05439000 SOUTH BRANCH KISHWAUKEE RIVER AT DE KALB, IL

Rock Basin
Kishwaukee Subbasin

LOCATION.--Lat 41°55′52″, long 88°45′35″ referenced to North American Datum of 1983, in SW ¼ NE ¼ sec.22, T.40 N., R.4 E., De Kalb County, IL, Hydrologic Unit 07090006, on left bank 100 ft downstream from bridge on State Highway 38 in De Kalb, and at mile 48.5.

DRAINAGE AREA.--77.7 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--
SURFACE-WATER DISCHARGE AND STAGE
DISCHARGE: July 1925 to October 1933, October 1979 to current year.
STAGE: Water years 1995 to current year.
SURFACE-WATER QUALITY
SEDIMENT: October 1979 to September 1981.

REVISED RECORDS.--WDR IL-80-1: Drainage area.

GAGE.--Water-stage recorder, phone telemeter, and crest stage gage. Datum of gage is 831.88 ft above NGVD of 1929 (831.74 ft NAVD 1988). Mar. 23, 1980 to Sept. 30, 1983, at datum 3.0 ft higher. Oct. 1, 1979 to Mar. 22, 1980, nonrecording gage at same site at datum 3.0 ft higher. Prior to Sept. 30, 1933, nonrecording gage at same site at datum 3.40 ft higher.

REMARKS.--Records fair except those for July 10 - Sept. 5, all discharges less than 200 ft^3/s, and estimated daily discharges, which are poor.

EXTREMES FOR PERIOD OF RECORD.--
SURFACE-WATER DISCHARGE AND STAGE: Maximum discharge, 3,500 ft^3/s, July 2, 1983, gage height, 15.80 ft; present datum; no flow, at times in most years.
SUSPENDED-SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,650 mg/L June 13, 1981; minimum daily mean, 10 mg/L Mar. 9, 1980.
SUSPENDED-SEDIMENT LOADS: Maximum daily, 3,070 tons, June 13, 1981; minimum daily, 0.04 ton, Oct. 15, 1979.

05439000 SOUTH BRANCH KISHWAUKEE RIVER AT DE KALB, IL—Continued

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	0.68	5.9	123	84	e9.1	271	152	137	57	20	24	225
2	7.9	5.2	85	69	e9.1	561	141	118	123	17	19	199
3	28	4.3	66	69	e7.3	355	138	104	140	19	12	176
4	4.2	3.6	68	73	e7.3	248	122	97	116	41	8.5	155
5	1.6	3.2	67	77	e5.4	182	107	88	104	28	18	139
6	0.91	3.0	36	72	e11	165	100	70	80	22	74	113
7	0.67	3.0	45	65	e7.3	130	92	69	69	14	684	110
8	0.62	3.0	60	67	e11	126	83	63	53	9.7	652	92
9	0.57	2.9	21	58	e13	238	74	58	41	211	379	84
10	0.50	12	21	48	e11	509	67	59	37	352	257	76
11	4.5	16	22	52	e11	419	93	52	32	217	171	73
12	1.6	9.5	91	50	e9.1	336	134	44	27	144	120	64
13	1.1	9.7	213	42	e7.3	298	145	44	28	104	83	55
14	0.84	7.8	193	44	e9.1	257	133	39	28	79	121	50
15	0.74	6.4	170	59	e7.3	224	117	37	19	58	112	42
16	0.85	5.8	138	51	e9.1	180	98	35	20	46	78	37
17	12	5.3	123	62	e9.1	149	88	31	24	77	54	36
18	3.6	5.1	101	50	e11	135	78	26	30	136	46	33
19	3.3	4.2	86	54	e11	130	68	26	72	570	130	27
20	2.2	3.4	79	76	e13	119	58	26	44	621	495	23
21	4.2	2.9	145	37	e11	253	56	24	35	371	426	22
22	14	2.7	229	36	e11	386	53	21	31	208	327	21
23	5.2	2.6	216	32	e11	331	51	19	40	153	1,050	18
24	3.8	3.2	158	28	e15	314	46	17	38	112	2,890	17
25	3.8	2.5	133	33	e15	262	196	16	32	85	2,440	17
26	14	2.3	115	63	e18	216	319	57	26	66	1,620	17
27	14	2.1	100	31	e18	176	355	73	38	88	1,010	15
28	11	10	88	e13	44	156	258	68	35	69	582	14
29	12	22	75	e13	---	138	192	56	28	52	415	12
30	9.5	130	71	e11	---	129	160	49	24	40	341	13
31	7.2	---	81	e9.1	---	132	---	58	---	30	280	---
Total	175.08	299.6	3,219	1,528.1	331.5	7,525	3,774	1,681	1,471	4,059.7	14,918.5	1,975
Mean	5.65	9.99	104	49.3	11.8	243	126	54.2	49.0	131	481	65.8
Max	28	130	229	84	44	561	355	137	140	621	2,890	225
Min	0.50	2.1	21	9.1	5.4	119	46	16	19	9.7	8.5	12
Cfsm	0.07	0.13	1.34	0.63	0.15	3.12	1.62	0.70	0.63	1.69	6.19	0.85
In.	0.08	0.14	1.54	0.73	0.16	3.60	1.81	0.80	0.70	1.94	7.14	0.95

