Water-Data Report 2011

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 mi^2.

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 fair. 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. Some records listed in the "Period of Record" for surface water and water quality may not be available electronically.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 95,800 ft^3/s, Oct. 21, 2006; maximum gage height, 11.73 ft, Oct. 22, 2006. Minimum discharge, -33,300 ft^3/s, Sept. 13, 2008 (storm surge during Hurricane Ike).

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 20,500 ft^3/s, Feb. 2; maximum gage height, 3.07 ft, May 25. Minimum discharge, -3,740 ft^3/s, Oct. 5.

08041780 Neches River Saltwater Barrier at Beaumont, TX—Continued

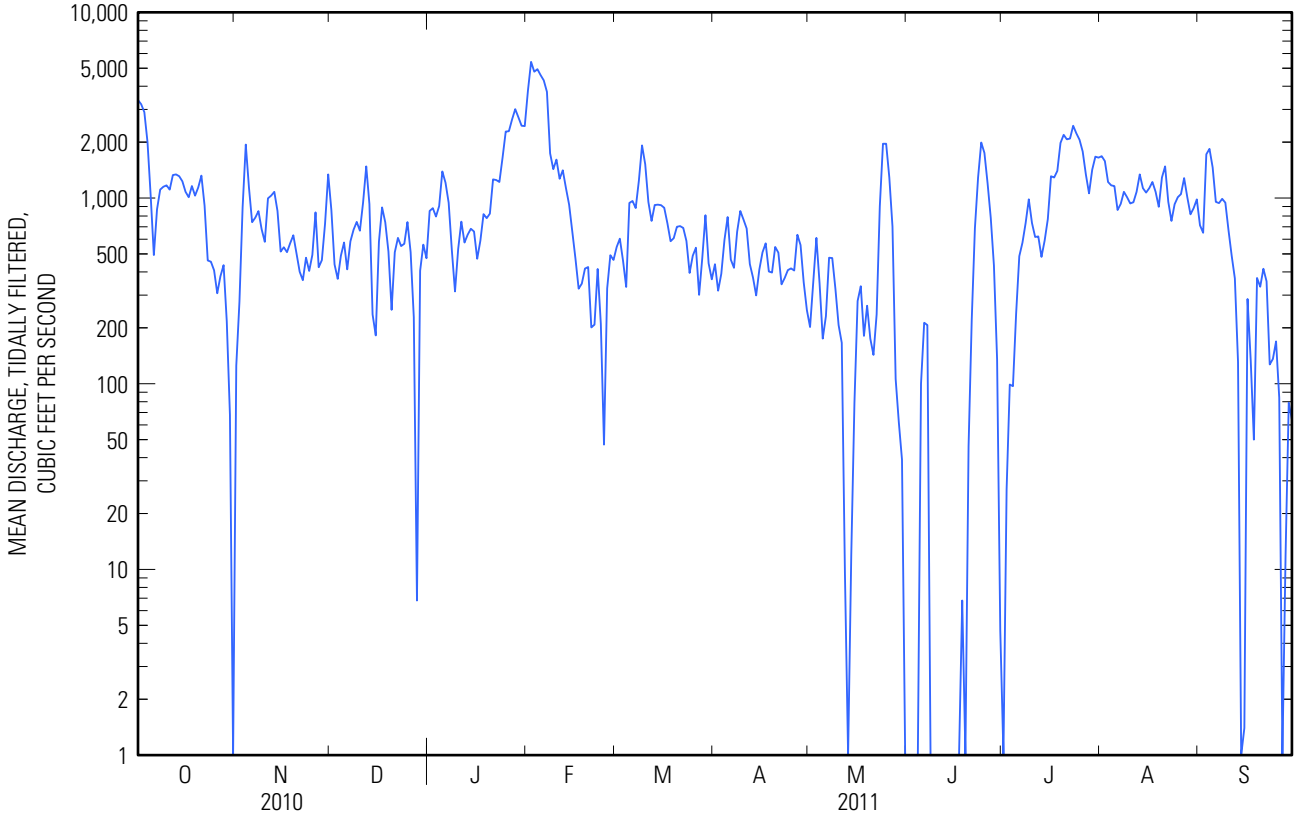
DISCHARGE, TIDALLY FILTERED, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	3,370	125	861	852	3,780	545	440	202	-173	-58	1,680	713
2	3,200	276	439	882	5,410	604	317	351	-29	27	1,580	650
3	2,900	891	367	795	4,790	460	391	610	0.00	99	1,220	1,720
4	2,000	1,940	489	905	4,940	332	595	347	-85	97	1,170	1,840
5	1,030	1,140	576	1,390	4,590	941	790	175	100	238	1,160	1,460
6	493	741	413	1,210	4,300	964	466	231	213	486	862	953
7	869	784	584	943	3,730	883	421	477	207	575	930	939
8	1,110	850	675	524	1,740	1,240	659	475	-33	733	1,080	990
9	1,150	679	744	314	1,430	1,920	851	324	-144	984	1,010	944
10	1,170	581	667	532	1,610	1,520	766	207	-180	734	935	670
11	1,110	996	945	746	1,270	952	685	166	-204	617	949	489
12	1,330	1,030	1,480	576	1,410	753	441	9.5	-202	621	1,080	369
13	1,340	1,080	928	635	1,130	917	373	-87	-203	482	1,340	131
14	1,310	852	236	683	920	921	299	12	-85	590	1,130	-64
15	1,230	515	182	660	659	915	412	79	-26	770	1,070	1.4
16	1,080	543	581	471	471	886	510	279	-63	1,310	1,130	286
17	1,010	511	890	589	325	731	570	335	-29	1,290	1,220	134
18	1,160	571	740	819	346	585	402	181	6.8	1,400	1,080	50
19	1,030	630	515	779	417	608	397	263	-56	1,980	897	371
20	1,140	503	250	824	425	700	545	175	46	2,190	1,290	333
21	1,320	401	510	1,260	201	706	508	143	221	2,070	1,480	416
22	910	361	610	1,250	208	690	343	236	688	2,090	954	356
23	461	477	551	1,220	415	587	371	901	1,290	2,450	753	127
24	454	405	567	1,650	210	395	409	1,960	1,990	2,230	926	136
25	408	494	742	2,280	47	489	418	1,960	1,750	2,060	1,010	169
26	307	837	511	2,290	326	540	407	1,290	1,200	1,780	1,050	84
27	379	424	228	2,650	492	301	634	702	782	1,340	1,280	-32
28	435	463	6.8	3,010	464	475	558	106	433	1,060	1,010	12
29	217	726	406	2,720	---	808	351	62	135	1,420	817	79
30	68	1,340	561	2,450	---	445	249	39	4.7	1,670	882	64
31	-0.07	---	474	2,440	---	365	---	-98	---	1,650	983	---
Total	33,990.93	21,166	17,728.8	38,349	46,056	23,178	14,578	12,112.5	7,554.50	34,985	33,958	14,390.4
Mean	1,096	706	572	1,237	1,645	748	486	391	252	1,129	1,095	480
Max	3,370	1,940	1,480	3,010	5,410	1,920	851	1,960	1,990	2,450	1,680	1,840
Min	-0.07	125	6.8	314	47	301	249	-98	-204	-58	753	-64
Med	1,080	605	561	882	789	700	430	231	2.3	1,060	1,070	344
Ac-ft	67,420	41,980	35,170	76,070	91,350	45,970	28,920	24,030	14,980	69,390	67,360	28,540
Cfsm	0.11	0.07	0.06	0.13	0.17	0.08	0.05	0.04	0.03	0.12	0.11	0.05
In.	0.13	0.08	0.07	0.15	0.18	0.09	0.06	0.05	0.03	0.13	0.13	0.05

