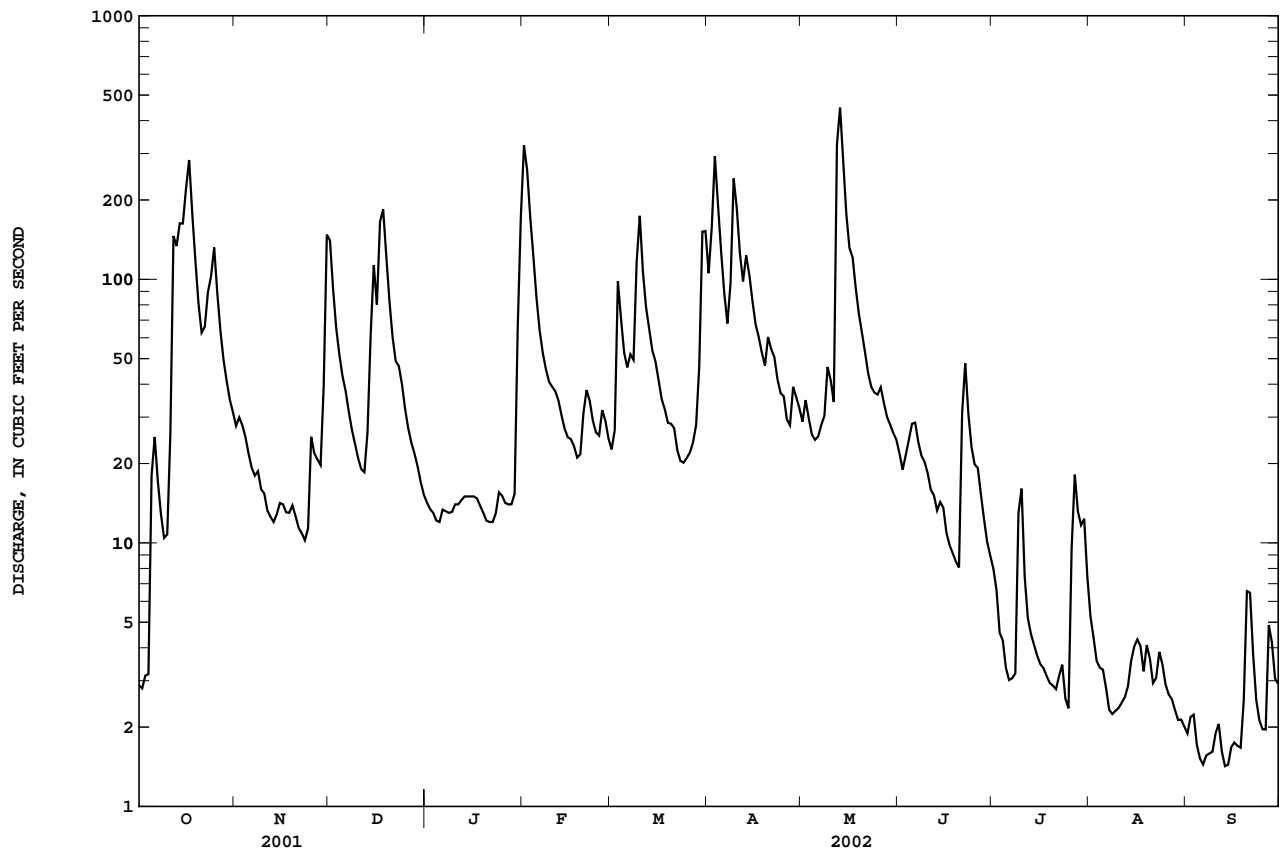


04177720 FISH CREEK AT HAMILTON, IN--Continued



STREAMS TRIBUTARY TO LAKE ERIE

04177810 FISH CREEK NEAR ARTIC, IN

LOCATION.--Lat 41°27'54", long 84°48'53", in NE¹/₄SE¹/₄ sec. 29, T.35 N., R.15 E., DeKalb County, Hydrologic Unit 04100003, (BUTLER EAST, IN-OH quadrangle), on right bank 3 ft upstream from bridge on County Road 79, 0.6 mi south of Artic, 0.8 mi upstream from Indiana-Ohio state line and 3.8 mi north-northeast of Butler, IN.

DRAINAGE AREA.--98 mi² (approx.).

WATER DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 832.96 ft above National Geodetic Vertical Datum of 1929.

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

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	9.6	115	488	e54	832	76	373	90	58	19	17	8.0
2	9.1	109	430	e52	916	77	317	93	51	17	14	7.8
3	8.9	113	254	e50	657	225	639	95	49	15	13	7.6
4	9.3	108	184	e48	414	284	768	82	64	14	13	7.5
5	16	97	148	e46	282	296	468	72	79	13	12	7.2
6	46	88	127	e47	213	168	310	67	88	12	11	7.0
7	71	81	112	e48	160	155	227	72	88	12	11	6.9
8	50	76	98	e49	137	185	221	75	66	12	11	6.6
9	35	74	88	e50	124	229	504	100	54	e13	10	6.5
10	29	68	79	52	122	432	698	134	46	e38	10	6.5
11	44	65	72	51	129	515	479	115	40	23	10	6.4
12	287	59	67	49	124	292	316	380	36	17	10	6.4
13	451	56	75	49	108	208	303	1360	35	15	9.8	6.1
14	583	55	138	48	93	171	355	1060	34	14	10	6.2
15	540	56	321	48	84	144	342	632	35	13	11	6.3
16	652	56	358	49	80	127	240	415	32	13	11	6.4
17	728	55	409	47	77	109	189	325	28	12	12	6.5
18	754	52	499	e44	71	97	169	278	25	12	11	6.2
19	492	52	445	e42	66	89	149	217	23	12	11	6.2
20	308	52	272	e39	75	83	161	174	21	12	11	7.2
21	235	48	190	e37	114	79	181	147	22	11	10	10
22	260	46	149	e35	141	73	174	125	62	11	10	9.5
23	286	45	133	40	113	64	146	107	60	11	10	7.9
24	347	44	124	42	94	60	123	96	42	11	10	6.6
25	446	61	e100	49	85	e63	111	89	35	10	10	6.3
26	405	88	e87	47	86	e66	99	98	38	12	9.9	5.9
27	311	82	e79	45	91	e70	88	88	31	37	9.3	6.7
28	215	76	e72	44	82	e80	93	79	26	34	8.8	8.0
29	171	132	e66	45	---	103	109	83	23	26	8.5	7.6
30	144	364	e62	125	---	342	101	74	20	29	8.2	6.8
31	127	---	e57	394	---	557	---	66	---	22	8.1	---
TOTAL	8069.9	2473	5783	1865	5570	5519	8453	6888	1311	522	331.6	210.8
MEAN	260.3	82.43	186.5	60.16	198.9	178.0	281.8	222.2	43.70	16.84	10.70	7.027
MAX	754	364	499	394	916	557	768	1360	88	38	17	10
MIN	8.9	44	57	35	66	60	88	66	20	10	8.1	5.9
CFSM	2.66	0.84	1.90	0.61	2.03	1.82	2.88	2.27	0.45	0.17	0.11	0.07
IN.	3.06	0.94	2.20	0.71	2.11	2.09	3.21	2.61	0.50	0.20	0.13	0.08

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1998 - 2002, BY WATER YEAR (WY)

	1998	1999	2000	2001	2002	1998	1999	2000	2001	2002		
MEAN	80.95	48.36	76.71	82.34	186.3	123.7	208.8	119.1	91.18	22.34	34.51	18.74
MAX	260	82.4	187	189	384	179	306	222	221	40.8	110	49.2
(WY)	2002	2002	2002	1999	2001	2002	1999	2002	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 2001 CALENDAR YEAR

