Water-Data Report 2013

08066190 Livingston Reservoir near Goodrich, TX

Lower Trinity Basin
Lower Trinity-Kickapoo Subbasin

LOCATION.--Lat 30°38′00″, long 95°00′36″ referenced to North American Datum of 1927, Polk County, TX, Hydrologic Unit 12030202, at left end of gated spillway at Livingston Dam on Trinity River, 4.4 mi northwest of Goodrich, 7.0 mi southwest of Livingston, 11.7 mi upstream from Long King Creek, and at mile 129.2.

DRAINAGE AREA.--16,583 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--Sept. 1968 to current year.

PERIOD OF RECORD, Water-Quality.--
CHEMICAL DATA: Oct. 1969 to Aug. 2005.
BIOCHEMICAL DATA: Oct. 1969 to Aug. 2005.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929 (levels by Trinity River Authority). Prior to Feb. 26, 1969, temporary nonrecording gages at site about 200 ft upstream and at same datum. Satellite telemeter at station.

COOPERATION.--The capacity table, furnished by the Trinity River Authority, is based on a survey by the Bureau of Reclamation dated Dec. 1991.

REMARKS.--Records good. The reservoir is formed by an earthfill dam 14,400 ft long. The dam was completed Sept. 29, 1968, and deliberate impoundment began June 26, 1969. The reservoir is operated for industrial water supply in the Houston metropolitan area. The spillway has twelve 40 x 35 ft tainter gates located near the left end of dam. Low-flow releases may be made through multi-gated inlet tower. There are five gated openings at various elevations located in the tower, and all discharge into a 10-foot-diameter concrete conduit through the dam. Flow is affected at times by discharge from the flood-detention pools of 255 floodwater-retarding structures. These structures control runoff from 617 mi² in the Richland, Chambers, Tehuacana, and Bedias Creeks drainage basins. Data regarding the dam are given in the following table:

	Elevation (feet)
Top of dam	145.0
Design flood	135.0
Top of tainter gates	134.0
Crest of spillway (sill of tainter gates)	99.0
Lowest gated outlet (invert)	58.0

Some records listed in the "Period of Record" for surface water and water quality may not be available electronically. Water-quality data for this site published as:

Site ID	Site name
303807095011101	Livingston Res Site AC nr Livingston, TX
303821095005001	Livingston Res Site AL nr Livingston, TX
303935095055401	Livingston Res Site BC nr Livingston, TX
304144095073001	Livingston Res Site CC nr Livingston, TX
304521095075501	Livingston Res Site DC nr Livingston, TX
304453095064901	Livingston Res Site DL nr Livingston, TX
304659095052001	Livingston Res Site EC nr Livingston, TX
304843095104001	Livingston Res Site FC nr Livingston, TX
305411095144901	Livingston Res Site GC nr Livingston, TX
305447095161401	Livingston Res Site HC nr Livingston, TX
305135095193601	Livingston Res Site IC nr Livingston, TX
305135095235401	Livingston Res Site JC nr Livingston, TX

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 08066190, accessed at http://wdr.water.usgs.gov/wy2013/pdfs/08066190.2013.pdf

