Water-Data Report 2008

05592000 KASKASKIA RIVER AT SHELBYVILLE, IL

Kaskaskia Basin
Upper Kaskaskia Subbasin

LOCATION.--Lat 39°24′26″, long 88°46′53″ referenced to North American Datum of 1927, in SE ¼ SW ¼ sec.8, T.11 N., R.4 E., Shelby County, IL, Hydrologic Unit 07140201, on left bank 700 ft downstream from Lake Shelbyville Dam, 700 ft upstream from bridge on State Highway 16 in Shelbyville, 0.5 mi upstream from railroad bridge, 7 mi upstream from Robinson Creek, and at mile 197.5.

DRAINAGE AREA.--1,054 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.—
SURFACE-WATER DISCHARGE AND STAGE
DISCHARGE: February 1908 to September 1912, November to December 1912, August to December 1914, October 1940 to current year.
STAGE: Water years 1994 to current year.
SURFACE-WATER QUALITY
CHEMICAL: Water years 1978-91.

REVISED RECORDS.-- WSP 975: 1908. WDR IL-75-1: Drainage area.

GAGE.--Water-stage recorder and U.S. Army Corps of Engineers satellite telemeter. Datum of gage is 530.00 ft above NGVD of 1929 (levels by U.S. Army Corps of Engineers) (529.73 ft NAVD 1988). Prior to Dec. 6, 1914, nonrecording gage at site 750 ft downstream at datum 1.11 ft higher. Oct. 1 to Dec. 3, 1940, and June 1, 1950 to July 10, 1952, nonrecording gage and Dec. 4, 1940 to May 31, 1950, and July 11, 1952 to June 30, 1969, water-stage recorder, at site 650 ft downstream at datum 5.78 ft higher. June 30, 1969 to Sept. 30, 1998, water-stage recorder, at present site, at datum 5.78 ft higher.

REMARKS.--Records good. Flow regulated by Lake Shelbyville (station 05591950), flood-control storage 474,000 acre-ft, beginning June 24, 1969.

EXTREMES FOR PERIOD OF RECORD.—
SURFACE-WATER DISCHARGE AND STAGE: Maximum discharge, 25,900 ft^3/s, June 29, 1957, gage height, 28.15 ft, present datum; no flow at times in 1953-55, 1984.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	33	34	37	1,550	1,800	2,980	2,020	1,300	569	1,920	1,900	1,670
2	33	35	37	1,540	1,790	2,970	2,720	1,100	606	1,920	1,890	1,670
3	33	35	38	1,540	1,790	3,010	3,160	894	609	1,920	1,890	1,470
4	33	35	37	1,530	1,800	3,260	3,160	662	617	1,910	1,880	1,160
5	33	36	36	1,530	1,630	3,570	3,140	509	626	1,910	1,880	1,110
6	32	37	37	1,530	1,470	3,480	3,140	484	639	1,900	1,880	1,510
7	31	37	37	1,520	1,740	3,470	3,140	486	669	1,900	1,870	1,640
8	31	37	36	1,530	1,990	3,450	3,130	484	1,280	1,910	1,870	1,640
9	31	37	38	1,530	2,080	3,530	3,120	485	1,360	1,920	1,870	1,630
10	31	37	37	1,600	2,090	3,600	3,160	484	1,190	1,920	1,860	1,630
11	32	37	37	1,650	2,300	3,580	3,260	488	1,700	1,910	1,860	1,260
12	31	38	37	1,790	2,890	3,580	3,220	486	1,840	1,930	1,850	472
13	31	37	37	1,890	3,080	3,580	3,150	486	1,920	1,930	1,850	111
14	31	37	105	1,890	3,070	3,560	3,140	488	1,980	1,940	1,840	128
15	32	38	440	1,890	3,070	3,540	3,130	487	1,930	1,940	1,840	115
16	32	38	533	1,880	3,060	3,520	3,120	489	1,910	1,940	1,830	561
17	32	38	658	1,880	3,110	3,480	3,120	489	1,910	1,940	1,830	665
18	32	37	778	1,880	3,110	3,520	3,110	489	1,900	1,940	1,750	1,270
19	32	37	774	1,870	3,080	3,210	3,100	489	1,900	1,930	1,700	1,600
20	32	37	771	1,860	3,060	2,170	3,080	490	1,900	1,920	1,690	1,720
21	33	38	771	1,860	3,060	1,710	3,060	492	1,890	1,920	1,690	1,720
22	34	37	770	1,850	3,060	1,710	3,050	495	1,890	1,920	1,700	1,720
23	33	38	776	1,850	3,040	1,720	3,030	492	1,910	1,910	1,690	1,710
24	33	38	771	1,840	3,030	1,780	3,020	494	1,950	1,910	1,700	1,690
25	33	37	769	1,840	3,020	1,820	2,830	496	1,940	1,910	1,700	1,670
26	34	38	827	1,830	3,030	1,820	2,500	496	1,940	1,900	1,690	1,670
27	34	37	1,020	1,820	3,010	1,830	2,200	496	1,940	1,900	1,690	1,660
28	34	37	1,250	1,820	2,990	1,840	1,980	495	1,940	1,900	1,690	1,660
29	33	37	1,470	1,820	2,980	1,840	1,760	496	1,930	1,900	1,690	1,660
30	33	37	1,560	1,810	---	1,840	1,520	499	1,930	1,900	1,680	1,660
31	33	---	1,550	1,810	---	1,860	---	502	---	1,890	1,680	---
Total	1,005	1,108	16,074	54,030	75,230	86,830	86,270	17,222	46,315	59,410	55,430	39,852
Mean	32.4	36.9	519	1,743	2,594	2,801	2,876	556	1,544	1,916	1,788	1,328
Max	34	38	1,560	1,890	3,110	3,600	3,260	1,300	1,980	1,940	1,900	1,720
Min	31	34	36	1,520	1,470	1,710	1,520	484	569	1,890	1,680	111

