LOCATION.--Lat 41°38'29.8", long 95°46'56.0" referenced to North American Datum of 1983, in NE 1/4 SE 1/4 NW 1/4 sec.19, T.79 N., R.42 W., Harrison County, IA, Hydrologic Unit 10230007, on left bank on downstream side of bridge on 8th Street in Logan, 0.5 mi downstream from Elk Grove Creek, 10.4 mi upstream from Willow Creek, and 15.7 mi upstream from mouth.

DRAINAGE AREA.--871 mi².

PERIOD OF RECORD.--Discharge records from May 1918 to July 1925, November 1937 to current year. May 1918 to July 1925, monthly mean discharge for some periods published in WSP 1310.

GAGE.--Water-stage recorder. Datum of gage is 1,009.38 ft above National Geodetic Vertical Datum of 1929 (Chicago and Northwestern Railway Company benchmark). Prior to April 17, 1925, November 4, 1937, to March 16, 1952, and October 1, 1957, to October 18, 1960, non-recording gage at same site and datum; April 17 to July 1, 1925, non-recording gage at site 300 ft downstream at same datum; March 17, 1952, to September 30, 1957, non-recording gage at site 400 ft upstream at bridge on U.S. Highway 30 at same datum. Supplementary water-stage recorder operating above 4.80 ft gage height from October 22, 1946, to October 7, 1954, at site 100 ft upstream, and from October 8, 1954, to October 18, 1960, at same site, both at same datum.

A summary of all available data for this streamgage is provided through the USGS National Water Information System web interface (NWISWeb). The following link provides access to current/historical observations, daily data, daily statistics, monthly statistics, annual statistics, peak streamflow, field measurements, field/lab water-quality samples, and the latest water-year summaries. Data can be filtered by parameter and/or dates, and can be output in various tabular and graphical formats.

<http://waterdata.usgs.gov/nwis/inventory/?site_no=06609500>

The USGS WaterWatch Toolkit is available at:

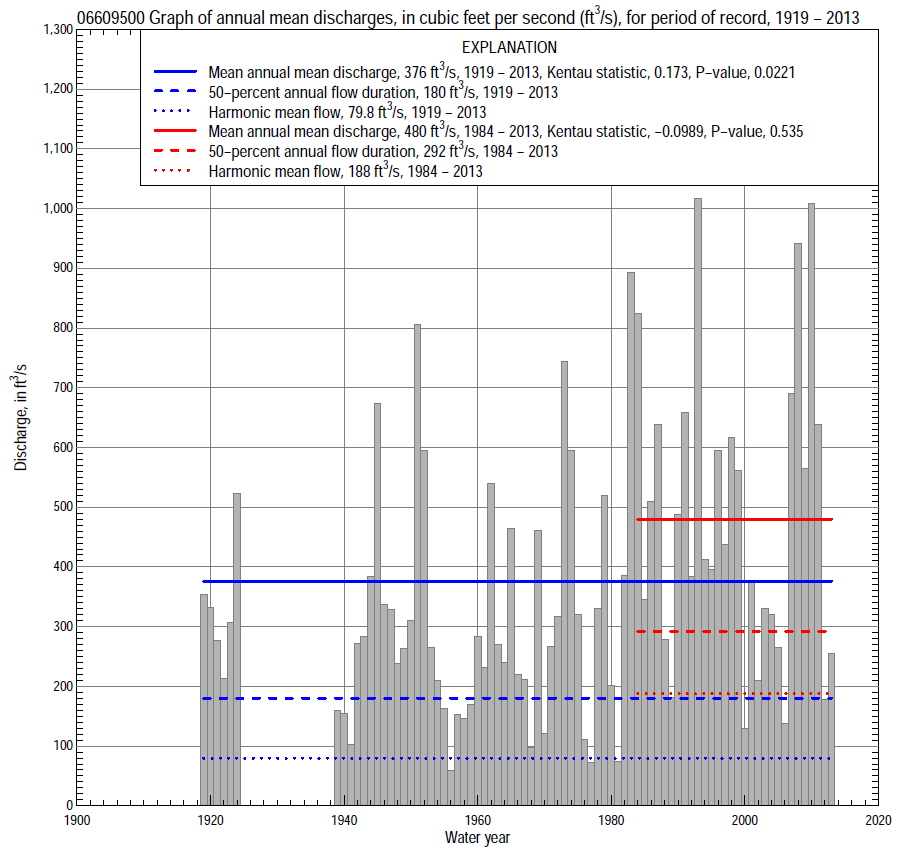
<http://waterwatch.usgs.gov/?id=ww_toolkit>

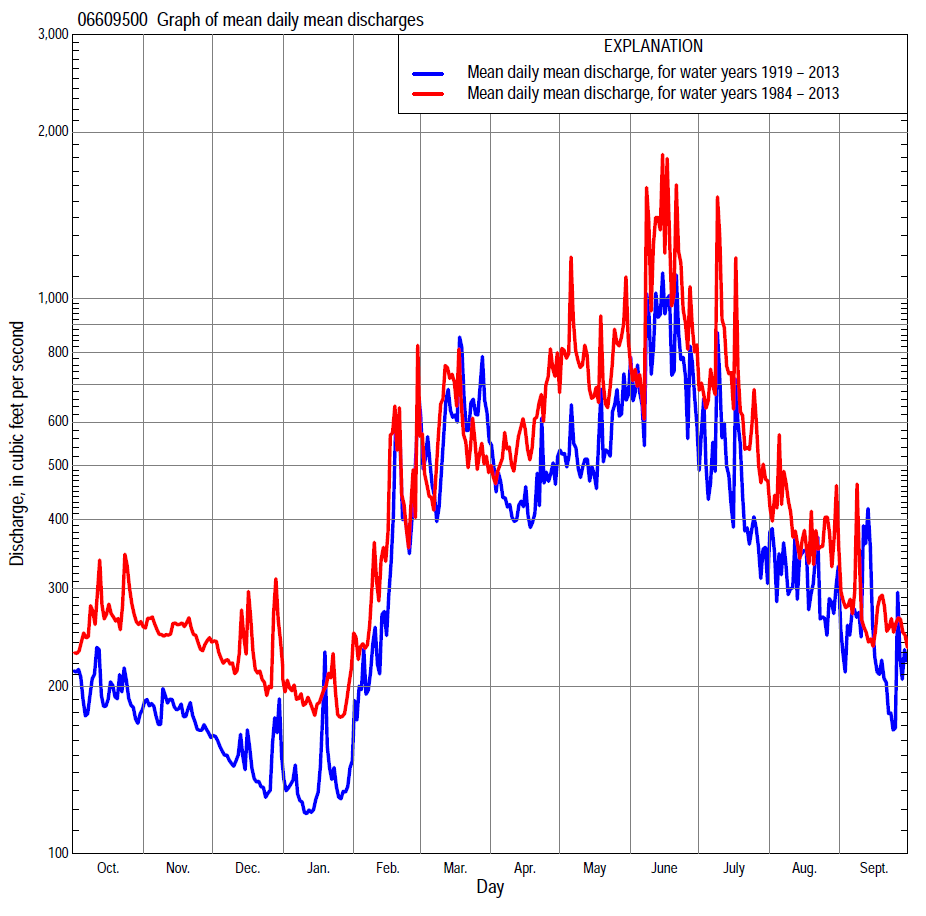
Tools for summarizing streamflow information include the duration hydrograph builder, the cumulative streamflow hydrograph builder, the streamgage statistics retrieval tool, the rating curve builder, the flood tracking chart builder, the National Weather Service Advanced Hydrologic Prediction Service (AHPS) river forecast hydrograph builder, and the raster-hydrograph builder. Entering the above number for this streamgage into these toolkit webpages will provide streamflow information specific to this streamgage.

