

Water-Data Report 2011

**03260015 PLEASANT RUN CREEK AT OAK STREET AT LUDLOW, KY**

Licking Basin  
Licking Subbasin

LOCATION.--Lat 39°05'07", long 84°33'28" referenced to North American Datum of 1927, Kenton County, KY, Hydrologic Unit 05100101, at bridge on Oak Street near Ludlow and 630 feet upstream from the mouth.

DRAINAGE AREA.--6.39 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--July 2007 to current year.

GAGE.--Water-stage recorder with telemetry and crest-stage gage. Datum of gage is 470.362 feet above NGVD of 1929.

COOPERATION.--Northern Kentucky Sanitation District No. 1.

REMARKS.--Records fair except for those estimated, which are poor.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 383 ft<sup>3</sup>/s, September 26, gage height, 5.79 feet; maximum gage height, 12.06 feet, April 23, (backwater from Ohio River).

## 03260015 PLEASANT RUN CREEK AT OAK STREET AT LUDLOW, KY—Continued

**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**  
**DAILY MEAN VALUES**

[e, estimated]

| Day          | Oct   | Nov    | Dec    | Jan   | Feb   | Mar    | Apr     | May   | Jun   | Jul   | Aug   | Sep    |
|--------------|-------|--------|--------|-------|-------|--------|---------|-------|-------|-------|-------|--------|
| 1            | 0.00  | 0.02   | 11     | 29    | 51    | e11    | 5.0     | e22   | 4.8   | 2.1   | 0.57  | 0.10   |
| 2            | 0.00  | 0.01   | 4.5    | 7.1   | 38    | e5.8   | 5.7     | e54   | 4.3   | 1.8   | 0.73  | 0.12   |
| 3            | 0.00  | 0.01   | 2.5    | 4.0   | 8.7   | e2.9   | 3.2     | e103  | 4.2   | 1.6   | 7.1   | 0.14   |
| 4            | 0.00  | 0.01   | 3.4    | 2.9   | 6.4   | e13    | 39      | e40   | 3.9   | 2.8   | 0.74  | 2.7    |
| 5            | 0.00  | 0.01   | 2.2    | 2.3   | 11    | e99    | 16      | 17    | 7.5   | 1.5   | 0.55  | 2.4    |
| 6            | 0.00  | 0.01   | 1.4    | 2.4   | 6.6   | e62    | 7.6     | 13    | 3.1   | 1.1   | 0.77  | 0.54   |
| 7            | 0.00  | 0.01   | 0.94   | 3.4   | 8.5   | e14    | 5.9     | 9.9   | 2.9   | 0.98  | 29    | 12     |
| 8            | 0.00  | 0.01   | 0.66   | 1.9   | 6.6   | e5.1   | 4.9     | 13    | 3.0   | 41    | 16    | 3.8    |
| 9            | 0.00  | 0.01   | 0.55   | 1.0   | 4.3   | e96    | 33      | 6.6   | 2.7   | 3.2   | 5.4   | 1.0    |
| 10           | 0.00  | 0.01   | 0.84   | 1.2   | 3.3   | e42    | 13      | 5.6   | 46    | 1.7   | 1.3   | 0.73   |
| 11           | 0.00  | 0.01   | 3.8    | 1.4   | 3.0   | e13    | e52     | 5.0   | 85    | 1.9   | 0.81  | 0.90   |
| 12           | 0.00  | 0.01   | 13     | 2.0   | 3.0   | e7.3   | e100    | 5.6   | 14    | 1.1   | 0.78  | 1.0    |
| 13           | 0.00  | 0.01   | 3.5    | 1.4   | 3.2   | e3.0   | e11     | 11    | 6.7   | 0.96  | 0.70  | 0.82   |
| 14           | 0.00  | 0.01   | 1.9    | 1.3   | 3.0   | e1.9   | e3.3    | 5.5   | 4.5   | 0.98  | 1.00  | 0.54   |
| 15           | 0.00  | 0.01   | 1.7    | 1.4   | 2.4   | e5.1   | e2.0    | 9.9   | 18    | 0.98  | 0.33  | 5.5    |
| 16           | 0.00  | 15     | 1.9    | 1.4   | 2.5   | e3.0   | e108    | 8.8   | 6.7   | 1.1   | 0.30  | 1.1    |
| 17           | 0.00  | 3.7    | 1.8    | 1.1   | 3.1   | e0.88  | e14     | 6.3   | 4.0   | 1.1   | 0.18  | 0.58   |
| 18           | 0.00  | 0.51   | 1.4    | 8.6   | 3.3   | e17    | e6.1    | 13    | 7.9   | 1.2   | 0.18  | 0.46   |
| 19           | 0.00  | 0.45   | 1.2    | 6.1   | 3.6   | e14    | e111    | 7.1   | 15    | 1.5   | 0.09  | 7.8    |
| 20           | 0.00  | 0.45   | 1.2    | 4.4   | 4.5   | e8.4   | e73     | 4.6   | 64    | 0.67  | 0.09  | 2.1    |
| 21           | 0.00  | 0.30   | 2.5    | 3.7   | 89    | 6.5    | e22     | 3.8   | 68    | 0.77  | 5.8   | 5.0    |
| 22           | 0.00  | 0.29   | 2.3    | 4.9   | 32    | 6.0    | e29     | 9.4   | 30    | 0.95  | 0.65  | 1.3    |
| 23           | 0.00  | 11     | 1.9    | 3.0   | 10    | 10     | e142    | 51    | 49    | 1.1   | 0.13  | 18     |
| 24           | 0.00  | 19     | 1.8    | 2.6   | 31    | 6.8    | e93     | 25    | 9.1   | 10    | 0.10  | 2.3    |
| 25           | 0.00  | 85     | 1.9    | 5.2   | 103   | 4.5    | e77     | 8.3   | 5.0   | 1.6   | 0.17  | 1.5    |
| 26           | 19    | 25     | 1.6    | 3.9   | e16   | 4.0    | e33     | 61    | 38    | 0.59  | 0.30  | 85     |
| 27           | 1.6   | 4.4    | 1.2    | 2.8   | e44   | 4.3    | e119    | 20    | 9.5   | 0.71  | 0.20  | 4.2    |
| 28           | 0.54  | 2.5    | 1.4    | 3.5   | e64   | 3.5    | e47     | 11    | 5.0   | 0.90  | 0.12  | 1.1    |
| 29           | 0.14  | 1.7    | 1.2    | 3.9   | ---   | 3.2    | e22     | 8.2   | 3.1   | 0.84  | 0.05  | 2.5    |
| 30           | 0.06  | 84     | 20     | 4.1   | ---   | 3.9    | e16     | 6.6   | 2.4   | 10    | 0.04  | 2.4    |
| 31           | 0.03  | ---    | 8.3    | 3.5   | ---   | 3.4    | ---     | 5.7   | ---   | 0.96  | 0.04  | ---    |
| <b>Total</b> | 21.37 | 253.46 | 103.49 | 125.4 | 565.0 | 480.48 | 1,213.7 | 570.9 | 527.3 | 97.69 | 74.22 | 167.63 |
| <b>Mean</b>  | 0.69  | 8.45   | 3.34   | 4.05  | 20.2  | 15.5   | 40.5    | 18.4  | 17.6  | 3.15  | 2.39  | 5.59   |
| <b>Max</b>   | 19    | 85     | 20     | 29    | 103   | 99     | 142     | 103   | 85    | 41    | 29    | 85     |
| <b>Min</b>   | 0.00  | 0.01   | 0.55   | 1.0   | 2.4   | 0.88   | 2.0     | 3.8   | 2.4   | 0.59  | 0.04  | 0.10   |

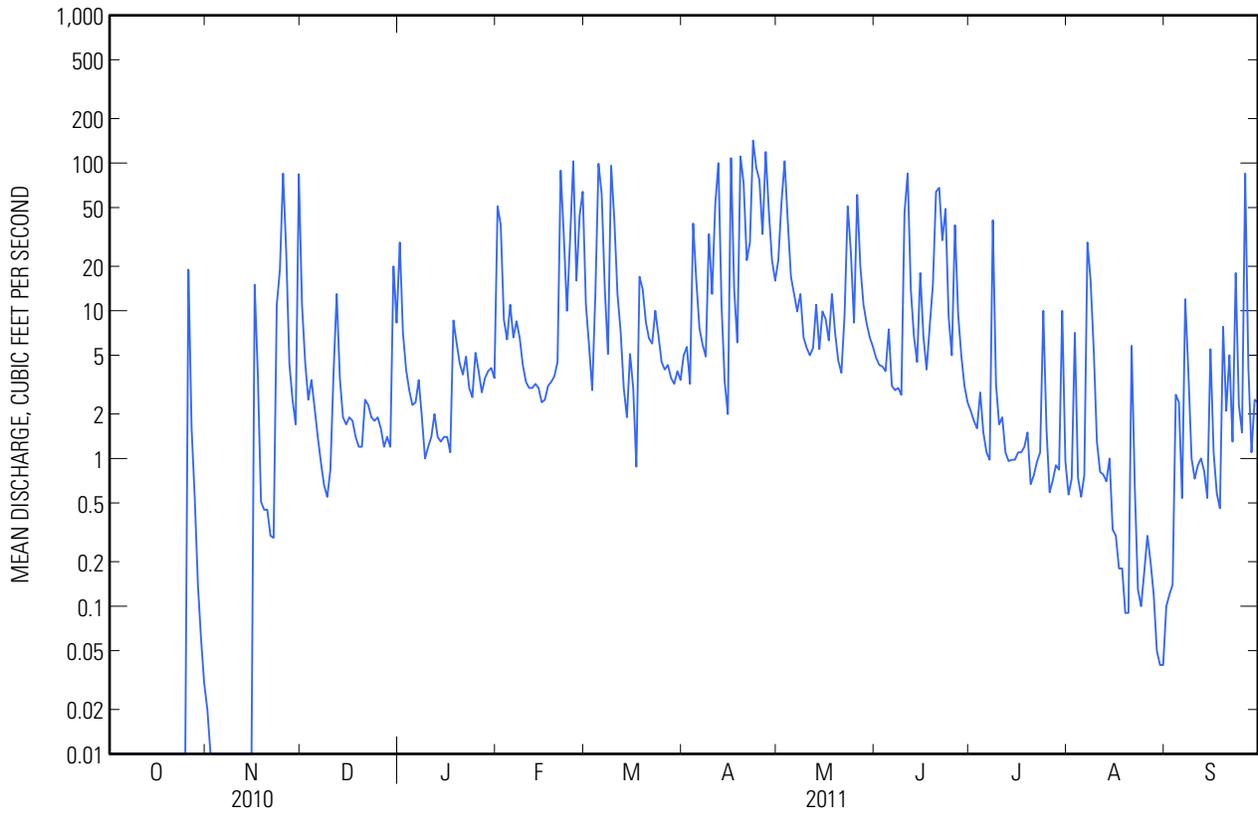
**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2007 - 2011, BY WATER YEAR (WY)**

|             | Oct    | Nov    | Dec    | Jan    | Feb    | Mar    | Apr    | May    | Jun    | Jul    | Aug    | Sep    |
|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| <b>Mean</b> | 4.37   | 3.80   | 6.90   | 4.41   | 13.1   | 15.0   | 15.9   | 12.0   | 10.1   | 3.82   | 1.57   | 2.66   |
| <b>Max</b>  | 9.29   | 8.45   | 11.3   | 5.87   | 20.2   | 26.7   | 40.5   | 18.4   | 17.6   | 5.78   | 3.09   | 5.59   |
| <b>(WY)</b> | (2010) | (2011) | (2008) | (2010) | (2011) | (2008) | (2011) | (2011) | (2011) | (2009) | (2009) | (2011) |
| <b>Min</b>  | 0.69   | 1.30   | 3.34   | 2.87   | 6.99   | 3.01   | 4.61   | 4.59   | 6.30   | 2.15   | 0.20   | 0.48   |
| <b>(WY)</b> | (2011) | (2009) | (2011) | (2009) | (2010) | (2009) | (2010) | (2009) | (2009) | (2008) | (2007) | (2010) |

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SUMMARY STATISTICS

|                                 | Calendar Year 2010 | Water Year 2011 | Water Years 2007 - 2011 |
|---------------------------------|--------------------|-----------------|-------------------------|
| <b>Annual total</b>             | 2,006.55           | 4,200.64        |                         |
| <b>Annual mean</b>              | 5.50               | 11.5            | 7.83                    |
| <b>Highest annual mean</b>      |                    |                 | 11.5 2011               |
| <b>Lowest annual mean</b>       |                    |                 | 4.59 2009               |
| <b>Highest daily mean</b>       | 85 Nov 25          | 142 Apr 23      | 155 Mar 4, 2008         |
| <b>Lowest daily mean</b>        | 0.00 Oct 1         | 0.00 Oct 1      | 0.00 Aug 14, 2007       |
| <b>Annual seven-day minimum</b> | 0.00 Oct 1         | 0.00 Oct 1      | 0.00 Sep 13, 2007       |
| <b>Maximum peak flow</b>        |                    | 383 Sep 26      | 427 Mar 9, 2008         |
| <b>Maximum peak stage</b>       |                    | 12.06 Apr 23    | 9.10 Mar 20, 2008       |
| <b>Instantaneous low flow</b>   |                    | 0.00 Oct 26     |                         |
| <b>10 percent exceeds</b>       | 14                 | 35              | 18                      |
| <b>50 percent exceeds</b>       | 1.8                | 3.1             | 2.1                     |
| <b>90 percent exceeds</b>       | 0.01               | 0.01            | 0.30                    |



**03260015 PLEASANT RUN CREEK AT OAK STREET AT LUDLOW, KY—Continued**

**WATER-QUALITY RECORDS**

PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: October 2007 to April 28, 2010. November 19, 2010 to current year.

pH: October 2007 to April 28, 2010. November 19, 2010 to current year.