08066190 Livingston Reservoir near Goodrich, TX—Continued

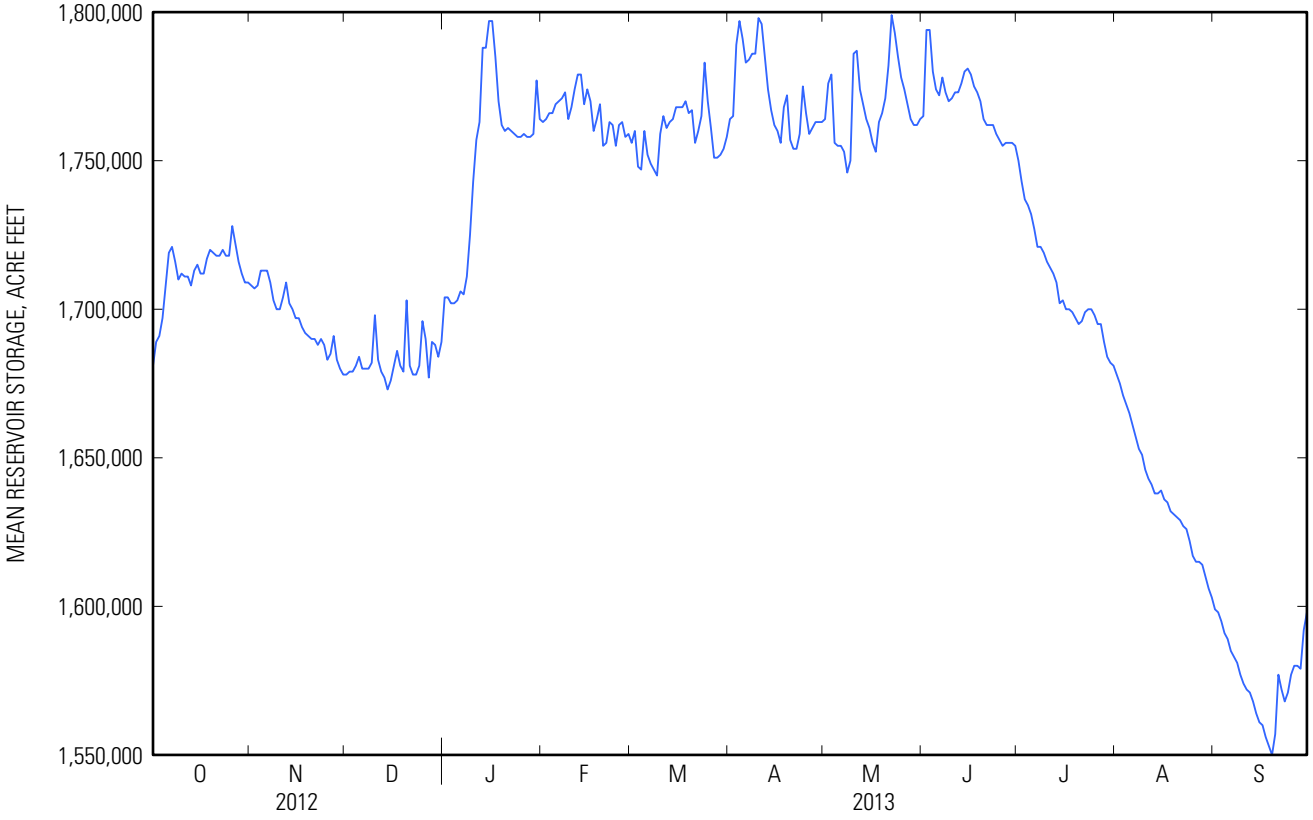
EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 2,081,000 acre-ft, Oct. 17, 1994, elevation, 134.39 ft; minimum since conservation pool capacity was reached on Nov. 2, 1971, 1,345,000 acre-ft, Oct. 25, 1988, elevation, 125.22 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 1,834,000 acre-ft, Apr. 10, elevation 132.08 ft; minimum contents, 1,539,000 acre-ft, Sept. 19, elevation, 128.46 ft.