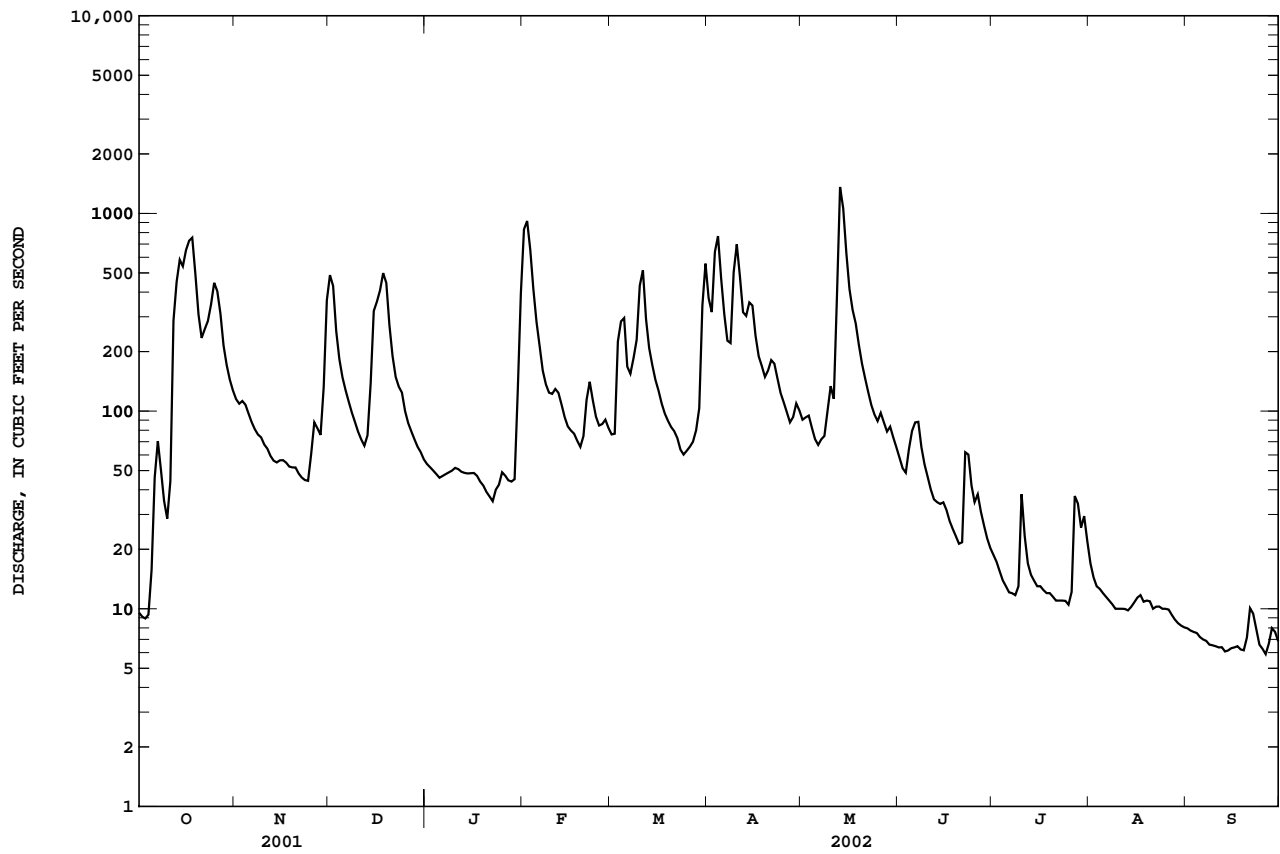
FOR 2002 WATER YEAR

WATER YEARS 1998 - 2002

ANNUAL TOTAL	43429.2	46996.3	
ANNUAL MEAN	119.0	128.8	91.31
HIGHEST ANNUAL MEAN			129
LOWEST ANNUAL MEAN			62.9
HIGHEST DAILY MEAN	1350	Feb 10	1360
LOWEST DAILY MEAN	6.8	Aug 15	5.9
ANNUAL SEVEN-DAY MINIMUM	7.1	Aug 10	6.3
MAXIMUM PEAK FLOW			1690
MAXIMUM PEAK STAGE			11.60
ANNUAL RUNOFF (CFSM)	1.21		1.31
ANNUAL RUNOFF (INCHES)	16.49		17.84
10 PERCENT EXCEEDS	306		356
50 PERCENT EXCEEDS	65		67
90 PERCENT EXCEEDS	8.6		9.4

e Estimated

04177810 FISH CREEK NEAR ARTIC, IN--Continued



STREAMS TRIBUTARY TO LAKE ERIE

04177810 FISH CREEK NEAR ARTIC, IN--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MEAN DISCHARGE (CFS)	CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
	OCTOBER			NOVEMBER			DECEMBER		
1	9.6	30	0.76	115	34	10.4	488	40	52.9
2	9.1	34	0.83	109	31	9.1	430	27	31.2
3	8.9	40	0.97	113	17	5.3	254	21	14.7
4	9.3	41	1.0	108	17	5.0	184	17	8.3
5	16	33	1.4	97	9.0	2.5	148	19	7.5
6	46	34	4.1	88	11	2.7	127	21	7.3
7	71	30	5.7	81	16	3.4	112	21	6.3
8	50	17	2.4	76	20	4.2	98	23	6.0
9	35	17	1.6	74	15	3.0	88	18	4.2
10	29	21	1.6	68	12	2.2	79	12	2.6
11	44	29	4.0	65	19	3.4	72	11	2.1
12	287	117	91.0	59	23	3.6	67	17	3.1
13	451	61	73.0	56	23	3.5	75	19	3.9
14	583	44	69.2	55	25	3.7	138	44	20.4
15	540	28	40.3	56	21	3.2	321	79	67.3
16	652	40	70.6	56	27	4.1	358	38	37.2
17	728	29	56.7	55	22	3.3	409	61	67.7
18	754	23	48.0	52	24	3.3	499	38	51.4
19	492	16	20.6	52	28	3.9	445	25	29.4
20	308	17	14.5	52	19	2.7	272	17	13.0
21	235	21	13.3	48	24	3.2	190	12	6.1
22	260	45	32.2	46	27	3.3	149	11	4.4
23	286	57	46.4	45	26	3.2	133	13	4.6
24	347	43	39.9	44	31	3.7	124	10	3.4
25	446	52	63.3	61	33	5.6	e100	10	2.7
26	405	29	31.2	88	31	7.3	e87	10	2.5
27	311	16	13.7	82	25	5.5	e79	11	2.3
28	215	11	6.2	76	27	5.6	e72	11	2.2
29	171	9.0	4.2	132	42	16.9	e66	12	2.1
30	144	9.0	3.7	364	79	75.8	e62	12	2.0
31	127	16	5.4	---	---	---	e57	13	1.9
TOTAL	8069.9	---	767.76	2473	---	212.6	5783	---	470.7
DAY	MEAN DISCHARGE (CFS)	CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
	JANUARY			FEBRUARY			MARCH		
1	e54	13	1.9	832	55	121	76	14	2.9
2	e52	14	1.9	916	30	74.8	77	15	3.4
3	e50	14	1.9	657	22	38.7	225	84	53.5
4	e48	14	1.9	414	20	22.1	284	77	58.7
5	e46	15	1.8	282	18	14.0	296	45	37.3
6	e47	15	1.9	213	17	9.8	168	17	8.0
7	e48	16	2.0	160	15	6.7	155	12	5.2
8	e49	16	2.1	137	15	5.4	185	16	8.0
9	e50	17	2.2	124	12	4.0	229	107	77.9
10	52	17	2.4	122	13	4.4	432	133	153
11	51	18	2.4	129	12	4.2	515	99	141
12	49	18	2.5	124	10	3.2	292	44	35.1
13	49	21	2.8	108	10	2.9	208	35	19.8
14	48	21	2.7	93	11	2.7	171	30	13.7
15	48	17	2.2	84	10	2.3	144	25	9.6
16	49	17	2.2	80	10	2.2	127	18	6.2
17	47	15	1.9	77	12	2.4	109	17	5.1
18	e44	15	1.8	71	12	2.2	97	13	3.5
19	e42	16	1.8	66	12	2.2	89	13	3.2
20	e39	17	1.8	75	12	2.5	83	17	3.8
21	e37	19	1.9	114	24	7.6	79	16	3.4
22	e35	20	1.9	141	29	11.1	73	19	3.7
23	40	20	2.2	113	16	5.0	64	18	3.1
24	42	17	2.0	94	14	3.6	60	21	3.5
25	49	18	2.4	85	20	4.6	e63	23	4.0
26	47	13	1.7	86	15	3.4	e66	25	4.5
27	45	13	1.5	91	12	3.0	e70	26	4.9
28	44	18	2.2	82	12	2.7	e80	18	3.8
29	45	21	2.6	---	---	---	103	22	6.7
30	125	72	28.2	---	---	---	342	66	63.0
31	394	105	106	---	---	---	557	52	78.7
TOTAL	1865	---	194.7	5570	---	368.7	5519	---	828.2