WATER TEMPERATURE: October 2007 to April 28, 2010. November 19, 2010 to current year.

DISSOLVED OXYGEN: October 2007 to April 28, 2010. November 19, 2010 to current year.

TURBIDITY: October 2007 to April 28, 2010. November 19, 2010 to current year.

INSTRUMENTATION.--5 parameter Data Sonde 5X Water-Quality monitor with telemetry.

REMARKS.--

SPECIFIC CONDUCTANCE: Records rated fair. There was no data from October 1 to November 19, 2011. Deleted November 26 to December 3, March 21-31, May 6-17, May 26 to June 1, and June 27 to July 19, 2011.

pH: Records rated good. There was no data from October 1 to November 19, 2011. No missing or deleted data.

WATER TEMPERATURES: Records rated good. There was no data from October 1 to November 19, 2011. No missing or deleted data.

DISSOLVED OXYGEN: Records rated fair. There was no data from October 1 to November 19, 2011. Deleted February 27 to March 19, April 4 to May 17, June 12-18, June 23 to July 19, and August 21 to September 1, 2011.

TURBIDITY: Records rated poor. There was no data from October 1 to November 19. Deleted and/or missing data periods are April 4-14, and May 26 to June 1, 2011. The maximum computed unit value exceeded the range of the sensor (3000 FNU) and was labeled a >3000 FNU in the Daily Values Table. Numerous minimums occurred throughout the year and were labeled as <2.0 FNU in the Daily Values Table.

EXTREMES FOR PERIOD OF RECORD.--

SPECIFIC CONDUCTANCE: Maximum recorded, 11,200 microsiemens, January 22, 2011; minimum recorded, 48 microsiemens, April 16, 2011.

pH: Maximum recorded, 8.9 units, March 8-9, 2010; minimum recorded, 4.9 units, February 12, 2011.

WATER TEMPERATURE: Maximum recorded, 28.5°C, July 30, 2011; minimum recorded, -0.5°C, February 22, 2008, January 28, 31, and February 1, 2009.

DISSOLVED OXYGEN: Maximum recorded, 23.1 mg/L, March 9, 2010; minimum recorded, 0.0 mg/L, March 12, 2008.

TURBIDITY: Maximum recorded, >3,000 FNU, March 18-20, 25-28, 2008, May 14, July 25, 29, and September 26, 2009, March 12, 2010, February 21 and September 21, 2011; minimum recorded, <2.0 FNU, many days in the 2007, 2008, 2009, 2010 and 2011 water years.

EXTREMES FOR CURRENT YEAR.--

SPECIFIC CONDUCTANCE: Maximum recorded, 11,200 microsiemens, January 22, 2011; minimum recorded, 48 microsiemens, April 16, 2011.

pH: Maximum recorded, 8.8 units, March 23, 2011; minimum recorded, 4.9 units, February 12, 2011.

WATER TEMPERATURE: Maximum recorded, 28.5°C, July 30, 2011; minimum recorded, -0.2°C, January 20-23, 25, 29, February 1, 2011.

DISSOLVED OXYGEN: Maximum recorded, 20.9 mg/L, February 15, 19, 2011; minimum recorded, 0.1 mg/L, September 2, 2011.

TURBIDITY: Maximum recorded, >3,000 FNU, February 21, and September 21, 2011; minimum recorded, <2.0 FNU, many days throughout the 2011 water year.

## 03260015 PLEASANT RUN CREEK AT OAK STREET AT LUDLOW, KY—Continued

**SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS  
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

| Day          | Max     | Min | Mean | Max      | Min | Mean | Max      | Min   | Mean  | Max     | Min   | Mean   |
|--------------|---------|-----|------|----------|-----|------|----------|-------|-------|---------|-------|--------|
|              | October |     |      | November |     |      | December |       |       | January |       |        |
| 1            | ---     | --- | ---  | ---      | --- | ---  | ---      | ---   | ---   | 2,750   | 828   | 1,480  |
| 2            | ---     | --- | ---  | ---      | --- | ---  | ---      | ---   | ---   | 1,560   | 1,350 | 1,500  |
| 3            | ---     | --- | ---  | ---      | --- | ---  | ---      | ---   | ---   | 1,650   | 1,560 | 1,620  |
| 4            | ---     | --- | ---  | ---      | --- | ---  | 3,950    | 827   | 1,170 | 1,690   | 1,590 | 1,660  |
| 5            | ---     | --- | ---  | ---      | --- | ---  | 3,930    | 1,910 | 2,590 | 1,760   | 1,670 | 1,720  |
| 6            | ---     | --- | ---  | ---      | --- | ---  | 2,180    | 1,940 | 2,090 | 1,740   | 1,340 | 1,680  |
| 7            | ---     | --- | ---  | ---      | --- | ---  | 2,050    | 1,860 | 1,950 | 1,340   | 1,260 | 1,290  |
| 8            | ---     | --- | ---  | ---      | --- | ---  | 1,890    | 1,820 | 1,850 | 1,790   | 1,250 | 1,630  |
| 9            | ---     | --- | ---  | ---      | --- | ---  | 1,820    | 1,700 | 1,790 | 2,290   | 1,790 | 2,110  |
| 10           | ---     | --- | ---  | ---      | --- | ---  | 1,700    | 1,390 | 1,570 | 2,320   | 2,190 | 2,260  |
| 11           | ---     | --- | ---  | ---      | --- | ---  | 3,720    | 1,210 | 1,520 | 2,420   | 2,320 | 2,380  |
| 12           | ---     | --- | ---  | ---      | --- | ---  | 2,360    | 896   | 1,440 | 9,160   | 2,320 | 5,210  |
| 13           | ---     | --- | ---  | ---      | --- | ---  | 3,820    | 2,180 | 2,570 | 10,300  | 9,080 | 9,560  |
| 14           | ---     | --- | ---  | ---      | --- | ---  | 6,540    | 3,820 | 5,690 | 10,400  | 9,390 | 10,100 |
| 15           | ---     | --- | ---  | ---      | --- | ---  | 6,420    | 4,650 | 5,510 | 9,590   | 7,480 | 8,810  |
| 16           | ---     | --- | ---  | ---      | --- | ---  | 4,650    | 3,080 | 3,770 | 7,850   | 7,050 | 7,470  |
| 17           | ---     | --- | ---  | ---      | --- | ---  | 5,000    | 2,940 | 3,710 | 7,080   | 6,060 | 6,570  |
| 18           | ---     | --- | ---  | ---      | --- | ---  | 6,420    | 5,000 | 5,940 | 7,200   | 3,140 | 5,110  |
| 19           | ---     | --- | ---  | ---      | --- | ---  | 6,450    | 5,850 | 6,160 | 3,670   | 3,140 | 3,400  |
| 20           | ---     | --- | ---  | 859      | 820 | 840  | 5,940    | 4,480 | 5,060 | 10,400  | 3,210 | 4,330  |
| 21           | ---     | --- | ---  | 888      | 854 | 873  | 8,860    | 4,270 | 5,080 | 10,500  | 9,080 | 9,970  |
| 22           | ---     | --- | ---  | 925      | 884 | 906  | 10,800   | 7,660 | 9,370 | 11,200  | 9,580 | 10,400 |
| 23           | ---     | --- | ---  | 932      | 156 | 367  | 7,660    | 5,640 | 6,670 | 9,740   | 7,590 | 8,840  |
| 24           | ---     | --- | ---  | 538      | 189 | 355  | 5,650    | 4,720 | 5,160 | 7,680   | 6,510 | 7,240  |
| 25           | ---     | --- | ---  | 347      | 146 | 224  | 4,720    | 4,080 | 4,410 | 8,610   | 6,440 | 7,440  |
| 26           | ---     | --- | ---  | ---      | --- | ---  | 4,180    | 3,960 | 4,070 | 7,940   | 5,650 | 6,470  |
| 27           | ---     | --- | ---  | ---      | --- | ---  | 4,270    | 4,000 | 4,150 | 5,660   | 5,110 | 5,430  |
| 28           | ---     | --- | ---  | ---      | --- | ---  | 4,190    | 3,720 | 4,050 | 8,070   | 5,030 | 5,760  |
| 29           | ---     | --- | ---  | ---      | --- | ---  | 3,720    | 3,250 | 3,440 | 10,100  | 7,150 | 8,970  |
| 30           | ---     | --- | ---  | ---      | --- | ---  | 4,450    | 1,620 | 2,550 | 7,700   | 4,360 | 5,360  |
| 31           | ---     | --- | ---  | ---      | --- | ---  | 2,060    | 1,730 | 1,920 | 4,850   | 3,870 | 4,470  |
| <b>Month</b> | ---     | --- | ---  | ---      | --- | ---  | ---      | ---   | ---   | 11,200  | 828   | 5,170  |

## 03260015 PLEASANT RUN CREEK AT OAK STREET AT LUDLOW, KY—Continued

SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS  
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

| Day   | Max      | Min   | Mean  | Max   | Min | Mean | Max   | Min   | Mean  | Max | Min | Mean |
|-------|----------|-------|-------|-------|-----|------|-------|-------|-------|-----|-----|------|
|       | February |       |       | March |     |      | April |       |       | May |     |      |
| 1     | 7,580    | 756   | 3,390 | 181   | 158 | 170  | 1,390 | 1,010 | 1,100 | 158 | 149 | 154  |
| 2     | 1,740    | 913   | 1,400 | 190   | 179 | 183  | 1,390 | 777   | 871   | 167 | 82  | 121  |
| 3     | 1,960    | 1,410 | 1,820 | 190   | 186 | 188  | 1,040 | 910   | 989   | 108 | 78  | 92   |
| 4     | 1,980    | 1,760 | 1,900 | 212   | 142 | 189  | 1,100 | 242   | 792   | 155 | 108 | 129  |
| 5     | 7,080    | 1,760 | 3,210 | 142   | 90  | 116  | 432   | 328   | 404   | 207 | 155 | 183  |
| 6     | 3,120    | 2,280 | 2,570 | 151   | 127 | 139  | 467   | 432   | 453   | --- | --- | ---  |
| 7     | 2,570    | 2,140 | 2,280 | 164   | 151 | 158  | 486   | 450   | 471   | --- | --- | ---  |
| 8     | 2,460    | 2,040 | 2,150 | 171   | 160 | 165  | 492   | 461   | 476   | --- | --- | ---  |
| 9     | 2,380    | 2,120 | 2,260 | 182   | 94  | 128  | 481   | 204   | 385   | --- | --- | ---  |
| 10    | 2,270    | 2,040 | 2,130 | 132   | 101 | 119  | 424   | 314   | 387   | --- | --- | ---  |
| 11    | 2,170    | 1,870 | 2,030 | 146   | 132 | 141  | 443   | 192   | 319   | --- | --- | ---  |
| 12    | 1,940    | 1,700 | 1,840 | 154   | 146 | 150  | 204   | 69    | 94    | --- | --- | ---  |
| 13    | 1,790    | 1,620 | 1,730 | 162   | 153 | 156  | 106   | 94    | 99    | --- | --- | ---  |
| 14    | 1,740    | 1,620 | 1,690 | 166   | 160 | 163  | 121   | 106   | 113   | --- | --- | ---  |
| 15    | 1,810    | 1,730 | 1,760 | 171   | 166 | 168  | 139   | 121   | 130   | --- | --- | ---  |
| 16    | 1,790    | 1,740 | 1,770 | 182   | 171 | 179  | 146   | 48    | 102   | --- | --- | ---  |
| 17    | 1,770    | 1,690 | 1,740 | 180   | 172 | 175  | 127   | 114   | 120   | --- | --- | ---  |
| 18    | 1,780    | 1,730 | 1,750 | 189   | 156 | 180  | 151   | 127   | 137   | 939 | 542 | 688  |
| 19    | 1,760    | 1,720 | 1,740 | 176   | 156 | 165  | 156   | 70    | 100   | 818 | 715 | 777  |
| 20    | 2,130    | 1,690 | 1,760 | 263   | 172 | 214  | 105   | 90    | 93    | 885 | 818 | 854  |
| 21    | 3,490    | 383   | 1,710 | ---   | --- | ---  | 108   | 97    | 101   | 908 | 842 | 881  |
| 22    | 1,190    | 754   | 1,010 | ---   | --- | ---  | 125   | 108   | 115   | 926 | 398 | 823  |
| 23    | 1,250    | 1,180 | 1,210 | ---   | --- | ---  | 130   | 82    | 114   | 574 | 152 | 385  |
| 24    | 1,630    | 65    | 1,290 | ---   | --- | ---  | 102   | 90    | 96    | 461 | 231 | 371  |
| 25    | 174      | 65    | 146   | ---   | --- | ---  | 115   | 102   | 109   | 519 | 417 | 469  |
| 26    | 200      | 174   | 190   | ---   | --- | ---  | 126   | 114   | 120   | --- | --- | ---  |
| 27    | 227      | 93    | 191   | ---   | --- | ---  | 136   | 126   | 132   | --- | --- | ---  |
| 28    | 169      | 111   | 141   | ---   | --- | ---  | 141   | 136   | 138   | --- | --- | ---  |
| 29    | ---      | ---   | ---   | ---   | --- | ---  | 144   | 138   | 141   | --- | --- | ---  |
| 30    | ---      | ---   | ---   | ---   | --- | ---  | 149   | 144   | 146   | --- | --- | ---  |
| 31    | ---      | ---   | ---   | ---   | --- | ---  | ---   | ---   | ---   | --- | --- | ---  |
| Month | 7,580    | 65    | 1,670 | ---   | --- | ---  | 1,390 | 48    | 295   | --- | --- | ---  |