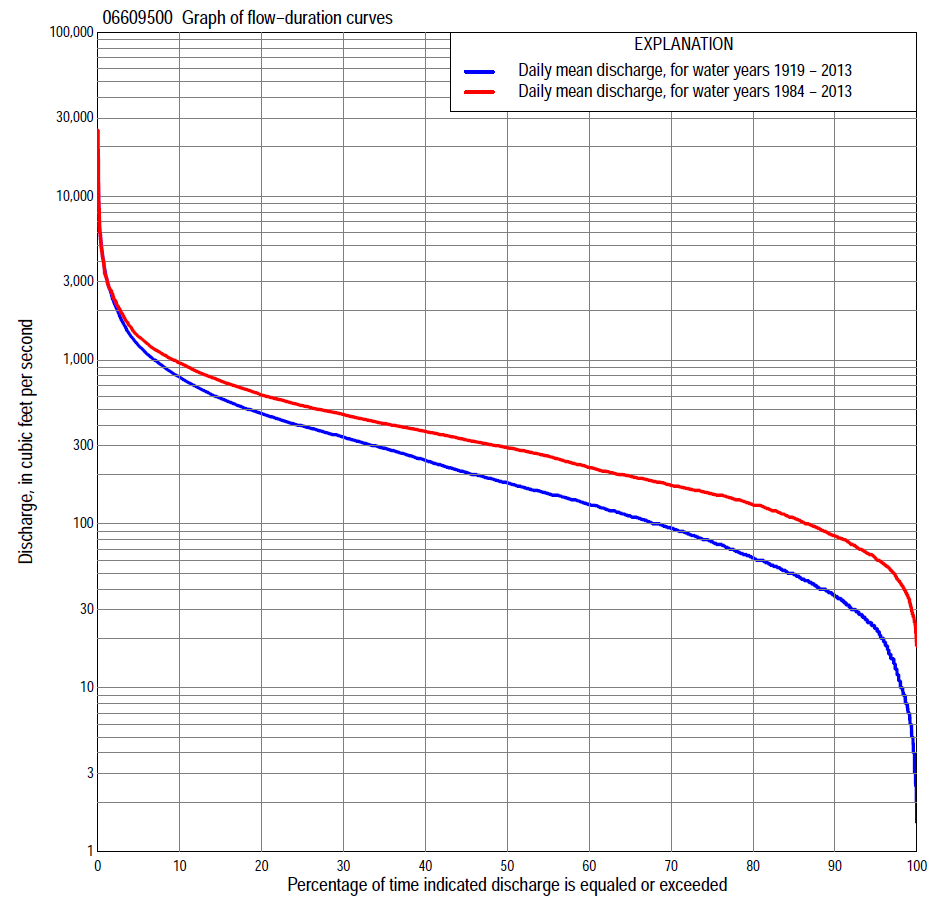
A description of the statistics presented for this streamgage is available in the main body of the report at:

<http://dx.doi.org/10.3133/ofr20151214>

A link to other streamgages included in this report, a map showing the location of the streamgages, information on the programs used to compute the statistical analyses, and references are included in the main body of the report.

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**Statistics Based on the Entire Streamflow Period of Record**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 06609500 Monthly and annual flow durations, based on 1919–24, 1939–2013 period of record (81 years) | | | | | | | | | | | | | |  |  |
| Percentage of days discharge equaled or exceeded |  |  |  |  | Discharge (cubic feet per second) | | | | |  |  |  |  | Annual flow durations | |
| Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | June | July | Aug | Sept | Annual | Kentau statistic | P-value |
| 99 | 7.4 | 8.0 | 6.0 | 2.5 | 4.0 | 26 | 17 | 16 | 16 | 13 | 15 | 9.0 | 7.0 | 0.307 | 0.000 |
| 98 | 10 | 10 | 9.0 | 4.0 | 5.0 | 35 | 24 | 27 | 22 | 26 | 18 | 11 | 11 | 0.327 | 0.000 |
| 95 | 21 | 24 | 14 | 7.0 | 13 | 48 | 44 | 39 | 37 | 43 | 26 | 23 | 23 | 0.324 | 0.000 |
| 90 | 28 | 40 | 27 | 15 | 28 | 80 | 68 | 65 | 76 | 61 | 41 | 29 | 37 | 0.319 | 0.000 |
| 85 | 39 | 48 | 34 | 24 | 40 | 100 | 93 | 91 | 108 | 78 | 52 | 37 | 50 | 0.296 | 0.000 |
| 80 | 49 | 58 | 40 | 30 | 50 | 126 | 118 | 119 | 144 | 98 | 67 | 48 | 62 | 0.299 | 0.000 |
| 75 | 56 | 66 | 50 | 35 | 60 | 148 | 136 | 145 | 190 | 129 | 83 | 60 | 78 | 0.298 | 0.000 |
| 70 | 67 | 80 | 60 | 43 | 70 | 173 | 156 | 177 | 232 | 151 | 99 | 72 | 95 | 0.299 | 0.000 |
| 65 | 77 | 91 | 70 | 51 | 80 | 200 | 180 | 206 | 278 | 180 | 115 | 84 | 112 | 0.302 | 0.000 |
| 60 | 88 | 103 | 80 | 60 | 100 | 225 | 205 | 231 | 329 | 209 | 134 | 97 | 132 | 0.288 | 0.000 |
| 55 | 100 | 116 | 91 | 70 | 120 | 260 | 229 | 268 | 382 | 243 | 158 | 112 | 153 | 0.269 | 0.000 |
| 50 | 119 | 129 | 106 | 82 | 155 | 300 | 264 | 315 | 432 | 282 | 179 | 129 | 179 | 0.266 | 0.000 |
| 45 | 141 | 146 | 120 | 98 | 193 | 335 | 304 | 370 | 489 | 322 | 201 | 153 | 207 | 0.257 | 0.001 |
| 40 | 161 | 160 | 130 | 110 | 234 | 370 | 355 | 432 | 560 | 364 | 233 | 166 | 245 | 0.252 | 0.001 |