STREAMS TRIBUTARY TO LAKE ERIE

04177810 FISH CREEK NEAR ARTIC, IN--Continued

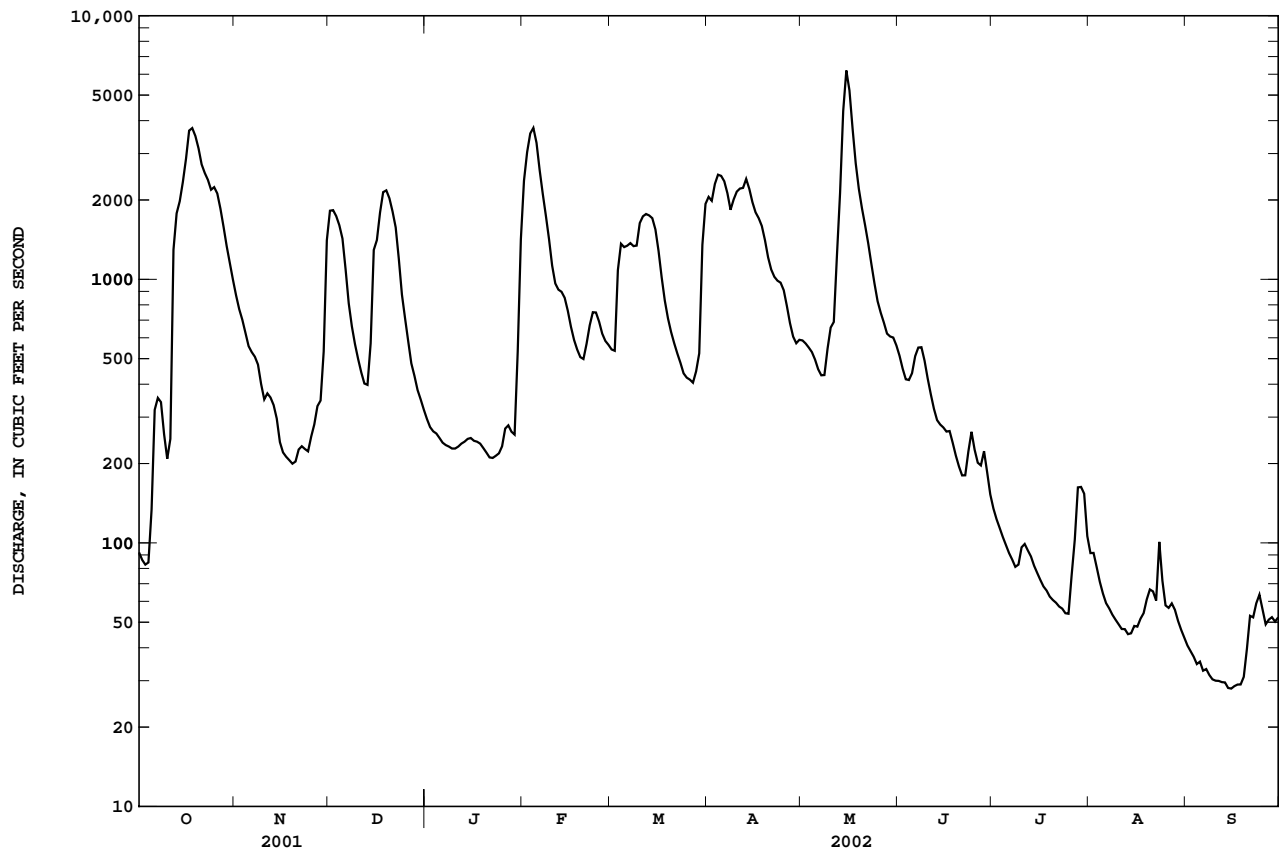
SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002

DAY	MEAN DISCHARGE (CFS)	CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	373	32	32.6	90	9.0	2.1	58	48	7.5
2	317	82	80.4	93	12	3.0	51	57	7.9
3	639	126	211	95	12	3.1	49	70	9.3
4	768	83	176	82	10	2.3	64	99	17.3
5	468	54	69.7	72	14	2.6	79	80	17.1
6	310	42	35.4	67	18	3.3	88	70	16.8
7	227	41	25.2	72	50	9.8	88	60	14.4
8	221	68	46.6	75	47	9.4	66	65	11.4
9	504	115	153	100	55	15.2	54	72	10.4
10	698	76	144	134	56	20.3	46	80	10.0
11	479	43	58.6	115	38	12.0	40	76	8.2
12	316	34	28.5	380	176	199	36	88	8.5
13	303	36	29.4	1360	142	525	35	77	7.2
14	355	36	35.0	1060	72	214	34	69	6.4
15	342	30	28.6	632	41	71.4	35	74	6.9
16	240	24	15.3	415	36	39.7	32	69	5.9
17	189	23	11.5	325	33	28.7	28	75	5.6
18	169	21	9.5	278	26	19.9	25	66	4.5
19	149	20	7.9	217	24	14.3	23	87	5.5
20	161	30	13.0	174	21	10.1	21	76	4.4
21	181	25	12.0	147	19	7.7	22	84	4.9
22	174	15	7.0	125	25	8.3	62	95	15.6
23	146	9.0	3.4	107	41	11.9	60	49	8.2
24	123	10	3.3	96	42	10.8	42	38	4.4
25	111	15	4.5	89	25	6.1	35	34	3.2
26	99	12	3.3	98	46	12.2	38	43	4.4
27	88	10	2.4	88	31	7.4	31	46	3.8
28	93	10	2.4	79	49	10.7	26	55	3.9
29	109	8.0	2.2	83	92	20.9	23	56	3.5
30	101	7.0	1.8	74	59	11.8	20	55	3.0
31	---	---	---	66	58	10.2	---	---	---
TOTAL	8453	---	1253.5	6888	---	1323.2	1311	---	240.1

DAY	MEAN DISCHARGE (CFS)	CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)	MEAN DISCHARGE (CFS)	CONCENTRATION (MG/L)	SEDIMENT DISCHARGE (TONS/DAY)
1	19	62	3.1	17	94	4.3	8.0	138	3.0
2	17	56	2.6	14	68	2.6	7.8	116	2.4
3	15	64	2.7	13	62	2.2	7.6	102	2.1
4	14	74	2.8	13	64	2.2	7.5	106	2.1
5	13	72	2.6	12	60	2.0	7.2	165	3.2
6	12	75	2.4	11	63	2.0	7.0	121	2.3
7	12	67	2.2	11	68	2.0	6.9	107	2.0
8	12	67	2.1	11	59	1.7	6.6	88	1.6
9	e13	75	2.6	10	68	1.9	6.5	107	1.9
10	e38	81	8.3	10	69	1.9	6.5	70	1.2
11	23	38	2.4	10	96	2.6	6.4	91	1.6
12	17	47	2.1	10	86	2.3	6.4	113	2.0
13	15	84	3.4	9.8	96	2.5	6.1	70	1.2
14	14	67	2.5	10	92	2.5	6.2	78	1.3
15	13	83	2.9	11	86	2.5	6.3	82	1.4
16	13	73	2.5	11	105	3.2	6.4	98	1.7
17	12	78	2.6	12	69	2.2	6.5	105	1.8
18	12	72	2.4	11	78	2.3	6.2	94	1.6
19	12	55	1.7	11	91	2.7	6.2	65	1.1
20	12	78	2.4	11	94	2.8	7.2	55	1.1
21	11	103	3.1	10	121	3.3	10	81	2.3
22	11	85	2.5	10	93	2.6	9.5	126	3.2
23	11	81	2.4	10	77	2.2	7.9	65	1.4
24	11	61	1.8	10	60	1.7	6.6	59	1.1
25	10	54	1.5	10	81	2.2	6.3	60	1.0
26	12	59	2.1	9.9	71	1.9	5.9	55	0.88
27	37	98	9.8	9.3	87	2.2	6.7	73	1.3
28	34	49	4.5	8.8	91	2.2	8.0	54	1.2
29	26	29	2.0	8.5	73	1.7	7.6	63	1.3
30	29	44	3.5	8.2	75	1.7	6.8	64	1.2
31	22	68	4.0	8.1	118	2.6	---	---	---
TOTAL	522	---	93.5	331.6	---	72.7	210.8	---	51.48
YEAR	46996.3		5877.14						

e Estimated

04178000 ST. JOSEPH RIVER NEAR NEWVILLE, IN--Continued



STREAMS TRIBUTARY TO LAKE ERIE

04179520 CEDAR CREEK AT 18TH STREET AT AUBURN, IN

LOCATION.--Lat 41°21'36", long 85°02'57", in NW¹/₄SE¹/₄ sec.32, T.34 N., R.13 E., Dekalb County, Hydrologic Unit 04100003, (AUBURN, IN quadrangle), on top of right upstream wingwall of the bridge on 18th Street, 0.3 mi east of downtown Auburn, 1.46 mi above John Diehl Ditch and at mile 20.94.

DRAINAGE AREA.--87.3 mi².

PERIOD OF RECORD.--September 2001 to current year.

GAGE.--Water-stage recorder. Datum of gage is 844.02 ft above National Geodetic Vertical Datum of 1929.