## 03260015 PLEASANT RUN CREEK AT OAK STREET AT LUDLOW, KY—Continued

**SPECIFIC CONDUCTANCE, WATER, UNFILTERED, MICROSIEMENS PER CENTIMETER AT 25 DEGREES CELSIUS  
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

| Day   | Max  | Min | Mean | Max   | Min | Mean | Max    | Min | Mean | Max       | Min | Mean  |
|-------|------|-----|------|-------|-----|------|--------|-----|------|-----------|-----|-------|
|       | June |     |      | July  |     |      | August |     |      | September |     |       |
| 1     | ---  | --- | ---  | ---   | --- | ---  | 697    | 633 | 663  | 776       | 752 | 763   |
| 2     | 918  | 889 | 904  | ---   | --- | ---  | 714    | 695 | 703  | 793       | 757 | 768   |
| 3     | 920  | 884 | 904  | ---   | --- | ---  | 742    | 295 | 502  | 781       | 761 | 769   |
| 4     | 923  | 857 | 902  | ---   | --- | ---  | 528    | 415 | 490  | 1,000     | 574 | 796   |
| 5     | 886  | 646 | 721  | ---   | --- | ---  | 589    | 528 | 552  | 698       | 630 | 653   |
| 6     | 838  | 772 | 811  | ---   | --- | ---  | 637    | 588 | 605  | 671       | 662 | 667   |
| 7     | 890  | 824 | 859  | ---   | --- | ---  | 652    | 115 | 410  | 770       | 304 | 536   |
| 8     | 938  | 872 | 911  | ---   | --- | ---  | 588    | 159 | 507  | 859       | 330 | 468   |
| 9     | 948  | 910 | 933  | ---   | --- | ---  | 564    | 214 | 400  | 1,800     | 724 | 1,340 |
| 10    | 964  | 80  | 714  | ---   | --- | ---  | 680    | 548 | 615  | 1,140     | 715 | 849   |
| 11    | 142  | 62  | 113  | ---   | --- | ---  | 723    | 659 | 697  | 1,070     | 718 | 954   |
| 12    | 158  | 142 | 152  | ---   | --- | ---  | 762    | 719 | 740  | 933       | 760 | 813   |
| 13    | 176  | 157 | 166  | ---   | --- | ---  | 799    | 761 | 777  | 831       | 689 | 749   |
| 14    | 190  | 176 | 184  | ---   | --- | ---  | 942    | 778 | 862  | 893       | 733 | 799   |
| 15    | 197  | 101 | 158  | ---   | --- | ---  | 964    | 935 | 949  | 893       | 391 | 485   |
| 16    | 170  | 123 | 150  | ---   | --- | ---  | 968    | 959 | 964  | 523       | 468 | 501   |
| 17    | 192  | 170 | 182  | ---   | --- | ---  | 968    | 944 | 962  | 552       | 519 | 535   |
| 18    | 219  | 173 | 194  | ---   | --- | ---  | 957    | 939 | 950  | 570       | 552 | 562   |
| 19    | 180  | 101 | 150  | ---   | --- | ---  | 950    | 939 | 945  | 762       | 361 | 548   |
| 20    | 153  | 64  | 120  | 958   | 801 | 935  | 943    | 934 | 937  | 485       | 370 | 430   |
| 21    | 193  | 71  | 153  | 983   | 943 | 963  | 942    | 314 | 805  | 687       | 421 | 480   |
| 22    | 192  | 108 | 167  | 996   | 962 | 979  | 502    | 347 | 447  | 507       | 431 | 476   |
| 23    | 162  | 100 | 132  | 1,020 | 983 | 999  | 559    | 502 | 526  | 636       | 254 | 398   |
| 24    | 222  | 162 | 193  | 1,030 | 242 | 827  | 609    | 558 | 583  | 537       | 424 | 489   |
| 25    | 270  | 221 | 245  | 460   | 284 | 386  | 661    | 608 | 633  | 661       | 537 | 595   |
| 26    | 285  | 186 | 235  | 681   | 315 | 553  | 700    | 661 | 681  | 653       | 97  | 296   |
| 27    | ---  | --- | ---  | 740   | 666 | 699  | 725    | 697 | 713  | 438       | 336 | 396   |
| 28    | ---  | --- | ---  | 766   | 723 | 739  | 737    | 722 | 726  | 482       | 438 | 461   |
| 29    | ---  | --- | ---  | 789   | 762 | 775  | 739    | 728 | 731  | 614       | 482 | 518   |
| 30    | ---  | --- | ---  | 807   | 208 | 452  | 753    | 734 | 738  | 636       | 387 | 426   |
| 31    | ---  | --- | ---  | 636   | 504 | 576  | 756    | 737 | 744  | ---       | --- | ---   |
| Month | ---  | --- | ---  | ---   | --- | ---  | 968    | 115 | 695  | 1,800     | 97  | 617   |

## 03260015 PLEASANT RUN CREEK AT OAK STREET AT LUDLOW, KY—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS  
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

| Day        | Max     | Min | Median | Max      | Min | Median | Max      | Min | Median | Max     | Min | Median |
|------------|---------|-----|--------|----------|-----|--------|----------|-----|--------|---------|-----|--------|
|            | October |     |        | November |     |        | December |     |        | January |     |        |
| 1          | ---     | --- | ---    | ---      | --- | ---    | 7.7      | 7.6 | 7.6    | 8.4     | 8.2 | 8.3    |
| 2          | ---     | --- | ---    | ---      | --- | ---    | 7.7      | 7.5 | 7.6    | 8.3     | 7.9 | 8.2    |
| 3          | ---     | --- | ---    | ---      | --- | ---    | 7.8      | 7.3 | 7.7    | 8.0     | 6.6 | 7.9    |
| 4          | ---     | --- | ---    | ---      | --- | ---    | 7.9      | 7.6 | 7.7    | 8.1     | 7.9 | 7.9    |
| 5          | ---     | --- | ---    | ---      | --- | ---    | 8.0      | 7.7 | 7.8    | 8.0     | 7.8 | 7.9    |
| 6          | ---     | --- | ---    | ---      | --- | ---    | 7.9      | 7.7 | 7.8    | 8.0     | 5.8 | 7.9    |
| 7          | ---     | --- | ---    | ---      | --- | ---    | 8.0      | 7.3 | 7.9    | 8.0     | 7.8 | 7.9    |
| 8          | ---     | --- | ---    | ---      | --- | ---    | 8.0      | 7.0 | 7.8    | 7.9     | 6.2 | 7.8    |
| 9          | ---     | --- | ---    | ---      | --- | ---    | 8.1      | 7.9 | 8.0    | 8.1     | 6.0 | 7.6    |
| 10         | ---     | --- | ---    | ---      | --- | ---    | 8.1      | 7.9 | 8.0    | 7.9     | 5.9 | 6.6    |
| 11         | ---     | --- | ---    | ---      | --- | ---    | 8.2      | 7.4 | 8.0    | 7.8     | 5.7 | 7.5    |
| 12         | ---     | --- | ---    | ---      | --- | ---    | 8.3      | 7.9 | 8.1    | 7.8     | 6.8 | 7.7    |
| 13         | ---     | --- | ---    | ---      | --- | ---    | 7.9      | 7.8 | 7.9    | 7.8     | 6.7 | 7.3    |
| 14         | ---     | --- | ---    | ---      | --- | ---    | 7.9      | 6.9 | 7.8    | 7.7     | 6.3 | 6.9    |
| 15         | ---     | --- | ---    | ---      | --- | ---    | 7.8      | 7.0 | 7.6    | 7.4     | 6.5 | 7.2    |
| 16         | ---     | --- | ---    | ---      | --- | ---    | 7.8      | 7.7 | 7.7    | 8.0     | 6.0 | 6.5    |
| 17         | ---     | --- | ---    | ---      | --- | ---    | 7.8      | 7.6 | 7.8    | 8.1     | 6.0 | 7.7    |
| 18         | ---     | --- | ---    | ---      | --- | ---    | 7.6      | 7.5 | 7.6    | 8.5     | 7.9 | 8.3    |
| 19         | ---     | --- | ---    | ---      | --- | ---    | 7.6      | 6.6 | 7.6    | 8.4     | 8.0 | 8.3    |
| 20         | ---     | --- | ---    | 7.5      | 7.3 | 7.4    | 7.6      | 7.5 | 7.6    | 8.6     | 8.1 | 8.4    |
| 21         | ---     | --- | ---    | 7.4      | 7.4 | 7.4    | 7.7      | 7.6 | 7.6    | 8.3     | 7.8 | 8.0    |
| 22         | ---     | --- | ---    | 7.5      | 7.4 | 7.4    | 7.7      | 7.6 | 7.6    | 8.2     | 7.6 | 8.0    |
| 23         | ---     | --- | ---    | 7.9      | 7.4 | 7.7    | 7.7      | 7.5 | 7.6    | 8.3     | 8.1 | 8.1    |
| 24         | ---     | --- | ---    | 7.9      | 7.3 | 7.6    | 7.9      | 7.6 | 7.7    | 8.3     | 7.6 | 8.0    |
| 25         | ---     | --- | ---    | 7.9      | 7.6 | 7.7    | 7.8      | 7.7 | 7.8    | 8.4     | 8.0 | 8.2    |
| 26         | ---     | --- | ---    | 7.6      | 7.3 | 7.4    | 7.8      | 6.9 | 7.7    | 8.4     | 8.0 | 8.2    |
| 27         | ---     | --- | ---    | 7.3      | 7.3 | 7.3    | 7.6      | 6.0 | 7.1    | 8.5     | 8.1 | 8.2    |
| 28         | ---     | --- | ---    | 7.3      | 7.1 | 7.2    | 7.7      | 5.8 | 7.4    | 8.5     | 8.2 | 8.3    |
| 29         | ---     | --- | ---    | 7.5      | 7.1 | 7.3    | 7.8      | 7.4 | 7.6    | 8.6     | 8.0 | 8.2    |
| 30         | ---     | --- | ---    | 7.9      | 7.5 | 7.8    | 8.3      | 7.5 | 8.0    | 8.7     | 8.2 | 8.4    |
| 31         | ---     | --- | ---    | ---      | --- | ---    | 8.4      | 8.2 | 8.2    | 8.6     | 8.1 | 8.3    |
| <b>Max</b> | ---     | --- | ---    | ---      | --- | ---    | 8.4      | 8.2 | 8.2    | 8.7     | 8.2 | 8.4    |
| <b>Min</b> | ---     | --- | ---    | ---      | --- | ---    | 7.6      | 5.8 | 7.1    | 7.4     | 5.7 | 6.5    |

