04177720 FISH CREEK AT HAMILTON, IN

LOCATION.--Lat 41°31'55", long 84°54'12", in SE$^1/_4$SW$^1/_4$ sec.34, T.36 N., R.14 E., Steuben County, Hydrologic Unit 04100003, on left bank 6 ft upstream from bridge on County Road 775 South, 0.5 mi downstream from Hamilton Lake outlet, and 0.5 mi southeast of Hamilton.

DRAINAGE AREA.--37.5 mi^2.

PERIOD OF RECORD.--October 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is 876.00 ft above sea level.

REMARKS.--Records good except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	5.7	5.7	15	e12	98	75	19	16	30	8.1	2.6	2.2
2	5.8	6.0	14	e12	79	61	17	15	60	4.0	2.5	2.0
3	5.8	6.6	12	e11	59	52	16	14	66	4.7	2.5	2.0
4	21	5.6	11	e11	47	45	15	13	48	5.6	2.2	2.0
5	28	5.0	11	12	39	39	14	10	46	4.9	2.0	1.9
6	32	5.6	8.7	12	36	34	104	8.5	85	3.4	1.9	1.8
7	22	7.7	9.8	12	32	31	128	8.7	100	4.5	1.8	2.7
8	17	7.7	11	11	35	29	86	13	67	5.2	1.8	4.4
9	14	22	9.7	12	344	28	64	10	48	4.1	1.9	8.1
10	11	77	9.7	12	580	26	54	8.8	37	3.7	2.1	12
11	9.2	46	15	10	376	27	50	9.8	29	3.0	1.8	5.8
12	8.2	32	28	10	235	26	51	12	25	2.6	1.7	3.8
13	7.6	43	24	9.9	162	30	40	8.9	21	2.5	1.7	3.1
14	7.4	43	e27	11	138	29	32	9.5	19	2.2	1.6	2.8
15	7.1	31	e23	15	136	28	35	64	22	2.2	1.3	2.4
16	7.5	26	40	20	104	30	44	55	26	2.1	2.3	2.3
17	8.1	22	80	22	78	32	36	48	19	2.2	2.7	2.2
18	7.7	18	e60	23	60	32	28	40	14	2.7	2.4	3.3
19	7.1	16	e47	23	51	35	24	41	12	2.7	3.2	12
20	7.0	15	e38	20	47	32	32	30	12	2.8	3.2	11
21	6.8	13	e31	18	41	30	57	24	27	3.7	2.3	7.6
22	6.1	10	e26	17	36	28	64	20	48	4.9	6.4	6.7
23	5.6	9.8	e22	16	32	25	53	16	30	5.5	10	5.7
24	9.9	9.4	e19	16	41	23	46	40	23	7.9	5.6	6.7
25	10	9.7	e17	14	259	19	34	51	18	11	4.0	4.9
26	10	15	e15	14	231	18	28	48	15	11	3.6	4.9
27	13	20	e14	14	150	17	25	71	13	5.8	3.0	3.7
28	10	19	e14	13	103	16	21	59	11	3.8	2.9	3.1
29	7.7	19	e13	14	---	17	18	46	9.7	3.6	2.5	3.1
30	6.8	17	e13	47	---	17	17	36	8.8	3.2	2.3	3.0
31	5.9	---	e13	102	---	16	---	26	---	2.8	2.8	---
TOTAL	331.0	582.8	690.9	565.9	3629	947	1252	872.2	989.5	136.4	88.6	137.2
MEAN	10.7	19.4	22.3	18.3	130	30.5	41.7	28.1	33.0	4.40	2.86	4.57
MAX	32	77	80	102	580	75	128	71	100	11	10	12
MIN	5.6	5.0	8.7	9.9	32	16	14	8.5	8.8	2.1	1.3	1.8
CFSM	.28	.52	.59	.49	3.46	.81	1.11	.75	.88	.12	.08	.12
IN.	.33	.58	.69	.56	3.60	.94	1.24	.87	.98	.14	.09	.14

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2001, BY WATER YEAR (WY)

MEAN	12.7	27.8	36.5	38.3	50.0	69.2	61.2	39.2	30.5	15.0	13.0	11.2
MAX	69.5	117	91.3	161	130	219	112	174	118	64.3	45.2	47.1
(WY)	1987	1993	1991	1993	2001	1982	1978	1996	1981	1992	1996	1981
MIN	2.14	2.46	4.69	5.96	7.84	21.6	18.7	8.24	2.05	2.02	1.89	1.88
(WY)	1995	1972	2000	1977	1979	2000	1971	1985	1988	1988	1970	1988

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1970 - 2001	
ANNUAL TOTAL	8569.7		10222.5			
ANNUAL MEAN	23.4		28.0		33.6	
HIGHEST ANNUAL MEAN					54.7	1993
LOWEST ANNUAL MEAN					17.8	1972
HIGHEST DAILY MEAN	201	Apr 21	580	Feb 10	1220	May 17 1996
LOWEST DAILY MEAN	1.7	Jul 23	1.3	Aug 15	.52	Aug 31 1971
ANNUAL SEVEN-DAY MINIMUM	1.8	Jul 21	1.7	Aug 9	.82	Aug 26 1971
MAXIMUM PEAK FLOW			619	Feb 10	1510	May 17 1996
MAXIMUM PEAK STAGE			9.63	Feb 10	14.49	May 17 1996
ANNUAL RUNOFF (CFSM)	.62		.75		.90	
ANNUAL RUNOFF (INCHES)	8.50		10.14		12.18	
10 PERCENT EXCEEDS	56		58		79	
50 PERCENT EXCEEDS	13		14		16	
90 PERCENT EXCEEDS	4.7		2.7		3.0	

e Estimated

04177810 FISH CREEK NEAR ARTIC, IN

LOCATION.--Lat 41°27'54", long 84°48'53", in NE$^1/_4$SE$^1/_4$ sec. 29, T.35 N., R.15 E., DeKalb County, Hydrologic Unit 04100003, on right bank 3 ft upstream from bridge on county road 79, 0.6 miles south of Artic, 0.8 miles upstream from Indiana-Ohio state line and 3.8 miles north-northeast of Butler, IN.

DRAINAGE AREA.--98 mi^2 (approx.).

WATER DISCHARGE RECORDS

PERIOD OF RECORD.--April 1998 to current year.

GAGE.--Water-stage recorder. Datum of gage is 832.96 ft above sea level.

REMARKS.--Records fair except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	18	20	59	e37	e310	225	46	54	89	25	8.7	7.9
2	17	18	53	e37	e280	175	49	51	143	22	8.3	7.6
3	17	18	46	e34	e240	149	45	46	224	18	8.1	7.4
4	80	18	e41	e34	e190	130	42	42	205	19	8.1	7.3
5	107	17	e37	e38	155	114	39	39	153	19	7.8	7.1
6	147	15	e33	e38	132	99	219	34	233	17	7.6	7.0
7	95	18	e30	e34	121	89	421	31	304	16	7.4	6.9
8	64	22	e34	e34	129	84	407	35	271	17	7.2	7.3
9	44	38	e29	e37	548	78	241	37	170	16	7.2	8.5
10	33	252	e29	e37	1350	71	177	33	123	14	7.3	18
11	27	255	e50	e30	1320	68	161	30	98	13	7.3	23
12	22	163	e113	e30	819	71	170	33	83	12	7.2	14
13	20	138	e82	e35	547	74	145	32	73	11	7.0	10
14	19	166	e108	e38	421	80	116	29	79	11	6.9	9.0
15	18	142	e78	e48	417	77	105	126	61	11	6.8	8.3
16	18	110	e180	e66	398	76	136	231	69	10	6.9	7.8
17	18	92	e246	e86	301	80	182	235	65	10	7.4	7.6
18	19	79	e210	e90	e220	85	132	181	51	11	7.6	7.6
19	20	68	e170	e88	e190	97	105	133	41	11	8.3	11
20	20	60	e140	e72	e166	104	103	101	38	11	8.2	21
21	19	55	e120	e60	e146	99	161	80	52	11	7.7	22
22	20	e50	e100	e54	e126	89	228	71	128	20	9.4	17
23	21	e43	e88	e49	e118	79	212	61	116	27	21	14
24	22	e32	e76	e45	115	71	166	106	79	22	27	14
25	30	e29	e66	e44	406	61	130	185	63	23	16	14
26	37	42	e56	e44	695	53	104	191	49	30	12	14
27	35	60	e49	e43	563	48	89	268	40	31	10	13
28	36	75	e44	e41	340	46	79	239	34	18	9.0	12
29	31	72	e44	e45	---	45	67	177	29	13	8.4	11
30	25	67	e40	e130	---	46	59	135	27	11	8.0	10
31	22	---	e40	e320	---	44	---	101	---	9.5	7.7	---
TOTAL	1121	2234	2491	1818	10763	2707	4336	3147	3190	509.5	287.5	345.3
MEAN	36.2	74.5	80.4	58.6	384	87.3	145	102	106	16.4	9.27	11.5
MAX	147	255	246	320	1350	225	421	268	304	31	27	23
MIN	17	15	29	30	115	44	39	29	27	9.5	6.8	6.9
CFSM	.37	.76	.82	.60	3.92	.89	1.47	1.04	1.09	.17	.09	.12
IN.	.43	.85	.95	.69	4.09	1.03	1.65	1.19	1.21	.19	.11	.13

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2001, BY WATER YEAR (WY)

MEAN	21.2	37.0	40.1	89.7	182	105	185	93.3	103	23.7	40.0	21.0
MAX	36.2	74.5	80.4	189	384	161	306	146	221	40.8	110	49.2
(WY)	2001	2001	2001	1999	2001	1999	1999	2000	2000	2000	1998	2000
MIN	5.73	7.33	19.1	21.4	44.4	66.8	103	61.2	25.6	14.2	7.82	4.32
(WY)	2000	2000	2000	2000	2000	2000	2000	1998	1998	1999	1999	1999

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1998 - 2001	
ANNUAL TOTAL	27885		32949.3			
ANNUAL MEAN	76.2		90.3		78.7	
HIGHEST ANNUAL MEAN					90.3	2001
LOWEST ANNUAL MEAN					62.9	2000
HIGHEST DAILY MEAN	690	Jun 15	1350	Feb 10	1350	Feb 10 2001
LOWEST DAILY MEAN	10	Sep 8	6.8	Aug 15	3.6	Sep 12 1999
ANNUAL SEVEN-DAY MINIMUM	12	Sep 4	7.1	Aug 10	3.8	Sep 10 1999
MAXIMUM PEAK FLOW			1570	Feb 11	1570	Feb 11 2001
MAXIMUM PEAK STAGE			11.37	Feb 11	11.37	Feb 11 2001
ANNUAL RUNOFF (CFSM)	.78		.92		.80	
ANNUAL RUNOFF (INCHES)	10.58		12.51		10.91	
10 PERCENT EXCEEDS	184		211		190	
50 PERCENT EXCEEDS	37		45		30	
90 PERCENT EXCEEDS	15		8.6		8.0	

e Estimated

04177810 FISH CREEK NEAR ARTIC, IN--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)
		OCTOBER			NOVEMBER			DECEMBER	
1	18	24	1.2	20	15	.82	59	11	1.7
2	17	24	1.1	18	13	.65	53	9	1.3
3	17	23	1.1	18	13	.64	46	13	1.6
4	80	146	36	18	15	.73	e41	10	1.1
5	107	67	20	17	18	.79	e37	9	.92
6	147	49	20	15	16	.65	e33	9	.83
7	95	20	5.4	18	16	.79	e30	9	.77
8	64	9	1.6	22	15	.92	e34	10	.89
9	44	8	.89	38	25	3.3	e29	10	.77
10	33	9	.80	252	96	65	e29	11	.88
11	27	10	.70	255	46	32	e50	20	2.7
12	22	11	.66	163	23	11	e113	28	8.3
13	20	15	.83	138	15	5.8	e82	22	5.0
14	19	13	.68	166	14	6.3	e108	27	8.0
15	18	16	.75	142	8	3.2	e78	24	5.2
16	18	12	.60	110	7	2.1	e180	45	22
17	18	11	.56	92	8	1.9	e246	66	43
18	19	10	.50	79	11	2.4	e210	60	34
19	20	11	.59	68	13	2.4	e170	50	23
20	20	13	.71	60	13	2.1	e140	40	15
21	19	17	.91	55	12	1.8	e120	31	10
22	20	16	.85	e50	16	2.2	e100	28	7.5
23	21	12	.67	e43	15	1.8	e88	26	6.1
24	22	13	.77	e32	18	1.5	e76	24	4.8
25	30	16	1.3	e29	13	1.1	e66	21	3.8
26	37	18	1.8	42	15	1.7	e56	19	2.9
27	35	17	1.6	60	15	2.4	e49	17	2.3
28	36	15	1.4	75	15	3.1	e44	15	1.8
29	31	13	1.1	72	14	2.7	e44	15	1.8
30	25	12	.81	67	10	1.9	e40	15	1.6
31	22	13	.78	---	---	---	e40	14	1.6
TOTAL	1121	---	106.66	2234	---	163.69	2491	---	221.16

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JANUARY			FEBRUARY			MARCH	
1	e37	14	1.4	e310	34	28	225	24	15
2	e37	14	1.4	e280	28	21	175	19	9.0
3	e34	14	1.3	e240	22	14	149	16	6.6
4	e34	14	1.3	e190	16	8.2	130	14	5.0
5	e38	14	1.4	155	13	5.4	114	12	3.7
6	e38	13	1.4	132	15	5.2	99	9	2.4
7	e34	13	1.2	121	14	4.6	89	9	2.1
8	e34	13	1.2	129	13	4.7	84	8	1.8
9	e37	13	1.3	548	96	156	78	6	1.3
10	e37	13	1.3	1350	76	272	71	6	1.2
11	e30	13	1.0	1320	41	149	68	7	1.3
12	e30	12	1.0	819	26	57	71	7	1.4
13	e35	12	1.1	547	23	34	74	10	1.9
14	e38	13	1.3	421	26	29	80	14	3.0
15	e48	16	2.1	417	24	26	77	15	3.1
16	e66	21	3.7	398	22	23	76	18	3.6
17	e86	24	5.6	301	20	16	80	8	1.7
18	e90	23	5.7	e220	19	11	85	10	2.3
19	e88	22	5.1	e190	15	7.7	97	13	3.5
20	e72	20	3.9	e166	13	5.9	104	20	5.7
21	e60	18	3.0	e146	11	4.5	99	17	4.5
22	e54	17	2.4	e126	10	3.5	89	23	5.4
23	e49	15	2.0	e118	9	2.9	79	18	3.9
24	e45	14	1.7	115	11	3.3	71	20	3.8
25	e44	13	1.6	406	115	139	61	13	2.2
26	e44	13	1.5	695	98	181	53	13	1.9
27	e43	12	1.4	563	51	79	48	12	1.5
28	e41	11	1.2	340	34	32	46	22	2.7
29	e45	12	1.5	---	---	---	45	19	2.3
30	e130	25	8.7	---	---	---	46	22	2.8
31	e320	37	32	---	---	---	44	23	2.8
TOTAL	1818	---	100.7	10763	---	1322.9	2707	---	109.4

04177810 FISH CREEK NEAR ARTIC, IN--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)
		APRIL			MAY			JUNE	
1	46	29	3.5	54	77	11	89	50	12
2	49	24	3.2	51	42	5.9	143	86	35
3	45	28	3.4	46	53	6.5	224	90	54
4	42	26	2.9	42	60	6.8	205	68	39
5	39	31	3.3	39	40	4.1	153	44	18
6	219	208	150	34	43	4.0	233	90	57
7	421	122	139	31	48	4.0	304	67	55
8	407	61	70	35	43	4.1	271	63	46
9	241	37	25	37	34	3.5	170	52	24
10	177	29	14	33	49	4.3	123	50	17
11	161	29	12	30	57	4.6	98	53	14
12	170	38	18	33	61	5.4	83	44	9.8
13	145	29	11	32	49	4.2	73	47	9.3
14	116	25	7.8	29	58	4.5	79	95	21
15	105	19	5.4	126	103	36	61	58	9.7
16	136	25	9.9	231	95	60	69	64	12
17	182	41	20	235	66	42	65	53	9.3
18	132	13	4.9	181	114	58	51	43	6.0
19	105	12	3.5	133	61	22	41	43	4.8
20	103	19	5.4	101	68	18	38	48	4.9
21	161	66	32	80	55	12	52	147	29
22	228	58	35	71	48	9.2	128	167	57
23	212	44	26	61	45	7.4	116	69	22
24	166	28	13	106	86	29	79	55	12
25	130	21	7.6	185	85	42	63	52	8.7
26	104	21	5.7	191	75	39	49	53	7.1
27	89	24	5.9	268	117	84	40	50	5.4
28	79	25	5.2	239	77	50	34	52	4.7
29	67	38	6.8	177	60	29	29	53	4.2
30	59	79	12	135	57	21	27	58	4.2
31	---	---	---	101	49	13	---	---	---
TOTAL	4336	---	661.4	3147	---	644.5	3190	---	612.1

DAY	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	MEAN CONCEN-TRATION (mg/L)	SEDIMENT DISCHARGE (TONS/DAY)
		JULY			AUGUST			SEPTEMBER	
1	25	48	3.2	8.7	116	2.7	7.9	47	1.0
2	22	42	2.5	8.3	91	2.0	7.6	60	1.2
3	18	42	2.0	8.1	117	2.6	7.4	49	.99
4	19	41	2.1	8.1	97	2.1	7.3	46	.92
5	19	40	2.0	7.8	116	2.4	7.1	45	.86
6	17	50	2.3	7.6	87	1.8	7.0	47	.88
7	16	84	3.6	7.4	112	2.2	6.9	50	.93
8	17	97	4.4	7.2	104	2.0	7.3	50	.99
9	16	54	2.4	7.2	131	2.6	8.5	49	1.1
10	14	74	2.9	7.3	94	1.9	18	55	2.7
11	13	77	2.7	7.3	106	2.1	23	48	3.0
12	12	83	2.7	7.2	100	2.0	14	24	.94
13	11	78	2.4	7.0	119	2.3	10	23	.62
14	11	69	2.1	6.9	103	1.9	9.0	23	.55
15	11	83	2.4	6.8	102	1.9	8.3	19	.41
16	10	91	2.6	6.9	94	1.8	7.8	20	.42
17	10	94	2.6	7.4	112	2.2	7.6	32	.67
18	11	102	2.9	7.6	83	1.7	7.6	38	.78
19	11	84	2.4	8.3	104	2.3	11	48	1.4
20	11	81	2.3	8.2	84	1.9	21	50	2.8
21	11	111	3.4	7.7	113	2.3	22	33	2.0
22	20	149	8.3	9.4	89	2.3	17	27	1.3
23	27	108	8.0	21	137	7.6	14	33	1.3
24	22	111	6.7	27	58	4.3	14	25	.98
25	23	84	5.4	16	46	2.0	14	19	.71
26	30	105	8.8	12	39	1.3	14	20	.74
27	31	117	9.9	10	33	.88	13	25	.88
28	18	117	5.7	9.0	39	.93	12	27	.86
29	13	89	3.1	8.4	48	1.1	11	35	1.0
30	11	121	3.6	8.0	50	1.1	10	35	.96
31	9.5	87	2.2	7.7	51	1.1	---	---	---
TOTAL	509.5	---	117.6	287.5	---	67.31	345.3	---	33.89
YEAR	32949.3		4161.31						

e Estimated

04178000 ST. JOSEPH RIVER NEAR NEWVILLE, IN

LOCATION.--Lat 41°23'08", long 84°48'06", in SW$^1/_4$SW$^1/_4$ sec.18, T.5 N., R.1 E., Defiance County, Ohio, Hydrologic Unit 04100003, on left downstream side at bridge on Ohio State Highway 249, 3.5 mi northeast of Newville, 6.5 mi northwest of Hicksville, Ohio, and at mile 42.3.

DRAINAGE AREA.--610 mi^2.

PERIOD OF RECORD.--October 1946 to current year. Monthly discharge only for some periods, published in WSP 1307.

REVISED RECORDS.--WSP 2112: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 795.40 ft above sea level. Prior to Oct. 22, 1947, nonrecording gage at same site and datum.

REMARKS.--Records fair except for discharges below 100 ft^3/s and estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	69	133	258	e150	e1300	2200	285	377	1410	209	94	79
2	65	128	242	e144	e1400	1970	352	340	1170	189	83	74
3	59	124	227	e142	e1410	1650	387	305	1160	172	80	69
4	238	122	204	e140	e1200	1290	286	276	1120	154	83	65
5	712	120	188	e143	e960	988	207	251	1170	147	78	62
6	952	115	174	e148	e740	811	940	225	1650	143	71	58
7	821	112	161	e148	e600	703	1600	198	1730	136	65	57
8	567	110	171	e140	e580	625	1610	184	1560	127	63	57
9	391	129	154	e130	1690	567	1440	173	1380	123	63	57
10	285	526	144	e120	3310	520	1070	171	1170	125	61	71
11	219	755	147	e122	4710	483	873	167	885	115	59	79
12	179	650	275	e124	5900	457	921	163	646	108	58	99
13	153	564	337	e130	6070	461	854	158	517	100	61	109
14	136	613	303	e134	4780	492	677	156	460	96	63	99
15	126	559	289	e150	3750	534	510	400	402	91	61	84
16	118	483	384	e190	2900	548	530	934	366	88	60	76
17	118	403	954	e270	2360	538	655	1080	326	87	60	71
18	111	316	1100	e390	e2000	543	787	1280	303	84	58	71
19	104	230	e960	e430	e1700	617	835	1450	275	82	60	85
20	108	209	e760	e380	1560	644	810	1330	265	80	63	102
21	107	201	e600	e320	1240	645	843	1200	288	84	63	131
22	103	183	e490	e270	1000	610	1000	961	658	139	81	170
23	103	153	e400	e230	855	553	1050	684	693	122	196	148
24	105	145	e340	e200	742	492	1070	706	708	193	286	138
25	115	174	e290	e170	1380	440	1050	1160	661	201	308	132
26	136	174	e260	e150	1900	393	954	1270	585	267	218	131
27	173	183	e230	e140	2100	351	783	1540	454	168	160	119
28	175	222	e210	e136	2200	320	620	1740	339	146	128	110
29	171	267	e190	e134	---	304	511	1760	275	127	108	104
30	161	269	e170	e430	---	293	435	1700	236	115	96	97
31	145	---	e160	e1100	---	287	---	1600	---	103	88	---
TOTAL	7025	8372	10772	7005	60337	21329	23945	23939	22862	4121	3076	2804
MEAN	227	279	347	226	2155	688	798	772	762	133	99.2	93.5
MAX	952	755	1100	1100	6070	2200	1610	1760	1730	267	308	170
MIN	59	110	144	120	580	287	207	156	236	80	58	57
CFSM	.37	.46	.57	.37	3.53	1.13	1.31	1.27	1.25	.22	.16	.15
IN.	.43	.51	.66	.43	3.68	1.30	1.46	1.46	1.39	.25	.19	.17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 2001, BY WATER YEAR (WY)

MEAN	178	374	579	665	864	1191	1066	636	424	239	153	139
MAX	1066	1756	2085	2545	2302	3512	3102	2499	1864	1045	921	671
(WY)	1987	1993	1968	1950	1976	1982	1950	1956	1989	1951	1998	1997
MIN	21.0	30.5	31.1	38.3	41.4	312	321	148	51.4	32.2	29.1	20.3
(WY)	1964	1965	1964	1963	1963	1964	1971	1988	1988	1988	1967	1963

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1947 - 2001	
ANNUAL TOTAL	181448		195587			
ANNUAL MEAN	496		536		539	
HIGHEST ANNUAL MEAN					1008	1950
LOWEST ANNUAL MEAN					132	1964
HIGHEST DAILY MEAN	2760	Jun 17	6070	Feb 13	9790	May 18 1996
LOWEST DAILY MEAN	51	Feb 3	57	Sep 7	14	Sep 10 1964
ANNUAL SEVEN-DAY MINIMUM	52	Jan 31	60	Aug 12	15	Sep 10 1964
MAXIMUM PEAK FLOW			6390	Feb 13	10400	May 18 1996
MAXIMUM PEAK STAGE			15.68	Feb 13	17.96	Mar 17 1982
ANNUAL RUNOFF (CFSM)	.81		.88		.88	
ANNUAL RUNOFF (INCHES)	11.07		11.93		12.01	
10 PERCENT EXCEEDS	1500		1310		1490	
50 PERCENT EXCEEDS	220		251		237	
90 PERCENT EXCEEDS	76		81		50	

e Estimated

04180000 CEDAR CREEK NEAR CEDARVILLE, IN

LOCATION.--Lat 41°13'08", long 85°04'35", in NW1/4NW1/4 sec.19, T.32 N., R.13 E., Allen County, Hydrologic Unit 04100003, on left bank at downstream side of bridge on Tonkle Road, 3 mi northwest of Cedarville, 5.8 mi upstream from mouth, and 10 mi south of Auburn.

DRAINAGE AREA.--270 mi^2.

PERIOD OF RECORD.--October 1946 to current year.

REVISED RECORDS.--WSP 1912: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 780.09 ft above sea level. Prior to Nov. 4, 1947, nonrecording gage at same site and datum.

REMARKS.--Records good except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	94	61	115	e114	1150	577	129	138	155	68	28	34
2	86	60	102	e112	853	446	122	132	231	59	28	29
3	83	58	91	e110	595	373	117	121	327	62	35	27
4	164	56	84	e108	409	325	112	116	222	79	29	25
5	285	52	e80	e112	316	289	107	107	283	80	25	27
6	507	54	e70	e116	272	256	960	96	827	60	23	26
7	346	58	e68	e113	e240	253	1930	93	928	54	23	27
8	237	63	e66	e106	e600	228	1030	107	553	54	22	41
9	185	66	e65	e100	e1600	211	678	100	346	52	47	40
10	155	377	e64	e92	3610	195	503	91	244	50	77	140
11	131	356	e80	e94	2940	195	606	84	193	45	34	70
12	114	221	345	e96	1560	187	715	85	167	41	26	47
13	102	203	e300	e100	1060	194	471	78	157	39	22	38
14	94	338	e260	e110	909	190	348	72	139	37	21	35
15	87	242	e230	e120	1230	182	317	97	118	35	20	30
16	83	185	298	339	891	175	373	137	164	32	22	27
17	84	153	935	332	670	186	332	159	126	33	36	26
18	78	131	e580	306	492	227	274	151	103	40	25	35
19	74	119	e450	277	422	264	239	371	96	36	31	82
20	72	109	e340	e200	368	249	234	232	126	33	29	105
21	69	98	e270	e160	325	223	259	160	123	31	25	63
22	66	86	e230	e140	286	201	330	134	384	46	44	47
23	64	83	e200	e130	264	193	294	110	220	40	638	40
24	66	80	e180	e120	253	182	266	139	201	69	297	45
25	69	79	e166	e115	1550	160	228	268	142	57	148	44
26	69	92	e155	e110	2220	146	200	247	112	88	96	37
27	67	129	e146	e108	1180	139	182	499	96	45	71	34
28	68	155	e137	e106	790	133	160	492	85	35	57	32
29	66	139	e128	e105	---	132	144	294	77	31	47	30
30	63	131	e120	557	---	129	138	211	79	29	40	27
31	62	---	e117	1380	---	126	---	165	---	29	42	---
TOTAL	3790	4034	6472	6088	27055	6966	11798	5286	7024	1489	2108	1310
MEAN	122	134	209	196	966	225	393	171	234	48.0	68.0	43.7
MAX	507	377	935	1380	3610	577	1930	499	928	88	638	140
MIN	62	52	64	92	240	126	107	72	77	29	20	25
CFSM	.45	.50	.77	.73	3.58	.83	1.46	.63	.87	.18	.25	.16
IN.	.52	.56	.89	.84	3.73	.96	1.63	.73	.97	.21	.29	.18

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 2001, BY WATER YEAR (WY)

MEAN	110	182	277	321	404	504	468	282	216	121	86.1	87.0
MAX	805	936	908	1393	1290	1724	1130	947	1046	515	331	477
(WY)	1955	1993	1967	1950	1959	1982	1950	1956	1981	1986	1997	1972
MIN	19.8	24.0	24.7	25.9	28.5	146	139	68.6	44.0	35.1	22.0	20.9
(WY)	1965	1965	1964	1963	1963	1957	1971	1958	1988	1953	1964	1964

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1947 - 2001	
ANNUAL TOTAL	71457		83420			
ANNUAL MEAN	195		229		254	
HIGHEST ANNUAL MEAN					485	1950
LOWEST ANNUAL MEAN					85.3	1964
HIGHEST DAILY MEAN	2070	Apr 21	3610	Feb 10	5220	Dec 31 1990
LOWEST DAILY MEAN	21	Jan 24	20	Aug 15	13	Oct 3 1949
ANNUAL SEVEN-DAY MINIMUM	28	Feb 1	25	Aug 12	18	Sep 27 1949
MAXIMUM PEAK FLOW			3820	Feb 10	5580	Dec 30 1990
MAXIMUM PEAK STAGE			10.12	Feb 10	13.38	Dec 30 1990
ANNUAL RUNOFF (CFSM)	.72		.85		.94	
ANNUAL RUNOFF (INCHES)	9.85		11.49		12.79	
10 PERCENT EXCEEDS	437		492		600	
50 PERCENT EXCEEDS	110		119		115	
90 PERCENT EXCEEDS	44		34		32	

e Estimated

04180500 ST. JOSEPH RIVER NEAR FORT WAYNE, IN

LOCATION.--Lat 41°10'41", long 85°03'19", in NW1/4NE1/4 sec.3, T.31 N., R.13 E., Allen County, Hydrologic Unit 04100003, on left bank 0.8 mi downstream from Ely Run, 1.3 mi upstream from Mayhew Road, 8.0 mi northeast of the Fort Wayne Court House.

