Water-Data Report 2008

05455500 English River at Kalona, IA

Iowa Basin
Lower Iowa Subbasin

LOCATION.--Lat 41°28′11″, long 91°42′52″ referenced to North American Datum of 1927, in SE ¼ SE ¼ sec.13, T.77 N., R.8 W., Washington County, IA, Hydrologic Unit 07080209, on right bank 30 ft upstream from bridge on State Highway 1, 0.8 mi south of Kalona, 1.1 mi upstream from Camp Creek, 4.5 mi downstream from Smith Creek, and 17.0 mi upstream from mouth.

DRAINAGE AREA.--574 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--September 1939 to current year.

REVISED RECORDS.--WSP 1438: Drainage area. WSP 1558: 1940 (M), 1941. WSP 1708: 1956, 1957 (P), 1958 (P).

GAGE.--Water-stage recorder. Datum of gage is 633.45 ft above NGVD of 1929 (levels by U.S. Army Corps of Engineers). Prior to December 27, 1939, nonrecording gage 30 ft downstream at same datum.

REMARKS.--Records are considered good, except for those estimated daily discharges, which are poor. U.S. Army Corps of Engineers rain gage and data collection platform with satellite telemetry at station. Precipitation records are available online at the U.S. Army Corps of Engineers website: www2.mvr.usace.army.mil/WaterControl/datamining2.cfm.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in June 1930 reached a stage of 19.9 ft, from floodmark, from information by local residents, discharge 18,500 ft^3/s.

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

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	183	343	e131	e279	e320	e329	1,350	1,170	1,770	421	755	134
2	144	315	e125	e262	e296	e641	1,130	1,080	1,080	372	622	118
3	776	302	e120	e286	e310	e3,630	825	1,310	3,980	429	528	120
4	688	289	e162	e305	e333	e4,540	1,030	1,010	6,260	635	463	180
5	421	279	e152	e311	e423	e4,530	1,110	806	6,620	363	429	214
6	306	259	e144	e561	e423	e3,380	868	702	6,520	305	419	208
7	252	240	e138	e2,960	e340	e1,970	706	646	6,410	492	339	150
8	223	235	e134	e3,250	e318	e1,410	833	591	3,640	3,100	297	132
9	265	237	e131	e2,340	e280	e1,150	2,220	518	4,600	2,840	270	151
10	323	225	e128	1,410	e243	e1,100	2,520	465	5,560	1,270	324	154
11	276	215	e248	1,030	e245	1,310	4,750	4,480	5,100	1,940	369	238
12	238	210	e925	814	e243	2,450	4,450	4,710	3,660	950	266	1,360
13	220	198	e1,120	673	e248	5,350	2,740	2,500	7,420	620	232	4,390
14	223	189	e669	e500	e246	6,800	1,780	1,470	7,690	484	215	5,450
15	696	183	e484	e384	e240	7,460	1,400	1,100	7,430	394	217	5,270
16	1,000	174	e413	e367	e229	5,710	1,150	894	3,440	332	732	2,340
17	733	172	e387	e329	e336	2,990	959	766	1,750	288	310	1,160
18	4,580	171	e395	e294	e406	2,510	4,090	649	1,350	1,960	222	842
19	4,650	167	e385	e273	e439	2,750	6,730	559	1,120	4,410	187	675
20	2,490	168	e374	e279	e397	2,360	7,330	512	950	5,360	164	575
21	1,400	166	e385	e291	e311	1,970	4,860	457	847	5,730	153	499
22	1,020	159	e491	e307	e278	1,600	2,340	404	729	5,940	155	430
23	827	152	e1,130	e285	e262	1,130	2,170	546	615	2,930	150	378
24	714	146	e835	e267	e250	874	1,930	596	546	1,550	133	344
25	621	146	e657	e279	e246	763	4,010	582	499	1,260	116	313
26	563	149	e488	e285	e262	708	5,530	723	543	1,080	105	285
27	520	146	e393	e282	e237	640	6,740	1,210	1,360	898	98	263
28	456	137	e357	e415	e229	631	3,860	799	1,470	1,870	849	242
29	410	130	e323	e826	e237	608	1,830	655	713	2,720	656	265
30	395	e112	e298	e520	---	550	1,400	1,020	519	1,860	243	341
31	378	---	e285	e383	---	738	---	3,520	---	997	165	---
Total	25,991	6,014	12,407	21,047	8,627	72,582	82,641	36,450	94,191	53,800	10,183	27,221
Mean	838	200	400	679	297	2,341	2,755	1,176	3,140	1,735	328	907
Max	4,650	343	1,130	3,250	439	7,460	7,330	4,710	7,690	5,940	849	5,450
Min	144	112	120	262	229	329	706	404	499	288	98	118
Med	456	178	374	329	278	1,600	2,050	766	1,760	1,080	266	299
Ac-ft	51,550	11,930	24,610	41,750	17,110	144,000	163,900	72,300	186,800	106,700	20,200	53,990
Cfsm	1.46	0.35	0.70	1.18	0.52	4.08	4.80	2.05	5.47	3.02	0.57	1.58
In.	1.68	0.39	0.80	1.36	0.56	4.70	5.36	2.36	6.10	3.49	0.66	1.76