## 03260015 PLEASANT RUN CREEK AT OAK STREET AT LUDLOW, KY—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS  
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

| Day        | Max      | Min | Median | Max   | Min | Median | Max   | Min | Median | Max | Min | Median |
|------------|----------|-----|--------|-------|-----|--------|-------|-----|--------|-----|-----|--------|
|            | February |     |        | March |     |        | April |     |        | May |     |        |
| 1          | 8.6      | 8.2 | 8.4    | 7.9   | 7.6 | 7.7    | 8.6   | 6.2 | 6.7    | 7.9 | 7.8 | 7.9    |
| 2          | 8.6      | 8.3 | 8.5    | 7.9   | 7.8 | 7.9    | 8.5   | 8.0 | 8.2    | 8.0 | 7.7 | 7.9    |
| 3          | 8.5      | 7.3 | 8.2    | 7.9   | 7.8 | 7.9    | 8.7   | 6.8 | 8.0    | 8.1 | 7.7 | 7.9    |
| 4          | 7.7      | 7.3 | 7.5    | 8.1   | 7.9 | 8.0    | 8.6   | 8.2 | 8.3    | 8.0 | 7.8 | 7.8    |
| 5          | 7.8      | 7.4 | 7.6    | 8.0   | 7.8 | 7.9    | 8.6   | 8.3 | 8.4    | 8.2 | 8.0 | 8.1    |
| 6          | 8.0      | 6.9 | 7.6    | 8.0   | 7.9 | 7.9    | 8.7   | 8.2 | 8.4    | 8.1 | 8.0 | 8.1    |
| 7          | 7.8      | 7.0 | 7.6    | 8.0   | 7.9 | 8.0    | 8.5   | 8.2 | 8.4    | 8.2 | 8.0 | 8.1    |
| 8          | 8.2      | 7.5 | 7.8    | 8.1   | 7.9 | 7.9    | 8.4   | 7.8 | 8.2    | 8.4 | 8.0 | 8.2    |
| 9          | 7.5      | 5.6 | 5.8    | 8.1   | 6.8 | 8.0    | 8.4   | 8.1 | 8.1    | 8.5 | 8.1 | 8.2    |
| 10         | 7.8      | 5.3 | 6.3    | 8.0   | 7.9 | 8.0    | 8.3   | 8.2 | 8.2    | 8.5 | 8.0 | 8.1    |
| 11         | 7.8      | 5.4 | 7.1    | 8.0   | 8.0 | 8.0    | 8.5   | 8.1 | 8.2    | 8.2 | 7.9 | 8.0    |
| 12         | 7.6      | 4.9 | 5.1    | 8.0   | 7.6 | 7.9    | 8.7   | 8.4 | 8.5    | 8.2 | 7.9 | 7.9    |
| 13         | 8.1      | 7.5 | 7.6    | 8.0   | 7.9 | 8.0    | 8.4   | 8.2 | 8.3    | 8.3 | 7.8 | 8.0    |
| 14         | ---      | --- | ---    | 8.0   | 7.9 | 8.0    | 8.4   | 8.1 | 8.2    | 8.0 | 7.8 | 7.9    |
| 15         | 8.2      | 7.6 | 7.9    | 8.0   | 8.0 | 8.0    | 8.4   | 8.0 | 8.2    | 8.2 | 7.8 | 7.9    |
| 16         | 8.4      | 6.7 | 7.8    | 8.0   | 8.0 | 8.0    | 8.5   | 7.8 | 8.0    | 8.1 | 7.9 | 8.0    |
| 17         | 8.5      | 7.8 | 8.1    | 8.0   | 7.8 | 8.0    | 7.8   | 7.7 | 7.8    | 8.1 | 7.8 | 8.0    |
| 18         | 8.5      | 7.9 | 8.2    | 8.1   | 7.8 | 8.0    | 8.0   | 7.7 | 7.9    | 8.2 | 7.8 | 7.9    |
| 19         | 8.3      | 7.8 | 8.1    | 8.1   | 7.9 | 7.9    | 8.4   | 7.8 | 8.1    | 8.4 | 7.7 | 7.8    |
| 20         | 8.3      | 7.7 | 8.0    | 8.7   | 8.0 | 8.3    | 8.4   | 8.0 | 8.1    | 8.3 | 7.8 | 8.0    |
| 21         | 8.2      | 7.7 | 7.9    | 8.6   | 8.3 | 8.3    | 8.1   | 8.0 | 8.0    | 8.2 | 7.7 | 7.9    |
| 22         | 8.0      | 7.7 | 7.8    | 8.7   | 8.2 | 8.4    | 8.3   | 7.9 | 8.0    | 8.1 | 7.6 | 7.7    |
| 23         | 8.2      | 7.9 | 8.0    | 8.8   | 8.3 | 8.4    | 8.3   | 8.0 | 8.2    | 8.0 | 7.6 | 7.9    |
| 24         | 8.3      | 6.9 | 8.1    | 8.6   | 8.4 | 8.4    | 8.3   | 8.0 | 8.1    | 8.2 | 7.9 | 8.1    |
| 25         | 8.1      | 7.8 | 7.9    | 8.5   | 8.3 | 8.4    | 8.1   | 8.0 | 8.0    | 8.2 | 8.0 | 8.0    |
| 26         | 7.8      | 7.7 | 7.7    | 8.4   | 8.2 | 8.3    | 8.1   | 7.9 | 8.0    | 8.2 | 7.8 | 8.0    |
| 27         | 8.2      | 7.6 | 7.6    | 8.4   | 8.2 | 8.3    | 8.1   | 7.7 | 7.8    | 8.0 | 7.9 | 7.9    |
| 28         | 8.0      | 7.7 | 7.8    | 8.4   | 8.1 | 8.3    | 7.8   | 7.7 | 7.8    | 8.1 | 7.8 | 7.9    |
| 29         | ---      | --- | ---    | 8.3   | 7.6 | 8.2    | 7.8   | 7.8 | 7.8    | 8.2 | 8.0 | 8.0    |
| 30         | ---      | --- | ---    | 8.3   | 6.7 | 7.6    | 7.9   | 7.7 | 7.9    | 8.0 | 7.9 | 8.0    |
| 31         | ---      | --- | ---    | 7.6   | 6.2 | 6.7    | ---   | --- | ---    | 8.0 | 7.9 | 7.9    |
| <b>Max</b> | ---      | --- | ---    | 8.8   | 8.4 | 8.4    | 8.7   | 8.4 | 8.5    | 8.5 | 8.1 | 8.2    |
| <b>Min</b> | ---      | --- | ---    | 7.6   | 6.2 | 6.7    | 7.8   | 6.2 | 6.7    | 7.9 | 7.6 | 7.7    |

## 03260015 PLEASANT RUN CREEK AT OAK STREET AT LUDLOW, KY—Continued

PH, WATER, UNFILTERED, FIELD, STANDARD UNITS  
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

| Day        | Max  | Min | Median | Max  | Min | Median | Max    | Min | Median | Max       | Min | Median |
|------------|------|-----|--------|------|-----|--------|--------|-----|--------|-----------|-----|--------|
|            | June |     |        | July |     |        | August |     |        | September |     |        |
| 1          | 7.9  | 7.8 | 7.8    | 7.6  | 7.6 | 7.6    | 7.5    | 7.3 | 7.4    | 7.4       | 6.8 | 7.2    |
| 2          | 7.9  | 7.7 | 7.8    | 7.6  | 7.6 | 7.6    | 7.4    | 7.3 | 7.4    | 7.6       | 7.0 | 7.1    |
| 3          | 8.0  | 7.7 | 7.8    | 7.6  | 7.6 | 7.6    | 7.7    | 7.2 | 7.4    | 7.5       | 7.1 | 7.2    |
| 4          | 8.0  | 7.7 | 7.8    | 7.6  | 7.6 | 7.6    | 7.4    | 7.1 | 7.3    | 7.7       | 7.1 | 7.6    |
| 5          | 8.0  | 7.5 | 7.7    | 7.6  | 7.6 | 7.6    | 7.4    | 7.1 | 7.3    | 7.6       | 7.6 | 7.6    |
| 6          | 7.8  | 7.6 | 7.7    | 7.6  | 7.6 | 7.6    | 7.4    | 7.1 | 7.2    | 7.6       | 7.5 | 7.5    |
| 7          | 7.8  | 7.6 | 7.7    | 7.6  | 7.6 | 7.6    | 8.2    | 7.1 | 7.8    | 8.0       | 7.4 | 7.5    |
| 8          | 7.8  | 7.6 | 7.8    | 8.0  | 7.6 | 7.7    | 8.0    | 7.7 | 7.8    | 7.8       | 7.6 | 7.7    |
| 9          | 7.8  | 7.6 | 7.7    | 7.8  | 7.7 | 7.8    | 7.9    | 7.7 | 7.7    | 7.6       | 7.5 | 7.6    |
| 10         | 8.2  | 7.6 | 7.7    | 7.8  | 7.7 | 7.8    | 7.8    | 7.7 | 7.7    | 7.9       | 7.6 | 7.7    |
| 11         | 8.0  | 7.6 | 7.8    | 7.8  | 7.7 | 7.8    | 7.8    | 7.3 | 7.5    | 7.9       | 7.6 | 7.7    |
| 12         | 7.6  | 7.3 | 7.5    | 7.8  | 7.7 | 7.8    | 7.7    | 7.2 | 7.4    | 7.7       | 7.6 | 7.6    |
| 13         | 7.4  | 7.3 | 7.3    | 7.7  | 7.7 | 7.7    | 7.6    | 7.2 | 7.3    | 7.6       | 7.4 | 7.6    |
| 14         | 7.5  | 7.3 | 7.4    | 7.8  | 7.7 | 7.8    | 7.7    | 7.2 | 7.4    | 7.5       | 7.4 | 7.4    |
| 15         | 8.1  | 7.5 | 7.5    | 7.8  | 7.7 | 7.8    | 7.4    | 7.2 | 7.2    | 7.9       | 7.5 | 7.8    |
| 16         | 7.6  | 7.5 | 7.6    | 7.8  | 7.7 | 7.7    | 7.6    | 6.9 | 7.1    | 7.8       | 7.6 | 7.6    |
| 17         | 7.5  | 7.4 | 7.5    | 7.7  | 7.7 | 7.7    | 7.5    | 7.1 | 7.4    | 7.6       | 7.6 | 7.6    |
| 18         | 7.8  | 7.4 | 7.5    | 7.7  | 7.7 | 7.7    | 7.6    | 6.9 | 7.5    | 7.6       | 7.3 | 7.5    |
| 19         | 8.0  | 7.6 | 7.7    | 7.7  | 7.4 | 7.7    | 7.5    | 6.9 | 7.2    | 8.2       | 7.5 | 7.6    |
| 20         | 8.1  | 7.6 | 7.9    | 7.8  | 7.6 | 7.7    | 7.5    | 7.2 | 7.4    | 7.9       | 7.7 | 7.8    |
| 21         | 8.2  | 7.9 | 8.0    | 7.7  | 7.5 | 7.6    | 7.9    | 7.2 | 7.5    | 8.1       | 7.7 | 7.8    |
| 22         | 8.1  | 7.8 | 7.8    | 7.6  | 7.6 | 7.6    | 7.5    | 7.3 | 7.4    | 7.8       | 7.7 | 7.7    |
| 23         | 8.0  | 7.6 | 7.6    | 7.6  | 7.6 | 7.6    | 7.4    | 7.0 | 7.3    | 8.1       | 7.8 | 8.0    |
| 24         | 7.7  | 7.6 | 7.6    | 7.8  | 7.4 | 7.6    | 7.2    | 6.9 | 7.0    | 8.0       | 7.8 | 7.8    |
| 25         | 7.7  | 7.6 | 7.7    | 7.7  | 7.5 | 7.5    | 7.3    | 6.9 | 7.0    | 8.0       | 7.8 | 7.9    |
| 26         | 7.7  | 7.5 | 7.6    | 7.7  | 7.5 | 7.6    | 7.5    | 7.0 | 7.3    | 8.4       | 7.9 | 8.0    |
| 27         | 7.6  | 7.6 | 7.6    | 7.7  | 7.6 | 7.6    | 7.4    | 6.9 | 7.0    | 8.1       | 8.0 | 8.1    |
| 28         | 7.6  | 7.6 | 7.6    | 7.7  | 7.4 | 7.5    | 7.3    | 6.8 | 6.9    | 8.1       | 8.0 | 8.0    |
| 29         | 7.6  | 7.5 | 7.6    | 7.6  | 7.4 | 7.5    | 7.4    | 6.8 | 7.3    | 8.3       | 8.0 | 8.0    |
| 30         | 7.6  | 7.6 | 7.6    | 7.7  | 7.4 | 7.6    | 7.3    | 6.7 | 7.2    | 8.3       | 7.9 | 8.0    |
| 31         | ---  | --- | ---    | 7.6  | 7.5 | 7.5    | 7.2    | 6.7 | 7.2    | ---       | --- | ---    |
| <b>Max</b> | 8.2  | 7.9 | 8.0    | 8.0  | 7.7 | 7.8    | 8.2    | 7.7 | 7.8    | 8.4       | 8.0 | 8.1    |
| <b>Min</b> | 7.4  | 7.3 | 7.3    | 7.6  | 7.4 | 7.5    | 7.2    | 6.7 | 6.9    | 7.4       | 6.8 | 7.1    |