DRAINAGE AREA.--1,060 mi^2.

PERIOD OF RECORD.--October 1983 to current year. July 1941 to September 1955 gage located 1.3 mi downstream at Ely Bridge.

GAGE.--Water-stage recorder. Datum of gage is 754.00 ft above sea level (levels by State of Indiana).

REMARKS.--Records fair except for estimated daily discharges, which are poor. Flow regulated by Cedarville Reservoir and some flow diverted into storage of Hurshtown Reservoir.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	251	228	417	e280	3500	3210	494	636	1950	403	181	183
2	243	214	393	e275	2990	3070	491	569	1940	331	180	156
3	236	213	359	e270	2500	2730	530	587	1990	306	201	163
4	260	206	332	e270	1940	2200	670	453	1630	370	195	144
5	770	193	325	e275	1850	1560	491	484	1760	355	209	153
6	1680	189	271	e280	1570	1380	2180	455	3230	247	122	145
7	1480	199	243	e280	1140	1140	4920	391	3910	257	74	132
8	857	204	269	e260	1140	1090	3420	389	2780	252	112	147
9	680	212	317	e230	4420	929	2750	396	2200	244	146	194
10	505	721	292	e230	7710	872	2220	375	1700	237	222	280
11	472	1320	306	e235	7620	856	1990	401	1510	230	138	208
12	351	907	633	e240	6490	789	2380	380	926	219	119	197
13	290	823	875	e250	6520	737	1930	360	772	183	126	200
14	333	911	827	e260	7040	796	1200	330	842	182	128	223
15	299	920	685	e300	7120	738	1300	373	620	183	116	200
16	259	675	717	e600	5650	996	1090	950	708	178	126	180
17	247	626	2360	e780	4150	836	1120	1490	625	185	156	150
18	245	529	e2400	e720	3440	799	1210	1450	403	190	158	149
19	240	391	e1800	e640	2750	1220	1090	2730	519	207	141	423
20	230	366	e1400	e560	2430	1050	1290	2010	611	181	176	492
21	216	352	e1100	e470	2180	1080	1260	1770	448	190	153	246
22	199	336	e900	e420	1700	983	1490	1300	880	171	246	173
23	201	290	e740	e380	1370	891	1560	1400	1150	251	1450	254
24	204	287	e620	e340	1360	876	1560	717	979	279	677	252
25	209	280	e540	e310	3500	736	1440	1770	915	353	477	223
26	211	300	e480	e280	5080	615	1370	1880	737	402	574	203
27	217	336	e420	e270	3740	678	1230	2490	744	396	273	206
28	239	397	e370	e262	3480	545	901	2870	599	285	195	181
29	267	378	e340	e260	---	551	876	2390	387	209	285	156
30	249	428	e320	e1100	---	543	687	2360	415	184	215	152
31	242	---	e300	3620	---	532	---	2200	---	204	204	---
TOTAL	12382	13431	21351	14947	104380	35028	45140	36356	37880	7864	7775	6165
MEAN	399	448	689	482	3728	1130	1505	1173	1263	254	251	206
MAX	1680	1320	2400	3620	7710	3210	4920	2870	3910	403	1450	492
MIN	199	189	243	230	1140	532	491	330	387	171	74	132
CFSM	.38	.42	.65	.45	3.52	1.07	1.42	1.11	1.19	.24	.24	.19
IN.	.43	.47	.75	.52	3.66	1.23	1.58	1.28	1.33	.28	.27	.22

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2001, BY WATER YEAR (WY)

MEAN	492	955	1139	1419	1695	1875	1807	1088	1023	465	374	369
MAX	1984	3330	2421	4615	3728	3612	3071	3675	2915	1413	1157	1258
(WY)	1987	1993	1991	1993	2001	1985	1999	1996	1989	1986	1998	1997
MIN	78.6	98.8	162	145	310	689	607	272	153	122	125	81.5
(WY)	1995	2000	2000	2000	1995	2000	1986	1988	1988	1988	1988	1994

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1984 - 2001	
ANNUAL TOTAL	293190		342699			
ANNUAL MEAN	801		939		1054	
HIGHEST ANNUAL MEAN					1532	1993
LOWEST ANNUAL MEAN					642	1995
HIGHEST DAILY MEAN	5580	Jun 25	7710	Feb 10	13100	Feb 26 1985
LOWEST DAILY MEAN	97	Jan 28	74	Aug 7	43	Oct 17 1991
ANNUAL SEVEN-DAY MINIMUM	98	Jan 26	130	Aug 11	56	Oct 24 1994
MAXIMUM PEAK FLOW			8000	Feb 10	13400	Jan 5 1993
MAXIMUM PEAK STAGE			13.27	Feb 10	18.40	Jan 5 1993
ANNUAL RUNOFF (CFSM)	.76		.89		.99	
ANNUAL RUNOFF (INCHES)	10.29		12.03		13.51	
10 PERCENT EXCEEDS	2240		2360		2620	
50 PERCENT EXCEEDS	394		428		509	
90 PERCENT EXCEEDS	173		183		146	

e Estimated

04181500 ST. MARYS RIVER AT DECATUR, IN

LOCATION.--Lat 40°50'55", long 84°56'16", in SW$^1/_4$SW$^1/_4$ sec.27, T.28 N., R.14 E., Adams County, Hydrologic Unit 04100004, on left downstream side of bridge on U.S. Highway 27, 0.5 mi upstream from Holthouse Ditch, 1.3 mi north of Decatur, and at mile 29.1.

DRAINAGE AREA.--621 mi^2.

PERIOD OF RECORD.--October 1946 to current year. Monthly discharge only for some periods, published in WSP 1307. Gage-height records collected at site 0.5 mi upstream January 1932 to November 1954, and at present site thereafter are contained in reports of National Weather Service.

REVISED RECORDS.--WSP 1174: 1948. WSP 1337: 1947. WSP 1627: 1950. WSP 1912: 1955, drainage area.

GAGE.--Water-stage recorder. Datum of gage is 760.44 ft above sea level. Prior to July 27, 1948, nonrecording gage at same site and datum.

REMARKS.--Records good, except for estimated daily discharges, which are poor. Flow regulated by Grand Lake. Slight diversion from or into Wabash River Basin and into Miami and Erie Canal.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	62	43	51	e80	1590	324	102	101	1160	43	194	46
2	49	41	50	e74	1010	261	99	93	1020	40	132	38
3	43	40	44	e70	905	223	90	84	694	54	84	35
4	40	39	40	e65	897	195	84	75	385	51	58	34
5	389	36	45	e60	625	175	79	70	710	47	48	33
6	1090	35	33	e56	353	149	73	63	1590	42	50	32
7	603	41	41	e57	242	137	72	63	1320	50	42	31
8	412	39	43	e58	301	122	71	69	662	194	36	34
9	269	40	38	e58	1920	112	71	76	456	124	34	61
10	170	180	40	e56	3390	103	74	86	337	84	33	137
11	115	156	122	e53	2750	102	916	104	244	82	32	169
12	82	110	1170	e52	1610	95	2070	96	216	67	30	99
13	65	162	744	e51	1340	100	1290	79	212	48	31	103
14	54	224	467	e52	1660	106	1080	67	157	39	39	94
15	55	178	454	e70	2770	99	1390	65	138	35	47	64
16	59	140	794	e200	2220	111	1990	251	178	32	40	46
17	64	118	2240	e300	1490	130	1350	912	140	34	36	37
18	70	94	1500	e370	1280	197	933	2060	105	33	37	39
19	76	76	877	e450	1110	509	794	2520	93	32	38	76
20	72	66	e680	e340	735	483	681	2130	83	32	38	191
21	74	52	e500	e250	388	349	786	2170	82	59	36	229
22	72	43	e400	e190	254	265	726	2110	99	329	69	266
23	60	47	e310	e160	211	217	687	1660	124	606	151	195
24	53	41	e260	e130	182	187	601	1440	99	671	171	150
25	49	43	e210	e110	914	160	391	1960	108	793	174	155
26	45	49	e180	e90	1040	137	254	1510	92	642	161	118
27	45	51	e150	e82	603	123	192	1640	80	366	118	91
28	48	53	e130	e76	451	107	155	1260	81	264	106	70
29	50	53	e110	e72	---	100	128	1190	55	176	112	54
30	48	52	e100	1460	---	99	111	1420	49	118	86	43
31	45	---	e90	2380	---	96	---	1420	---	124	61	---
TOTAL	4428	2342	11913	7572	32241	5573	17340	26844	10769	5311	2324	2770
MEAN	143	78.1	384	244	1151	180	578	866	359	171	75.0	92.3
MAX	1090	224	2240	2380	3390	509	2070	2520	1590	793	194	266
MIN	40	35	33	51	182	95	71	63	49	32	30	31
CFSM	.23	.13	.62	.39	1.85	.29	.93	1.39	.58	.28	.12	.15
IN.	.27	.14	.71	.45	1.93	.33	1.04	1.61	.65	.32	.14	.17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 2001, BY WATER YEAR (WY)

MEAN	121	304	550	728	878	1079	945	491	450	323	140	107
MAX	866	1988	2079	3834	2546	3263	3409	1920	2075	2674	848	1225
(WY)	1955	1993	1991	1950	1950	1978	1957	1996	1981	1992	1998	1992
MIN	7.52	13.7	12.8	21.0	30.5	125	79.3	55.6	28.1	20.6	15.5	12.6
(WY)	1964	1965	1964	1961	1964	1981	1966	1988	1988	1965	1963	1963

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1947 - 2001	
ANNUAL TOTAL	106450		129427			
ANNUAL MEAN	291		355		504	
HIGHEST ANNUAL MEAN					879	1993
LOWEST ANNUAL MEAN					140	1966
HIGHEST DAILY MEAN	4340	Jun 15	3390	Feb 10	10600	Feb 15 1950
LOWEST DAILY MEAN	21	Jan 29	30	Aug 12	5.4	Oct 18 1960
ANNUAL SEVEN-DAY MINIMUM	22	Jan 25	34	Aug 8	6.2	Oct 12 1963
MAXIMUM PEAK FLOW			3480	Feb 10	11300	Feb 10 1959
MAXIMUM PEAK STAGE			17.15	Feb 10	24.40	Mar 14 1982
ANNUAL RUNOFF (CFSM)	.47		.57		.81	
ANNUAL RUNOFF (INCHES)	6.38		7.75		11.03	
10 PERCENT EXCEEDS	814		1180		1500	
50 PERCENT EXCEEDS	118		105		129	
90 PERCENT EXCEEDS	33		40		23	

e Estimated

04182000 ST. MARYS RIVER NEAR FORT WAYNE, IN

LOCATION.--Lat 40°59'16", long 85°06'43", in A. LaFontaine Reserve, T.29 N., R.12 E., Allen County, Hydrologic Unit 04100004, on left bank 130 ft downstream from Anthony Boulevard Extension, 0.8 mi downstream from Houk Ditch, 5 mi south of Fort Wayne, and 10.8 mi upstream from mouth.

DRAINAGE AREA.--762 mi^2.

PERIOD OF RECORD.--October 1930 to current year. Monthly discharge only for some periods, published in WSP 1307. Fragmentary gage-height records for period November 1924 to October 1927 are available from the District Office.

REVISED RECORDS.--WSP 974: 1942. WSP 1337: 1933, 1947. WSP 1912: 1954, 1955, 1960, drainage area. WDR IN- 82-1: 1973, 1974, 1978, 1979.

GAGE.--Water-stage recorder. Datum of gage is 748.97 ft above sea level (levels by State of Indiana, Department of Natural Resources). Prior to Apr. 13, 1939, nonrecording gage on upstream highway bridge at same datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. The flow is sometimes regulated by Grand Lake. Slight diversion from or into Wabash River Basin and into Miami and Erie Canal. During extreme floods, some water bypasses gage and flows through Houk Ditch and Paul Trier Ditch into the Maumee River. Period of record computations do not include 1934 water year.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	94	58	76	e120	e2400	531	128	142	1490	57	138	60
2	71	55	74	e110	1590	408	131	132	1380	52	154	50
3	58	54	71	e100	1220	339	123	122	1160	49	103	43
4	52	53	67	e96	1190	292	110	108	603	64	72	40
5	362	52	e64	e90	955	256	102	99	841	62	56	38
6	1630	50	e60	e85	609	218	206	92	2730	55	49	37
7	1050	50	e56	e86	427	185	144	86	2280	54	50	36
8	618	54	e54	e87	509	171	118	96	1140	186	46	36
9	433	67	e55	e88	2810	151	104	99	660	203	47	43
10	277	759	e56	e82	5020	138	101	99	468	116	45	94
11	183	413	e70	e83	4230	132	815	112	337	87	38	143
12	128	240	e1300	e82	2540	128	2630	129	256	82	36	130
13	98	220	1250	e82	1780	128	2010	114	245	68	34	85
14	81	354	675	e86	2140	133	1380	95	210	54	33	90
15	73	286	608	e140	3530	131	1600	87	167	46	40	78
16	73	209	907	e250	3250	131	2370	123	167	41	49	59
17	77	166	2750	e520	2120	159	2020	848	181	51	45	49
18	82	134	2330	e640	1660	193	1310	2310	133	77	44	51
19	88	109	1330	e700	1480	547	1110	3240	106	48	52	165
20	93	94	e860	e500	1120	756	936	2730	96	40	50	210
21	88	81	e600	e370	670	568	1020	2510	92	66	45	209
22	90	84	e460	e290	408	420	1110	2530	103	181	73	233
23	87	67	e380	e230	314	329	983	2160	108	521	356	216
24	78	64	e300	e180	265	272	893	1700	120	705	196	160
25	71	56	e260	e150	1330	228	657	2260	107	923	161	129
26	64	65	e220	e130	1730	192	425	2050	109	876	161	125
27	60	90	e190	e120	996	167	303	2300	93	471	e130	96
28	58	90	e170	e112	734	146	234	1770	87	301	100	77
29	62	83	e150	e110	---	132	187	1410	83	214	94	63
30	64	79	e140	e1600	---	128	159	1600	64	142	94	52
31	60	---	e130	e3200	---	125	---	1700	---	99	78	---
TOTAL	6403	4236	15713	10519	47027	7834	23419	32853	15616	5991	2669	2897
MEAN	207	141	507	339	1680	253	781	1060	521	193	86.1	96.6
MAX	1630	759	2750	3200	5020	756	2630	3240	2730	923	356	233
MIN	52	50	54	82	265	125	101	86	64	40	33	36
CFSM	.27	.19	.67	.45	2.20	.33	1.02	1.39	.68	.25	.11	.13
IN.	.31	.21	.77	.51	2.30	.38	1.14	1.60	.76	.29	.13	.14

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2001, BY WATER YEAR (WY)

MEAN	146	326	615	867	1033	1309	1141	644	529	350	161	115
MAX	1299	2612	2349	4897	3404	4070	4119	3866	2545	2708	1134	1453
(WY)	1955	1973	1978	1950	1959	1978	1957	1943	1981	1992	1998	1992
MIN	8.28	16.9	16.7	21.3	45.4	87.0	90.7	59.9	34.3	11.9	13.9	11.6
(WY)	1964	1965	1964	1977	1964	1941	1946	1931	1988	1936	1932	1944

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1931 - 2001	
ANNUAL TOTAL	147374		175177			
ANNUAL MEAN	403		480		611	
HIGHEST ANNUAL MEAN					1093	1950
LOWEST ANNUAL MEAN					174	1966
HIGHEST DAILY MEAN	5450	Jun 15	5020	Feb 10	13000	May 19 1943
LOWEST DAILY MEAN	25	Jan 26	33	Aug 14	3.4	Oct 19 1934
ANNUAL SEVEN-DAY MINIMUM	25	Jan 25	39	Aug 9	4.9	Oct 15 1934
MAXIMUM PEAK FLOW			5210	Feb 10	13600	Feb 11 1959
MAXIMUM PEAK STAGE			11.79	Feb 10	19.66	Mar 14 1982
ANNUAL RUNOFF (CFSM)	.53		.63		.80	
ANNUAL RUNOFF (INCHES)	7.19		8.55		10.90	
10 PERCENT EXCEEDS	1160		1600		1730	
50 PERCENT EXCEEDS	143		131		144	
90 PERCENT EXCEEDS	38		52		25	

e Estimated

04182810 SPY RUN CREEK AT FORT WAYNE, IN

LOCATION.--Lat 41°06'18", long 85°09'12", in SW1/4SW1/4 sec.26, T.31 N., R.12 E., Allen County, Hydrologic Unit 04100004, on right bank 50 ft upstream from Sherman Boulevard bridge in Fort Wayne, and at mile 2.2.

DRAINAGE AREA.--14.0 mi^2.

PERIOD OF RECORD.--October 1983 to current year.

GAGE.--Water-stage recorder. Datum of gage is 760.00 ft above sea level, (levels by City of Fort Wayne).

REMARKS.--Records good.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 14, 1982 reached a stage of 10.75 ft, present site and datum.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.9	2.0	3.0	e1.7	30	8.1	6.0	3.6	18	2.7	2.3	3.4
2	2.0	1.9	2.4	e1.7	18	7.4	3.7	3.7	65	2.3	2.4	2.6
3	2.6	2.0	1.8	e1.8	8.6	6.4	3.0	3.6	17	6.4	2.7	2.2
4	4.8	1.7	1.9	e1.8	7.0	5.5	2.6	3.3	7.3	20	2.7	2.3
5	26	1.8	2.1	e1.9	7.1	5.0	2.6	3.1	107	5.9	2.2	2.4
6	16	1.9	2.0	e1.9	8.9	4.4	384	2.6	91	2.7	2.4	2.5
7	4.2	7.4	2.0	e2.0	8.9	4.2	63	3.1	32	32	3.3	28
8	2.3	2.7	2.0	e2.0	26	3.9	25	4.7	12	8.0	3.4	32
9	2.0	35	1.9	e2.1	247	3.8	15	3.5	6.5	3.8	3.7	71
10	2.0	38	1.7	e2.3	98	3.3	14	3.3	4.5	4.1	3.7	43
11	1.9	7.0	53	e2.5	24	4.7	97	3.2	3.8	2.2	3.3	10
12	1.7	3.1	51	e3.0	13	4.4	51	3.2	13	2.0	2.9	5.4
13	1.5	19	12	e4.0	10	8.0	18	2.9	4.5	1.8	3.2	4.4
14	1.6	9.2	7.2	5.6	49	5.2	11	2.7	3.4	1.6	3.4	6.6
15	3.4	4.6	6.9	26	43	4.2	29	9.9	19	1.3	3.4	3.0
16	3.2	3.8	75	24	18	9.8	21	11	13	2.2	5.4	2.3
17	5.3	3.7	52	15	10	21	13	7.6	3.5	6.3	3.3	2.2
18	3.9	3.4	20	12	6.9	16	9.2	54	2.7	6.8	37	12
19	3.1	3.0	12	10	6.3	14	7.4	41	76	3.5	37	172
20	3.5	3.3	8.2	6.2	6.4	9.5	17	7.4	68	2.6	16	33
21	4.0	3.1	6.7	3.9	5.5	7.1	18	6.2	35	55	6.7	11
22	3.7	2.7	5.3	3.8	5.2	5.7	26	4.6	25	21	171	7.6
23	4.1	2.5	3.8	4.3	5.3	5.4	15	3.2	32	41	314	6.1
24	6.1	2.5	3.4	4.3	17	4.0	14	28	14	33	31	5.5
25	4.6	3.0	2.7	3.2	179	3.4	7.3	16	5.4	8.6	13	4.1
26	2.5	24	2.3	2.6	33	3.5	7.0	32	3.8	5.9	10	3.4
27	2.1	14	e2.1	2.7	16	3.4	5.4	42	13	3.1	6.9	2.9
28	1.9	6.1	e1.9	2.3	11	3.2	4.3	10	8.8	2.3	4.7	2.6
29	1.5	3.9	e1.8	7.9	---	3.1	3.7	5.4	3.7	2.0	3.7	2.3
30	1.6	3.3	e1.8	148	---	3.0	3.6	3.8	2.6	2.3	5.8	1.9
31	1.9	---	e1.8	67	---	2.9	---	3.1	---	2.3	7.4	---
TOTAL	126.9	219.6	351.7	377.5	918.1	193.5	896.8	331.7	710.5	294.7	717.9	487.7
MEAN	4.09	7.32	11.3	12.2	32.8	6.24	29.9	10.7	23.7	9.51	23.2	16.3
MAX	26	38	75	148	247	21	384	54	107	55	314	172
MIN	1.5	1.7	1.7	1.7	5.2	2.9	2.6	2.6	2.6	1.3	2.2	1.9
CFSM	.29	.52	.81	.87	2.34	.45	2.14	.76	1.69	.68	1.65	1.16
IN.	.34	.58	.93	1.00	2.44	.51	2.38	.88	1.89	.78	1.91	1.30

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2001, BY WATER YEAR (WY)

MEAN	11.3	18.6	18.6	18.7	24.2	24.6	25.3	18.1	17.3	16.9	10.6	12.1
MAX	43.7	61.3	66.2	48.9	64.6	46.6	58.8	46.9	53.3	48.3	23.3	39.8
(WY)	1992	1993	1991	1993	1990	1984	1999	1997	2000	1986	1998	1993
MIN	2.79	3.37	3.03	3.76	5.32	6.24	8.20	4.15	2.16	3.85	4.10	3.94
(WY)	1988	2000	1990	1984	1989	2001	2000	1988	1988	1991	1984	1988

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1984 - 2001	
ANNUAL TOTAL	5313.4		5626.6			
ANNUAL MEAN	14.5		15.4		18.0	
HIGHEST ANNUAL MEAN					27.5	1997
LOWEST ANNUAL MEAN					11.5	1987
HIGHEST DAILY MEAN	485	Jun 25	384	Apr 6	748	Feb 22 1990
LOWEST DAILY MEAN	1.4	Jul 23	1.3	Jul 15	.93	Jul 9 1990
ANNUAL SEVEN-DAY MINIMUM	1.7	Jul 22	1.8	Dec 29	1.1	Jan 15 1994
MAXIMUM PEAK FLOW			829	Aug 23	1370	Feb 22 1990
MAXIMUM PEAK STAGE			8.99	Aug 23	10.74	Jul 22 1997
ANNUAL RUNOFF (CFSM)	1.04		1.10		1.28	
ANNUAL RUNOFF (INCHES)	14.12		14.95		17.44	
10 PERCENT EXCEEDS	37		33		34	
50 PERCENT EXCEEDS	4.1		4.5		5.6	
90 PERCENT EXCEEDS	1.9		2.0		2.5	

e Estimated

04182900 MAUMEE RIVER AT FORT WAYNE, IN

LOCATION.--Lat 41°04'55", long 85°06'53", in SE$^1/_4$NE$^1/_4$ sec. 1, T.30 N., R.12 E., Allen County, Hydrologic Unit 04100005, on left bank at downstream side of Hosey Dam, 250 ft upstream of Anthony Boulevard, 1.2 mi below confluence of St. Joseph and St. Mary's Rivers and 1.5 mi upstream of Highway 930.

DRAINAGE AREA.--1,926 mi^2.

PERIOD OF RECORD.--October 1997 to current year.

GAGE.--Water-stage recorder. Datum of gage 730.07 ft above sea level. Prior to December 12, 1962, nonrecording gage on downstream side of bridge at same datum. Dec. 12, 1962 to Aug. 13, 1997 water-stage recorder at site 310 ft downstream at same datum.

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height, 20.98 ft, Jan. 25, 1999; minimum gage height, 0.75 ft, Sept. 29, 1999.

EXTREMES FOR CURRENT YEAR.--Maximum gage height, 17.46 ft, Feb. 10; minimum gage height, 0.99 ft, Aug. 14.

