Water-Data Report 2012

05465000 Cedar River near Conesville, IA

Iowa Basin
Lower Cedar Subbasin

LOCATION.--Lat 41°24′33″, long 91°17′25″ referenced to North American Datum of 1927, in SW ¼ SW ¼ SW ¼ sec.2, T.76 N., R.4 W., Muscatine County, IA, Hydrologic Unit 07080206, on right bank 10 ft downstream from bridge on County Highway G28, 3.4 mi northeast of Conesville, 5.2 mi downstream from Wapsinonoc Creek, and 10.8 mi upstream from mouth of Cedar River.

DRAINAGE AREA.--7,787 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Discharge records from September 1939 to current year.

REVISED RECORDS.--WSP 1438: Drainage area. WSP 1708: 1956.

GAGE.--Water-stage recorder. Datum of gage is 581.95 ft above National Geodetic Vertical Datum of 1929. Prior to February 2, 1940, and April 11, 1952, to July 1, 1954, non-recording gage; February 2, 1940, to April 10, 1952, and July 2, 1954, to September 16, 1963, water-stage recorder at site 150 ft downstream at same datum.

REMARKS.--Records good except for estimated daily discharges, which are poor. U.S. Army Corps of Engineers rain gage and U.S. Geological Survey data collection platform with satellite telemetry at station.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood in March 1929 reached a stage of 15.8 ft, from information by local residents to U.S. Army Corps of Engineers, discharge not determined.

05465000 Cedar River near Conesville, IA—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	1,530	1,130	1,850	2,310	2,620	3,070	3,520	5,790	4,030	2,730	960	854
2	1,480	1,140	1,820	2,330	2,940	3,190	3,600	5,540	3,950	2,440	927	838
3	1,450	1,330	1,880	2,350	2,750	3,280	3,470	5,530	3,840	2,220	909	831
4	1,410	1,730	2,120	2,240	2,800	3,390	3,230	7,200	3,690	2,100	961	806
5	1,360	1,650	2,990	1,940	2,950	3,800	3,050	7,790	3,640	2,010	1,180	811
6	1,330	1,590	3,180	1,810	3,070	4,640	2,940	7,680	3,500	1,910	1,380	868
7	1,340	1,490	3,260	2,120	3,070	4,730	2,830	8,440	3,400	1,800	1,170	1,080
8	1,340	1,520	3,050	2,450	3,000	4,420	2,750	8,860	3,270	1,730	1,150	1,040
9	1,280	1,790	2,720	2,470	2,900	4,300	2,680	8,670	3,170	1,650	1,080	1,070
10	1,250	2,750	2,440	2,330	2,720	4,120	2,580	9,880	3,050	1,570	1,100	895
11	1,230	3,450	2,160	2,190	2,560	4,010	2,490	10,600	2,940	1,520	1,090	846
12	1,270	3,290	1,970	2,120	2,470	3,910	2,440	10,200	2,890	1,440	1,060	799
13	1,350	3,210	1,810	1,620	2,350	3,830	2,390	9,000	2,740	1,420	1,080	791
14	1,720	3,050	2,390	1,340	2,410	3,710	2,380	7,930	2,750	1,420	1,110	787
15	1,570	2,800	3,550	1,490	2,210	3,630	2,940	7,210	2,650	1,420	1,070	771
16	1,520	2,610	4,270	1,470	2,330	3,540	4,550	6,600	2,640	1,460	1,060	771
17	1,450	2,430	3,730	1,650	2,640	3,480	5,310	5,970	2,650	1,350	1,170	796
18	1,410	2,310	3,510	1,850	2,710	3,460	5,620	5,630	2,520	1,300	1,270	793
19	1,390	2,200	3,300	1,870	2,680	3,390	5,170	5,320	2,410	1,250	1,100	766
20	1,380	2,150	3,130	e1,700	2,490	3,370	4,880	5,000	2,290	1,190	1,060	744
21	1,340	2,090	2,990	e1,910	2,380	3,690	5,140	4,710	2,230	1,170	1,000	723
22	1,260	2,060	2,890	e2,010	2,350	3,710	5,150	4,440	2,290	1,160	957	714
23	1,200	2,040	2,750	e1,980	2,360	3,530	5,610	4,170	2,240	1,090	931	704
24	1,180	1,980	2,610	e2,030	2,510	3,530	6,690	3,960	2,360	1,070	911	707
25	1,210	1,960	2,490	e2,020	2,560	3,500	7,070	3,780	2,900	1,040	892	710
26	1,210	1,970	2,400	e2,060	2,460	3,330	6,820	3,680	2,700	1,020	992	701
27	1,240	2,010	2,280	e2,110	2,420	3,240	6,300	3,650	2,600	1,040	1,150	685
28	1,210	1,990	2,230	e2,080	2,460	3,270	5,870	3,570	2,700	1,040	1,070	679
29	1,170	1,920	2,200	e2,060	2,520	3,210	5,800	3,700	2,660	1,110	1,020	669
30	1,150	1,900	2,260	e2,160	---	3,090	5,850	3,750	2,650	1,090	921	673
31	1,130	---	2,300	2,160	---	3,170	---	3,880	---	994	877	---
Total	41,360	63,540	82,530	62,230	75,690	112,540	129,120	192,130	87,350	45,754	32,608	23,922
Mean	1,334	2,118	2,662	2,007	2,610	3,630	4,304	6,198	2,912	1,476	1,052	797
Max	1,720	3,450	4,270	2,470	3,070	4,730	7,070	10,600	4,030	2,730	1,380	1,080
Min	1,130	1,130	1,810	1,340	2,210	3,070	2,380	3,570	2,230	994	877	669
Ac-ft	82,040	126,000	163,700	123,400	150,100	223,200	256,100	381,100	173,300	90,750	64,680	47,450
Cfsm	0.17	0.27	0.34	0.26	0.34	0.47	0.55	0.80	0.37	0.19	0.14	0.10
In.	0.20	0.30	0.39	0.30	0.36	0.54	0.62	0.92	0.42	0.22	0.16	0.11

