028	3	CDH	0.6	22.4
14-Sep-83	0.026	0.06	3	CDH	0.6	22.1
14-Sep-83			3	CDH		26.5
04-Oct-83			3	CDH		23.7
04-Oct-83			3	CDH		31.5
10-Jul-84	0.018	0.005	3	CDH	0.116	
10-Jul-84	0.019	0.005	2	CDH	0.162	6.3
10-Jul-84	0.017	0.005	3	CDH	0.129	
10-Jul-84	0.012	0.005	2	CDH	0.054	
19-Jul-84	0.037	0.005	2	CDH	0.271	5.8
19-Jul-84	0.015	0.005	3	CDH	0.359	
31-Jul-84	0.046	0.005	3	CDH	0.2	
31-Jul-84	0.037	0.006	2	CDH	0.295	4
14-Aug-84	0.028	0.007	3	CDH	0.134	
14-Aug-84	0.03	0.005	2	CDH	0.146	7.2
28-Aug-84	0.038	0.005	2	CDH	0.106	8.1
28-Aug-84	0.038	0.005	3	CDH	0.106	
10-Sep-84	0.03	0.005	3	CDH	0.15	
10-Sep-84	0.03	0.005	2	CDH	0.07	5.8
12-Sep-84	0.023	0.005	2	CDH	0.259	3.6
12-Sep-84	0.018	0.005	3	CDH	0.195	
07-Nov-84	0.05	0.01	2	CDH	0.61	2.4
07-Nov-84	0.05	0.01	3	CDH	0.63	
10-Jul-85	0.02	0.006	3	CDH	0.26	1.4
10-Jul-85	0.02	0.006	2	CDH	0.29	1.4
24-Jul-85	0.02	0.016	2	CDH	0.24	7.1
24-Jul-85	0.01	0.007	3	CDH	0.148	7.1
14-Aug-85	0.016	0.007	3	CDH	0.134	4.3
14-Aug-85	0.027	0.009	2	CDH	0.2	4.3
05-Sep-85	0.03	0.01	2	CDH	0.146	11.3
05-Sep-85	0.03	0.01	3	CDH	0.146	11.3

TABLE 12
CHATFIELD RESERVOIR (SITE 2R)
WATER-QUALITY DATA

DATE	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	DEPTH (FEET)	SOURCE	TOTAL INOR- GANIC NITRO- GEN (MG/L)	CHLORO- PHYLL-A (UG/L)
10-Jul-84	0.023	0.005	3	CDH	0.099	
10-Jul-84	0.023	0.005	2	CDH	0.099	5.1
19-Jul-84	0.035	0.005	2	CDH	0.124	5.1
19-Jul-84	0.035	0.005	3	CDH	0.124	
31-Jul-84	0.030	0.005	3	CDH	0.120	
31-Jul-84	0.030	0.005	2	CDH	0.123	5.8
14-Aug-84	0.021	0.005	3	CDH	0.095	
14-Aug-84	0.020	0.005	2	CDH	0.063	4.7
28-Aug-84	0.032	0.007	3	CDH	0.120	
28-Aug-84	0.034	0.005	2	CDH	0.060	7.1
10-Sep-84	0.020	0.005	3	CDH	0.140	3.4
10-Sep-84	0.030	0.005	3	CDH	0.175	
12-Sep-84	0.013	0.005	3	CDH	0.110	
12-Sep-84	0.013	0.005	2	CDH	0.110	2.0
07-Nov-84	0.050	0.010	2	CDH	0.600	
07-Nov-84	0.050	0.010	3	CDH	0.600	
10-Jul-85	0.010	0.007	3	CDH	0.300	2.8
10-Jul-85	0.010	0.007	2	CDH	0.300	2.8
24-Jul-85	0.020	0.008	2	CDH	0.150	5.7
24-Jul-85	0.010	0.006	3	CDH	0.120	5.7
14-Aug-85	0.017	0.007	2	CDH	0.114	7.1
14-Aug-85	0.017	0.007	3	CDH	0.114	7.1
05-Sep-85	0.030	0.010	2	CDH	0.099	14.2
05-Sep-85	0.020	0.010	3	CDH	0.082	14.2

TABLE 13
CHATFIELD RESERVOIR (SITE 3R)
WATER-QUALITY DATA

DATE	PHOS- PHORUS, TOTAL (MG/L AS P)	PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P)	DEPTH (FEET)	SOURCE	TOTAL INOR- GANIC NITRO- GEN (MG/L)	CHLORO- PHYLL-A (UG/L)
09-Jun-83	0.055	0.021	3	CDH	0.125	4.2
30-Jun-83	0.026	0.005	3	CDH	0.055	4.3
12-Jul-83	0.010	0.005	3	CDH		8.2
26-Jul-83	0.040	3.000	3	CDH	0.070	10.9
09-Aug-83	0.074	0.011	3	CDH	0.037	17.1
24-Aug-83	0.020	0.005	3	CDH	0.069	21.8
04-Oct-83	0.058	0.009	3	CDH	0.370	28.5
10-Jul-84	0.041	0.005	3	CDH	0.147	
10-Jul-84	0.088	0.005	2	CDH	0.308	9.7
19-Jul-84	0.027	0.005	2	CDH	0.238	9.1
19-Jul-84	0.027	0.005	3	CDH	0.240	
31-Jul-84	0.099	0.005	3	CDH	0.099	
31-Jul-84	0.099	0.005	2	CDH	0.099	10.8
14-Aug-84	0.035	0.005	2	CDH	0.280	4.9
14-Aug-84	0.160	0.005	3	CDH	0.720	
28-Aug-84	0.098	0.030	3	CDH	0.250	
28-Aug-84	0.098	0.030	2	CDH	0.250	
10-Sep-84	0.040	0.005	3	CDH	0.126	
10-Sep-84	0.040	0.005	2	CDH	0.126	6.5
12-Sep-84	0.019	0.007	2	CDH	0.171	3.7
12-Sep-84	0.022	0.007	3	CDH	0.198	
07-Nov-84	0.050	0.010	3	CDH	0.640	
07-Nov-84	0.050	0.010	2	CDH	0.600	2.1
10-Jul-85	0.030	0.015	2	CDH	0.420	4.3
10-Jul-85	0.030	0.015	3	CDH	0.420	4.3
24-Jul-85	0.030	0.015	2	CDH	0.220	22.7
24-Jul-85	0.030	0.015	3	CDH	0.220	22.7
14-Aug-85	0.020	0.007	2	CDH	0.133	15.6
14-Aug-85	0.020	0.007	3	CDH	0.133	15.6
05-Sep-85	0.110	0.020	3	CDH	0.440	5.6
05-Sep-85	0.110	0.020	2	CDH	0.440	5.6

