07342495 Jim L. Chapman Lake near Cooper, TX

Big Cypress-Sulphur Basin
Sulphur Headwaters Subbasin

LOCATION.--Lat 33°20′00″, long 95°37′30″ referenced to North American Datum of 1927, Hopkins County, TX, Hydrologic Unit 11140301, in control room near center of dam on South Sulphur River, about 4.0 mi southeast of Cooper, and at river mile 23.2.

DRAINAGE AREA.--479 mi^2.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Oct. 1993 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. 2000, published as "Cooper Lake near Cooper".

PERIOD OF DAILY RECORD, Atmospheric.--
PRECIPITATION DATA: Oct. 2001 to Sept. 2002.

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

REMARKS.--Records good. The lake is formed by a rolled earthfill dam, 28,070 ft long, including the dike. Closure of dam and deliberate impoundment of water began Sept. 28, 1991. The spillway is a 700-foot wide vertical-faced uncontrolled ogee-weir located near the right abutment of the dam. The service spillway (outlet works) consists of both service and emergency gates and low-flow release facilities. The outlet works structure is 452 feet long, and consists of an approach channel, approach channel U-frame structure, intake structure and service bridge over 10.5-foot diameter conduits, and a stilling basin and discharge channel. The emergency part of the outlet structure consists of five 40- x 20-foot tainter gates. The dam was built, and is owned by the U.S. Army Corps of Engineers in cooperation with the North Texas Municipal Water District, the Sulphur River Municipal Water District, and the City of Irving. The principal uses of the dam and lake are for flood control, water supply, and recreation. Data regarding the dam are given in the following table:

	Elevation (feet)
Top of dam	464.5
Top of flood control pool	446.2
Invert, lowest gated outlet	394.0

Water-quality records available from Sept. 1992 to Aug. 2001 were published separately as:

Site ID	Site name
331938095374701	Jim L. Chapman Lk Site AC nr Cooper, TX
332110095422201	Jim L. Chapman Lk Site BC nr Cooper, TX
331818095422501	Jim L. Chapman Lk Site CC nr Cooper, TX
332019095441901	Jim L. Chapman Lk Site DC nr Cooper, TX
331838095465601	Jim L. Chapman Lk Site EC nr Cooper, TX
331630095462901	Jim L. Chapman Lk Site FC nr Cooper, TX
331718095480601	Jim L. Chapman Lk Site GC nr Cooper, TX
331927095480001	Jim L. Chapman Lk Site HC nr Cooper, TX

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 461,400 acre-ft, Dec. 18, 2001, elevation, 447.03 ft; minimum contents after initial filling, 191,100 acre-ft, May 11, 1992, elevation, 432.66 ft; minimum elevation, 421.98 ft, Dec. 29, 2006.

EXTREMES FOR CURRENT YEAR.--Maximum elevation, 435.38 ft, Oct. 1; minimum elevation, 427.34 ft, Sept. 30.

Suggested citation: U.S. Geological Survey, 2014, Water-resources data for the United States, Water Year 2013: U.S. Geological Survey Water-Data Report WDR-US-2013, site 07342495, accessed at http://wdr.water.usgs.gov/wy2013/pdfs/07342495.2013.pdf

