

Water-Data Report 2011

**08115000 Big Creek near Needville, TX**

Lower Brazos Basin  
Lower Brazos Subbasin

LOCATION.--Lat 29°28'35", long 95°48'45" referenced to North American Datum of 1927, Fort Bend County, TX, Hydrologic Unit 12070104, on left bank at downstream side of bridge on State Highway 36, 1.5 mi downstream from Coon Creek, 5.5 mi north of Needville, 10.5 mi upstream from Fairchild Creek, and 33.0 mi upstream from mouth.

DRAINAGE AREA.--42.8 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--May 1947 to June 1950, Mar. 1952 to current year.

REVISED RECORDS.--WSP 1148: 1947. WSP 1712: 1957-58, 1959(M). WDR TX-76-2: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 59.39 ft above NGVD of 1929. Prior to June 1950, and May 1959 to Mar. 1960, nonrecording gage at datum 10.00 ft higher. Mar. to May 1959, and Mar. 1960 to Sept. 1967, water-stage recorder at datum 10.00 ft higher. Satellite telemeter at station.

REMARKS.--Record good. No known regulation or diversions. Channel was rectified in 2002. Low flow supplemented by drainage from irrigated fields. No flow at times. Some records listed in the "Period of Record" for surface water and water quality may not be available electronically.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage since 1913, 24.4 ft in Aug. 1945 before channel rectification, from information by local resident.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,200 ft<sup>3</sup>/s and (or) maximum (\*):

Date	Time	Discharge (ft <sup>3</sup> /s)	Gage height (ft)
Dec 29	2015	*1,120	*15.84

**08115000 Big Creek near Needville, TX—Continued**

**DISCHARGE, CUBIC FEET PER SECOND**  
**WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011**  
**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>	1.7	2.2	1.6	7.0	1.3	1.0	1.6	2.4	1.0	1.2	1.9	2.5
<b>2</b>	1.7	2.2	1.6	2.8	1.3	1.1	1.6	2.5	1.0	1.3	1.7	1.9
<b>3</b>	1.9	2.5	1.6	2.0	1.5	0.98	1.7	2.5	0.85	1.3	1.8	2.7
<b>4</b>	1.9	3.5	1.5	2.7	1.5	0.71	1.7	1.9	1.0	1.3	1.8	2.3
<b>5</b>	1.7	2.4	1.8	14	1.4	0.60	2.7	1.7	1.0	1.4	1.6	2.1
<b>6</b>	1.7	1.7	1.7	4.4	1.4	0.68	1.8	2.3	0.85	3.3	2.0	2.7
<b>7</b>	1.9	2.2	1.6	2.4	1.1	0.69	1.7	2.5	1.3	12	1.8	2.5
<b>8</b>	1.1	2.0	1.8	1.7	1.2	1.1	1.4	2.9	0.98	5.5	1.9	2.1
<b>9</b>	1.5	2.0	1.6	64	1.8	1.2	1.4	2.9	0.97	1.9	1.3	2.2
<b>10</b>	1.6	2.0	1.6	32	1.9	1.1	2.3	3.4	0.89	1.7	1.4	1.1
<b>11</b>	1.7	3.6	1.8	10	1.5	1.2	2.1	1.6	0.96	1.6	1.5	2.5
<b>12</b>	1.8	2.6	2.1	4.2	0.68	1.3	1.9	1.8	0.92	1.5	1.9	2.8
<b>13</b>	1.6	3.5	1.6	2.3	1.6	1.6	1.7	2.6	0.92	1.7	2.1	2.9
<b>14</b>	0.86	2.6	1.6	1.9	2.5	2.2	2.0	0.92	0.82	1.6	1.9	2.5
<b>15</b>	0.70	2.2	1.6	1.4	1.9	1.5	1.9	0.95	0.78	1.7	2.5	2.9
<b>16</b>	0.99	1.8	1.6	2.5	2.0	1.4	1.6	0.99	0.86	1.7	2.0	3.2
<b>17</b>	1.7	1.7	1.5	3.4	1.9	1.4	1.8	1.5	0.83	1.7	2.3	4.2
<b>18</b>	2.0	1.6	1.4	2.2	2.3	1.5	1.7	0.79	0.77	1.7	2.5	5.9
<b>19</b>	2.1	1.7	1.5	1.8	2.1	1.3	1.2	1.4	0.79	1.9	1.4	16
<b>20</b>	1.8	1.8	1.4	1.3	2.2	1.2	0.86	1.1	0.71	1.8	2.3	8.6
<b>21</b>	1.5	1.8	1.8	1.0	1.5	1.4	1.2	0.98	0.88	1.9	2.8	3.7
<b>22</b>	1.1	2.0	1.5	1.2	1.2	1.5	2.1	1.0	4.1	1.7	2.9	3.2
<b>23</b>	1.1	1.9	0.93	1.2	1.1	1.5	2.2	1.1	35	1.7	1.9	2.6
<b>24</b>	1.2	1.9	2.1	53	1.2	1.5	2.0	0.72	14	1.9	2.8	3.2
<b>25</b>	1.3	1.9	8.6	50	1.2	1.3	1.9	0.46	2.8	2.0	7.2	4.1
<b>26</b>	1.9	2.5	2.1	12	1.0	1.6	1.8	0.93	1.6	1.8	7.8	4.2
<b>27</b>	2.2	2.4	1.5	4.7	1.1	1.6	1.9	1.0	1.4	1.4	2.9	3.7
<b>28</b>	2.0	1.8	0.91	2.6	1.3	1.8	2.0	1.1	1.4	1.6	2.7	4.0
<b>29</b>	1.8	1.8	297	1.9	---	1.8	2.1	0.86	1.3	5.7	2.2	3.5
<b>30</b>	2.1	1.5	234	1.5	---	1.8	1.6	1.0	1.3	8.0	3.4	15
<b>31</b>	2.3	---	28	1.4	---	1.7	---	1.1	---	3.7	2.8	---
<b>Total</b>	50.45	65.3	610.94	294.5	42.68	41.26	53.46	48.90	81.98	79.2	77.0	120.8
<b>Mean</b>	1.63	2.18	19.7	9.50	1.52	1.33	1.78	1.58	2.73	2.55	2.48	4.03
<b>Max</b>	2.3	3.6	297	64	2.5	2.2	2.7	3.4	35	12	7.8	16
<b>Min</b>	0.70	1.5	0.91	1.0	0.68	0.60	0.86	0.46	0.71	1.2	1.3	1.1
<b>Ac-ft</b>	100	130	1,210	584	85	82	106	97	163	157	153	240

**STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1947 - 2011<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>	49.2	42.5	38.0	37.5	42.0	22.7	34.1	39.3	43.8	20.8	23.6	40.3
<b>Max</b>	350	313	194	186	223	130	218	224	467	254	284	399
(WY)	(2007)	(2005)	(1987)	(1974)	(1959)	(1957)	(1973)	(1982)	(1960)	(2007)	(1983)	(1979)
<b>Min</b>	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.33	0.02	0.02	0.00	0.00
(WY)	(1948)	(1956)	(1949)	(1957)	(1962)	(1954)	(1954)	(1963)	(1948)	(1956)	(1948)	(1948)

**08115000 Big Creek near Needville, TX—Continued****SUMMARY STATISTICS**

	<b>Calendar Year 2010</b>		<b>Water Year 2011</b>		<b>Water Years 1947 - 2011<sup>h</sup></b>	
<b>Annual total</b>	13,439.51		1,566.47			
<b>Annual mean</b>	36.8		4.29		36.0	
<b>Highest annual mean</b>					91.1	1973
<b>Lowest annual mean</b>					3.54	1956
<b>Highest daily mean</b>	2,130	May 15	297	Dec 29	7,080	Jun 26, 1960
<b>Lowest daily mean</b>	0.70	Oct 15	0.46	May 25	0.00	Jun 13, 1947
<b>Annual seven-day minimum</b>	1.3	Oct 10	0.79	Jun 14	0.00	Jun 13, 1947
<b>Maximum peak flow</b>			1,120	Dec 29	10,400	Jun 26, 1960
<b>Maximum peak stage</b>			15.84	Dec 29	24.23	Oct 18, 1994
<b>Annual runoff (ac-ft)</b>	26,660		3,110		26,090	
<b>10 percent exceeds</b>	45		3.5		49	
<b>50 percent exceeds</b>	2.5		1.8		1.9	
<b>90 percent exceeds</b>	1.6		0.99		0.20	

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