## 03260015 PLEASANT RUN CREEK AT OAK STREET AT LUDLOW, KY—Continued

**TEMPERATURE, WATER, DEGREES CELSIUS**  
**WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

| Day   | Max     | Min | Mean | Max      | Min | Mean | Max      | Min  | Mean | Max     | Min  | Mean |
|-------|---------|-----|------|----------|-----|------|----------|------|------|---------|------|------|
|       | October |     |      | November |     |      | December |      |      | January |      |      |
| 1     | ---     | --- | ---  | ---      | --- | ---  | 7.9      | 4.5  | 6.0  | 8.8     | 4.9  | 7.3  |
| 2     | ---     | --- | ---  | ---      | --- | ---  | 5.4      | 3.6  | 4.4  | 4.9     | 0.5  | 2.5  |
| 3     | ---     | --- | ---  | ---      | --- | ---  | 5.2      | 3.7  | 4.3  | 1.0     | 0.1  | 0.5  |
| 4     | ---     | --- | ---  | ---      | --- | ---  | 4.0      | 2.3  | 3.0  | 1.5     | 0.1  | 0.7  |
| 5     | ---     | --- | ---  | ---      | --- | ---  | 3.2      | 1.7  | 2.3  | 0.8     | 0.1  | 0.4  |
| 6     | ---     | --- | ---  | ---      | --- | ---  | 1.8      | 0.3  | 0.8  | 1.6     | 0.2  | 0.6  |
| 7     | ---     | --- | ---  | ---      | --- | ---  | 1.1      | 0.2  | 0.5  | 1.1     | 0.4  | 0.7  |
| 8     | ---     | --- | ---  | ---      | --- | ---  | 1.2      | 0.2  | 0.5  | 0.9     | 0.2  | 0.4  |
| 9     | ---     | --- | ---  | ---      | --- | ---  | 1.4      | 0.2  | 0.6  | 0.9     | 0.2  | 0.4  |
| 10    | ---     | --- | ---  | ---      | --- | ---  | 1.4      | 0.4  | 0.7  | 0.7     | 0.1  | 0.3  |
| 11    | ---     | --- | ---  | ---      | --- | ---  | 1.5      | 0.1  | 0.7  | 0.2     | 0.1  | 0.2  |
| 12    | ---     | --- | ---  | ---      | --- | ---  | 2.3      | 0.1  | 1.4  | 0.1     | -0.1 | 0.1  |
| 13    | ---     | --- | ---  | ---      | --- | ---  | 0.5      | 0.0  | 0.1  | 0.3     | -0.1 | 0.0  |
| 14    | ---     | --- | ---  | ---      | --- | ---  | 0.5      | 0.0  | 0.1  | 0.5     | -0.1 | 0.1  |
| 15    | ---     | --- | ---  | ---      | --- | ---  | 0.6      | 0.0  | 0.1  | 0.6     | 0.0  | 0.1  |
| 16    | ---     | --- | ---  | ---      | --- | ---  | 0.1      | 0.0  | 0.0  | 0.7     | 0.0  | 0.2  |
| 17    | ---     | --- | ---  | ---      | --- | ---  | 0.2      | 0.0  | 0.1  | 0.5     | 0.0  | 0.2  |
| 18    | ---     | --- | ---  | ---      | --- | ---  | 0.4      | 0.0  | 0.1  | 0.6     | -0.1 | 0.1  |
| 19    | ---     | --- | ---  | ---      | --- | ---  | 0.4      | 0.0  | 0.1  | 0.4     | 0.0  | 0.2  |
| 20    | ---     | --- | ---  | 5.8      | 4.6 | 5.2  | 0.6      | 0.0  | 0.2  | 0.2     | -0.2 | 0.1  |
| 21    | ---     | --- | ---  | 7.1      | 5.1 | 5.9  | 0.2      | -0.1 | 0.1  | 0.0     | -0.2 | -0.2 |
| 22    | ---     | --- | ---  | 11.0     | 7.1 | 8.8  | 0.2      | -0.1 | 0.0  | 0.2     | -0.2 | -0.1 |
| 23    | ---     | --- | ---  | 13.7     | 9.2 | 11.8 | 0.3      | -0.1 | 0.1  | 0.1     | -0.2 | -0.1 |
| 24    | ---     | --- | ---  | 9.2      | 5.4 | 6.6  | 0.7      | 0.1  | 0.3  | -0.1    | -0.1 | -0.1 |
| 25    | ---     | --- | ---  | 12.0     | 6.4 | 9.6  | 0.3      | 0.1  | 0.2  | 0.0     | -0.2 | -0.1 |
| 26    | ---     | --- | ---  | 9.9      | 4.9 | 6.8  | 0.2      | 0.0  | 0.1  | 0.0     | -0.1 | 0.0  |
| 27    | ---     | --- | ---  | 6.2      | 4.4 | 5.2  | 0.4      | 0.0  | 0.1  | 0.2     | 0.0  | 0.1  |
| 28    | ---     | --- | ---  | 4.4      | 1.9 | 3.4  | 0.3      | 0.0  | 0.1  | 0.1     | -0.1 | 0.0  |
| 29    | ---     | --- | ---  | 6.6      | 1.9 | 3.9  | 0.6      | 0.1  | 0.3  | 0.2     | -0.2 | -0.1 |
| 30    | ---     | --- | ---  | 11.2     | 6.6 | 9.5  | 3.9      | -0.1 | 1.5  | 0.5     | -0.1 | 0.1  |
| 31    | ---     | --- | ---  | ---      | --- | ---  | 8.1      | 3.5  | 5.6  | 0.3     | -0.1 | 0.1  |
| Month | ---     | --- | ---  | ---      | --- | ---  | 8.1      | -0.1 | 1.1  | 8.8     | -0.2 | 0.5  |

## 03260015 PLEASANT RUN CREEK AT OAK STREET AT LUDLOW, KY—Continued

**TEMPERATURE, WATER, DEGREES CELSIUS**  
**WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

| Day          | Max      | Min  | Mean | Max   | Min  | Mean | Max   | Min  | Mean | Max  | Min  | Mean |
|--------------|----------|------|------|-------|------|------|-------|------|------|------|------|------|
|              | February |      |      | March |      |      | April |      |      | May  |      |      |
| <b>1</b>     | 2.4      | -0.2 | 0.6  | 8.3   | 3.8  | 5.7  | 8.4   | 3.6  | 6.2  | 14.6 | 13.0 | 13.9 |
| <b>2</b>     | 3.2      | 0.9  | 2.3  | 7.8   | 4.0  | 5.4  | 10.3  | 5.1  | 7.4  | 14.8 | 13.2 | 14.3 |
| <b>3</b>     | 1.2      | 0.0  | 0.4  | 7.8   | 4.5  | 5.8  | 14.0  | 6.1  | 9.7  | 13.2 | 11.4 | 12.1 |
| <b>4</b>     | 0.7      | 0.0  | 0.2  | 8.2   | 5.7  | 6.3  | 15.6  | 10.8 | 13.2 | 12.2 | 10.8 | 11.5 |
| <b>5</b>     | 2.0      | 0.3  | 1.1  | 8.9   | 7.4  | 8.4  | 10.9  | 8.5  | 9.7  | 15.6 | 9.2  | 11.8 |
| <b>6</b>     | 4.0      | 1.2  | 2.4  | 7.4   | 5.6  | 6.3  | 14.7  | 6.4  | 9.8  | 15.3 | 10.8 | 12.6 |
| <b>7</b>     | 3.8      | 2.2  | 3.0  | 7.3   | 4.4  | 5.7  | 16.2  | 8.7  | 12.2 | 13.8 | 11.3 | 12.7 |
| <b>8</b>     | 3.0      | 0.3  | 1.7  | 7.6   | 4.8  | 5.7  | 18.2  | 12.2 | 14.7 | 16.3 | 12.8 | 14.0 |
| <b>9</b>     | 0.3      | 0.0  | 0.1  | 9.1   | 7.0  | 7.9  | 16.7  | 12.5 | 13.8 | 19.0 | 12.3 | 15.1 |
| <b>10</b>    | 0.8      | 0.0  | 0.2  | 8.6   | 7.0  | 7.9  | 20.0  | 11.1 | 14.9 | 18.5 | 14.9 | 16.6 |
| <b>11</b>    | 0.9      | 0.0  | 0.2  | 7.0   | 5.1  | 5.7  | 17.5  | 14.3 | 15.8 | 21.4 | 16.3 | 18.4 |
| <b>12</b>    | 1.8      | 0.1  | 0.6  | 6.5   | 5.6  | 6.0  | 14.3  | 11.7 | 12.8 | 22.5 | 17.8 | 20.0 |
| <b>13</b>    | 3.2      | 0.3  | 1.5  | 7.3   | 5.9  | 6.7  | 12.3  | 9.6  | 10.7 | 21.1 | 18.3 | 19.6 |
| <b>14</b>    | 3.3      | 1.8  | 2.4  | 7.7   | 7.1  | 7.4  | 12.4  | 10.5 | 11.4 | 19.4 | 17.5 | 18.2 |
| <b>15</b>    | 3.4      | 0.4  | 1.8  | 7.4   | 7.0  | 7.2  | 12.8  | 11.7 | 12.3 | 17.8 | 14.5 | 16.0 |
| <b>16</b>    | 6.4      | 1.3  | 3.4  | 8.1   | 7.1  | 7.8  | 13.4  | 11.0 | 12.5 | 14.5 | 12.6 | 13.2 |
| <b>17</b>    | 9.7      | 5.6  | 7.2  | 8.9   | 8.0  | 8.6  | 13.8  | 9.7  | 11.3 | 12.6 | 11.4 | 11.7 |
| <b>18</b>    | 12.2     | 9.0  | 10.2 | 12.1  | 8.7  | 10.2 | 14.2  | 11.8 | 12.5 | 13.4 | 11.4 | 12.3 |
| <b>19</b>    | 9.0      | 4.8  | 6.6  | 12.9  | 8.3  | 10.3 | 14.4  | 13.0 | 13.6 | 16.4 | 12.9 | 14.3 |
| <b>20</b>    | 5.9      | 3.4  | 4.3  | 11.7  | 7.7  | 9.4  | 14.8  | 12.9 | 13.7 | 20.0 | 13.5 | 16.3 |
| <b>21</b>    | 8.5      | 4.6  | 5.9  | 17.4  | 9.9  | 12.9 | 13.0  | 10.9 | 11.7 | 20.9 | 15.5 | 18.0 |
| <b>22</b>    | 5.3      | 3.7  | 4.6  | 17.3  | 12.4 | 14.8 | 12.7  | 11.2 | 12.0 | 21.3 | 17.5 | 19.3 |
| <b>23</b>    | 7.0      | 2.8  | 4.5  | 16.7  | 13.2 | 14.5 | 16.0  | 12.6 | 13.9 | 23.1 | 18.4 | 20.3 |
| <b>24</b>    | 6.1      | 4.3  | 5.1  | 13.5  | 7.7  | 10   | 14.4  | 13.6 | 13.9 | 20.8 | 18.0 | 19.2 |
| <b>25</b>    | 5.6      | 4.3  | 4.9  | 7.8   | 5.7  | 6.7  | 14.4  | 14.1 | 14.2 | 23.1 | 17.3 | 19.8 |
| <b>26</b>    | 5.2      | 3.6  | 4.4  | 8.3   | 5.3  | 6.8  | 14.7  | 14.2 | 14.4 | 21.2 | 18.6 | 19.4 |
| <b>27</b>    | 10.3     | 4.6  | 6.4  | 9.7   | 3.3  | 6.2  | 15.9  | 14.7 | 15.4 | 18.6 | 16.6 | 17.3 |
| <b>28</b>    | 10.7     | 6.0  | 8.5  | 9.9   | 3.9  | 6.7  | 15.6  | 13.8 | 14.6 | 21.4 | 15.9 | 18.2 |
| <b>29</b>    | ---      | ---  | ---  | 8.1   | 4.5  | 6.4  | 14.6  | 12.9 | 13.5 | 25.0 | 18.1 | 20.9 |
| <b>30</b>    | ---      | ---  | ---  | 7.2   | 5.2  | 5.9  | 13.7  | 12.4 | 13.0 | 26.2 | 19.7 | 22.5 |
| <b>31</b>    | ---      | ---  | ---  | 8.2   | 3.7  | 5.7  | ---   | ---  | ---  | 26.4 | 21.2 | 23.4 |
| <b>Month</b> | 12.2     | -0.2 | 3.4  | 17.4  | 3.3  | 7.8  | 20.0  | 3.6  | 12.5 | 26.4 | 9.2  | 16.5 |