TABLE 14
CHATFIELD RESERVOIR NEAR DAM
STORET WATER-QUALITY DATA

DATE	DEPTH (FEET)	SOURCE	TOTAL					RATIO		
			TOTAL NITRO- GEN (MG/L)	TOTAL PHOS- PHORUS (MG/L)	TOTAL INOR- GANIC NITRO- GEN (MG/L)	PHOS- DIS- SOLVED (MG/L)	PHOS- TOTAL ORTHO (MG/L)	CHLORO- PHYLL-A (UG/L)	TOTAL NITRO- GEN/ PHOS- PHORUS	TOTAL IN- ORGANIC NITRO- GEN/DIS- SOLVED PHOS- PHORUS
16-Jun-82	5.0	STORET	0.72	0.030					24.00	2.50
14-Jul-82	5.0	STORET	2.41	0.070					34.43	1.25
19-Aug-82	5.0	STORET	2.43	0.050				28.0	48.60	0.80
15-Sep-82	5.0	STORET	1.12	0.040				55.0	28.00	6.50
15-Apr-83	5.0	STORET	0.63	0.030					21.00	2.00
09-Jun-83	5.0	STORET	0.78	0.080				3.0	9.75	0.60
04-Aug-83	5.0	STORET	1.05	0.070				12.0	15.00	11.00
15-Sep-83	5.0	STORET	0.74	0.030				17.0	24.67	22.00
08-Feb-84	5.0	STORET	0.85	0.040					21.25	14.00
23-May-84	5.0	STORET	1.02	0.140					7.29	35.00
13-Jun-84	5.0	STORET	0.84	0.050				1.0	16.80	34.00
25-Jul-84	5.0	STORET	0.77	0.010					77.00	45.00
05-Sep-84	5.0	STORET	0.84	0.030					28.00	40.00
29-Oct-84	5.0	STORET	0.72	0.030				12.0	24.00	25.00
20-Feb-85	5.0	STORET	1.06	0.070					15.14	23.00
13-Jun-85	5.0	STORET	0.37	0.030					12.33	27.00
15-Jul-85	5.0	STORET	0.84	0.030					28.00	6.00
06-Aug-85	5.0	STORET	1.00	0.030				5.5	33.33	21.00
10-Sep-85	5.0	STORET	0.77	0.010					77.00	9.00
08-Oct-85	5.0	STORET	1.35	0.050					27.00	14.00
19-Mar-86	5.0	STORET	0.54	0.070					7.71	9.00
21-May-86	5.0	STORET	0.88	0.010					88.00	12.00
18-Jun-86	5.0	STORET	0.46	0.040					11.50	12.00
24-Jul-86	5.0	STORET	0.31	0.030				1.0	10.33	77.00
27-Aug-86	5.0	STORET	0.24	0.010				9.0	24.00	18.00
05-Nov-86	5.0	STORET	0.48	0.050				9.0	9.60	12.00
04-Mar-87	5.0	STORET	0.58	0.020				19.0	29.00	23.00
12-May-87	5.0	STORET	0.78	0.100				1.0	7.80	17.00
30-Jun-87	5.0	STORET	0.32	0.020				10.0	16.00	5.00
05-Aug-87	5.0	STORET	0.78	0.040				1.0	19.50	11.00
11-Sep-87	5.0	STORET	0.33	0.070				1.0	4.71	2.00
22-Oct-87	5.0	STORET	0.96	0.050					19.20	7.00
09-Feb-88	5.0	STORET	0.94	0.030				82.0	31.33	
11-May-88	5.0	STORET	0.40	0.040				8.0	10.00	
02-Jun-88	5.0	STORET	0.60	0.040				14.0	15.00	
13-Jul-88	5.0	STORET	0.85	0.010				31.0	85.00	
01-Sep-88	5.0	STORET	0.64	0.010				11.0	64.00	
12-Oct-88	5.0	STORET	0.93	0.060				1.0	15.50	
22-Feb-89	5.0	STORET	1.89	0.050				2.0	37.80	

DISCRETE STREAMFLOW AND FIELD MEASUREMENTS (SITE 2 TABLES 15-18)

TABLE 15

Field Measurements for Storm-Event
Discrete Samples at Site 2 for April 17-18, 1988

<u>Sample No.</u>	<u>Time (Hours)</u>	<u>Discharge (cfs)</u>	<u>Temp. (°C)</u>	<u>DO (mg/L)</u>	<u>pH (std. units)</u>	<u>SC (µmhos/cm)</u>
1	1530	17.	10.0	13.9	7.5	180
2	1630	50.	8.0	13.8	7.7	190
3	1730	145.	7.5	13.1	7.7	185
4	1830	375.	7.0	12.4	7.4	170
5	1930	96.	7.0	12.4	7.4	205
6	2030	300.	6.5	12.0	7.8	185
7	2130	82.	6.0	12.0	7.5	225
8	2230	240.	5.0	12.8	7.5	195
9	2330	210.	5.0	13.0	7.7	165
10	2430	210.	5.0	13.2	7.7	165
11	0130	210.	4.0	12.2	7.8	165
12	0230	600.	4.0	12.8	7.9	170
13	0330	110.	4.0	11.8	7.8	180
14	0430	110.	2.5	14.2	7.9	175
15	0530	210.	2.5	12.4	7.8	170
16	0630	110.	2.0	13.1	7.9	165
17	0730	36.	2.0	14.0	7.9	160
18	0830	110.	3.0	12.9	7.9	170
19	0930	210.	6.0	12.6	7.9	165
20	1030	50.	10.0	11.2	7.7	190
21	1130	145.	16.0	10.2	7.9	180
22	1230	375.	14.0	10.7	7.5	180
23	1330	18.	14.0	8.6	7.9	185
24	1430	210.	15.5	9.2	7.8	180

TABLE 16

Field Measurements for Storm-Event
Discrete Samples at Site 2 for May 20, 1988

<u>Sample No.</u>	<u>Time (Hours)</u>	<u>Discharge (cfs)</u>	<u>Temp. (°C)</u>	<u>DO (mg/L)</u>	<u>pH (std. units)</u>	<u>SC (µmhos/cm)</u>
1	0130	26.	15.0	7.7	7.8	200
2	0230	90.	14.0	6.8	7.8	170
3	0330	105.	13.5	6.7	7.8	160
4	0430	115.	13.0	6.6	7.8	165
5	0530	66.	13.0	6.8	7.8	161
6	0630	115.	13.0	8.0	7.7	210
7	0730	160.	12.0	8.1	7.9	201
8	0830	115.	12.0	7.2	7.9	215
9	0930	78.	12.0	7.4	7.8	215
10	1030	78.	12.0	7.8	7.8	220
11	1130	160.	13.0	7.7	7.9	200
12	1230	210.	12.0	7.9	7.8	200
13	1330	260.	12.0	7.8	7.8	205
14	1430	210.	12.0	8.2	7.9	205
15	1530	225.	11.0	8.2	7.8	210
16	1630	100.	11.0	8.6	7.8	200
17	1730	115.	10.0	8.6	7.8	190
18	1830	210.	10.0	10.7	7.9	200
19	1930	210.	9.0	9.4	7.9	200
20	2030	210.	9.0	9.6	7.8	200
21	2130	210.	8.2	9.3	7.8	195
22	2230	275.	8.0	9.7	7.8	195
23	2330	360.	8.0	9.8	7.6	185
24	2430	190.	7.0	9.6	7.8	185