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	164	232	181	204	358	704	660	682	623	405	264	225
Max	1,274	2,060	1,085	1,429	1,066	2,957	2,755	3,529	3,140	4,207	3,696	3,169
(WY)	(1999)	(1962)	(1983)	(1946)	(1984)	(1979)	(2008)	(1974)	(2008)	(1993)	(1993)	(1965)
Min	2.98	2.38	2.19	0.76	8.02	10.8	5.35	9.62	21.7	7.31	6.34	3.10
(WY)	(1954)	(1956)	(1956)	(1977)	(2006)	(1954)	(1956)	(1956)	(1940)	(1954)	(1955)	(1955)

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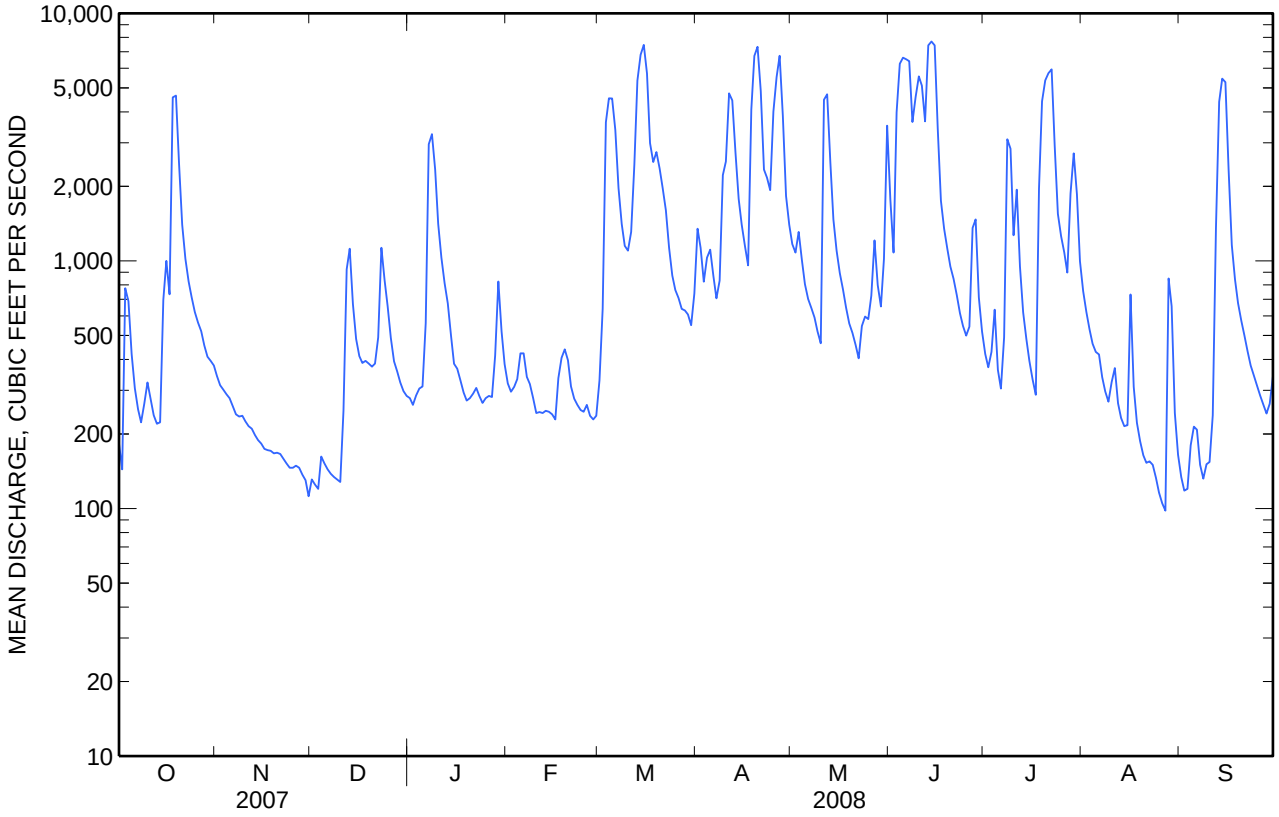
SUMMARY STATISTICS

	Calendar Year 2007		Water Year 2008		Water Years 1940 - 2008	
Annual total	223,611		451,154			
Annual mean	613		1,233		392	
Highest annual mean					1,721	1993
Lowest annual mean					41.7	1954
Highest daily mean	6,400	Jun 23	7,690	Jun 14	22,300	Jul 6, 1993
Lowest daily mean	43	Aug 3	98	Aug 27	0.66	Feb 5, 1977
Annual seven-day minimum	52	Aug 1	129	Nov 27	0.68	Feb 1, 1977
Maximum peak flow			9,220	Jun 14	36,100	Jul 6, 1993
Maximum peak stage			18.01	Jun 14	22.55	Jul 6, 1993
Instantaneous low flow			95	Aug 27[a]		
Annual runoff (ac-ft)	443,500		894,900		283,700	
Annual runoff (cfsm)	1.07		2.15		0.682	
Annual runoff (inches)	14.49		29.24		9.27	
10 percent exceeds	1,380		3,990		876	
50 percent exceeds	301		515		119	
90 percent exceeds	90		166		12	

[a]Also Aug 28.