GAGE HEIGHT, FEET, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.57	1.50	1.77	---	10.42	7.28	1.92	2.40	6.95	2.04	1.54	1.64
2	1.50	1.48	1.71	---	8.29	7.06	1.96	2.08	7.46	1.63	1.52	1.46
3	1.51	1.45	1.70	---	6.81	6.15	2.01	1.99	6.01	1.89	1.50	1.65
4	1.46	1.47	1.65	---	6.58	4.64	2.23	1.81	4.73	2.32	1.46	1.45
5	3.47	1.44	1.62	1.41	5.87	4.02	1.84	1.80	7.58	1.85	1.45	1.07
6	7.14	1.44	1.51	1.69	4.65	3.52	8.94	1.90	11.49	1.56	---	1.24
7	5.25	1.50	1.48	1.68	3.37	3.15	9.36	1.71	10.06	2.13	---	1.45
8	3.56	1.46	1.51	1.66	4.58	2.99	5.60	1.61	7.42	1.91	---	1.29
9	2.63	1.88	1.61	1.63	15.87	2.72	6.81	1.64	6.29	1.82	1.21	2.19
10	2.28	3.85	1.56	1.58	17.29	2.58	4.91	1.68	5.13	1.67	1.40	1.68
11	2.10	3.39	2.37	1.62	16.33	2.52	7.81	1.68	4.82	1.62	1.25	1.41
12	1.73	2.91	5.99	1.62	13.63	2.40	9.55	1.76	3.20	1.36	1.05	1.45
13	1.66	2.93	4.08	1.59	13.14	2.29	7.22	1.64	3.54	1.43	1.02	1.44
14	1.68	3.27	3.17	1.61	14.65	2.42	5.96	1.64	3.10	1.38	1.16	1.47
15	1.63	3.11	2.94	1.82	15.48	2.29	6.79	1.58	3.55	1.34	1.09	1.45
16	1.57	2.47	6.38	2.66	13.51	2.91	7.48	3.13	2.81	1.33	1.12	1.40
17	1.56	2.34	10.05	3.40	9.88	2.81	6.61	5.84	2.60	1.41	1.16	1.37
18	1.54	2.09	7.77	3.44	8.93	2.63	5.63	8.89	2.36	1.26	1.61	1.40
19	1.54	1.81	5.84	3.61	8.18	4.30	5.20	10.15	4.62	1.32	1.51	3.88
20	1.54	1.73	4.50	3.30	6.63	4.13	5.31	8.70	2.70	1.17	1.35	2.26
21	1.52	1.72	4.55	2.82	5.84	3.70	5.45	8.31	2.64	3.89	1.42	1.69
22	1.47	1.63	3.69	2.67	4.28	3.24	6.38	7.73	3.25	1.63	4.67	1.69
23	1.46	1.59	3.32	2.35	3.85	2.99	5.77	7.09	3.74	7.18	5.15	1.84
24	1.53	1.57	3.08	2.10	4.06	2.82	5.52	5.66	3.33	2.97	2.87	1.64
25	1.51	1.57	2.75	1.99	11.51	2.53	4.83	8.44	2.68	4.36	2.17	1.57
26	1.48	1.73	2.39	1.87	10.88	2.30	4.31	7.69	3.21	3.63	2.41	1.44
27	1.49	1.73	---	1.83	8.64	2.35	3.80	9.69	3.17	2.80	1.83	1.44
28	1.47	1.77	---	1.79	8.03	2.20	2.92	8.43	2.40	1.97	1.66	1.47
29	1.54	1.63	---	1.96	---	2.09	2.73	7.43	1.97	1.78	1.86	1.44
30	1.49	1.73	---	8.35	---	2.03	2.46	7.82	1.92	1.88	1.77	1.40
31	1.50	---	---	11.53	---	2.00	---	7.54	---	1.73	1.71	---
TOTAL	63.38	60.19	---	---	261.18	101.06	157.31	149.46	134.73	66.26	---	48.27
MEAN	2.04	2.01	---	---	9.33	3.26	5.24	4.82	4.49	2.14	---	1.61
MAX	7.14	3.85	---	---	17.29	7.28	9.55	10.15	11.49	7.18	---	3.88
MIN	1.46	1.44	---	---	3.37	2.00	1.84	1.58	1.92	1.17	---	1.07

04183000 MAUMEE RIVER AT NEW HAVEN, IN

LOCATION.--Lat 41°05'06", long 85°01'20", in SE$^1/_4$NE$^1/_4$ sec.2, T.30 N., R.13 E., Allen County, Hydrologic Unit 04100005, on left bank 600 ft upstream from bridge on Landin Road, 1,400 ft upstream from the Norfolk and Western Railroad bridge, 1.1 mi northwest of New Haven, 2.8 mi upstream from Sixmile Creek and at mile 129.0.

DRAINAGE AREA.--1,967 mi^2.

PERIOD OF RECORD.--December 1946 to September 1956 (high-water records only), October 1956 to current year.

REVISED RECORDS.--WSP 2112: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 724.51 ft above sea level. Prior to Sept. 7, 1956, nonrecording gage, Sept. 7, 1956 to Sept. 14, 1965, water-stage recorder at site 500 ft downstream at same datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Flow regulated by hydro-powerplant on the St. Joseph River 10.3 mi upstream from station. Flow slightly regulated by upstream reservoirs.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	392	300	606	e520	7030	4030	780	1090	3650	482	514	274
2	344	274	577	e480	5390	3690	745	934	3670	453	337	237
3	335	271	543	e450	3680	3340	732	877	3580	368	286	159
4	339	263	476	e430	3200	2830	791	764	2530	469	295	223
5	748	260	453	e410	3080	1940	922	661	2580	573	233	146
6	3120	243	400	e400	2490	1830	3810	765	6140	334	262	150
7	3110	276	351	e405	1840	1520	5690	666	7250	475	161	181
8	2120	272	345	e410	1740	1470	4560	342	4740	508	132	345
9	1460	349	378	e400	6550	1370	2910	457	3220	568	126	342
10	1100	1220	401	e375	12900	1210	2980	522	2430	385	184	877
11	898	2070	591	e380	13000	1180	3130	476	2130	317	230	527
12	723	1440	1970	e380	11000	1150	5360	530	1700	240	156	328
13	491	1390	2630	e370	8850	1070	4900	539	1130	282	113	312
14	454	1420	1660	e390	9310	1080	3030	488	1340	211	115	316
15	466	1510	1380	e450	11000	1070	3130	467	963	191	142	315
16	418	1300	1830	e520	10500	1150	3710	797	1190	181	132	276
17	378	1040	4820	e700	7700	1350	3660	2000	1010	178	133	e200
18	356	940	5230	e1000	5550	1200	2920	3400	651	397	171	e400
19	348	725	3410	e1200	4580	1620	2480	6070	831	180	417	e800
20	343	575	e2300	e1300	4030	2030	2450	5350	1260	255	286	e1500
21	331	520	e1900	e1000	3040	1880	2530	4670	741	431	194	769
22	308	460	e1600	e800	2420	1680	3080	4060	1140	818	719	495
23	315	433	e1400	e700	1840	1470	2910	4090	1460	1010	3740	492
24	320	398	e1200	e640	1810	1380	2680	2810	1290	2040	1640	e450
25	319	388	e1100	e580	4780	1270	2360	3810	1280	1440	925	e400
26	293	474	e900	e560	7590	1080	2010	4340	969	1710	1000	e390
27	286	550	e800	e520	5560	1030	1820	4650	988	1230	691	e330
28	283	574	e720	e500	4610	1000	1410	5130	935	811	414	e280
29	313	581	e660	e490	---	875	1290	4010	619	532	281	e250
30	331	580	e600	e2000	---	810	1160	3890	484	613	395	e210
31	319	---	e560	6550	---	782	---	4040	---	460	380	---
TOTAL	21361	21096	41791	25310	165070	49387	79940	72695	61901	18142	14804	11974
MEAN	689	703	1348	816	5895	1593	2665	2345	2063	585	478	399
MAX	3120	2070	5230	6550	13000	4030	5690	6070	7250	2040	3740	1500
MIN	283	243	345	370	1740	782	732	342	484	178	113	146
CFSM	.35	.36	.69	.42	3.00	.81	1.35	1.19	1.05	.30	.24	.20
IN.	.40	.40	.79	.48	3.12	.93	1.51	1.37	1.17	.34	.28	.23

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1957 - 2001, BY WATER YEAR (WY)

MEAN	539	1230	2044	1975	2718	3695	3419	1902	1656	1013	577	526
MAX	3087	6523	6292	7203	7649	11460	7955	6914	6480	3988	2461	2737
(WY)	1987	1993	1968	1993	1976	1982	1957	1996	1981	1992	1998	1992
MIN	62.3	102	96.4	119	161	1181	789	382	122	197	99.1	91.2
(WY)	1964	1965	1964	1963	1964	1981	1971	1988	1988	1964	1962	1963

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1957 - 2001	
ANNUAL TOTAL	521788		583471			
ANNUAL MEAN	1426		1599		1768	
HIGHEST ANNUAL MEAN					2975	1993
LOWEST ANNUAL MEAN					669	1963
HIGHEST DAILY MEAN	9690	Jun 25	13000	Feb 11	26300	Mar 17 1982
LOWEST DAILY MEAN	117	Aug 15	113	Aug 13	48	Oct 6 1963
ANNUAL SEVEN-DAY MINIMUM	142	Jan 27	137	Aug 12	55	Oct 4 1963
MAXIMUM PEAK FLOW			13300	Feb 10	26600	Mar 17 1982
MAXIMUM PEAK STAGE			17.80	Feb 10	25.49	Mar 17 1982
ANNUAL RUNOFF (CFSM)	.72		.81		.90	
ANNUAL RUNOFF (INCHES)	9.87		11.03		12.21	
10 PERCENT EXCEEDS	3420		4030		4760	
50 PERCENT EXCEEDS	747		782		775	
90 PERCENT EXCEEDS	236		273		156	

e Estimated

05515000 KANKAKEE RIVER NEAR NORTH LIBERTY, IN

LOCATION.--Lat 41°33'50", long 86°29'50", in NW$^1/_4$NE$^1/_4$ sec.23, T.36 N., R.1 W., St. Joseph County, Hydrologic Unit 07120001, on left bank at upstream side of bridge on county highway named "New Road", 2.7 mi upstream from Little Kankakee River, 4 mi northwest of North Liberty, and at mile 126.9.

DRAINAGE AREA.--174 mi^2, of which 58.2 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--January 1951 to current year.

REVISED RECORDS.--WSP 1915: 1952, 1956-59. WSP 2115: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 680.04 ft above sea level (levels by State of Indiana, Department of Natural Resources). Prior to June 26, 1956, nonrecording gage on downstream side of bridge; June 26, 1956 to Sept. 3, 1996, water-stage recorder on left bank at downstream side of bridge, all at same datum

REMARKS.--Records good except for estimated daily discharges and those above 300 ft^3/s (backwater), which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	97	93	146	e100	176	295	143	139	171	129	85	70
2	98	92	140	e98	173	262	139	135	200	125	86	70
3	103	91	133	e100	163	241	137	132	206	127	89	68
4	129	91	128	e103	154	226	134	130	189	137	83	63
5	143	91	124	e106	148	214	134	128	194	146	82	62
6	145	91	120	e104	145	206	197	127	242	132	75	55
7	145	92	118	e103	138	199	221	130	230	155	69	57
8	150	91	113	e102	142	194	199	132	209	155	69	66
9	155	95	110	e101	423	188	185	127	186	140	64	82
10	154	109	110	e100	684	184	174	126	175	134	67	93
11	149	111	112	e102	606	182	169	129	303	126	67	86
12	143	109	107	e103	502	180	168	127	317	121	62	82
13	140	114	e105	e105	395	182	158	123	267	117	58	79
14	137	121	e104	e107	342	176	152	127	229	110	55	77
15	133	116	e103	129	330	171	159	132	216	106	60	76
16	130	114	e107	145	294	168	173	140	218	108	67	76
17	117	110	e105	144	257	168	168	144	197	107	78	75
18	113	107	e101	141	230	165	163	135	184	110	76	88
19	104	105	e106	137	216	164	158	129	175	110	79	102
20	100	105	e103	132	205	163	157	127	168	106	79	112
21	99	103	e102	128	194	159	177	136	166	97	76	109
22	98	100	e101	124	187	155	195	154	168	104	75	104
23	96	99	e100	122	181	152	189	147	168	104	76	99
24	100	99	e103	120	186	151	176	144	155	115	73	94
25	100	99	e102	116	489	150	164	144	150	116	66	92
26	100	117	e100	116	538	149	157	147	147	118	87	90
27	100	146	e100	115	459	145	151	165	143	111	101	88
28	97	144	e99	112	359	144	144	168	141	99	81	87
29	96	140	e99	113	---	142	140	158	135	99	76	85
30	96	145	e98	142	---	142	139	149	132	94	73	83
31	94	---	e102	172	---	141	---	145	---	91	72	---
TOTAL	3661	3240	3401	3642	8316	5558	4920	4276	5781	3649	2306	2470
MEAN	118	108	110	117	297	179	164	138	193	118	74.4	82.3
MAX	155	146	146	172	684	295	221	168	317	155	101	112
MIN	94	91	98	98	138	141	134	123	132	91	55	55
CFSM	.68	.62	.63	.68	1.71	1.03	.94	.79	1.11	.68	.43	.47
IN.	.78	.69	.73	.78	1.78	1.19	1.05	.91	1.24	.78	.49	.53

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1951 - 2001, BY WATER YEAR (WY)

MEAN	135	155	167	168	180	221	212	179	159	128	107	105
MAX	333	303	341	367	298	471	310	335	410	390	273	222
(WY)	1994	1991	1991	1991	1991	1982	1985	1996	1996	1996	1995	1993
MIN	70.1	67.3	77.5	78.0	76.3	112	112	98.4	84.0	64.2	63.1	64.4
(WY)	1954	1965	1961	1961	1963	1957	1987	1958	1971	1971	1964	1953

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1951 - 2001	
ANNUAL TOTAL	45622		51220			
ANNUAL MEAN	125		140		159	
HIGHEST ANNUAL MEAN					245	1991
LOWEST ANNUAL MEAN					95.4	1964
HIGHEST DAILY MEAN	382	Jun 14	684	Feb 10	903	Mar 17 1982
LOWEST DAILY MEAN	74	Sep 2	55	Aug 14	44	Aug 4 1988
ANNUAL SEVEN-DAY MINIMUM	77	Sep 1	62	Aug 9	51	Sep 7 1964
MAXIMUM PEAK FLOW			705	Feb 10	908	Mar 17 1982
MAXIMUM PEAK STAGE			7.12	Feb 10	9.04	Jun 27 1968
ANNUAL RUNOFF (CFSM)	.72		.81		.92	
ANNUAL RUNOFF (INCHES)	9.75		10.95		12.44	
10 PERCENT EXCEEDS	172		198		259	
50 PERCENT EXCEEDS	112		127		138	
90 PERCENT EXCEEDS	91		80		83	

e Estimated

05515500 KANKAKEE RIVER AT DAVIS, IN

LOCATION.--Lat 41°24'00", long 86°42'04", in SE$^1/_4$NE$^1/_4$ sec.13, T.34 N., R.3 W., Starke County, Hydrologic Unit 07120001, on left bank at downstream side of bridge on U.S. Highway 30 at Davis, 0.5 mi downstream from Mill Creek, 4 mi east of Hanna, and at mile 110.9.

DRAINAGE AREA.--537 mi^2, of which 137 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--July 1905 to July 1906 and October 1924 to current year. Monthly discharge only for some periods, published in WSP 1308.

REVISED RECORDS.--WSP 1338: 1953. WSP 2115: Drainage area.

GAGE.--Water-stage recorder and Acoustic Doppler Velocity meter. Datum of gage is 664.68 ft above sea level. July 13, 1905, to July 21, 1906, nonrecording gage at site 50 ft downstream at different datum. July 28, 1925, to May 18, 1929, nonrecording gage on bridge 0.5 mi downstream at different datum. Apr. 19, 1931, to Nov. 3, 1953, nonrecording gage at present site and datum.

REMARKS.--Records good except those for Dec. 13 to Jan. 29 and estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	288	324	440	387	623	1140	557	515	594	410	312	289
2	288	312	420	363	598	1030	563	511	687	394	314	274
3	290	312	402	333	558	948	543	501	730	394	329	250
4	349	302	384	369	536	875	536	481	682	417	319	253
5	394	291	374	367	513	831	525	474	682	424	302	249
6	384	292	358	362	495	783	584	463	861	406	282	239
7	374	315	365	357	483	768	745	470	865	541	275	252
8	375	315	348	358	494	760	727	469	787	782	265	268
9	407	322	341	350	1000	748	683	465	706	645	254	293
10	418	383	337	346	1670	739	646	457	650	554	272	315
11	408	393	351	369	1630	722	616	460	730	508	268	308
12	389	382	345	359	1480	728	591	450	907	458	258	297
13	377	387	e320	357	1310	718	581	435	864	427	241	278
14	366	399	300	363	1170	693	559	441	762	395	234	260
15	357	390	411	407	1140	670	559	480	708	381	235	267
16	357	373	404	468	1080	654	604	471	728	370	267	270
17	351	364	380	478	997	639	601	491	680	366	306	265
18	332	345	e370	465	911	654	590	482	622	384	296	288
19	324	331	360	458	851	650	592	481	587	371	311	333
20	315	333	318	441	798	643	593	457	562	355	310	341
21	316	328	270	420	749	635	609	451	548	338	307	352
22	312	318	226	409	711	619	698	504	563	350	291	332
23	312	324	276	405	670	601	695	497	548	366	288	321
24	323	328	339	395	681	582	665	473	530	508	288	304
25	339	330	344	389	1220	571	627	471	507	504	285	304
26	339	349	347	379	1480	557	593	508	493	494	399	295
27	341	400	364	383	1420	544	571	587	473	451	440	291
28	334	415	373	362	1280	537	541	625	452	405	374	294
29	319	400	376	390	---	547	522	584	439	374	337	290
30	306	423	404	457	---	552	514	537	424	360	309	283
31	312	---	415	593	---	549	---	510	---	331	292	---
TOTAL	10696	10480	11062	12339	26548	21687	18030	15201	19371	13463	9260	8655
MEAN	345	349	357	398	948	700	601	490	646	434	299	288
MAX	418	423	440	593	1670	1140	745	625	907	782	440	352
MIN	288	291	226	333	483	537	514	435	424	331	234	239
CFSM	.64	.65	.66	.74	1.77	1.30	1.12	.91	1.20	.81	.56	.54
IN.	.74	.73	.77	.85	1.84	1.50	1.25	1.05	1.34	.93	.64	.60

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1926 - 2001, BY WATER YEAR (WY)

MEAN	408	476	518	547	586	718	739	626	534	428	362	347
MAX	1162	988	1191	1275	990	1376	1218	1067	1076	983	804	718
(WY)	1955	1991	1928	1993	1991	1985	1982	1983	1996	1996	1996	1972
MIN	198	230	236	235	236	325	420	296	248	205	174	179
(WY)	1964	1965	1964	1963	1964	1934	1987	1934	1934	1934	1941	1941

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1926 - 2001	
ANNUAL TOTAL	158730		176792			
ANNUAL MEAN	434		484		524	
HIGHEST ANNUAL MEAN					823	1991
LOWEST ANNUAL MEAN					293	1964
HIGHEST DAILY MEAN	1420	Jun 22	1670	Feb 10	1920	Mar 20 1982
LOWEST DAILY MEAN	226	Dec 22	226	Dec 22	154	Aug 30 1941
ANNUAL SEVEN-DAY MINIMUM	250	Sep 2	252	Aug 9	156	Aug 28 1941
MAXIMUM PEAK FLOW			1760	Feb 10	1920	Mar 20 1982
MAXIMUM PEAK STAGE			12.26	Feb 10	13.79	Jul 19 1996
ANNUAL RUNOFF (CFSM)	.81		.90		.97	
ANNUAL RUNOFF (INCHES)	11.00		12.25		13.25	
10 PERCENT EXCEEDS	657		730		890	
50 PERCENT EXCEEDS	386		407		451	
90 PERCENT EXCEEDS	298		291		279	

e Estimated

05516500 YELLOW RIVER AT PLYMOUTH, IN

LOCATION.--Lat 41°20'25", long 86°18'16", in SE$^1/_4$NW$^1/_4$ sec.13, T.33 N., R.2 E., Marshall County, Hydrologic Unit 07120001, on left bank 50 ft upstream from LaPorte Street footbridge in Plymouth, 1.1 mi downstream from Elmer Seltenright (formerly Baker) Ditch, 8.1 mi upstream from Wolf Creek, and at mile 40.3.

DRAINAGE AREA.--294 mi^2, of which 22 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--July 1948 to current year.

REVISED RECORDS.--WSP 1338: 1950-51. WSP 2115: Drainage area. WDR IN-73-1: l972(M).

GAGE.--Water-stage recorder. Datum of gage is 764.78 ft above sea level (levels by State of Indiana, Department of Natural Resources). Prior to Aug. 27, 1959, nonrecording gage at same site and datum.

REMARKS.--Records fair.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	54	65	212	e81	794	1430	183	161	158	126	157	70
2	53	66	200	e80	596	902	178	160	172	117	143	66
3	55	65	159	e79	421	562	167	148	203	114	135	65
4	114	64	138	e80	324	457	156	139	174	127	125	63
5	154	61	128	e82	277	397	153	134	188	165	114	61
6	128	58	102	e83	255	349	387	129	403	132	106	59
7	107	71	e100	e84	236	320	899	131	402	405	94	63
8	97	65	e94	e86	269	316	853	140	303	491	88	69
9	94	78	e88	e88	1170	298	450	131	242	286	119	137
10	89	164	e80	e90	2200	277	343	122	207	188	113	187
11	81	189	e72	e91	2990	276	321	123	461	153	94	146
12	74	132	e67	e93	3070	269	313	120	819	133	85	101
13	70	132	e74	e95	2570	277	268	111	599	120	80	85
14	68	207	e78	e98	1960	257	231	112	356	111	77	78
15	66	172	e80	164	1600	239	225	123	285	103	74	72
16	65	137	e83	318	1400	238	297	161	474	99	103	85
17	65	121	e82	290	1080	242	271	281	426	99	111	92
18	65	105	e78	262	692	284	238	189	293	144	99	92
19	65	96	e79	235	498	300	218	156	239	119	118	108
20	66	91	e80	193	435	289	207	135	207	101	113	118
21	67	e80	e80	e150	376	267	228	137	213	223	93	105
22	66	e73	e81	e130	333	246	320	163	241	503	93	90
23	63	e72	e82	e120	305	228	296	146	221	251	205	81
24	71	e73	e84	e110	362	215	335	136	193	741	226	76
25	81	76	e83	e100	1270	199	288	134	173	1120	154	74
26	78	100	e82	e92	1960	189	237	148	160	1130	126	71
27	76	205	e81	e86	2260	181	212	284	149	950	109	67
28	73	194	e80	e83	1980	174	189	303	142	424	95	66
29	68	161	e80	e103	---	173	171	224	135	282	81	64
30	65	168	e83	336	---	170	163	181	130	221	75	61
31	65	---	e82	789	---	165	---	159	---	183	74	---
TOTAL	2403	3341	2972	4771	31683	10186	8797	4921	8368	9361	3479	2572
MEAN	77.5	111	95.9	154	1132	329	293	159	279	302	112	85.7
MAX	154	207	212	789	3070	1430	899	303	819	1130	226	187
MIN	53	58	67	79	236	165	153	111	130	99	74	59
CFSM	.26	.38	.33	.52	3.85	1.12	1.00	.54	.95	1.03	.38	.29
IN.	.30	.42	.38	.60	4.01	1.29	1.11	.62	1.06	1.18	.44	.33

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2001, BY WATER YEAR (WY)

MEAN	145	189	267	310	383	523	497	294	261	175	109	92.2
MAX	1583	689	733	1244	1132	1586	1190	1098	850	711	494	536
(WY)	1955	1993	1983	1993	2001	1982	1950	1996	1996	1996	1958	1972
MIN	23.7	20.9	30.4	26.5	35.7	79.5	99.8	65.4	51.2	39.4	31.2	22.4
(WY)	1965	1965	1954	1963	1963	1957	1971	1958	1988	1988	1949	1949

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1949 - 2001	
ANNUAL TOTAL	61665		92854			
ANNUAL MEAN	168		254		270	
HIGHEST ANNUAL MEAN					453	1993
LOWEST ANNUAL MEAN					119	1957
HIGHEST DAILY MEAN	1650	Apr 22	3070	Feb 12	5310	Oct 13 1954
LOWEST DAILY MEAN	31	Feb 1	53	Oct 2	13	Dec 3 1964
ANNUAL SEVEN-DAY MINIMUM	32	Jan 29	63	Oct 31	15	Dec 2 1964
MAXIMUM PEAK FLOW			3170	Feb 12	5390	Oct 12 1954
MAXIMUM PEAK STAGE			14.28	Feb 12	17.13	Oct 12 1954
ANNUAL RUNOFF (CFSM)	.57		.87		.92	
ANNUAL RUNOFF (INCHES)	7.80		11.75		12.47	
10 PERCENT EXCEEDS	300		430		674	
50 PERCENT EXCEEDS	96		137		131	
90 PERCENT EXCEEDS	47		70		39	

e Estimated

05517000 YELLOW RIVER AT KNOX, IN

LOCATION.--Lat 41°18'10", long 86°37'14", in SW$^1/_4$SW$^1/_4$ sec.14, T.33 N., R.2 W., Starke County, Hydrologic Unit 07120001, on right bank 40 ft upstream from bridge on U.S. Highway 35 in Knox, 1.4 mi downstream from Eagle Creek, and at mile 11.6.

DRAINAGE AREA.--435 mi^2, of which 51 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--August 1905 to July 1906, August 1943 to current year.

REVISED RECORDS.--WSP 1278: 1952. WSP 2115: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 679.93 ft above sea level (levels by State of Indiana, Department of Natural Resources). August 1905 to July 1906, nonrecording gage at same site at different datum. August 1943 to July 17, 1952, nonrecording gage at same site and datum.

REMARKS.--Records good except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	76	110	277	e155	831	2270	328	332	311	195	287	129
2	74	108	319	e154	868	1760	337	326	312	184	261	121
3	72	108	300	e154	730	1230	330	319	332	181	246	123
4	114	106	258	e155	580	864	315	301	353	188	225	119
5	198	105	235	e156	483	731	304	284	338	197	207	115
6	232	104	e210	e158	432	653	481	272	407	228	184	115
7	200	108	e190	e160	401	595	733	271	588	306	167	117
8	179	114	e170	e163	382	561	951	271	561	832	152	126
9	168	125	e160	e165	694	547	942	271	466	759	164	150
10	164	163	e150	e167	1410	517	672	267	402	496	218	246
11	156	249	e140	e169	2130	495	603	257	383	357	194	268
12	146	248	e136	e170	2940	486	584	255	651	286	168	219
13	136	209	e102	e177	3240	480	539	255	830	241	150	170
14	126	216	e134	e190	2950	477	480	255	686	213	136	150
15	119	277	e140	215	2380	452	453	256	494	188	128	139
16	117	240	e145	302	1880	438	448	255	462	177	153	131
17	e120	203	e150	442	1590	440	498	312	607	167	189	141
18	e126	181	e145	420	1310	444	463	415	525	168	181	151
19	113	163	e149	396	942	483	430	339	412	203	192	170
20	109	151	e150	361	758	489	408	294	354	175	201	182
21	108	143	e151	e320	672	467	407	278	331	159	186	189
22	108	e136	e152	e290	599	440	455	289	354	351	165	174
23	107	e133	e153	e260	544	417	534	300	354	517	173	157
24	112	e128	e160	e240	535	396	515	282	322	388	307	142
25	119	125	e156	e220	943	379	534	267	288	771	300	136
26	128	145	e154	e210	1510	362	477	267	265	966	248	133
27	125	189	e153	e200	1970	351	426	329	247	1040	207	127
28	119	306	e152	e194	2390	339	394	466	230	970	184	123
29	115	298	e150	e190	---	331	364	453	217	579	167	122
30	112	267	e154	e210	---	326	343	373	208	422	154	115
31	110	---	e155	548	---	321	---	325	---	341	141	---
TOTAL	4008	5158	5350	7311	36094	18541	14748	9436	12290	12245	6035	4500
MEAN	129	172	173	236	1289	598	492	304	410	395	195	150
MAX	232	306	319	548	3240	2270	951	466	830	1040	307	268
MIN	72	104	102	154	382	321	304	255	208	159	128	115
CFSM	.30	.40	.40	.54	2.96	1.37	1.13	.70	.94	.91	.45	.34
IN.	.34	.44	.46	.63	3.09	1.59	1.26	.81	1.05	1.05	.52	.38

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1944 - 2001, BY WATER YEAR (WY)

MEAN	251	298	387	449	528	717	718	500	422	289	207	178
MAX	1939	883	1070	1580	1289	2127	1714	1154	1113	955	652	692
(WY)	1955	1973	1967	1993	2001	1982	1950	1996	1975	1996	1958	1972
MIN	77.5	83.3	91.6	71.3	107	194	243	169	146	115	93.6	75.9
(WY)	1965	1965	1964	1963	1963	1957	1958	1958	1988	1971	1964	1964

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1944 - 2001	
ANNUAL TOTAL	91476		135716			
ANNUAL MEAN	250		372		411	
HIGHEST ANNUAL MEAN					661	1950
LOWEST ANNUAL MEAN					180	1964
HIGHEST DAILY MEAN	1480	Jun 24	3240	Feb 13	5600	Oct 15 1954
LOWEST DAILY MEAN	61	Sep 6	72	Oct 3	47	Jan 2 1999
ANNUAL SEVEN-DAY MINIMUM	62	Sep 3	107	Nov 1	50	Jan 21 1963
MAXIMUM PEAK FLOW			3280	Feb 13	5660	Oct 15 1954
MAXIMUM PEAK STAGE			10.66	Feb 13	13.75	Oct 15 1954
ANNUAL RUNOFF (CFSM)	.57		.85		.95	
ANNUAL RUNOFF (INCHES)	7.82		11.61		12.85	
10 PERCENT EXCEEDS	470		672		883	
50 PERCENT EXCEEDS	166		255		267	
90 PERCENT EXCEEDS	89		124		113	

e Estimated

05517500 KANKAKEE RIVER AT DUNNS BRIDGE, IN

LOCATION.--Lat 41°13'10", long 86°58'07", in NE1/4SE1/4 sec.15, T.32 N., R.5 W., Porter County, Hydrologic Unit 07120001, on right bank at downstream side of county road 500E bridge at Dunns Bridge, 1.8 mi north of Tefft, 3.6 mi upstream from Davis Ditch, and at mile 90.8.