TABLE 17

Field Measurements for Storm-Event
Discrete Samples at Site 2 for June 22-23, 1988

<u>Sample No.</u>	<u>Time (Hours)</u>	<u>Discharge (cfs)</u>	<u>Temp. (°C)</u>	<u>DO (mg/L)</u>	<u>pH (std. units)</u>	<u>SC (µmhos/cm)</u>
1	2020	41.	22.0	6.0	7.6	250
2	2120	50.	20.0	4.4	7.6	235
3	2220	62.	21.0	4.6	7.6	235
4	2320	82.	21.0	4.6	7.5	225
5	2420	76.	20.0	4.6	7.5	220
6	0120	76.	18.0	4.8	7.7	215
7	0220	82.	18.0	5.4	7.5	215
8	0320	90.	18.0	6.0	7.7	210
9	0420	47.	18.0	5.3	7.6	210
10	0520	47.	18.0	5.2	7.4	215
11	0620	33.	17.5	4.9	7.6	215
12	0720	27.	17.0	5.0	7.5	210

TABLE 18

Field Measurements for Storm-Event
Discrete Samples at Site 2 for June 25-26, 1988

<u>Sample No.</u>	<u>Time (Hours)</u>	<u>Discharge (cfs)</u>	<u>Temp. (°C)</u>	<u>DO (mg/L)</u>	<u>pH (std. units)</u>	<u>SC (µmhos/cm)</u>
1	1500	66.	24.0	6.6	7.8	270
2	2135	68.	20.0	6.8	7.8	240
3	2235	66.	19.0	6.2	7.8	250
4	2335	62.	19.0	6.2	7.8	245
5	2435	57.	19.0	6.8	7.8	245
6	0135	52.	18.5	7.6	7.8	250
7	0235	52.	18.0	7.6	7.8	250
8	0335	80.	17.5	7.7	7.8	250
9	0435	90.	16.5	7.9	7.8	250
10	0535	90.	16.5	8.2	7.8	255
11	0635	90.	16.0	8.2	7.9	250
12	0735	95.	16.0	8.1	7.9	255
13	0835	73.	17.0	8.0	7.9	285
14	0935	68.	18.5	7.9	7.9	250
15	1035	57.	22.0	7.0	7.9	250
16	1135	50.	23.0	6.2	7.9	255
17	1235	54.	23.0	6.2	7.9	255
18	1335	47.	23.0	6.0	7.9	250

BIOLOGICAL DATA TABLES

Species list, density (cells/ml) and biomass as chlorophyll a (ug/l) of
 vtoplankton collected from Chatfield Reservoir on September 1, 1987.

TAXON	7 U-1	STATION V-1 R	9 W-1
BACILLARIOPHYTA			
<u>Asterionella formosa</u>	1704	426	
<u>Chaetoceros</u> sp.		57	
<u>Cyclotella stelligera</u>		341	
<u>Fragilaria crotonensis</u>	511	284	
<u>Melosira granulata</u> var. <u>angustissima</u>			170
<u>Stephanodiscus</u> sp.			170
CHLOROPHYTA			
<u>Ankistrodesmus falcatus</u>	114		
<u>A. falcatus</u> var. <u>acicularis</u>	114		
<u>Ankyra judayi</u>	57	85	114
<u>Chlorella</u> sp.		312	852
<u>Chlorococcum</u> sp.	170	28	57
<u>Gloeocystis</u> sp.		28	28
<u>Oocystis</u> sp.		170	
<u>Pediastrum duplex</u>	170		
<u>Schroederia setigera</u>	114	57	
<u>Sphaerocystis schroeteri</u>	57		454
<u>Staurastrum</u> sp.	57	127	
<u>Tetrastrum elegans</u>	454		
<u>T. staurogeniaeforme</u>			114
CHRYSOPHYTA			
<u>Mallomonas</u> sp.		28	
<u>M. akrokomos</u>		28	
CRYPTOPHYTA			
<u>Cryptomonas marsonii</u>	170	57	57
<u>C. rostratiformis</u>		28	
<u>Rhodomonas minuta</u>	57	966	398
CYANOPHYTA			
<u>Anabaena spiroides</u> var. <u>crassa</u>	3862	2414	
<u>Aphanizomenon flos-aquae</u>	34648	19255	11398
<u>Aphanocapsa elachista</u>			454
<u>A. delicatissima</u>	341		
<u>Aphanothece</u> sp.	2499	10394	9542
<u>A. nidulans</u>			341
<u>Chroococcus dispersus</u>	795	1534	738
<u>Dactylococcopsis fascicularis</u>	1874	28	57
<u>Lyngbya limnetica</u>	170		
<u>Merismopedia tenuissima</u>		1335	909
<u>Oscillatoria subtilissima</u>	568		
<u>Synechococcus</u> sp.		341	7611
PYRROPHYTA			
<u>Ceratium hirundinella</u>	57	28	28
TOTAL CELLS/ML	48563	38351	33492

	7 X-1	STATION Y 8	9 W-1
NUMBER OF SPECIES	22	24	19
CHLOROPHYLL A (ug/l)	4.9	3.0	2.0

Species list, density (cells/ml) and biomass as chlorophyll a (ug/l) of phytoplankton collected from Chatfield Reservoir on September 14, 1987.