## 03260015 PLEASANT RUN CREEK AT OAK STREET AT LUDLOW, KY—Continued

**TEMPERATURE, WATER, DEGREES CELSIUS**  
**WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**

| Day          | Max  | Min  | Mean | Max  | Min  | Mean | Max    | Min  | Mean | Max       | Min  | Mean |
|--------------|------|------|------|------|------|------|--------|------|------|-----------|------|------|
|              | June |      |      | July |      |      | August |      |      | September |      |      |
| <b>1</b>     | 24.8 | 22.0 | 23.4 | 22.9 | 20.8 | 21.9 | 27.3   | 25.0 | 26.1 | 24.5      | 21.5 | 22.6 |
| <b>2</b>     | 23.4 | 19.2 | 20.6 | 23.7 | 21.2 | 22.2 | 27.0   | 25.2 | 26.1 | 25.3      | 21.8 | 23.3 |
| <b>3</b>     | 22.0 | 18.4 | 20.0 | 24.7 | 22.4 | 23.4 | 26.4   | 23.8 | 25.4 | 26.2      | 22.5 | 23.8 |
| <b>4</b>     | 24.6 | 18.6 | 21.1 | 24.6 | 22.5 | 23.6 | 26.4   | 24.5 | 25.4 | 24.7      | 23.0 | 23.8 |
| <b>5</b>     | 24.1 | 20.8 | 22.2 | 24.4 | 22.3 | 23.2 | 26.3   | 24.5 | 25.4 | 23.2      | 19.3 | 20.7 |
| <b>6</b>     | 24.6 | 20.5 | 22.4 | 24.6 | 23.0 | 23.8 | 26.1   | 25.2 | 25.7 | 19.3      | 17.9 | 18.4 |
| <b>7</b>     | 25.9 | 21.3 | 23.3 | 24.6 | 23.3 | 24.0 | 26.7   | 23.9 | 25.6 | 17.9      | 17.4 | 17.7 |
| <b>8</b>     | 26.2 | 22.1 | 24.1 | 24.2 | 21.8 | 23.2 | 27.4   | 23.5 | 25.0 | 18.2      | 17.1 | 17.6 |
| <b>9</b>     | 26.1 | 23.3 | 24.8 | 24.9 | 22.1 | 23.3 | 26.7   | 23.7 | 24.8 | 18.4      | 18.0 | 18.2 |
| <b>10</b>    | 25.6 | 21.7 | 23.9 | 25.0 | 22.5 | 23.8 | 25.7   | 23.1 | 24.2 | 19.5      | 18.1 | 18.8 |
| <b>11</b>    | 24.2 | 20.6 | 22.4 | 26.6 | 23.4 | 24.7 | 24.1   | 21.8 | 22.6 | 20.2      | 18.9 | 19.5 |
| <b>12</b>    | 24.6 | 21.2 | 22.5 | 26.6 | 25.2 | 25.9 | 22.2   | 20.6 | 21.5 | 20.2      | 18.4 | 19.4 |
| <b>13</b>    | 22.8 | 19.0 | 20.8 | 26.3 | 25.0 | 25.5 | 23.5   | 21.1 | 22.1 | 21.2      | 18.8 | 19.8 |
| <b>14</b>    | 22.0 | 18.1 | 20.0 | 25.4 | 23.5 | 24.2 | 23.4   | 21.8 | 22.4 | 20.8      | 19.6 | 20.1 |
| <b>15</b>    | 21.3 | 17.5 | 18.8 | 24.2 | 22.6 | 23.5 | 22.8   | 21.7 | 22.2 | 19.6      | 16.6 | 17.5 |
| <b>16</b>    | 23.0 | 17.9 | 19.9 | 25.0 | 23.6 | 24.3 | 22.7   | 20.8 | 21.7 | 16.7      | 14.8 | 15.3 |
| <b>17</b>    | 23.8 | 19.6 | 21.4 | 25.7 | 24.4 | 25.0 | 22.7   | 20.7 | 21.7 | 15.9      | 14.5 | 15.1 |
| <b>18</b>    | 23.5 | 20.9 | 21.7 | 26.2 | 24.8 | 25.4 | 23.6   | 21.2 | 22.3 | 15.7      | 14.9 | 15.3 |
| <b>19</b>    | 21.1 | 19.8 | 20.5 | 27.3 | 25.6 | 26.2 | 23.3   | 21.9 | 22.7 | 18.3      | 15.6 | 16.9 |
| <b>20</b>    | 20.7 | 19.4 | 20.2 | 28.2 | 25.5 | 26.8 | 24.2   | 22.1 | 23.1 | 19.9      | 18.0 | 18.6 |
| <b>21</b>    | 23.1 | 19.4 | 20.8 | 27.8 | 26.2 | 27.1 | 24.8   | 22.8 | 23.7 | 20.4      | 19.1 | 19.9 |
| <b>22</b>    | 21.6 | 20.2 | 20.8 | 28.1 | 26.7 | 27.3 | 24.1   | 21.6 | 22.7 | 19.8      | 18.3 | 18.9 |
| <b>23</b>    | 21.8 | 20.3 | 20.9 | 28.0 | 27.0 | 27.5 | 23.5   | 21.2 | 22.3 | 18.9      | 16.1 | 17.3 |
| <b>24</b>    | 20.8 | 19.4 | 19.8 | 27.4 | 26.4 | 26.9 | 25.1   | 21.6 | 22.9 | 17.1      | 14.6 | 15.7 |
| <b>25</b>    | 21.3 | 18.5 | 19.7 | 27.1 | 25.4 | 26.1 | 25.4   | 23.7 | 24.4 | 18.0      | 15.6 | 16.6 |
| <b>26</b>    | 20.9 | 19.2 | 20.0 | 27.5 | 25.3 | 26.3 | 24.3   | 22.6 | 23.4 | 19.3      | 17.1 | 18.4 |
| <b>27</b>    | 20.8 | 18.5 | 19.6 | 27.4 | 25.3 | 26.4 | 23.5   | 21.7 | 22.6 | 17.1      | 15.2 | 16.1 |
| <b>28</b>    | 22.9 | 19.7 | 21.0 | 27.2 | 25.5 | 26.4 | 23.3   | 21.9 | 22.5 | 16.2      | 14.9 | 15.5 |
| <b>29</b>    | 22.7 | 19.0 | 20.8 | 27.4 | 25.7 | 26.5 | 22.9   | 21.1 | 21.9 | 17.7      | 14.7 | 15.8 |
| <b>30</b>    | 22.9 | 19.4 | 21.1 | 28.5 | 25.9 | 27.2 | 22.8   | 19.5 | 21.1 | 16.3      | 14.4 | 15.1 |
| <b>31</b>    | ---  | ---  | ---  | 28.1 | 25.8 | 26.9 | 23.3   | 20.2 | 21.4 | ---       | ---  | ---  |
| <b>Month</b> | 26.2 | 17.5 | 21.3 | 28.5 | 20.8 | 25.1 | 27.4   | 19.5 | 23.4 | 26.2      | 14.4 | 18.4 |

## 03260015 PLEASANT RUN CREEK AT OAK STREET AT LUDLOW, KY—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER  
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

| Day   | Max     | Min | Mean | Max      | Min | Mean | Max      | Min  | Mean | Max     | Min  | Mean |
|-------|---------|-----|------|----------|-----|------|----------|------|------|---------|------|------|
|       | October |     |      | November |     |      | December |      |      | January |      |      |
| 1     | ---     | --- | ---  | ---      | --- | ---  | 11.8     | 10.4 | 11.0 | 12.6    | 11.8 | 12.1 |
| 2     | ---     | --- | ---  | ---      | --- | ---  | 13.0     | 10.8 | 11.8 | 14.7    | 12.6 | 13.8 |
| 3     | ---     | --- | ---  | ---      | --- | ---  | 13.2     | 11.4 | 12.5 | 15.3    | 14.1 | 14.7 |
| 4     | ---     | --- | ---  | ---      | --- | ---  | 12.9     | 11.8 | 12.3 | 15.4    | 13.9 | 14.6 |
| 5     | ---     | --- | ---  | ---      | --- | ---  | 13.0     | 12.6 | 12.8 | 15.7    | 13.9 | 14.7 |
| 6     | ---     | --- | ---  | ---      | --- | ---  | 13.8     | 12.6 | 13.4 | 15.7    | 13.6 | 14.4 |
| 7     | ---     | --- | ---  | ---      | --- | ---  | 13.8     | 13.4 | 13.6 | 15.0    | 13.9 | 14.3 |
| 8     | ---     | --- | ---  | ---      | --- | ---  | 14.0     | 13.5 | 13.7 | 16.6    | 13.8 | 15.0 |
| 9     | ---     | --- | ---  | ---      | --- | ---  | 14.0     | 13.1 | 13.7 | 17.1    | 14.3 | 15.5 |
| 10    | ---     | --- | ---  | ---      | --- | ---  | 13.5     | 13.1 | 13.2 | 17.9    | 13.7 | 15.6 |
| 11    | ---     | --- | ---  | ---      | --- | ---  | 14.2     | 12.5 | 13.5 | 15.7    | 13.7 | 14.4 |
| 12    | ---     | --- | ---  | ---      | --- | ---  | 14.1     | 12.9 | 13.4 | 16.6    | 13.2 | 14.5 |
| 13    | ---     | --- | ---  | ---      | --- | ---  | 14.4     | 13.7 | 14.1 | 17.8    | 13.1 | 14.9 |
| 14    | ---     | --- | ---  | ---      | --- | ---  | 14.3     | 13.8 | 14.1 | 18.5    | 13.4 | 15.2 |
| 15    | ---     | --- | ---  | ---      | --- | ---  | 14.1     | 13.8 | 14.0 | 18.4    | 13.2 | 14.9 |
| 16    | ---     | --- | ---  | ---      | --- | ---  | 13.9     | 13.6 | 13.8 | 19.3    | 13.4 | 15.7 |
| 17    | ---     | --- | ---  | ---      | --- | ---  | 14.4     | 13.8 | 14.1 | 19.4    | 13.5 | 15.9 |
| 18    | ---     | --- | ---  | ---      | --- | ---  | 14.3     | 13.8 | 14.0 | 16.3    | 13.0 | 14.1 |
| 19    | ---     | --- | ---  | ---      | --- | ---  | 14.5     | 13.8 | 14.1 | 16.3    | 13.6 | 14.5 |
| 20    | ---     | --- | ---  | 10.2     | 9.6 | 9.9  | 14.7     | 13.8 | 14.2 | 16.8    | 13.4 | 14.3 |
| 21    | ---     | --- | ---  | 10.1     | 9.6 | 9.8  | 14.9     | 14.2 | 14.4 | 17.7    | 13.3 | 14.9 |
| 22    | ---     | --- | ---  | 9.9      | 8.4 | 9.4  | 14.7     | 14.0 | 14.3 | 18.8    | 13.0 | 15.0 |
| 23    | ---     | --- | ---  | 10.1     | 7.9 | 9.3  | 15.2     | 14.4 | 14.7 | 19.8    | 12.8 | 15.4 |
| 24    | ---     | --- | ---  | 12.6     | 8.7 | 10.4 | 15.2     | 14.2 | 14.6 | 16.1    | 12.5 | 14.0 |
| 25    | ---     | --- | ---  | 12.4     | 2.6 | 10.6 | 15.1     | 14.2 | 14.6 | 19.4    | 12.9 | 14.9 |
| 26    | ---     | --- | ---  | 10.6     | 7.2 | 8.9  | 15.2     | 14.2 | 14.6 | 17.9    | 13.2 | 14.8 |
| 27    | ---     | --- | ---  | 8.1      | 3.8 | 6.3  | 15.4     | 14.2 | 14.7 | 20.4    | 13.1 | 15.6 |
| 28    | ---     | --- | ---  | 7.5      | 3.7 | 6.0  | 15.7     | 14.1 | 14.7 | 18.1    | 13.0 | 14.8 |
| 29    | ---     | --- | ---  | 7.9      | 5.2 | 6.7  | 15.7     | 13.9 | 14.6 | 19.9    | 12.8 | 14.9 |
| 30    | ---     | --- | ---  | 11.5     | 5.7 | 10.5 | 14.8     | 13.2 | 13.9 | 19.7    | 13.3 | 15.5 |
| 31    | ---     | --- | ---  | ---      | --- | ---  | 13.7     | 11.8 | 12.9 | 19.7    | 13.3 | 15.6 |
| Month | ---     | --- | ---  | ---      | --- | ---  | 15.7     | 10.4 | 13.7 | 20.4    | 11.8 | 14.8 |

03260015 PLEASANT RUN CREEK AT OAK STREET AT LUDLOW, KY—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER  
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

| Day   | Max      | Min  | Mean | Max   | Min  | Mean | Max   | Min  | Mean | Max  | Min | Mean |
|-------|----------|------|------|-------|------|------|-------|------|------|------|-----|------|
|       | February |      |      | March |      |      | April |      |      | May  |     |      |
| 1     | 14.0     | 13.1 | 13.5 | ---   | ---  | ---  | 17.1  | 10.9 | 13.4 | ---  | --- | ---  |
| 2     | 14.0     | 12.5 | 13.4 | ---   | ---  | ---  | 16.3  | 10.7 | 13.0 | ---  | --- | ---  |
| 3     | 15.3     | 13.2 | 14.4 | ---   | ---  | ---  | 16.9  | 10.1 | 12.6 | ---  | --- | ---  |
| 4     | 15.6     | 13.7 | 14.5 | ---   | ---  | ---  | ---   | ---  | ---  | ---  | --- | ---  |
| 5     | 14.1     | 13.0 | 13.5 | ---   | ---  | ---  | ---   | ---  | ---  | ---  | --- | ---  |
| 6     | 15.8     | 12.4 | 13.8 | ---   | ---  | ---  | ---   | ---  | ---  | ---  | --- | ---  |
| 7     | 15.2     | 12.4 | 13.3 | ---   | ---  | ---  | ---   | ---  | ---  | ---  | --- | ---  |
| 8     | 16.7     | 12.9 | 14.4 | ---   | ---  | ---  | ---   | ---  | ---  | ---  | --- | ---  |
| 9     | 18.3     | 13.6 | 15.4 | ---   | ---  | ---  | ---   | ---  | ---  | ---  | --- | ---  |
| 10    | 18.3     | 13.5 | 15.4 | ---   | ---  | ---  | ---   | ---  | ---  | ---  | --- | ---  |
| 11    | 19.0     | 13.3 | 15.5 | ---   | ---  | ---  | ---   | ---  | ---  | ---  | --- | ---  |
| 12    | 19.2     | 13.2 | 15.5 | ---   | ---  | ---  | ---   | ---  | ---  | ---  | --- | ---  |
| 13    | 19.6     | 12.8 | 15.3 | ---   | ---  | ---  | ---   | ---  | ---  | ---  | --- | ---  |
| 14    | 19.1     | 12.2 | 15.0 | ---   | ---  | ---  | ---   | ---  | ---  | ---  | --- | ---  |
| 15    | 20.9     | 12.8 | 16.2 | ---   | ---  | ---  | ---   | ---  | ---  | ---  | --- | ---  |
| 16    | 20.5     | 12.4 | 15.4 | ---   | ---  | ---  | ---   | ---  | ---  | ---  | --- | ---  |
| 17    | 19.9     | 10.3 | 14.3 | ---   | ---  | ---  | ---   | ---  | ---  | ---  | --- | ---  |
| 18    | 20.1     | 8.9  | 13.4 | ---   | ---  | ---  | ---   | ---  | ---  | 11.5 | 9.2 | 10.3 |
| 19    | 20.9     | 9.8  | 14.4 | ---   | ---  | ---  | ---   | ---  | ---  | 13.3 | 8.9 | 10.4 |
| 20    | 17.5     | 10.9 | 13.7 | 15.7  | 3.8  | 12.0 | ---   | ---  | ---  | 13.5 | 8.2 | 10.1 |
| 21    | 12.6     | 9.8  | 11.3 | 16.4  | 9.2  | 12.4 | ---   | ---  | ---  | 13.2 | 7.6 | 9.7  |
| 22    | 12.8     | 12.2 | 12.5 | 17.0  | 9.0  | 11.6 | ---   | ---  | ---  | 11.4 | 6.7 | 8.3  |
| 23    | 13.6     | 12.0 | 12.8 | 16.2  | 8.4  | 10.8 | ---   | ---  | ---  | 9.0  | 1.8 | 7.9  |
| 24    | 13.1     | 11.8 | 12.4 | 13.9  | 8.4  | 10.7 | ---   | ---  | ---  | 9.6  | 8.4 | 8.9  |
| 25    | ---      | ---  | ---  | 17.1  | 9.8  | 12.6 | ---   | ---  | ---  | 10.1 | 7.8 | 8.9  |
| 26    | ---      | ---  | ---  | 17.1  | 11.3 | 13.6 | ---   | ---  | ---  | 9.5  | 6.7 | 8.5  |
| 27    | ---      | ---  | ---  | 16.8  | 11.9 | 14.0 | ---   | ---  | ---  | 8.9  | 7.5 | 8.4  |
| 28    | ---      | ---  | ---  | 16.6  | 11.2 | 13.6 | ---   | ---  | ---  | 9.3  | 6.7 | 8.2  |
| 29    | ---      | ---  | ---  | 17.7  | 11.1 | 13.8 | ---   | ---  | ---  | 9.3  | 6.9 | 7.8  |
| 30    | ---      | ---  | ---  | 18.6  | 11.3 | 13.8 | ---   | ---  | ---  | 10.0 | 6.6 | 8.0  |
| 31    | ---      | ---  | ---  | 18.2  | 10.8 | 14.3 | ---   | ---  | ---  | 9.4  | 6.5 | 7.7  |
| Month | ---      | ---  | ---  | ---   | ---  | ---  | ---   | ---  | ---  | ---  | --- | ---  |

