

Water-Data Report 2007

08041780 Neches River Saltwater Barrier at Beaumont, TX

Neches Basin
Lower Neches Subbasin

LOCATION.--Lat 30°09'24", long 94°06'51" referenced to North American Datum of 1927, Orange County, TX, Hydrologic Unit 12020003, near right bank, approximately 1,000 ft upstream of the Neches River Saltwater Barrier, approximately 2,000 ft downstream of the confluence with Pine Island Bayou, and 5 mi north of Beaumont.

DRAINAGE AREA.--9,789 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--June 2003 to current year.

GAGE.--Water-stage and water-velocity recorder. Datum of gage is unknown. Satellite telemeter at station.

REMARKS.--Records good. Since installation of gage in water year 2003, at least 10% of contributing drainage area has been regulated. There are some diversions upstream for municipal use. Daily mean discharge determined after applying Godin Filter to remove tidal effects from unit values.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 95,800 ft³/s, Oct 21, 2006; maximum gage height, 11.73 ft, Oct 22, 2006.

08041780 Neches River Saltwater Barrier at Beaumont, TX—Continued

DISCHARGE, TIDALLY FILTERED, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	1,470	37,400	3,580	22,400	24,700	13,800	8,140	7,550	7,270	6,460	20,400	7,180
2	1,330	31,000	3,180	29,600	23,800	13,600	9,450	6,170	7,730	6,800	20,300	7,630
3	1,330	26,400	3,380	35,700	22,400	13,300	10,600	5,000	7,870	7,080	19,900	8,290
4	1,110	23,300	3,030	39,500	21,600	12,200	12,100	4,520	7,230	8,130	19,800	8,100
5	1,060	20,400	2,610	38,400	21,500	9,790	12,200	4,240	6,380	9,770	19,900	7,280
6	1,220	17,500	2,110	34,000	21,500	8,030	12,200	5,740	5,380	11,000	19,600	6,860
7	1,190	14,700	1,710	30,500	21,900	7,330	11,900	7,420	4,650	12,300	19,000	6,500
8	915	11,600	1,590	27,400	22,400	6,940	10,600	8,080	4,830	12,800	18,000	5,490
9	718	9,780	935	24,000	23,000	6,590	8,880	8,090	4,680	13,100	16,800	4,660
10	675	9,750	954	20,700	23,000	6,620	7,670	7,590	4,210	13,500	16,100	4,040
11	924	9,650	989	18,200	22,600	6,290	7,540	7,270	3,980	14,100	16,000	3,660
12	1,010	8,470	1,140	16,300	23,600	5,780	6,650	7,310	3,940	14,500	15,900	3,900
13	1,280	8,170	1,460	14,500	28,600	5,670	6,010	7,130	4,170	14,800	15,300	6,690
14	1,240	8,040	1,960	13,500	31,900	6,890	7,370	6,600	3,740	14,900	14,000	7,730
15	732	8,580	2,920	14,000	32,400	9,320	7,650	6,210	2,960	14,800	12,400	6,480
16	4,850	8,290	3,280	13,900	32,300	10,900	7,780	6,290	2,610	15,000	11,400	5,380
17	15,300	7,110	3,460	13,800	32,400	11,200	8,800	5,960	2,780	15,100	11,300	5,000
18	28,300	6,220	3,170	15,400	31,600	11,400	9,050	5,670	3,540	15,400	11,500	4,570
19	49,900	5,520	2,540	17,800	29,500	11,500	7,940	5,380	4,410	15,900	11,400	4,560
20	72,300	4,840	2,160	20,000	27,300	11,400	6,830	4,580	5,540	16,700	11,300	4,760
21	87,500	4,140	2,430	23,200	24,700	10,900	5,830	4,160	6,590	17,700	10,800	4,570
22	88,700	3,710	2,030	25,900	22,200	10,400	5,180	4,620	6,730	18,400	9,940	4,300
23	78,400	3,170	1,510	27,000	19,500	9,710	4,510	4,560	6,310	18,400	9,440	4,100
24	65,000	3,270	2,520	28,000	17,800	9,060	3,630	4,580	5,660	18,100	8,870	3,750
25	52,500	3,480	4,240	29,000	17,200	8,470	4,260	4,460	5,390	17,700	8,110	3,950
26	47,500	3,620	3,780	29,000	15,800	7,420	5,760	4,890	5,500	18,000	7,120	3,960
27	50,800	4,040	3,940	28,800	14,600	6,310	7,010	5,230	6,070	18,800	6,470	4,270
28	50,300	3,860	5,190	29,000	13,800	5,370	8,600	5,370	6,160	19,400	6,200	4,420
29	47,200	3,390	6,180	28,100	---	5,090	9,470	5,870	6,220	19,600	6,670	3,920
30	45,700	3,990	9,910	26,900	---	4,920	8,990	6,950	6,260	19,900	6,840	3,620
31	43,000	---	15,300	25,900	---	5,780	---	7,120	---	20,200	6,870	---
Total	843,454	313,390	103,188	760,400	663,600	271,980	242,600	184,610	158,790	458,340	407,630	159,620
Mean	27,210	10,450	3,329	24,530	23,700	8,774	8,087	5,955	5,293	14,790	13,150	5,321
Max	88,700	37,400	15,300	39,500	32,400	13,800	12,200	8,090	7,870	20,200	20,400	8,290
Min	675	3,170	935	13,500	13,800	4,920	3,630	4,160	2,610	6,460	6,200	3,620
Ac-ft	1,673,000	621,600	204,700	1,508,000	1,316,000	539,500	481,200	366,200	315,000	909,100	808,500	316,600

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2003 - 2007, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	11,690	6,713	3,425	12,440	19,010	10,520	7,014	4,195	3,139	6,221	6,587	3,279
Max	27,210	10,450	4,408	24,530	23,760	20,670	11,150	5,955	5,293	14,790	13,150	5,321
(WY)	(2007)	(2007)	(2004)	(2007)	(2005)	(2005)	(2004)	(2007)	(2007)	(2007)	(2007)	(2007)
Min	3,083	1,165	2,538	1,065	5,035	2,119	1,802	3,140	2,044	2,396	2,260	1,238
(WY)	(2006)	(2006)	(2006)	(2006)	(2006)	(2006)	(2006)	(2005)	(2005)	(2005)	(2005)	(2006)

08041780 Neches River Saltwater Barrier at Beaumont, TX—Continued

SUMMARY STATISTICS

	Calendar Year 2006		Water Year 2007		Water Years 2003 - 2007	
Annual total	2,042,863		4,567,602			
Annual mean	5,597		12,510		7,616	
Highest annual mean					12,510	2007
Lowest annual mean					2,718	2006
Highest daily mean	88,700	Oct 22	88,700	Oct 22	88,700	Oct 22, 2006
Lowest daily mean	-140	Jan 15	675	Oct 10	-140	Jan 15, 2006
Annual seven-day minimum	172	Jan 10	940	Oct 9	172	Jan 10, 2006
Maximum peak flow			95,800	Oct 21	95,800	Oct 21, 2006
Maximum peak stage			11.73	Oct 22	11.73	Oct 22, 2006
Annual runoff (ac-ft)	4,052,000		9,060,000		5,517,000	
Annual runoff (cfsm)	0.572		1.28		0.778	
Annual runoff (inches)	7.76		17.36		10.57	
10 percent exceeds	9,760		27,300		19,600	
50 percent exceeds	2,160		7,780		4,070	
90 percent exceeds	694		3,110		874	