TAXON	STATION		
	7	8	9
BACILLARIOPHYTA			
<u>Diatoma tenue var elongatum</u>	20		
<u>Fragilaria crotonensis</u>		257	
<u>Melosira varians</u>		59	
<u>M. italica</u>	119	119	
<u>Navicula minuscula</u>	57		
<u>Nitzschia intermedia</u>	57		
<u>N. palea</u>	59		
<u>Stephanodiscus sp.</u>	170	170	
<u>S. niagarae</u>	20	10	57
<u>Synedra delicatissima</u>	40		
<u>S. radians</u>	40		
<u>S. ulna</u>	57		
CHLOROPHYTA			
<u>Ankistrodesmus falcatus</u> var. <u>acicularis</u>		10	
<u>Ankva judavi</u>	57	20	20
<u>Chlorella sp.</u>	454	57	
<u>Chlorococcum sp.</u>	119	284	
<u>Gloeocystis sp.</u>		119	
<u>Oocystis sp.</u>			59
<u>Pediastrum araneosium</u>	2726		
<u>Pteromonas sp.</u>	20		
<u>Schroederia setigera</u>		20	
CRYPTOPHYTA			
<u>Cryptomonas marsonii</u>	57		
<u>Rhodomonas minuta</u>	227	114	
CYANOPHYTA			
<u>Aphanocapsa delicatissima</u>	9656		909
<u>Aphanothece sp.</u>	7384	18971	9770
<u>Aphanizomenon flos-aquae</u>	70455	43684	21168
<u>Chroococcus dispersus</u>	1704	1477	2840
<u>Dactylococcopsis sp.</u>	57		
<u>Oscillatoria sp.</u>		79	
<u>Phormidium sp.</u>			370
<u>P. autumnale</u>	227		
<u>Synechococcus sp.</u>	5850	3919	3522
PYRROPHYTA			
<u>Ceratium hirundinella</u>	57	10	40
<hr/>			
TOTAL CELLS/ML	99632	69379	38755
NUMBER OF SPECIES	25	18	9
~ LOROPHYLL A (ug/l)	15.0	7.4	1.8

Species list, density (cells/ml) and biomass as chlorophyll a (ug/l)
of phytoplankton collected from Chatfield Reservoir on October 1, 1987.

TAXON	STATION		
	7 BH	8 BZ	9GH
BACILLARIOPHYTA			
Centrales-			
<u>Cyclotella kutziana</u>		38	
<u>C. meneghiniana</u>	28		
<u>C. stelligera</u>	28		
<u>Melosira italica</u>	114	113	
<u>Stephanodiscus</u> sp.	28	57	
Pennales			
<u>Asterionella formosa</u>		302	
<u>Galoneis ventricosa</u>			57
CHLOROPHYTA			
<u>Ankyra judayi</u>	57	19	57
<u>Chlorella</u> sp.	454	38	227
<u>Chlorococcum humicola</u>	28		
<u>Schroederia setigera</u>	28	19	14
CHRYSOPHYTA			
<u>Mallomonas akrokomos</u>	57		170
CRYPTOPHYTA			
<u>Rhodomonas minuta</u>	398	284	170
<u>Cryptomonas marsonii</u>		19	
CYANOPHYTA			
<u>Aphanizomenon flos-aquae</u>	3351	2400	75714
<u>Aphanocapsa delicatissima</u>	398		
<u>Aphanothece</u> sp.	4175	2306	11133
<u>Chroococcus dispersus</u>	994	416	227
<u>Merismopedia tenuissima</u>	284	151	
<u>Microcystis incerta</u>	1534		
<u>Oscillatoria limnetica</u>	2357	340	13746
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TOTAL CELLS/ML	14256	6502	101515
NUMBER OF SPECIES	16	14	10
CHLOROPHYLL A (ug/l)	12.3	7.1	27.8

Species list, density (cells/ml) and biomass as chlorophyll a (ug/l)
of phytoplankton collected from Chatfield Reservoir on November 13, 1987.

TAXON	8	7	9
BACILLARIOPHYTA			
Centrales			43
<u>Cyclotella stelligera</u>			114
<u>Melosira ambigua</u>	671	292	
<u>M. italica</u>		451	
<u>M. italica var. tenuissima</u>	2317	663	1065
<u>Stephanodiscus alpinus</u>	14	14	
Pennales			
<u>Amphipleura pellucida</u>	30		
<u>Asterionella formosa</u>	30	14	
<u>Diatoma anceps</u>			14
<u>Fragilaria crotonensis</u>	14	284	284
<u>Nitzschia dissidata</u>	61		
<u>N. ignorata</u>	14		14
<u>N. romana</u>			
<u>Synedra cyclosum</u>	7		
CHLOROPHYTA			
<u>Ankyra judayi</u>	28	14	
<u>Carteria sp.</u>			14
<u>Chamydomonas sp.</u>			14
<u>Chlorella sp.</u>	14	57	57
<u>Mesotaenium sp.</u>		14	
<u>Quadrigula lacustris</u>	28		
<u>Schroederia setigera</u>	14		
CHRYSOPHYTA			
<u>Dinobryon divergens</u>		14	
<u>Mailomonas akrokomos var. parvula</u>		14	
CRYPTOPHYTA			
<u>Cryptomonas marsonii</u>	28		142
<u>C. rostratiformis</u>	14		
<u>Rhodomonas minuta</u>	99	28	341
CYANOPHYTA			
<u>Aphanothece sp.</u>	57		
<u>Chroococcus dispersus</u>	312		199
<u>Dactylococcopsis fascicularis</u>		14	
<u>Oscillatoria sp.</u>	85		
<u>Synechococcus sp.</u>	2102	1534	2641
<u>Synechocystis sp.</u>	114	57	28
TOTAL CELLS/ML	6053	3464	4970
NUMBER OF SPECIES	21	15	14
CHLOROPHYLL A	2.3	2.7	1.6
PHEOPHYTIN	0.0	0.0	0.0

Species list, density (cells/ml) and biomass as chlorophyll a ($\mu\text{g/l}$) of phytoplankton collected from Chatfield Reservoir on January 8, 1988.

TAXON	9 8 -1	STATION 8 7 -1	7 7 -1
BACILLARIOPHYTA			
<u>Achnanthes linearis</u>	14		
<u>Asterionella formosa</u>	28		78
<u>Cyclotella kutzingiana</u>	28	4	
<u>Cymbella minuta</u> f. <u>latens</u>	7		
<u>Diatoma tenue</u> v. <u>elongatum</u>	4		
<u>Fragilaria crotonensis</u>			525
<u>Melosira italica</u>	43		4
<u>M. lirata</u>		7	
<u>Navicula notha</u>			7
<u>N. radiosa</u>			7
<u>Nitzschia ignorata</u>			4
<u>N. romana</u>			7
<u>Stephanodiscus niagarae</u>			4
<u>Synedra radians</u>	14		
<u>S. rumpens</u>		7	
<u>Rhoicosphenia curvata</u>			7
CHLOROPHYTA			
<u>Ankyra judayi</u>			14
<u>Chlamydomonas</u> sp.		7	
<u>Chlorella</u> sp.	28		
<u>Eudorina elegans</u>	170	7	4
<u>Oocystis</u> sp.	14		
<u>Scenedesmus dimorphus</u>			7
<u>Schroederia setigera</u>	21		7
<u>Tetrastrum elegans</u>		28	
CHRYSOPHYTA			
<u>Dinobryon divergens</u>	4	92	7
<u>Kephyrion</u> sp.	14	334	
<u>Mallomonas</u> sp.	28		
CRYPTOPHYTA			
<u>Cryptomonas marsonii</u>	14	50	
<u>C. rostratiformis</u>	7	50	
<u>Rhodomonas minuta</u>	362	291	
CYANOPHYTA			
<u>Chroococcus dispersus</u>	227		
<u>Dactylococcopsis fascicularis</u>			7
<u>Synechococcus</u> sp.	12269	3436	1903
EUGLENOPHYTA			
<u>Trachelomonas planctonica</u>	7		
<u>T. robusta</u>		14	
PYRROPHYTA			
<u>Peridinium inconspicua</u>	7		
TOTAL CELLS/ML	13310	4327	2592
NUMBER OF SPECIES	20	13	16
CHLOROPHYLL A	1.9	1.1	3.6

Species list, density (cells/ml) and biomass as chlorophyll a (ug/l)
of phytoplankton collected from Chatfield Reservoir on February 10, 1988.

