

Water-Data Report 2010

05465700 Iowa River at Oakville, IA

Iowa Basin
Lower Iowa Subbasin

LOCATION.--Lat 41°06'11.5", long 91°03'48.7" referenced to North American Datum of 1983, in SW ¼ SW ¼ SW ¼ sec.23, T.73 N., R.2 W., Louisa County, IA, Hydrologic Unit 07080209, on left bank 10 ft downstream from bridge on State Highway 99, 0.7 mi west of Oakville, 1.7 mi downstream from Smith Creek, and 5.3 mi upstream from mouth.

DRAINAGE AREA.--12,630 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--April 2009 to current year.

GAGE.--Water-stage recorder. Datum of gage is 535.64 ft above National Geodetic Vertical Datum of 1929.

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

05465700 Iowa River at Oakville, IA—Continued

**DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2008 TO SEPTEMBER 2009
DAILY MEAN VALUES**

[e, estimated]

| Day | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|--------------|-----|-----|-----|-----|-----|-----|---------|-----------|-----------|-----------|---------|---------|
| 1 | --- | --- | --- | --- | --- | --- | 17,100 | 31,900 | 20,600 | 18,700 | 8,240 | 41,800 |
| 2 | --- | --- | --- | --- | --- | --- | 16,500 | 34,400 | 23,400 | 17,500 | 7,560 | 24,100 |
| 3 | --- | --- | --- | --- | --- | --- | 15,100 | 35,700 | 25,100 | 16,500 | 7,020 | 19,000 |
| 4 | --- | --- | --- | --- | --- | --- | 13,800 | 34,600 | 25,200 | 16,800 | 6,730 | 17,000 |
| 5 | --- | --- | --- | --- | --- | --- | 12,800 | 30,800 | 24,100 | 18,000 | 6,380 | 15,800 |
| 6 | --- | --- | --- | --- | --- | --- | 11,800 | 26,000 | 21,000 | 17,000 | 6,070 | 14,900 |
| 7 | --- | --- | --- | --- | --- | --- | 11,100 | 22,800 | 19,100 | 15,600 | 5,970 | 14,100 |
| 8 | --- | --- | --- | --- | --- | --- | 9,870 | 20,700 | 19,800 | 14,900 | 6,730 | 13,700 |
| 9 | --- | --- | --- | --- | --- | --- | 9,800 | 19,800 | 18,800 | 14,700 | 7,530 | 13,200 |
| 10 | --- | --- | --- | --- | --- | --- | 9,950 | 19,300 | 17,500 | 16,000 | 7,580 | 12,800 |
| 11 | --- | --- | --- | --- | --- | --- | 9,710 | 18,900 | 17,800 | 18,400 | 8,010 | 12,500 |
| 12 | --- | --- | --- | --- | --- | --- | 9,640 | 18,600 | 17,200 | 25,000 | 11,000 | 12,200 |
| 13 | --- | --- | --- | --- | --- | --- | 10,000 | 19,400 | 16,500 | 26,300 | 12,200 | 11,900 |
| 14 | --- | --- | --- | --- | --- | --- | 10,300 | 23,400 | 17,800 | 23,900 | 12,700 | 11,700 |
| 15 | --- | --- | --- | --- | --- | --- | 9,930 | 29,000 | 20,100 | 22,600 | 11,100 | 11,500 |
| 16 | --- | --- | --- | --- | --- | --- | 9,340 | 34,700 | 19,600 | 22,000 | 9,980 | 10,900 |
| 17 | --- | --- | --- | --- | --- | --- | 8,560 | 32,100 | 19,000 | 21,000 | 9,730 | 9,250 |
| 18 | --- | --- | --- | --- | --- | --- | 8,130 | 27,500 | 24,100 | 20,300 | 11,200 | 7,150 |
| 19 | --- | --- | --- | --- | --- | --- | 8,220 | 24,500 | 28,300 | 20,000 | 12,100 | 6,560 |
| 20 | --- | --- | --- | --- | --- | --- | 8,340 | 21,900 | 27,300 | 19,500 | 13,400 | 6,160 |
| 21 | --- | --- | --- | --- | --- | --- | 7,740 | 20,300 | 30,000 | 18,600 | 14,100 | 5,780 |
| 22 | --- | --- | --- | --- | --- | --- | 7,380 | 18,900 | 39,100 | 19,800 | 14,500 | e5,650 |
| 23 | --- | --- | --- | --- | --- | --- | 7,150 | 17,700 | 43,100 | 21,500 | 12,800 | e5,700 |
| 24 | --- | --- | --- | --- | --- | --- | 6,850 | 17,300 | 37,400 | 18,600 | 10,700 | 5,790 |
| 25 | --- | --- | --- | --- | --- | --- | 6,640 | 16,700 | 31,900 | 15,900 | 8,860 | 6,190 |
| 26 | --- | --- | --- | --- | --- | --- | 7,680 | 15,900 | 28,300 | 15,900 | 8,160 | 6,470 |
| 27 | --- | --- | --- | --- | --- | --- | 9,340 | 16,500 | 25,600 | 15,400 | 17,300 | 7,270 |
| 28 | --- | --- | --- | --- | --- | --- | 12,200 | 17,900 | 24,100 | 12,800 | 33,800 | 8,680 |
| 29 | --- | --- | --- | --- | --- | --- | 20,100 | 17,700 | 22,000 | 11,400 | 42,100 | 9,330 |
| 30 | --- | --- | --- | --- | --- | --- | 27,400 | 17,300 | 20,200 | 10,200 | 48,200 | 9,560 |
| 31 | --- | --- | --- | --- | --- | --- | --- | 18,500 | --- | 8,980 | 52,200 | --- |
| Total | --- | --- | --- | --- | --- | --- | 332,470 | 720,700 | 724,000 | 553,780 | 443,950 | 356,640 |
| Mean | --- | --- | --- | --- | --- | --- | 11,080 | 23,250 | 24,130 | 17,860 | 14,320 | 11,890 |
| Max | --- | --- | --- | --- | --- | --- | 27,400 | 35,700 | 43,100 | 26,300 | 52,200 | 41,800 |
| Min | --- | --- | --- | --- | --- | --- | 6,640 | 15,900 | 16,500 | 8,980 | 5,970 | 5,650 |
| Ac-ft | --- | --- | --- | --- | --- | --- | 659,500 | 1,430,000 | 1,436,000 | 1,098,000 | 880,600 | 707,400 |
| Cfsm | --- | --- | --- | --- | --- | --- | 0.88 | 1.84 | 1.91 | 1.41 | 1.13 | 0.94 |
| In. | --- | --- | --- | --- | --- | --- | 0.98 | 2.12 | 2.13 | 1.63 | 1.31 | 1.05 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2009 - 2009, BY WATER YEAR (WY)

| | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|-------------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| Mean | --- | --- | --- | --- | --- | --- | 11,080 | 23,250 | 24,130 | 17,860 | 14,320 | 11,890 |
| Max | --- | --- | --- | --- | --- | --- | 11,080 | 23,250 | 24,130 | 17,860 | 14,320 | 11,890 |
| (WY) | (---) | (---) | (---) | (---) | (---) | (---) | (2009) | (2009) | (2009) | (2009) | (2009) | (2009) |
| Min | --- | --- | --- | --- | --- | --- | 11,080 | 23,250 | 24,130 | 17,860 | 14,320 | 11,890 |
| (WY) | (---) | (---) | (---) | (---) | (---) | (---) | (2009) | (2009) | (2009) | (2009) | (2009) | (2009) |

05465700 Iowa River at Oakville, IA—Continued

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2009 TO SEPTEMBER 2010
DAILY MEAN VALUES

[e, estimated]

| Day | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|--------------|---------|-----------|---------|---------|---------|-----------|-----------|-----------|-----------|-----------|-----------|---------|
| 1 | 9,090 | 46,500 | 15,400 | e15,800 | e12,800 | e8,010 | 26,500 | 21,300 | 16,500 | 34,400 | 34,100 | 10,400 |
| 2 | 9,910 | 45,000 | 15,100 | e13,800 | e12,500 | e7,930 | 25,600 | 21,100 | 18,600 | 36,500 | 28,600 | 15,000 |
| 3 | 11,700 | 40,400 | 14,700 | e12,200 | e12,000 | e7,840 | 25,400 | 19,100 | 17,100 | 38,300 | 27,200 | 16,600 |
| 4 | 12,400 | 36,700 | 14,300 | e10,800 | e11,600 | e7,790 | 25,000 | 17,100 | 17,000 | 38,900 | 30,800 | 14,800 |
| 5 | 12,400 | 34,200 | 14,000 | e10,500 | e11,200 | e7,990 | 24,600 | 16,400 | 17,700 | 38,200 | 34,600 | 13,100 |
| 6 | 11,800 | 33,900 | 13,700 | e10,500 | e11,000 | e8,680 | 24,000 | 15,900 | 16,700 | 37,400 | 36,000 | 11,700 |
| 7 | 11,000 | 34,100 | 13,500 | e10,700 | e11,000 | e10,200 | 24,100 | 16,100 | 16,000 | 38,200 | 34,000 | 10,600 |
| 8 | 11,200 | 32,300 | 13,400 | e10,800 | e10,700 | e12,800 | 26,600 | 15,200 | 16,200 | 40,500 | 30,000 | 9,720 |
| 9 | 11,500 | 27,900 | 13,600 | e10,600 | e10,400 | 17,600 | 29,600 | 14,300 | 16,900 | 39,600 | 24,900 | 9,290 |
| 10 | 11,300 | 24,600 | 13,300 | e10,400 | e10,100 | 24,400 | 31,300 | 13,400 | 17,100 | 37,800 | 24,800 | 8,230 |
| 11 | 11,000 | 22,400 | 12,500 | e10,200 | e9,670 | 31,400 | 30,700 | 16,200 | 17,200 | 36,500 | 28,800 | 8,280 |
| 12 | 10,600 | 20,900 | 11,700 | e10,100 | e9,340 | 35,900 | 28,400 | 19,500 | 18,900 | 36,700 | 31,100 | 7,970 |
| 13 | 10,000 | 19,900 | e10,900 | e10,300 | e9,020 | 43,000 | 26,000 | 29,000 | 26,200 | 37,200 | 32,300 | 7,850 |
| 14 | 9,150 | 19,000 | e10,600 | e10,500 | e8,730 | 49,400 | 24,200 | 34,000 | 30,500 | 37,300 | 36,100 | 7,290 |
| 15 | 8,870 | 18,300 | e10,800 | e10,600 | e8,750 | 48,400 | 22,900 | 33,500 | 31,800 | 35,300 | 38,700 | 6,830 |