DRAINAGE AREA.--1,352 mi^2, of which 192 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--July 1948 to current year.

REVISED RECORDS.--WSP 1728: 1954(m). WSP 2115: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 649.65 ft above sea level (levels by State of Indiana, Department of Natural Resources). Prior to July 17, 1956, nonrecording gage, and July 17, 1956 to Oct. 31 1998, water-stage recorder at site 250 ft downstream at same datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	516	539	884	e700	1540	3630	1380	1210	1320	894	787	571
2	503	525	906	e690	1840	3720	1370	1200	1450	857	729	544
3	506	516	921	e690	1850	3680	1360	1180	1550	839	737	518
4	587	503	900	e710	1730	3490	1310	1140	1580	887	714	430
5	744	498	875	e720	1570	3210	1290	1110	1570	1050	674	409
6	784	498	791	e700	1450	2890	1390	1080	1750	1010	631	389
7	779	520	761	e690	1360	2650	1660	1070	1940	1100	588	406
8	770	525	773	e690	1320	2490	1930	1070	2000	1590	544	426
9	795	542	721	e680	1720	2380	2070	1060	1890	1920	534	470
10	810	621	724	e680	2690	2300	2010	1050	1720	1760	591	551
11	793	685	766	e690	3110	2220	1810	1030	1600	1440	607	596
12	761	721	735	e700	3360	2150	1720	1020	1720	1200	572	590
13	732	744	747	e710	3590	2090	1650	993	1990	1050	535	570
14	709	764	673	e720	3760	2020	1560	974	2040	941	510	537
15	687	792	e700	e750	3870	1970	1500	1060	1900	863	484	526
16	674	835	e710	e790	3900	1920	1480	1110	1740	817	518	528
17	657	840	e720	e840	3820	1860	1510	1140	1680	793	602	508
18	640	824	e680	e900	3660	1820	1520	1230	1680	814	621	508
19	604	785	e700	e930	3440	1810	1470	1220	1530	813	633	564
20	583	763	e710	e920	3190	1800	1460	1130	1400	788	667	614
21	574	731	e700	e900	2890	1760	1450	1080	1320	748	641	635
22	554	683	e680	e860	2610	1720	1520	1100	1320	745	606	614
23	549	666	e690	e820	2390	1670	1610	1130	1300	1000	600	587
24	550	665	e700	e800	2300	1620	1630	1130	1250	1070	623	574
25	569	736	e710	e780	2700	1560	1590	1090	1200	1190	715	560
26	579	721	e685	e770	3090	1520	1540	1090	1120	1470	741	558
27	578	747	e695	e770	3300	1500	1450	1230	1070	1600	791	546
28	570	802	e695	e765	3470	1470	1370	1380	1020	1630	766	533
29	556	862	e690	e820	---	1440	1300	1460	967	1470	683	523
30	545	868	e690	978	---	1410	1250	1380	933	1080	629	512
31	546	---	e700	1190	---	1380	---	1260	---	901	604	---
TOTAL	19804	20521	23032	24353	75520	67150	46160	35407	45550	34330	19677	15897
MEAN	639	684	743	786	2697	2166	1539	1142	1518	1107	635	530
MAX	810	868	921	1190	3900	3720	2070	1460	2040	1920	791	635
MIN	503	498	673	680	1320	1380	1250	974	933	745	484	389
CFSM	.47	.51	.55	.58	1.99	1.60	1.14	.84	1.12	.82	.47	.39
IN.	.54	.56	.63	.67	2.08	1.85	1.27	.97	1.25	.94	.54	.44

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2001, BY WATER YEAR (WY)

MEAN	926	1131	1355	1476	1597	2072	2197	1748	1468	1106	845	733
MAX	3378	2562	2816	3845	2874	4229	4376	3231	3360	2622	2316	1924
(WY)	1955	1973	1983	1991	1968	1985	1950	1983	1996	1996	1990	1993
MIN	350	398	447	449	391	719	1082	767	657	419	371	360
(WY)	1964	1965	1964	1963	1963	1957	1958	1958	1988	1988	1964	1964

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1949 - 2001	
ANNUAL TOTAL	357954		427401			
ANNUAL MEAN	978		1171		1386	
HIGHEST ANNUAL MEAN					2161	1991
LOWEST ANNUAL MEAN					618	1964
HIGHEST DAILY MEAN	3300	Jun 26	3900	Feb 16	5850	Mar 23 1982
LOWEST DAILY MEAN	363	Sep 3	389	Sep 6	280	Jan 25 1963
ANNUAL SEVEN-DAY MINIMUM	386	Sep 1	435	Sep 3	283	Jan 24 1963
MAXIMUM PEAK FLOW			3920	Feb 16	5870	Mar 23 1982
MAXIMUM PEAK STAGE			11.34	Feb 16	13.38	Mar 23 1982
ANNUAL RUNOFF (CFSM)	.72		.87		1.03	
ANNUAL RUNOFF (INCHES)	9.85		11.76		13.93	
10 PERCENT EXCEEDS	1690		2000		2640	
50 PERCENT EXCEEDS	792		868		1140	
90 PERCENT EXCEEDS	556		546		537	

e Estimated

05517530 KANKAKEE RIVER NEAR KOUTS, IN

LOCATION.--Lat 41°15'14", long 87°02'02", in SW$^1/_4$NE$^1/_4$ sec.6, T.32 N., R.5 W., Jasper County, Hydrologic Unit 07120001, on left bank, 20 ft downstream from bridge on State Highway 49, 0.7 mi upstream from Cook Ditch, 4.5 mi south of Kouts, and at mile 86.7.

DRAINAGE AREA.--1,376 mi^2, of which 194 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--October 1974 to current year.

REVISED RECORDS.--WDR IN-77-1: 1975(M).

GAGE.--Water-stage recorder. Datum of gage is 645.00 ft above sea level.

REMARKS.--Records fair except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	494	538	1120	e719	1500	3680	1460	1260	1390	968	860	592
2	485	539	899	e709	1810	3770	1440	1250	1530	953	783	618
3	489	528	930	e711	1840	3740	1420	1230	1620	938	786	579
4	553	509	930	e728	1770	3600	1380	1190	1680	982	750	494
5	695	487	898	e738	1610	3350	1350	1150	1670	1120	694	443
6	749	487	819	e723	1500	3050	1440	1110	1870	1100	654	435
7	755	522	786	e714	1420	2790	1670	1120	2070	1160	611	448
8	777	555	818	e714	1380	2610	1940	1150	2150	1580	567	453
9	792	581	747	e703	1840	2480	2100	1120	2020	1930	549	509
10	834	631	720	e703	2930	2390	2080	1110	1900	1830	600	597
11	810	687	761	e712	3230	2300	1900	1100	1740	1520	625	659
12	758	747	737	e723	3430	2230	1800	1090	1840	1260	607	675
13	736	782	772	e734	3620	2190	1730	1070	2080	1120	561	636
14	701	786	676	e746	3790	2090	1640	1050	2120	1000	577	599
15	671	811	e711	e776	3900	2040	1590	1130	1980	921	564	597
16	652	847	e728	e821	3940	1990	1540	1180	1820	862	579	572
17	651	834	e744	e868	3870	1940	1580	1220	1730	819	616	558
18	623	832	e696	e925	3740	1890	1580	1290	1760	838	644	574
19	591	787	e717	e954	3550	1870	1550	1260	1590	840	650	622
20	568	757	e732	e941	3310	1860	1530	1180	1460	813	693	693
21	576	737	e719	e923	3040	1840	1520	1140	1390	769	708	733
22	540	680	e700	e890	2750	1780	1580	1150	1380	763	676	693
23	533	679	e707	e847	2530	1730	1670	1180	1360	1010	654	639
24	552	691	e721	e821	2440	1690	1690	1180	1330	1110	673	628
25	578	724	e728	e799	2950	1640	1650	1150	1270	1200	768	616
26	580	726	e707	e790	3270	1610	1600	1130	1190	1460	829	624
27	557	754	e718	e787	3430	1580	1500	1260	1160	1620	853	621
28	553	775	e712	e783	3550	1560	1430	1420	1090	1640	837	623
29	554	828	e711	e845	---	1530	1370	1500	1040	1520	782	616
30	529	896	e710	984	---	1520	1310	1440	1030	1160	729	575
31	543	---	e719	1170	---	1460	---	1330	---	971	656	---
TOTAL	19479	20737	23793	25001	77940	69800	48040	37140	48260	35777	21135	17721
MEAN	628	691	768	806	2784	2252	1601	1198	1609	1154	682	591
MAX	834	896	1120	1170	3940	3770	2100	1500	2150	1930	860	733
MIN	485	487	676	703	1380	1460	1310	1050	1030	763	549	435
CFSM	.46	.50	.56	.59	2.02	1.64	1.16	.87	1.17	.84	.50	.43
IN.	.53	.56	.64	.68	2.11	1.89	1.30	1.00	1.30	.97	.57	.48

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1975 - 2001, BY WATER YEAR (WY)

MEAN	972	1242	1539	1534	1662	2323	2397	1856	1723	1221	947	819
MAX	2770	2392	2889	3787	2784	4613	4229	3255	3403	2642	2432	2014
(WY)	1991	1991	1991	1991	2001	1985	1985	1983	1996	1996	1990	1993
MIN	461	437	704	634	718	1089	1144	1113	619	411	398	350
(WY)	2000	2000	1979	1977	1978	1996	1987	1992	1988	1988	1988	1999

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1975 - 2001	
ANNUAL TOTAL	353435		444823			
ANNUAL MEAN	966		1219		1518	
HIGHEST ANNUAL MEAN					2160	1991
LOWEST ANNUAL MEAN					927	2000
HIGHEST DAILY MEAN	3410	Jun 26	3940	Feb 16	6410	Mar 24 1982
LOWEST DAILY MEAN	330	Sep 2	435	Sep 6	281	Sep 12 1999
ANNUAL SEVEN-DAY MINIMUM	359	Sep 1	480	Sep 3	306	Sep 11 1999
MAXIMUM PEAK FLOW			3960	Feb 16	6420	Mar 24 1982
MAXIMUM PEAK STAGE			12.29	Feb 16	14.52	Mar 24 1982
ANNUAL RUNOFF (CFSM)	.70		.89		1.10	
ANNUAL RUNOFF (INCHES)	9.56		12.03		14.99	
10 PERCENT EXCEEDS	1630		2080		2880	
50 PERCENT EXCEEDS	794		921		1280	
90 PERCENT EXCEEDS	540		577		598	

e Estimated

05517890 COBB DITCH NEAR KOUTS, IN

LOCATION.--Lat 41°20'19", long 87°04'30", in NW1/4SE1/4 sec. 2, T.33 N., R.6 W., Porter County, Hydrologic Unit 07120001, on left bank 15 ft upstream from bridge on County Road 50 West, 1.6 mi upstream from mouth, and 3 mi northwest of Kouts.

DRAINAGE AREA.--30.3 mi^2.

PERIOD OF RECORD.--July 1968 to current year. Prior to October 1971, published as State Ditch near Kouts.

GAGE.--Water-stage recorder. Datum of gage is 652.00 ft above sea level (Indiana Department of Highways bench mark). Prior to Oct. 19, 1978, water-stage recorder at site 1.4 mi downstream at same datum.

REMARKS.--Records fair except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	11	13	13	e10	20	42	19	17	21	17	11	11
2	11	14	12	e9.0	e15	37	19	17	22	16	9.6	11
3	11	14	12	e9.0	e15	40	18	16	21	17	9.9	10
4	15	13	12	e9.0	17	40	18	16	20	17	10	9.9
5	13	13	11	e10	16	32	18	16	31	16	8.9	8.3
6	13	13	e10	e10	16	29	21	16	47	15	8.8	9.6
7	12	14	e10	e10	15	27	20	16	34	20	9.0	10
8	13	14	e9.8	e10	17	28	18	16	26	17	8.6	10
9	13	17	e9.2	e9.4	327	29	18	16	23	16	8.2	11
10	13	19	e9.6	e9.0	233	27	19	16	22	15	8.2	11
11	12	15	e10	e11	85	26	20	16	21	15	8.5	11
12	14	14	e9.6	12	61	27	20	16	30	14	8.2	11
13	14	15	e9.0	12	51	26	18	15	26	13	7.9	10
14	13	15	e10	13	51	25	18	16	22	13	7.1	10
15	13	14	e9.6	15	56	24	20	17	22	13	6.0	10
16	12	14	e10	16	44	26	21	20	21	12	8.3	10
17	13	13	e9.6	15	38	26	20	19	20	13	8.3	10
18	13	12	e9.0	15	34	26	19	23	20	13	8.7	10
19	13	12	e9.6	14	32	24	19	20	20	12	9.8	11
20	12	12	e9.0	14	30	23	19	18	20	12	8.8	11
21	13	12	e9.0	14	28	23	23	19	21	12	8.3	11
22	13	11	e8.0	13	27	24	27	18	22	13	8.3	10
23	13	11	e8.0	13	26	23	25	18	21	12	8.3	10
24	13	11	e8.0	13	51	22	23	18	20	15	8.4	11
25	13	11	e8.4	13	325	21	22	18	19	14	9.9	13
26	13	12	e9.0	e12	103	21	19	19	19	14	18	13
27	14	12	e9.0	e12	69	20	18	24	18	13	13	12
28	14	12	e9.0	e11	51	20	17	22	18	12	12	12
29	14	13	e9.0	13	---	20	17	21	18	11	11	11
30	13	13	e9.4	18	---	19	18	20	18	12	11	11
31	14	---	e10	20	---	19	---	21	---	11	11	---
TOTAL	401	398	300.8	384.4	1853	816	591	560	683	435	293.0	319.8
MEAN	12.9	13.3	9.70	12.4	66.2	26.3	19.7	18.1	22.8	14.0	9.45	10.7
MAX	15	19	13	20	327	42	27	24	47	20	18	13
MIN	11	11	8.0	9.0	15	19	17	15	18	11	6.0	8.3
CFSM	.43	.44	.32	.41	2.18	.87	.65	.60	.75	.46	.31	.35
IN.	.49	.49	.37	.47	2.27	1.00	.73	.69	.84	.53	.36	.39

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1969 - 2001, BY WATER YEAR (WY)

MEAN	20.9	30.2	31.9	33.1	39.6	51.4	49.1	40.4	39.5	26.9	21.1	18.3
MAX	67.8	112	88.9	86.8	82.8	142	103	89.4	121	77.7	99.0	60.6
(WY)	1991	1986	1991	1993	1997	1982	1975	1974	1997	1996	1990	1993
MIN	9.35	9.62	9.70	10.5	10.6	17.8	19.7	14.9	14.6	12.0	9.45	10.2
(WY)	2000	2000	2001	2000	1978	2000	2001	1980	1988	1988	2001	1999

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1969 - 2001	
ANNUAL TOTAL	7614.9		7035.0			
ANNUAL MEAN	20.8		19.3		33.5	
HIGHEST ANNUAL MEAN					53.1	1991
LOWEST ANNUAL MEAN					19.3	1977
HIGHEST DAILY MEAN	542	Jun 21	327	Feb 9	955	Nov 28 1990
LOWEST DAILY MEAN	8.0	Dec 22	6.0	Aug 15	6.0	Aug 15 2001
ANNUAL SEVEN-DAY MINIMUM	8.5	Dec 20	7.7	Aug 9	7.7	Aug 9 2001
MAXIMUM PEAK FLOW			548	Feb 9	1160	Nov 28 1990
MAXIMUM PEAK STAGE			13.38	Feb 9	17.95	Mar 29 1985
ANNUAL RUNOFF (CFSM)	.69		.64		1.10	
ANNUAL RUNOFF (INCHES)	9.35		8.64		15.01	
10 PERCENT EXCEEDS	28		26		57	
50 PERCENT EXCEEDS	14		14		21	
90 PERCENT EXCEEDS	9.5		9.1		13	

e Estimated

05518000 KANKAKEE RIVER AT SHELBY, IN

LOCATION.--Lat 41°10'58", long 87°20'25", in SW$^1/_4$NE$^1/_4$ sec.33, T.32 N., R.8 W., Lake County, Hydrologic Unit 07120001, on right bank at upstream side of Highway 55 bridge, 1.0 mi south of Shelby, 7.8 mi upstream from Beaver Lake Ditch, and at mile 68.0.

DRAINAGE AREA.--1,779 mi^2, of which 201 mi^2 does not contribute directly to surface runoff.

PERIOD OF RECORD.--October 1922 to current year. Monthly discharge only for some periods, published in WSP 1308.

REVISED RECORDS.--WSP 1005: 1928(M). WSP 2115: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 628.13 ft above sea level. Prior to Dec. 19, 1934, nonrecording gage, Dec. 19, 1934, to Oct. 4, 1965, water-stage recorder on left bank 50 ft downstream, Oct. 5, 1965, to Sept. 21, 1966, nonrecording gage on right bank 200 ft downstream, and Sept. 21, 1966 to July 21, 1998, water-stage recorder on right bank 25 ft upstream from Monon railroad bridge and approximately 400 ft downstream, all at same datum.

REMARKS.--Records good except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	647	666	1050	e866	1700	4330	1790	1510	1670	1010	862	707
2	629	670	1050	e860	2000	4370	1770	1470	1810	979	781	686
3	619	662	1060	e862	2150	4400	1740	1460	1900	985	762	681
4	675	645	1100	e883	2170	4380	1680	1420	1950	1020	746	610
5	770	625	1090	e900	2060	4270	1640	1370	2070	1100	685	522
6	866	627	1040	e879	1930	4040	1680	1320	2380	1160	625	487
7	882	650	990	e860	1830	3800	1800	1300	2600	1140	577	497
8	886	653	e992	e860	1770	3570	2020	1330	2690	1390	525	512
9	923	713	e920	e850	2320	3380	2250	1290	2630	1800	497	543
10	955	790	929	e840	3630	3220	2380	1270	2460	1890	508	632
11	958	844	956	e850	3900	3100	2340	1260	2290	1710	531	688
12	926	863	e920	e860	3950	2970	2210	1260	2250	1380	532	708
13	913	933	e960	e880	4080	2900	2100	1240	2450	1180	499	712
14	862	929	e860	e890	4260	2810	2000	1220	2550	1040	480	668
15	838	950	e870	e920	4460	2730	1910	1250	2530	935	476	651
16	827	974	e880	e960	4570	2660	1870	1350	2360	846	506	632
17	802	981	e900	e1000	4570	2610	1840	1490	2190	760	551	618
18	796	975	e890	e1050	4490	2530	1850	1540	2120	755	573	626
19	765	972	e870	e1100	4370	2470	1820	1580	2030	772	629	663
20	736	929	e890	e1120	4200	2420	1800	1490	1850	754	647	718
21	717	903	e880	e1100	3970	2370	1810	1420	1740	718	653	752
22	713	848	e860	e1060	3700	2330	1860	1390	1700	772	651	782
23	669	833	e840	e1030	3420	2260	1920	1390	1640	875	638	711
24	686	837	e860	e1000	3260	2180	2000	1410	1590	1150	632	685
25	694	846	e880	e980	3750	2110	1980	1390	1520	1240	711	691
26	705	908	e860	e970	4260	2040	1920	1380	1410	1410	1110	701
27	701	902	e850	e960	4320	2000	1830	1520	1310	1550	1160	669
28	672	908	e860	e980	4320	1950	1730	1710	1240	1640	1100	683
29	693	973	e852	e1040	---	1920	1660	1810	1120	1610	953	662
30	670	1020	e852	1250	---	1870	1590	1810	1060	1350	855	649
31	663	---	e860	1460	---	1830	---	1710	---	1040	794	---
TOTAL	23858	25029	28671	30120	95410	89820	56790	44360	59110	35961	21249	19546
MEAN	770	834	925	972	3408	2897	1893	1431	1970	1160	685	652
MAX	958	1020	1100	1460	4570	4400	2380	1810	2690	1890	1160	782
MIN	619	625	840	840	1700	1830	1590	1220	1060	718	476	487
CFSM	.43	.47	.52	.55	1.92	1.63	1.06	.80	1.11	.65	.39	.37
IN.	.50	.52	.60	.63	2.00	1.88	1.19	.93	1.24	.75	.44	.41

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1924 - 2001, BY WATER YEAR (WY)

MEAN	1064	1331	1615	1819	1979	2550	2762	2293	1832	1288	976	872
MAX	3529	3413	4502	4867	3658	5570	5365	4409	4347	3228	3058	2843
(WY)	1991	1973	1928	1991	1950	1985	1982	1943	1981	1996	1990	1993
MIN	455	500	540	460	462	848	1226	789	569	441	402	356
(WY)	1954	2000	1964	1940	1963	1934	1925	1934	1934	1988	1988	1941

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1924 - 2001	
ANNUAL TOTAL	446140		529924			
ANNUAL MEAN	1219		1452		1696	
HIGHEST ANNUAL MEAN					2767	1993
LOWEST ANNUAL MEAN					775	1964
HIGHEST DAILY MEAN	4450	Jun 26	4570	Feb 16	7650	Mar 26 1982
LOWEST DAILY MEAN	418	Sep 3	476	Aug 15	260	Jan 13 1954
ANNUAL SEVEN-DAY MINIMUM	442	Sep 2	503	Aug 9	298	Aug 2 1988
MAXIMUM PEAK FLOW			4600	Feb 17	7650	Mar 26 1982
MAXIMUM PEAK STAGE			11.03	Feb 17	12.98	Mar 24 1982
ANNUAL RUNOFF (CFSM)	.69		.82		.95	
ANNUAL RUNOFF (INCHES)	9.33		11.08		12.96	
10 PERCENT EXCEEDS	2080		2640		3350	
50 PERCENT EXCEEDS	960		1040		1360	
90 PERCENT EXCEEDS	665		651		631	

e Estimated

05519000 SINGLETON DITCH AT SCHNEIDER, IN

LOCATION.--Lat 41°12'44", long 87°26'44", in SW$^1/_4$NW$^1/_4$ sec.22, T.32 N., R.9 W., Lake County, Hydrologic Unit 07120001, on left bank 15 ft upstream from bridge on Ackerman Avenue, 0.5 mi upstream from Bruce Ditch, 1.5 mi downstream from Cedar Creek, 1.6 mi north of Schneider, and at mile 10.1.

DRAINAGE AREA.--123 mi^2.

PERIOD OF RECORD.--July 1948 to current year.

REVISED RECORDS.--WSP 1915: 1956-59. WSP 2115: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 623.67 ft above sea level. Prior to Oct. 1, 1949, nonrecording gage at same site at datum 2.00 ft higher. Oct. 1, 1949, to Aug. 13, 1951, nonrecording gage at same site and datum.

REMARKS.--Records good except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	26	27	29	e22	99	288	79	50	53	30	15	23
2	26	27	29	e22	100	247	76	49	56	29	15	e19
3	25	27	29	e22	115	217	73	45	55	32	18	e17
4	43	27	e29	e22	91	193	70	42	51	35	16	e14
5	39	27	e29	e22	71	149	68	41	58	31	16	e13
6	36	27	e29	e22	67	133	77	40	191	29	16	e17
7	32	29	e29	e21	66	130	78	41	188	28	15	23
8	32	29	e28	e21	86	123	72	40	133	27	14	e21
9	34	29	e28	e21	1030	119	67	40	104	24	14	e19
10	32	38	e28	e20	1060	114	72	39	91	21	14	e18
11	31	36	e28	e20	603	111	80	41	81	19	14	e16
12	30	33	e28	e19	388	108	88	39	99	19	14	e15
13	29	34	e28	e18	318	113	75	38	139	18	14	e14
14	29	38	e28	e25	311	108	70	38	106	18	13	e13
15	29	36	e28	e49	367	102	72	40	89	18	13	e12
16	28	36	e27	e53	293	105	78	41	80	19	14	e13
17	28	35	e27	e46	246	113	73	55	72	18	15	e16
18	28	32	e26	e44	197	131	70	48	68	18	15	22
19	29	32	e26	e41	176	127	66	46	64	19	20	26
20	29	33	e26	e40	161	120	65	43	59	17	18	27
21	29	44	e25	e39	148	112	72	43	58	18	16	e17
22	52	46	e25	e36	142	105	91	44	67	30	15	e18
23	52	41	e25	e35	136	102	87	40	60	34	17	e20
24	50	39	e25	e31	186	99	83	39	53	30	17	e22
25	47	31	e25	e30	1200	97	72	39	50	25	20	27
26	45	30	e24	e28	798	93	67	39	46	22	35	29
27	43	31	e24	e27	499	91	61	80	44	19	31	e24
28	42	30	e24	e26	357	87	57	87	40	18	23	e20
29	38	29	e23	e25	---	84	52	67	37	19	e21	e17
30	30	30	e22	e50	---	82	51	57	36	17	e18	e15
31	28	---	e22	104	---	79	---	52	---	16	e21	---
TOTAL	1071	983	823	1001	9311	3882	2162	1443	2328	717	537	567
MEAN	34.5	32.8	26.5	32.3	333	125	72.1	46.5	77.6	23.1	17.3	18.9
MAX	52	46	29	104	1200	288	91	87	191	35	35	29
MIN	25	27	22	18	66	79	51	38	36	16	13	12
CFSM	.28	.27	.22	.26	2.70	1.02	.59	.38	.63	.19	.14	.15
IN.	.32	.30	.25	.30	2.82	1.17	.65	.44	.70	.22	.16	.17

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2001, BY WATER YEAR (WY)

MEAN	58.8	84.9	111	127	153	207	209	143	127	71.5	49.0	45.2
MAX	295	471	457	475	486	634	477	421	481	321	237	308
(WY)	1994	1986	1991	1993	1959	1982	1950	1974	1997	1996	1990	1993
MIN	7.54	11.8	8.13	17.5	15.6	34.3	48.6	30.6	26.3	10.6	7.09	7.78
(WY)	1964	1957	1964	1977	1964	1957	1963	1958	1988	1988	1964	1964

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1949 - 2001	
ANNUAL TOTAL	27642		24825			
ANNUAL MEAN	75.5		68.0		115	
HIGHEST ANNUAL MEAN					227	1993
LOWEST ANNUAL MEAN					24.0	1964
HIGHEST DAILY MEAN	1420	Jun 21	1200	Feb 25	2990	Mar 5 1976
LOWEST DAILY MEAN	22	Dec 30	e12	Sep 15	3.6	Sep 7 1964
ANNUAL SEVEN-DAY MINIMUM	23	Dec 25	14	Aug 9	3.8	Sep 4 1964
MAXIMUM PEAK FLOW			1400	Feb 9	3550	Mar 5 1976
MAXIMUM PEAK STAGE			9.39	Feb 9	12.54	Nov 28 1990
ANNUAL RUNOFF (CFSM)	.61		.55		.94	
ANNUAL RUNOFF (INCHES)	8.36		7.51		12.72	
10 PERCENT EXCEEDS	123		117		253	
50 PERCENT EXCEEDS	38		35		61	
90 PERCENT EXCEEDS	25		17		19	

e Estimated

05521000 IROQUOIS RIVER AT ROSEBUD, IN

LOCATION.--Lat 41°02'00", long 87°10'49", in NW1/4SW1/4 sec.24, T.30 N., R.7 W., Jasper County, Hydrologic Unit 07120002, on right bank 100 ft downstream from bridge on county road, 0.5 mi north of Rosebud, 0.5 mi downstream from confluence of Swain and Dexter Ditches, 1.5 mi upstream from Davidson Ditch, 2 mi east of Parr, and at mile 93.5.

