03336645 MIDDLE FORK VERMILION RIVER ABOVE OAKWOOD, IL

Wabash Basin
Vermilion Subbasin

LOCATION.--Lat 40°08′13″, long 87°44′45″ referenced to North American Datum of 1927, in NE ¼ NE ¼ SW ¼ sec.5, T.19 N., R.12 W., Vermilion County, IL, Hydrologic Unit 05120109, on right downstream corner of Kickapoo State Park Road bridge, 1.1 mi upstream from Interstate Highway 74 bridge, 2.0 mi northeast of Oakwood, and at mile 31.7.

DRAINAGE AREA.--432 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.—
SURFACE-WATER DISCHARGE AND STAGE
DISCHARGE: October 1978 to current year.
STAGE: Water years 1994 to current year. Gage-height records for January 1972 to Nov. 8, 1978, available in files of Illinois Office of Water Resources.
SURFACE-WATER QUALITY
CHEMICAL: Water years 1978-91.
DISSOLVED OXYGEN: Water years 2001-2003.
PH: Water years 2001-2003.
SPECIFIC CONDUCTANCE: Water years 1979, 2001-2003.
TURBIDITY: Water years 2001-2003.
WATER TEMPERATURE: Water years 1979, 2001-2003.

GAGE.-- Water-stage recorder, satellite telemeter, and crest-stage gage. Datum of gage is 544.42 ft above NGVD of 1929 (levels by Illinois Office of Water Resources) (544.28 ft NAVD 1988). Prior to Jan. 14, 2006, recording gage 250 ft upstream at same datum.

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

EXTREMES FOR PERIOD OF RECORD.--
SURFACE-WATER DISCHARGE AND STAGE: Maximum discharge, 15,500 ft^3/s, Apr. 13, 1994, gage height, 20.46 ft; minimum daily, 4.5 ft^3/s, Nov. 20, 1980.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	23	126	2,640	1,720	e150	e1,200	449	513	123	95	33	14
2	20	108	2,270	1,340	e145	e2,500	591	435	115	71	28	13
3	29	91	2,140	906	e137	e1,500	508	360	113	55	25	12
4	38	84	1,000	759	e129	e800	423	310	127	43	25	11
5	42	80	645	1,240	e122	e580	352	283	123	39	24	10
6	71	75	514	1,340	e114	511	297	254	122	39	21	9.8
7	52	76	433	906	e110	418	266	225	107	33	20	9.5
8	40	75	339	743	e107	345	241	213	91	28	17	18
9	34	74	286	676	e103	356	220	203	80	25	16	15
10	31	72	297	632	e100	581	200	195	72	25	16	12
11	35	82	250	516	e96	778	236	182	66	23	14	11
12	32	123	329	441	e92	628	404	172	63	22	13	10
13	29	206	905	1,570	e88	554	478	159	60	22	12	10
14	28	161	931	2,080	e80	533	414	149	56	22	12	10
15	34	143	715	4,320	e74	564	446	146	54	20	12	9.6
16	39	380	558	3,240	e69	506	403	152	51	18	11	10
17	183	986	469	2,260	e70	406	347	157	48	20	11	9.1
18	642	706	438	876	e82	326	308	136	44	26	11	8.1
19	747	500	405	663	e94	312	275	125	48	89	12	7.7
20	480	377	354	557	e103	454	244	122	61	997	19	7.7
21	309	292	800	502	e115	436	219	121	54	641	33	7.4
22	216	248	2,970	467	e135	386	202	116	54	288	43	6.7
23	164	212	3,330	420	e160	1,570	198	110	55	157	57	6.3
24	132	190	2,860	375	e220	2,720	189	105	83	102	42	6.2
25	110	174	1,530	332	e500	3,750	510	104	101	72	38	7.2
26	105	161	866	279	e1,600	3,230	2,280	101	111	56	53	7.9
27	134	146	684	259	e1,300	1,400	2,120	275	95	47	36	6.3
28	246	135	559	246	e1,070	894	1,560	325	160	46	29	6.5
29	234	131	494	178	---	740	858	218	139	38	24	8.2
30	184	260	442	e170	---	548	631	164	118	36	22	7.2
31	150	---	792	e160	---	483	---	135	---	32	19	---
Total	4,613	6,474	31,245	30,173	7,165	30,009	15,869	6,265	2,594	3,227	748	287.4
Mean	149	216	1,008	973	256	968	529	202	86.5	104	24.1	9.58
Max	747	986	3,330	4,320	1,600	3,750	2,280	513	160	997	57	18
Min	20	72	250	160	69	312	189	101	44	18	11	6.2
Cfsm	0.34	0.50	2.33	2.25	0.59	2.24	1.22	0.47	0.20	0.24	0.06	0.02
In.	0.40	0.56	2.69	2.60	0.62	2.58	1.37	0.54	0.22	0.28	0.06	0.02