| 16 | 8,650 | 17,700 | e11,000 | e10,400 | e8,660 | 47,000 | 22,200 | 32,200 | 34,400 | 30,300 | 38,200 | 6,590 |
| 17 | 8,470 | 18,500 | e10,900 | e10,300 | e8,580 | 46,500 | 22,000 | 33,000 | 39,900 | 26,400 | 34,400 | 6,400 |
| 18 | 8,200 | 20,400 | e10,200 | e10,300 | e8,510 | 49,600 | 21,900 | 32,300 | 40,300 | 24,400 | 27,600 | 6,410 |
| 19 | 7,930 | 19,700 | e9,290 | e10,300 | e8,360 | 56,300 | 21,400 | 32,700 | 43,800 | 23,000 | 24,300 | 7,400 |
| 20 | 7,580 | 18,200 | e8,690 | e10,400 | e8,290 | 59,900 | 20,400 | 32,600 | 45,600 | 22,200 | 22,700 | 8,140 |
| 21 | 7,340 | 17,300 | e8,180 | e10,700 | e8,410 | 57,400 | 19,200 | 29,900 | 48,400 | 21,400 | 22,200 | 9,840 |
| 22 | 7,480 | 16,600 | e7,790 | e11,400 | e8,470 | 53,200 | 18,100 | 25,600 | 50,100 | 20,900 | 23,300 | 11,400 |
| 23 | 14,600 | 16,100 | e7,920 | e12,800 | e8,350 | 49,300 | 16,700 | 22,800 | 45,700 | 20,400 | 21,200 | 11,000 |
| 24 | 24,800 | 15,700 | e8,570 | e15,500 | e8,230 | 48,300 | 16,100 | 21,200 | 46,900 | 21,500 | 18,800 | 13,400 |
| 25 | 28,300 | 15,800 | e12,700 | e18,600 | e8,080 | 46,100 | 21,600 | 19,900 | 51,400 | 26,700 | 17,300 | 16,600 |
| 26 | 29,400 | 17,300 | e23,500 | e20,700 | e7,990 | 42,400 | 21,700 | 19,700 | 48,200 | 29,300 | 16,100 | 20,400 |
| 27 | 29,100 | 17,900 | e27,100 | e19,500 | e7,970 | 38,500 | 24,500 | 22,000 | 41,700 | 32,300 | 14,900 | 20,100 |
| 28 | 28,500 | 17,300 | e24,000 | e17,900 | e7,990 | 35,000 | 24,700 | 20,100 | 37,800 | 35,200 | 13,400 | 19,200 |
| 29 | 28,200 | 16,500 | e20,300 | e15,900 | --- | 31,600 | 22,600 | 18,300 | 35,100 | 36,900 | 12,000 | 20,100 |
| 30 | 35,100 | 15,900 | e18,700 | e14,200 | --- | 29,300 | 20,800 | 17,500 | 34,000 | 36,600 | 10,600 | 21,800 |
| 31 | 42,100 | --- | e17,300 | e13,400 | --- | 27,700 | --- | 17,100 | --- | 35,900 | 9,250 | --- |
| Total | 477,670 | 717,000 | 423,640 | 390,100 | 266,700 | 1,039,440 | 708,800 | 699,000 | 937,700 | 1,006,200 | 798,250 | 356,440 |
| Mean | 15,410 | 23,900 | 13,670 | 12,580 | 9,525 | 33,530 | 23,630 | 22,550 | 31,260 | 32,460 | 25,750 | 11,880 |
| Max | 42,100 | 46,500 | 27,100 | 20,700 | 12,800 | 59,900 | 31,300 | 34,000 | 51,400 | 40,500 | 38,700 | 21,800 |
| Min | 7,340 | 15,700 | 7,790 | 10,100 | 7,970 | 7,790 | 16,100 | 13,400 | 16,000 | 20,400 | 9,250 | 6,400 |
| Ac-ft | 947,500 | 1,422,000 | 840,300 | 773,800 | 529,000 | 2,062,000 | 1,406,000 | 1,386,000 | 1,860,000 | 1,996,000 | 1,583,000 | 707,000 |
| Cfs/m | 1.22 | 1.89 | 1.08 | 1.00 | 0.75 | 2.65 | 1.87 | 1.79 | 2.47 | 2.57 | 2.04 | 0.94 |
| In. | 1.41 | 2.11 | 1.25 | 1.15 | 0.79 | 3.06 | 2.09 | 2.06 | 2.76 | 2.96 | 2.35 | 1.05 |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2009 - 2010, BY WATER YEAR (WY)

| | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Mean | 15,410 | 23,900 | 13,670 | 12,580 | 9,525 | 33,530 | 17,350 | 22,900 | 27,700 | 25,160 | 20,040 | 11,880 |
| Max | 15,410 | 23,900 | 13,670 | 12,580 | 9,525 | 33,530 | 23,630 | 23,250 | 31,260 | 32,460 | 25,750 | 11,890 |
| (WY) | (2010) | (2010) | (2010) | (2010) | (2010) | (2010) | (2010) | (2009) | (2010) | (2010) | (2010) | (2009) |
| Min | 15,410 | 23,900 | 13,670 | 12,580 | 9,525 | 33,530 | 11,080 | 22,550 | 24,130 | 17,860 | 14,320 | 11,880 |
| (WY) | (2010) | (2010) | (2010) | (2010) | (2010) | (2010) | (2009) | (2010) | (2009) | (2009) | (2009) | (2010) |

05465700 Iowa River at Oakville, IA—Continued

SUMMARY STATISTICS

| | Water Year 2010 | | Water Years 2009 - 2010 | |
|--------------------------|-----------------|--------|-------------------------|--------------|
| Annual total | 7,820,940 | | | |
| Annual mean | 21,430 | | 21,430 | |
| Highest annual mean | | | 21,430 | 2010 |
| Lowest annual mean | | | 21,430 | 2010 |
| Highest daily mean | 59,900 | Mar 20 | 59,900 | Mar 20, 2010 |
| Lowest daily mean | 6,400 | Sep 17 | 5,650 | Sep 22, 2009 |
| Annual seven-day minimum | 6,970 | Sep 13 | 5,960 | Sep 20, 2009 |
| Maximum peak flow | 60,500 | Mar 20 | 60,500 | Mar 20, 2010 |
| Maximum peak stage | 13.61 | Mar 20 | 13.61 | Mar 20, 2010 |
| Annual runoff (ac-ft) | 15,510,000 | | 15,520,000 | |
| Annual runoff (cfsm) | 1.70 | | 1.70 | |
| Annual runoff (inches) | 23.04 | | 23.05 | |
| 10 percent exceeds | 38,200 | | 38,200 | |
| 50 percent exceeds | 18,300 | | 18,300 | |
| 90 percent exceeds | 8,550 | | 8,550 | |

