Water-Data Report 2007

05554500 VERMILION RIVER AT PONTIAC, IL

Lower Illinois Basin
Vermilion Subbasin

LOCATION.--Lat 40°52′40″, long 88°38′10″ referenced to North American Datum of 1927, in SE ¼ SW ¼ sec.22, T.28 N., R.5 E., Livingston County, IL, Hydrologic Unit 07130002, near center of span on downstream side of bridge on Vermilion Street in Pontiac, 0.1 mi upstream from State Highway 116, 0.8 mi upstream from Turtle Creek, and at mile 60.3.

DRAINAGE AREA.--579 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.—
SURFACE-WATER DISCHARGE AND STAGE
DISCHARGE: October 1942 to current year.
STAGE: Water years 1994 to current year.

REVISED RECORDS.--WDR IL-75-1: Drainage area. WDR IL-83-2: 1951, 1957, 1965(M), 1968, 1970, 1980. WDR IL-98: 1997 (P).

GAGE.--Water-stage recorder, U.S. Army Corps of Engineers satellite telemeter, and crest-stage gage. Datum of gage is 619.45 ft above NGVD of 1929 (619.25 ft NAVD 1988). Prior to Nov. 8, 1965, nonrecording gage at same site and datum.

REMARKS.--Records good except those for estimated daily discharges, which are poor. Not included in records is about 3 ft^3/s diverted 0.5 mi upstream from station for city of Pontiac water supply.

EXTREMES FOR PERIOD OF RECORD.--
SURFACE-WATER DISCHARGE AND STAGE: Maximum discharge, 13,100 ft^3/s, Dec. 4, 1982, gage height; 19.16 ft; no flow for many days in 1953, 1983-84, 1986-91, 2005.

EXTREMES OUTSIDE PERIOD OF RECORD.--
SURFACE-WATER DISCHARGE AND STAGE: Flood of May 1933 reached a stage of 17.0 ft, from flood marks, estimated discharge 11,000 ft^3/s.

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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	28	187	2,900	1,410	303	2,010	1,730	1,050	327	161	79	118
2	26	163	4,090	1,430	290	6,160	1,800	868	329	132	67	98
3	42	151	2,830	1,080	283	4,330	1,380	716	292	110	62	83
4	112	142	1,750	959	243	1,700	e1,100	615	267	122	56	71
5	139	137	1,230	2,540	219	1,140	e920	550	259	149	54	63
6	112	135	932	2,690	197	871	766	483	256	150	50	58
7	88	131	728	1,820	198	712	657	419	256	118	45	60
8	71	131	503	1,280	196	583	573	400	222	89	39	57
9	60	131	491	981	190	620	505	381	194	73	164	59
10	52	140	471	781	184	1,140	462	357	167	63	244	68
11	59	379	433	661	177	1,440	500	334	157	53	150	63
12	76	464	1,280	599	175	1,120	1,130	307	147	47	92	57
13	94	352	2,540	1,110	171	941	1,280	282	135	42	63	55
14	93	285	2,210	2,060	139	888	1,020	268	124	39	59	50
15	82	279	1,590	3,570	127	1,620	861	272	118	34	52	47
16	76	476	1,150	4,360	136	1,800	723	272	110	28	47	44
17	363	739	895	2,570	154	1,310	615	270	103	37	42	41
18	1,630	571	719	1,460	161	990	552	238	102	2,360	36	40
19	1,240	415	591	997	162	846	495	220	99	4,840	37	37
20	795	327	521	770	162	921	437	215	91	3,050	371	36
21	537	283	1,150	655	167	840	393	209	81	1,660	2,630	33
22	397	255	3,840	589	188	762	372	196	84	946	2,080	31
23	336	233	5,200	510	273	4,910	353	183	154	620	1,290	30
24	290	219	3,740	461	380	9,890	347	171	878	416	978	29
25	248	205	2,190	411	1,300	9,030	1,360	182	852	298	1,010	29
26	227	197	1,550	373	3,480	6,470	4,170	236	563	233	1,020	29
27	234	184	1,180	405	2,690	3,670	4,390	480	528	197	731	28
28	265	178	942	345	1,380	2,320	2,870	705	391	170	447	28
29	267	182	771	343	---	1,820	1,830	569	264	142	291	27
30	235	663	659	333	---	1,830	1,330	426	198	116	202	25
31	203	---	723	330	---	1,530	---	356	---	96	150	---
Total	8,477	8,334	49,799	37,883	13,725	74,214	34,921	12,230	7,748	16,591	12,638	1,494
Mean	273	278	1,606	1,222	490	2,394	1,164	395	258	535	408	49.8
Max	1,630	739	5,200	4,360	3,480	9,890	4,390	1,050	878	4,840	2,630	118
Min	26	131	433	330	127	583	347	171	81	28	36	25
Cfsm	0.47	0.48	2.77	2.11	0.85	4.13	2.01	0.68	0.45	0.92	0.70	0.09
In.	0.54	0.54	3.20	2.43	0.88	4.77	2.24	0.79	0.50	1.07	0.81	0.10