TAXON	STATION		
	8-1	7-1	9-1
BACILLARIOPHYTA			
<u>Asterionella formosa</u>	1022	2386	
<u>Cyclotella kutzingiana</u>	28	28	
<u>C. meneghiniana</u>			142
<u>Cymatopleura solea</u>		7	28
CHLOROPHYTA			
<u>Ankistrodesmus falcatus</u> var. <u>acicularis</u>			57
<u>Ankyra judavi</u>	142	142	
<u>Chlamydomonas</u> sp.			57
<u>Chlorella</u> sp.		28	
<u>Kirchneriella lunaris</u>			28
<u>Pandorina morum</u>	606	28	
CHRYSOPHYTA			
<u>Dinobryon divergens</u>	227	710	85
<u>Kephyrion</u> sp.	511	454	1193
<u>K. spirale</u>			85
<u>Mallomonas akrokomos</u>			28
<u>Ochromonas</u> sp.			28
CRYPTOPHYTA			
<u>Cryptomonas</u> sp.	28		28
<u>C. marsonii</u>	57		28
<u>Rhodomonas minuta</u>	2783	1562	2925
CYANOPHYTA			
<u>Aphanocapsa delicatissima</u>			284
<u>Chroococcus dispersus</u>		284	
<u>Oscillatoria limnetica</u>			341
<u>Synechococcus</u> sp.	8009	6873	24822
<u>S. lineare</u>			57
EUGLENOPHYTA			
<u>Trachelomonas planctonica</u>	227	227	2130
TOTAL CELLS/ML	13640	12729	32346
NUMBER OF SPECIES	11	12	18
CHLOROPHYLL A (ug/l)	8.34	4.53	5.78

3 Species list, density (cells/ml) and biomass a chlorophyll a (ug/l)
of phytoplankton collected from Chatfield Reservoir on March 30, 1988

TAXON	STATION		
	R (9)	M (8)	U (7)
DIVISION BACILLARIOPHYTA			
Centrales			
<u>Melosira distans</u>		46	
<u>M. granulata</u> v. <u>angustissima</u>	28	185	
<u>M. italica</u>	165	28	132
<u>M. italica</u> v. <u>tenuissima</u>	385	185	658
<u>Stephanodiscus alpinus</u>		46	
<u>S. tenuis</u>	4404	7862	5926
Pennales			
<u>Achnanthes lanceolata</u> v. <u>dubia</u>		46	
<u>Asterioneila formosa</u>	165	57	132
<u>Diatoma tenue</u> v. <u>elongatum</u>	55	46	198
<u>Fragilaria crotonensis</u>	83		329
<u>Cymbella sinuata</u>		46	
<u>Cymatopluera solea</u>		46	
<u>Hantzschia amphioxys</u>		46	
<u>Navicula notha</u>	28		66
<u>N. pupula</u> v. <u>rectangularis</u>		46	
<u>Nitzschia linearis</u>			19
<u>N. paleacea</u>	28	46	
<u>N. romana</u>		46	
<u>Synedra acus</u>			28
DIVISION CHLOROPHYTA			
<u>Ankistrodesmus falcatus</u> v. <u>acicularis</u>	57		
<u>Ankyra judayi</u>		28	
DIVISION CHRYSOPHYTA			
<u>Dinobryon divergens</u>	284		341
<u>Keokyrion</u> sp.	142	99	114
<u>K. cylindricum</u>	28	43	
<u>Mallomonas</u> sp.	28	14	57
<u>M. akrokomos</u>	57		
DIVISION CRYPTOPHYTA			
<u>Cryptomonas</u> sp.		14	
<u>C. marsonii</u>	483	242	85
<u>Rhodomonas minuta</u>	511	14	57
DIVISION CYANOPHYTA			
<u>Aphanocapsa elachista</u>	284		
<u>Aphanothece</u> sp.	284		
<u>Chroococcus dispersus</u>		114	312
<u>Rhabdoderma</u> sp.	738		
<u>Synechococcus</u> sp.		14	227
DIVISION EUGLENOPHYTA			
<u>Trachelomonas intermedia</u>		14	28
DIVISION PYRROPHYTA			
<u>Peridinium inconspicua</u>			28
TOTAL CELLS/ML	8237	9373	8737
NUMBER OF SPECIES	20	25	18
CHLOROPHYLL A	4.18	5.20	7.18

Species list, density (cells/ml) and biomass as chlorophyll a (ug/l)
of phytoplankton collected from Chatfield Reservoir on April 27, 1988.

TAXA	7	STATION 8	9
<u>DIVISION BACILLARIOPHYTA</u>			
Centrics			
<u>Cyclotella meneghiniana</u>	14		
<u>C. stelligera</u>	28	14	
<u>Melosira italica</u>			
var. <u>tenuissima</u>	257	426	284
<u>Stephanodiscus astrea</u>	11	14	
<u>S. niagarae</u>		14	
Pennates			
<u>Asterionella formosa</u>	28		11
<u>Diatoma anceps</u>	28		
<u>D. tenue</u> var. <u>elongatum</u>	114		
<u>Fragilaria crotonensis</u>			114
<u>Synedra acus</u>	28		
<u>S. cyclopum</u>			14
<u>S. ulna</u> var. <u>longissima</u>	14		
<u>S. radians</u>		28	
<u>DIVISION CHLOROPHYTA</u>			
<u>Ankrva judavi</u>	57	43	57
<u>Diccvosphaerium pulchellum</u>		57	
<u>Oocystis lacustris</u>	85	14	
<u>Scenedesmus serratus</u>	28	28	
<u>DIVISION CHRYSOPHYTA</u>			
<u>Kephyrion</u> sp.		14	
<u>Mallomonas</u> sp.	28	14	
<u>M. akrokomas</u>	28		57
<u>DIVISION CRYPTOPHYTA</u>			
<u>Cryptomonas marsonii</u>	71		28
<u>Rhodomonas minuta</u>	327	114	199
TOTAL DENSITY	1146	780	764
NUMBER OF SPECIES	16	12	8
CHLOROPHYLL A	5.78	3.83	3.16

Species list, density (cells/ml) and biomass as chlorophyll a (ug/l) of phytoplankton collected from Chatfield Reservoir on May 13, 1988.

