

Water-Data Report 2011

08072500 Barker Reservoir near Addicks, TX

 San Jacinto Basin
 Buffalo-San Jacinto Subbasin

LOCATION.--Lat 29°46'11", long 95°38'49" referenced to North American Datum of 1927, Harris County, TX, Hydrologic Unit 12040104, on left bank at dam on Buffalo Bayou, 45 ft upstream from reservoir outlet works, 1,160 ft upstream from Addicks-Howell county road, 1.1 mi south of Addicks, and 1.2 mi upstream from South Mayde Creek.

DRAINAGE AREA.--128 mi², Prior to Aug. 1977, 134 mi². Basin boundary change due to relocation of drainage ditches. During extreme floods, basin may receive and/or lose runoff due to basin interchange.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Aug. 1945 to current year.

PERIOD OF RECORD, Water-Quality.--

CHEMICAL DATA: June 1978 to Sept. 1981.

BIOCHEMICAL DATA: June 1978 to Sept. 1981.

GAGE.--Water-stage recorder. Datum of gage is NAVD 1988, 2001 adjustment. Prior to Oct. 1, 2008, datum of gage was NGVD of 1929, 1973 adjustment; unadjusted for land-surface subsidence since 1973 (2.31 ft above current datum). Prior to Oct. 1, 1980, datum of gage was 0.33 ft below NGVD of 1929, unadjusted for land-surface subsidence (1.98 ft above current datum). Satellite telemeter at station.

COOPERATION.--The capacity table, furnished by the U.S. Army Corps of Engineers, is based on extensive releveling survey made in 2001 using NAVD of 1988, 2001 adjustment as base.

REMARKS.--Records good except for estimated reservoir contents, which are poor. Some records listed in the "Period of Record" for surface water and water quality may not be available electronically. The reservoir is formed by a rolled earthfill dam 71,900 ft long. The dam was completed Feb. 3, 1946, but was used as early as the spring of 1945 for flood control. The reservoir is operated for flood protection for the city of Houston. The controlled outlet works consist of five concrete conduits, 9 x 7 ft wide, each controlled by a vertical slide gate. Data regarding the dam are given in the following table:

	Elevation (feet)
Top of dam.....	112.4
Ground elevation at ends of dam.....	103.7
Design flood.....	103.1
Crest of spillway (invert).....	70.9

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 66,780 acre-ft, Mar. 6, 7, 1992, elevation, 95.89 ft (datum then in use); minimum, reservoir dry at times.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 899 acre-ft, Jan. 10, elevation, 80.53 ft; minimum contents, 0.90 acre-ft, May. 12, elevation, 71.36 ft.

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RESERVOIR STORAGE, ACRE FEET
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	1.65	1.51	1.84	137	1.89	1.36	1.73	1.99	2.27	2.35	2.08	1.36
2	1.56	2.01	1.73	4.09	2.71	1.37	1.56	2.25	2.26	2.33	1.84	1.16
3	1.53	2.93	1.66	2.35	2.20	9.09	1.49	2.05	2.17	2.29	1.67	1.05
4	1.55	3.25	1.58	1.65	1.97	59.7	1.49	1.98	2.19	2.19	1.61	1.02
5	1.56	2.53	1.53	44.5	1.77	124	1.45	1.90	2.24	1.96	1.54	1.04
6	1.57	1.96	1.57	104	1.61	206	1.38	1.86	4.03	1.98	1.53	1.11
7	1.54	1.73	1.49	8.36	1.49	297	1.42	1.83	4.33	3.11	1.56	1.11
8	1.52	1.66	1.53	15.4	1.32	396	1.42	1.89	3.24	2.59	1.59	1.14
9	1.50	1.58	1.63	263	1.52	494	1.44	1.90	2.60	2.36	1.62	1.15
10	1.54	1.56	1.54	661	2.53	573	1.40	2.69	2.36	2.25	1.58	1.12
11	1.58	1.69	1.46	94.9	2.07	518	1.47	6.52	2.28	2.19	1.64	1.15
12	1.60	1.78	1.41	4.66	1.72	115	5.45	1.33	2.32	2.31	1.46	1.19
13	1.57	1.90	1.42	2.93	1.56	2.19	16.2	6.05	2.28	14.6	1.38	1.13
14	1.56	2.00	1.40	2.24	1.48	2.66	15.3	4.74	2.23	73.0	1.43	1.08
15	1.60	2.64	1.35	1.83	1.47	34.2	18.5	2.84	2.23	138	1.47	1.07
16	1.62	2.63	1.38	2.03	1.42	28.1	16.1	2.15	2.14	207	1.50	1.07
17	1.63	2.11	1.34	11.0	1.43	3.23	12.3	1.76	2.11	280	1.48	1.08
18	1.69	1.83	1.31	14.1	1.44	2.27	9.31	1.57	2.10	223	1.46	2.32
19	1.65	1.66	1.32	3.33	1.40	1.79	4.92	5.78	2.12	1.63	1.47	2.46
20	1.60	1.58	1.29	2.26	1.34	1.57	3.72	2.21	2.08	1.56	1.49	3.17
21	1.57	1.57	1.32	1.85	1.39	1.52	1.26	2.28	2.15	1.55	1.52	2.31
22	1.54	1.58	1.31	1.60	1.40	1.47	1.20	2.30	19.3	1.72	1.57	1.70
23	1.48	1.62	1.27	1.48	1.38	1.46	1.19	2.38	332	1.98	1.56	e1.40
24	1.54	1.63	1.28	42.2	1.39	1.40	1.18	2.24	201	1.81	1.58	e1.30
25	1.52	1.63	7.33	328	1.41	1.38	3.88	2.19	20.8	1.76	2.09	e1.20
26	1.53	2.05	18.2	16.4	1.35	1.41	3.92	2.28	2.96	1.69	3.45	e1.20
27	1.54	2.73	3.75	3.44	1.33	1.43	4.83	2.12	2.25	1.60	3.17	e1.25
28	1.48	2.18	2.13	2.38	1.41	1.45	4.62	2.08	1.90	1.54	2.58	e1.30
29	1.44	1.92	22.7	1.84	---	1.48	4.65	2.05	1.82	1.72	2.19	e2.20
30	1.45	2.04	393	1.67	---	1.78	1.85	1.98	1.87	2.35	1.91	e3.30
31	1.46	---	453	1.62	---	2.07	---	2.18	---	2.61	1.52	---
Mean	1.55	1.98	30.2	57.5	1.62	93.1	4.89	2.56	21.2	31.8	1.76	1.47
Max	1.69	3.25	453	661	2.71	573	18.5	6.52	332	280	3.45	3.30
Min	1.44	1.51	1.27	1.48	1.32	1.36	1.18	1.33	1.82	1.54	1.38	1.02

	Calendar Year 2010	Water Year 2011
Mean	786	21.1
Max	15,080	661
Min	1.04	1.02

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