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1979 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	146	319	395	409	548	724	650	620	436	295	182	111
Max	1,088	2,278	1,097	1,900	2,580	2,088	2,384	1,656	1,446	1,320	1,060	1,116
(WY)	(1994)	(1986)	(1991)	(2005)	(1982)	(1979)	(1994)	(1995)	(1998)	(1993)	(1981)	(1993)
Min	9.73	9.54	15.6	15.5	67.6	73.4	86.4	92.1	27.0	12.8	11.1	7.85
(WY)	(2001)	(1981)	(2000)	(2000)	(2000)	(2000)	(2000)	(1988)	(1988)	(1988)	(2000)	(2000)

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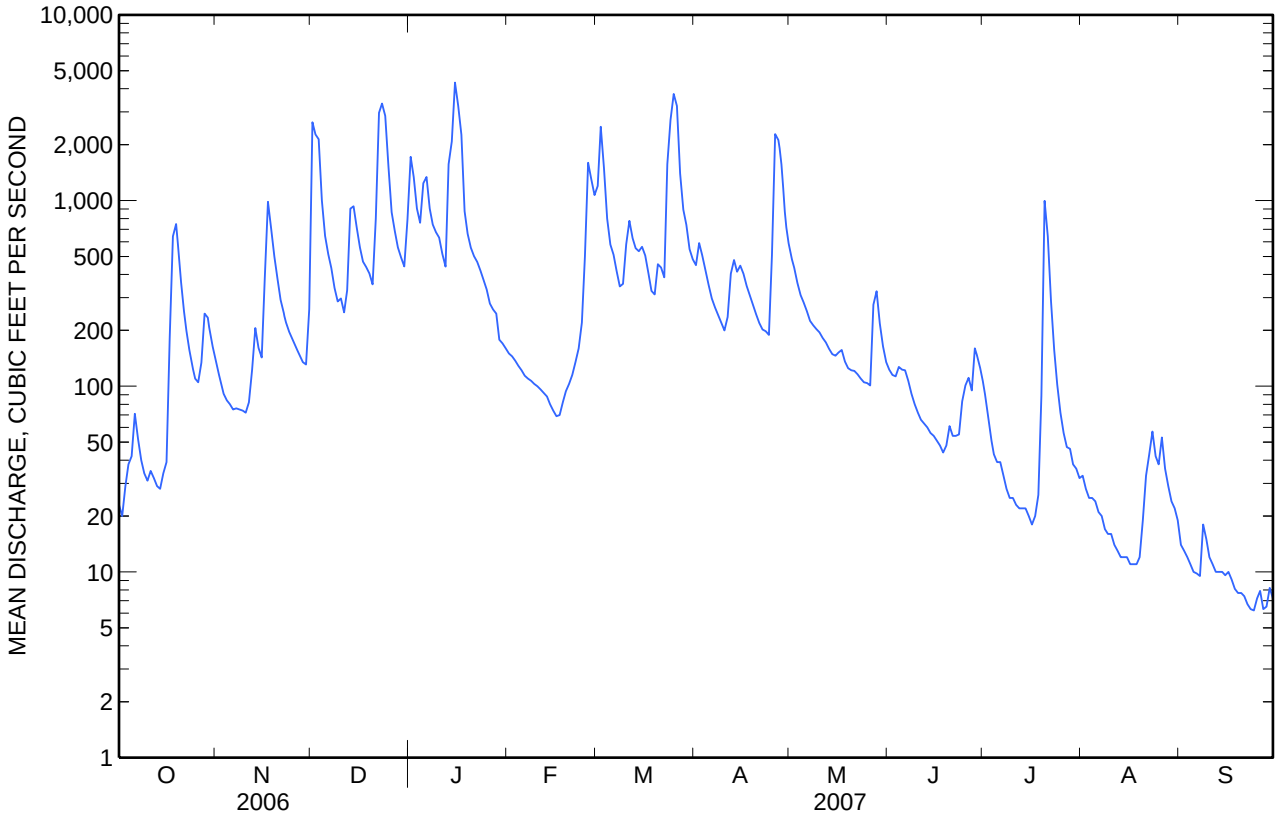
SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1979 - 2007	
Annual total	124,456		138,669.4			
Annual mean	341		380		402	
Highest annual mean					901	1993
Lowest annual mean					74.3	2000
Highest daily mean	3,330	Dec 23	4,320	Jan 15	14,400	Apr 13, 1994
Lowest daily mean	12	Sep 4	6.2	Sep 24	4.5	Nov 20, 1980
Annual seven-day minimum	13	Aug 21	6.7	Sep 22	5.1	Nov 16, 1980
Maximum peak flow			[A]4,620	Jan 15	15,500	Apr 13, 1994
Maximum peak stage			[B]11.42	Feb 26	20.46	Apr 13, 1994
Instantaneous low flow			5.6	Sep 24		
Annual runoff (cfsm)	0.789		0.879		0.931	
Annual runoff (inches)	10.72		11.94		12.65	
10 percent exceeds	727		905		946	
50 percent exceeds	189		145		152	
90 percent exceeds	25		14		16	

