



Water-Data Report 2011

08210500 Lake Corpus Christi near Mathis, TX

Nueces Basin
Lower Nueces Subbasin

LOCATION.--Lat 28°02'17", long 97°52'15" referenced to North American Datum of 1927, Jim Wells County, TX, Hydrologic Unit 12110111, on right upstream corner of outlet tower at right end of Wesley E. Seale Dam on Nueces River, 0.6 mi upstream from bridge on State Highway 359, and 4.5 mi southwest of Mathis.

DRAINAGE AREA.--16,502 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Sept. 1948 to current year (contents).

PERIOD OF RECORD, Water-Quality.--

CHEMICAL DATA: Feb. 1975 to Sept. 1976, Mar. 1999 to Sept. 2010.

BIOCHEMICAL DATA: Feb. 1975 to Sept. 1976.

PESTICIDE DATA: Mar. 1999 to Sept. 2010.

REVISED RECORDS.--WSP 1923: 1953(M), 1957(M). WDR US-2007: Drainage area.

GAGE.--Water-stage recorder. Supplemental water-stage recorder operated by City of Corpus Christi. Datum of gage is NGVD of 1929. Prior to Oct. 1, 1957, nonrecording gage at various sites 0.2 mi upstream at datum 0.52 ft higher. Oct. 1, 1957, to Apr. 3, 1961, nonrecording gage near left end of Mathis Dam 0.2 mi upstream at present datum. Satellite telemeter at station.

COOPERATION.--Capacity curve 5-C from a Jan. 1987 survey provided by the City of Corpus Christi. Figures for new capacity curve were used beginning Oct. 1, 1989. Prior to Aug. 31, 1998, the City of Corpus Christi provided daily observer readings.

REMARKS.--Records good. Some records listed in the "Period of Record" for surface water and water quality may not be available electronically. Mathis Dam was completed and storage began July 24, 1934. The original capacity at spillway crest (elevation, 74.5 ft) was 54,000 acre-ft, but by Mar. 1948 had decreased to 39,400 acre-ft because of sedimentation. Wesley E. Seale Dam was completed and deliberate impoundment began on Apr. 26, 1958, submerging the old Mathis Dam. Wesley E. Seale Dam is a rolled earthfill dam, 5,930 ft long, including two spillways. The 1,320-foot north spillway has 33 gates that are operated by movable hydraulic lifts. The 1,080-foot south spillway has 27 gates that are electrically operated from the control tower. The gates were repaired and modified in Aug. 1966. All gates in both spillways are 37.5 by 8.75 ft wide. The dam is owned by the City of Corpus Christi. Water for municipal supply for the City of Corpus Christi is released downstream through a 4.0-foot-diameter cylinder valve and three 2.5- by 4.0-foot rectangular openings. The releases are diverted from the river at Calallen 35 mi downstream for domestic, municipal, irrigation, mining, and industrial uses in the Corpus Christi area. The cities of Alice, Beeville, and Mathis withdraw water from the lake for municipal use. Conservation pool storage is 269,900 acre-ft. Data regarding the dam are given in the following table:

	Elevation (feet)
Top of dam.....	106.0
Top of north spillway gates.....	94.5
Top of south spillway gates.....	94.0
Crest of spillways.....	88.0
Lowest gated outlet (invert).....	55.5

Beginning in the 2006 Water Year, water-quality data published with this site are now published as:

Site ID	Site name
280238097521301	Lake Corpus Christi Site AC near Mathis, Tx
280656097542801	Lake Corpus Christi Site BC near Mathis, Tx
280921097562701	Lake Corpus Christi Site CC near Mathis, Tx
281108097544701	Lake Corpus Christi Site DC near Mathis, Tx
281411097564801	Lake Corpus Christi Site EC near Mathis, Tx

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EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 320,000 acre-ft Sept. 22, 1967 and Sept. 12, 1971, elevation, 94.82 ft, Sept. 22, 1967; minimum contents, 14,740 acre-ft, May 5, 1951, elevation, 67.62 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 254,200 acre-ft, Oct. 1, 2, gage height, 93.83 ft; minimum contents, 105,600 acre-ft, Sept. 29, gage height, 84.36 ft.