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

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	8.4	95	422	e48	934	65	316	68	45	20	16	6.5
2	9.6	94	262	e47	605	79	416	89	42	18	14	6.4
3	e9.0	90	179	e46	393	296	687	79	50	17	12	7.3
4	e7.0	82	136	e45	287	185	402	66	55	15	10	7.0
5	e26	74	112	45	204	120	e270	62	68	14	11	6.4
6	e50	69	97	46	155	102	e190	60	64	12	10	6.3
7	20	66	87	44	125	129	e140	59	55	12	9.6	5.9
8	13	61	78	43	109	122	e150	81	48	12	9.2	5.3
9	8.8	57	70	43	98	345	e400	161	44	20	8.4	5.6
10	e10	54	63	44	94	459	e360	140	41	36	8.0	5.9
11	e90	50	58	44	92	272	e260	122	38	21	7.7	7.1
12	717	47	58	44	87	209	e190	746	36	16	7.8	7.1
13	481	45	79	43	78	169	311	769	34	13	9.6	6.2
14	577	45	225	44	72	141	234	461	35	12	12	6.0
15	500	43	386	44	69	120	180	314	33	11	10	7.1
16	775	43	250	43	66	104	144	227	30	11	11	6.9
17	731	39	576	44	62	91	120	202	28	13	11	6.7
18	447	38	499	41	60	80	105	161	27	13	9.5	7.8
19	316	38	313	39	65	72	95	129	25	19	19	11
20	235	36	217	38	87	70	117	110	23	22	12	19
21	190	34	162	38	113	65	123	95	27	17	9.5	13
22	323	33	132	38	101	59	121	84	29	14	11	7.7
23	430	32	127	38	87	56	102	75	25	13	24	6.5
24	435	36	111	42	77	55	90	69	23	11	15	6.0
25	557	101	95	41	73	58	81	70	e20	11	11	5.5
26	332	80	84	42	80	60	71	73	e60	12	9.8	5.6
27	229	69	76	41	77	63	71	62	38	50	8.8	12
28	176	66	71	42	69	68	88	57	29	36	8.3	6.4
29	143	202	65	49	---	131	82	55	23	29	8.1	5.4
30	119	587	e56	208	---	580	74	52	20	35	7.7	e5.2
31	107	---	e50	585	---	530	---	49	---	22	6.8	---
TOTAL	8071.8	2406	5196	2039	4419	4955	5990	4847	1115	577	337.8	220.8
MEAN	260.4	80.20	167.6	65.77	157.8	159.8	199.7	156.4	37.17	18.61	10.90	7.360
MAX	775	587	576	585	934	580	687	769	68	50	24	19
MIN	7.0	32	50	38	60	55	71	49	20	11	6.8	5.2
CFSM	2.89	0.89	1.86	0.73	1.75	1.77	2.21	1.73	0.41	0.21	0.12	0.08
IN.	3.33	0.99	2.14	0.84	1.82	2.04	2.47	2.00	0.46	0.24	0.14	0.09

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2001 - 2002, BY WATER YEAR (WY)

	2001	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002
MEAN	260.3	80.27	167.6	65.87	157.9	158.5	199.7	156.2	37.20	18.74	10.95	7.420
MAX	260	80.3	168	65.9	158	159	200	156	37.2	18.7	10.9	7.42
(WY)	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002
MIN	260	80.3	168	65.9	158	159	200	156	37.2	18.7	10.9	7.42
(WY)	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002	2002

SUMMARY STATISTICS

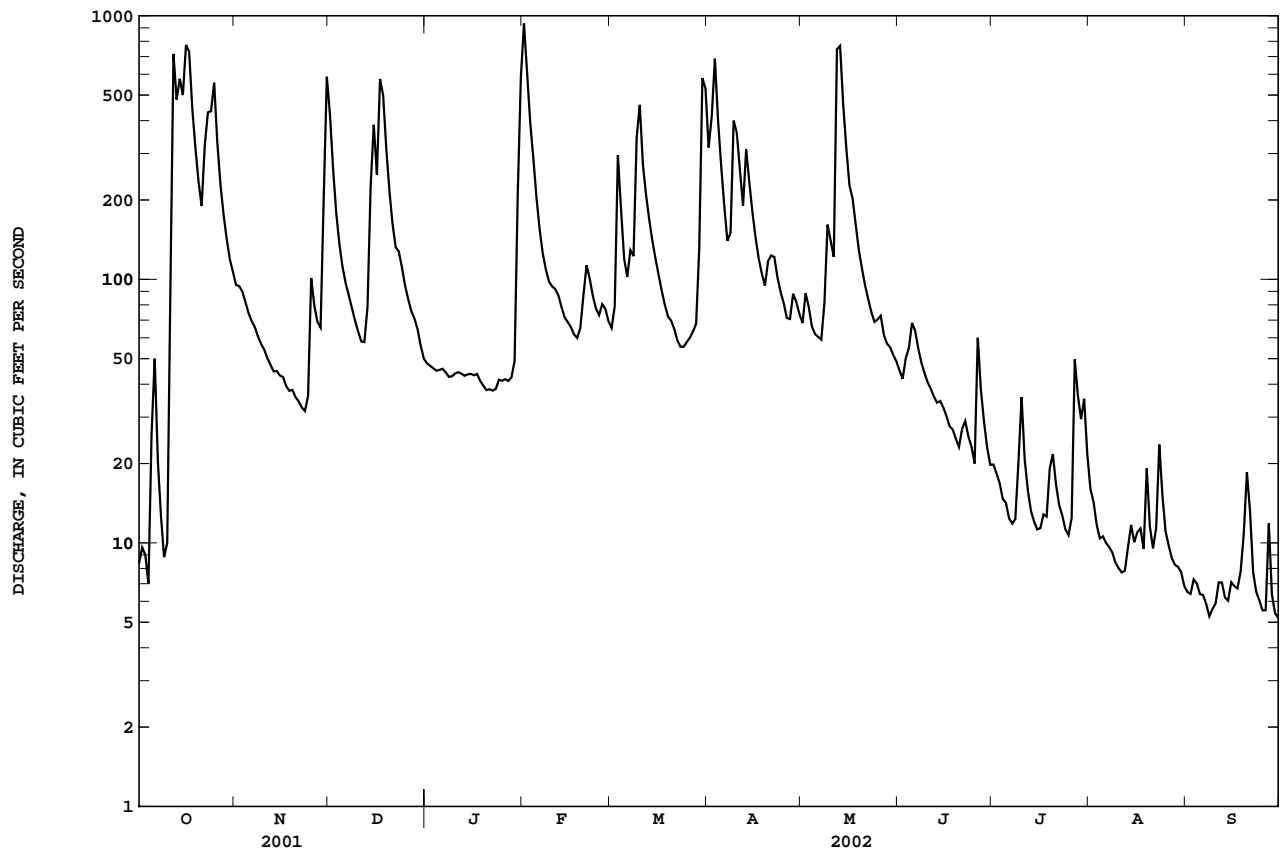
FOR 2002 WATER YEAR

WATER YEARS 2001 - 2002

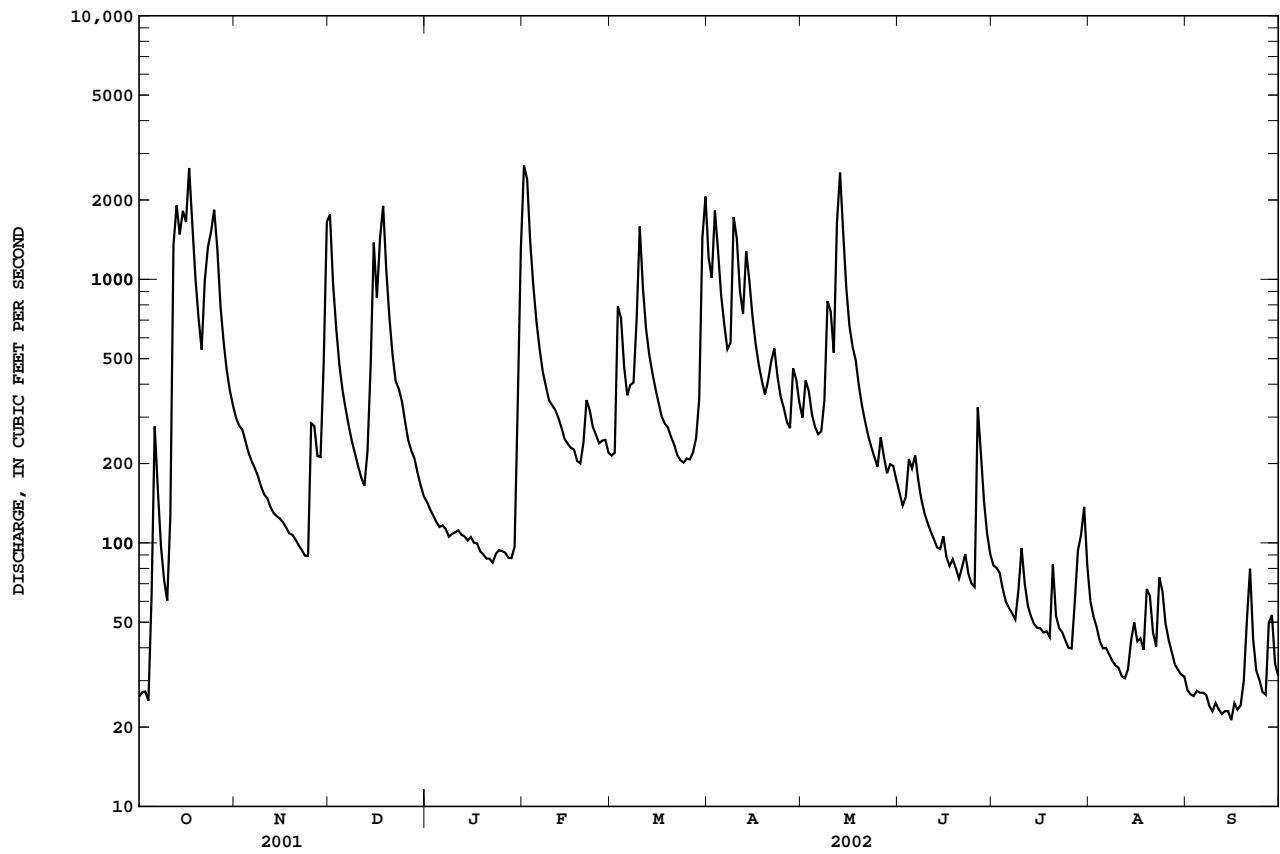
ANNUAL TOTAL	40174.4	
ANNUAL MEAN	110.1	110.0
HIGHEST ANNUAL MEAN		110
LOWEST ANNUAL MEAN		110
HIGHEST DAILY MEAN	934	Feb 1 2002
LOWEST DAILY MEAN	5.2	Sep 30 2002
ANNUAL SEVEN-DAY MINIMUM	6.1	Sep 4 2002
MAXIMUM PEAK FLOW	1080	Oct 16 2001
MAXIMUM PEAK STAGE	7.90	Oct 16 2001
ANNUAL RUNOFF (CFSM)	1.22	1.22
ANNUAL RUNOFF (INCHES)	16.57	16.57
10 PERCENT EXCEEDS	313	312
50 PERCENT EXCEEDS	58	56
90 PERCENT EXCEEDS	8.6	8.3