| 35 | 189 | 173 | 145 | 125 | 274 | 407 | 405 | 504 | 632 | 410 | 271 | 193 | 290 | 0.252 | 0.001 |
| 30 | 208 | 193 | 160 | 140 | 315 | 471 | 472 | 582 | 731 | 475 | 314 | 228 | 340 | 0.258 | 0.001 |
| 25 | 249 | 233 | 180 | 165 | 350 | 553 | 552 | 666 | 842 | 556 | 363 | 265 | 397 | 0.252 | 0.001 |
| 20 | 294 | 286 | 210 | 210 | 400 | 682 | 658 | 772 | 1,000 | 668 | 437 | 307 | 471 | 0.240 | 0.002 |
| 15 | 349 | 338 | 289 | 270 | 483 | 884 | 805 | 957 | 1,260 | 809 | 528 | 382 | 584 | 0.206 | 0.007 |
| 10 | 452 | 434 | 350 | 332 | 633 | 1,280 | 966 | 1,200 | 1,740 | 1,020 | 705 | 492 | 787 | 0.139 | 0.066 |
| 5 | 604 | 505 | 420 | 400 | 1,170 | 2,220 | 1,360 | 1,670 | 2,880 | 1,400 | 990 | 721 | 1,220 | 0.057 | 0.455 |
| 2 | 887 | 576 | 480 | 522 | 2,330 | 4,220 | 2,280 | 2,700 | 4,440 | 2,380 | 1,700 | 1,190 | 2,220 | 0.006 | 0.935 |
| 1 | 1,130 | 648 | 580 | 700 | 3,270 | 5,520 | 2,890 | 3,680 | 6,330 | 3,230 | 2,340 | 2,100 | 3,220 | -0.029 | 0.707 |

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| --- | --- | --- | --- | --- |
| 06609500 Annual exceedance probability of instantaneous peak discharges, in cubic feet per second (ft3/s), based on the Weighted Independent Estimates method, | | | | |
| Annual exceed-ance probability | Recur-rence interval (years) | Discharge (ft3/s) | 95-percent lower confi-dence interval (ft3/s) | 95-percent upper confi-dence interval (ft3/s) |
| 0.500 | 2 | 11,100 | 10,000 | 12,400 |
| 0.200 | 5 | 17,500 | 15,900 | 19,400 |
| 0.100 | 10 | 21,600 | 19,400 | 24,100 |
| 0.040 | 25 | 26,700 | 23,300 | 30,500 |
| 0.020 | 50 | 30,200 | 25,700 | 35,400 |
| 0.010 | 100 | 33,500 | 27,700 | 40,400 |
| 0.005 | 200 | 36,700 | 29,500 | 45,600 |
| 0.002 | 500 | 40,700 | 31,400 | 52,700 |
| and based on the expected moments algorithm/multiple Grubbs-Beck analysis computed using a historical period length of 132 years (1882–2013) | | | | |
| 0.500 | 2 | 11,200 | 9,660 | 12,700 |
| 0.200 | 5 | 17,600 | 15,500 | 20,200 |
| 0.100 | 10 | 21,900 | 19,100 | 25,400 |
| 0.040 | 25 | 27,000 | 23,400 | 32,300 |
| 0.020 | 50 | 30,800 | 26,200 | 37,600 |
| 0.010 | 100 | 34,300 | 28,700 | 43,300 |
| 0.005 | 200 | 37,800 | 31,000 | 49,500 |
| 0.002 | 500 | 42,200 | 33,700 | 58,300 |
| Kentau statistic | | -0.063 |  |  |
| P-value | | 0.395 |  |  |
| Begin year | | 1918 |  |  |
| End year | | 2013 |  |  |
| Number of peaks | | 84 |  |  |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 06609500 Annual exceedance probability of high discharges, based on 1919–24, 1939–2013 period of record (81 years) | | | | | | |