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1940 - 2012, BY WATER YEAR (WY)

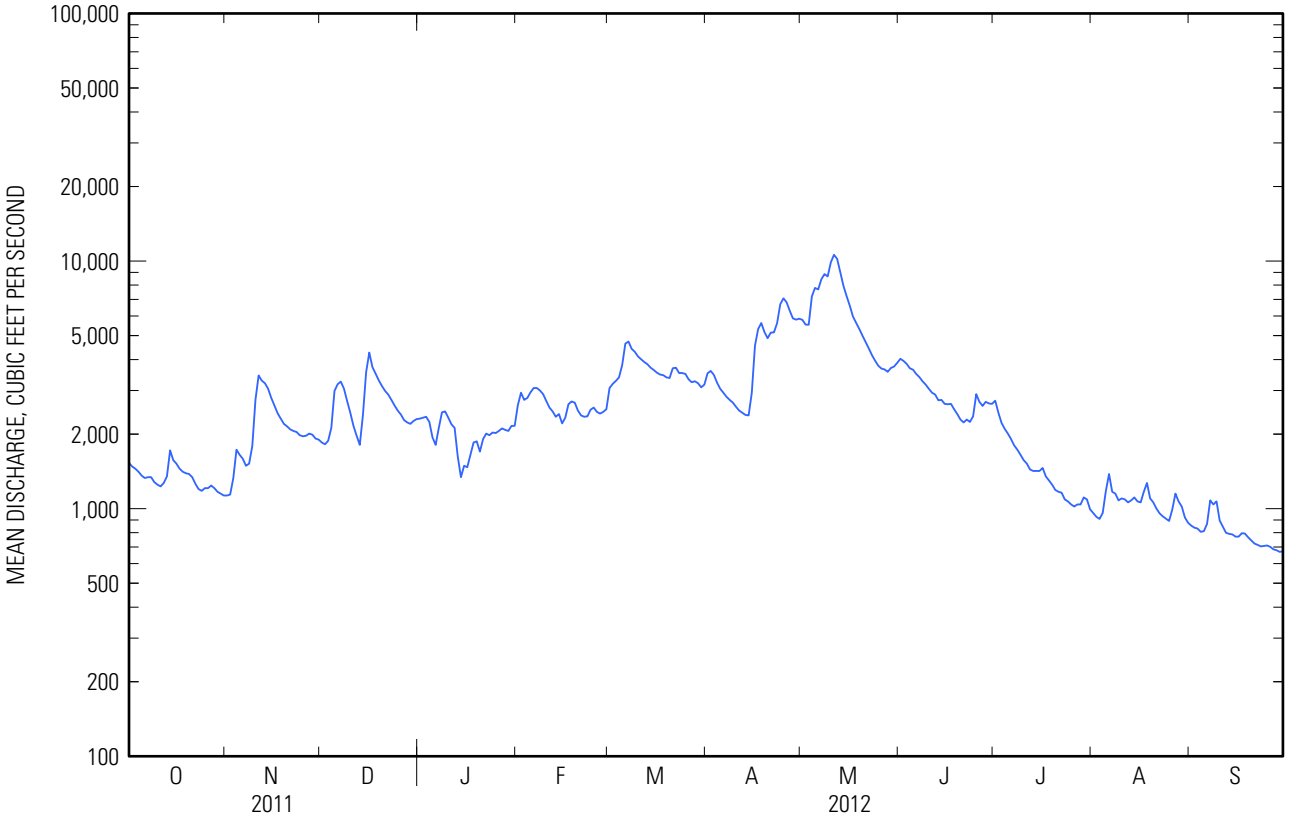
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	3,342	3,427	2,667	2,482	3,360	8,254	9,686	8,393	9,133	6,840	4,369	3,328
Max	13,280	15,030	11,110	11,860	12,000	25,230	36,790	26,650	47,690	42,110	34,190	19,530
(WY)	(2008)	(2010)	(1983)	(1973)	(1984)	(2010)	(1993)	(2008)	(2008)	(1993)	(1993)	(1993)
Min	599	590	429	365	359	1,056	1,244	1,219	768	815	700	620
(WY)	(1957)	(1956)	(1990)	(1977)	(1940)	(1954)	(1957)	(1940)	(1977)	(1989)	(1989)	(1955)

