05488110 DES MOINES RIVER NEAR PELLA, IA

Des Moines Basin
Lower Des Moines Subbasin

LOCATION.--Lat 41°21′38″, long 92°58′23″ referenced to North American Datum of 1927, in SW ¼ SW ¼ SE ¼ sec.19, T.76 N., R.18 W., Marion County, IA, Hydrologic Unit 07100009, on right bank 0.4 mi downstream of outlet of Red Rock Reservoir, 2.6 mi upstream of Lake Creek, and 138.7 mi upstream from mouth.

DRAINAGE AREA.--12,330 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--October 1992 to current year.

GAGE.--Water-stage recorder. Datum of gage is 600.00 ft above NGVD of 1929.

REMARKS.--Records are considered good, except for those estimated daily discharges, which are fair. Flow regulated by Lake Red Rock (station 05488100) 0.4 mi upstream. U.S. Army Corps of Engineers data collection platform with satellite telemetry at the station.

05488110 DES MOINES RIVER NEAR PELLA, IA—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES
[e, estimated]

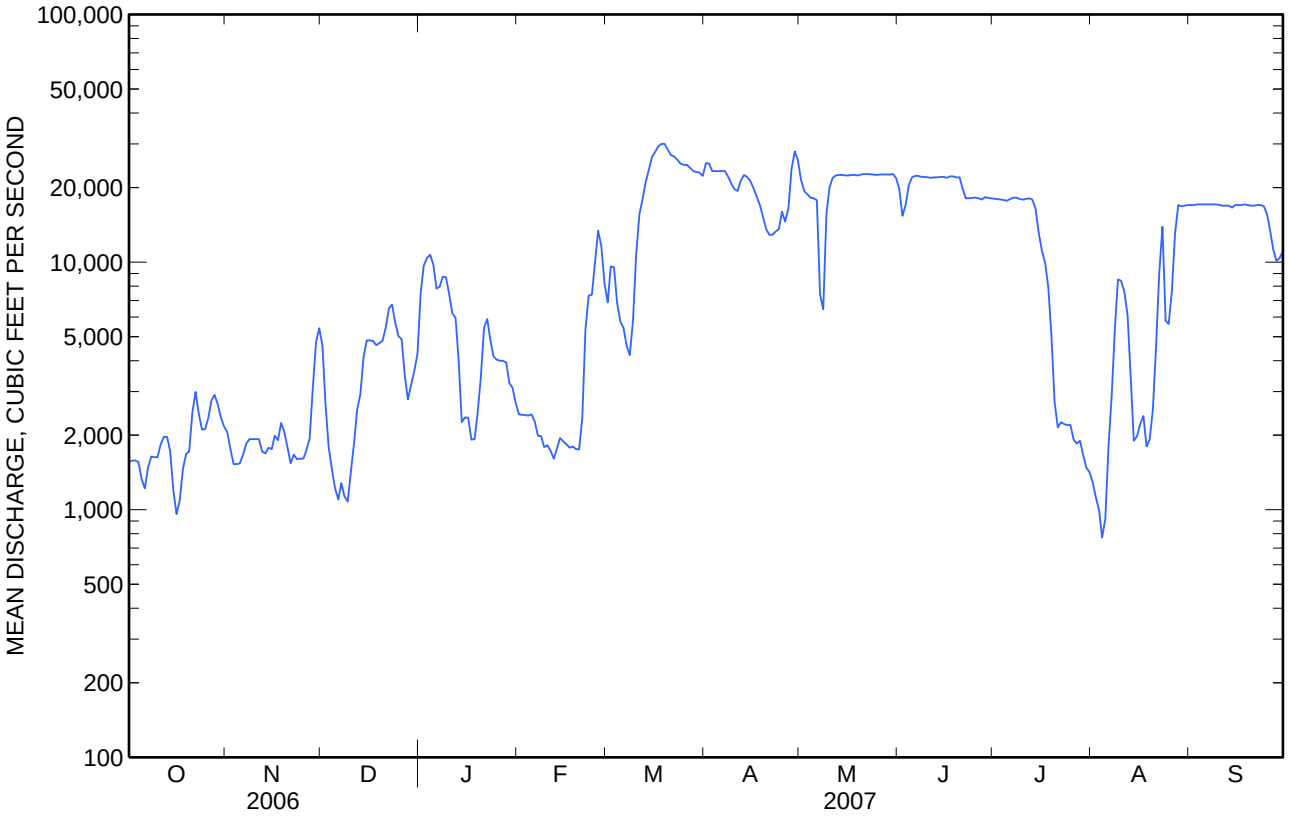
Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	1,560	2,060	4,600	7,490	2,430	6,880	25,100	21,500	19,800	18,000	1,290	17,000
2	1,580	1,760	2,680	9,660	2,420	9,620	25,000	19,400	15,400	18,000	1,120	17,000
3	1,580	1,530	1,790	10,400	2,410	9,540	23,300	18,800	17,000	17,900	996	17,100
4	1,560	1,530	1,460	10,700	2,400	6,820	23,300	18,200	20,500	17,800	773	17,100
5	1,330	1,540	1,220	9,790	2,430	5,760	23,300	18,100	22,000	17,700	918	17,100
6	1,220	1,670	1,100	7,810	2,270	5,420	23,300	17,800	22,300	18,000	1,800	17,100
7	1,480	1,850	1,280	7,960	e1,990	4,600	23,300	7,410	22,300	18,200	2,900	17,100
8	1,640	1,930	1,130	8,740	e1,980	4,210	22,100	6,450	22,100	18,200	5,440	17,100
9	1,630	1,930	1,080	8,690	e1,790	5,810	20,800	15,700	22,100	18,000	8,520	17,100
10	1,630	1,930	1,430	7,440	e1,820	10,800	19,700	20,000	22,000	17,900	8,400	17,000
11	1,840	1,930	1,870	6,210	e1,730	15,600	19,400	21,900	21,900	18,000	7,590	16,900
12	1,970	1,720	2,540	5,950	e1,610	18,000	21,400	22,400	22,000	18,100	6,110	16,900
13	1,970	1,690	2,930	4,020	e1,770	21,000	22,500	22,500	22,000	17,900	3,400	16,900
14	1,730	1,780	4,140	2,260	e1,950	23,600	22,100	22,500	22,100	16,400	1,900	16,600
15	1,200	1,760	4,830	e2,360	e1,890	26,600	21,300	22,400	22,100	13,100	1,980	17,000
16	962	1,990	4,830	e2,350	1,840	27,900	19,900	22,400	21,900	11,100	2,220	17,000
17	1,090	1,910	4,810	e1,920	1,780	29,400	18,400	22,500	22,200	9,920	2,390	17,000
18	1,460	2,240	4,620	e1,930	1,800	30,000	17,000	22,500	22,200	7,860	1,800	17,100
19	1,680	2,060	4,710	2,470	1,760	30,000	15,300	22,400	22,000	5,060	1,920	17,000
20	1,720	1,780	4,820	3,420	1,750	28,400	13,600	22,600	22,000	2,720	2,530	16,900
21	2,470	1,540	5,460	5,440	2,340	27,000	12,900	22,700	19,700	2,150	4,550	16,900
22	2,990	1,670	6,510	5,890	5,380	26,700	12,900	22,700	18,100	2,260	9,020	17,000
23	2,450	1,600	6,740	4,830	7,330	25,900	13,300	22,600	18,100	2,220	13,900	17,000
24	2,110	1,610	5,710	4,160	7,390	25,000	13,600	22,600	18,200	2,200	5,790	16,800
25	2,120	1,610	5,030	4,040	9,910	24,700	16,000	22,500	18,200	2,200	5,630	15,600
26	2,340	1,740	4,880	4,000	13,400	24,700	14,600	22,600	18,100	1,920	7,650	13,400
27	2,760	1,940	3,470	3,990	11,600	24,000	16,400	22,600	17,900	1,850	13,100	11,200
28	2,910	3,110	2,790	3,930	8,200	23,300	23,800	22,600	18,300	1,900	17,000	10,100
29	2,660	4,760	3,190	3,250	---	23,100	28,000	22,600	18,200	1,670	16,800	10,400
30	2,350	5,410	3,630	3,110	---	23,000	25,900	22,700	18,100	1,480	16,900	11,100
31	2,170	---	4,260	2,700	---	22,300	---	21,800	---	1,420	17,000	---
Total	58,162	61,580	109,540	166,910	105,370	589,660	597,500	635,460	608,800	321,130	191,337	479,500
Mean	1,876	2,053	3,534	5,384	3,763	19,020	19,920	20,500	20,290	10,360	6,172	15,980
Max	2,990	5,410	6,740	10,700	13,400	30,000	28,000	22,700	22,300	18,200	17,000	17,100
Min	962	1,530	1,080	1,920	1,610	4,210	12,900	6,450	15,400	1,420	773	10,100
Ac-ft	115,400	122,100	217,300	331,100	209,000	1,170,000	1,185,000	1,260,000	1,208,000	637,000	379,500	951,100
Cfsm	0.15	0.17	0.29	0.44	0.31	1.54	1.62	1.66	1.65	0.84	0.50	1.30
In.	0.18	0.19	0.33	0.50	0.32	1.78	1.80	1.92	1.84	0.97	0.58	1.45