DRAINAGE AREA.--35.6 mi^2.

PERIOD OF RECORD.--July 1948 to current year.

REVISED RECORDS.--WSP 1338: 1950-53. WSP 1728: 1959-60(M). WSP 1915: 1949-60. WSP 2115: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 661.47 ft above sea level (levels by State of Indiana, Department of Natural Resources). Prior to Oct. 1, 1953, nonrecording gage on downstream side of county road bridge at same datum.

REMARKS.--Records good, except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	3.4	4.3	9.5	e7.8	47	66	25	20	35	11	6.6	4.2
2	3.3	4.2	9.3	e7.7	e40	58	23	20	43	10	7.3	3.9
3	3.2	3.9	e8.7	e7.6	e38	51	23	19	36	12	6.7	3.7
4	7.2	3.9	e7.8	e7.3	28	47	22	18	28	40	6.2	3.4
5	7.0	3.9	e7.3	e7.6	26	42	22	17	69	33	5.4	3.1
6	7.1	3.9	e6.6	e7.8	26	39	24	17	145	22	5.2	3.0
7	5.6	4.9	e6.4	e7.6	31	36	24	17	104	17	4.9	3.5
8	5.3	4.1	e6.8	e7.4	66	35	23	17	69	19	4.5	3.2
9	4.9	9.5	e6.4	e7.6	190	33	22	15	52	42	4.1	4.3
10	4.6	18	e6.0	e7.4	176	32	31	14	42	26	4.1	4.0
11	5.2	12	e6.4	e7.2	101	31	40	13	36	21	3.4	3.1
12	4.9	8.3	e7.0	e7.0	74	32	38	12	47	16	3.1	2.8
13	4.5	9.9	e8.0	e7.2	61	32	29	11	44	14	3.0	2.6
14	4.6	12	e7.3	e8.0	72	29	27	13	35	12	2.7	2.4
15	4.7	9.8	e7.0	28	80	30	28	14	31	10	2.7	2.6
16	5.3	8.8	e8.0	26	65	32	27	13	26	9.4	4.8	3.7
17	4.6	7.8	e9.4	21	52	38	25	14	24	9.3	4.1	2.7
18	4.5	7.0	e8.8	19	45	43	22	15	23	23	3.8	2.6
19	4.6	6.6	e8.5	18	41	39	22	15	21	18	4.5	6.8
20	4.6	6.1	e8.3	e16	38	36	24	13	20	15	3.7	5.9
21	4.6	e5.6	e8.0	e15	34	34	25	14	21	12	3.0	5.4
22	4.6	e5.8	e7.6	e13	34	32	28	14	21	11	3.3	5.1
23	4.8	6.1	e7.3	e12	31	30	29	13	19	17	13	3.9
24	5.4	6.3	e7.0	e12	69	29	25	15	18	14	12	3.6
25	5.0	6.3	e7.2	e11	261	27	23	16	17	13	11	3.8
26	4.9	7.3	e7.6	e11	151	26	22	18	16	13	9.8	3.4
27	4.8	6.8	e7.4	e10	106	25	22	33	15	9.9	8.0	3.6
28	4.7	6.4	e7.2	e10	81	25	21	31	12	9.2	6.6	3.6
29	4.6	7.8	e7.3	e9.8	---	26	20	25	12	8.4	5.6	3.1
30	4.6	8.9	e7.4	e40	---	25	20	22	11	7.0	5.1	3.0
31	4.5	---	e7.6	60	---	25	---	21	---	7.0	4.9	---
TOTAL	151.6	216.2	235.1	437.0	2064	1085	756	529	1092	501.2	173.1	110.0
MEAN	4.89	7.21	7.58	14.1	73.7	35.0	25.2	17.1	36.4	16.2	5.58	3.67
MAX	7.2	18	9.5	60	261	66	40	33	145	42	13	6.8
MIN	3.2	3.9	6.0	7.0	26	25	20	11	11	7.0	2.7	2.4
CFSM	.14	.20	.21	.40	2.07	.98	.71	.48	1.02	.45	.16	.10
IN.	.16	.23	.25	.46	2.16	1.13	.79	.55	1.14	.52	.18	.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2001, BY WATER YEAR (WY)

MEAN	14.9	18.9	27.4	30.0	37.6	49.6	51.0	39.6	33.9	18.3	10.3	11.9
MAX	106	68.5	96.8	113	91.1	149	141	111	111	63.2	52.1	88.9
(WY)	1994	1993	1991	1950	1959	1982	1950	1974	1981	1996	1972	1993
MIN	1.19	1.80	2.43	3.52	3.13	7.69	17.2	10.2	5.47	3.08	1.97	1.53
(WY)	1965	1965	1964	1963	1964	1957	1986	1958	1988	1988	1964	1964

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1949 - 2001	
ANNUAL TOTAL	4943.4		7350.2			
ANNUAL MEAN	13.5		20.1		28.6	
HIGHEST ANNUAL MEAN					61.7	1993
LOWEST ANNUAL MEAN					6.38	1964
HIGHEST DAILY MEAN	137	Jun 25	261	Feb 25	621	Dec 30 1990
LOWEST DAILY MEAN	2.5	Sep 8	2.4	Sep 14	.50	Oct 11 1964
ANNUAL SEVEN-DAY MINIMUM	2.6	Sep 3	2.8	Sep 12	.77	Oct 11 1964
MAXIMUM PEAK FLOW			296	Feb 25	656	Dec 30 1990
MAXIMUM PEAK STAGE			4.58	Feb 25	8.86	Feb 10 1959
ANNUAL RUNOFF (CFSM)	.38		.57		.80	
ANNUAL RUNOFF (INCHES)	5.17		7.68		10.90	
10 PERCENT EXCEEDS	27		40		62	
50 PERCENT EXCEEDS	9.2		12		17	
90 PERCENT EXCEEDS	3.9		3.9		4.3	

e Estimated

05522500 IROQUOIS RIVER AT RENSSELAER, IN

LOCATION.--Lat 40°56'00", long 87°07'44", in NW1/4SE1/4 sec.29, T.29 N., R.6 W., Jasper County, Hydrologic Unit 07120002, on right bank 20 ft downstream from bridge on State Highway 114, 0.8 mi east of Rensselaer, 1.5 mi downstream from Ryan Ditch, 5.5 mi upstream from Slough Creek, and at mile 84.9.

DRAINAGE AREA.--203 mi^2.

PERIOD OF RECORD.--July 1948 to current year.

REVISED RECORDS.--WSP 2115: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 642.29 ft above sea level (levels by State of Indiana, Department of Natural Resources). Prior to July 8, 1949, nonrecording gage at same site and datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. Streamflow affected by irrigation.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	16	21	62	e50	e430	780	125	112	389	51	36	27
2	17	20	61	e49	e310	576	119	111	490	45	38	25
3	16	20	54	e49	e280	452	121	99	462	47	39	24
4	23	20	e50	e48	e195	387	113	93	381	229	36	23
5	34	20	e47	e49	181	341	108	91	450	345	33	21
6	36	20	e45	e50	174	302	120	90	829	186	31	22
7	34	24	e43	e50	198	268	135	89	902	118	26	24
8	29	25	e45	e49	367	250	126	88	766	202	23	24
9	27	30	e41	e49	902	230	120	83	574	521	24	31
10	26	87	e40	48	1320	210	146	83	412	306	24	32
11	26	76	e42	e48	1280	201	298	80	313	153	27	36
12	24	57	e45	e47	1050	196	339	76	292	101	25	29
13	23	57	e52	e48	799	211	262	69	322	77	24	26
14	26	71	e50	e52	658	196	207	69	261	64	24	24
15	25	65	e47	e76	694	188	197	77	214	55	23	23
16	25	58	e54	e110	636	195	203	76	188	49	28	23
17	25	53	e64	e130	521	220	183	102	162	44	30	23
18	23	49	e60	e120	405	254	162	116	144	75	30	24
19	24	50	e58	e110	353	246	152	130	130	87	35	48
20	23	45	e56	e100	316	228	151	110	118	64	30	50
21	24	37	e55	e90	269	208	156	101	120	49	27	41
22	22	e38	e54	e82	248	191	223	109	128	49	26	34
23	22	e38	e50	e80	227	177	235	97	116	67	46	30
24	22	e39	e47	e72	314	167	207	100	103	77	55	30
25	24	43	e46	e68	1140	153	170	101	94	100	48	29
26	24	46	e50	e67	1390	141	150	101	86	119	40	27
27	23	49	e49	e66	1280	135	142	198	80	63	36	27
28	22	49	e48	e64	1030	128	125	304	73	49	34	27
29	22	49	e49	e70	---	130	116	268	64	47	31	26
30	21	57	e49	e200	---	129	111	198	58	43	30	25
31	21	---	e50	e380	---	133	---	171	---	41	29	---
TOTAL	749	1313	1563	2571	16967	7623	5022	3592	8721	3523	988	855
MEAN	24.2	43.8	50.4	82.9	606	246	167	116	291	114	31.9	28.5
MAX	36	87	64	380	1390	780	339	304	902	521	55	50
MIN	16	20	40	47	174	128	108	69	58	41	23	21
CFSM	.12	.22	.25	.41	2.99	1.21	.82	.57	1.43	.56	.16	.14
IN.	.14	.24	.29	.47	3.11	1.40	.92	.66	1.60	.65	.18	.16

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1949 - 2001, BY WATER YEAR (WY)

MEAN	85.6	119	177	205	253	332	339	243	214	106	53.2	65.0
MAX	921	561	559	774	660	935	886	766	863	613	238	641
(WY)	1994	1993	1991	1950	1997	1982	1950	1974	1958	1996	1990	1993
MIN	5.77	7.75	7.04	14.5	13.9	40.8	87.8	47.6	22.9	12.5	4.61	5.26
(WY)	1965	1965	1964	1963	1964	1957	1986	1958	1988	1964	1964	1964

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1949 - 2001	
ANNUAL TOTAL	27960		53487			
ANNUAL MEAN	76.4		147		182	
HIGHEST ANNUAL MEAN					415	1993
LOWEST ANNUAL MEAN					29.7	1964
HIGHEST DAILY MEAN	557	Jun 22	1390	Feb 26	2500	Jun 11 1958
LOWEST DAILY MEAN	12	Sep 3	16	Oct 1	2.2	Sep 9 1964
ANNUAL SEVEN-DAY MINIMUM	13	Aug 31	20	Oct 31	2.8	Sep 9 1964
MAXIMUM PEAK FLOW			1400	Feb 26	2550	Jun 10 1958
MAXIMUM PEAK STAGE			12.00	Feb 26	16.54	Jun 10 1958
ANNUAL RUNOFF (CFSM)	.38		.72		.90	
ANNUAL RUNOFF (INCHES)	5.12		9.80		12.20	
10 PERCENT EXCEEDS	164		329		455	
50 PERCENT EXCEEDS	49		66		91	
90 PERCENT EXCEEDS	17		24		17	

e Estimated

05524500 IROQUOIS RIVER NEAR FORESMAN, IN

LOCATION.--Lat 40°52'14", long 87°18'24", in NE$^1/_4$SE$^1/_4$ sec.15, T.28 N., R.8 W., Newton County, Hydrologic Unit 07120002, on right bank at downstream side of bridge on State Highway 55, 0.2 mi north of intersection of State Highways 16 and 55, 0.5 mi downstream from Mosquito Creek, 0.6 mi west of Foresman, 3 mi east of Brook, and at mile 72.7.

DRAINAGE AREA.--449 mi^2.

PERIOD OF RECORD.--December 1948 to current year.

REVISED RECORDS.--WSP 1338: 1953. WSP 1438: 1955. WSP 1508: 1956. WSP 2115: Drainage area.

GAGE.--Water-stage recorder and Acoustic Doppler Velocity meter. Datum of gage is 624.00 ft above sea level. Prior to Sept. 7, 1955 nonrecording gage 2.5 mi upstream at datum 3.54 ft higher.

REMARKS.--Records fair except for estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	28	36	94	e80	e927	1810	248	232	619	108	91	48
2	26	38	89	e81	e837	1470	231	238	785	98	96	43
3	28	36	e81	e80	e630	1190	226	216	827	93	113	42
4	33	34	e76	e80	e539	989	217	198	723	344	89	35
5	52	32	e70	e79	e415	765	204	193	644	861	75	31
6	61	32	e62	e78	e337	597	223	191	1400	607	64	31
7	55	41	e57	e76	e390	500	315	187	2030	351	57	40
8	44	43	e54	e76	e600	461	310	182	1990	253	46	37
9	38	48	e56	e76	e1130	422	272	168	1720	711	44	53
10	41	128	e61	e75	e1860	391	497	166	1420	629	41	76
11	45	153	e68	e74	2130	378	866	163	1100	357	43	65
12	43	116	e74	e73	1980	371	1200	155	856	219	41	55
13	40	109	e79	e71	1710	386	1080	141	714	161	37	42
14	37	120	e84	e77	1470	365	817	134	558	132	36	39
15	43	114	e92	e127	1420	349	660	147	456	111	35	36
16	41	104	e105	e212	1350	365	635	151	383	98	42	34
17	42	90	e98	e252	1170	427	520	167	317	86	47	34
18	41	77	e95	e252	945	505	425	190	278	109	48	33
19	39	70	e92	e237	718	495	387	202	254	194	70	65
20	39	72	e89	e198	582	456	373	194	226	153	55	88
21	38	51	e85	e170	471	420	369	177	226	110	46	76
22	36	53	e82	e163	415	390	421	191	268	91	40	59
23	35	55	e78	e147	380	361	450	173	243	118	51	49
24	37	59	e67	e119	507	337	418	174	210	283	89	43
25	40	72	e70	e111	1590	298	353	178	189	339	75	42
26	42	72	e70	e102	2440	265	312	177	170	816	67	41
27	40	74	e75	e101	2480	249	294	306	156	535	59	37
28	39	76	e77	e98	2180	241	263	460	146	269	50	36
29	36	79	e77	e129	---	251	241	442	131	177	53	37
30	33	86	e78	e424	---	251	232	346	121	134	47	34
31	34	---	e81	e812	---	252	---	295	---	109	47	---
TOTAL	1226	2170	2416	4730	31603	16007	13059	6534	19160	8656	1794	1381
MEAN	39.5	72.3	77.9	153	1129	516	435	211	639	279	57.9	46.0
MAX	61	153	105	812	2480	1810	1200	460	2030	861	113	88
MIN	26	32	54	71	337	241	204	134	121	86	35	31
CFSM	.09	.16	.17	.34	2.51	1.15	.97	.47	1.42	.62	.13	.10
IN.	.10	.18	.20	.39	2.62	1.33	1.08	.54	1.59	.72	.15	.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1950 - 2001, BY WATER YEAR (WY)

MEAN	173	251	390	436	564	740	756	554	491	264	103	136
MAX	1792	1218	1274	1736	1490	2266	1672	1360	2314	1099	435	1387
(WY)	1994	1993	1968	1993	1968	1982	1950	1974	1958	1993	1990	1993
MIN	9.70	16.1	15.3	27.0	31.4	81.7	199	108	39.8	17.7	12.2	11.1
(WY)	1957	1965	1964	1963	1964	1957	1986	1958	1988	1988	1988	1964

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1950 - 2001	
ANNUAL TOTAL	65313		108736			
ANNUAL MEAN	178		298		404	
HIGHEST ANNUAL MEAN					891	1993
LOWEST ANNUAL MEAN					77.6	1964
HIGHEST DAILY MEAN	1360	Jul 11	2480	Feb 27	5930	Jun 14 1958
LOWEST DAILY MEAN	20	Sep 8	26	Oct 2	6.3	Sep 10 1964
ANNUAL SEVEN-DAY MINIMUM	22	Sep 3	35	Oct 31	8.0	Sep 5 1964
MAXIMUM PEAK FLOW			2630	Feb 26	5930	Jun 14 1958
MAXIMUM PEAK STAGE			18.03	Feb 27	24.42	Jun 14 1958
ANNUAL RUNOFF (CFSM)	.40		.66		.90	
ANNUAL RUNOFF (INCHES)	5.41		9.01		12.21	
10 PERCENT EXCEEDS	401		773		1070	
50 PERCENT EXCEEDS	90		127		193	
90 PERCENT EXCEEDS	34		39		29	

e Estimated

05536179 HART DITCH AT DYER, IN

LOCATION.--Lat 41°30'28", long 87°30'36",in NE1/4NE1/4 sec.12, T.35 N., R.10 W., Lake County, Hydrologic Unit 07120003, on right bank, 50 ft upstream from 213th Street in Dyer, and 0.8 mi upstream from Dyer Ditch.

DRAINAGE AREA.--37.6 mi^2.

PERIOD OF RECORD.--October 1989 to current year.

GAGE.--Water-stage recorder. Datum of gage is 607.38 ft above sea level.

REMARKS.--Records fair except for estimated daily discharges, which are poor. Low-flow affected by sewage effluent.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e4.7	e6.4	15	9.0	111	64	16	7.3	11	4.7	4.4	9.9
2	e4.3	e6.2	14	9.1	67	51	15	6.8	23	4.6	7.9	7.9
3	e5.0	e6.0	13	9.0	52	42	15	6.7	18	6.7	12	6.4
4	e20	e6.0	12	8.9	35	36	14	6.2	12	8.4	8.3	5.8
5	e16	e6.2	11	9.2	29	31	14	6.0	e41	5.4	5.9	5.5
6	e14	e7.6	10	9.8	27	27	18	5.8	e110	4.8	4.9	8.0
7	e10	e13	9.3	10	26	24	22	5.7	e63	4.8	4.5	15
8	e17	e10	9.3	9.9	43	24	19	5.5	51	4.7	4.4	10
9	e15	e29	8.6	9.7	680	21	18	5.3	25	4.8	4.3	8.8
10	e13	107	8.6	9.6	661	20	17	5.4	18	4.7	4.7	7.6
11	e12	38	8.7	9.6	246	20	17	5.8	14	4.9	4.5	6.5
12	e10	21	8.4	8.9	163	20	17	5.9	17	5.2	4.3	6.1
13	e9.3	21	9.2	9.2	113	22	17	5.5	15	4.6	4.3	5.7
14	e8.6	31	8.5	11	101	22	16	6.1	11	4.2	4.3	5.3
15	e8.6	22	9.0	20	136	23	22	5.5	9.2	4.6	4.5	5.4
16	e8.5	17	9.6	40	89	31	28	7.2	8.0	5.0	5.8	5.0
17	e8.2	14	10	40	54	46	22	5.2	7.4	4.7	5.1	5.1
18	e7.6	12	9.6	35	46	74	17	5.5	6.9	4.1	6.9	5.8
19	e7.6	11	9.4	30	41	63	14	5.1	6.6	4.2	7.0	12
20	e7.2	10	9.4	25	33	55	15	4.8	6.0	4.4	7.9	9.9
21	e6.4	9.8	9.3	21	26	45	22	6.2	6.5	22	6.9	7.6
22	e5.2	9.1	9.0	19	26	33	31	5.1	7.3	7.6	6.3	7.1
23	e6.0	8.4	8.9	16	24	28	18	4.9	7.7	13	5.6	10
24	e14	8.1	8.7	15	75	25	15	4.6	6.6	10	5.7	9.7
25	e9.0	8.8	8.3	13	540	22	13	4.5	5.9	7.0	20	11
26	e7.5	10	8.2	12	232	20	12	7.9	5.4	5.4	66	8.1
27	e7.2	13	8.3	12	138	18	10	21	5.0	4.9	22	6.9
28	e7.2	12	8.4	11	91	17	8.5	34	5.0	4.6	11	5.8
29	e7.1	13	8.6	14	---	17	7.9	18	4.8	4.5	8.0	5.4
30	e6.9	14	8.8	54	---	17	8.3	12	4.8	4.6	7.1	5.2
31	e6.8	---	8.7	157	---	16	---	10	---	4.4	8.7	---
TOTAL	289.9	500.6	297.8	666.9	3905	974	498.7	245.5	532.1	187.5	283.2	228.5
MEAN	9.35	16.7	9.61	21.5	139	31.4	16.6	7.92	17.7	6.05	9.14	7.62
MAX	20	107	15	157	680	74	31	34	110	22	66	15
MIN	4.3	6.0	8.2	8.9	24	16	7.9	4.5	4.8	4.1	4.3	5.0
CFSM	.25	.44	.26	.57	3.71	.84	.44	.21	.47	.16	.24	.20
IN.	.29	.50	.29	.66	3.86	.96	.49	.24	.53	.19	.28	.23

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1990 - 2001, BY WATER YEAR (WY)

MEAN	22.2	46.1	36.6	51.8	61.0	67.6	57.5	51.5	59.0	21.2	20.9	15.7
MAX	113	195	106	136	183	169	138	140	182	92.9	74.1	106
(WY)	1994	1991	1991	1993	1997	1991	1999	1996	1993	1996	1998	1993
MIN	2.77	3.55	4.92	4.44	8.23	7.00	16.6	7.48	4.21	4.46	4.65	2.41
(WY)	1996	2000	1990	2000	2000	2000	2001	1992	1992	1991	1992	1994

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1990 - 2001	
ANNUAL TOTAL	7650.7		8609.7			
ANNUAL MEAN	20.9		23.6		42.4	
HIGHEST ANNUAL MEAN					76.6	1993
LOWEST ANNUAL MEAN					19.1	2000
HIGHEST DAILY MEAN	809	Jun 25	680	Feb 9	2580	Nov 28 1990
LOWEST DAILY MEAN	3.4	Sep 7	4.1	Jul 18	.61	Oct 23 1995
ANNUAL SEVEN-DAY MINIMUM	3.6	Jan 24	4.4	Aug 8	.95	Sep 17 1994
MAXIMUM PEAK FLOW			1120	Feb 10	3010	Nov 28 1990
MAXIMUM PEAK STAGE			9.33	Feb 10	15.33	Nov 28 1990
ANNUAL RUNOFF (CFSM)	.56		.63		1.13	
ANNUAL RUNOFF (INCHES)	7.57		8.52		15.34	
10 PERCENT EXCEEDS	34		40		101	
50 PERCENT EXCEEDS	8.7		9.6		13	
90 PERCENT EXCEEDS	4.2		4.9		4.0	

e Estimated

05536190 HART DITCH AT MUNSTER, IN

LOCATION.--Lat 41°33'40", long 87°28'50", in SE$^1/_4$NW$^1/_4$ sec.20, T.36 N., R.9 W., Lake County, Hydrologic Unit 07120003, on left bank, 0.2 mi downstream from Ridge Road, and 0.4 mi upstream from mouth.

DRAINAGE AREA.--70.7 mi^2.

PERIOD OF RECORD.--September 1942 to current year.

REVISED RECORDS.--WDR IN-72-1: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 591.27 ft above sea level (levels by State of Indiana, Department of Natural Resources).

REMARKS.--Records fair except for daily discharges above 100 ft^3/s due to possible backwater from Little Calumet River and estimated daily discharges, which are poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	14	17	37	26	241	134	39	31	42	15	15	28
2	14	16	35	27	147	109	37	28	77	13	43	23
3	17	15	31	26	105	92	35	25	48	52	29	18
4	140	15	31	27	77	79	34	24	37	45	22	17
5	46	17	28	28	67	69	41	23	259	21	18	16
6	38	19	26	28	69	60	66	23	241	17	16	61
7	27	34	25	28	63	55	54	22	121	16	15	73
8	83	19	25	28	126	54	47	21	77	16	13	28
9	56	233	23	27	e1100	48	46	19	56	15	18	40
10	42	238	24	26	e1250	46	41	19	45	15	31	25
11	32	96	26	27	e599	49	42	30	38	12	14	20
12	27	59	24	27	e335	50	41	22	177	13	13	17
13	25	81	25	29	265	51	38	20	67	13	13	16
14	23	75	26	48	219	50	34	39	47	12	12	15
15	23	55	25	82	279	59	83	24	40	13	12	15
16	23	44	29	97	174	82	60	44	31	14	30	16
17	22	36	29	89	109	107	49	24	27	14	16	18
18	20	33	27	77	85	131	42	21	23	13	40	22
19	20	31	27	67	78	118	39	20	22	12	30	83
20	19	29	27	57	65	94	54	18	20	13	20	29
21	17	26	25	49	57	78	71	36	38	97	17	21
22	11	25	e24	44	52	68	65	23	25	56	17	17
23	14	25	e23	41	48	60	58	21	24	203	16	65
24	38	24	e23	34	441	55	48	19	21	109	24	70
25	23	30	e23	31	e976	49	42	19	18	51	97	84
26	20	40	e22	29	e685	44	37	83	18	30	e123	40
27	19	35	e22	28	404	42	37	79	16	23	64	30
28	19	33	e22	27	216	41	35	61	16	21	33	23
29	19	42	e23	62	---	39	32	46	14	19	24	22
30	18	37	23	204	---	39	32	33	14	17	31	19
31	18	---	26	e312	---	38	---	39	---	16	50	---
TOTAL	927	1479	806	1732	8332	2090	1379	956	1699	996	916	971
MEAN	29.9	49.3	26.0	55.9	298	67.4	46.0	30.8	56.6	32.1	29.5	32.4
MAX	140	238	37	312	1250	134	83	83	259	203	123	84
MIN	11	15	22	26	48	38	32	18	14	12	12	15
CFSM	.42	.70	.37	.79	4.21	.95	.65	.44	.80	.45	.42	.46
IN.	.49	.78	.42	.91	4.38	1.10	.73	.50	.89	.52	.48	.51

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 2001, BY WATER YEAR (WY)

MEAN	31.5	51.1	64.3	69.1	89.3	136	132	101	75.6	37.2	30.4	28.3
MAX	282	287	279	335	479	429	430	373	423	335	156	219
(WY)	1955	1986	1983	1999	1997	1979	1999	1996	1993	1996	1998	1993
MIN	3.95	3.54	3.07	3.77	6.32	19.1	19.2	11.9	8.78	6.11	4.73	3.91
(WY)	1965	1972	1964	1977	1963	1957	1946	1958	1965	1965	1964	1956

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1943 - 2001	
ANNUAL TOTAL	20857		22283			
ANNUAL MEAN	57.0		61.0		70.3	
HIGHEST ANNUAL MEAN					160	1993
LOWEST ANNUAL MEAN					19.2	1964
HIGHEST DAILY MEAN	1700	Jun 25	e1250	Feb 10	2600	Nov 28 1990
LOWEST DAILY MEAN	10	Jan 25	11	Oct 22	1.6	Dec 24 1963
ANNUAL SEVEN-DAY MINIMUM	11	Jan 22	13	Jul 11	1.7	Sep 3 1964
MAXIMUM PEAK FLOW			unknown	Feb 10	3010	Nov 28 1990
MAXIMUM PEAK STAGE			c7.28	Feb 10	8.72	Nov 28 1990
ANNUAL RUNOFF (CFSM)	.81		.86		.99	
ANNUAL RUNOFF (INCHES)	10.97		11.72		13.51	
10 PERCENT EXCEEDS	110		97		150	
50 PERCENT EXCEEDS	27		31		24	
90 PERCENT EXCEEDS	15		16		6.0	

e Estimated
c Backwater

05536195 LITTLE CALUMET RIVER AT MUNSTER, IN

LOCATION.--Lat 41°34'38", long 87°31'17", in SE$^1/_4$NW$^1/_4$ sec.13, T.36 N., R.10 W., Lake County, Hydrologic Unit 07120003, on left bank 200 ft upstream from Hohman Avenue bridge at north city limits of Munster, 0.4 mi upstream from Indiana-Illinois State line, and 4.6 mi upstream from Thorn Creek.