| Annual exceedance probability | Recur-rence interval (years) | Maximum average discharge (ft3/s) for indicated number of consecutive days | | | | |
| 1 | 3 | 7 | 15 | 30 |
| 0.990 | 1.01 | 728 | 480 | 340 | 235 | 167 |
| 0.950 | 1.05 | 1,380 | 893 | 607 | 411 | 296 |
| 0.900 | 1.11 | 1,910 | 1,230 | 818 | 549 | 396 |
| 0.800 | 1.25 | 2,800 | 1,780 | 1,160 | 773 | 557 |
| 0.500 | 2 | 5,520 | 3,500 | 2,230 | 1,450 | 1,040 |
| 0.200 | 5 | 10,300 | 6,560 | 4,140 | 2,650 | 1,850 |
| 0.100 | 10 | 13,900 | 8,930 | 5,640 | 3,580 | 2,460 |
| 0.040 | 25 | 18,900 | 12,300 | 7,770 | 4,890 | 3,290 |
| 0.020 | 50 | 22,800 | 14,900 | 9,510 | 5,960 | 3,950 |
| 0.010 | 100 | 26,900 | 17,700 | 11,400 | 7,090 | 4,630 |
| 0.005 | 200 | 31,100 | 20,600 | 13,300 | 8,290 | 5,340 |
| 0.002 | 500 | 36,800 | 24,700 | 16,100 | 9,990 | 6,310 |
| Kentau statistic | | 0.185 | 0.222 | 0.244 | 0.255 | 0.271 |
| P-value | | 0.008 | 0.001 | 0.000 | 0.000 | 0.000 |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 06609500 Annual nonexceedance probability of low discharges, based on April 1919 to March 1924, April 1938 to March 2013 period of record (80 years) | | | | | | | | |  |
| Annual nonexceed-ance probability | Recur-rence interval (years) | Minimum average discharge (ft3/s) for indicated number of consecutive days | | | | | | | | |
| 1 | 3 | 7 | 14 | 30 | 60 | 90 | 120 | 183 |
| 0.01 | 100 | 1.5 | 1.6 | 1.9 | 2.2 | 2.9 | 4.7 | 6.5 | 8.7 | 12 |
| 0.02 | 50 | 2.5 | 2.6 | 3.0 | 3.5 | 4.5 | 6.9 | 9.3 | 12 | 17 |
| 0.05 | 20 | 4.8 | 5.0 | 5.6 | 6.5 | 8.2 | 12 | 16 | 20 | 26 |
| 0.10 | 10 | 8.3 | 8.7 | 10 | 11 | 14 | 19 | 24 | 29 | 39 |
| 0.20 | 5 | 15 | 16 | 18 | 20 | 24 | 33 | 40 | 47 | 61 |
| 0.50 | 2 | 44 | 47 | 50 | 55 | 64 | 81 | 95 | 107 | 133 |
| 0.80 | 1.25 | 105 | 112 | 119 | 128 | 147 | 175 | 204 | 221 | 267 |
| 0.90 | 1.11 | 155 | 166 | 177 | 188 | 214 | 250 | 292 | 313 | 370 |
| 0.96 | 1.04 | 225 | 239 | 259 | 272 | 307 | 353 | 413 | 441 | 510 |
| 0.98 | 1.02 | 279 | 297 | 323 | 339 | 379 | 433 | 510 | 543 | 620 |
| 0.99 | 1.01 | 333 | 354 | 389 | 406 | 452 | 513 | 609 | 650 | 733 |
| Kentau statistic | | 0.452 | 0.452 | 0.467 | 0.472 | 0.466 | 0.452 | 0.430 | 0.426 | 0.376 |
| P-value | | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 06609500 Annual nonexceedance probability of seasonal low discharges, based on July 1918 to June 1925, January 1938 to September 2013 period of record (81–83 years) | | | | | | | | | | |