TAXA	STATION		
	7	8	9
DIVISION BACILLARIOPHYTA			
Centrics			
<u>Cyclotella stelligera</u>	14		
<u>Melosira italica</u>	1037	568	852
<u>Stephanodiscus astrea</u>	85	57	28
Pennates			
<u>Asterionella formosa</u>	298	57	14
<u>Diatoma tenue</u> var.			
<u>elongatum</u>	28		
<u>Fragilaria crotonensis</u>	398	568	28
<u>Gyrosigma spencerii</u>			7
<u>Synedra cyclopum</u>	7		14
<u>S. radians</u>	14		
DIVISION CHLOROPHYTA			
<u>Ankyra judayi</u>	128	199	227
<u>Gloeocystis</u> sp.	14	28	
<u>Scenedesmus quadricauda</u>		57	
DIVISION CHRYSOPHYTA			
<u>Mallomonas</u> sp.	398	199	28
<u>M. akrokomas</u>	28	142	28
DIVISION CRYPTOPHYTA			
<u>Cryptomonas marsonii</u>			43
<u>Rhodomonas minuta</u>		28	
DIVISION CYANOPHYTA			
<u>Synechococcus</u> sp.			28
TOTAL DENSITY	2449	1903	1297
NUMBER OF SPECIES	12	10	11
CHLOROPHYLL A	4.37	3.63	1.71

Species lists, density (cells/ml) and biomass as chlorophyll a (ug/l)
of phytoplankton collected from Chatfield Reservoir on May 25, 1988.

TAXA	STATION		
	R 8-1	7-1	9-1
DIVISION BACILLARIOPHYTA			
Centrics			
<u>Coscinodiscus</u> sp.	10	19	1
<u>Cyclotella stelligera</u>		3	
<u>Melosira italica</u> var. <u>tenuissima</u>	190	167	
<u>Stephanodiscus niagarae</u>		11	1
Pennates			
<u>Asterionella formosa</u>	7	46	22
<u>Fragilaria crotonensis</u>	170	3	
<u>Synedra cyclopum</u>		5	11
<u>S. radians</u>	3	5	
DIVISION CHLOROPHYTA			
<u>Ankistrodesmus judayi</u>	190	97	158
<u>Chlorococcum humicola</u>	10		
<u>Cocconeis microporum</u>		27	
DIVISION CHRYSOPHYTA			
<u>Mallomonas akrokomas</u>	29	3	
DIVISION CRYPTOPHYTA			
<u>Cryptomonas</u> sp.	162	32	
DIVISION CYANOPHYTA			
<u>Chroococcus dispersus</u>			1
DIVISION EUGLENOPHYTA			
<u>Euglena</u> sp.		19	
DIVISION PYRROPHYTA			
<u>Ceratium hirundinella</u>		3	
TOTAL DENSITY	771	440	203
NUMBER OF SPECIES	9	14	6
CHLOROPHYLL A	1.72	1.66	0.42

Species list, density (cells/ml) and biomass as chlorophyll a (ug/l) of phytoplankton collected from Chatfield Reservoir on June 16, 1988.

TAXA	STATION		
	9-1	7-1	8-1
DIVISION BACILLARIOPHYTA			
Centrics			
<u>Melosira italica</u>		16	
<u>Stephanodiscus alpinus</u>	31	31	
Pennate			
<u>Navicula minuscula</u>			31
DIVISION CHLOROPHYTA			
<u>Ankvrta judavi</u>	188	219	282
<u>Chlorella</u> sp.		31	94
<u>Gloeocystis</u> sp.		31	376
<u>Pediastrum duplex</u>	8		
<u>Schroederia setigera</u>	31	31	125
<u>Sphaerocystis schroeteri</u>			876
<u>Tetraedron muticum</u>			31
DIVISION CRYPTOPHYTA			
<u>Cryptomonas</u> sp.	1346	313	1722
<u>Rhodomonas minuta</u>	1252	6354	751
DIVISION CYANOPHYTA			
<u>Adhanocapsa delicatissima</u>	501		
<u>A. elachista</u>	376		
DIVISION EUGLNEOPHYTA			
<u>Trachelomonas intermedia</u>	31		
DIVISION PYRROPHYTA			
<u>Ceratium hirundinella</u>	6	6	
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TOTAL DENSITY	3770	7001	4288
NUMBER OF SPECIES	10	8	9
CHLOROPHYLL A	6.7	13.8	10.2
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Species list, density (cells/ml) and biomass as chlorophyll a (ug/l) of phytoplankton collected from Chatfield Reservoir on June 30, 1988.

TAXA	STATION		
	8-1	9-1	7-1
DIVISION BACILLARIOPHYTA			
Centrics			
<u>Cyclotella stelligera</u>		63	
<u>Melosira granulata</u> var.			
<u>angustissima</u>	62	12	188
Pennates			
<u>Asterionella formosa</u>	1	21	282
<u>Fragilaria crotonensis</u>	104	313	501
<u>Synedra acus</u>		1	
DIVISION CHLOROPHYTA			
<u>Ankyra jidavi</u>			63
<u>Chlamydomonas</u> sp.			31
<u>Chlorella</u> sp.	438	125	407
<u>Gloeocystis</u> sp.	1		31
<u>Oocystis parva</u>			19
<u>Pediastrum duplex</u>	25		25
<u>Staurastrum</u> sp.	1		
DIVISION CHRYSOPHYTA			
<u>Mallomonas</u> sp.	2		31
<u>M. akrokomas</u> var. <u>parvula</u>	63		31
DIVISION CRYPTOPHYTA			
<u>Rhodomonas minuta</u>	63	407	151
DIVISION CYANOPHYTA			
<u>Aphanizomenon flos-aquae</u>	40		
<u>Aphanocapsa delicatissima</u>		501	438
<u>A. elachista</u>			751
<u>Chroococcus dispersus</u>			63
<u>Synechococcus</u> sp.	188	814	4789
DIVISION PYRROPHYTA			
<u>Ceratium hirundinella</u>	5	5	5
TOTAL DENSITY	993	2262	7806
NUMBER OF SPECIES	13	10	17
CHLOROPHYLL A	5.4	3.6	3.3

Species list, density (cells/mL) and biomass: as chlorophyll a (ug/l)
of phytoplankton collected from Chatfield Reservoir on July 15, 1988.