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 2003 - 2011, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	6,540	6,021	4,179	8,021	13,430	8,405	6,688	4,190	2,339	4,223	4,283	3,073
Max	27,210	13,820	11,610	24,530	23,760	20,670	13,100	10,520	5,293	14,790	13,150	6,107
(WY)	(2007)	(2010)	(2010)	(2007)	(2005)	(2005)	(2009)	(2009)	(2007)	(2007)	(2007)	(2008)
Min	1,096	706	572	1,065	1,645	748	486	391	252	1,000	1,095	480
(WY)	(2011)	(2011)	(2011)	(2006)	(2011)	(2011)	(2011)	(2011)	(2011)	(2009)	(2011)	(2011)

08041780 Neches River Saltwater Barrier at Beaumont, TX—Continued

SUMMARY STATISTICS

	Calendar Year 2010		Water Year 2011		Water Years 2003 - 2011	
Annual total	1,843,425.73		298,047.13			
Annual mean	5,050		817		5,434	
Highest annual mean					12,510	2007
Lowest annual mean					817	2011
Highest daily mean	19,900	Feb 15	5,410	Feb 2	88,700	Oct 22, 2006
Lowest daily mean	-0.07	Oct 31	-204	Jun 11	-5,220	Sep 13, 2008
Annual seven-day minimum	214	Oct 27	-150	Jun 8	-150	Jun 8, 2011
Maximum peak flow			20,500	Feb 2	95,800	Oct 21, 2006
Maximum peak stage			3.07	May 25	11.73	Oct 22, 2006
Annual runoff (ac-ft)	3,656,000		591,200		3,937,000	
Annual runoff (cfsm)	0.516		0.083		0.555	
Annual runoff (inches)	7.01		1.13		7.54	
10 percent exceeds	12,900		1,670		13,800	
50 percent exceeds	3,270		617		2,910	
90 percent exceeds	532		75		570