| Annual nonexceed-ance probability | Recur-rence interval (years) | Minimum average discharge (cubic feet per second) for indicated number of consecutive days | | | | | | | | |
| 1 | 7 | 14 | 30 |  | 1 | 7 | 14 | 30 |
|  |  | January-February-March | | | |  | April-May-June | | | |
| 0.01 | 100 | 1.8 | 1.9 | 2.0 | 2.6 |  | 6.1 | 8.4 | 11 | 16 |
| 0.02 | 50 | 2.8 | 3.1 | 3.3 | 4.3 |  | 9.4 | 13 | 16 | 22 |
| 0.05 | 20 | 5.5 | 6.0 | 6.5 | 8.3 |  | 17 | 22 | 27 | 37 |
| 0.10 | 10 | 9.5 | 11 | 12 | 15 |  | 29 | 36 | 43 | 57 |
| 0.20 | 5 | 18 | 20 | 22 | 27 |  | 52 | 61 | 72 | 94 |
| 0.50 | 2 | 52 | 59 | 64 | 79 |  | 135 | 154 | 176 | 227 |
| 0.80 | 1.25 | 129 | 148 | 161 | 193 |  | 300 | 342 | 391 | 501 |
| 0.90 | 1.11 | 195 | 225 | 243 | 287 |  | 427 | 493 | 569 | 731 |
| 0.96 | 1.04 | 291 | 335 | 361 | 419 |  | 596 | 704 | 825 | 1,070 |
| 0.98 | 1.02 | 369 | 424 | 455 | 522 |  | 723 | 869 | 1,030 | 1,340 |
| 0.99 | 1.01 | 449 | 516 | 552 | 626 |  | 847 | 1,040 | 1,250 | 1,640 |
| Kentau statistic | | 0.320 | 0.324 | 0.326 | 0.289 |  | 0.292 | 0.285 | 0.267 | 0.247 |
| P-value | | 0.000 | 0.000 | 0.000 | 0.000 |  | 0.000 | 0.000 | 0.000 | 0.001 |
|  |  | July-August-September | | | |  | October-November-December | | | |
| 0.01 | 100 | 0.00 | 3.8 | 5.5 | 10 |  | 4.0 | 4.3 | 6.0 | 7.7 |
| 0.02 | 50 | 2.7 | 5.8 | 8.0 | 14 |  | 5.7 | 6.3 | 8.4 | 11 |
| 0.05 | 20 | 7.6 | 11 | 14 | 22 |  | 9.5 | 11 | 14 | 17 |
| 0.10 | 10 | 14 | 18 | 22 | 33 |  | 15 | 17 | 21 | 26 |
| 0.20 | 5 | 27 | 31 | 36 | 52 |  | 24 | 28 | 33 | 42 |
| 0.50 | 2 | 75 | 82 | 91 | 117 |  | 59 | 69 | 78 | 96 |
| 0.80 | 1.25 | 172 | 188 | 204 | 246 |  | 132 | 157 | 170 | 201 |
| 0.90 | 1.11 | 250 | 275 | 299 | 353 |  | 193 | 231 | 248 | 286 |
| 0.96 | 1.04 | 355 | 396 | 437 | 507 |  | 282 | 340 | 364 | 405 |
| 0.98 | 1.02 | 435 | 492 | 551 | 635 |  | 355 | 431 | 460 | 501 |
| 0.99 | 1.01 | 514 | 590 | 670 | 771 |  | 432 | 527 | 564 | 602 |
| Kentau statistic | | 0.294 | 0.279 | 0.270 | 0.194 |  | 0.325 | 0.340 | 0.321 | 0.310 |
| P-value | | 0.000 | 0.000 | 0.000 | 0.009 |  | 0.000 | 0.000 | 0.000 | 0.000 |

**Statistics Based on the 1984–2013 Streamflow Period of Record**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 06609500 Monthly and annual flow durations, based on 1984–2013 period of record (30 years) | | | | | | | | | | | | | |  |  |
| Percentage of days discharge equaled or exceeded |  |  |  |  | Discharge (cubic feet per second) | | | | |  |  |  |  | Annual flow durations | |
| Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | June | July | Aug | Sept | Annual | Kentau statistic | P-value |
| 99 | 37 | 42 | 25 | 29 | 43 | 74 | 98 | 69 | 72 | 46 | 27 | 24 | 35 | -0.101 | 0.443 |
| 98 | 39 | 48 | 28 | 34 | 50 | 80 | 106 | 77 | 90 | 67 | 40 | 30 | 43 | -0.094 | 0.475 |
| 95 | 54 | 59 | 43 | 44 | 60 | 102 | 120 | 101 | 126 | 82 | 51 | 41 | 61 | -0.078 | 0.556 |
| 90 | 65 | 71 | 68 | 57 | 70 | 130 | 134 | 199 | 178 | 118 | 74 | 65 | 84 | -0.069 | 0.605 |
| 85 | 83 | 97 | 86 | 71 | 84 | 152 | 153 | 228 | 265 | 172 | 108 | 77 | 109 | -0.071 | 0.592 |
| 80 | 97 | 113 | 100 | 87 | 100 | 173 | 187 | 258 | 315 | 214 | 132 | 89 | 131 | -0.046 | 0.734 |
| 75 | 116 | 137 | 120 | 100 | 130 | 205 | 217 | 299 | 381 | 265 | 161 | 107 | 152 | -0.048 | 0.721 |
| 70 | 145 | 152 | 130 | 110 | 154 | 236 | 258 | 364 | 421 | 311 | 179 | 132 | 172 | -0.055 | 0.681 |
| 65 | 160 | 160 | 132 | 129 | 180 | 280 | 293 | 434 | 474 | 349 | 194 | 152 | 195 | -0.064 | 0.630 |
| 60 | 171 | 170 | 144 | 140 | 208 | 309 | 341 | 489 | 511 | 383 | 218 | 164 | 221 | -0.069 | 0.605 |
| 55 | 191 | 178 | 158 | 150 | 230 | 339 | 379 | 544 | 568 | 423 | 249 | 185 | 259 | -0.067 | 0.617 |
| 50 | 199 | 190 | 170 | 160 | 250 | 367 | 418 | 590 | 632 | 469 | 283 | 208 | 292 | -0.069 | 0.605 |
| 45 | 208 | 202 | 189 | 180 | 275 | 392 | 464 | 650 | 702 | 523 | 314 | 237 | 325 | -0.076 | 0.568 |
| 40 | 236 | 240 | 210 | 200 | 300 | 421 | 524 | 699 | 781 | 583 | 343 | 260 | 367 | -0.067 | 0.617 |
| 35 | 275 | 290 | 250 | 218 | 327 | 474 | 601 | 753 | 865 | 664 | 385 | 282 | 409 | -0.103 | 0.432 |
| 30 | 300 | 316 | 291 | 250 | 360 | 515 | 688 | 838 | 953 | 727 | 439 | 314 | 465 | -0.067 | 0.617 |
| 25 | 337 | 359 | 328 | 271 | 406 | 571 | 774 | 956 | 1,070 | 831 | 499 | 353 | 527 | -0.085 | 0.521 |
| 20 | 388 | 435 | 360 | 300 | 450 | 654 | 871 | 1,090 | 1,270 | 950 | 558 | 394 | 612 | -0.067 | 0.617 |
| 15 | 471 | 474 | 397 | 330 | 536 | 783 | 1,000 | 1,250 | 1,540 | 1,070 | 638 | 443 | 745 | -0.048 | 0.721 |
| 10 | 560 | 501 | 428 | 360 | 666 | 1,150 | 1,190 | 1,480 | 2,110 | 1,230 | 800 | 539 | 957 | -0.053 | 0.695 |
| 5 | 681 | 545 | 469 | 400 | 1,200 | 2,110 | 1,560 | 1,990 | 3,230 | 1,860 | 1,040 | 720 | 1,390 | -0.016 | 0.915 |
| 2 | 990 | 599 | 580 | 478 | 2,300 | 3,120 | 2,430 | 2,800 | 5,410 | 2,830 | 1,510 | 961 | 2,350 | 0.007 | 0.972 |