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1943 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	136	241	358	400	511	744	804	725	556	323	123	111
Max	1,682	2,327	2,773	2,359	1,856	3,123	2,801	2,968	2,232	2,350	1,186	1,540
(WY)	(1994)	(1986)	(1983)	(2005)	(2001)	(1979)	(1957)	(1943)	(1980)	(1951)	(1943)	(1989)
Min	0.00	0.93	4.58	3.03	6.71	23.2	109	71.1	27.0	0.00	0.00	0.00
(WY)	(1989)	(2000)	(1954)	(1977)	(1963)	(2000)	(1977)	(1964)	(1988)	(1988)	(1988)	(1988)

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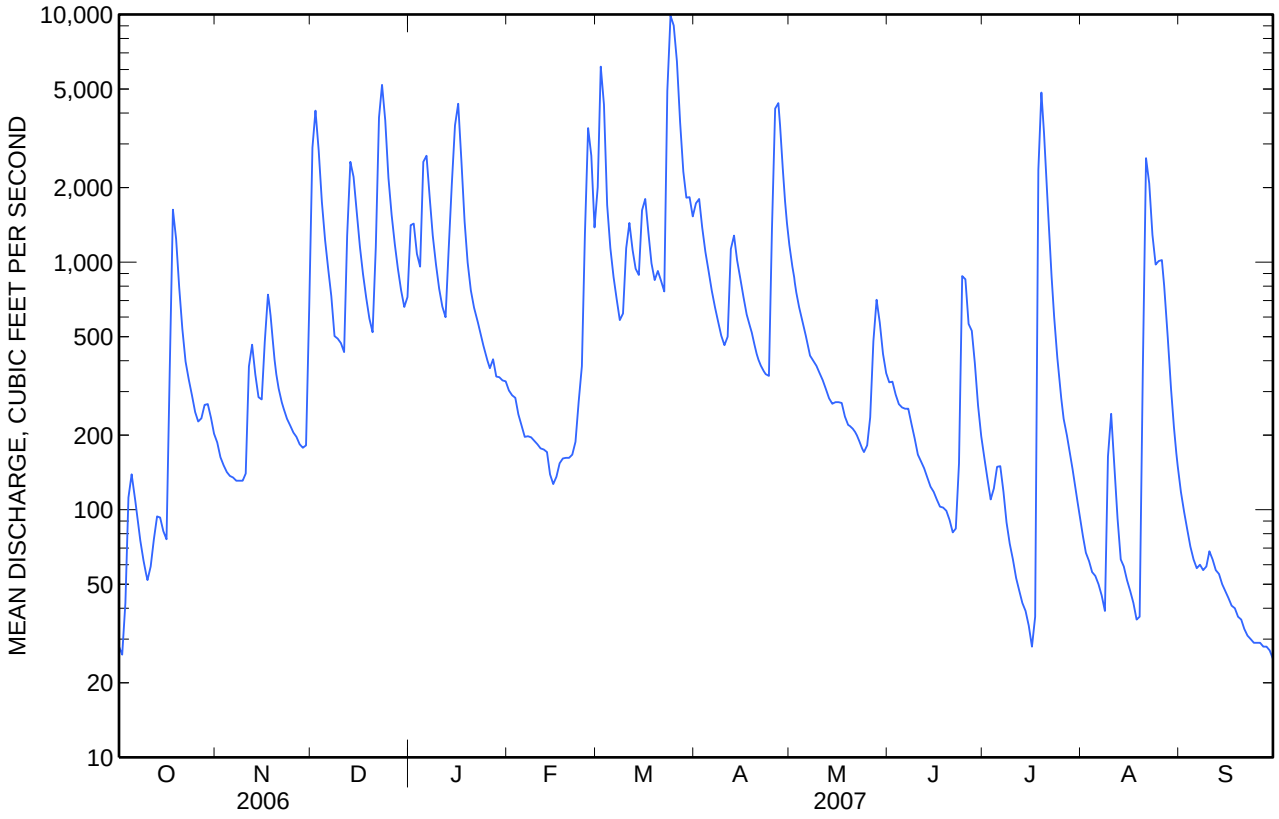
SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1943 - 2007	
Annual total	171,166		278,054			
Annual mean	469		762		419	
Highest annual mean					1,094	1993
Lowest annual mean					49.7	1964
Highest daily mean	5,530	Apr 18	9,890	Mar 24	12,300	Dec 4, 1982
Lowest daily mean	13	Aug 27	25	Sep 30	0.00	A
Annual seven-day minimum	19	Aug 24	28	Sep 24	0.00	A
Maximum peak flow			10,100	Mar 24	13,100	Dec 4, 1982
Maximum peak stage			16.50	Mar 24	19.16	Dec 4, 1982
Instantaneous low flow			21	Oct 2		
Annual runoff (cfsm)	0.810		1.32		0.723	
Annual runoff (inches)	11.00		17.86		9.82	
10 percent exceeds	1,020		1,820		1,060	
50 percent exceeds	247		327		136	
90 percent exceeds	40		54		7.0	