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1970 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	336	444	1,183	1,435	1,586	1,609	1,122	774	877	864	603	306
Max	2,031	1,626	3,492	3,527	4,589	4,696	3,980	4,203	2,689	2,882	2,079	1,786
(WY)	(1970)	(1994)	(1986)	(1993)	(2005)	(1979)	(1979)	(2002)	(1996)	(1974)	(1973)	(1973)
Min	5.15	5.44	2.58	3.57	15.4	150	25.3	10.0	8.56	12.5	8.24	3.72
(WY)	(1971)	(1971)	(1977)	(1977)	(1977)	(2003)	(1990)	(1987)	(1976)	(1976)	(1970)	(1970)

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SUMMARY STATISTICS

	Calendar Year 2007		Water Year 2008		Water Years 1970 - 2008	
Annual total	247,742		538,776			
Annual mean	679		1,472		926	
Highest annual mean					1,941	1974
Lowest annual mean					230	2003
Highest daily mean	2,860	Mar 3-7	3,600	Mar 10	5,100	A
Lowest daily mean	23	Jul 24	31	B	0.00	C
Annual seven-day minimum	24	Jul 18	31	Oct 7	2.0	Dec 22, 1976
Maximum peak flow			3,730	Mar 19	[D]5,580	Mar 22, 1998
Maximum peak stage			15.56	Mar 19	[E]18.94	Mar 20, 1982
Instantaneous low flow			30	F		
10 percent exceeds	2,620		3,080		2,280	
50 percent exceeds	37		1,700		549	
90 percent exceeds	25		36		19	

[A] March 24, 1998 and February 2, 2005.

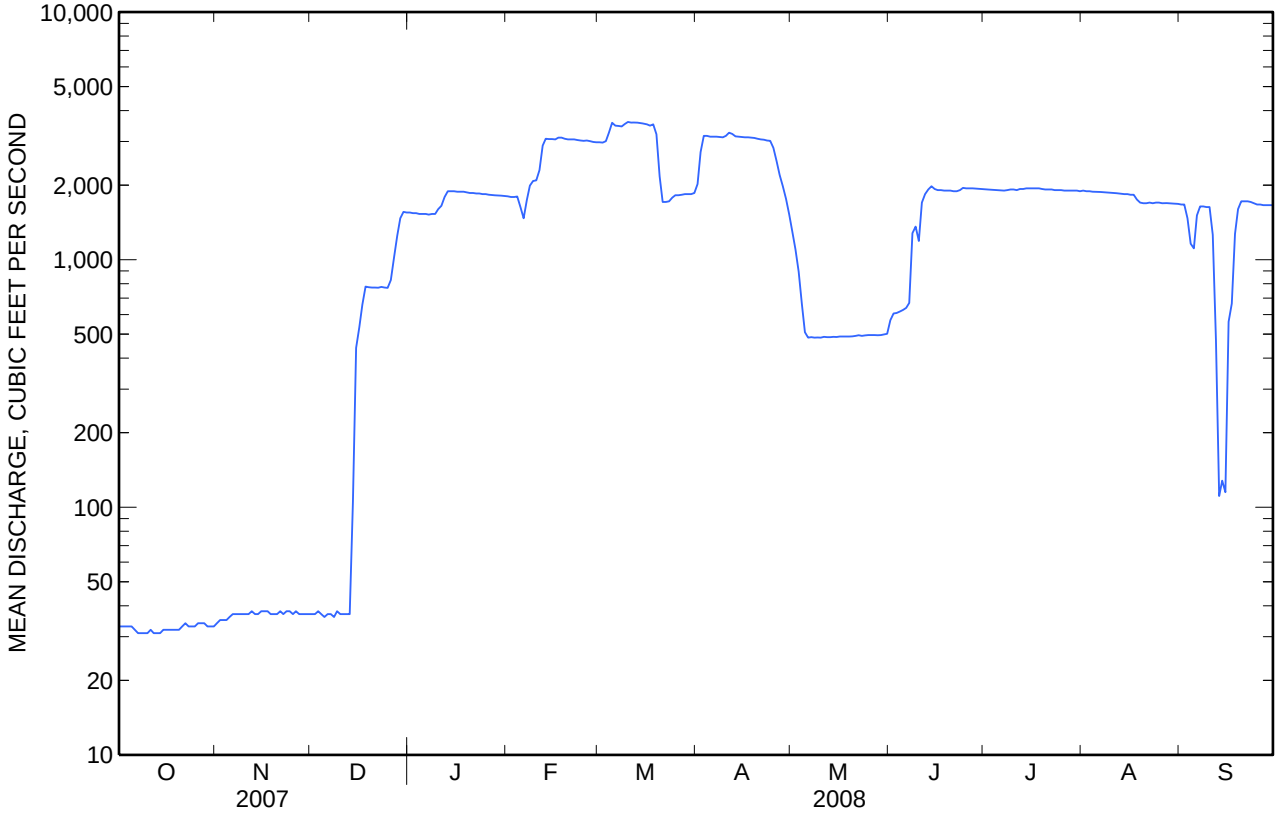
[B] Several days.

