Water-Data Report 2011

08063050 Navarro Mills Lake near Dawson, TX

Upper Trinity Basin
Richland Subbasin

LOCATION.--Lat 31°57′27″, long 96°41′21″ referenced to North American Datum of 1927, Navarro County, TX, Hydrologic Unit 12030108, in left abutment of spillway of Navarro Mills Dam on Richland Creek, 1.7 mi upstream from bridge on State Highway 31, 3.0 mi upstream from St. Louis Southwestern Railway Lines bridge, 4.2 mi upstream from Post Oak Creek, 4.6 mi north of Dawson, and 63.9 mi upstream from mouth.

DRAINAGE AREA.--320 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Sept. 1962 to Sept. 2000 (U.S. Army Corps of Engineers furnished contents), Oct. 2000 to Sept. 2002 (contents), Oct. 2002 to current year. Prior to Oct. 1970, published as "Navarro Mills Reservoir".

PERIOD OF RECORD, Water-Quality.--
CHEMICAL DATA: Aug. 1965 to Aug. 1980.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929 (levels by U.S. Army Corps of Engineers). Prior to Oct. 8, 1962, nonrecording gage in low-water channel at same datum. Satellite telemeter at station.

REMARKS.--Records good. Some records listed in the Period of Record for surface water and water quality may not be available electronically. The lake is formed by a rolled earthfill dam 7,570 ft long, including a 240-foot off-channel gated spillway with six 40.0- by 29.0-foot tainter gates. From Aug. 27, 1962, to Mar. 14, 1963, lake was operated as a detention basin only. Deliberate impoundment began Mar. 15, 1963, and dam was completed in Sept. 1963. Low-flow outlet works consist of two 36-inch-diameter gate-controlled conduits. Lake was built for flood control and water conservation. Flow is affected at times by discharge from the flood-detention pools of 51 floodwater-retarding structures with a combined detention capacity of 26,160 acre-ft. These structures control runoff from 86.9 mi^2 in the Richland Creek drainage basin. The dam is owned by the U.S. Army Corps of Engineers. An unknown amount of water is diverted for municipal and industrial uses. Data regarding dam are given in the following table:

	Elevation (feet)
Top of dam.....	457.0
Design flood.....	451.9
Top of gates (top of flood-control storage pool).....	443.0
Crest of spillway (gate sill).....	414.0
Lowest gated outlet (invert).....	400.0

Water-quality records available from Mar. 1981 to Sept. 2006 were published separately as:

Site ID	Site name
315730096412601	Navarro Mills Lk Site AC nr Dawson, TX
315706096420201	Navarro Mills Lk Site AR nr Dawson, TX
315710096431301	Navarro Mills Lk Site BC nr Dawson, TX
315642096444401	Navarro Mills Lk Site CC nr Dawson, TX
315602096470001	Navarro Mills Lk Site DC nr Dawson, TX
315706096463201	Navarro Mills Lk Site EC nr Dawson, TX

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 183,300 acre-ft, May 18, 1968, elevation, 440.36 ft; minimum since initial filling in May 1965, 32,490 acre-ft, Dec. 28, 1978, elevation, 418.89 ft; minimum elevation, 415.73 ft, Dec. 19-20,23-24,28-29, 2006.

