Water-Data Report 2007

05590950 KASKASKIA RIVER AT CHESTERVILLE, IL

Kaskaskia Basin
Upper Kaskaskia Subbasin

LOCATION.--Lat 39°42′11″, long 88°23′11″ referenced to North American Datum of 1927, in SE ¼ NW ¼ sec.35, T.15 N., R.7 E., Douglas County, IL, Hydrologic Unit 07140201, on left bank at downstream side of bridge on State Highway 133 at Chesterville, and at mile 254.0.

DRAINAGE AREA.--358 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.—
SURFACE-WATER DISCHARGE AND STAGE
DISCHARGE: May 1995 to current year. Jan. 1966 to Nov. 1980available in files of U.S. Army Corps of Engineers.
STAGE: May 1995 to current year. Gage-height record for Jan. 1974 to July 1983,and Apr. 4, 1995 to May 11, 1995 available in files of U.S. Army Corps of Engineers.
MISCELLANEOUS: Discharge measurements, May 1966 to Mar. 1979 available in filesof U.S. Army Corps of Engineers.

GAGE.--Water-stage recorder, U.S. Army Corps of Engineers satellite telemeter, and crest-stage gage. Datum of gage is 600.00 ft above NGVD of 1929 (levels by U.S. Army Corps of Engineers) (599.74 ft NAVD 1988).

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

EXTREMES FOR PERIOD OF RECORD.--
SURFACE-WATER DISCHARGE AND STAGE: Maximum discharge, 8,530 ft^3/s, May 13, 2002, gage height, 45.52 ft; minimum discharge, 0.6 ft^3/s, July 31 and Aug. 1, 2007.

EXTREMES OUTSIDE PERIOD OF RECORD.--
SURFACE-WATER DISCHARGE AND STAGE: Flood of Mar. 5, 1979 reached a stage of 44.84 ft, discharge undetermined, from information by the U.S. Army Corps of Engineers.

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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	9.6	48	344	1,010	e200	1,680	377	182	85	330	1.6	9.7
2	8.7	40	903	1,300	e180	2,630	347	173	87	209	1.5	12
3	7.6	37	1,040	1,060	e160	2,670	402	154	85	143	7.5	13
4	13	35	800	813	e140	1,750	867	154	87	111	19	10
5	15	32	551	830	e130	1,130	729	155	83	115	40	8.5
6	9.8	34	399	1,040	e125	810	519	143	72	103	34	7.4
7	8.8	34	303	959	e120	628	403	127	69	86	31	9.1
8	8.6	29	205	806	e115	505	316	120	68	75	27	104
9	8.5	32	210	684	e108	431	265	122	64	e78	24	552
10	8.4	38	212	557	e100	437	235	124	60	e60	22	434
11	8.4	38	182	473	e96	502	257	121	54	e52	20	201
12	11	56	249	436	e90	507	362	113	59	e46	18	112
13	14	38	458	841	e82	476	333	97	58	e40	13	80
14	11	36	506	1,730	e75	434	321	99	57	e35	11	65
15	9.5	35	446	2,780	e70	425	435	103	56	e30	12	55
16	11	51	352	3,510	e80	381	451	110	52	e40	14	48
17	32	174	284	2,750	e90	323	402	107	48	e60	11	40
18	158	216	246	1,790	e100	276	358	87	46	e115	10	33
19	121	155	256	1,220	e120	275	303	86	47	99	13	30
20	76	112	248	866	e140	319	260	90	50	63	13	27
21	53	90	367	659	e160	287	232	87	44	50	15	23
22	43	76	958	542	e200	288	218	76	49	44	28	18
23	39	69	1,620	465	e280	298	208	79	81	41	24	20
24	34	67	1,690	394	370	385	192	77	164	35	17	13
25	29	63	1,300	341	1,070	473	198	79	185	28	16	14
26	30	61	963	313	2,550	463	236	80	137	30	31	26
27	39	57	700	355	2,710	405	246	88	309	33	27	27
28	49	53	534	377	2,000	351	232	115	394	44	16	24
29	52	51	440	292	---	323	207	117	431	48	14	21
30	48	63	364	e270	---	299	188	98	449	21	12	20
31	46	---	434	e230	---	349	---	85	---	1.5	11	---
Total	1,011.9	1,920	17,564	29,693	11,661	20,510	10,099	3,448	3,530	2,265.5	553.6	2,056.7
Mean	32.6	64.0	567	958	416	662	337	111	118	73.1	17.9	68.6
Max	158	216	1,690	3,510	2,710	2,670	867	182	449	330	40	552
Min	7.6	29	182	230	70	275	188	76	44	1.5	1.5	7.4
Cfsm	0.09	0.18	1.58	2.68	1.16	1.85	0.94	0.31	0.33	0.20	0.05	0.19
In.	0.11	0.20	1.83	3.09	1.21	2.13	1.05	0.36	0.37	0.24	0.06	0.21