DRAINAGE AREA.--90.0 mi^2. During times of floods on Deep River, flow may enter basin from eastern portion of Little Calumet River Basin; or, during times of floods on Hart Ditch, flow may leave the basin and enter eastern portion of the Little Calumet River Basin.

PERIOD OF RECORD.--June 1958 to current year.

GAGE.--Water-stage recorder. Datum of gage is 580.72 ft above sea level.

REMARKS.--Records poor. Flow from eastern portion of Little Calumet River Basin is diverted to Lake Michigan by Burns Ditch. Periods of high flow frequently are in backwater from downstream storage.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	13	23	43	e31	127	104	36	36	52	21	16	42
2	13	24	42	e30	112	89	36	35	60	19	41	37
3	14	23	39	e30	97	76	36	32	53	39	30	32
4	76	22	37	e31	65	66	35	32	49	34	23	30
5	31	23	e36	e32	53	59	37	31	114	26	21	27
6	29	24	e34	e31	51	52	58	30	123	22	19	34
7	23	39	e33	e31	49	48	49	31	86	20	17	82
8	52	28	e31	e31	63	46	45	29	65	19	16	46
9	40	108	e30	e31	363	43	46	29	53	17	17	56
10	33	133	e28	e31	525	41	46	29	45	16	36	47
11	28	80	e29	e32	319	43	46	35	41	15	21	39
12	24	57	e30	e32	187	43	45	32	106	15	19	36
13	22	67	e29	e35	144	44	44	29	62	16	18	33
14	21	59	e29	44	128	43	42	40	49	14	16	31
15	21	52	e30	68	134	50	68	35	43	14	15	28
16	21	46	e31	79	113	63	56	39	37	14	26	28
17	19	41	e31	78	e95	74	50	35	33	16	22	27
18	19	37	e31	74	e81	83	48	32	30	15	39	36
19	19	35	e30	68	e71	79	46	30	27	14	37	77
20	19	32	e31	62	e60	71	52	29	25	14	31	49
21	20	30	e30	58	e56	63	64	43	42	61	27	43
22	17	30	e29	54	e54	58	57	35	30	60	27	39
23	17	27	e29	46	e53	53	55	34	27	90	25	63
24	40	26	e29	43	e110	49	50	32	25	95	28	73
25	26	28	e28	40	375	45	48	32	23	52	63	82
26	27	40	e27	42	308	41	44	58	23	36	104	60
27	26	38	e27	35	172	39	42	75	22	27	68	50
28	25	38	e27	40	132	37	40	57	22	23	51	44
29	23	42	e30	45	---	36	38	52	21	21	42	39
30	23	43	e29	117	---	36	36	48	21	19	36	36
31	22	---	e30	141	---	36	---	49	---	17	53	---
TOTAL	803	1295	969	1542	4097	1710	1395	1165	1409	881	1004	1346
MEAN	25.9	43.2	31.3	49.7	146	55.2	46.5	37.6	47.0	28.4	32.4	44.9
MAX	76	133	43	141	525	104	68	75	123	95	104	82
MIN	13	22	27	30	49	36	35	29	21	14	15	27
CFSM	.29	.48	.35	.55	1.63	.61	.52	.42	.52	.32	.36	.50
IN.	.33	.54	.40	.64	1.69	.71	.58	.48	.58	.36	.41	.56

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1959 - 2001, BY WATER YEAR (WY)

MEAN	34.4	58.5	73.6	64.5	84.6	127	128	93.6	73.0	40.2	37.4	40.0
MAX	151	212	301	199	252	386	268	266	222	185	141	217
(WY)	1994	1973	1983	1993	1959	1979	1973	1959	1993	1996	1990	1965
MIN	6.47	5.29	7.12	7.32	8.49	18.2	21.3	18.1	11.2	9.56	7.28	5.54
(WY)	1969	1972	1961	1961	1963	2000	1963	1992	1965	1965	1964	1966

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1959 - 2001	
ANNUAL TOTAL	14195.3		17616			
ANNUAL MEAN	38.8		48.3		71.1	
HIGHEST ANNUAL MEAN					121	1973
LOWEST ANNUAL MEAN					23.5	1964
HIGHEST DAILY MEAN	612	Jun 25	525	Feb 10	1160	Apr 28 1959
LOWEST DAILY MEAN	6.2	Jan 28	13	Oct 1	1.9	Aug 16 1964
ANNUAL SEVEN-DAY MINIMUM	6.3	Jan 24	14	Jul 14	2.2	Sep 2 1964
MAXIMUM PEAK FLOW			575	Feb 10	1510	Apr 28 1959
MAXIMUM PEAK STAGE			13.38	Feb 10	17.03	Nov 28 1990
ANNUAL RUNOFF (CFSM)	.43		.54		.79	
ANNUAL RUNOFF (INCHES)	5.87		7.28		10.73	
10 PERCENT EXCEEDS	74		79		180	
50 PERCENT EXCEEDS	23		36		32	
90 PERCENT EXCEEDS	10		21		8.8	

e Estimated

05536357 GRAND CALUMET RIVER AT HOHMAN AVE AT HAMMOND, IN

LOCATION.--Lat 41°37'28", long 87°31'04", in NE$^1/_4$NW$^1/_4$sec. 36, T37 N., R10 W., Lake County, Hydrologic Unit 07120003, on left bank, 20 feet upstream of Hohman Avenue, 1,000 feet east of Indiana-Illinois State line, 1,300 feet south of 173rd street, 1.0 mile north of U.S. Highway 41.

DRAINAGE AREA.--Indeterminate.

PERIOD OF RECORD.--October 1991 to current year.

GAGE.--Water-stage recorder. Datum of gage is 575.00 ft above sea level.

REMARKS.--Records poor.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e4.0	e5.7	6.0	8.1	13	15	9.3	9.0	17	13	16	3.7
2	e4.9	e4.8	5.4	e6.5	11	14	10	8.1	12	13	38	2.8
3	6.8	5.0	5.2	e10	10	14	10	7.9	11	24	29	2.5
4	38	4.1	e4.4	e5.7	9.7	13	9.3	7.0	11	16	17	2.1
5	13	4.1	4.4	e5.7	9.2	13	11	9.1	37	14	16	2.6
6	12	5.1	4.9	e6.0	11	13	17	e7.7	24	13	16	7.7
7	10	12	4.9	e6.0	9.6	14	9.8	8.6	18	15	16	26
8	28	4.3	e4.4	6.5	12	11	e8.0	e7.3	17	14	16	e2.3
9	15	38	4.7	e5.9	62	12	11	e6.8	13	15	16	14
10	12	17	e4.4	e5.2	53	11	8.8	e6.5	11	17	24	9.0
11	9.3	7.8	e5.5	e5.0	24	13	9.0	8.7	13	17	15	3.5
12	7.6	7.5	e4.8	e6.0	17	13	10	7.4	51	16	10	e2.3
13	8.4	17	e5.1	e5.9	15	12	e7.0	5.0	21	17	9.6	1.9
14	6.6	9.0	e5.9	8.9	17	11	e7.7	e9.9	16	16	7.4	1.8
15	6.6	8.5	e4.2	13	16	15	24	e6.8	14	16	6.0	.96
16	8.7	6.9	e5.2	9.8	14	18	11	13	11	17	15	e1.5
17	7.0	6.7	e5.2	8.0	14	19	11	e7.0	12	27	8.7	e5.6
18	6.0	e6.1	e4.4	7.9	12	18	9.3	6.2	11	24	16	16
19	6.4	6.4	e4.4	e7.1	12	16	8.7	5.9	10	19	17	27
20	e6.1	6.3	e4.4	e6.9	12	15	14	e5.7	11	17	10	6.9
21	4.5	6.6	e4.0	e6.7	11	15	19	17	29	30	7.2	e1.8
22	5.4	6.6	e4.5	e6.9	11	15	15	7.5	15	32	7.8	e1.3
23	5.1	6.5	e4.6	e6.3	10	14	14	e7.0	12	48	4.8	e18
24	18	5.8	e4.5	e6.4	39	12	11	8.3	10	41	6.3	30
25	6.2	e7.4	e4.7	e6.7	38	11	10	17	9.7	41	20	22
26	6.4	12	e5.0	e6.5	23	12	9.8	22	10	29	14	8.1
27	7.1	7.5	e4.8	e6.1	18	11	9.6	29	11	21	5.6	6.8
28	5.9	e6.5	e4.5	e7.5	16	11	9.1	13	12	17	4.5	5.5
29	5.2	8.2	e4.3	16	---	11	8.0	12	13	15	2.8	5.8
30	5.2	e6.1	e4.0	26	---	11	9.6	10	13	16	3.5	4.3
31	e5.0	---	9.8	14	---	10	---	13	---	17	15	---
TOTAL	290.4	255.5	152.5	253.2	519.5	413	331.0	309.4	475.7	647	410.2	243.76
MEAN	9.37	8.52	4.92	8.17	18.6	13.3	11.0	9.98	15.9	20.9	13.2	8.13
MAX	38	38	9.8	26	62	19	24	29	51	48	38	30
MIN	4.0	4.1	4.0	5.0	9.2	10	7.0	5.0	9.7	13	2.8	.96

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1991 - 2001, BY WATER YEAR (WY)

MEAN	35.2	34.0	29.8	29.5	33.6	36.0	42.8	44.5	48.0	49.8	41.4	37.2
MAX	80.4	63.7	65.2	66.8	95.9	81.5	90.8	85.9	98.8	102	93.9	88.9
(WY)	1998	1998	1998	1998	1997	1998	1998	1997	1993	1993	1997	1997
MIN	8.64	6.28	4.92	5.85	6.24	8.44	11.0	9.98	15.9	18.1	13.1	7.96
(WY)	2000	2000	2001	2000	2000	2000	2001	2001	2001	1999	1999	1999

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 1991 - 2001	
ANNUAL TOTAL	5168.4		4301.16			
ANNUAL MEAN	14.1		11.8		38.5	
HIGHEST ANNUAL MEAN					76.2	1997
LOWEST ANNUAL MEAN					11.8	2001
HIGHEST DAILY MEAN	129	Sep 12	62	Feb 9	464	Feb 21 1997
LOWEST DAILY MEAN	3.4	Sep 30	.96	Sep 15	.96	Sep 15 2001
ANNUAL SEVEN-DAY MINIMUM	4.1	Sep 26	2.5	Sep 11	2.5	Sep 11 2001
MAXIMUM PEAK FLOW			115	Jul 23	701	Feb 21 1997
MAXIMUM PEAK STAGE			5.80	Jul 23	8.76	Jul 18 1996
10 PERCENT EXCEEDS	34		19		78	
50 PERCENT EXCEEDS	8.5		10		31	
90 PERCENT EXCEEDS	4.6		4.5		8.6	

e Estimated

Special study and miscellaneous sites

Streamflow was measured near the Public Service Indiana's Cayuga power plant coolant water pumping station. Measurements were made to determine discharge at this non-continuous gaging site. They were collected in cooperation with the Public Service Indiana, through the Indiana Department of Natural Resources.

STREAMS TRIBUTARY TO OHIO RIVER BASIN

Wabash River basin

Stream	Location	Measurement date	Discharge (ft^3/s)
Wabash River	Lat 39°55'34"N, long 87°25'34"W, at the Public Service Indiana's Cayuga power plant Southeast of Cayuga, Vermillion County, IN. Drainage area 10,004mi^2	02-19-87	6410
		04-01-87	3370
		04-15-87	9010
		06-24-87	4250
		07-27-87	1860
		08-25-87	1380
		11-09-87	2190
		06-20-88	1340
		09-12-88	1380
		05-03-91	7440
		07-03-91	2770
		07-25-91	1690
		10-10-91	2290
		07-09-92	4640
		09-08-94	2350
		09-20-94	1590
		10-20-94	1860
		04-20-95	13800
		08-03-95	3140
		09-11-95	1600
		10-05-95	1700
		08-15-96	3260
		10-16-96	2290
		08-14-97	3150
		10-27-98	2880
		10-27-98	2850
		06-10-99	6530
		08-11-99	1510
		08-17-00	2140
		08-31-00	1540
		08-14-01	1960

391014086383301 NORTH SPRING, NEAL'S LANDFILL NEAR BLOOMINGTON, IN

LOCATION.--Lat 39°10'14", long 86°38'33", in SW$^1/_4$NE$^1/_4$SW$^1/_4$ sec. 33, T.9 N., R.2 W., Monroe County, Hydrologic Unit 05120202. An ephemeral spring approximately 5.9 mi west-northwest of City Hall of Bloomington, IN.

DRAINAGE AREA.--Unknown drainage area in karst-affected topographic setting.

PERIOD OF RECORD.--June 6, 2000 to November 14, 2001.

GAGE.--Water-stage recorder at 90-degree v-notch weir.

REMARKS.--Records are fair except for estimated daily discharges, which are poor. Flow is affected by water-treatment plant just upstream of gage. Data were collected in cooperation with the United States Environmental Protection Agency.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	.00	.00	.00
2	---	---	---	---	---	---	---	---	---	.00	.00	.00
3	---	---	---	---	---	---	---	---	---	.00	.00	.00
4	---	---	---	---	---	---	---	---	---	.00	.00	.00
5	---	---	---	---	---	---	---	---	---	.00	.00	.00
6	---	---	---	---	---	---	---	---	---	.00	.00	.00
7	---	---	---	---	---	---	---	---	.00	.00	.05	.00
8	---	---	---	---	---	---	---	---	.00	.00	.00	.00
9	---	---	---	---	---	---	---	---	.00	.00	.00	.00
10	---	---	---	---	---	---	---	---	.00	.00	.00	.02
11	---	---	---	---	---	---	---	---	.00	.00	.00	.00
12	---	---	---	---	---	---	---	---	.00	.00	.00	.00
13	---	---	---	---	---	---	---	---	.00	.00	.00	.00
14	---	---	---	---	---	---	---	---	.00	.00	.00	.00
15	---	---	---	---	---	---	---	---	.00	.00	.00	.00
16	---	---	---	---	---	---	---	---	.00	.00	.00	.00
17	---	---	---	---	---	---	---	---	.00	.00	.02	.00
18	---	---	---	---	---	---	---	---	.00	.00	.05	.00
19	---	---	---	---	---	---	---	---	.00	.00	.05	.00
20	---	---	---	---	---	---	---	---	.00	.00	.03	.00
21	---	---	---	---	---	---	---	---	.00	.00	.03	.00
22	---	---	---	---	---	---	---	---	.00	.00	.03	.00
23	---	---	---	---	---	---	---	---	.00	.00	.02	.00
24	---	---	---	---	---	---	---	---	.00	.00	.00	.00
25	---	---	---	---	---	---	---	---	.00	.00	.00	.01
26	---	---	---	---	---	---	---	---	.00	.00	.00	.00
27	---	---	---	---	---	---	---	---	.00	.00	.00	.00
28	---	---	---	---	---	---	---	---	.00	.00	.00	.00
29	---	---	---	---	---	---	---	---	.00	.00	.00	.00
30	---	---	---	---	---	---	---	---	.00	.00	.00	.00
31	---	---	---	---	---	---	---	---	---	.00	.00	---
TOTAL	---	---	---	---	---	---	---	---	0.00	0.00	0.28	0.03
MEAN	---	---	---	---	---	---	---	---	.000	.000	.009	.001
MAX	---	---	---	---	---	---	---	---	.00	.00	.05	.02
MIN	---	---	---	---	---	---	---	---	.00	.00	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2000, BY WATER YEAR (WY)

MEAN	---	---	---	---	---	---	---	---	---	.000	.009	.001
MAX	---	---	---	---	---	---	---	---	---	.000	.009	.001
(WY)	---	---	---	---	---	---	---	---	---	2000	2000	2000
MIN	---	---	---	---	---	---	---	---	---	.000	.009	.001
(WY)	---	---	---	---	---	---	---	---	---	2000	2000	2000

SUMMARY STATISTICS	FOR 2000 WATER YEAR		
HIGHEST DAILY MEAN	.05	Aug	7
LOWEST DAILY MEAN	.00	Jun	7
ANNUAL SEVEN-DAY MINIMUM	.00	Jun	7
10 PERCENT EXCEEDS	.00		
50 PERCENT EXCEEDS	.00		
90 PERCENT EXCEEDS	.00		

391014086383301 NORTH SPRING, NEAL'S LANDFILL NEAR BLOOMINGTON, IN--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00
2	.00	.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00
3	.00	.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00
4	.01	.00	.00	e.00	.00	.00	.00	.00	.01	.00	.00	.00
5	.35	.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00
6	.01	.00	.00	.00	.00	.00	.00	.00	.01	.00	.00	.00
7	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
8	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
9	.00	.09	.00	.00	.07	.00	.00	.00	.00	.00	.00	.05
10	.00	.03	.00	.00	.08	.00	.00	.00	.00	.00	.00	.01
11	.00	.00	.07	.00	.00	.00	.00	.02	.00	.00	.00	.00
12	.00	.00	.03	.00	.00	.00	.00	.00	.00	.00	.00	.00
13	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
14	.00	.00	.00	.01	.00	.00	.00	.00	.00	.00	.00	.00
15	.00	.00	.00	.02	.00	.00	.00	.00	.00	.00	.00	.00
16	.00	.00	.11	.00	.00	.00	.00	.00	.00	.00	.00	.00
17	.00	.00	e.05	.00	.00	.00	.00	.00	.00	.00	.00	.00
18	.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
19	.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
20	.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
21	.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
22	.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
23	.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
24	.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
25	.00	.00	e.00	.00	.10	.00	.00	.00	.00	.00	.00	.00
26	.00	.00	e.00	.00	.01	.00	.00	.00	.00	.00	.00	.00
27	.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
28	.00	.00	e.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
29	.00	.00	e.00	.00	---	.00	.00	.00	.00	.01	.00	.00
30	.00	.00	e.00	.00	---	.00	.00	.00	.00	.00	.00	.00
31	.00	---	e.00	.00	---	.00	---	.00	---	.00	.00	---
TOTAL	0.37	0.12	0.26	0.03	0.26	0.00	0.00	0.02	0.02	0.01	0.00	0.06
MEAN	.012	.004	.008	.001	.009	.000	.000	.001	.001	.000	.000	.002
MAX	.35	.09	.11	.02	.10	.00	.00	.02	.01	.01	.00	.05
MIN	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2001, BY WATER YEAR (WY)

MEAN	.012	.004	.008	.001	.009	.000	.000	.001	.001	.000	.005	.002
MAX	.012	.004	.008	.001	.009	.000	.000	.001	.001	.000	.009	.002
(WY)	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001	2000	2001
MIN	.012	.004	.008	.001	.009	.000	.000	.001	.001	.000	.000	.001
(WY)	2001	2001	2001	2001	2001	2001	2001	2001	2001	2000	2001	2000

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 2000 - 2001	
ANNUAL TOTAL			1.15			
ANNUAL MEAN			.003		.003	
HIGHEST ANNUAL MEAN					.003	2001
LOWEST ANNUAL MEAN					.003	2001
HIGHEST DAILY MEAN	.35	Oct 5	.35	Oct 5	.35	Oct 5 2000
LOWEST DAILY MEAN	.00	Jun 7	.00	Oct 1	.00	Jun 7 2000
ANNUAL SEVEN-DAY MINIMUM	.00	Jun 7	.00	Oct 7	.00	Jun 7 2000
10 PERCENT EXCEEDS	.00		.00		.00	
50 PERCENT EXCEEDS	.00		.00		.00	
90 PERCENT EXCEEDS	.00		.00		.00	

e Estimated

391014086383301 NORTH SPRING, NEAL'S LANDFILL NEAR BLOOMINGTON, IN--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	---	---	---	---	---	---	---	---	---	---
2	.00	.00	---	---	---	---	---	---	---	---	---	---
3	.00	.00	---	---	---	---	---	---	---	---	---	---
4	.00	.00	---	---	---	---	---	---	---	---	---	---
5	.00	.00	---	---	---	---	---	---	---	---	---	---
6	.00	.00	---	---	---	---	---	---	---	---	---	---
7	.00	.00	---	---	---	---	---	---	---	---	---	---
8	.00	.00	---	---	---	---	---	---	---	---	---	---
9	.00	.00	---	---	---	---	---	---	---	---	---	---
10	.00	.00	---	---	---	---	---	---	---	---	---	---
11	.02	.00	---	---	---	---	---	---	---	---	---	---
12	.04	.00	---	---	---	---	---	---	---	---	---	---
13	.00	.00	---	---	---	---	---	---	---	---	---	---
14	.12	---	---	---	---	---	---	---	---	---	---	---
15	.00	---	---	---	---	---	---	---	---	---	---	---
16	.00	---	---	---	---	---	---	---	---	---	---	---
17	.00	---	---	---	---	---	---	---	---	---	---	---
18	.00	---	---	---	---	---	---	---	---	---	---	---
19	.00	---	---	---	---	---	---	---	---	---	---	---
20	.00	---	---	---	---	---	---	---	---	---	---	---
21	.00	---	---	---	---	---	---	---	---	---	---	---
22	.00	---	---	---	---	---	---	---	---	---	---	---
23	.02	---	---	---	---	---	---	---	---	---	---	---
24	.26	---	---	---	---	---	---	---	---	---	---	---
25	.10	---	---	---	---	---	---	---	---	---	---	---
26	.00	---	---	---	---	---	---	---	---	---	---	---
27	.00	---	---	---	---	---	---	---	---	---	---	---
28	.00	---	---	---	---	---	---	---	---	---	---	---
29	.00	---	---	---	---	---	---	---	---	---	---	---
30	.00	---	---	---	---	---	---	---	---	---	---	---
31	.00	---	---	---	---	---	---	---	---	---	---	---
TOTAL	0.56	0.00	---	---	---	---	---	---	---	---	---	---
MEAN	.018	.000	---	---	---	---	---	---	---	---	---	---
MAX	.26	.00	---	---	---	---	---	---	---	---	---	---
MIN	.00	.00	---	---	---	---	---	---	---	---	---	---

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2002, BY WATER YEAR (WY)

MEAN	.015	.004	.008	.001	.009	.000	.000	.001	.001	.000	.005	.002
MAX	.018	.004	.008	.001	.009	.000	.000	.001	.001	.000	.009	.002
(WY)	2002	2001	2001	2001	2001	2001	2001	2001	2001	2001	2000	2001
MIN	.012	.004	.008	.001	.009	.000	.000	.001	.001	.000	.000	.001
(WY)	2001	2001	2001	2001	2001	2001	2001	2001	2001	2000	2001	2000

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 2000 - 2002	
ANNUAL MEAN					.003	
HIGHEST ANNUAL MEAN					.003	2001
LOWEST ANNUAL MEAN					.003	2001
HIGHEST DAILY MEAN	.26	Oct 24	.26	Oct 24	.35	Oct 5 2000
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Jun 7 2000
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 1	.00	Jun 7 2000
10 PERCENT EXCEEDS	.00		.03		.00	
50 PERCENT EXCEEDS	.00		.00		.00	
90 PERCENT EXCEEDS	.00		.00		.00	

391007086383101 OVERFLOW SPRING 0, NEAL'S LANDFILL NEAR BLOOMINGTON, IN

LOCATION.--Lat 39°10'07", long 86°38'31", in NW$^1/_4$SE$^1/_4$SW$^1/_4$ sec. 33, T.9 N., R.2 W., Monroe County, Hydrologic Unit 05120202. An ephemeral spring approximately 5.9 mi west-northwest of City Hall of Bloomington, IN.

DRAINAGE AREA.--Unknown drainage area in karst-affected topographic setting.

PERIOD OF RECORD.--June 6, 2000 to November 14, 2001.

GAGE.--Water-stage recorder at 9" Parshall flume.