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1926 - 2007, BY WATER YEAR (WY)

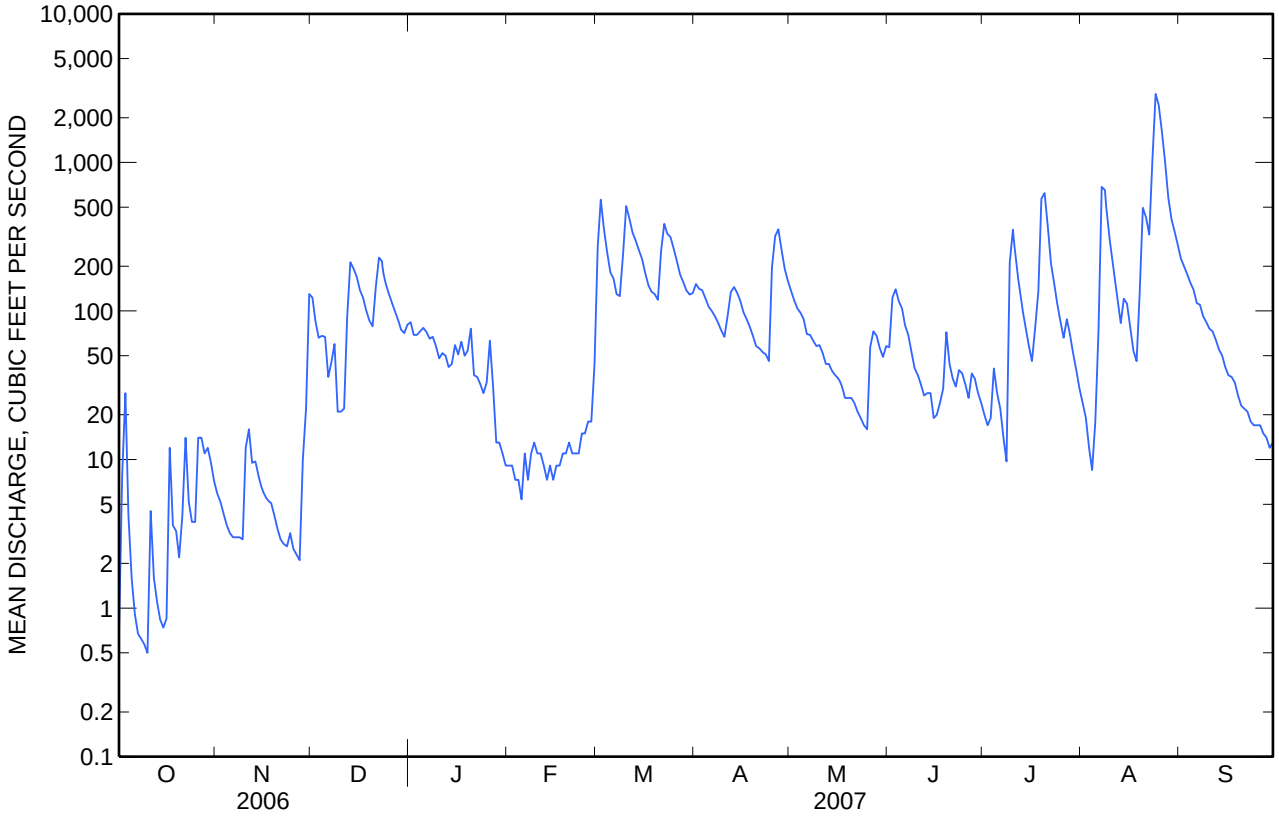
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	21.3	50.0	53.0	39.4	72.4	98.5	100	97.5	89.1	54.3	44.1	26.8
Max	119	246	261	154	245	292	309	263	257	322	481	337
(WY)	(1927)	(1986)	(1983)	(1993)	(2001)	(1993)	(1993)	(2004)	(1993)	(1983)	(2007)	(1980)
Min	0.05	0.82	0.28	0.07	0.01	5.84	6.53	11.4	7.29	1.52	0.51	0.12
(WY)	(2006)	(2006)	(2006)	(2003)	(2003)	(2003)	(2003)	(1931)	(2005)	(1988)	(1931)	(2005)