[A] Many occurences in 1953, 1983-84, 1986-91, 2005.



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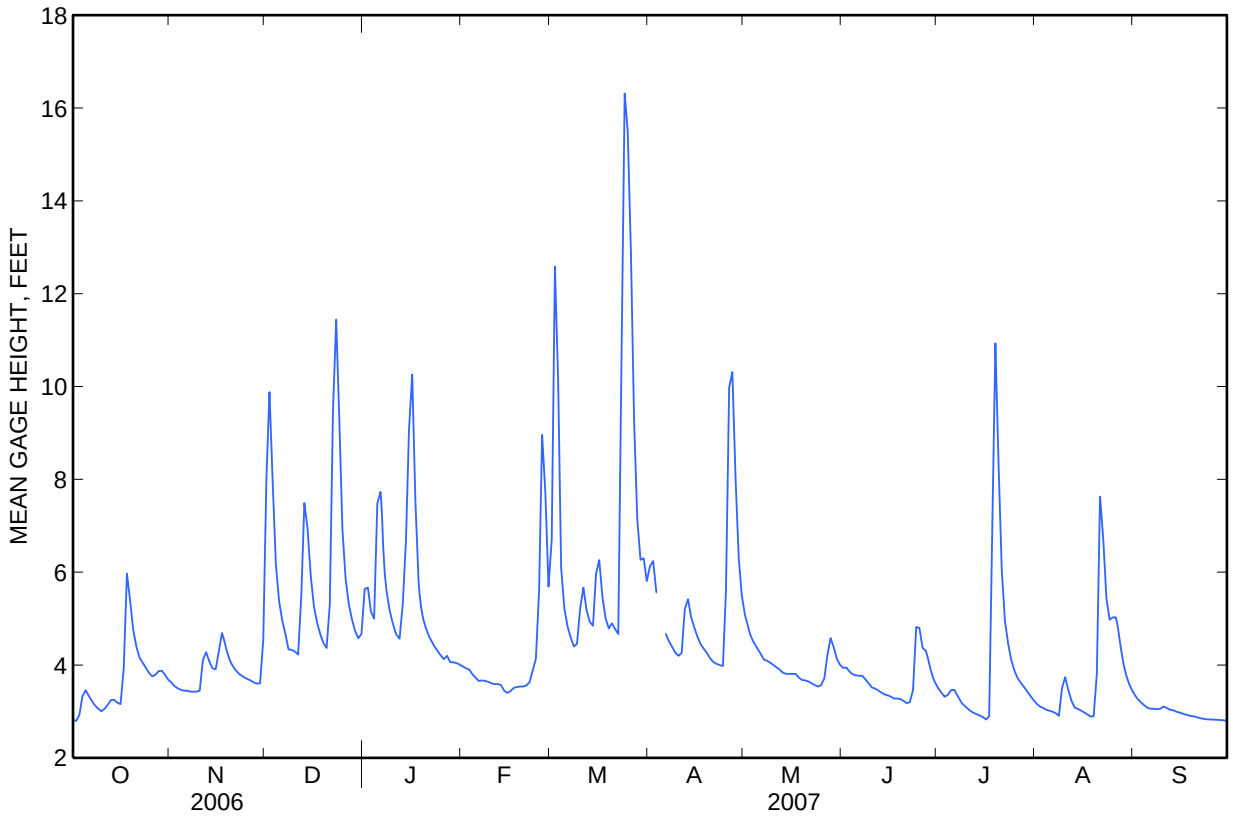
GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	2.82	3.63	8.04	5.64	3.97	6.70	6.13	5.08	3.94	3.50	3.17	3.35
2	2.80	3.55	9.88	5.67	3.93	12.58	6.24	4.82	3.95	3.40	3.11	3.26
3	2.93	3.50	7.95	5.16	3.90	10.15	5.57	4.60	3.86	3.32	3.08	3.19
4	3.33	3.47	6.17	5.00	3.80	6.09	---	4.45	3.80	3.36	3.04	3.13
5	3.46	3.45	5.38	7.48	3.73	5.22	---	4.35	3.78	3.46	3.02	3.08
6	3.34	3.45	4.96	7.73	3.66	4.83	4.67	4.24	3.77	3.47	3.00	3.06
7	3.22	3.43	4.68	6.31	3.67	4.59	4.51	4.12	3.77	3.35	2.96	3.06
8	3.13	3.43	4.34	5.55	3.66	4.40	4.39	4.09	3.69	3.22	2.91	3.05
9	3.06	3.43	4.33	5.16	3.64	4.46	4.27	4.05	3.61	3.14	3.50	3.06
10	3.01	3.45	4.29	4.86	3.61	5.23	4.20	4.00	3.52	3.08	3.74	3.11
11	3.06	4.11	4.23	4.66	3.59	5.67	4.26	3.95	3.49	3.02	3.46	3.08
12	3.15	4.28	5.50	4.57	3.59	5.18	5.21	3.90	3.46	2.98	3.23	3.04
13	3.25	4.08	7.49	5.31	3.57	4.93	5.42	3.84	3.41	2.94	3.08	3.03
14	3.25	3.93	6.94	6.69	3.45	4.85	5.04	3.81	3.37	2.92	3.06	3.00
15	3.19	3.91	5.92	9.07	3.40	5.97	4.81	3.81	3.35	2.88	3.02	2.98
16	3.16	4.29	5.26	10.26	3.44	6.26	4.61	3.81	3.32	2.83	2.98	2.96