REMARKS.--Records are fair except for estimated daily discharges, which are poor. Data were collected in cooperation with the United States Environmental Protection Agency.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	.00	.00	.00
2	---	---	---	---	---	---	---	---	---	.00	.04	.00
3	---	---	---	---	---	---	---	---	---	.00	.10	.00
4	---	---	---	---	---	---	---	---	---	.00	.00	.09
5	---	---	---	---	---	---	---	---	---	.00	.00	.00
6	---	---	---	---	---	---	---	---	---	.00	.00	.00
7	---	---	---	---	---	---	---	---	.00	.00	.36	.00
8	---	---	---	---	---	---	---	---	.00	.00	.00	.00
9	---	---	---	---	---	---	---	---	.00	.00	.00	.00
10	---	---	---	---	---	---	---	---	.00	.00	.00	1.2
11	---	---	---	---	---	---	---	---	.00	.00	.00	.35
12	---	---	---	---	---	---	---	---	.00	.00	.00	1.1
13	---	---	---	---	---	---	---	---	.00	.00	.00	.33
14	---	---	---	---	---	---	---	---	.00	.00	.00	.11
15	---	---	---	---	---	---	---	---	.00	.00	.00	.04
16	---	---	---	---	---	---	---	---	.00	.00	.00	.03
17	---	---	---	---	---	---	---	---	.12	.00	.00	.03
18	---	---	---	---	---	---	---	---	.05	.00	.00	.02
19	---	---	---	---	---	---	---	---	.00	.00	.00	.01
20	---	---	---	---	---	---	---	---	.00	.00	.00	.14
21	---	---	---	---	---	---	---	---	.00	.00	.00	.10
22	---	---	---	---	---	---	---	---	.00	.00	.00	.03
23	---	---	---	---	---	---	---	---	.00	.00	.00	.03
24	---	---	---	---	---	---	---	---	.00	.00	.00	.39
25	---	---	---	---	---	---	---	---	.00	.00	.00	2.5
26	---	---	---	---	---	---	---	---	.00	.00	.00	2.0
27	---	---	---	---	---	---	---	---	.00	.00	.00	.72
28	---	---	---	---	---	---	---	---	.00	.00	.00	.40
29	---	---	---	---	---	---	---	---	.00	.00	.00	.27
30	---	---	---	---	---	---	---	---	.00	.00	.00	.14
31	---	---	---	---	---	---	---	---	---	.00	.00	---
TOTAL	---	---	---	---	---	---	---	---	0.17	0.00	0.50	10.03
MEAN	---	---	---	---	---	---	---	---	.007	.000	.016	.33
MAX	---	---	---	---	---	---	---	---	.12	.00	.36	2.5
MIN	---	---	---	---	---	---	---	---	.00	.00	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2000, BY WATER YEAR (WY)

MEAN	---	---	---	---	---	---	---	---	---	.000	.016	.33
MAX	---	---	---	---	---	---	---	---	---	.000	.016	.33
(WY)	---	---	---	---	---	---	---	---	---	2000	2000	2000
MIN	---	---	---	---	---	---	---	---	---	.000	.016	.33
(WY)	---	---	---	---	---	---	---	---	---	2000	2000	2000

SUMMARY STATISTICS FOR 2000 WATER YEAR

HIGHEST DAILY MEAN	2.5	Sep 25
LOWEST DAILY MEAN	.00	Jun 7
ANNUAL SEVEN-DAY MINIMUM	.00	Jun 7
MAXIMUM PEAK FLOW	4.8	Sep 25
MAXIMUM PEAK STAGE	1.33	Sep 25
10 PERCENT EXCEEDS	.18	
50 PERCENT EXCEEDS	.00	
90 PERCENT EXCEEDS	.00	

391007086383101 OVERFLOW SPRING 0, NEAL'S LANDFILL NEAR BLOOMINGTON, IN--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.08	.00	.05	.00	.60	e.20	.00	.00	.00	.00	.00	.00
2	.06	.00	.03	.00	.42	e.17	.00	.00	.00	.00	.00	.00
3	.01	.00	.02	.00	.26	e.14	.00	.00	.00	.00	.00	.00
4	.59	.00	.01	.00	.20	e.12	.00	.00	1.1	.99	.00	.00
5	3.7	.00	.00	.00	.18	e.09	.00	.00	.48	.25	.00	.00
6	1.3	.00	.00	.00	.15	e.06	.00	.00	.49	.00	.00	.00
7	.70	.00	.00	.00	.13	e.04	.00	.00	.07	.00	.00	.00
8	.44	.00	.00	.00	e.12	e.02	.00	.00	.00	.12	.00	.00
9	.29	1.3	.00	.00	e1.1	e.01	.00	.00	.00	.14	.00	.53
10	.20	.77	.00	.00	e.80	e.00	.00	.00	.00	.00	.00	.05
11	.13	.40	.99	.00	e.46	e.00	.00	.00	.00	.00	.00	.00
12	.06	.26	.67	.00	e.33	e.00	.71	.00	.00	.00	.00	.00
13	.02	.21	.39	.00	e.27	e.00	.20	.00	.00	.00	.00	.00
14	.01	.19	.27	.12	e.24	e.00	.09	.00	.00	.00	.00	.00
15	.01	.11	.19	.37	e.25	.00	.05	.00	.00	.00	.00	.00
16	.01	.10	1.8	.24	e.24	.00	.03	.00	.00	.00	.00	.00
17	.88	.07	.84	.18	e.20	.00	.01	.00	.00	.00	.00	.00
18	.34	.03	.54	.16	e.18	.00	.00	.00	.00	.00	.00	.00
19	.23	.02	e.36	.14	e.17	.00	.00	.00	.01	.00	.00	e.02
20	.09	.00	e.26	.08	e.15	.00	.00	.00	.00	.00	.00	e.00
21	.03	.00	e.20	.07	e.12	.00	.00	.00	.00	.00	.00	e.00
22	.01	.00	e.15	.05	e.11	.00	.00	.00	.00	.00	.00	e.00
23	.01	.00	e.11	.05	e.08	.00	.00	.00	.00	.00	.00	e.00
24	.00	.00	e.07	.05	e.07	.00	.00	.00	.00	.07	.00	e.00
25	.00	.31	e.04	.03	e1.0	.00	.00	.00	.00	.06	.00	e.00
26	.00	.38	e.02	.02	e.41	.00	.00	.00	.00	.00	.00	e.00
27	.00	.28	e.01	.01	e.31	.00	.00	.00	.00	.00	.00	e.00
28	.00	.20	e.00	.00	e.24	.00	.00	.00	.00	.00	.00	e.00
29	.00	.16	.00	.19	---	.00	.00	.00	.00	e1.3	.00	e.00
30	.00	.09	.00	1.5	---	.00	.00	.00	.00	e.16	.00	e.00
31	.00	---	.00	1.0	---	.00	---	.00	---	.00	.00	---
TOTAL	9.20	4.88	7.02	4.26	8.79	0.85	1.09	0.00	2.15	3.09	0.00	0.60
MEAN	.30	.16	.23	.14	.31	.027	.036	.000	.072	.10	.000	.020
MAX	3.7	1.3	1.8	1.5	1.1	.20	.71	.00	1.1	1.3	.00	.53
MIN	.00	.00	.00	.00	.07	.00	.00	.00	.00	.00	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2001, BY WATER YEAR (WY)

MEAN	.30	.16	.23	.14	.31	.027	.036	.000	.072	.050	.008	.18
MAX	.30	.16	.23	.14	.31	.027	.036	.000	.072	.10	.016	.33
(WY)	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001	2000	2000
MIN	.30	.16	.23	.14	.31	.027	.036	.000	.072	.000	.000	.020
(WY)	2001	2001	2001	2001	2001	2001	2001	2001	2001	2000	2001	2001

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 2000 - 2001	
ANNUAL TOTAL			41.93			
ANNUAL MEAN			.11		.11	
HIGHEST ANNUAL MEAN					.11	2001
LOWEST ANNUAL MEAN					.11	2001
HIGHEST DAILY MEAN	3.7	Oct 5	3.7	Oct 5	3.7	Oct 5 2000
LOWEST DAILY MEAN	.00	Jun 7	.00	Oct 24	.00	Jun 7 2000
ANNUAL SEVEN-DAY MINIMUM	.00	Jun 7	.00	Oct 24	.00	Jun 7 2000
MAXIMUM PEAK FLOW			5.3	Oct 5	5.3	Oct 5 2000
MAXIMUM PEAK STAGE			1.42	Oct 5	1.42	Oct 5 2000
10 PERCENT EXCEEDS	.39		.32		.31	
50 PERCENT EXCEEDS	.00		.00		.00	
90 PERCENT EXCEEDS	.00		.00		.00	

e Estimated

391007086383101 OVERFLOW SPRING 0, NEAL'S LANDFILL NEAR BLOOMINGTON, IN--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	e.00	.02	---	---	---	---	---	---	---	---	---	---
2	e.00	.01	---	---	---	---	---	---	---	---	---	---
3	e.00	.00	---	---	---	---	---	---	---	---	---	---
4	e.00	.00	---	---	---	---	---	---	---	---	---	---
5	e.00	.00	---	---	---	---	---	---	---	---	---	---
6	e.00	.00	---	---	---	---	---	---	---	---	---	---
7	e.00	.00	---	---	---	---	---	---	---	---	---	---
8	e.00	.00	---	---	---	---	---	---	---	---	---	---
9	e.00	.00	---	---	---	---	---	---	---	---	---	---
10	e.00	.00	---	---	---	---	---	---	---	---	---	---
11	e.80	.00	---	---	---	---	---	---	---	---	---	---
12	.98	.00	---	---	---	---	---	---	---	---	---	---
13	.24	.00	---	---	---	---	---	---	---	---	---	---
14	1.9	---	---	---	---	---	---	---	---	---	---	---
15	.58	---	---	---	---	---	---	---	---	---	---	---
16	.55	---	---	---	---	---	---	---	---	---	---	---
17	.40	---	---	---	---	---	---	---	---	---	---	---
18	.24	---	---	---	---	---	---	---	---	---	---	---
19	.08	---	---	---	---	---	---	---	---	---	---	---
20	.02	---	---	---	---	---	---	---	---	---	---	---
21	.01	---	---	---	---	---	---	---	---	---	---	---
22	.01	---	---	---	---	---	---	---	---	---	---	---
23	.36	---	---	---	---	---	---	---	---	---	---	---
24	4.4	---	---	---	---	---	---	---	---	---	---	---
25	1.4	---	---	---	---	---	---	---	---	---	---	---
26	.66	---	---	---	---	---	---	---	---	---	---	---
27	.46	---	---	---	---	---	---	---	---	---	---	---
28	.31	---	---	---	---	---	---	---	---	---	---	---
29	.18	---	---	---	---	---	---	---	---	---	---	---
30	.07	---	---	---	---	---	---	---	---	---	---	---
31	.03	---	---	---	---	---	---	---	---	---	---	---
TOTAL	13.68	0.03	---	---	---	---	---	---	---	---	---	---
MEAN	.44	.002	---	---	---	---	---	---	---	---	---	---
MAX	4.4	.02	---	---	---	---	---	---	---	---	---	---
MIN	.00	.00	---	---	---	---	---	---	---	---	---	---

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2002, BY WATER YEAR (WY)

MEAN	.37	.16	.23	.14	.31	.027	.036	.000	.072	.050	.008	.18
MAX	.44	.16	.23	.14	.31	.027	.036	.000	.072	.10	.016	.33
(WY)	2002	2001	2001	2001	2001	2001	2001	2001	2001	2001	2000	2000
MIN	.30	.16	.23	.14	.31	.027	.036	.000	.072	.000	.000	.020
(WY)	2001	2001	2001	2001	2001	2001	2001	2001	2001	2000	2001	2001

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 2000 - 2002	
ANNUAL MEAN					.11	
HIGHEST ANNUAL MEAN					.11	2001
LOWEST ANNUAL MEAN					.11	2001
HIGHEST DAILY MEAN	4.4	Oct 24	4.4	Oct 24	4.4	Oct 24 2001
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Jun 7 2000
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 1	.00	Jun 7 2000
MAXIMUM PEAK FLOW			5.9	Oct 24	5.9	Oct 24 2001
MAXIMUM PEAK STAGE			1.53	Oct 24	1.53	Oct 24 2001
10 PERCENT EXCEEDS	.28		.89		.36	
50 PERCENT EXCEEDS	.00		.01		.00	
90 PERCENT EXCEEDS	.00		.00		.00	

e Estimated

391008086383201 OVERFLOW SPRINGS 0, 1, & 2, NEAL'S LANDFILL NEAR BLOOMINGTON, IN

LOCATION.--Lat 39°10'08", long 86°38'32", in NW$^1/_4$SE$^1/_4$SW$^1/_4$ sec. 33, T.9 N., R.2 W., Monroe County, Hydrologic Unit 05120202. Three ephemeral springs approximately 5.9 mi west-northwest of City Hall of Bloomington, IN.

DRAINAGE AREA.--Unknown drainage area in karst-affected topographic setting.

PERIOD OF RECORD.--June 6, 2000 to November 14, 2001.

GAGE.--Water-stage recorder at 90-degree, v-notch weir.

REMARKS.--Records are fair except for estimated daily discharges, which are poor. Data were collected in cooperation with the United States Environmental Protection Agency.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	.00	.00	.00
2	---	---	---	---	---	---	---	---	---	.00	.08	.00
3	---	---	---	---	---	---	---	---	---	.00	.24	.00
4	---	---	---	---	---	---	---	---	---	.00	.00	.26
5	---	---	---	---	---	---	---	---	---	.00	.00	.00
6	---	---	---	---	---	---	---	---	---	.00	.00	.00
7	---	---	---	---	---	---	---	---	.00	.00	.91	.00
8	---	---	---	---	---	---	---	---	.00	.00	.03	.00
9	---	---	---	---	---	---	---	---	.00	.00	.00	.00
10	---	---	---	---	---	---	---	---	.00	.00	.00	2.4
11	---	---	---	---	---	---	---	---	.00	.00	.00	.78
12	---	---	---	---	---	---	---	---	.00	.00	.00	1.9
13	---	---	---	---	---	---	---	---	.00	.00	.00	.52
14	---	---	---	---	---	---	---	---	.00	.00	.00	.17
15	---	---	---	---	---	---	---	---	.00	.00	.00	.05
16	---	---	---	---	---	---	---	---	.00	.00	.00	.00
17	---	---	---	---	---	---	---	---	.33	.00	.00	.00
18	---	---	---	---	---	---	---	---	.17	.00	.02	.00
19	---	---	---	---	---	---	---	---	.00	.00	.00	.00
20	---	---	---	---	---	---	---	---	.00	.00	.00	.25
21	---	---	---	---	---	---	---	---	.00	.00	.00	.20
22	---	---	---	---	---	---	---	---	.00	.00	.00	.02
23	---	---	---	---	---	---	---	---	.00	.00	.00	.00
24	---	---	---	---	---	---	---	---	.00	.00	.00	.69
25	---	---	---	---	---	---	---	---	.00	.00	.00	4.7
26	---	---	---	---	---	---	---	---	.00	.00	.00	3.5
27	---	---	---	---	---	---	---	---	.00	.00	.00	1.2
28	---	---	---	---	---	---	---	---	.00	.00	.00	.66
29	---	---	---	---	---	---	---	---	.00	.00	.00	.40
30	---	---	---	---	---	---	---	---	.00	.00	.00	.25
31	---	---	---	---	---	---	---	---	---	.00	.00	---
TOTAL	---	---	---	---	---	---	---	---	0.50	0.00	1.28	17.95
MEAN	---	---	---	---	---	---	---	---	.021	.000	.041	.60
MAX	---	---	---	---	---	---	---	---	.33	.00	.91	4.7
MIN	---	---	---	---	---	---	---	---	.00	.00	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2000, BY WATER YEAR (WY)

MEAN	---	---	---	---	---	---	---	---	---	.000	.041	.60
MAX	---	---	---	---	---	---	---	---	---	.000	.041	.60
(WY)	---	---	---	---	---	---	---	---	---	2000	2000	2000
MIN	---	---	---	---	---	---	---	---	---	.000	.041	.60
(WY)	---	---	---	---	---	---	---	---	---	2000	2000	2000

SUMMARY STATISTICS	FOR 2000 WATER YEAR	
HIGHEST DAILY MEAN	4.7	Sep 25
LOWEST DAILY MEAN	.00	Jun 7
ANNUAL SEVEN-DAY MINIMUM	.00	Jun 7
MAXIMUM PEAK FLOW	9.3	Sep 25
MAXIMUM PEAK STAGE	1.70	Sep 25
10 PERCENT EXCEEDS	.35	
50 PERCENT EXCEEDS	.00	
90 PERCENT EXCEEDS	.00	

391008086383201 OVERFLOW SPRINGS 0, 1, & 2, NEAL'S LANDFILL NEAR BLOOMINGTON, IN--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.13	.00	.22	e.00	1.1	.41	.00	.00	.00	.00	.00	.00
2	.06	.00	.15	e.00	.72	.35	.00	.00	.00	.00	.00	.00
3	.02	.00	.10	e.00	.52	.29	.00	.00	.00	.00	.00	.00
4	1.1	.00	.09	e.00	.42	.24	.00	.00	2.2	2.3	.00	.00
5	7.0	.00	.06	.00	.39	.18	.00	.00	1.0	.82	.00	.00
6	2.3	.00	.04	.00	.34	.13	.00	.00	.96	.14	.00	.00
7	1.4	.00	.03	.00	.27	.11	.00	.00	.25	.01	.00	.00
8	.88	.00	.01	.00	.26	.08	.00	.00	.06	.31	.00	.00
9	.62	2.6	.00	.00	2.2	.05	.00	.00	.00	.65	.00	1.4
10	.46	1.6	.00	.00	1.6	.03	.00	.00	.00	.15	.00	.31
11	.32	.86	2.0	.00	.93	.02	.00	.00	.00	.02	.00	.00
12	.20	.61	1.3	.00	.67	.00	1.2	.00	.00	.00	.00	.00
13	.12	.56	.75	.00	.55	.00	.32	.00	.00	.00	.00	.00
14	.06	.45	.55	.33	.49	.00	.17	.00	.00	.00	.00	.00
15	.02	.34	.43	.83	.51	.00	.13	.00	.00	.00	.00	.00
16	.00	.29	3.8	.53	.48	.00	.08	.00	.00	.00	.00	.00
17	1.6	.19	1.6	.38	.41	.00	.03	.00	.00	.00	.00	.00
18	.74	.13	1.0	.34	.36	.00	.00	.00	.00	.00	.00	.00
19	.46	.11	.75	.30	.34	.00	.00	.00	.04	.00	.00	.07
20	.32	.07	.58	.23	.30	.00	.00	.00	.01	.00	.00	.00
21	.24	.03	.47	.19	.25	.00	.00	.00	.00	.00	.00	.00
22	.14	.02	.36	.16	.22	.00	.00	.00	.00	.00	.00	.00
23	.10	.00	e.28	.14	.16	.00	.00	.00	.00	.00	.00	.00
24	.07	.00	e.22	.12	.15	.00	.00	.00	.00	.14	.00	.00
25	.05	.64	e.16	.08	2.1	.00	.00	.00	.00	.16	.02	.00
26	.02	.79	e.12	.08	.83	.00	.00	.00	.00	.00	.00	.00
27	.00	.58	e.09	.05	.62	.00	.00	.00	.00	.00	.00	.00
28	.00	.43	e.06	.04	.48	.00	.00	.00	.00	.00	.02	.00
29	.00	.35	e.04	.44	---	.00	.00	.00	.00	2.7	.00	.00
30	.00	.28	e.02	3.2	---	.00	.00	.00	.00	.35	.00	.00
31	.00	---	e.01	2.0	---	.00	---	.00	---	.07	.00	---
TOTAL	18.43	10.93	15.29	9.44	17.67	1.89	1.93	0.00	4.52	7.82	0.04	1.78
MEAN	.59	.36	.49	.30	.63	.061	.064	.000	.15	.25	.001	.059
MAX	7.0	2.6	3.8	3.2	2.2	.41	1.2	.00	2.2	2.7	.02	1.4
MIN	.00	.00	.00	.00	.15	.00	.00	.00	.00	.00	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2001, BY WATER YEAR (WY)

MEAN	.59	.36	.49	.30	.63	.061	.064	.000	.15	.13	.021	.33
MAX	.59	.36	.49	.30	.63	.061	.064	.000	.15	.25	.041	.60
(WY)	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001	2000	2000
MIN	.59	.36	.49	.30	.63	.061	.064	.000	.15	.000	.001	.059
(WY)	2001	2001	2001	2001	2001	2001	2001	2001	2001	2000	2001	2001

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 2000 - 2001	
ANNUAL TOTAL			89.74			
ANNUAL MEAN			.25		.25	
HIGHEST ANNUAL MEAN					.25	2001
LOWEST ANNUAL MEAN					.25	2001
HIGHEST DAILY MEAN	7.0	Oct 5	7.0	Oct 5	7.0	Oct 5 2000
LOWEST DAILY MEAN	.00	Jun 7	.00	Oct 16	.00	Jun 7 2000
ANNUAL SEVEN-DAY MINIMUM	.00	Jun 7	.00	Oct 27	.00	Jun 7 2000
MAXIMUM PEAK FLOW			10	Oct 5	10	Oct 5 2000
MAXIMUM PEAK STAGE			1.76	Oct 5	1.76	Oct 5 2000
10 PERCENT EXCEEDS	.80		.69		.64	
50 PERCENT EXCEEDS	.00		.00		.00	
90 PERCENT EXCEEDS	.00		.00		.00	

e Estimated

391008086383201 OVERFLOW SPRINGS 0, 1, & 2, NEAL'S LANDFILL NEAR BLOOMINGTON, IN--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.04	---	---	---	---	---	---	---	---	---	---
2	.00	.01	---	---	---	---	---	---	---	---	---	---
3	.00	.00	---	---	---	---	---	---	---	---	---	---
4	.00	.00	---	---	---	---	---	---	---	---	---	---
5	.00	.00	---	---	---	---	---	---	---	---	---	---
6	.00	.00	---	---	---	---	---	---	---	---	---	---
7	.00	.00	---	---	---	---	---	---	---	---	---	---
8	.00	.00	---	---	---	---	---	---	---	---	---	---
9	.00	.00	---	---	---	---	---	---	---	---	---	---
10	.00	.00	---	---	---	---	---	---	---	---	---	---
11	1.2	.00	---	---	---	---	---	---	---	---	---	---
12	1.4	.00	---	---	---	---	---	---	---	---	---	---
13	.31	.00	---	---	---	---	---	---	---	---	---	---
14	3.6	---	---	---	---	---	---	---	---	---	---	---
15	.92	---	---	---	---	---	---	---	---	---	---	---
16	.83	---	---	---	---	---	---	---	---	---	---	---
17	.60	---	---	---	---	---	---	---	---	---	---	---
18	.36	---	---	---	---	---	---	---	---	---	---	---
19	.18	---	---	---	---	---	---	---	---	---	---	---
20	.07	---	---	---	---	---	---	---	---	---	---	---
21	.01	---	---	---	---	---	---	---	---	---	---	---
22	.00	---	---	---	---	---	---	---	---	---	---	---
23	.76	---	---	---	---	---	---	---	---	---	---	---
24	9.3	---	---	---	---	---	---	---	---	---	---	---
25	2.6	---	---	---	---	---	---	---	---	---	---	---
26	.98	---	---	---	---	---	---	---	---	---	---	---
27	.61	---	---	---	---	---	---	---	---	---	---	---
28	.40	---	---	---	---	---	---	---	---	---	---	---
29	.23	---	---	---	---	---	---	---	---	---	---	---
30	.12	---	---	---	---	---	---	---	---	---	---	---
31	.08	---	---	---	---	---	---	---	---	---	---	---
TOTAL	24.56	0.05	---	---	---	---	---	---	---	---	---	---
MEAN	.79	.004	---	---	---	---	---	---	---	---	---	---
MAX	9.3	.04	---	---	---	---	---	---	---	---	---	---
MIN	.00	.00	---	---	---	---	---	---	---	---	---	---

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2002, BY WATER YEAR (WY)

MEAN	.69	.36	.49	.30	.63	.061	.064	.000	.15	.13	.021	.33
MAX	.79	.36	.49	.30	.63	.061	.064	.000	.15	.25	.041	.60
(WY)	2002	2001	2001	2001	2001	2001	2001	2001	2001	2001	2000	2000
MIN	.59	.36	.49	.30	.63	.061	.064	.000	.15	.000	.001	.059
(WY)	2001	2001	2001	2001	2001	2001	2001	2001	2001	2000	2001	2001

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 2000 - 2002	
ANNUAL MEAN					.25	
HIGHEST ANNUAL MEAN					.25	2001
LOWEST ANNUAL MEAN					.25	2001
HIGHEST DAILY MEAN	9.3	Oct 24	9.3	Oct 24	9.3	Oct 24 2001
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Jun 7 2000
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 1	.00	Jun 7 2000
MAXIMUM PEAK FLOW			13	Oct 24	13	Oct 24 2001
MAXIMUM PEAK STAGE			1.95	Oct 24	1.95	Oct 24 2001
10 PERCENT EXCEEDS	.60		1.3		.70	
50 PERCENT EXCEEDS	.00		.00		.00	
90 PERCENT EXCEEDS	.00		.00		.00	

391008086383301 OVERFLOW SPRINGS 3 & 4, NEAL'S LANDFILL NEAR BLOOMINGTON, IN

LOCATION.--Lat 39°10'08", long 86°38'33", in NW$^1/_4$SE$^1/_4$SW$^1/_4$ sec. 33, T.9 N., R.2 W., Monroe County, Hydrologic Unit 05120202. Two ephemeral springs approximately 5.9 miles west-northwest of City Hall of Bloomington, IN.

DRAINAGE AREA.--Unknown drainage area in karst-affected topographic setting.

PERIOD OF RECORD.--June 6, 2000 to November 14, 2001.

GAGE.--Water-stage recorder at 90-degree, v-notch weir.

REMARKS.--Records are fair except for estimated daily discharges, which are poor. Data were collected in cooperation with the United States Environmental Protection Agency.

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1999 TO SEPTEMBER 2000
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	---	---	---	---	---	---	---	---	---	.00	.00	.00
2	---	---	---	---	---	---	---	---	---	.00	.02	.00
3	---	---	---	---	---	---	---	---	---	.00	.00	.00
4	---	---	---	---	---	---	---	---	---	.00	.00	.03
5	---	---	---	---	---	---	---	---	---	.00	.00	.00
6	---	---	---	---	---	---	---	---	---	.00	.00	.00
7	---	---	---	---	---	---	---	---	.00	.00	.23	.00
8	---	---	---	---	---	---	---	---	.00	.00	.00	.00
9	---	---	---	---	---	---	---	---	.00	.00	.00	.00
10	---	---	---	---	---	---	---	---	.00	.00	.00	1.8
11	---	---	---	---	---	---	---	---	.00	.00	.00	.02
12	---	---	---	---	---	---	---	---	.00	.00	.00	.63
13	---	---	---	---	---	---	---	---	.00	.00	.00	.00
14	---	---	---	---	---	---	---	---	.00	.00	.00	.00
15	---	---	---	---	---	---	---	---	.00	.00	.00	.00
16	---	---	---	---	---	---	---	---	.00	.00	.00	.00
17	---	---	---	---	---	---	---	---	.00	.00	.00	.00
18	---	---	---	---	---	---	---	---	.00	.00	.00	.00
19	---	---	---	---	---	---	---	---	.00	.00	.00	.00
20	---	---	---	---	---	---	---	---	.00	.00	.00	.01
21	---	---	---	---	---	---	---	---	.00	.00	.00	.00
22	---	---	---	---	---	---	---	---	.00	.00	.00	.00
23	---	---	---	---	---	---	---	---	.00	.00	.00	.00
24	---	---	---	---	---	---	---	---	.00	.00	.00	.05
25	---	---	---	---	---	---	---	---	.00	.00	.00	3.8
26	---	---	---	---	---	---	---	---	.00	.00	.00	2.2
27	---	---	---	---	---	---	---	---	.00	.00	.00	.10
28	---	---	---	---	---	---	---	---	.00	.00	.00	.00
29	---	---	---	---	---	---	---	---	.00	.00	.00	.00
30	---	---	---	---	---	---	---	---	.00	.00	.00	.00
31	---	---	---	---	---	---	---	---	---	.00	.00	---
TOTAL	---	---	---	---	---	---	---	---	0.00	0.00	0.25	8.64
MEAN	---	---	---	---	---	---	---	---	.000	.000	.008	.29
MAX	---	---	---	---	---	---	---	---	.00	.00	.23	3.8
MIN	---	---	---	---	---	---	---	---	.00	.00	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2000, BY WATER YEAR (WY)

MEAN	---	---	---	---	---	---	---	---	---	.000	.008	.29
MAX	---	---	---	---	---	---	---	---	---	.000	.008	.29
(WY)	---	---	---	---	---	---	---	---	---	2000	2000	2000
MIN	---	---	---	---	---	---	---	---	---	.000	.008	.29
(WY)	---	---	---	---	---	---	---	---	---	2000	2000	2000

SUMMARY STATISTICS	FOR 2000 WATER YEAR	
HIGHEST DAILY MEAN	3.8	Sep 25
LOWEST DAILY MEAN	.00	Jun 7
ANNUAL SEVEN-DAY MINIMUM	.00	Jun 7
MAXIMUM PEAK FLOW	8.9	Sep 25
MAXIMUM PEAK STAGE	1.67	Sep 25
10 PERCENT EXCEEDS	.00	
50 PERCENT EXCEEDS	.00	
90 PERCENT EXCEEDS	.00	