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	253,700	244,600	230,900	225,400	229,200	222,600	211,500	195,300	182,400	163,800	144,900	125,000
2	253,500	246,400	e230,800	224,100	228,300	222,000	211,300	198,000	181,900	163,200	144,000	124,600
3	253,100	e245,600	e231,000	223,600	e226,900	221,600	210,600	196,300	181,300	162,700	143,100	124,300
4	252,300	e245,100	e231,000	224,000	e225,800	221,200	212,100	194,400	180,700	162,100	142,300	123,700
5	251,600	244,800	230,900	224,300	225,300	223,000	210,200	193,700	180,400	161,600	141,600	123,000
6	251,300	243,400	230,000	223,900	225,400	220,900	208,900	193,000	179,700	160,900	141,000	121,900
7	251,000	242,400	229,300	223,800	225,900	219,700	208,600	192,300	178,800	160,200	140,000	120,900
8	250,700	241,400	229,800	223,900	224,200	220,000	207,900	191,600	178,100	159,400	139,100	120,500
9	250,500	240,200	228,500	226,200	226,900	221,000	206,900	190,300	177,600	158,500	e138,000	119,500
10	250,100	239,600	228,200	226,400	225,400	219,900	206,400	189,800	176,900	157,800	e137,400	118,500
11	249,800	238,800	228,700	226,800	224,300	218,700	208,000	189,700	176,300	157,200	137,200	117,600
12	250,100	238,200	228,800	225,700	224,200	217,800	206,500	190,900	175,600	156,400	136,800	117,100
13	250,200	238,600	227,500	225,100	223,700	218,000	205,800	191,800	174,800	155,800	136,300	116,300
14	250,000	237,300	226,600	224,800	223,700	218,700	205,000	191,500	173,700	155,100	135,900	115,600
15	249,200	236,200	226,500	225,300	223,500	218,200	206,000	190,800	172,600	154,400	135,200	115,100
16	248,800	236,100	227,400	227,700	223,400	217,300	204,300	190,200	171,600	153,900	134,200	114,400
17	248,600	235,300	227,500	227,800	223,200	216,700	203,300	189,200	170,800	153,500	133,700	114,400
18	248,300	235,700	226,900	228,600	223,500	216,500	202,800	188,300	169,700	153,000	133,300	114,600
19	248,100	234,700	226,300	228,300	223,300	216,000	202,400	188,200	168,600	152,300	132,500	114,300
20	248,100	234,200	226,000	229,700	222,600	215,400	202,200	188,200	167,800	151,100	132,100	113,800
21	247,400	233,500	226,000	228,600	223,700	214,900	201,400	188,100	167,500	150,400	131,400	113,400
22	246,600	233,300	226,100	227,900	224,000	214,400	200,500	186,700	168,200	149,500	130,800	113,100
23	246,500	233,700	225,800	228,300	223,500	214,900	199,900	186,300	168,000	149,100	130,100	112,900
24	246,900	233,000	226,400	228,500	223,500	214,600	199,400	186,000	167,800	149,000	129,600	112,100
25	246,300	233,800	227,300	228,500	223,600	213,900	199,200	186,000	166,900	148,500	129,300	111,200
26	246,600	235,000	e225,900	227,600	222,800	213,700	199,100	186,000	166,100	147,700	128,600	110,800
27	246,700	232,700	e224,900	227,500	222,500	213,700	200,000	184,900	165,800	147,100	128,000	110,700
28	247,700	231,700	224,300	227,200	224,100	213,700	198,600	183,800	165,500	146,500	127,200	110,200
29	246,000	232,100	224,300	226,900	---	213,200	197,000	182,700	165,100	146,700	126,500	109,700
30	245,200	e231,200	224,400	227,200	---	213,700	196,500	181,900	164,500	145,500	125,900	109,400
31	244,900	---	225,000	227,000	---	212,200	---	182,300	---	145,400	125,300	---
Mean	249,000	237,600	227,500	226,500	224,500	217,400	204,400	189,300	172,800	154,100	134,600	116,300
Max	253,700	246,400	231,000	229,700	229,200	223,000	212,100	198,000	182,400	163,800	144,900	125,000
Min	244,900	231,200	224,300	223,600	222,500	212,200	196,500	181,900	164,500	145,400	125,300	109,400

	Calendar Year 2010	Water Year 2011
Mean	209,000	196,100
Max	255,900	253,700
Min	83,560	109,400

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