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1995 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	76.6	164	279	464	493	531	464	666	501	148	44.7	48.2
Max	355	628	945	1,543	1,219	1,233	1,123	2,146	1,378	475	100	200
(WY)	(2001)	(2005)	(2005)	(2005)	(2001)	(1998)	(2002)	(1996)	(1998)	(2000)	(2000)	(2000)
Min	11.4	18.8	17.7	14.2	39.7	86.5	54.1	111	118	23.8	14.5	8.98
(WY)	(1997)	(2003)	(2003)	(2003)	(2003)	(2003)	(2003)	(2007)	(2007)	(2005)	(2005)	(1998)

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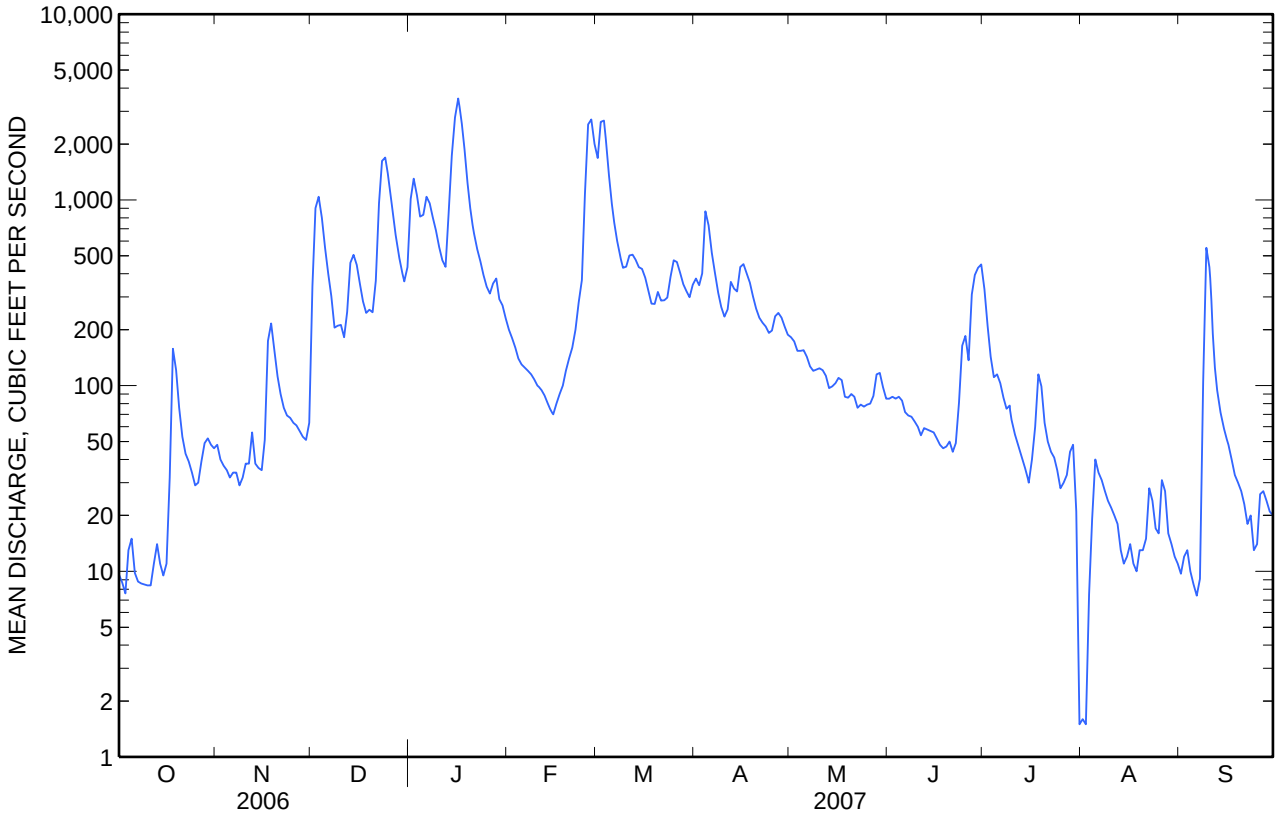
SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1995 - 2007	
Annual total	95,463.2		104,312.7			
Annual mean	262		286		324	
Highest annual mean					551	1998
Lowest annual mean					106	2003
Highest daily mean	2,340	Mar 13	3,510	Jan 16	7,990	May 13, 2002
Lowest daily mean	7.6	Oct 3	[A]1.5	B	[A]1.5	B
Annual seven-day minimum	9.1	Oct 6	9.1	Oct 6	6.0	Sep 15, 1999
Maximum peak flow			3,600	Jan 16	8,530	May 13, 2002
Maximum peak stage			40.75	Jan 16	45.52	May 13, 2002
Instantaneous low flow			[A]0.60	C	[A]0.60	C
Annual runoff (cfsm)	0.731		0.798		0.904	
Annual runoff (inches)	9.92		10.84		12.29	
10 percent exceeds	588		712		879	
50 percent exceeds	161		103		112	
90 percent exceeds	14		14		14	