[C] October 2-3, 1984.

[D] Gage height, 18.77 ft. present datum.

[E] Discharge, 5,090 ft³/s.

[F] October 6, 7, 17.



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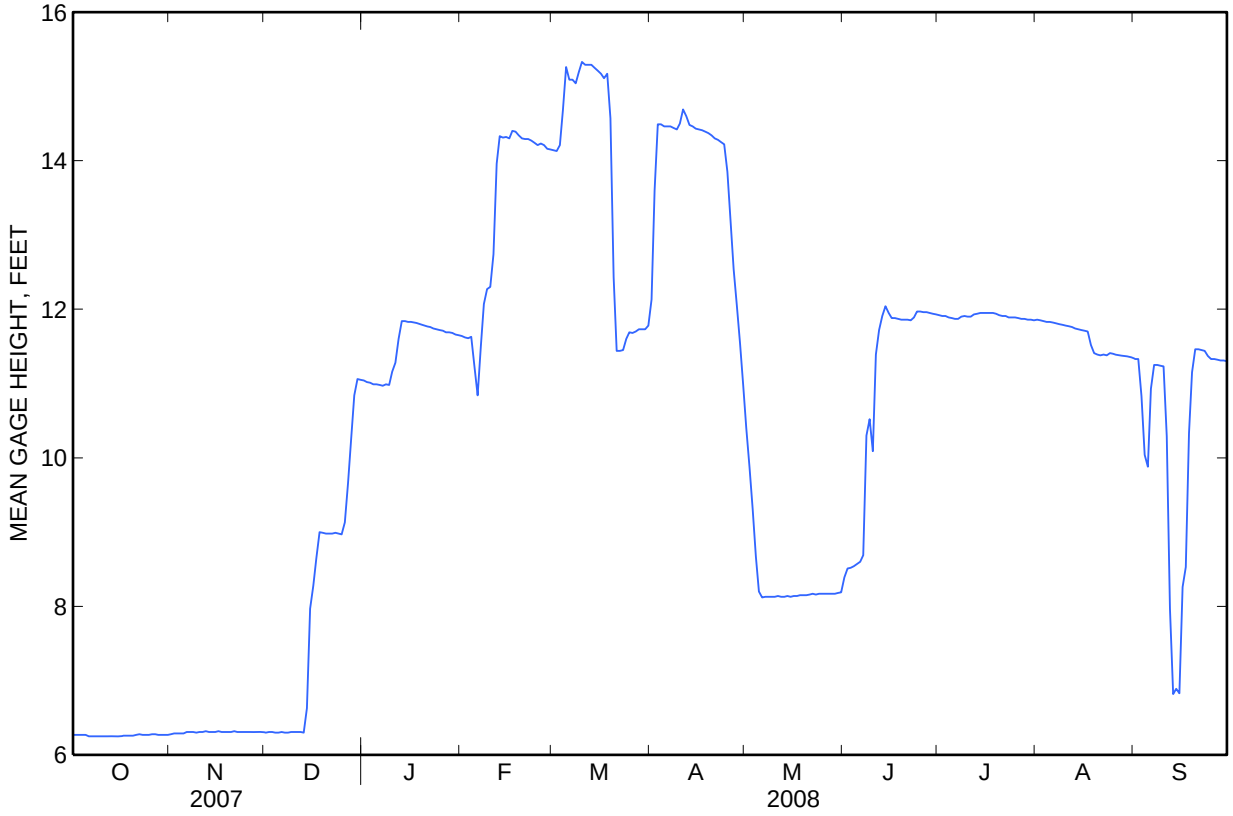
GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	6.27	6.28	6.30	11.04	11.64	14.14	12.13	10.40	8.39	11.92	11.86	11.33
2	6.27	6.29	6.31	11.02	11.62	14.13	13.60	9.88	8.51	11.91	11.85	11.33
3	6.27	6.29	6.31	11.01	11.61	14.21	14.49	9.31	8.52	11.91	11.84	10.83
4	6.27	6.29	6.30	10.99	11.63	14.68	14.49	8.67	8.54	11.89	11.83	10.04
5	6.27	6.29	6.30	10.99	11.23	15.26	14.46	8.20	8.57	11.88	11.83	9.88
6	6.25	6.31	6.31	10.98	10.84	15.09	14.46	8.12	8.60	11.87	11.82	10.93
7	6.25	6.31	6.30	10.97	11.50	15.09	14.46	8.13	8.69	11.87	11.81	11.25
8	6.25	6.31	6.30	10.99	12.07	15.04	14.44	8.13	10.30	11.90	11.80	11.25
9	6.25	6.30	6.31	10.98	12.27	15.19	14.42	8.13	10.52	11.91	11.79	11.24
10	6.25	6.31	6.31	11.16	12.30	15.33	14.50	8.13	10.09	11.90	11.78	11.23
11	6.25	6.31	6.31	11.28	12.74	15.29	14.69	8.14	11.39	11.90	11.77	10.29
12	6.25	6.32	6.31	11.60	13.96	15.29	14.60	8.13	11.72	11.93	11.76	7.97
13	6.25	6.31	6.30	11.84	14.33	15.29	14.48	8.13	11.91	11.94	11.74	6.82
14	6.25	6.31	6.63	11.84	14.31	15.25	14.46	8.14	12.04	11.95	11.73	6.89
15	6.25	6.31	7.97	11.83	14.32	15.21	14.43	8.13	11.95	11.95	11.72	6.83
16	6.25	6.32	8.28	11.83	14.30	15.17	14.42	8.14	11.88	11.95	11.71	8.26