[A] Gage height, 7.73 ft.
[B] Ice jam.



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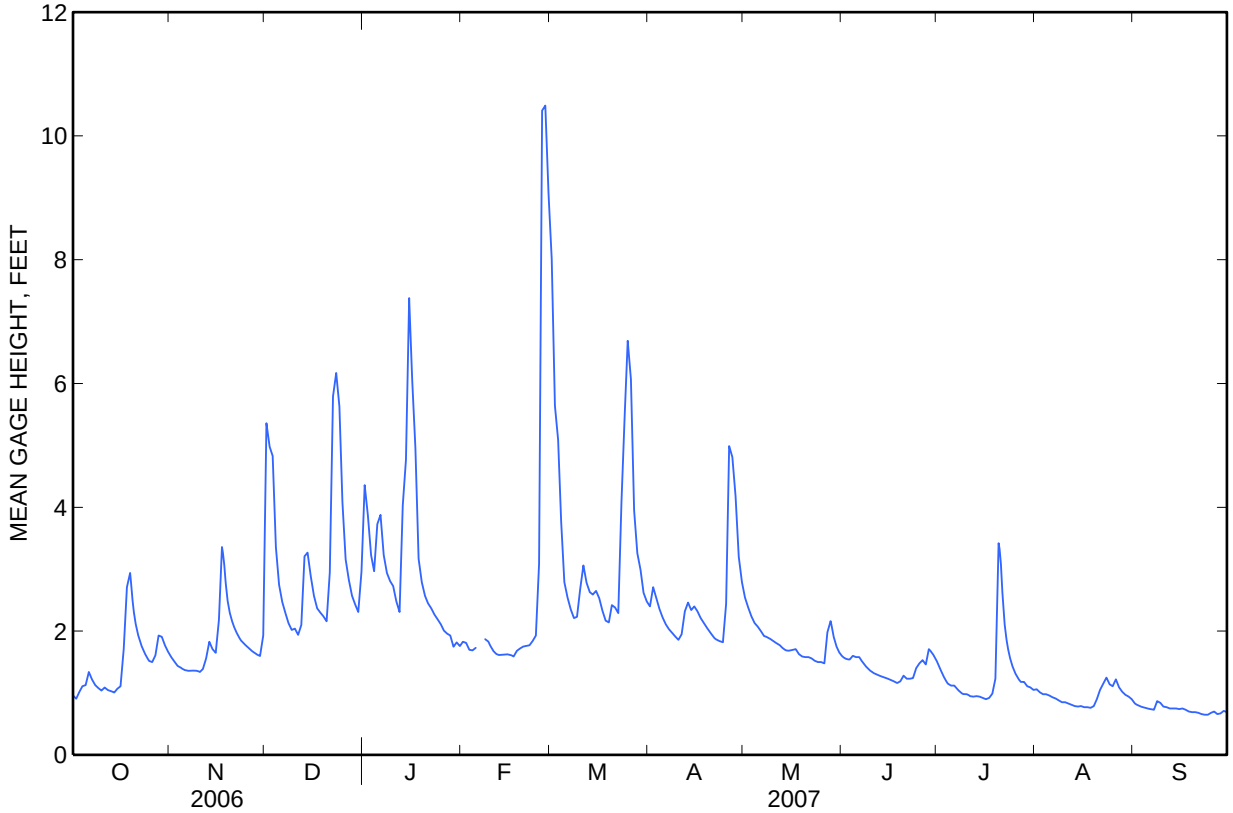
GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	0.96	1.58	5.36	4.36	1.83	8.01	2.40	2.54	1.58	1.46	1.06	0.83
2	0.91	1.51	4.98	3.87	1.81	5.64	2.71	2.38	1.55	1.33	1.01	0.80
3	1.02	1.44	4.83	3.23	1.70	5.09	2.53	2.24	1.54	1.24	0.98	0.78
4	1.11	1.41	3.36	2.97	1.69	3.77	2.36	2.13	1.60	1.15	0.98	0.76
5	1.13	1.38	2.75	3.73	1.73	2.79	2.22	2.07	1.58	1.12	0.96	0.75
6	1.34	1.36	2.47	3.88	---	2.54	2.11	2.00	1.58	1.12	0.93	0.74
7	1.22	1.36	2.29	3.23	---	2.35	2.03	1.92	1.51	1.06	0.91	0.73
8	1.13	1.36	2.13	2.94	1.87	2.21	1.97	1.90	1.44	1.01	0.88	0.87
9	1.08	1.36	2.02	2.81	1.83	2.23	1.91	1.87	1.38	0.98	0.85	0.84
10	1.04	1.34	2.04	2.73	1.72	2.68	1.86	1.84	1.34	0.98	0.85	0.78
11	1.09	1.39	1.94	2.48	1.66	3.06	1.95	1.80	1.31	0.95	0.83	0.77
12	1.05	1.56	2.10	2.31	1.62	2.78	2.32	1.77	1.29	0.94	0.81	0.75
13	1.03	1.83	3.21	4.03	1.61	2.63	2.46	1.72	1.27	0.95	0.79	0.75
14	1.01	1.71	3.27	4.77	1.62	2.59	2.34	1.69	1.25	0.94	0.78	0.75
15	1.07	1.65	2.89	7.38	1.63	2.65	2.40	1.68	1.23	0.92	0.79	0.74
16	1.11	2.18	2.57	6.06	1.61	2.53	2.32	1.70	1.21	0.90	0.77	0.75