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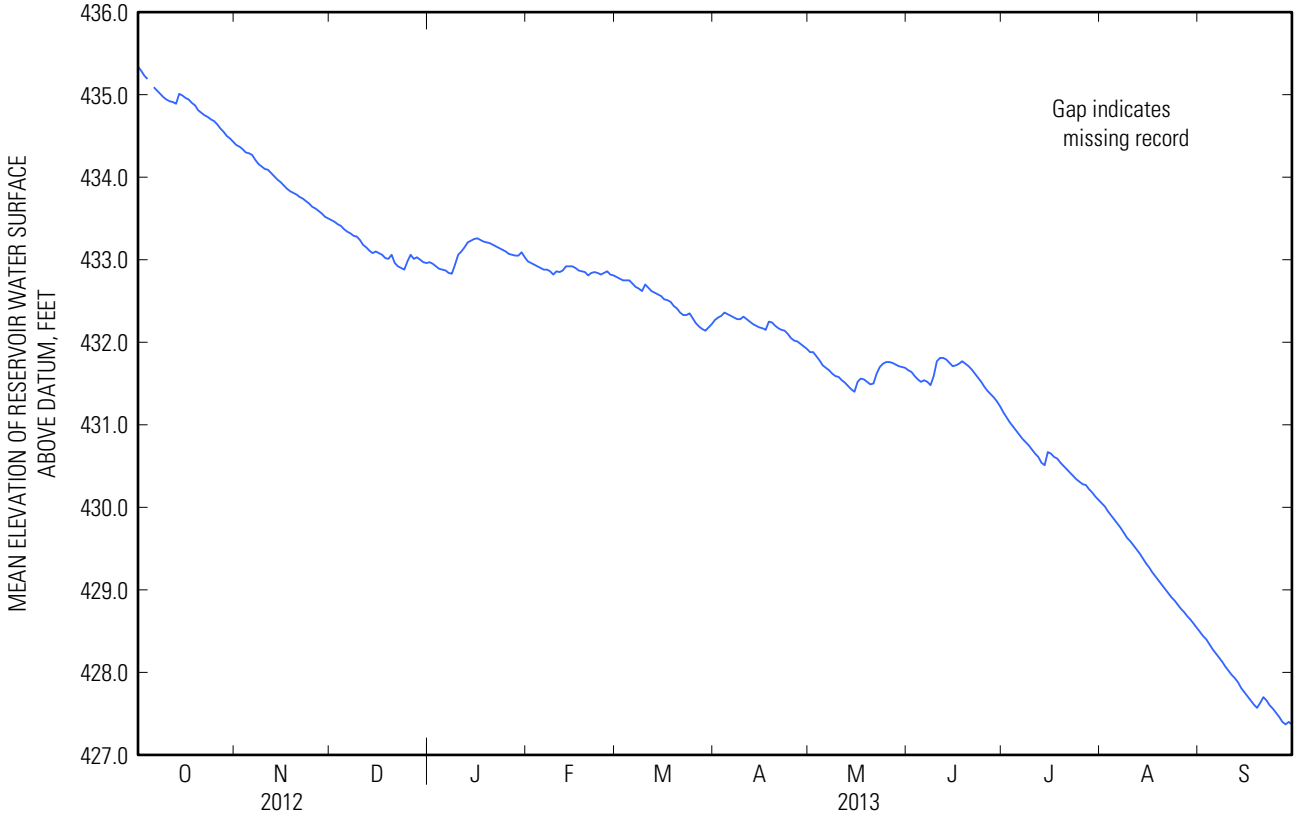
ELEVATION OF RESERVOIR WATER SURFACE ABOVE DATUM, FEET
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	435.34	434.39	433.48	432.97	432.98	432.79	432.27	431.88	431.66	431.15	430.05	428.49
2	435.29	434.37	433.46	432.95	432.96	432.77	432.30	431.88	431.64	431.09	430.01	428.44
3	435.23	434.34	433.43	432.92	432.94	432.75	432.32	431.83	431.59	431.03	429.95	428.40
4	435.19	434.30	433.41	432.89	432.92	432.75	432.36	431.78	431.55	430.98	429.90	428.34
5	---	434.29	433.37	432.88	432.90	432.75	432.34	431.72	431.52	430.93	429.85	428.28
6	435.09	434.27	433.34	432.87	432.88	432.71	432.32	431.69	431.54	430.88	429.80	428.23
7	435.05	434.21	433.32	432.84	432.88	432.67	432.30	431.66	431.52	430.83	429.75	428.18
8	435.01	434.16	433.29	432.83	432.86	432.65	432.28	431.62	431.48	430.79	429.69	428.13
9	434.97	434.13	433.28	432.94	432.82	432.62	432.28	431.59	431.59	430.75	429.63	428.07
10	434.94	434.10	433.24	433.06	432.86	432.70	432.31	431.58	431.77	430.70	429.59	428.02
11	434.92	434.09	433.18	433.10	432.85	432.66	432.28	431.54	431.81	430.65	429.54	427.97
12	434.91	434.05	433.15	433.15	432.87	432.62	432.25	431.51	431.81	430.61	429.49	427.93
13	434.89	434.01	433.11	433.21	432.92	432.60	432.22	431.47	431.79	430.54	429.44	427.88
14	435.01	433.97	433.08	433.23	432.92	432.58	432.20	431.43	431.75	430.51	429.38	427.81
15	434.99	433.94	433.10	433.25	432.92	432.56	432.18	431.40	431.71	430.67	429.32	427.76
16	434.96	433.90	433.08	433.26	432.90	432.52	432.17	431.52	431.72	430.65	429.27	427.71
17	434.94	433.86	433.06	433.24	432.87	432.51	432.15	431.56	431.74	430.61	429.21	427.66
18	434.90	433.83	433.02	433.22	432.86	432.49	432.25	431.55	431.77	430.59	429.16	427.61
19	434.87	433.81	433.01	433.21	432.85	432.44	432.24	431.52	431.74	430.54	429.11	427.57
20	434.81	433.79	433.06	433.20	432.81	432.41	432.20	431.49	431.71	430.50	429.06	427.63
21	434.78	433.76	432.96	433.18	432.84	432.36	432.17	431.50	431.67	430.46	429.01	427.70
22	434.75	433.74	432.92	433.16	432.85	432.33	432.15	431.62	431.62	430.42	428.96	427.66
23	434.73	433.71	432.90	433.14	432.84	432.33	432.14	431.70	431.57	430.38	428.91	427.60
24	434.70	433.68	432.88	433.12	432.82	432.35	432.10	431.74	431.52	430.34	428.87	427.56
25	434.68	433.64	432.98	433.10	432.84	432.29	432.05	431.76	431.46	430.31	428.82	427.51
26	434.64	433.62	433.06	433.07	432.86	432.23	432.02	431.76	431.41	430.28	428.77	427.46
27	434.59	433.59	433.01	433.06	432.82	432.19	432.01	431.75	431.37	430.27	428.73	427.40
28	434.55	433.56	433.03	433.05	432.81	432.16	431.98	431.73	431.33	430.22	428.68	427.37
29	434.50	433.52	433.00	433.05	---	432.14	431.95	431.71	431.28	430.18	428.64	427.40
30	434.47	433.50	432.97	433.09	---	432.18	431.92	431.70	431.22	430.13	428.59	427.37
31	434.43	---	432.96	433.03	---	432.22	---	431.69	---	430.09	428.54	---
Mean	---	433.94	433.13	433.07	432.87	432.49	432.19	431.64	431.60	430.58	429.28	427.84
Max	---	434.39	433.48	433.26	432.98	432.79	432.36	431.88	431.81	431.15	430.05	428.49
Min	---	433.50	432.88	432.83	432.81	432.14	431.92	431.40	431.22	430.09	428.54	427.37

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