17	6.26	6.31	8.65	11.82	14.40	15.11	14.41	8.14	11.88	11.95	11.70	8.53
18	6.26	6.31	9.00	11.81	14.39	15.17	14.39	8.15	11.87	11.95	11.52	10.33
19	6.26	6.31	8.99	11.80	14.34	14.57	14.37	8.15	11.86	11.94	11.41	11.15
20	6.26	6.31	8.98	11.78	14.30	12.43	14.34	8.15	11.86	11.92	11.39	11.46
21	6.27	6.32	8.98	11.77	14.29	11.44	14.30	8.16	11.86	11.91	11.38	11.46
22	6.28	6.31	8.98	11.76	14.29	11.44	14.28	8.17	11.85	11.91	11.39	11.45
23	6.27	6.31	8.99	11.74	14.27	11.45	14.25	8.16	11.89	11.89	11.38	11.44
24	6.27	6.31	8.98	11.73	14.24	11.60	14.22	8.17	11.97	11.89	11.41	11.37
25	6.27	6.31	8.97	11.72	14.21	11.69	13.85	8.17	11.97	11.89	11.40	11.33
26	6.28	6.31	9.13	11.71	14.23	11.68	13.18	8.17	11.96	11.88	11.39	11.33
27	6.28	6.31	9.66	11.69	14.21	11.70	12.54	8.17	11.96	11.87	11.38	11.32
28	6.27	6.31	10.27	11.69	14.16	11.73	12.05	8.17	11.95	11.87	11.37	11.31
29	6.27	6.31	10.84	11.68	14.15	11.73	11.54	8.17	11.94	11.86	11.37	11.31
30	6.27	6.31	11.06	11.66	---	11.73	10.97	8.18	11.93	11.86	11.36	11.30
31	6.27	---	11.05	11.65	---	11.78	---	8.19	---	11.85	11.35	---
Mean	6.26	6.31	7.98	11.50	13.32	13.71	13.91	8.33	10.95	11.90	11.61	10.38
Max	6.28	6.32	11.06	11.84	14.40	15.33	14.69	10.40	12.04	11.95	11.86	11.46
Min	6.25	6.28	6.30	10.97	10.84	11.44	10.97	8.12	8.39	11.85	11.35	6.82

	Water Year 2008
Mean	10.50
Max	15.33
Min	6.25

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