391008086383301 OVERFLOW SPRINGS 3 & 4, NEAL'S LANDFILL NEAR BLOOMINGTON, IN--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	.00	e.00	e.48	.04	e.00	.00	.00	e.00	e.00	e.00
2	.00	.00	.00	e.00	e.31	.04	e.00	.00	.00	e.00	e.00	e.00
3	.00	.00	.00	e.00	e.23	.04	e.00	.00	.00	e.00	e.00	e.00
4	.77	.00	.00	e.00	e.20	.05	e.00	.00	1.3	e1.1	e.00	e.00
5	7.6	.00	.00	e.00	e.17	.04	e.00	.00	.27	e.40	e.00	e.00
6	1.1	.00	.00	e.00	e.11	.03	e.00	.00	e.14	e.05	e.00	e.00
7	.14	.00	.00	e.00	e.05	e.01	e.00	.00	e.00	e.00	e.00	e.00
8	.02	.00	.00	e.00	e.04	e.00	e.00	.00	e.00	e.15	e.00	e.00
9	.01	1.2	.00	e.00	1.3	e.00	e.00	.00	e.00	e.32	e.00	e.70
10	.01	.34	.00	e.00	.36	e.00	e.00	.00	e.00	e.05	e.00	e.11
11	.00	.02	1.1	e.00	.07	e.00	e.00	.00	e.00	e.00	e.00	e.00
12	.00	.00	e.63	e.00	.06	e.00	e.60	.00	e.00	e.00	e.00	e.00
13	.00	e.00	e.30	e.00	.05	e.00	e.12	.00	e.00	e.00	e.00	e.00
14	.00	e.00	.09	e.17	.05	e.00	.04	.00	e.00	e.00	e.00	e.00
15	.00	e.00	.05	e.41	.05	e.00	.02	.00	e.00	e.00	e.00	e.00
16	.00	.00	e1.8	e.26	.05	e.00	.00	.00	e.00	e.00	e.00	e.00
17	.52	.00	e.77	e.19	.05	e.00	.00	.00	e.00	e.00	e.00	e.00
18	.01	.00	e.44	e.17	.04	e.00	.00	.00	e.00	e.00	e.00	e.00
19	.00	.00	e.25	e.15	.04	e.00	.00	.00	e.01	e.00	e.00	e.00
20	.00	.00	e.16	e.11	.04	e.00	.00	.00	e.00	e.00	e.00	.00
21	.00	.00	e.12	e.09	.04	e.00	.00	.00	e.00	e.00	e.00	.00
22	.00	.00	e.09	e.08	.03	e.00	.00	.00	e.00	e.00	e.00	.00
23	.00	.00	e.06	e.07	.03	e.00	.00	.00	e.00	e.00	e.00	.00
24	.00	.00	e.04	e.06	.03	e.00	.00	.00	e.00	e.07	e.00	.00
25	.00	.18	e.02	e.04	.72	e.00	.00	.00	e.00	e.08	e.00	.00
26	.00	.22	e.00	e.03	.07	e.00	.00	.00	e.00	e.00	e.00	.00
27	.00	.08	e.00	e.02	.07	e.00	.00	.00	e.00	e.00	e.00	.00
28	.00	.04	e.00	e.02	.05	e.00	.00	.00	e.00	e.00	e.00	.00
29	.00	.01	e.00	e.22	---	e.00	.00	.00	e.00	e1.3	e.00	.00
30	.00	.00	e.00	e1.6	---	e.00	.00	.00	e.00	e.12	e.00	.00
31	.00	---	e.00	e.87	---	e.00	---	.00	---	e.01	e.00	---
TOTAL	10.18	2.09	5.92	4.56	4.79	0.25	0.78	0.00	1.72	3.65	0.00	0.81
MEAN	.33	.070	.19	.15	.17	.008	.026	.000	.057	.12	.000	.027
MAX	7.6	1.2	1.8	1.6	1.3	.05	.60	.00	1.3	1.3	.00	.70
MIN	.00	.00	.00	.00	.03	.00	.00	.00	.00	.00	.00	.00

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2001, BY WATER YEAR (WY)

MEAN	.33	.070	.19	.15	.17	.008	.026	.000	.057	.059	.004	.16
MAX	.33	.070	.19	.15	.17	.008	.026	.000	.057	.12	.008	.29
(WY)	2001	2001	2001	2001	2001	2001	2001	2001	2001	2001	2000	2000
MIN	.33	.070	.19	.15	.17	.008	.026	.000	.057	.000	.000	.027
(WY)	2001	2001	2001	2001	2001	2001	2001	2001	2001	2000	2001	2001

SUMMARY STATISTICS	FOR 2000 CALENDAR YEAR		FOR 2001 WATER YEAR		WATER YEARS 2000 - 2001	
ANNUAL TOTAL			34.75			
ANNUAL MEAN			.095		.095	
HIGHEST ANNUAL MEAN					.095	2001
LOWEST ANNUAL MEAN					.095	2001
HIGHEST DAILY MEAN	7.6	Oct 5	7.6	Oct 5	7.6	Oct 5 2000
LOWEST DAILY MEAN	.00	Jun 7	.00	Oct 1	.00	Jun 7 2000
ANNUAL SEVEN-DAY MINIMUM	.00	Jun 7	.00	Oct 19	.00	Jun 7 2000
MAXIMUM PEAK FLOW			9.8	Oct 5	9.8	Oct 5 2000
MAXIMUM PEAK STAGE			1.74	Oct 5	1.74	Oct 5 2000
10 PERCENT EXCEEDS	.16		.17		.14	
50 PERCENT EXCEEDS	.00		.00		.00	
90 PERCENT EXCEEDS	.00		.00		.00	

e Estimated

391008086383301 OVERFLOW SPRINGS 3 & 4, NEAL'S LANDFILL NEAR BLOOMINGTON, IN--Continued

DISCHARGE, CUBIC FEET PER SECOND, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	.00	.00	---	---	---	---	---	---	---	---	---	---
2	.00	.00	---	---	---	---	---	---	---	---	---	---
3	.00	.00	---	---	---	---	---	---	---	---	---	---
4	.00	.00	---	---	---	---	---	---	---	---	---	---
5	.00	.00	---	---	---	---	---	---	---	---	---	---
6	.00	.00	---	---	---	---	---	---	---	---	---	---
7	.00	.00	---	---	---	---	---	---	---	---	---	---
8	.00	.00	---	---	---	---	---	---	---	---	---	---
9	.00	.00	---	---	---	---	---	---	---	---	---	---
10	.00	.00	---	---	---	---	---	---	---	---	---	---
11	.96	.00	---	---	---	---	---	---	---	---	---	---
12	.96	.00	---	---	---	---	---	---	---	---	---	---
13	.04	.00	---	---	---	---	---	---	---	---	---	---
14	2.4	---	---	---	---	---	---	---	---	---	---	---
15	.32	---	---	---	---	---	---	---	---	---	---	---
16	.29	---	---	---	---	---	---	---	---	---	---	---
17	.07	---	---	---	---	---	---	---	---	---	---	---
18	.02	---	---	---	---	---	---	---	---	---	---	---
19	.02	---	---	---	---	---	---	---	---	---	---	---
20	.00	---	---	---	---	---	---	---	---	---	---	---
21	.00	---	---	---	---	---	---	---	---	---	---	---
22	.00	---	---	---	---	---	---	---	---	---	---	---
23	.58	---	---	---	---	---	---	---	---	---	---	---
24	7.2	---	---	---	---	---	---	---	---	---	---	---
25	1.6	---	---	---	---	---	---	---	---	---	---	---
26	.51	---	---	---	---	---	---	---	---	---	---	---
27	.16	---	---	---	---	---	---	---	---	---	---	---
28	e.03	---	---	---	---	---	---	---	---	---	---	---
29	e.02	---	---	---	---	---	---	---	---	---	---	---
30	e.01	---	---	---	---	---	---	---	---	---	---	---
31	e.00	---	---	---	---	---	---	---	---	---	---	---
TOTAL	15.19	0.00	---	---	---	---	---	---	---	---	---	---
MEAN	.49	.000	---	---	---	---	---	---	---	---	---	---
MAX	7.2	.00	---	---	---	---	---	---	---	---	---	---
MIN	.00	.00	---	---	---	---	---	---	---	---	---	---

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2000 - 2002, BY WATER YEAR (WY)

MEAN	.41	.070	.19	.15	.17	.008	.026	.000	.057	.059	.004	.16
MAX	.49	.070	.19	.15	.17	.008	.026	.000	.057	.12	.008	.29
(WY)	2002	2001	2001	2001	2001	2001	2001	2001	2001	2001	2000	2000
MIN	.33	.070	.19	.15	.17	.008	.026	.000	.057	.000	.000	.027
(WY)	2001	2001	2001	2001	2001	2001	2001	2001	2001	2000	2001	2001

SUMMARY STATISTICS	FOR 2001 CALENDAR YEAR		FOR 2002 WATER YEAR		WATER YEARS 2000 - 2002	
ANNUAL MEAN					.095	
HIGHEST ANNUAL MEAN					.095	2001
LOWEST ANNUAL MEAN					.095	2001
HIGHEST DAILY MEAN	7.2	Oct 24	7.2	Oct 24	7.6	Oct 5 2000
LOWEST DAILY MEAN	.00	Jan 1	.00	Oct 1	.00	Jun 7 2000
ANNUAL SEVEN-DAY MINIMUM	.00	Jan 1	.00	Oct 1	.00	Jun 7 2000
MAXIMUM PEAK FLOW			11	Oct 24	11	Oct 24 2001
MAXIMUM PEAK STAGE			1.85	Oct 24	1.85	Oct 24 2001
10 PERCENT EXCEEDS	.17		.96		.17	
50 PERCENT EXCEEDS	.00		.00		.00	
90 PERCENT EXCEEDS	.00		.00		.00	

e Estimated

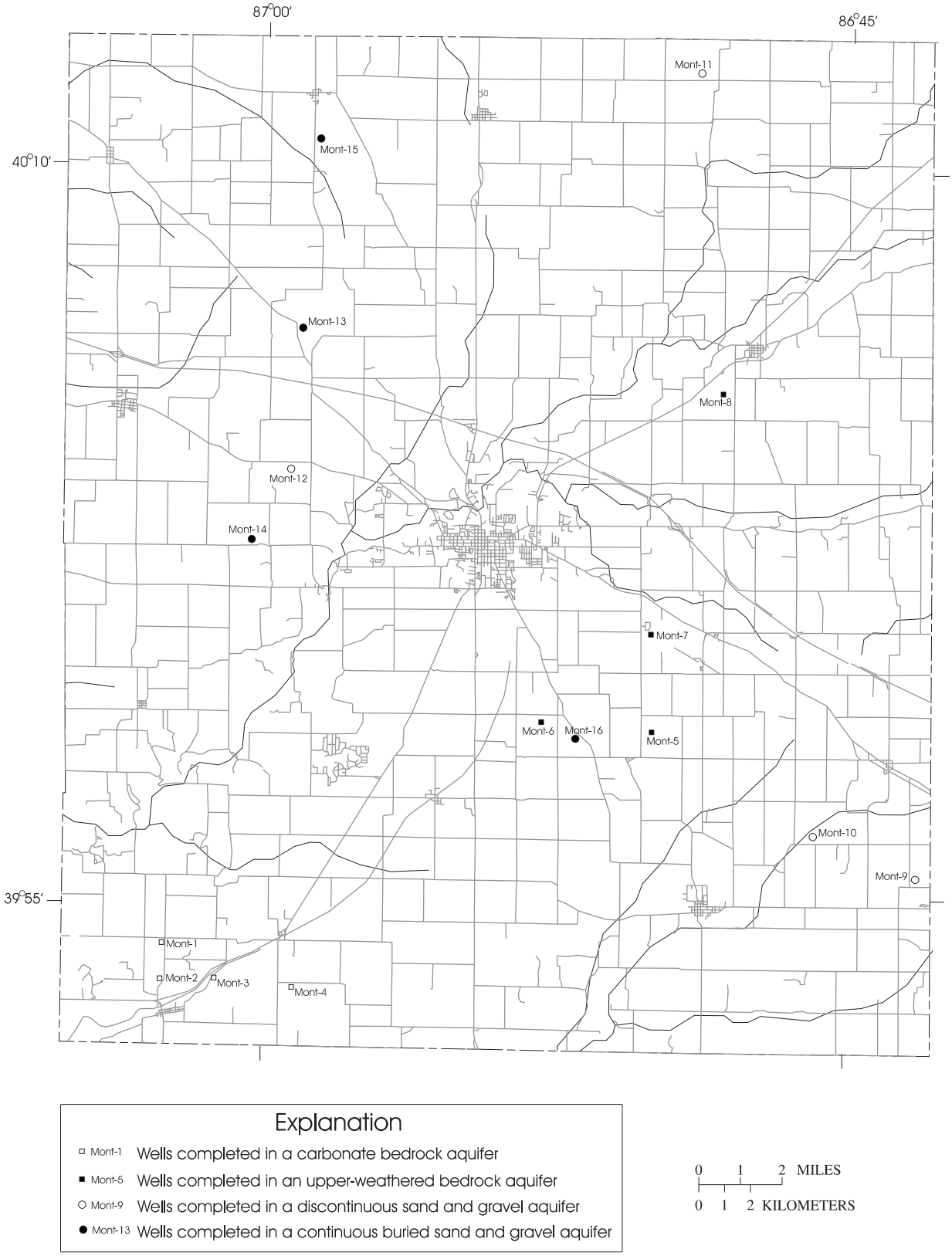

Figure 8.-- Montgomery County wells sampled for trace elements and nutrients in April, 2001.

MISCELLANEOUS WATER-QUALITY STATION ANALYSES

MISCELLANEOUS WELLS IN MONTGOMERY COUNTY

Analytical results for samples collected from miscellaneous wells in Montgomery County, Indiana, April 2001.

Water-quality data listed below are from water samples collected at miscellaneous wells in Montgomery County, Indiana. The sampling was conducted through a cooperative agreement between the Montgomery County Commissioners and the U.S. Geological Survey.

Wells Mont-1 through Mont-4 were completed in a carbonate bedrock aquifer. Wells Mont-5 through Mont-8 were completed in an upper-weathered bedrock aquifer. Wells Mont-9 through Mont-12 were completed in discontinuous sand and gravel aquifers. Wells Mont-13 through Mont-16 were completed in continuous buried sand and gravel aquifers.

Water-quality analysis were done by the USGS National Water-Quality Laboratory in Arvada, Colorado.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

STATION NUMBER	SITE NUMBER	DATE	TIME	ALUMINUM, DISSOLVED (µg/L AS Al) (01106)	ANTIMONY, DISSOLVED (µg/L AS Sb) (01095)	ARSENIC DISSOLVED (µg/L AS As) (01000)	BARIUM, DISSOLVED (µg/L AS Ba) (01005)	BERYLLIUM, DISSOLVED (µg/L AS Be) (01010)	BORON, DISSOLVED (µg/L AS B) (01020)	CADMIUM DISSOLVED (µg/L AS Cd) (01025)
395411087024001	MONT1	04-09-01	1305	<1	E.04	22.2	456	<.06	53	.06
395318087024201	MONT2	04-10-01	0935	<1	.06	7.6	1190	<.06	78	.14
395324087012201	MONT3	04-11-01	1245	<1	E.04	E.2	166	<.06	310	<.04
395314086585701	MONT4	04-09-01	1210	<1	E.04	18.3	666	<.06	185	E.03
395848086493601	MONT5	04-09-01	0915	<1	E.04	151	175	<.06	347	<.04
	MONT5	06-20-01	1352	6	<.05	139	159	<.06	358	<.04
395850086522901	MONT6	04-09-01	1110	<1	E.05	40.9	358	<.06	154	.05
400039086493301	MONT7	04-11-01	1055	<1	E.05	2.5	11.4	<.06	22	E.02
400538086472401	MONT8	04-10-01	1320	<1	.09	2.4	222	<.06	20	E.02
395536086421401	MONT9	04-10-01	0755	<1	.05	1.2	284	<.06	34	.10
395616086451701	MONT10	04-11-01	1140	<1	.05	1.9	356	<.06	47	.08
401206086475301	MONT11	04-10-01	1215	2	.06	11.6	189	<.06	13	.04
400404086592901	MONT12	04-11-01	1720	<1	.06	1.1	124	<.06	53	<.04
400652086590901	MONT13	04-11-01	1455	<1	.07	1.6	110	<.06	11	<.04
400222087001401	MONT14	04-11-01	1355	<1	.05	1.0	<1.0	<.06	30	<.04
401008086584401	MONT15	04-17-01	0925	<1	.05	25.1	69.8	<.06	203	.11
395825086512001	MONT16	04-09-01	1015	<1	.06	.2	93.7	<.06	16	E.03

STATION NUMBER	SITE NUMBER	DATE	TIME	CHROMIUM, DISSOLVED (µg/L AS Cr) (01030)	COBALT, DISSOLVED (µg/L AS Co) (01035)	COPPER, DISSOLVED (µg/L AS Co) (01040)	LEAD, DISSOLVED (µg/L AS Pb) (01049)	MANGANESE, DISSOLVED (µg/L AS Mn) (01056)	MOLYBDENUM, DISSOLVED (µg/L AS Mo) (01060)	NICKEL, DISSOLVED (µg/L AS Ni) (01065)
395411087024001	MONT1	04-09-01	1305	<.8	.16	10.6	.11	86.9	23.9	<.06
395318087024201	MONT2	04-10-01	0935	E.6	.20	.9	E.07	34.7	43.5	.48
395324087012201	MONT3	04-11-01	1245	<.8	.09	.6	<.08	34.8	5.3	<.06
395314086585701	MONT4	04-09-01	1210	<.8	.18	.3	.08	13.2	11.4	<.06
395848086493601	MONT5	04-09-01	0915	<.8	.23	.3	<.08	143	3.6	<.06
	MONT5	06-20-01	1352	<.8	.22	.3	<.08	136	2.8	<.06
395850086522901	MONT6	04-09-01	1110	<.8	.16	.9	<.08	35.8	20.5	<.06
400039086493301	MONT7	04-11-01	1055	<.8	.03	1.5	<.08	12.8	6.5	.14
400538086472401	MONT8	04-10-01	1320	<.8	.36	5.0	.21	89.4	6.8	1.08
395536086421401	MONT9	04-10-01	0755	<.8	.23	1.4	.09	28.7	32.1	.54
395616086451701	MONT10	04-11-01	1140	<.8	.17	.8	<.08	42.6	26.1	<.06
401206086475301	MONT11	04-10-01	1215	<.8	.34	1.5	.23	56.2	14.9	.37
400404086592901	MONT12	04-11-01	1720	<.8	.53	2.7	E.08	297	2.3	.21
400652086590901	MONT13	04-11-01	1455	<.8	.21	1.9	E.04	85.1	3.8	<.06
400222087001401	MONT14	04-11-01	1355	<.8	E.01	1.7	<.08	.1	4.9	E.05
401008086584401	MONT15	04-17-01	0925	<.8	.12	.6	<.08	83.9	42.1	<.06
395825086512001	MONT16	04-09-01	1015	<.8	.15	7.8	.29	.2	3.9	<.06

MISCELLANEOUS WATER-QUALITY STATION ANALYSES

MISCELLANEOUS WELLS IN MONTGOMERY COUNTY--Continued

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

STATION NUMBER	SITE NUMBER	DATE	TIME	SELENIUM, DISSOLVED (µg/L AS Se) (01145)	SILVER, DISSOLVED (µg/L AS Ag) (01075)	STRONTIUM, DISSOLVED (µg/L AS Sr) (01080)	THALLIUM, DISSOLVED (µg/L AS Tl) (01057)	URANIUM NATURAL DISSOLVED (µg/L AS U) (22703)	VANADIUM, DISSOLVED (µg/L AS V) (01085)	ZINC, DISSOLVED (µg/L AS Zn) (01090)
395411087024001	MONT1	04-09-01	1305	<.9	<1.0	1007	<.04	.02	.7	210
395318087024201	MONT2	04-10-01	0935	<.3	<1.0	725	.04	E.01	1.5	27
395324087012201	MONT3	04-11-01	1245	<.3	<1.0	663	<.04	.10	1.4	7
395314086585701	MONT4	04-09-01	1210	<.3	<1.0	2080	<.04	<.02	.9	13
395848086493601	MONT5	04-09-01	0915	<.3	<1.0	620	<.04	<.02	.9	<1
	MONT5	06-20-01	1352	<.3	<1.0	578	<.04	<.02	.4	<1
395850086522901	MONT6	04-09-01	1110	<.3	<1.0	1780	<.04	<.02	.9	3
400039086493301	MONT7	04-11-01	1055	<.3	<1.0	36.7	<.04	.19	1.3	5
400538086472401	MONT8	04-10-01	1320	.5	<1.0	255	.10	.71	1.9	6
395536086421401	MONT9	04-10-01	0755	<.3	<1.0	1030	.04	.33	2.0	6
395616086451701	MONT10	04-11-01	1140	<.3	<1.0	1700	<.04	.08	1.3	1
401206086475301	MONT11	04-10-01	1215	E.3	<1.0	142	.05	.31	1.8	19
400404086592901	MONT12	04-11-01	1720	E.3	<1.0	230	.07	3.66	4.7	18
400652086590901	MONT13	04-11-01	1455	<.3	<1.0	111	E.02	.16	3.2	59
400222087001401	MONT14	04-11-01	1355	<.3	<1.0	.17	<.04	.04	1.5	6
401008086584401	MONT15	04-17-01	0925	E.2	<1.0	1320	E.04	<.02	3.0	19
395825086512001	MONT16	04-09-01	1015	.8	<1.0	105	.11	.73	.9	46

STATION NUMBER	SITE NUMBER	DATE	TIME	NITROGEN, AMMONIA DISSOLVED (mg/L AS N) (00608)	NITROGEN, NO2+NO3 DISSOLVED (mg/L AS N) (00631)	NITROGEN, NITRITE DISSOLVED (mg/L AS N) (00613)	PHOSPHORUS DISSOLVED (mg/L AS P) (00666)
395411087024001	MONT1	04-09-01	1305	1.8	<.047	<.006	E.005
395318087024201	MONT2	04-10-01	0935	.704	<.047	<.006	<.006
395324087012201	MONT3	04-11-01	1245	.263	<.047	.006	<.006
395314086585701	MONT4	04-09-01	1210	3.25	<.047	<.006	.137
395848086493601	MONT5	04-09-01	0915	4.49	<.047	<.006	.366
	MONT5	06-20-01	1352	--	--	--	--
395850086522901	MONT6	04-09-01	1110	2.97	<.047	<.006	.153
400039086493301	MONT7	04-11-01	1055	.181	<.047	<.006	.025
400538086472401	MONT8	04-10-01	1320	.047	<.047	<.006	<.006
395536086421401	MONT9	04-10-01	0755	.379	<.047	E.004	<.006
395616086451701	MONT10	04-11-01	1140	.346	<.047	<.006	.006
401206086475301	MONT11	04-10-01	1215	.045	<.047	.010	<.006
400404086592901	MONT12	04-11-01	1720	<.041	<.047	E.005	<.006
400652086590901	MONT13	04-11-01	1455	.047	<.047	.011	<.006
400222087001401	MONT14	04-11-01	1355	<.041	<.047	<.006	.048
401008086584401	MONT15	04-17-01	0925	1.43	<.047	<.006	.180
395825086512001	MONT16	04-09-01	1015	E.021	1.52	<.006	.013

E Estimated

QUALITY ASSURANCE FOR MISCELLANEOUS WELLS IN MONTGOMERY COUNTY

Analytical results for quality-assurance samples collected from three wells in Montgomery County, Indiana, 2001.

Water-quality data listed below are from water samples collected at miscellaneous wells in Montgomery County, Indiana. The sampling was conducted through a cooperative agreement between the Montgomery County Commissioners and the U.S. Geological Survey.

The quality-assurance samples collected at wells Mont-4 and Mont-8 were duplicate samples. The quality assurance sample collected at well Mont-5 was a re-sampling of the well approximately two months after the original sampling. This re-sampling was conducted to verify the prior results.

Water-quality analysis were done by the USGS National Water-Quality Laboratory in Arvada, Colorado.

WATER-QUALITY DATA, WATER YEAR OCTOBER 2000 TO SEPTEMBER 2001

STATION NUMBER	SITE NUMBER	DATE	TIME	SAMPLE TYPE	ALUMINUM, DISSOLVED (µg/L AS Al) (01106)	ANTIMONY, DISSOLVED (µg/L AS Sb) (01095)	ARSENIC DISSOLVED (µg/L AS As) (01000)	BARIUM, DISSOLVED (µg/L AS Ba) (01005)	BERYLLIUM, DISSOLVED (µg/L AS Be) (01010)	BORON, DISSOLVED (µg/L AS B) (01020)	CADMIUM DISSOLVED (µg/L AS Cd) (01025)
395314086585701	MONT4	04-09-01	1210	ENVIRONMENTAL	<1	E.04	18.3	666	<.06	185	E.03
		04-09-01	1215	REPLICATE	<1	E.04	18.2	669	<.06	180	E.02
400538086472401	MONT8	04-10-01	1320	ENVIRONMENTAL	<1	.09	2.4	222	<.06	20	E.02
		04-10-01	1325	REPLICATE	<1	.07	2.2	223	<.06	20	E.02
395848086493601	MONT5	04-09-01	0915	ENVIRONMENTAL	<1	E.04	151	175	<.06	347	<.04
		06-20-01	1352	RESAMPLE	6	<.05	139	159	<.06	358	<.04

STATION NUMBER	SITE NUMBER	DATE	TIME	SAMPLE TYPE	CHROMIUM, DISSOLVED (µg/L AS Cr) (01030)	COBALT, DISSOLVED (µg/L AS Co) (01035)	COPPER, DISSOLVED (µg/L AS Cu) (01040)	LEAD, DISSOLVED (µg/L AS Pb) (01049)	MANGANESE, DISSOLVED (µg/L AS Mn) (01056)	MOLYBDENUM, DISSOLVED (µg/L AS Mo) (01060)	NICKEL, DISSOLVED (µg/L AS Ni) (01065)
395314086585701	MONT4	04-09-01	1210	ENVIRONMENTAL	<.8	.18	.3	.08	13.2	11.4	<.06
		04-09-01	1215	REPLICATE	<.8	.18	.3	<.08	13.2	11.2	<.06
400538086472401	MONT8	04-10-01	1320	ENVIRONMENTAL	<.8	.36	5.0	.21	89.4	6.8	1.08
		04-10-01	1325	REPLICATE	<.8	.36	5.0	.23	89.2	6.9	.88
395848086493601	MONT5	04-09-01	0915	ENVIRONMENTAL	<.8	.23	.3	<.08	143	3.6	<.06
		06-20-01	1352	RESAMPLE	<.8	.22	.3	<.08	136	2.8	<.06

STATION NUMBER	SITE NUMBER	DATE	TIME	SAMPLE TYPE	SELENIUM, DISSOLVED (µg/L AS Se) (01145)	SILVER, DISSOLVED (µg/L AS Ag) (01075)	STRONTIUM, DISSOLVED (µg/L AS Sr) (01080)	THALLIUM, DISSOLVED (µg/L AS Tl) (01057)	URANIUM NATURAL DISSOLVED (µg/L AS U) (22703)	VANADIUM, DISSOLVED (µg/L AS V) (01085)	ZINC, DISSOLVED (µg/L AS Zn) (01090)
395314086585701	MONT4	04-09-01	1210	ENVIRONMENTAL	<.3	<1.0	2080	<.04	<.02	.9	13
		04-09-01	1215	REPLICATE	<.3	<1.0	2080	<.04	<.02	.9	7
400538086472401	MONT8	04-10-01	1320	ENVIRONMENTAL	.5	<1.0	255	.10	.71	1.9	6
		04-10-01	1325	REPLICATE	E.2	<1.0	255	.08	.70	1.9	6
395848086493601	MONT5	04-09-01	0915	ENVIRONMENTAL	<.3	<1.0	620	<.04	<.02	.9	<1
		06-20-01	1352	RESAMPLE	<.3	<1.0	578	<.04	<.02	.4	<1

STATION NUMBER	SITE NUMBER	DATE	TIME	SAMPLE TYPE	NITROGEN, AMMONIA DISSOLVED (mg/L AS N) (00608)	NITROGEN, NO2+NO3 DISSOLVED (mg/L AS N) (00631)	NITROGEN, NITRITE DISSOLVED (mg/L AS N) (00613)	PHOSPHORUS DISSOLVED (mg/L AS P) (00666)
395314086585701	MONT4	04-09-01	1210	ENVIRONMENTAL	3.25	<.047	<.006	.137
		04-09-01	1215	REPLICATE	3.34	<.047	<.006	.101
400538086472401	MONT8	04-10-01	1320	ENVIRONMENTAL	.047	<.047	<.006	<.006
		04-10-01	1325	REPLICATE	E.030	<.047	<.006	<.006
395848086493601	MONT5	04-09-01	0915	ENVIRONMENTAL	4.49	<.047	<.006	.366
		06-20-01	1352	RESAMPLE	--	--	--	--

E Estimated