| 1 | 1,170 | 656 | 775 | 580 | 2,770 | 4,450 | 2,880 | 4,110 | 8,510 | 3,370 | 2,150 | 1,070 | 3,220 | -0.032 | 0.817 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| 06609500 Annual exceedance probability of high discharges, based on 1984–2013 period of record (30 years) | | | | | | |
| Annual exceedance probability | Recur-rence interval (years) | Maximum average discharge (ft3/s) for indicated number of consecutive days | | | | |
| 1 | 3 | 7 | 15 | 30 |
| 0.990 | 1.01 | 438 | 313 | 241 | 205 | 149 |
| 0.950 | 1.05 | 931 | 672 | 485 | 379 | 284 |
| 0.900 | 1.11 | 1,370 | 991 | 695 | 522 | 395 |
| 0.800 | 1.25 | 2,170 | 1,560 | 1,060 | 765 | 581 |
| 0.500 | 2 | 4,990 | 3,500 | 2,300 | 1,560 | 1,170 |
| 0.200 | 5 | 10,900 | 7,320 | 4,780 | 3,080 | 2,230 |
| 0.100 | 10 | 16,200 | 10,500 | 6,860 | 4,360 | 3,060 |
| 0.040 | 25 | 24,100 | 15,100 | 9,970 | 6,260 | 4,240 |
| 0.020 | 50 | 31,100 | 18,900 | 12,600 | 7,880 | 5,180 |
| 0.010 | 100 | 38,700 | 22,900 | 15,500 | 9,660 | 6,180 |
| 0.005 | 200 | 47,200 | 27,200 | 18,600 | 11,600 | 7,220 |
| 0.002 | 500 | 59,700 | 33,300 | 23,200 | 14,500 | 8,680 |
| Kentau statistic | | -0.113 | -0.053 | -0.025 | -0.007 | 0.034 |
| P-value | | 0.392 | 0.695 | 0.858 | 0.972 | 0.803 |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 06609500 Annual nonexceedance probability of low discharges, based on April 1983 to March 2013 period of record (30 years) | | | | | | | | |  |
| Annual nonexceed-ance probability | Recur-rence interval (years) | Minimum average discharge (ft3/s) for indicated number of consecutive days | | | | | | | | |
| 1 | 3 | 7 | 14 | 30 | 60 | 90 | 120 | 183 |
| 0.01 | 100 | 12 | 13 | 14 | 16 | 18 | 24 | 28 | 32 | 35 |
| 0.02 | 50 | 16 | 17 | 19 | 21 | 24 | 31 | 36 | 40 | 44 |
| 0.05 | 20 | 23 | 25 | 28 | 31 | 36 | 45 | 50 | 55 | 62 |
| 0.10 | 10 | 32 | 35 | 39 | 43 | 49 | 60 | 67 | 73 | 82 |
| 0.20 | 5 | 45 | 50 | 56 | 62 | 71 | 85 | 94 | 101 | 115 |
| 0.50 | 2 | 87 | 95 | 106 | 117 | 135 | 154 | 169 | 181 | 207 |
| 0.80 | 1.25 | 156 | 169 | 183 | 200 | 232 | 258 | 287 | 306 | 352 |
| 0.90 | 1.11 | 208 | 221 | 235 | 257 | 297 | 326 | 370 | 394 | 453 |
| 0.96 | 1.04 | 277 | 289 | 300 | 328 | 377 | 411 | 476 | 509 | 582 |
| 0.98 | 1.02 | 331 | 340 | 347 | 378 | 434 | 471 | 556 | 595 | 679 |
| 0.99 | 1.01 | 385 | 390 | 392 | 427 | 489 | 528 | 635 | 682 | 775 |
| Kentau statistic | | -0.195 | -0.166 | -0.140 | -0.140 | -0.136 | -0.122 | -0.126 | -0.113 | -0.085 |