05465000 Cedar River near Conesville, IA—Continued

SUMMARY STATISTICS

	Calendar Year 2011		Water Year 2012		Water Years 1940 - 2012	
Annual total	2,521,750		948,774			
Annual mean	6,909		2,592		5,445	
Highest annual mean					18,710	1993
Lowest annual mean					1,176	1956
Highest daily mean	27,000	Mar 30	10,600	May 11	119,000	Jun 15, 2008
Lowest daily mean	1,130	Oct 31	669	Sep 29	250	Nov 28, 1955
Annual seven-day minimum	1,170	Oct 27	689	Sep 24	329	Jan 30, 1940
Maximum peak flow			10,700	May 11	127,000	Jun 14, 2008
Maximum peak stage			9.97	May 11	23.40	Jun 15, 2008
Instantaneous low flow			668	Sep 28 [a]		
Annual runoff (ac-ft)	5,002,000		1,882,000		3,945,000	
Annual runoff (cfsm)	0.887		0.333		0.699	
Annual runoff (inches)	12.05		4.53		9.50	
10 percent exceeds	15,100		4,660		12,600	
50 percent exceeds	4,180		2,300		3,300	
90 percent exceeds	1,570		961		1,000	

[a] Also Sep 29, 30.



WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 2008, 2012.

WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 1 of 2

[N, nitrogen; P, phosphorus; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; °C, degrees Celsius; µS/cm, microsiemens per centimeter; <, less than; E, estimated]

Sample date-time	Barometric pressure, mm Hg (00025)	Discharge, instantaneous, ft³/s (00061)	Dissolved oxygen, water, unfiltered, mg/L (00300)	pH, water, unfiltered, field, standard units (00400)	Specific conductance, water, unfiltered, µS/cm at 25°C (00095)	Temperature, water, °C (00010)	Ammonia, water, filtered, mg/L as N (00608)	Nitrate plus nitrite, water, filtered, mg/L as N (00631)	Nitrite, water, filtered, mg/L as N (00613)
08-15-2012 1230	745	1,080	E 23.0	9.2	542	25.2	< .010	< .040	0.002

WATER-QUALITY DATA
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012

Part 2 of 2

[N, nitrogen; P, phosphorus; ft³/s, cubic feet per second; mg/L, milligrams per liter; mm Hg, millimeters of mercury; °C, degrees Celsius; µS/cm, microsiemens per centimeter; <, less than; E, estimated]

Sample date-time	Orthophosphate, water, filtered, mg/L as P (00671)	Phosphorus, water, unfiltered, mg/L as P (00665)	Total nitrogen, water, unfiltered, analytically determined, mg/L (62855)
08-15-2012 1230	0.251	0.623	2.21