Water-Data Report 2012

08090880 Lake Granbury at State Highway 51 near Granbury, TX

Middle Brazos-Bosque Basin
Middle Brazos-Palo Pinto Subbasin

LOCATION.--Lat 32°28′37″, long 97°47′17″ referenced to North American Datum of 1927, Hood County, TX, Hydrologic Unit 12060201, on right upstream bank at Highway 51 bridge, 2.2 mi north of Granbury.

DRAINAGE AREA.--25,679 mi^2 of which 9,566 mi^2 probably is noncontributing.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Oct. 2005 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1.11 ft below NGVD of 1929. Satellite telemeter at station.

REMARKS.--Records good. The lake is formed by an Ambursen-type concrete and earthfill dam 2,256 ft long, including a 932-ft concrete spillway. The dam was completed on Aug. 30, 1969, and deliberate impoundment began Sept. 15, 1969. The spillway consists of sixteen 36- by 35-ft tainter gates and two 7- by 8-ft sluice gates. Outflow through the sluice gates discharges into a bay where the outflow is then controlled by two 4- by 4.5-ft sluice gates with inverts at 625.8 ft. Flow is affected at times by discharge from the flood-detention pools of twelve floodwater-retarding structures with a combined detention capacity of 13,940 acre-ft. These structures control runoff from 53.9 mi^2 in the East Keechi, Kickapoo, and Ruckers Creeks drainage basins. The lake was built by the Brazos River Authority for the conservation of water for irrigation, municipal, and industrial uses. Water is also diverted into Squaw Creek Reservoir (station 08091730, conservation pool storage 151,030 acre-ft). The City of Granbury returns wastewater effluent into Lake Granbury. Conservation pool storage is 129,011 acre-ft. Data regarding the dam are given in the following table:

	Elevation (feet)
Top of dam	706.5
Top of tainter gates (design flood)	693.0
Crest of spillway	658.0
Lowest gated outlet (invert)	640.0

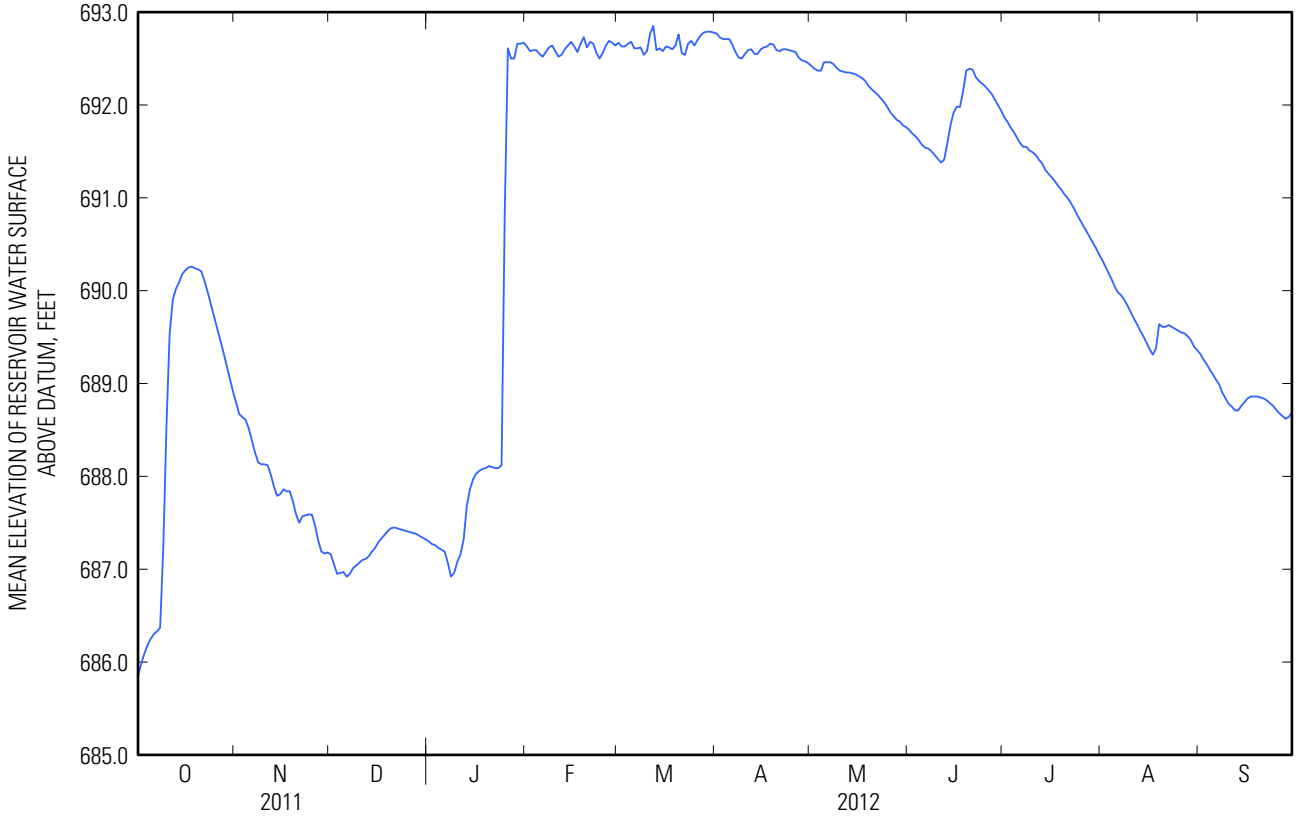
EXTREMES FOR PERIOD OF RECORD.--Maximum elevation, 693.83 ft, June 26, 2007; minimum elevation, 685.62 ft, Sept. 29, 2011.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 692.99 ft, Mar. 12; minimum elevation, 685.77 ft, Oct. 1.