03260015 PLEASANT RUN CREEK AT OAK STREET AT LUDLOW, KY—Continued

DISSOLVED OXYGEN, WATER, UNFILTERED, MILLIGRAMS PER LITER  
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

| Day   | Max  | Min | Mean | Max  | Min | Mean | Max    | Min | Mean | Max       | Min  | Mean |
|-------|------|-----|------|------|-----|------|--------|-----|------|-----------|------|------|
|       | June |     |      | July |     |      | August |     |      | September |      |      |
| 1     | 8.7  | 6.2 | 7.4  | ---  | --- | ---  | 6.7    | 2.5 | 5.1  | ---       | ---  | ---  |
| 2     | 9.3  | 6.6 | 7.8  | ---  | --- | ---  | 6.8    | 1.8 | 4.3  | 3.8       | 0.1  | 1.9  |
| 3     | 10.3 | 6.7 | 8.3  | ---  | --- | ---  | 7.5    | 2.4 | 5.6  | 5.6       | 0.2  | 2.9  |
| 4     | 11.1 | 3.1 | 8.2  | ---  | --- | ---  | 6.8    | 3.3 | 5.2  | 6.6       | 1.5  | 5.4  |
| 5     | 8.4  | 1.4 | 5.9  | ---  | --- | ---  | 6.6    | 1.7 | 4.5  | 7.1       | 5.8  | 6.8  |
| 6     | 7.8  | 3.6 | 6.6  | ---  | --- | ---  | 6.0    | 2.4 | 4.5  | 6.8       | 5.8  | 6.3  |
| 7     | 7.9  | 2.9 | 6.4  | ---  | --- | ---  | 8.0    | 2.4 | 6.3  | 9.3       | 5.8  | 7.5  |
| 8     | 7.5  | 1.1 | 6.4  | ---  | --- | ---  | 7.8    | 4.2 | 7.0  | 9.1       | 7.8  | 8.6  |
| 9     | 7.9  | 2.5 | 6.2  | ---  | --- | ---  | 7.8    | 1.5 | 6.7  | 8.6       | 7.3  | 7.8  |
| 10    | 8.7  | 4.8 | 6.3  | ---  | --- | ---  | 7.9    | 6.4 | 7.1  | 8.8       | 6.8  | 7.7  |
| 11    | 8.7  | 6.1 | 7.6  | ---  | --- | ---  | 7.9    | 6.7 | 7.3  | 7.6       | 6.0  | 6.7  |
| 12    | ---  | --- | ---  | ---  | --- | ---  | 8.6    | 6.9 | 7.8  | 6.8       | 5.8  | 6.4  |
| 13    | ---  | --- | ---  | ---  | --- | ---  | 8.6    | 7.2 | 7.9  | 6.7       | 3.2  | 5.7  |
| 14    | ---  | --- | ---  | ---  | --- | ---  | 9.6    | 6.9 | 8.4  | 5.3       | 3.0  | 4.2  |
| 15    | ---  | --- | ---  | ---  | --- | ---  | 9.7    | 8.4 | 9.0  | 10.1      | 4.7  | 8.9  |
| 16    | ---  | --- | ---  | ---  | --- | ---  | 9.6    | 6.1 | 8.4  | 8.8       | 7.4  | 7.9  |
| 17    | ---  | --- | ---  | ---  | --- | ---  | 10.2   | 4.5 | 8.4  | 8.3       | 7.4  | 7.8  |
| 18    | ---  | --- | ---  | ---  | --- | ---  | 10.3   | 3.0 | 8.3  | 7.8       | 6.4  | 7.0  |
| 19    | 8.3  | 3.0 | 5.1  | ---  | --- | ---  | 11.0   | 3.4 | 8.3  | 10.2      | 6.0  | 8.0  |
| 20    | 9.3  | 2.6 | 5.9  | 9.9  | 6.2 | 7.7  | 10.2   | 4.0 | 8.3  | 10.3      | 8.4  | 9.1  |
| 21    | 8.7  | 7.4 | 8.1  | 8.8  | 4.6 | 7.2  | ---    | --- | ---  | 10.0      | 7.2  | 8.7  |
| 22    | 8.4  | 3.4 | 5.3  | 8.5  | 4.2 | 6.7  | ---    | --- | ---  | 9.9       | 7.8  | 8.6  |
| 23    | ---  | --- | ---  | 8.0  | 6.2 | 7.1  | ---    | --- | ---  | 10.9      | 7.8  | 10.0 |
| 24    | ---  | --- | ---  | 8.1  | 5.4 | 6.5  | ---    | --- | ---  | 11.4      | 9.7  | 10.3 |
| 25    | ---  | --- | ---  | 6.5  | 3.1 | 5.5  | ---    | --- | ---  | 10.8      | 8.6  | 9.6  |
| 26    | ---  | --- | ---  | 6.5  | 4.8 | 5.6  | ---    | --- | ---  | 10.8      | 9.3  | 10.3 |
| 27    | ---  | --- | ---  | 7.5  | 4.9 | 6.1  | ---    | --- | ---  | 10.8      | 10.0 | 10.5 |
| 28    | ---  | --- | ---  | 7.5  | 4.7 | 6.0  | ---    | --- | ---  | 10.9      | 9.0  | 10.2 |
| 29    | ---  | --- | ---  | 7.4  | 4.6 | 5.9  | ---    | --- | ---  | 10.9      | 8.8  | 10.2 |
| 30    | ---  | --- | ---  | 7.6  | 5.6 | 6.8  | ---    | --- | ---  | 10.9      | 8.9  | 10.4 |
| 31    | ---  | --- | ---  | 7.4  | 4.8 | 6.2  | ---    | --- | ---  | ---       | ---  | ---  |
| Month | ---  | --- | ---  | ---  | --- | ---  | ---    | --- | ---  | ---       | ---  | ---  |

03260015 PLEASANT RUN CREEK AT OAK STREET AT LUDLOW, KY—Continued

TURBIDITY, WATER, UNFILT, NEAR IR LED LIGHT, 780-900 NM, DETECT ANG. 90 DEG, FORMAZIN NEPHELOMETRIC UNITS  
 WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

[<, less than; >, greater than]

| Day        | Max     | Min | Median | Max      | Min  | Median | Max      | Min  | Median | Max     | Min  | Median |
|------------|---------|-----|--------|----------|------|--------|----------|------|--------|---------|------|--------|
|            | October |     |        | November |      |        | December |      |        | January |      |        |
| 1          | ---     | --- | ---    | ---      | ---  | ---    | <2.0     | <2.0 | <2.0   | 140     | <2.0 | <2.0   |
| 2          | ---     | --- | ---    | ---      | ---  | ---    | <2.0     | <2.0 | <2.0   | 14      | <2.0 | <2.0   |
| 3          | ---     | --- | ---    | ---      | ---  | ---    | <2.0     | <2.0 | <2.0   | 3.1     | <2.0 | <2.0   |
| 4          | ---     | --- | ---    | ---      | ---  | ---    | 2.6      | <2.0 | <2.0   | 2.6     | 2.1  | 2.1    |
| 5          | ---     | --- | ---    | ---      | ---  | ---    | <2.0     | <2.0 | <2.0   | 2.2     | 2.1  | 2.2    |
| 6          | ---     | --- | ---    | ---      | ---  | ---    | <2.0     | <2.0 | <2.0   | 3.9     | 2.2  | 2.3    |
| 7          | ---     | --- | ---    | ---      | ---  | ---    | <2.0     | <2.0 | <2.0   | 13      | 2.3  | 2.4    |
| 8          | ---     | --- | ---    | ---      | ---  | ---    | <2.0     | <2.0 | <2.0   | 6.0     | 2.4  | 2.4    |
| 9          | ---     | --- | ---    | ---      | ---  | ---    | <2.0     | <2.0 | <2.0   | 4.1     | 2.5  | 2.5    |
| 10         | ---     | --- | ---    | ---      | ---  | ---    | <2.0     | <2.0 | <2.0   | 5.2     | 2.5  | 2.6    |
| 11         | ---     | --- | ---    | ---      | ---  | ---    | <2.0     | <2.0 | <2.0   | 5.2     | 2.6  | 2.7    |
| 12         | ---     | --- | ---    | ---      | ---  | ---    | 88       | <2.0 | <2.0   | 4.1     | 2.7  | 2.8    |
| 13         | ---     | --- | ---    | ---      | ---  | ---    | <2.0     | <2.0 | <2.0   | 2.9     | 2.8  | 2.8    |
| 14         | ---     | --- | ---    | ---      | ---  | ---    | <2.0     | <2.0 | <2.0   | 3.0     | 2.9  | 2.9    |
| 15         | ---     | --- | ---    | ---      | ---  | ---    | <2.0     | <2.0 | <2.0   | 3.0     | 3.0  | 3.0    |
| 16         | ---     | --- | ---    | ---      | ---  | ---    | <2.0     | <2.0 | <2.0   | 3.2     | 3.0  | 3.1    |
| 17         | ---     | --- | ---    | ---      | ---  | ---    | <2.0     | <2.0 | <2.0   | 3.4     | 3.1  | 3.2    |
| 18         | ---     | --- | ---    | ---      | ---  | ---    | <2.0     | <2.0 | <2.0   | 40      | 3.2  | 3.2    |
| 19         | ---     | --- | ---    | ---      | ---  | ---    | 2.6      | <2.0 | <2.0   | 37      | 3.3  | 3.3    |
| 20         | ---     | --- | ---    | <2.0     | <2.0 | <2.0   | <2.0     | <2.0 | <2.0   | 8.2     | 3.4  | 3.4    |
| 21         | ---     | --- | ---    | <2.0     | <2.0 | <2.0   | <2.0     | <2.0 | <2.0   | 6.4     | 3.4  | 3.5    |
| 22         | ---     | --- | ---    | <2.0     | <2.0 | <2.0   | <2.0     | <2.0 | <2.0   | 6.4     | 3.5  | 3.5    |
| 23         | ---     | --- | ---    | 620      | <2.0 | <2.0   | <2.0     | <2.0 | <2.0   | 6.0     | 3.6  | 3.6    |
| 24         | ---     | --- | ---    | <2.0     | <2.0 | <2.0   | <2.0     | <2.0 | <2.0   | 5.9     | 3.7  | 3.7    |
| 25         | ---     | --- | ---    | <2.0     | <2.0 | <2.0   | <2.0     | <2.0 | <2.0   | 9.0     | 3.7  | 3.8    |
| 26         | ---     | --- | ---    | <2.0     | <2.0 | <2.0   | <2.0     | <2.0 | <2.0   | 9.1     | 3.8  | 3.9    |
| 27         | ---     | --- | ---    | <2.0     | <2.0 | <2.0   | <2.0     | <2.0 | <2.0   | 8.0     | 3.9  | 3.9    |
| 28         | ---     | --- | ---    | <2.0     | <2.0 | <2.0   | <2.0     | <2.0 | <2.0   | 7.6     | 4.0  | 4.0    |
| 29         | ---     | --- | ---    | <2.0     | <2.0 | <2.0   | 2.3      | <2.0 | <2.0   | 9.6     | 4.1  | 4.1    |
| 30         | ---     | --- | ---    | <2.0     | <2.0 | <2.0   | 210      | <2.0 | <2.0   | 12      | 4.1  | 4.2    |
| 31         | ---     | --- | ---    | ---      | ---  | ---    | 31       | <2.0 | <2.0   | 9.7     | 4.2  | 4.3    |
| <b>Max</b> | ---     | --- | ---    | ---      | ---  | ---    | 210      | <2.0 | <2.0   | 140     | 4.2  | 4.3    |
| <b>Min</b> | ---     | --- | ---    | ---      | ---  | ---    | <2.0     | <2.0 | <2.0   | 2.2     | <2.0 | <2.0   |