08066190 Livingston Reservoir near Goodrich, TX—Continued

RESERVOIR STORAGE, ACRE FEET
WATER YEAR OCTOBER 2012 TO SEPTEMBER 2013
DAILY MEAN VALUES
[$\times 10^6$, million]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	1,681,000	1,708,000	1,678,000	1,704,000	1,763,000	1,756,000	1,764,000	1,764,000	1,765,000	1,750,000	1,678,000	1,599,000
2	1,689,000	1,707,000	1,679,000	1,704,000	1,764,000	1,760,000	1,765,000	1,776,000	1,794,000	1,743,000	1,675,000	1,598,000
3	1,691,000	1,708,000	1,679,000	1,702,000	1,766,000	1,748,000	1,789,000	1,779,000	1,794,000	1,737,000	1,671,000	1,595,000
4	1,697,000	1,713,000	1,681,000	1,702,000	1,766,000	1,747,000	1,797,000	1,756,000	1,780,000	1,735,000	1,668,000	1,591,000
5	1,708,000	1,713,000	1,684,000	1,703,000	1,769,000	1,760,000	1,791,000	1,755,000	1,774,000	1,732,000	1,665,000	1,589,000
6	1,719,000	1,713,000	1,680,000	1,706,000	1,770,000	1,752,000	1,783,000	1,755,000	1,772,000	1,727,000	1,661,000	1,585,000
7	1,721,000	1,709,000	1,680,000	1,705,000	1,771,000	1,749,000	1,784,000	1,753,000	1,778,000	1,721,000	1,657,000	1,583,000
8	1,716,000	1,703,000	1,680,000	1,711,000	1,773,000	1,747,000	1,786,000	1,746,000	1,773,000	1,721,000	1,653,000	1,581,000
9	1,710,000	1,700,000	1,682,000	1,725,000	1,764,000	1,745,000	1,786,000	1,750,000	1,770,000	1,719,000	1,651,000	1,577,000
10	1,712,000	1,700,000	1,698,000	1,743,000	1,768,000	1,759,000	1,798,000	1,786,000	1,771,000	1,716,000	1,646,000	1,574,000
11	1,711,000	1,704,000	1,683,000	1,757,000	1,774,000	1,765,000	1,796,000	1,787,000	1,773,000	1,714,000	1,643,000	1,572,000
12	1,711,000	1,709,000	1,679,000	1,763,000	1,779,000	1,761,000	1,785,000	1,774,000	1,773,000	1,712,000	1,641,000	1,571,000
13	1,708,000	1,702,000	1,677,000	1,788,000	1,779,000	1,763,000	1,774,000	1,769,000	1,776,000	1,709,000	1,638,000	1,568,000
14	1,713,000	1,700,000	1,673,000	1,788,000	1,769,000	1,764,000	1,767,000	1,764,000	1,780,000	1,702,000	1,638,000	1,564,000
15	1,715,000	1,697,000	1,676,000	1,797,000	1,774,000	1,768,000	1,762,000	1,761,000	1,781,000	1,703,000	1,639,000	1,561,000
16	1,712,000	1,697,000	1,681,000	1,797,000	1,770,000	1,768,000	1,760,000	1,756,000	1,779,000	1,700,000	1,636,000	1,560,000
17	1,712,000	1,694,000	1,686,000	1,785,000	1,760,000	1,768,000	1,756,000	1,753,000	1,775,000	1,700,000	1,635,000	1,556,000
18	1,717,000	1,692,000	1,681,000	1,770,000	1,764,000	1,770,000	1,768,000	1,763,000	1,773,000	1,699,000	1,632,000	1,553,000
19	1,720,000	1,691,000	1,679,000	1,762,000	1,769,000	1,766,000	1,772,000	1,766,000	1,770,000	1,697,000	1,631,000	1,550,000
20	1,719,000	1,690,000	1,703,000	1,760,000	1,755,000	1,767,000	1,757,000	1,771,000	1,764,000	1,695,000	1,630,000	1,557,000
21	1,718,000	1,690,000	1,681,000	1,761,000	1,756,000	1,756,000	1,754,000	1,782,000	1,762,000	1,696,000	1,629,000	1,577,000
22	1,718,000	1,688,000	1,678,000	1,760,000	1,763,000	1,760,000	1,754,000	1,799,000	1,762,000	1,699,000	1,627,000	1,572,000
23	1,720,000	1,690,000	1,678,000	1,759,000	1,762,000	1,765,000	1,759,000	1,793,000	1,762,000	1,700,000	1,626,000	1,568,000
24	1,718,000	1,688,000	1,681,000	1,758,000	1,755,000	1,783,000	1,775,000	1,785,000	1,759,000	1,700,000	1,622,000	1,571,000
25	1,718,000	1,683,000	1,696,000	1,758,000	1,762,000	1,770,000	1,766,000	1,778,000	1,757,000	1,698,000	1,617,000	1,577,000
26	1,728,000	1,685,000	1,690,000	1,759,000	1,763,000	1,761,000	1,759,000	1,774,000	1,755,000	1,695,000	1,615,000	1,580,000
27	1,722,000	1,691,000	1,677,000	1,758,000	1,758,000	1,751,000	1,761,000	1,769,000	1,756,000	1,695,000	1,615,000	1,580,000
28	1,716,000	1,683,000	1,689,000	1,758,000	1,759,000	1,751,000	1,763,000	1,764,000	1,756,000	1,689,000	1,614,000	1,579,000
29	1,712,000	1,680,000	1,688,000	1,759,000	---	1,752,000	1,763,000	1,762,000	1,756,000	1,684,000	1,610,000	1,592,000
30	1,709,000	1,678,000	1,684,000	1,777,000	---	1,754,000	1,763,000	1,762,000	1,755,000	1,682,000	1,606,000	1,598,000
31	1,709,000	---	1,689,000	1,764,000	---	1,758,000	---	1,764,000	---	1,681,000	1,603,000	---
Total	53.07×10^6	50.90×10^6	52.17×10^6	54.24×10^6	49.44×10^6	54.54×10^6	53.15×10^6	54.81×10^6	53.09×10^6	52.95×10^6	50.77×10^6	47.27×10^6
Mean	1,712,000	1,697,000	1,683,000	1,750,000	1,766,000	1,759,000	1,772,000	1,768,000	1,770,000	1,708,000	1,638,000	1,576,000
Max	1,728,000	1,713,000	1,703,000	1,797,000	1,779,000	1,783,000	1,798,000	1,799,000	1,794,000	1,750,000	1,678,000	1,599,000
Min	1,681,000	1,678,000	1,673,000	1,702,000	1,755,000	1,745,000	1,754,000	1,746,000	1,755,000	1,681,000	1,603,000	1,550,000

	Calendar Year 2012	Water Year 2013
Total	632,633,000	626,447,000
Mean	1,729,000	1,716,000
Max	1,873,000	1,799,000
Min	1,597,000	1,550,000

08066190 Livingston Reservoir near Goodrich, TX—Continued