Suggested citation: U.S. Geological Survey, 2013, Water-resources data for the United States, Water Year 2012: U.S. Geological Survey Water-Data Report WDR-US-2012, site 08090880, accessed at http://wdr.water.usgs.gov/wy2012/pdfs/08090880.2012.pdf

08090880 Lake Granbury at State Highway 51 near Granbury, TX—Continued

ELEVATION OF RESERVOIR WATER SURFACE ABOVE DATUM, FEET
WATER YEAR OCTOBER 2011 TO SEPTEMBER 2012
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	685.85	688.80	687.16	687.30	692.63	692.67	692.77	692.42	691.73	691.87	690.33	689.32
2	685.98	688.67	687.05	687.27	692.58	692.63	692.73	692.39	691.69	691.82	690.26	689.26
3	686.09	688.64	686.95	687.26	692.59	692.63	692.71	692.37	691.66	691.76	690.19	689.21
4	686.18	688.61	686.96	687.23	692.59	692.66	692.71	692.37	691.62	691.71	690.12	689.15
5	686.25	688.52	686.97	687.21	692.55	692.68	692.71	692.46	691.57	691.65	690.04	689.10
6	686.30	688.39	686.92	687.19	692.52	692.61	692.65	692.46	691.54	691.59	689.98	689.04
7	686.33	688.26	686.95	687.07	692.57	692.61	692.57	692.46	691.53	691.55	689.95	688.99
8	686.37	688.15	687.01	686.92	692.62	692.62	692.51	692.44	691.50	691.55	689.90	688.90
9	687.23	688.13	687.04	686.96	692.64	692.54	692.50	692.40	691.46	691.51	689.84	688.84
10	688.54	688.13	687.07	687.08	692.58	692.58	692.55	692.37	691.42	691.49	689.77	688.78
11	689.53	688.12	687.10	687.16	692.52	692.77	692.59	692.36	691.38	691.46	689.70	688.75
12	689.90	688.02	687.11	687.32	692.54	692.85	692.60	692.35	691.41	691.41	689.64	688.71
13	690.02	687.89	687.14	687.68	692.60	692.59	692.55	692.35	691.59	691.37	689.57	688.71
14	690.09	687.79	687.19	687.86	692.64	692.61	692.55	692.34	691.78	691.30	689.51	688.76
15	690.18	687.81	687.23	687.97	692.68	692.58	692.60	692.33	691.92	691.26	689.44	688.80
16	690.22	687.86	687.29	688.03	692.63	692.63	692.62	692.31	691.98	691.22	689.37	688.84
17	690.25	687.84	687.33	688.06	692.57	692.62	692.63	692.29	691.98	691.18	689.31	688.86
18	690.26	687.84	687.37	688.08	692.66	692.60	692.66	692.26	692.15	691.13	689.38	688.86
19	690.24	687.73	687.41	688.09	692.73	692.64	692.65	692.21	692.37	691.09	689.64	688.86
20	690.23	687.59	687.44	688.11	692.62	692.76	692.59	692.17	692.39	691.04	689.61	688.85
21	690.21	687.50	687.45	688.10	692.68	692.56	692.58	692.14	692.38	691.00	689.61	688.84
22	690.11	687.57	687.44	688.09	692.66	692.54	692.60	692.11	692.30	690.95	689.63	688.82
23	689.99	687.58	687.43	688.09	692.56	692.66	692.60	692.07	692.26	690.89	689.61	688.79
24	689.86	687.59	687.42	688.12	692.50	692.69	692.59	692.03	692.23	690.82	689.59	688.76
25	689.73	687.59	687.41	690.82	692.56	692.64	692.58	691.98	692.20	690.76	689.57	688.72
26	689.60	687.47	687.40	692.61	692.64	692.70	692.57	691.92	692.16	690.70	689.55	688.68
27	689.47	687.31	687.39	692.50	692.69	692.75	692.51	691.88	692.12	690.64	689.54	688.65
28	689.34	687.19	687.38	692.50	692.67	692.78	692.48	691.84	692.06	690.58	689.51	688.62
29	689.20	687.17	687.36	692.66	692.64	692.79	692.47	691.82	692.00	690.52	689.47	688.64
30	689.06	687.18	687.34	692.66	---	692.79	692.45	691.78	691.94	690.46	689.40	688.69
31	688.92	---	687.32	692.67	---	692.78	---	691.76	---	690.39	689.36	---
Mean	688.76	687.90	687.23	688.67	692.61	692.66	692.60	692.21	691.88	691.18	689.69	688.86
Max	690.26	688.80	687.45	692.67	692.73	692.85	692.77	692.46	692.39	691.87	690.33	689.32
Min	685.85	687.17	686.92	686.92	692.50	692.54	692.45	691.76	691.38	690.39	689.31	688.62

08090880 Lake Granbury at State Highway 51 near Granbury, TX—Continued