## 03260015 PLEASANT RUN CREEK AT OAK STREET AT LUDLOW, KY—Continued

TURBIDITY, WATER, UNFILT, NEAR IR LED LIGHT, 780-900 NM, DETECT ANG. 90 DEG, FORMAZIN NEPHELOMETRIC UNITS  
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

[&lt;, less than; &gt;, greater than]

| Day        | Max      | Min  | Median | Max   | Min  | Median | Max   | Min  | Median | Max   | Min  | Median |
|------------|----------|------|--------|-------|------|--------|-------|------|--------|-------|------|--------|
|            | February |      |        | March |      |        | April |      |        | May   |      |        |
| 1          | 1,510    | 4.3  | 4.3    | 110   | 94   | 100    | 18    | <2.0 | <2.0   | 3.8   | 3.7  | 3.7    |
| 2          | 300      | 4.4  | 4.4    | 95    | 88   | 92     | 43    | <2.0 | <2.0   | 3.9   | 3.8  | 3.9    |
| 3          | 13       | <2.0 | 4.4    | 92    | 78   | 81     | 17    | <2.0 | <2.0   | 4.0   | 3.9  | 4.0    |
| 4          | 2.1      | <2.0 | <2.0   | 79    | 75   | 77     | ---   | ---  | ---    | 4.1   | 4.0  | 4.1    |
| 5          | 33       | <2.0 | <2.0   | 81    | 76   | 78     | ---   | ---  | ---    | 4.2   | 4.1  | 4.2    |
| 6          | 9.9      | <2.0 | <2.0   | 94    | 81   | 86     | ---   | ---  | ---    | 4.3   | 4.2  | 4.3    |
| 7          | <2.0     | <2.0 | <2.0   | 96    | 93   | 94     | ---   | ---  | ---    | 4.5   | 4.3  | 4.4    |
| 8          | 8.8      | <2.0 | <2.0   | 98    | 94   | 96     | ---   | ---  | ---    | 4.6   | 4.5  | 4.5    |
| 9          | <2.0     | <2.0 | <2.0   | 100   | 96   | 100    | ---   | ---  | ---    | 4.7   | 4.6  | 4.6    |
| 10         | 28       | <2.0 | <2.0   | 110   | 96   | 100    | ---   | ---  | ---    | 4.8   | 4.7  | 4.7    |
| 11         | 120      | <2.0 | <2.0   | 110   | 110  | 110    | ---   | ---  | ---    | 4.9   | 4.8  | 4.8    |
| 12         | 50       | <2.0 | <2.0   | 120   | 110  | 110    | ---   | ---  | ---    | 5.0   | 4.9  | 4.9    |
| 13         | 9.9      | <2.0 | <2.0   | 120   | 120  | 120    | ---   | ---  | ---    | 5.1   | 5.0  | 5.0    |
| 14         | 250      | <2.0 | <2.0   | 130   | 120  | 130    | ---   | ---  | ---    | 5.2   | 5.1  | 5.1    |
| 15         | 370      | <2.0 | <2.0   | 130   | 130  | 130    | 34    | <2.0 | <2.0   | 5.3   | 5.2  | 5.2    |
| 16         | 360      | <2.0 | <2.0   | 140   | 130  | 140    | 25    | <2.0 | <2.0   | 5.4   | 5.3  | 5.3    |
| 17         | 8.5      | <2.0 | <2.0   | 150   | 140  | 140    | 2.2   | 2.1  | 2.1    | 5.5   | <2.0 | 5.4    |
| 18         | 6.3      | <2.0 | <2.0   | 170   | 150  | 160    | 2.3   | 2.2  | 2.3    | 42    | <2.0 | <2.0   |
| 19         | 1,270    | <2.0 | <2.0   | 190   | 170  | 180    | 2.4   | 2.3  | 2.4    | 18    | <2.0 | <2.0   |
| 20         | 2.5      | <2.0 | <2.0   | 200   | 190  | 190    | 2.6   | 2.4  | 2.5    | 19    | <2.0 | <2.0   |
| 21         | >3,000   | <2.0 | <2.0   | 200   | 180  | 200    | 2.7   | 2.6  | 2.6    | 32    | <2.0 | <2.0   |
| 22         | 13       | <2.0 | <2.0   | 200   | 190  | 200    | 2.8   | 2.7  | 2.7    | 1,110 | <2.0 | <2.0   |
| 23         | 38       | <2.0 | <2.0   | 210   | 200  | 200    | 2.9   | 2.8  | 2.8    | <2.0  | <2.0 | <2.0   |
| 24         | 21       | <2.0 | <2.0   | 200   | 190  | 200    | 3.0   | 2.9  | 3.0    | <2.0  | <2.0 | <2.0   |
| 25         | 340      | <2.0 | 280    | 200   | 200  | 200    | 3.1   | 3.0  | 3.1    | <2.0  | <2.0 | <2.0   |
| 26         | 310      | 240  | 270    | 210   | 200  | 200    | 3.2   | 3.1  | 3.2    | ---   | ---  | ---    |
| 27         | 410      | 120  | 180    | 220   | 210  | 210    | 3.4   | 3.2  | 3.3    | ---   | ---  | ---    |
| 28         | 120      | 110  | 110    | 220   | 220  | 220    | 3.5   | 3.4  | 3.4    | ---   | ---  | ---    |
| 29         | ---      | ---  | ---    | 220   | 210  | 220    | 3.6   | 3.5  | 3.5    | ---   | ---  | ---    |
| 30         | ---      | ---  | ---    | 210   | 210  | 210    | 3.7   | 3.6  | 3.6    | ---   | ---  | ---    |
| 31         | ---      | ---  | ---    | 1,070 | <2.0 | <2.0   | ---   | ---  | ---    | ---   | ---  | ---    |
| <b>Max</b> | >3,000   | 240  | 280    | 1,070 | 220  | 220    | ---   | ---  | ---    | ---   | ---  | ---    |
| <b>Min</b> | <2.0     | <2.0 | <2.0   | 79    | <2.0 | <2.0   | ---   | ---  | ---    | ---   | ---  | ---    |

## 03260015 PLEASANT RUN CREEK AT OAK STREET AT LUDLOW, KY—Continued

TURBIDITY, WATER, UNFILT, NEAR IR LED LIGHT, 780-900 NM, DETECT ANG. 90 DEG, FORMAZIN NEPHELOMETRIC UNITS  
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011

[&lt;, less than; &gt;, greater than]

| Day        | Max  | Min | Median | Max   | Min  | Median | Max    | Min  | Median | Max       | Min  | Median |
|------------|------|-----|--------|-------|------|--------|--------|------|--------|-----------|------|--------|
|            | June |     |        | July  |      |        | August |      |        | September |      |        |
| 1          | ---  | --- | ---    | 7.5   | 7.4  | 7.5    | <2.0   | <2.0 | <2.0   | 9.6       | <2.0 | <2.0   |
| 2          | 38   | 11  | 11     | 7.4   | 7.3  | 7.3    | <2.0   | <2.0 | <2.0   | <2.0      | <2.0 | <2.0   |
| 3          | 31   | 11  | 11     | 7.3   | 7.2  | 7.2    | 20     | <2.0 | <2.0   | <2.0      | <2.0 | <2.0   |
| 4          | 29   | 11  | 11     | 7.2   | 7.0  | 7.1    | <2.0   | <2.0 | <2.0   | 98        | <2.0 | <2.0   |
| 5          | 350  | 10  | 11     | 7.0   | 6.9  | 7.0    | <2.0   | <2.0 | <2.0   | 5.9       | <2.0 | <2.0   |
| 6          | 57   | 10  | 10     | 6.9   | 6.8  | 6.8    | <2.0   | <2.0 | <2.0   | 380       | <2.0 | 110    |
| 7          | 23   | 10  | 10     | 6.8   | 6.7  | 6.7    | 64     | <2.0 | <2.0   | 610       | <2.0 | 130    |
| 8          | 28   | 10  | 10     | 6.7   | 6.5  | 6.6    | 240    | <2.0 | <2.0   | 20        | <2.0 | <2.0   |
| 9          | 22   | 10  | 10     | 6.5   | 6.4  | 6.5    | 240    | <2.0 | <2.0   | <2.0      | <2.0 | <2.0   |
| 10         | 34   | 9.9 | 10     | 6.4   | 6.3  | 6.3    | <2.0   | <2.0 | <2.0   | <2.0      | <2.0 | <2.0   |
| 11         | 9.9  | 9.8 | 9.9    | 6.3   | 6.2  | 6.2    | <2.0   | <2.0 | <2.0   | 160       | <2.0 | <2.0   |
| 12         | 9.8  | 9.7 | 9.7    | 6.2   | 6.0  | 6.1    | <2.0   | <2.0 | <2.0   | <2.0      | <2.0 | <2.0   |
| 13         | 9.7  | 9.6 | 9.6    | 6.0   | 5.9  | 6.0    | <2.0   | <2.0 | <2.0   | 25        | <2.0 | 16     |
| 14         | 9.6  | 9.4 | 9.5    | 5.9   | 5.8  | 5.8    | <2.0   | <2.0 | <2.0   | 170       | <2.0 | 62     |
| 15         | 9.4  | 9.3 | 9.4    | 5.8   | 5.7  | 5.7    | <2.0   | <2.0 | <2.0   | 1,890     | <2.0 | 1,090  |
| 16         | 9.3  | 9.2 | 9.3    | 5.7   | 5.5  | 5.6    | <2.0   | <2.0 | <2.0   | 1,380     | 960  | 1,080  |
| 17         | 9.2  | 9.1 | 9.2    | 5.5   | 5.4  | 5.5    | <2.0   | <2.0 | <2.0   | 1,170     | 870  | 1,080  |
| 18         | 9.1  | 9.0 | 9.0    | 5.4   | 5.3  | 5.3    | <2.0   | <2.0 | <2.0   | 1,120     | 310  | 920    |
| 19         | 9.0  | 8.9 | 8.9    | 10    | <2.0 | 5.2    | <2.0   | <2.0 | <2.0   | 860       | 310  | 360    |
| 20         | 8.9  | 8.7 | 8.8    | 33    | <2.0 | <2.0   | <2.0   | <2.0 | <2.0   | 550       | 380  | 430    |
| 21         | 8.7  | 8.6 | 8.7    | 4.8   | <2.0 | <2.0   | 310    | <2.0 | <2.0   | >3,000    | 320  | 480    |
| 22         | 8.6  | 8.5 | 8.6    | 4.7   | <2.0 | <2.0   | <2.0   | <2.0 | <2.0   | 1,340     | 280  | 570    |
| 23         | 8.5  | 8.4 | 8.4    | 4.3   | <2.0 | <2.0   | <2.0   | <2.0 | <2.0   | 1,480     | <2.0 | 25     |
| 24         | 8.4  | 8.3 | 8.3    | 1,530 | <2.0 | <2.0   | <2.0   | <2.0 | <2.0   | <2.0      | <2.0 | <2.0   |
| 25         | 8.3  | 8.1 | 8.2    | 100   | <2.0 | <2.0   | <2.0   | <2.0 | <2.0   | 210       | <2.0 | <2.0   |
| 26         | 8.1  | 8.0 | 8.1    | 350   | <2.0 | <2.0   | <2.0   | <2.0 | <2.0   | 2,010     | <2.0 | <2.0   |
| 27         | 8.0  | 7.9 | 8.0    | 4.4   | <2.0 | <2.0   | <2.0   | <2.0 | <2.0   | <2.0      | <2.0 | <2.0   |
| 28         | 7.9  | 7.8 | 7.8    | <2.0  | <2.0 | <2.0   | <2.0   | <2.0 | <2.0   | <2.0      | <2.0 | <2.0   |
| 29         | 7.8  | 7.6 | 7.7    | <2.0  | <2.0 | <2.0   | <2.0   | <2.0 | <2.0   | <2.0      | <2.0 | <2.0   |
| 30         | 7.6  | 7.5 | 7.6    | 220   | <2.0 | <2.0   | <2.0   | <2.0 | <2.0   | 85        | <2.0 | <2.0   |
| 31         | ---  | --- | ---    | <2.0  | <2.0 | <2.0   | <2.0   | <2.0 | <2.0   | ---       | ---  | ---    |
| <b>Max</b> | ---  | --- | ---    | 1,530 | 7.4  | 7.5    | 310    | <2.0 | <2.0   | >3,000    | 960  | 1,090  |
| <b>Min</b> | ---  | --- | ---    | <2.0  | <2.0 | <2.0   | <2.0   | <2.0 | <2.0   | <2.0      | <2.0 | <2.0   |