[A] Due to pumpage.
[B] July 31 and August 2, 2007.
[C] July 31 and August 1, 2007.



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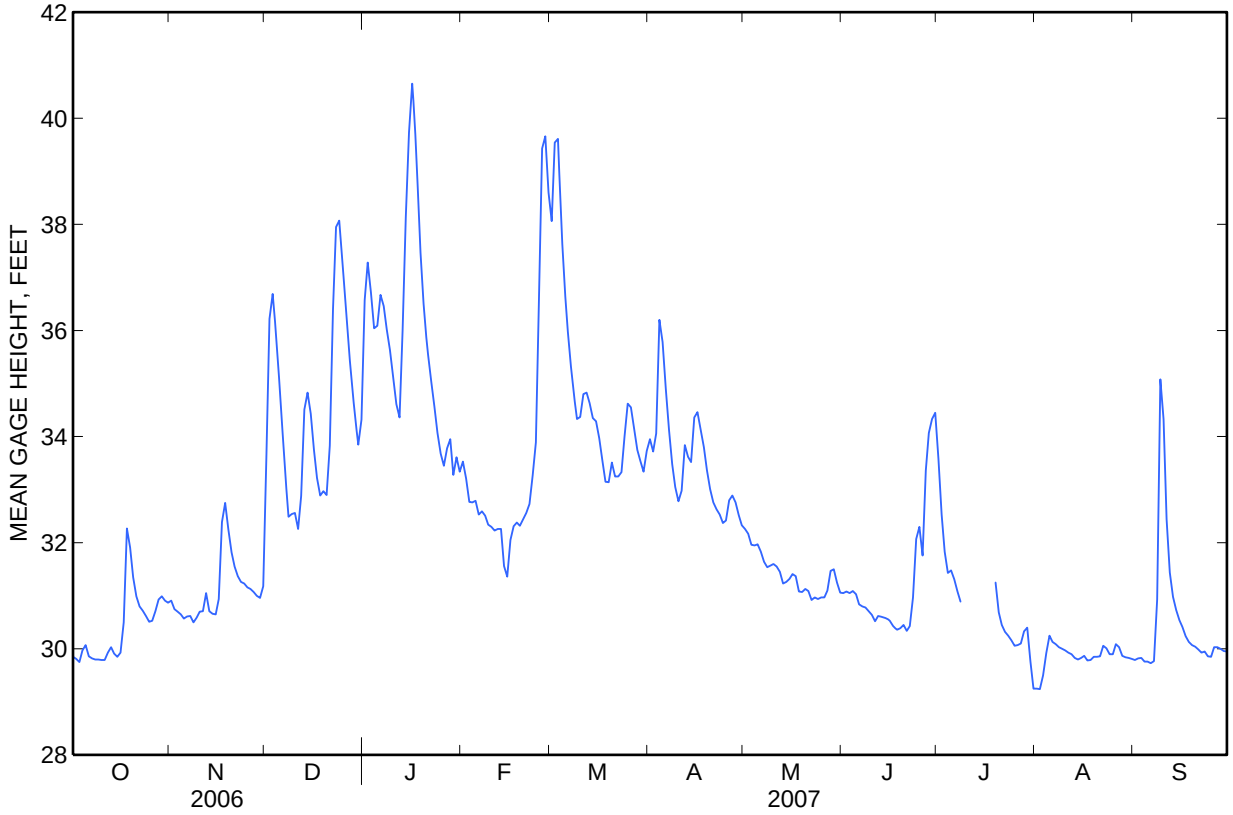
GAGE HEIGHT, FEET
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	29.85	30.91	33.66	36.57	33.53	38.06	33.95	32.26	31.05	33.58	29.25	29.79
2	29.81	30.75	36.22	37.28	33.21	39.54	33.72	32.17	31.08	32.53	29.24	29.82
3	29.75	30.70	36.69	36.72	32.77	39.61	34.06	31.96	31.05	31.83	29.50	29.83
4	29.97	30.65	36.00	36.04	32.76	38.16	36.20	31.95	31.09	31.43	29.92	29.76
5	30.07	30.57	35.07	36.09	32.79	36.89	35.78	31.97	31.03	31.48	30.25	29.76
6	29.86	30.61	34.11	36.67	32.53	36.03	34.90	31.83	30.84	31.31	30.13	29.73
7	29.82	30.62	33.37	36.46	32.59	35.43	34.13	31.64	30.80	31.08	30.09	29.77
8	29.80	30.50	32.49	36.02	32.51	34.82	33.48	31.54	30.78	30.89	30.03	30.93
9	29.80	30.59	32.54	35.63	32.34	34.33	33.05	31.57	30.71	---	30.00	35.08
10	29.79	30.70	32.56	35.12	32.30	34.37	32.78	31.60	30.64	---	29.97	34.33
11	29.79	30.71	32.26	34.61	32.23	34.80	32.98	31.55	30.52	---	29.93	32.44
12	29.93	31.05	32.88	34.36	32.26	34.83	33.84	31.45	30.62	---	29.90	31.44
13	30.03	30.71	34.51	36.00	32.26	34.63	33.62	31.23	30.60	---	29.83	30.98
14	29.91	30.66	34.83	38.14	31.56	34.35	33.52	31.26	30.59	---	29.80	30.73
15	29.85	30.65	34.43	39.73	31.36	34.29	34.36	31.32	30.56	---	29.83	30.54
16	29.93	30.94	33.75	40.65	32.05	33.97	34.46	31.41	30.50	---	29.87	30.41