e Estimated

04179520 CEDAR CREEK AT 18TH STREET AT AUBURN, IN--Continued



04180000 CEDAR CREEK NEAR CEDARVILLE, IN--Continued



STREAMS TRIBUTARY TO LAKE ERIE

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, (CEDARVILLE, IN quadrangle), 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, and at mile 10.71.

DRAINAGE AREA.--1,060 mi².

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 National Geodetic Vertical Datum of 1929 (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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	147	1250	4580	e505	7010	796	3870	898	732	277	165	76
2	153	1200	3320	e480	6430	800	3870	1280	575	265	125	73
3	141	994	2820	e460	5210	2430	4990	920	575	247	156	75
4	116	864	2380	e440	4840	2230	4410	840	710	246	140	74
5	198	924	2080	e430	4650	1850	3820	842	608	208	120	70
6	673	746	1820	e425	4220	1780	3570	692	664	176	104	75
7	664	603	1320	e420	3460	1780	3280	700	717	213	84	80
8	397	791	983	e415	2830	1910	3130	823	667	180	94	82
9	394	696	1040	e410	2210	2460	4810	1650	664	188	92	70
10	311	500	752	418	1640	3860	4530	1650	606	249	67	60
11	423	493	619	454	1430	2900	3490	1280	487	242	70	54
12	4040	493	738	442	1370	2550	3410	4020	497	211	72	48
13	4480	541	712	438	1180	2480	4590	5460	430	203	83	47
14	3900	527	1260	436	1130	2300	4510	4370	411	206	98	45
15	4690	372	3610	445	1130	2200	3460	5050	403	162	91	46
16	5370	425	2600	437	960	1910	2880	6470	382	149	83	46
17	6670	372	4330	431	926	1500	2490	6540	388	167	93	45
18	5790	364	5400	425	745	1180	2230	4800	372	158	110	39
19	4720	356	3990	420	739	1050	2090	3900	405	167	123	45
20	4160	347	3450	394	794	896	1720	2910	323	228	150	81
21	3840	331	2870	357	964	825	1640	2250	286	174	124	150
22	4510	335	2520	381	993	767	1790	1940	304	174	104	104
23	4980	375	2090	387	961	731	1390	1640	302	131	163	109
24	5020	368	1650	392	1000	675	1460	1280	317	166	195	98
25	5320	528	1200	384	1050	631	1170	1190	380	107	144	94
26	4420	646	933	387	925	639	1200	1090	622	134	88	122
27	3180	550	935	427	843	649	1030	866	579	192	86	136
28	2630	554	e720	440	820	691	1130	897	369	242	115	194
29	2090	1000	e640	433	---	919	1120	827	333	593	119	137
30	1820	4300	e600	798	---	3590	877	818	338	524	87	103
31	1460	---	e550	3550	---	5090	---	789	---	319	81	---
TOTAL	86707	21845	62512	16661	60460	54069	83957	68682	14446	6898	3426	2478
MEAN	2797	728.2	2017	537.5	2159	1744	2799	2216	481.5	222.5	110.5	82.60
MAX	6670	4300	5400	3550	7010	5090	4990	6540	732	593	195	194
MIN	116	331	550	357	739	631	877	692	286	107	67	39
CFSM	2.64	0.69	1.90	0.51	2.04	1.65	2.64	2.09	0.45	0.21	0.10	0.08
IN.	3.04	0.77	2.19	0.58	2.12	1.90	2.95	2.41	0.51	0.24	0.12	0.09

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2002, BY WATER YEAR (WY)

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	
MEAN	613.5	942.8	1185	1373	1719	1869	1859	1147	994.7	452.2	360.5	354.3								
MAX	2797	3330	2421	4615	3728	3612	3071	3675	2915	1413	1157	1258								
(WY)	2002	1993	1991	1993	2001	1985	1999	1996	1989	1986	1998	1997								
MIN	78.6	98.8	162	145	310	689	607	272	153	122	111	81.5								
(WY)	1995	2000	2000	2000	1995	2000	1986	1988	1988	1988	2002	1994								