| P-value | | 0.134 | 0.205 | 0.284 | 0.284 | 0.301 | 0.354 | 0.335 | 0.392 | 0.521 |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 06609500 Annual nonexceedance probability of seasonal low discharges, based on October 1983 to September 2013 period of record (30 years) | | | | | | | | | | |
| Annual nonexceed-ance probability | Recur-rence interval (years) | Minimum average discharge (cubic feet per second) for indicated number of consecutive days | | | | | | | | |
| 1 | 7 | 14 | 30 |  | 1 | 7 | 14 | 30 |
|  |  | January-February-March | | | |  | April-May-June | | | |
| 0.01 | 100 | 15 | 19 | 22 | 28 |  | 40 | 43 | 49 | 55 |
| 0.02 | 50 | 19 | 24 | 28 | 35 |  | 51 | 55 | 61 | 70 |
| 0.05 | 20 | 28 | 34 | 39 | 49 |  | 72 | 78 | 86 | 100 |
| 0.10 | 10 | 37 | 46 | 53 | 65 |  | 96 | 105 | 116 | 137 |
| 0.20 | 5 | 53 | 65 | 74 | 89 |  | 135 | 150 | 164 | 198 |
| 0.50 | 2 | 101 | 121 | 136 | 158 |  | 248 | 284 | 315 | 388 |
| 0.80 | 1.25 | 185 | 213 | 234 | 263 |  | 429 | 513 | 585 | 728 |
| 0.90 | 1.11 | 250 | 280 | 304 | 336 |  | 558 | 686 | 800 | 996 |
| 0.96 | 1.04 | 340 | 369 | 396 | 428 |  | 725 | 923 | 1,110 | 1,370 |
| 0.98 | 1.02 | 412 | 438 | 465 | 496 |  | 852 | 1,110 | 1,360 | 1,680 |
| 0.99 | 1.01 | 487 | 507 | 535 | 563 |  | 978 | 1,300 | 1,630 | 2,010 |
| Kentau statistic | | -0.147 | -0.124 | -0.108 | -0.113 |  | -0.094 | -0.113 | -0.094 | -0.080 |
| P-value | | 0.261 | 0.344 | 0.412 | 0.392 |  | 0.475 | 0.392 | 0.475 | 0.544 |
|  |  | July-August-September | | | |  | October-November-December | | | |
| 0.01 | 100 | 11 | 14 | 17 | 20 |  | 15 | 17 | 19 | 25 |
| 0.02 | 50 | 16 | 20 | 23 | 27 |  | 20 | 22 | 25 | 32 |
| 0.05 | 20 | 25 | 31 | 35 | 41 |  | 29 | 34 | 38 | 47 |
| 0.10 | 10 | 39 | 45 | 50 | 58 |  | 40 | 48 | 53 | 64 |
| 0.20 | 5 | 62 | 69 | 77 | 88 |  | 58 | 71 | 78 | 91 |
| 0.50 | 2 | 139 | 149 | 162 | 184 |  | 110 | 136 | 149 | 170 |
| 0.80 | 1.25 | 277 | 295 | 318 | 366 |  | 192 | 235 | 258 | 296 |
| 0.90 | 1.11 | 381 | 407 | 440 | 511 |  | 250 | 301 | 330 | 386 |
| 0.96 | 1.04 | 518 | 561 | 610 | 719 |  | 324 | 381 | 417 | 500 |
| 0.98 | 1.02 | 622 | 681 | 745 | 888 |  | 378 | 437 | 478 | 586 |
| 0.99 | 1.01 | 725 | 805 | 885 | 1,070 |  | 430 | 490 | 536 | 670 |
| Kentau statistic | | -0.099 | -0.094 | -0.103 | -0.122 |  | -0.062 | -0.085 | -0.085 | -0.062 |
| P-value | | 0.454 | 0.475 | 0.432 | 0.354 |  | 0.643 | 0.521 | 0.521 | 0.643 |