



Water-Data Report 2008

**08447020 Independence Creek near Sheffield, TX**

Lower Pecos Basin  
Independence Subbasin

LOCATION.--Lat 30°27'07", long 101°43'58" referenced to North American Datum of 1927, Terrell County, TX, Hydrologic Unit 13070010, on left bank 0.5 mi downstream from Joe Chandler Ranch Headquarters, 1.0 mi upstream from mouth, 6.0 mi downstream from bridge on FM 1217, and 17.0 mi southeast of Sheffield.

DRAINAGE AREA.--763 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--January 1974 to September 1985, August 2002 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,883 ft above NGVD of 1929, by Topographic Division plane table survey. Satellite telemeter at station.

REMARKS.--No estimated daily discharges. Records good below 300 ft<sup>3</sup>/s and fair above. The Chandler Estate and the Roden Ranch have permits to divert 243 and 530 acre-ft annually, respectively.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 88 ft<sup>3</sup>/s and (or) maximum (\*):

| Date   | Time | Discharge<br>(ft <sup>3</sup> /s) | Gage height<br>(ft) |
|--------|------|-----------------------------------|---------------------|
| Sep 11 | 0000 | *56,700                           | *16.26              |
| Sep 11 | 2145 | 2,560                             | 4.07                |

Minimum discharge, 16 ft<sup>3</sup>/s, on many days, gage height, 2.04 ft.

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## 08447020 Independence Creek near Sheffield, TX—Continued

**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**  
**DAILY MEAN VALUES**

| <b>Day</b>   | <b>Oct</b> | <b>Nov</b> | <b>Dec</b> | <b>Jan</b> | <b>Feb</b> | <b>Mar</b> | <b>Apr</b> | <b>May</b> | <b>Jun</b> | <b>Jul</b> | <b>Aug</b> | <b>Sep</b> |
|--------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| <b>1</b>     | 25         | 22         | 25         | 23         | 23         | 23         | 22         | 19         | 18         | 19         | 20         | 22         |
| <b>2</b>     | 25         | 22         | 25         | 23         | 23         | 23         | 22         | 18         | 17         | 19         | 20         | 22         |
| <b>3</b>     | 25         | 23         | 24         | 23         | 23         | 23         | 23         | 18         | 17         | 19         | 19         | 29         |
| <b>4</b>     | 25         | 23         | 24         | 23         | 23         | 23         | 23         | 18         | 17         | 19         | 19         | 24         |
| <b>5</b>     | 24         | 23         | 24         | 24         | 23         | 23         | 22         | 19         | 17         | 19         | 19         | 22         |
| <b>6</b>     | 24         | 22         | 24         | 24         | 23         | 23         | 21         | 19         | 18         | 19         | 19         | 22         |
| <b>7</b>     | 24         | 22         | 24         | 24         | 22         | 23         | 21         | 19         | 18         | 19         | 19         | 22         |
| <b>8</b>     | 24         | 23         | 24         | 24         | 23         | 23         | 22         | 18         | 17         | 20         | 19         | 22         |
| <b>9</b>     | 24         | 23         | 24         | 24         | 22         | 23         | 22         | 18         | 17         | 20         | 19         | 27         |
| <b>10</b>    | 24         | 23         | 24         | 23         | 23         | 23         | 21         | 18         | 18         | 19         | 19         | 1,260      |
| <b>11</b>    | 24         | 23         | 25         | 23         | 23         | 23         | 20         | 18         | 17         | 19         | 20         | 9,630      |
| <b>12</b>    | 24         | 23         | 24         | 23         | 23         | 23         | 20         | 18         | 17         | 19         | 22         | 451        |
| <b>13</b>    | 24         | 23         | 24         | 23         | 23         | 24         | 20         | 19         | 17         | 19         | 20         | 74         |
| <b>14</b>    | 24         | 23         | 24         | 23         | 22         | 23         | 21         | 19         | 17         | 19         | 19         | 59         |
| <b>15</b>    | 24         | 22         | 24         | 23         | 23         | 22         | 21         | 18         | 17         | 18         | 18         | 53         |
| <b>16</b>    | 24         | 23         | 24         | 24         | 23         | 22         | 21         | 19         | 17         | 19         | 19         | 50         |
| <b>17</b>    | 24         | 23         | 24         | 23         | 23         | 23         | 21         | 19         | 17         | 18         | 21         | 49         |
| <b>18</b>    | 23         | 23         | 25         | 23         | 23         | 23         | 20         | 19         | 17         | 18         | 26         | 48         |
| <b>19</b>    | 23         | 23         | 24         | 23         | 24         | 23         | 20         | 18         | 17         | 18         | 21         | 46         |
| <b>20</b>    | 24         | 24         | 23         | 24         | 23         | 23         | 20         | 18         | 17         | 18         | 20         | 45         |
| <b>21</b>    | 24         | 23         | 23         | 24         | 23         | 23         | 20         | 18         | 18         | 18         | 20         | 44         |
| <b>22</b>    | 24         | 23         | 23         | 24         | 23         | 23         | 20         | 18         | 18         | 18         | 20         | 43         |
| <b>23</b>    | 23         | 23         | 23         | 24         | 23         | 23         | 21         | 18         | 17         | 19         | 23         | 42         |
| <b>24</b>    | 22         | 25         | 23         | 25         | 23         | 23         | 20         | 18         | 18         | 19         | 21         | 42         |
| <b>25</b>    | 22         | 26         | 23         | 25         | 23         | 23         | 20         | 18         | 18         | 21         | 20         | 42         |
| <b>26</b>    | 22         | 24         | 23         | 24         | 21         | 23         | 19         | 18         | 18         | 20         | 20         | 42         |
| <b>27</b>    | 22         | 24         | 24         | 24         | 22         | 23         | 20         | 19         | 18         | 19         | 20         | 42         |
| <b>28</b>    | 22         | 24         | 23         | 24         | 22         | 22         | 19         | 18         | 18         | 19         | 21         | 41         |
| <b>29</b>    | 22         | 24         | 23         | 24         | 22         | 23         | 19         | 18         | 28         | 19         | 34         | 40         |
| <b>30</b>    | 22         | 24         | 23         | 23         | ---        | 23         | 19         | 18         | 22         | 19         | 25         | 40         |
| <b>31</b>    | 22         | ---        | 23         | 23         | ---        | 23         | ---        | 18         | ---        | 21         | 23         | ---        |
| <b>Total</b> | 729        | 696        | 738        | 730        | 661        | 711        | 620        | 568        | 537        | 589        | 645        | 12,395     |
| <b>Mean</b>  | 23.5       | 23.2       | 23.8       | 23.5       | 22.8       | 22.9       | 20.7       | 18.3       | 17.9       | 19.0       | 20.8       | 413        |
| <b>Max</b>   | 25         | 26         | 25         | 25         | 24         | 24         | 23         | 19         | 28         | 21         | 34         | 9,630      |
| <b>Min</b>   | 22         | 22         | 23         | 23         | 21         | 22         | 19         | 18         | 17         | 18         | 18         | 22         |
| <b>Ac-ft</b> | 1,450      | 1,380      | 1,460      | 1,450      | 1,310      | 1,410      | 1,230      | 1,130      | 1,070      | 1,170      | 1,280      | 24,590     |