SUMMARY STATISTICS

FOR 2001 CALENDAR YEAR

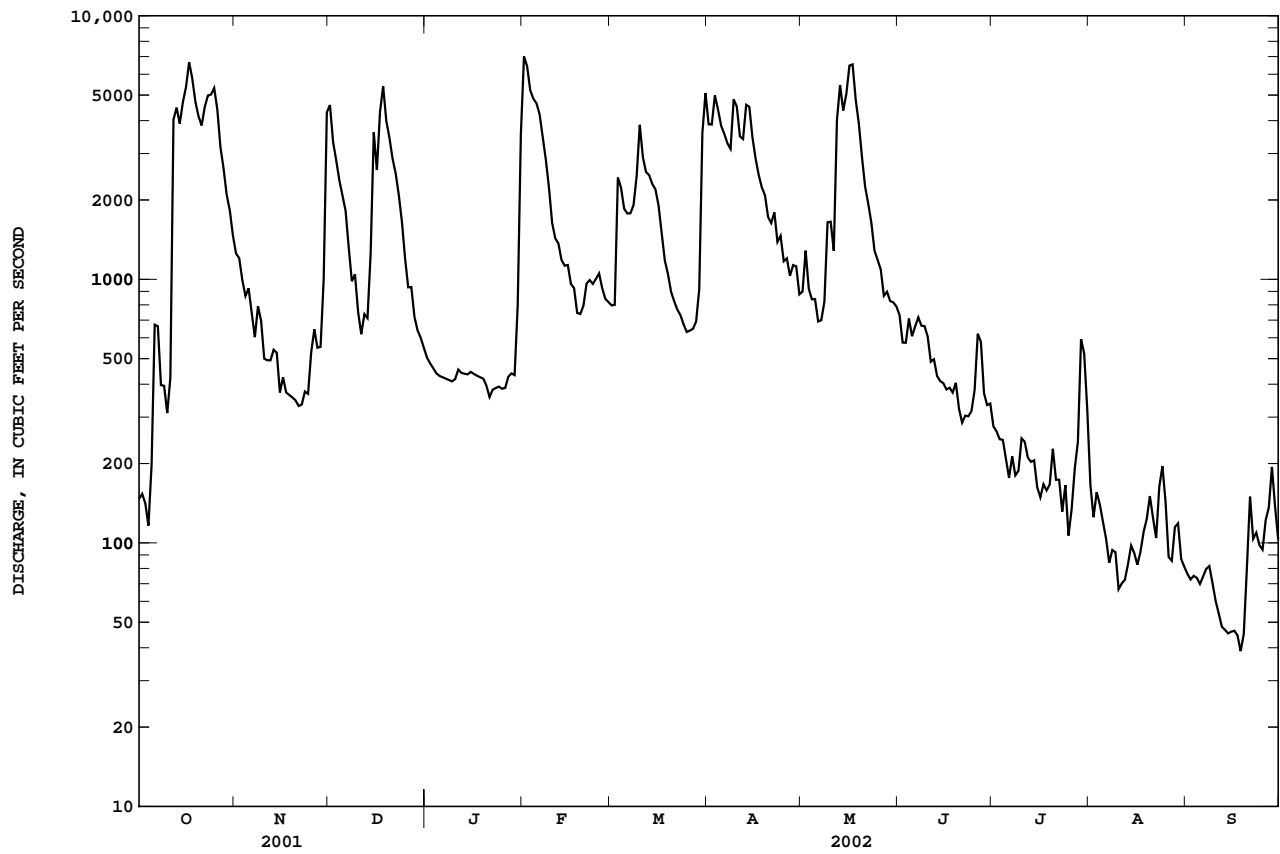
FOR 2002 WATER YEAR

WATER YEARS 1984 - 2002

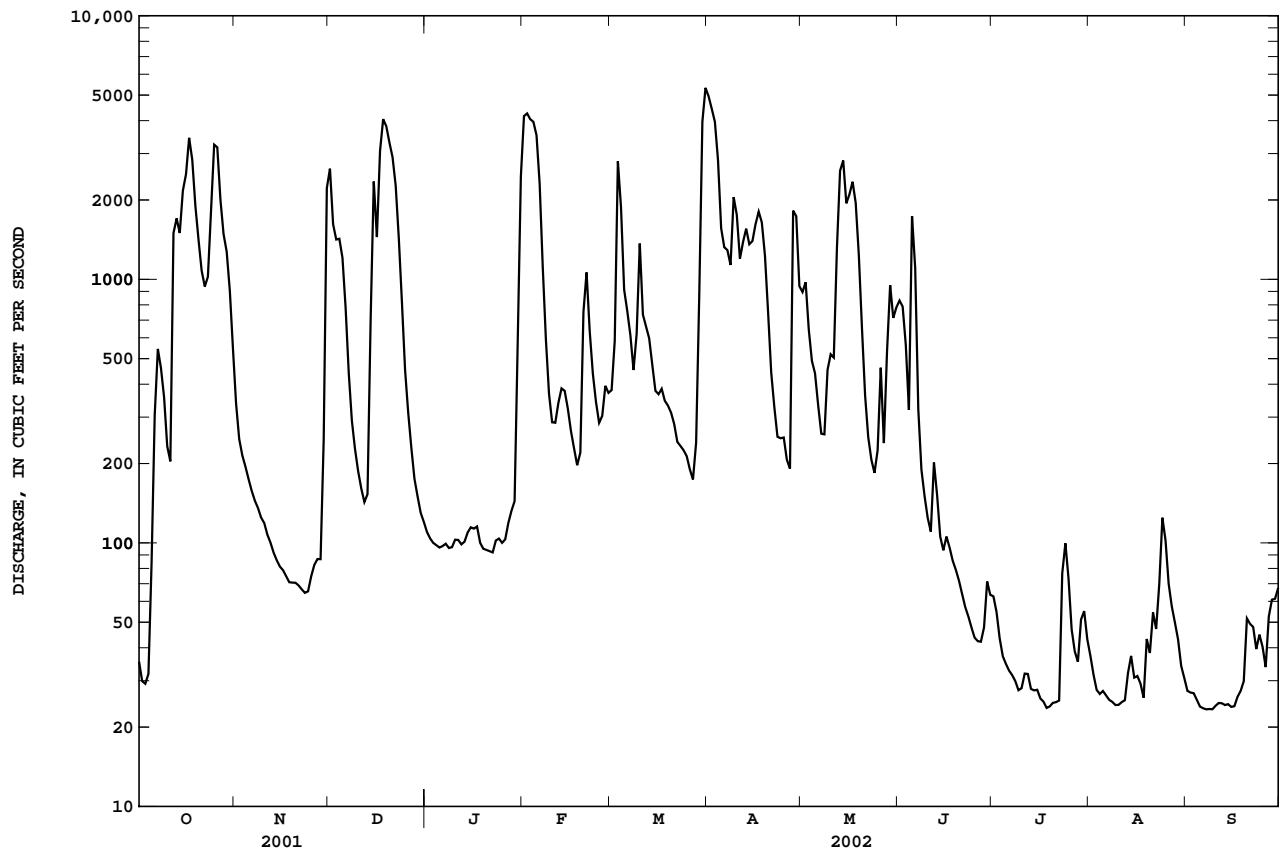
ANNUAL TOTAL	466599	482141		
ANNUAL MEAN	1278	1321	1068	
HIGHEST ANNUAL MEAN			1532	1993
LOWEST ANNUAL MEAN			642	1995
HIGHEST DAILY MEAN	7710	Feb 10	7010	Feb 1
LOWEST DAILY MEAN	74	Aug 7	39	Sep 18
ANNUAL SEVEN-DAY MINIMUM	130	Aug 11	45	Sep 13
MAXIMUM PEAK FLOW			7220	Feb 1
MAXIMUM PEAK STAGE			12.54	Feb 1
ANNUAL RUNOFF (CFSM)	1.21		1.25	1.01
ANNUAL RUNOFF (INCHES)	16.37		16.92	13.69
10 PERCENT EXCEEDS	3500		4030	2720
50 PERCENT EXCEEDS	646		664	515
90 PERCENT EXCEEDS	181		98	145

e Estimated

04180500 ST. JOSEPH RIVER NEAR FORT WAYNE, IN--Continued



04181500 ST. MARYS RIVER AT DECATUR, IN--Continued



STREAMS TRIBUTARY TO LAKE ERIE

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, (POE, IN quadrangle), 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 mi².

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 National Geodetic Vertical Datum of 1929 (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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	45	476	3340	e190	5470	462	6500	962	874	75	54	40
2	40	337	2180	e180	5410	577	6000	1250	869	73	46	37
3	36	277	1560	e170	4950	3230	5280	912	726	65	40	36
4	35	246	1530	e166	4550	2840	4030	597	471	55	36	36
5	98	221	1390	e160	4210	1260	2140	525	1470	47	34	34
6	371	198	1020	160	3180	932	1460	436	2140	44	33	32
7	491	180	631	161	1580	822	1420	345	710	42	33	32
8	462	167	410	159	845	635	1350	360	347	40	32	32
9	386	155	303	156	519	780	2360	630	239	39	31	32
10	291	145	247	158	384	1600	2300	662	191	38	30	33
11	459	136	209	158	356	1040	1430	600	163	37	29	32
12	2730	124	183	147	380	777	1450	2000	189	40	29	34
13	2480	115	189	143	426	730	2050	2920	259	41	31	33
14	2000	108	736	145	444	613	1670	3400	170	38	37	34
15	2730	103	2810	154	408	490	1470	2440	132	37	46	37
16	3740	99	2040	144	346	437	1630	2100	119	37	42	36
17	4500	97	3550	136	291	450	1850	2460	130	37	40	33
18	3720	92	4740	e128	250	424	1810	2270	119	35	39	36
19	2460	90	4590	e122	235	393	1450	1560	103	37	44	38
20	1680	90	3960	e118	969	375	987	902	92	37	61	49
21	1290	89	3330	e115	1530	351	610	510	83	36	54	90
22	1490	86	2730	e112	972	304	440	342	74	36	69	69
23	1530	84	1820	110	626	270	335	268	68	50	92	60
24	2060	83	1110	123	478	265	283	235	64	102	177	52
25	3150	160	646	120	390	263	295	322	59	105	167	54
26	3570	125	425	115	373	242	269	879	62	75	113	51
27	2630	118	340	119	474	206	234	463	189	54	83	54
28	1690	115	e280	139	482	312	1530	497	63	46	69	74
29	1430	320	e240	173	---	856	2300	1260	63	51	58	77
30	1120	2590	e220	1190	---	4400	1210	900	84	165	50	75
31	740	---	e204	3300	---	6000	---	831	---	82	44	---
TOTAL	49454	7226	46963	8671	40528	32336	56143	33838	10322	1696	1743	1362
MEAN	1595	240.9	1515	279.7	1447	1043	1871	1092	344.1	54.71	56.23	45.40
MAX	4500	2590	4740	3300	5470	6000	6500	3400	2140	165	177	90
MIN	35	83	183	110	235	206	234	235	59	35	29	32
CFSM	2.09	0.32	1.99	0.37	1.90	1.37	2.46	1.43	0.45	0.07	0.07	0.06
IN.	2.41	0.35	2.29	0.42	1.98	1.58	2.74	1.65	0.50	0.08	0.09	0.07