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1993 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	2,751	2,967	3,465	1,993	3,637	8,400	12,050	14,320	15,470	17,060	7,307	4,634
Max	11,150	11,990	12,380	5,384	8,246	19,020	22,040	28,520	27,950	79,340	44,600	33,490
(WY)	(1994)	(1993)	(1993)	(2007)	(1997)	(2007)	(1998)	(1993)	(1993)	(1993)	(1993)	(1993)
Min	285	327	654	642	824	930	916	1,105	4,466	2,305	1,498	351
(WY)	(2001)	(2000)	(2000)	(2000)	(2000)	(2000)	(2000)	(2000)	(2006)	(2006)	(2000)	(2003)

05488110 DES MOINES RIVER NEAR PELLA, IA—Continued

SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 1993 - 2007	
Annual total	1,708,835		3,924,949			
Annual mean	4,682		10,750		7,859	
Highest annual mean					24,360	1993
Lowest annual mean					1,731	2000
Highest daily mean	18,200	May 6	30,000	Mar 18 [a]	104,000	Jul 12, 1993
Lowest daily mean	811	Aug 5	773	Aug 4	248	Oct 15, 2000
Annual seven-day minimum	938	Jul 31	1,140	Jul 30	254	Oct 9, 2000
Maximum peak flow			30,300	Mar 19	105,000	Jul 12, 1993
Maximum peak stage			96.44	Mar 19	109.71	Jul 12, 1993
Annual runoff (ac-ft)	3,389,000		7,785,000		5,694,000	
Annual runoff (cfsm)	0.380		0.872		0.637	
Annual runoff (inches)	5.16		11.84		8.66	
10 percent exceeds	11,900		22,600		20,200	
50 percent exceeds	3,190		7,650		3,680	
90 percent exceeds	1,460		1,660		654	

[a] Also Mar 19.