05439000 SOUTH BRANCH KISHWAUKEE RIVER AT DE KALB, IL—Continued

SUMMARY STATISTICS

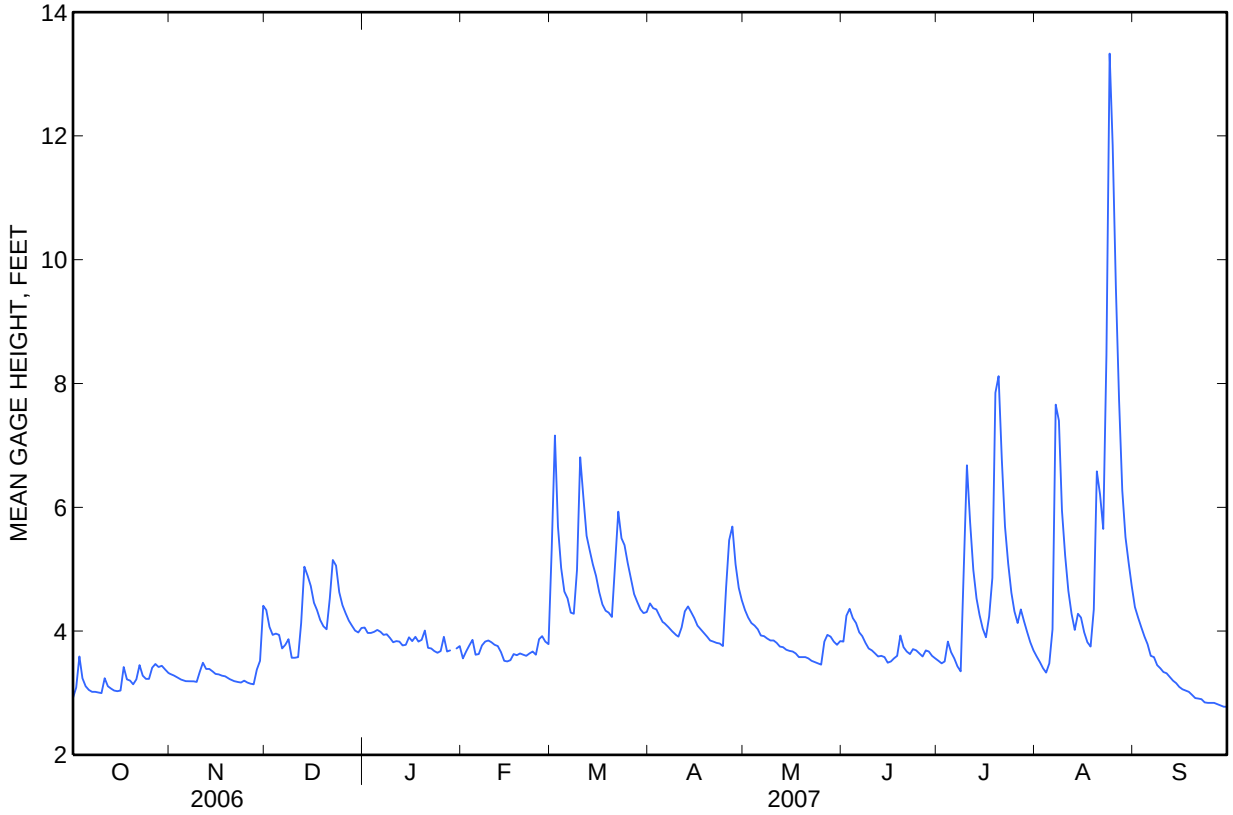
	Calendar Year 2006		Water Year 2007		Water Years 1926 - 2007	
Annual total	8,966.26		40,957.48			
Annual mean	24.6		112		62.1	
Highest annual mean					151	1993
Lowest annual mean					13.4	1931
Highest daily mean	229	Dec 22	2,890	Aug 24	2,890	Aug 24, 2007
Lowest daily mean	0.00	A	0.50	Oct 10	0.00	B
Annual seven-day minimum	0.01	Aug 21	1.3	Oct 4	0.00	Sep 5, 2003
Maximum peak flow			[C]3,020	Aug 24	3,500	Jul 2, 1983
Maximum peak stage			[D]13.71	Aug 24	[E]15.80	Jul 2, 1983
Instantaneous low flow			0.34	Oct 10		
Annual runoff (cfsm)	0.316		1.44		0.800	
Annual runoff (inches)	4.29		19.61		10.87	
10 percent exceeds	72		250		154	
50 percent exceeds	7.8		52		25	
90 percent exceeds	0.33		4.9		1.1	

[A] Several days.
[B] At times in most years.
[C] Gage height, 13.60 ft.
[D] Discharge, 2,910 ft³/s.
[E] Present datum.