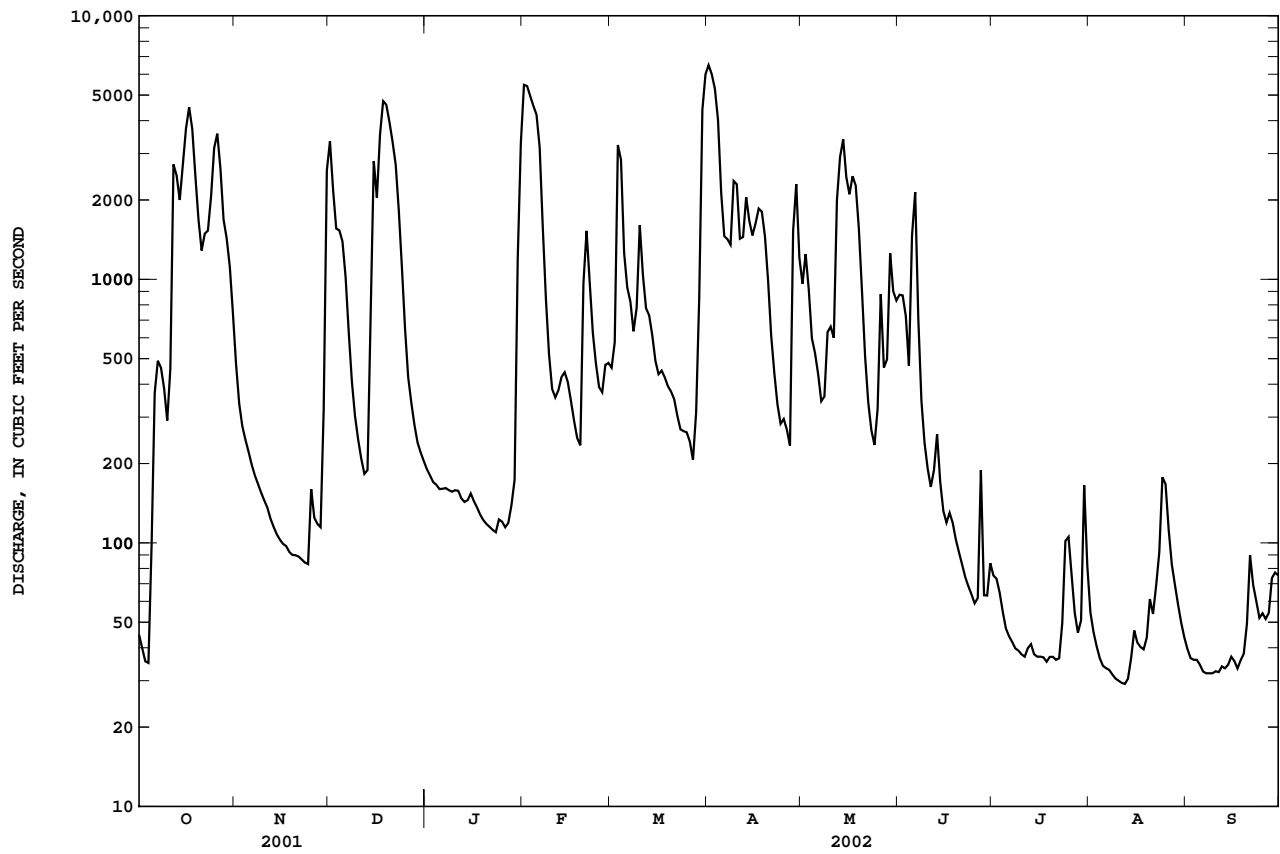
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1931 - 2002, BY WATER YEAR (WY)

MEAN	166.1	324.5	628.0	858.6	1039	1305	1151	649.8	526.4	345.7	159.3	114.2
MAX	1594	2612	2349	4897	3404	4070	4119	3866	2545	2708	1134	1453
(WY)	2002	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 2001 CALENDAR YEAR	FOR 2002 WATER YEAR	WATER YEARS 1931 - 2002
ANNUAL TOTAL	252468	290282	
ANNUAL MEAN	691.7	795.3	613.8
HIGHEST ANNUAL MEAN			1093
LOWEST ANNUAL MEAN			174
HIGHEST DAILY MEAN	5020	Feb 10	13000
LOWEST DAILY MEAN	33	Aug 14	3.4
ANNUAL SEVEN-DAY MINIMUM	39	Aug 9	31
MAXIMUM PEAK FLOW			6560
MAXIMUM PEAK STAGE			13.49
ANNUAL RUNOFF (CFSM)	0.91		1.04
ANNUAL RUNOFF (INCHES)	12.33		14.17
10 PERCENT EXCEEDS	2290		2460
50 PERCENT EXCEEDS	183		246
90 PERCENT EXCEEDS	52		37

e Estimated

04182000 ST. MARYS RIVER NEAR FORT WAYNE, IN--Continued



STREAMS TRIBUTARY TO LAKE ERIE

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, (FORT WAYNE WEST, IN quadrangle), on right bank 50 ft upstream from Sherman Boulevard bridge in Fort Wayne, 0.4 mi north of Goshen Avenue on Sherman Boulevard, 0.95 mi southwest of intersection of State Road 3 and State Roads 14/37, and at mile 2.2.

DRAINAGE AREA.--14.0 mi².

PERIOD OF RECORD.--October 1983 to December 2001 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 760.00 ft above National Geodetic Vertical Datum of 1929, (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 2001 TO SEPTEMBER 2002
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	2.0	5.5	35	---	---	---	---	---	---	---	---	---
2	2.1	17	15	---	---	---	---	---	---	---	---	---
3	2.2	10	10	---	---	---	---	---	---	---	---	---
4	3.8	6.0	8.5	---	---	---	---	---	---	---	---	---
5	91	4.9	7.1	---	---	---	---	---	---	---	---	---
6	45	4.6	7.2	---	---	---	---	---	---	---	---	---
7	11	4.3	5.8	---	---	---	---	---	---	---	---	---
8	6.6	4.2	5.2	---	---	---	---	---	---	---	---	---
9	4.4	4.3	5.4	---	---	---	---	---	---	---	---	---
10	6.9	4.1	4.1	---	---	---	---	---	---	---	---	---
11	110	3.7	4.0	---	---	---	---	---	---	---	---	---
12	366	3.5	4.6	---	---	---	---	---	---	---	---	---
13	45	3.6	24	---	---	---	---	---	---	---	---	---
14	125	4.4	128	---	---	---	---	---	---	---	---	---
15	47	4.8	56	---	---	---	---	---	---	---	---	---
16	349	4.4	28	---	---	---	---	---	---	---	---	---
17	75	3.8	218	---	---	---	---	---	---	---	---	---
18	26	3.1	52	---	---	---	---	---	---	---	---	---
19	14	3.1	19	---	---	---	---	---	---	---	---	---
20	9.1	3.4	13	---	---	---	---	---	---	---	---	---
21	44	3.3	8.9	---	---	---	---	---	---	---	---	---
22	206	3.4	7.7	---	---	---	---	---	---	---	---	---
23	119	3.2	10	---	---	---	---	---	---	---	---	---
24	98	9.5	6.6	---	---	---	---	---	---	---	---	---
25	83	69	4.5	---	---	---	---	---	---	---	---	---
26	20	11	3.5	---	---	---	---	---	---	---	---	---
27	12	8.0	3.0	---	---	---	---	---	---	---	---	---
28	9.2	8.8	2.9	---	---	---	---	---	---	---	---	---
29	8.4	87	2.5	---	---	---	---	---	---	---	---	---
30	7.2	219	1.9	---	---	---	---	---	---	---	---	---
31	6.2	---	1.9	---	---	---	---	---	---	---	---	---
TOTAL	1954.1	524.9	703.3	---	---	---	---	---	---	---	---	---
MEAN	63.04	17.50	22.69	---	---	---	---	---	---	---	---	---
MAX	366	219	218	---	---	---	---	---	---	---	---	---
MIN	2.0	3.1	1.9	---	---	---	---	---	---	---	---	---
CFSM	4.50	1.25	1.62	---	---	---	---	---	---	---	---	---
IN.	5.19	1.39	1.87	---	---	---	---	---	---	---	---	---

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1984 - 2002, BY WATER YEAR (WY)

	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002
MEAN	14.01	18.51	18.84	18.72	24.16	24.60	25.33	18.07	17.34	16.88	10.63	12.05							
MAX	63.0	61.3	66.2	48.9	64.6	46.6	58.8	46.9	53.3	48.3	23.3	39.8							
(WY)	2002	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