TAXA	STATION		
	7-1	9-1	8-1
DIVISION BACILLARIOPHYTA			
Centrics			
<u>Melosira granulata</u> var.			
<u>angustissima</u>	522	503	500
Pennates			
<u>Asterionella formosa</u>	16	188	22
<u>Fragilaria crotonensis</u>	289	145	43
DIVISION CHLOROPHYTA			
<u>Ankyra judayi</u>	31		
<u>Chlamydomonas</u> sp.			63
<u>Chlorella vulgaris</u>	938	1000	1625
<u>Eudorina elegans</u>			16
<u>Oocystis lacustris</u>	250	8	
<u>Sphaerocystis schroeteri</u>	14	1125	
<u>Schroederia setigera</u>		1	
<u>Staurastrum</u> sp.		2	
DIVISION CRYPTOPHYTA			
<u>Rhodomonas minuta</u>			63
DIVISION CYANOPHYTA			
<u>Anabaenopsis elenkinii</u>	54		
<u>Aphanizomenon flos-aquae</u>	833	563	1116
<u>Aphanothece nidulans</u>	19000	6813	750
<u>Chroococcus dispersus</u>	3688	938	625
<u>Merismopedia elegans</u>		18	
<u>M. tenuissima</u>		750	
<u>Synechococcus</u> sp.	4813	13938	20375
DIVISION PYRROPHYTA			
<u>Ceratium hirundinella</u>	10	20	125
TOTAL DENSITY (CELLS/ML)	30458	26012	25323
NUMBER OF SPECIES	13	15	12
CHOROPHYLL A (UG/L)	7.2	6.2	12.4

Species list, density (cells/mL) and biomass as chlorophyll a (ug/l)
of phytoplankton collected from Chatfield Reservoir on July 27, 1988.

TAXA	8-1	STATION 9-1	7-1
DIVISION BACILLARIOPHYTA			
Centris			
<u>Melosira granulata</u> var.			
<u>angustissima</u>	575	115	250
<u>M. italica</u>	456		
<u>Stephanodiscus alpinus</u>	63		
Pennates			
<u>Asterionella formosa</u>	125	30	
<u>Fragilaria crotonensis</u>		80	94
DIVISION CHLOROPHYTA			
<u>Ankvrá judayi</u>	219	109	125
<u>Gloeocystis</u> sp.		109	30
<u>Oocystis lacustris</u>	94		10
<u>Sphaerocystis schroeteri</u>		20	
<u>Staurastrum</u> sp.		3	5
DIVISION CHRYSOPHYTA			
<u>Mallomonas akrokomas</u>	31		
DIVISION CYANOPHYTA			
<u>Aphanizomenon</u>			
<u>flos-aquae</u>	10787	508	1878
<u>Aphanocapsa</u>			
<u>delicatissima</u>		1250	1000
<u>Aphanothece nidulans</u>	17063	24688	28125
<u>Chroococcus dispersus</u>		4500	
<u>Synechococcus</u> sp.	6625		3250
DIVISION PYRROPHYTA			
<u>Ceratium hirundinella</u>	20	31	3
TOTAL DENSITY (CELLS/ML)	36058	31473	34770
NUMBER OF SPECIES	11	12	11
CHLOROPHYLL A (UG/L)	11.2	6.5	4.0

Species list, density (cells/ml) and biomass as chlorophyll a (ug/l)
of phytoplankton collected from Chatfield Reservoir on August 16, 1988.

TAXA	STATION		
	8-1	9-1	2-1
<u>DIVISION BACILLARIOPHYTA</u>			
Centrics			
<u>Cyclotella meneghiniana</u>		31	
<u>Melosira lirata</u>	125		
<u>Stephanodiscus</u> sp.	1972	1438	751
Pennates			
<u>Achnanthes lanceolata</u> var. <u>dubia</u>	31		
<u>Fragilaria crotonensis</u>	16	750	1002
<u>Synedra acus</u>	31		
<u>DIVISION CHLOROPHYTA</u>			
<u>Ankyra judavi</u>	250	125	31
<u>Chlorella</u> sp.	1188	1063	563
<u>Eutetramorus</u> sp.	1127	313	31
<u>Oocystis</u> sp.		16	344
<u>Pediastrum duplex</u>		1502	
<u>Pyramimonas</u> sp.		31	
<u>Schroederia setigera</u>		63	
<u>DIVISION CHRYSOPHYTA</u>			
<u>Dinobryon divergens</u>		250	
<u>DIVISION CRYPTOPHYTA</u>			
<u>Rhodomonas minuta</u>		63	31
<u>DIVISION CYANOPHYTA</u>			
<u>Aphanizomneon flos-aquae</u>	8689	11220	16004
<u>Aphanocapsa delicatissima</u>		750	
<u>Aphanothece saxicola</u>	38813	21000	11425
<u>Dactylococcopsis fascicularis</u>		63	31
<u>Merismopedia tenuissima</u>	1000	500	
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TOTAL DENSITY	53242	39178	30213
NUMBER OF SPECIES	11	17	10
CHLOROPHYLL A	16.1	14.7	12.0
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Species list, density (cells/ml) and biomass as chlorophyll a (ug/l)
of phytoplankton collected from Chatfield Reservoir on August 29, 1988.

TAXA	STATION		
	7-1	8-1	9-1
DIVISION BACILLARIOPHYTA			
Centrics			
<u>Melosira granulata</u>	97		188
<u>M. italica</u>	129		10
<u>M. lirata</u>	18	63	157
<u>Stephanodiscus alpinus</u>	9		
Pennates			
<u>Asterionella formosa</u>	15		
<u>Fragilaria crotonensis</u>	57	114	250
DIVISION CHLOROPHYTA			
<u>Ankyra judavi</u>	37	63	94
<u>Chlorella sp.</u>			563
<u>Closterium sp.</u>			3
<u>Nephrocvtium obesum</u>	110		
<u>Oocystis sp.</u>			250
DIVISION CHRYSOPHYTA			
<u>Dinobryon divergens</u>			626
DIVISION CYANOPHYTA			
<u>Aphanizomenon flos-aqueae</u>	1810	1690	6039
<u>Aphanocapsa delicatissima</u>	258		
<u>Aphanothece saxicola</u>	4747	7375	13250
<u>Chroococcus dispersus</u>	147	438	1438
<u>Merismopedia tenuissima</u>	2500		
<hr/>			
TOTAL DENSITY	9934	9743	22868
NUMBER OF SPECIES	13	6	12
CHLOROPHYLL A	6.0	8.9	13.6

Species list, density (cells/ml) and biomass as chlorophyll a (ug/l) of phytoplankton collected from Chatfield Reservoir on September 16, 1988.