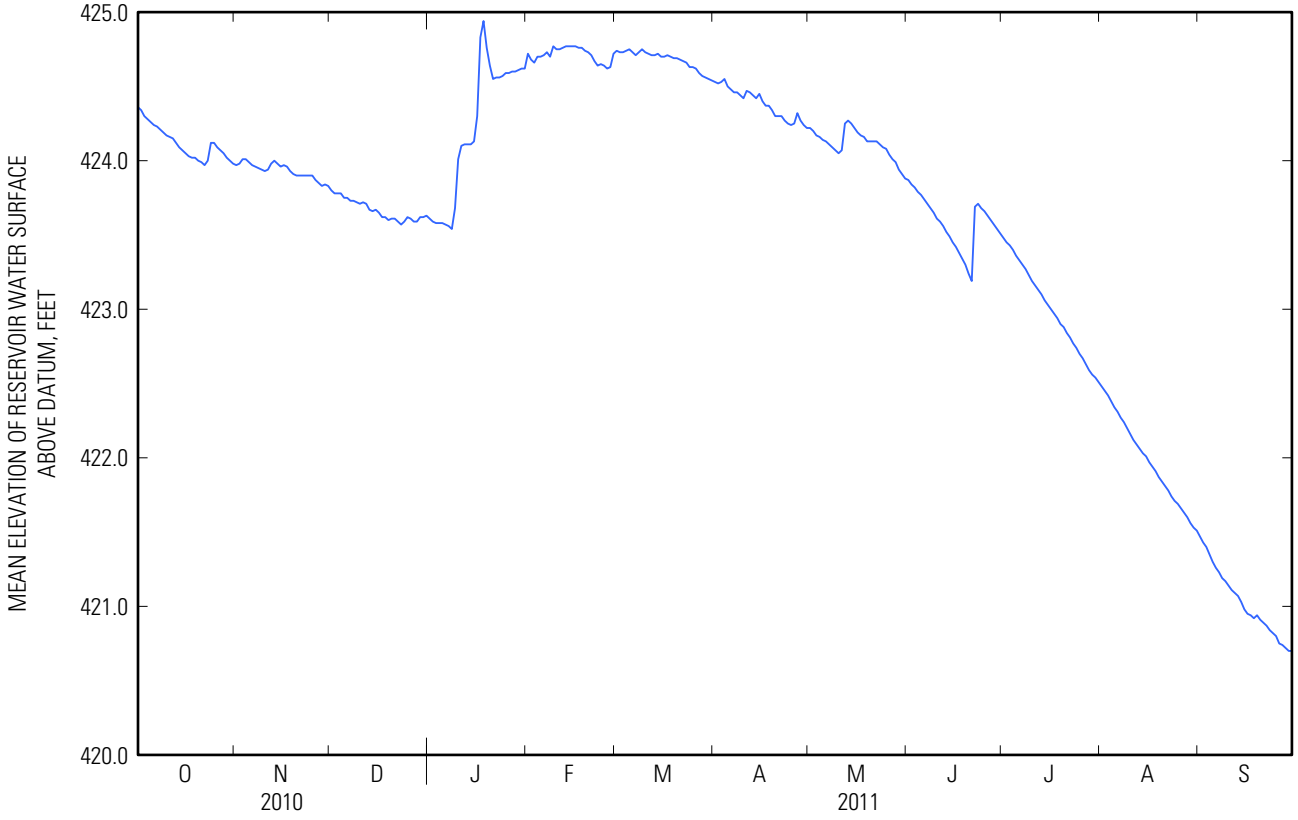
EXTREMES FOR CURRENT YEAR.--Maximum elevation, 424.98 ft, Jan. 18; minimum elevation, 420.66 ft, Sept. 30.

Suggested citation: U.S. Geological Survey, 2012, Water-resources data for the United States, Water Year 2011: U.S. Geological Survey Water-Data Report WDR-US-2011, site 08063050, accessed at http://wdr.water.usgs.gov/wy2011/pdfs/08063050.2011.pdf