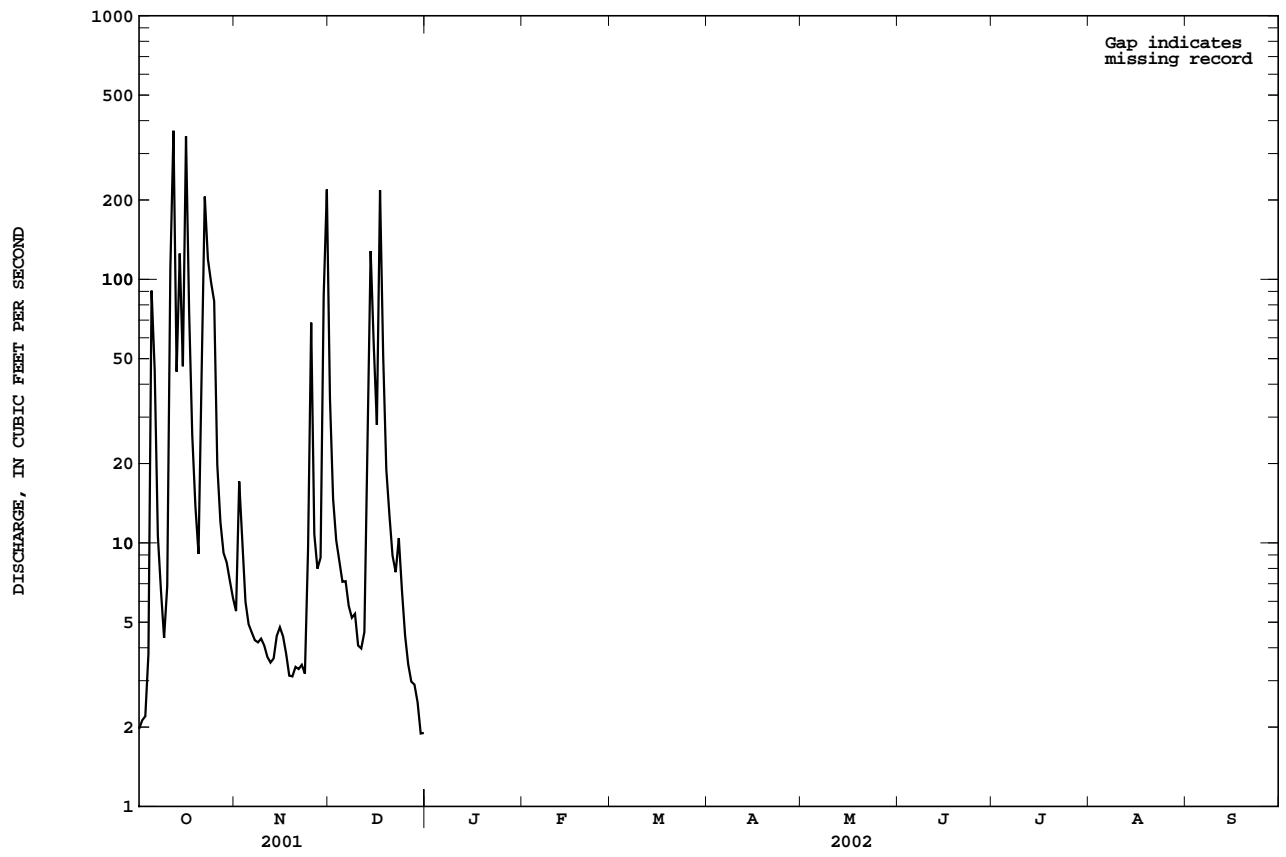
FOR 2001 CALENDAR YEAR

FOR 2002 WATER YEAR

WATER YEARS 1984 - 2002

ANNUAL TOTAL	8110.7	3182.3		
ANNUAL MEAN	22.22	34.59	18.20	
HIGHEST ANNUAL MEAN			34.6	2002
LOWEST ANNUAL MEAN			11.5	1987
HIGHEST DAILY MEAN	384	Apr 6	748	Feb 22 1990
LOWEST DAILY MEAN	1.3	Jul 15	0.93	Jul 9 1990
ANNUAL SEVEN-DAY MINIMUM	1.8	Jan 1	1.1	Jan 15 1994
MAXIMUM PEAK FLOW			828	Oct 16 1990
MAXIMUM PEAK STAGE			8.98	Oct 16 1997
ANNUAL RUNOFF (CFSM)	1.59		2.47	1.30
ANNUAL RUNOFF (INCHES)	21.55		8.46	17.66
10 PERCENT EXCEEDS	51		106	35
50 PERCENT EXCEEDS	6.2		7.4	5.6
90 PERCENT EXCEEDS	2.4		3.1	2.5

04182810 SPY RUN CREEK AT FORT WAYNE, IN--Continued



STREAMS TRIBUTARY TO LAKE ERIE

04182900 MAUMEE RIVER AT FORT WAYNE, IN

LOCATION.--Lat 41°04'55", long 85°06'53", in SE¹/₄NE¹/₄ sec. 1, T.30 N., R.12 E., Allen County, Hydrologic Unit 04100005, (FORT WAYNE EAST, IN quadrangle), 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 mi².

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

GAGE.--Water-stage recorder. Datum of gage 730.07 ft above National Geodetic Vertical Datum of 1929. 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, 17.61 ft, Feb. 1; minimum gage height, 0.83 ft, Aug. 27.

GAGE HEIGHT, in FEET, WATER YEAR OCTOBER 2001 TO SEPTEMBER 2002
DAILY OBSERVATION AT 2400 HOURS

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	1.31	4.25	9.40	2.00	17.47	3.16	14.99	---	---	1.58	1.58	1.21
2	1.41	3.91	10.05	2.10	16.53	4.53	15.40	---	---	1.88	1.17	1.07
3	1.18	3.22	10.45	2.08	14.99	12.16	15.19	---	---	1.39	1.46	1.03
4	1.36	3.00	10.76	1.98	14.20	8.55	12.55	---	---	1.31	1.44	1.01
5	2.18	3.38	7.07	1.90	13.52	6.60	10.03	---	---	1.54	1.55	1.00
6	2.79	2.60	5.88	1.84	11.61	5.83	9.15	---	---	1.29	1.36	0.99
7	3.21	2.38	4.24	1.81	8.98	5.76	8.57	---	---	1.63	1.06	0.98
8	2.36	2.69	3.42	1.81	7.18	5.50	9.95	---	---	1.44	1.01	1.06
9	2.19	2.51	3.30	1.74	6.10	9.02	12.82	---	---	1.17	1.35	1.04
10	2.04	2.06	2.74	1.74	4.57	9.98	11.21	---	---	1.38	1.13	1.06
11	5.89	2.04	2.36	1.81	4.56	7.61	9.12	---	---	1.50	1.04	0.98
12	14.21	2.05	2.57	1.83	4.61	6.93	11.21	---	---	1.50	1.09	0.99
13	11.16	1.98	2.67	1.95	3.86	6.67	11.64	---	---	1.33	1.13	0.98
14	11.87	2.00	8.71	1.71	3.27	6.16	10.60	---	---	1.47	1.45	1.00
15	12.41	1.77	11.69	1.81	3.55	5.85	8.91	---	---	1.30	1.45	0.99
16	16.94	1.75	8.48	1.81	3.15	4.67	8.52	---	---	1.13	1.19	0.97
17	16.47	1.74	15.37	1.80	3.10	4.45	8.40	---	---	1.12	1.11	0.95
18	14.42	1.73	15.26	1.80	2.60	3.58	---	---	---	1.16	1.14	0.93
19	11.75	1.70	13.60	1.73	2.89	3.47	---	---	2.97	1.62	1.56	0.93
20	10.22	1.62	12.05	1.77	5.57	3.14	---	---	1.97	1.60	1.38	1.87
21	9.40	1.66	10.69	1.72	5.88	2.94	---	---	1.73	1.15	1.49	1.74
22	11.97	1.63	9.34	1.16	4.50	2.82	---	---	1.72	1.91	2.76	1.16
23	12.27	1.69	7.66	2.04	3.88	2.61	---	---	1.83	1.25	1.87	1.12
24	13.12	1.81	5.92	2.08	3.63	2.58	---	---	1.84	1.44	1.70	1.14
25	13.94	2.22	4.52	2.03	3.06	2.49	---	---	2.48	1.42	1.56	1.06
26	12.74	2.38	3.44	2.02	3.40	2.46	---	---	11.07	1.31	1.42	1.11
27	10.01	2.14	3.09	2.17	3.31	2.60	---	---	3.78	1.67	0.86	2.05
28	8.02	2.15	2.64	2.19	3.23	3.04	---	---	2.08	1.42	0.90	1.22
29	7.16	5.14	2.50	3.73	---	8.07	---	---	2.23	3.85	0.94	1.20
30	6.02	9.99	2.13	6.86	---	14.72	---	---	2.18	2.33	1.24	1.26
31	4.64	---	2.10	---	---	15.92	---	---	---	1.73	1.22	---
TOTAL	254.66	79.19	214.10	---	183.20	183.87	---	---	---	47.82	41.61	34.10
MEAN	8.21	2.64	6.91	---	6.54	5.93	---	---	---	1.54	1.34	1.14
MAX	16.94	9.99	15.37	---	17.47	15.92	---	---	---	3.85	2.76	2.05
MIN	1.18	1.62	2.10	---	2.60	2.46	---	---	---	1.12	0.86	0.93

04183000 MAUMEE RIVER AT NEW HAVEN, IN--Continued