TAXA	8-1	STATION	9-1
		7-1	
DIVISION BACILLARIOPHYTA			
Centric			
<u>Melosira granulata</u>	3292	5227	562
<u>M. varians</u>		4	
<u>M. italica</u> var. <u>tenuissima</u>		94	
<u>M. varians</u>	4		16
Pennate			
<u>Asterionella formosa</u>	8	16	4
<u>Diatoma vulgare</u>			4
<u>Fragilaria crotonensis</u>	4	501	
<u>Nitzschia sigmoidea</u>		31	
DIVISION CHLOROPHYTA			
<u>Ankyra judayi</u>	16	16	47
<u>Chlorella vulgaris</u>	375	31	688
<u>Closterium</u> sp.		8	
<u>Oocystis</u> sp.		62	47
<u>Pandorina morum</u>	4		
<u>Pediastrum duplex</u> var. <u>clathratum</u>		499	
<u>Schroederia setigera</u>		16	31
<u>Scenedesmus ecornus</u>			31
DIVISION CYANOPHYTA			
<u>Aphanizomenon flos-aquae</u>		188	41486
<u>Aphanocapsa delicatissima</u>	5188	8625	4750
<u>Aphanothece saxicola</u>	4813	2000	7438
<u>A. stagnina</u> (Anacystis <u>rupestris</u>)		1500	3900
<u>Chroococcus dispersus</u>	1438	1063	1500
<u>Lyngbya</u> sp.			218
DIVISION PYRROPHYTA			
<u>Ceratium hirundinella</u>			16
TOTAL DENSITY	15142	19881	60707
NUMBER OF SPECIES	10	17	16
CHLOROPHYLL A	5.6	5.9	8.1

Species list, density (cells/ml) and biomass as chlorophyll a (ug/l)
of phytoplankton collected from Chatfield Reservoir on September 29, 1988.

TAXA	9-1	STATION 7-1	8-1
DIVISION BACILLARIOPHYTA			
Centric			
<u>Cyclotella meneghiniana</u>	16		
<u>Melosira granulata</u>	8075	24383	5321
<u>M. granulata</u> var.			
<u>angustissima</u>	500	188	
<u>M. italica</u> var. <u>tenuissima</u>		250	
<u>Stephanodiscus alpinus</u>			16
Pennate			
<u>Asterionella formosa</u>	125	288	47
<u>Cymbella sinuata</u>	16		
<u>Diatoma vulgare</u>	10		
<u>Fragilaria crotonensis</u>	156	187	
<u>F. vaucheriae</u>	31		
<u>Navicula capitata</u>	31		
<u>N. cuspidata</u>	5		
<u>Nitzschia</u> sp.			16
<u>N. romana</u>	16	5	
<u>N. sigmoidea</u>	5		
<u>Surirella ovalis</u>		5	
<u>Synedra ulna</u>	5		
DIVISION CHLOROPHYTA			
<u>Ankyra judayi</u>	16		31
<u>Chlorella vulgaris</u>	720	438	2128
<u>Coccomyxa</u> sp.			1158
<u>Eudorina elegans</u>		500	
<u>Tetraedron muticum</u>	31		
DIVISION CHRYSOPHYTA			
<u>Kephyrion</u> sp.		31	
DIVISION CRYPTOPHYTA			
<u>Rhodomonas minuta</u>	31		313
DIVISION CYANOPHYTA			
<u>Aphanocapsa delicatissima</u>	720	3130	1502
<u>Aphanothece saxicola</u>	1252	626	
<u>A. stagnina</u>		17372	14430
DIVISION PYRROPHYTA			
<u>Ceratium hirundinella</u>		10	
TOTAL DENSITY	11761	47413	24962
NUMBER OF SPECIES	19	14	10
CHLOROPHYLL A	3.8	12.4	11.0

Species list and density (cells/ml) of phytoplankton collected from Chatfield Reservoir on October 14, 1988.

TAXA	STATION		
	8-1	7-1	9-1
DIVISION BACILLARIOPHYTA			
Centric			
<u>Chaetoceros</u> sp.			16
<u>Cyclotella bodanica</u>			16
<u>C. meneghiniana</u>			31
<u>C. ocellata</u>		16	
<u>Melosira granulata</u>	359	8	624
<u>M. italica</u>	47	4	47
<u>M. varians</u>			5
Pennate			
<u>Asterionella formosa</u>		8	
<u>Fragilaria crotonensis</u>			156
<u>F. vaucheriae</u>			16
<u>Navicula minima</u>			16
<u>Nitzschia acicularis</u>			16
<u>N. hungarica</u>			16
<u>Synedra acus</u>	5		5
DIVISION CHLOROPHYTA			
<u>Ankyra judayi</u>		16	78
<u>Chlorella vulgaris</u>	1033	1596	1189
<u>Coccomyxa</u> sp.	125	344	438
<u>Oocystis</u> sp.			78
<u>Eudorina elegans</u>	250		
<u>Pediastrum duplex</u> var. <u>clathratum</u>	16		
<u>Schroederia setigera</u>	5		
<u>Scenedesmus denticulatus</u>			62
<u>S. dimorphus</u>	62		
<u>S. intermedius</u>	62		
DIVISION CRYPTOPHYTA			
<u>Rhodomonas minuta</u>	125	47	140
DIVISION CYANOPHYTA			
<u>Aphanocapsa delicatissima</u>		407	281
<u>A. elachista</u>			47
<u>Aphanothece stagnina</u>	281	1919	
DIVISION PYRROPHYTA			
<u>Ceratium hirundinella</u>		62	
TOTAL DENSITY	2370	4427	3277
NUMBER OF SPECIES	12	11	20

TABLE 2: Chlorophyll a (ug/l) of phytoplankton collected from Chatfield Reservoir on October 14, 1988.

	STATION		
	8-1	7-1	9-1
Chlorophyll a	9.8	5.9	4.8

**HISTORICAL AND CURRENT STREAMFLOW GAGING STATIONS
CHATFIELD BASIN**

USGS Station No.	Description	Period of Record
06708000	South Platte River at Waterton 2,621 mi ²	1927-81 WY, USGS (USACOE) 1982-present, CSEO
06708500	Deer Creek near Littleton 26.2 mi ²	1943-46 WY, USGS
06708750	East Plum Creek at Castle Rock 102 mi ²	8/85-9/89
06709000	Plum Creek near Sedalia 274 mi ²	1943-47 WY
06709500	Plum Creek near Louviers 302 mi ²	1948-present
06709530	Plum Creek at Titan Rd near Louviers 315 mi ²	5/84-present
06709600	Chatfield Lake near Littleton 3,018 mi ²	5/75-present (water stage) 1977-81 WY Period (WQ)
06710245	South Platte River at Union Ave, at Littleton 3,043 mi ²	4/89-present
06710000	South Platte River at Littleton 3,069 mi ²	1942-86 WY