08063050 Navarro Mills Lake near Dawson, TX—Continued

ELEVATION OF RESERVOIR WATER SURFACE ABOVE DATUM, FEET
WATER YEAR OCTOBER 2010 TO SEPTEMBER 2011
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	424.36	423.97	423.80	423.61	424.72	424.74	424.53	424.22	423.87	423.48	422.48	421.47
2	424.34	423.98	423.78	423.59	424.68	424.73	424.52	424.20	423.84	423.45	422.45	421.43
3	424.30	424.01	423.78	423.58	424.66	424.73	424.53	424.17	423.82	423.43	422.42	421.40
4	424.28	424.01	423.78	423.58	424.70	424.74	424.55	424.16	423.79	423.40	422.38	421.35
5	424.26	423.99	423.75	423.58	424.70	424.75	424.50	424.14	423.77	423.36	422.34	421.30
6	424.24	423.97	423.75	423.57	424.71	424.73	424.48	424.13	423.74	423.33	422.31	421.26
7	424.23	423.96	423.73	423.56	424.73	424.71	424.46	424.11	423.71	423.30	422.27	421.23
8	424.21	423.95	423.73	423.54	424.70	424.73	424.46	424.09	423.68	423.27	422.24	421.19
9	424.19	423.94	423.72	423.68	424.77	424.75	424.44	424.07	423.65	423.23	422.20	421.17
10	424.17	423.93	423.71	424.01	424.75	424.73	424.42	424.05	423.61	423.19	422.16	421.14
11	424.16	423.94	423.72	424.10	424.75	424.72	424.47	424.07	423.59	423.16	422.12	421.11
12	424.15	423.98	423.71	424.11	424.76	424.71	424.46	424.25	423.56	423.13	422.09	421.09
13	424.12	424.00	423.67	424.11	424.77	424.71	424.44	424.27	423.52	423.10	422.06	421.07
14	424.09	423.98	423.66	424.11	424.77	424.72	424.42	424.25	423.49	423.06	422.03	421.03
15	424.07	423.96	423.67	424.13	424.77	424.70	424.45	424.22	423.45	423.03	422.01	420.98
16	424.05	423.97	423.65	424.30	424.77	424.70	424.40	424.19	423.42	423.00	421.97	420.95
17	424.03	423.96	423.62	424.83	424.76	424.71	424.37	424.17	423.38	422.97	421.94	420.94
18	424.02	423.93	423.62	424.94	424.76	424.70	424.37	424.16	423.34	422.94	421.91	420.92
19	424.02	423.91	423.60	424.76	424.74	424.69	424.34	424.13	423.30	422.90	421.87	420.94
20	424.00	423.90	423.61	424.64	424.73	424.69	424.30	424.13	423.24	422.88	421.84	420.91
21	423.99	423.90	423.61	424.55	424.71	424.68	424.30	424.13	423.19	422.84	421.81	420.89
22	423.97	423.90	423.59	424.56	424.67	424.67	424.30	424.13	423.69	422.81	421.78	420.87
23	424.00	423.90	423.57	424.56	424.64	424.66	424.27	424.11	423.71	422.77	421.74	420.84
24	424.12	423.90	423.59	424.57	424.65	424.63	424.25	424.09	423.68	422.74	421.71	420.82
25	424.12	423.90	423.62	424.59	424.64	424.63	424.24	424.08	423.66	422.70	421.69	420.80
26	424.09	423.87	423.61	424.59	424.62	424.62	424.25	424.04	423.63	422.67	421.66	420.75
27	424.07	423.85	423.59	424.60	424.63	424.59	424.32	424.01	423.60	422.63	421.63	420.74
28	424.05	423.83	423.59	424.60	424.72	424.57	424.27	423.99	423.57	422.59	421.60	420.72
29	424.02	423.84	423.62	424.61	---	424.56	424.24	423.94	423.54	422.56	421.56	420.70
30	424.00	423.83	423.62	424.62	---	424.55	424.22	423.91	423.51	422.54	421.53	420.70
31	423.98	---	423.63	424.62	---	424.54	---	423.88	---	422.51	421.51	---
Mean	424.12	423.93	423.67	424.22	424.71	424.68	424.39	424.11	423.58	423.00	421.98	421.02
Max	424.36	424.01	423.80	424.94	424.77	424.75	424.55	424.27	423.87	423.48	422.48	421.47
Min	423.97	423.83	423.57	423.54	424.62	424.54	424.22	423.88	423.19	422.51	421.51	420.70

	Calendar Year 2010	Water Year 2011
Mean	425.05	423.61
Max	431.49	424.94
Min	423.28	420.70

08063050 Navarro Mills Lake near Dawson, TX—Continued