05439000 SOUTH BRANCH KISHWAUKEE RIVER AT DE KALB, IL—Continued

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	2.92	3.30	4.34	4.06	3.56	5.33	4.45	4.34	3.83	3.52	3.59	4.39
2	3.09	3.28	4.07	3.97	3.67	7.16	4.37	4.22	4.25	3.48	3.50	4.22
3	3.59	3.25	3.94	3.97	3.77	5.69	4.35	4.13	4.36	3.51	3.40	4.06
4	3.24	3.22	3.96	3.99	3.86	5.02	4.25	4.09	4.21	3.83	3.33	3.91
5	3.11	3.20	3.94	4.02	3.62	4.64	4.15	4.03	4.13	3.66	3.48	3.79
6	3.05	3.19	3.72	3.99	3.63	4.53	4.11	3.93	3.98	3.56	4.03	3.60
7	3.02	3.19	3.78	3.94	3.77	4.30	4.05	3.92	3.92	3.43	7.66	3.58
8	3.02	3.19	3.87	3.95	3.83	4.28	4.00	3.88	3.81	3.35	7.40	3.45
9	3.01	3.18	3.57	3.89	3.85	4.99	3.95	3.85	3.72	4.98	5.95	3.40
10	3.00	3.34	3.57	3.82	3.82	6.81	3.91	3.85	3.69	6.68	5.22	3.34
11	3.24	3.49	3.58	3.84	3.78	6.16	4.06	3.81	3.64	5.76	4.65	3.32
12	3.11	3.39	4.13	3.83	3.76	5.54	4.32	3.75	3.59	4.99	4.28	3.26
13	3.07	3.39	5.04	3.77	3.66	5.30	4.40	3.74	3.60	4.53	4.02	3.20
14	3.04	3.35	4.90	3.78	3.52	5.08	4.31	3.70	3.58	4.26	4.28	3.16
15	3.03	3.31	4.73	3.90	3.51	4.89	4.21	3.68	3.49	4.04	4.22	3.10
16	3.04	3.30	4.46	3.84	3.53	4.63	4.09	3.67	3.51	3.90	3.98	3.06
17	3.42	3.28	4.34	3.91	3.63	4.43	4.03	3.64	3.56	4.24	3.82	3.04
18	3.22	3.27	4.18	3.83	3.61	4.33	3.97	3.58	3.60	4.86	3.75	3.02
19	3.20	3.24	4.08	3.86	3.64	4.30	3.91	3.58	3.93	7.85	4.35	2.97
20	3.14	3.21	4.03	4.01	3.62	4.23	3.85	3.58	3.74	8.12	6.58	2.92
21	3.22	3.19	4.53	3.73	3.60	5.08	3.83	3.56	3.67	6.78	6.21	2.91
22	3.45	3.18	5.15	3.72	3.64	5.93	3.81	3.52	3.63	5.69	5.65	2.90
23	3.28	3.17	5.06	3.68	3.67	5.50	3.80	3.50	3.71	5.09	8.46	2.85
24	3.23	3.20	4.63	3.65	3.62	5.39	3.76	3.48	3.69	4.62	13.33	2.84
25	3.23	3.17	4.42	3.68	3.87	5.10	4.71	3.46	3.64	4.32	11.85	2.84
26	3.41	3.15	4.29	3.91	3.92	4.85	5.47	3.83	3.59	4.13	9.55	2.84
27	3.47	3.14	4.17	3.67	3.83	4.60	5.69	3.94	3.69	4.35	7.73	2.82
28	3.42	3.38	4.09	3.69	3.79	4.47	5.08	3.91	3.67	4.16	6.27	2.80
29	3.44	3.52	4.01	---	---	4.35	4.70	3.83	3.60	3.98	5.52	2.78
30	3.39	4.41	3.98	3.72	---	4.29	4.50	3.78	3.56	3.82	5.10	2.78
31	3.33	---	4.05	3.76	---	4.31	---	3.84	---	3.69	4.73	---
Mean	3.21	3.30	4.21	---	3.70	5.02	4.27	3.79	3.75	4.62	5.67	3.24
Max	3.59	4.41	5.15	---	3.92	7.16	5.69	4.34	4.36	8.12	13.33	4.39
Min	2.92	3.14	3.57	---	3.51	4.23	3.76	3.46	3.49	3.35	3.33	2.78

05439000 SOUTH BRANCH KISHWAUKEE RIVER AT DE KALB, IL—Continued