17	3.93	4.69	4.91	7.53	3.51	5.47	4.45	3.81	3.28	2.90	2.94	2.93
18	5.97	4.45	4.66	5.80	3.53	5.00	4.35	3.73	3.28	7.05	2.89	2.92
19	5.39	4.19	4.48	5.18	3.54	4.79	4.26	3.68	3.27	10.93	2.90	2.90
20	4.77	4.03	4.37	4.85	3.54	4.90	4.15	3.67	3.23	8.29	3.81	2.89
21	4.40	3.92	5.31	4.66	3.56	4.78	4.07	3.65	3.18	6.03	7.63	2.87
22	4.16	3.84	9.49	4.54	3.63	4.67	4.03	3.61	3.20	4.94	6.72	2.85
23	4.05	3.78	11.44	4.40	3.88	10.54	4.00	3.57	3.46	4.46	5.43	2.84
24	3.94	3.74	9.34	4.31	4.14	16.31	3.98	3.54	4.82	4.11	4.98	2.83
25	3.83	3.70	6.92	4.21	5.59	15.50	5.60	3.57	4.80	3.88	5.03	2.83
26	3.76	3.67	5.85	4.13	8.96	12.89	9.98	3.72	4.37	3.72	5.03	2.83
27	3.79	3.63	5.31	4.20	7.73	9.24	10.31	4.22	4.31	3.62	4.62	2.82
28	3.87	3.60	4.98	4.06	5.69	7.13	8.02	4.58	4.07	3.53	4.17	2.82
29	3.88	3.61	4.74	4.06	---	6.27	6.30	4.38	3.79	3.44	3.86	2.81
30	3.79	4.52	4.58	4.04	---	6.30	5.50	4.13	3.62	3.34	3.63	2.80
31	3.69	---	4.67	4.02	---	5.81	---	4.00	---	3.25	3.46	---
Mean	3.66	3.83	6.01	5.46	4.14	6.99	---	4.03	3.69	4.01	3.79	2.98
Max	5.97	4.69	11.44	10.26	8.96	16.31	---	5.08	4.82	10.93	7.63	3.35
Min	2.80	3.43	4.23	4.02	3.40	4.40	---	3.54	3.18	2.83	2.89	2.80

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