17	30.50	32.39	33.22	39.70	32.31	33.54	34.13	31.37	30.41	---	29.78	30.24
18	32.27	32.75	32.89	38.24	32.38	33.15	33.80	31.08	30.36	---	29.79	30.13
19	31.91	32.25	32.97	37.11	32.32	33.14	33.37	31.07	30.39	31.25	29.85	30.07
20	31.35	31.82	32.90	36.20	32.44	33.51	33.01	31.13	30.45	30.69	29.85	30.04
21	30.99	31.55	33.83	35.55	32.56	33.25	32.76	31.09	30.34	30.45	29.86	29.99
22	30.80	31.37	36.40	35.04	32.73	33.25	32.63	30.92	30.43	30.32	30.06	29.93
23	30.72	31.26	37.95	34.56	33.27	33.33	32.53	30.97	30.97	30.25	30.01	29.95
24	30.62	31.23	38.07	34.07	33.89	34.00	32.37	30.94	32.07	30.16	29.90	29.86
25	30.51	31.16	37.29	33.68	36.56	34.62	32.42	30.97	32.30	30.06	29.90	29.85
26	30.53	31.13	36.47	33.45	39.43	34.55	32.80	30.97	31.76	30.07	30.09	30.03
27	30.71	31.07	35.68	33.78	39.66	34.15	32.89	31.10	33.36	30.10	30.03	30.03
28	30.93	31.00	34.99	33.95	38.60	33.75	32.76	31.47	34.07	30.33	29.87	30.00
29	30.99	30.96	34.39	33.28	---	33.54	32.52	31.50	34.33	30.40	29.84	29.96
30	30.91	31.18	33.85	33.61	---	33.34	32.33	31.25	34.45	29.76	29.83	29.95
31	30.87	---	34.32	33.34	---	33.73	---	31.06	---	29.25	29.81	---
Mean	30.41	31.08	34.54	35.86	33.40	34.81	33.51	31.41	31.27	---	29.87	30.51
Max	32.27	32.75	38.07	40.65	39.66	39.61	36.20	32.26	34.45	---	30.25	35.08
Min	29.75	30.50	32.26	33.28	31.36	33.14	32.33	30.92	30.34	---	29.24	29.73

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