17	1.71	3.36	2.37	4.96	1.59	2.33	2.21	1.71	1.19	0.92	0.77	0.73
18	2.71	2.87	2.30	3.17	1.68	2.17	2.13	1.63	1.16	0.99	0.76	0.70
19	2.94	2.44	2.24	2.79	1.72	2.14	2.05	1.59	1.19	1.23	0.79	0.69
20	2.40	2.19	2.16	2.57	1.75	2.42	1.98	1.58	1.28	3.42	0.90	0.69
21	2.07	2.03	2.95	2.45	1.76	2.38	1.91	1.58	1.23	2.79	1.05	0.68
22	1.86	1.94	5.79	2.37	1.77	2.29	1.86	1.56	1.23	2.08	1.15	0.66
23	1.71	1.85	6.17	2.27	1.84	4.09	1.84	1.52	1.24	1.71	1.25	0.65
24	1.61	1.79	5.63	2.19	1.93	5.48	1.82	1.50	1.40	1.49	1.14	0.65
25	1.52	1.75	4.08	2.11	3.09	6.69	2.44	1.50	1.48	1.34	1.11	0.68
26	1.50	1.70	3.16	2.01	10.41	6.07	4.99	1.48	1.53	1.25	1.22	0.70
27	1.61	1.66	2.83	1.96	10.49	3.95	4.81	1.98	1.46	1.18	1.09	0.66
28	1.93	1.62	2.57	1.93	9.07	3.26	4.18	2.16	1.71	1.18	1.02	0.67
29	1.91	1.60	2.43	1.75	---	2.99	3.20	1.90	1.65	1.11	0.97	0.71
30	1.77	1.93	2.31	1.82	---	2.62	2.79	1.74	1.56	1.09	0.94	0.69
31	1.67	---	2.96	1.76	---	2.48	---	1.63	---	1.05	0.90	---
Mean	1.49	1.77	3.17	3.13	---	3.38	2.47	1.82	1.40	1.29	0.94	0.73
Max	2.94	3.36	6.17	7.38	---	8.01	4.99	2.54	1.71	3.42	1.25	0.87
Min	0.91	1.34	1.94	1.75	---	2.14	1.82	1.48	1.16	0.90	0.76	0.65

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