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1974 - 2008<sup>b</sup>, BY WATER YEAR (WY)

|             | <b>Oct</b> | <b>Nov</b> | <b>Dec</b> | <b>Jan</b> | <b>Feb</b> | <b>Mar</b> | <b>Apr</b> | <b>May</b> | <b>Jun</b> | <b>Jul</b> | <b>Aug</b> | <b>Sep</b> |
|-------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| <b>Mean</b> | 51.5       | 33.7       | 28.9       | 27.5       | 25.9       | 26.5       | 32.1       | 31.3       | 25.6       | 49.8       | 24.6       | 113        |
| <b>Max</b>  | 282        | 98.6       | 49.5       | 45.0       | 42.9       | 41.3       | 71.7       | 95.5       | 53.5       | 466        | 51.5       | 1,299      |
| (WY)        | (2004)     | (1979)     | (1975)     | (2005)     | (2005)     | (2005)     | (1977)     | (2007)     | (2007)     | (2004)     | (2004)     | (1974)     |
| <b>Min</b>  | 19.5       | 19.9       | 20.2       | 18.8       | 18.1       | 16.4       | 15.6       | 15.8       | 16.1       | 14.6       | 15.8       | 16.2       |
| (WY)        | (1981)     | (1985)     | (1985)     | (2003)     | (2003)     | (2003)     | (2003)     | (2003)     | (1974)     | (1974)     | (1985)     | (1983)     |

**08447020 Independence Creek near Sheffield, TX—Continued****SUMMARY STATISTICS**

|                                 | <b>Calendar Year 2007</b> | <b>Water Year 2008</b> |        |        | <b>Water Years 1974 - 2008<sup>h</sup></b> |              |
|---------------------------------|---------------------------|------------------------|--------|--------|--|--------------|
| <b>Annual total</b>             | 14,187                    |                        | 19,619 |        |  |              |
| <b>Annual mean</b>              | 38.9                      |                        | 53.6   |        | 34.2                                       |              |
| <b>Highest annual mean</b>      |                           |                        |        | 93.3   | 2004                                       |              |
| <b>Lowest annual mean</b>       |                           |                        |        | 20.0   | 1983                                       |              |
| <b>Highest daily mean</b>       | 1,100                     | Apr 30                 | 9,630  | Sep 11 | 22,700                                     | Sep 20, 1974 |
| <b>Lowest daily mean</b>        | 22                        | Oct 24                 | 17     | Jun 2  | 7.3  | Oct 5, 2002  |
| <b>Annual seven-day minimum</b> | 22                        | Oct 24                 | 17     | Jun 11 | 7.5  | Sep 30, 2002 |
| <b>Maximum peak flow</b>        |                           |                        | 56,700 | Sep 11 | i79,300                                    | Jul 25, 2004 |
| <b>Maximum peak stage</b>       |                           |                        | 16.26  | Sep 11 | a18.31                                     | Jul 25, 2004 |
| <b>Annual runoff (ac-ft)</b>    | 28,140                    |                        | 38,910 |        | 24,770                                     |              |
| <b>10 percent exceeds</b>       | 51                        |                        | 25     |        | 40   |              |
| <b>50 percent exceeds</b>       | 27                        |                        | 23     |        | 24   |              |
| <b>90 percent exceeds</b>       | 23                        |                        | 18     |        | 18   |              |

<sup>h</sup> See Period of Record paragraph.

<sup>i</sup> From indirect measurement of peak flow.

<sup>a</sup> From floodmark.

