

**07190000 LAKE O' THE CHEROKEES AT LANGLEY, OK**

Neosho Basin  
Lake O' Cherokees Subbasin

LOCATION.--Lat 36°28'07", long 95°02'28" referenced to North American Datum of 1927, in SW ¼ SW ¼ sec.14, T.23 N., R.21 E., Mayes County, OK, Hydrologic Unit 11070206, on upstream side of pier at intake structure near right end of Pensacola Dam on Neosho River at Langley, 9.9 mi upstream from Big Cabin Creek, and at mile 77.0.

DRAINAGE AREA.--10,298 mi<sup>2</sup>.

**SURFACE-WATER RECORDS**

PERIOD OF RECORD.--March 1940 to current year. Prior to October 1940, published as Grand Lake at Langley. Monthly contents only for 1941-42 water year

REVISED RECORDS.--WSP 1117: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1.10 ft above NGVD of 1929 (U.S. Army Corps of Engineers' benchmark). Prior to Nov. 14, 1941, nonrecording gage at same site and datum.

REMARKS.--Reservoir is formed by multiple-arch concrete dam, with tops of taintor-type spillway gates at gage height 755.0 ft. Storage began Mar. 21, 1940; power-pool was first filled Apr. 19, 1941. Capacity between gage heights 682.0 ft, sill of powerhouse penstock, and 745.0 ft, maximum power pool is 1,492,000 acre-ft. Capacity between gage heights 745.0 ft and 755.0 ft is 525,200 acre-ft, and is reserved for flood control. Dead storage below gage height 682.0 ft is 180,200 acre-ft. Figures given herein represent total contents. Reservoir is utilized for power development and flood control. U.S. Army Corps of Engineers' satellite telemeter at station.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 2,213,000 acre-ft, May 25, 1957, gage height, 755.27 ft; minimum since power-pool was first filled, 642,900 acre-ft, Sept. 28, 1954, gage height, 713.41 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 2,085,000 acre-ft, Apr. 13, gage height, 753.08 ft; minimum, 1,491,000 acre-ft, Sept. 09, gage height, 740.92 ft.

Reservoir Elevation-Capacity Table

Elevation, in ft	Capacity, in acre-ft	Elevation, in ft	Capacity, in acre-ft
730	1,086,000	745	1,672,000
735	1,257,000	750	1,917,000
740	1,452,000	755	2,198,000

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**RESERVOIR STORAGE, ACRE FEET**  
**WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008**  
**DAILY OBSERVATION AT 2400 HOURS**

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	1,517,000	1,537,000	1,537,000	1,538,000	1,537,000	1,669,000	1,780,000	1,856,000	1,709,000	1,912,000	1,625,000	1,492,000
2	1,525,000	1,538,000	1,540,000	1,538,000	1,536,000	1,666,000	1,793,000	1,843,000	1,731,000	1,877,000	1,622,000	1,496,000
3	1,531,000	1,537,000	1,539,000	1,535,000	1,538,000	1,696,000	1,778,000	1,833,000	1,761,000	1,862,000	1,619,000	1,497,000
4	1,531,000	1,536,000	1,538,000	1,534,000	1,539,000	1,733,000	1,772,000	1,827,000	1,745,000	1,854,000	1,614,000	1,499,000
5	1,522,000	1,539,000	1,536,000	1,541,000	1,547,000	1,755,000	1,748,000	1,794,000	1,715,000	1,842,000	1,613,000	1,508,000
6	1,513,000	1,537,000	1,535,000	1,541,000	1,546,000	1,749,000	1,720,000	1,756,000	1,702,000	1,828,000	1,611,000	1,514,000
7	1,515,000	1,537,000	1,537,000	1,540,000	1,550,000	1,737,000	1,698,000	1,751,000	1,718,000	1,816,000	1,611,000	1,510,000
8	1,516,000	1,538,000	1,538,000	1,579,000	1,553,000	1,725,000	1,702,000	1,792,000	1,719,000	1,806,000	1,603,000	1,497,000
9	1,515,000	1,539,000	1,543,000	1,602,000	1,550,000	1,714,000	1,723,000	1,816,000	1,755,000	1,810,000	1,604,000	1,491,000
10	1,510,000	1,538,000	1,552,000	1,607,000	1,551,000	1,700,000	1,913,000	1,849,000	1,788,000	1,807,000	1,607,000	1,494,000
11	1,506,000	1,540,000	1,559,000	1,604,000	1,544,000	1,685,000	2,026,000	1,894,000	1,858,000	1,800,000	1,616,000	1,495,000
12	1,507,000	1,540,000	1,571,000	1,595,000	1,538,000	1,677,000	2,083,000	1,899,000	1,922,000	1,794,000	1,631,000	1,497,000
13	1,508,000	1,540,000	1,572,000	1,581,000	1,540,000	1,675,000	2,070,000	1,861,000	1,992,000	1,784,000	1,632,000	1,530,000
14	1,511,000	1,538,000	1,562,000	1,569,000	1,541,000	1,671,000	2,033,000	1,822,000	2,018,000	1,774,000	1,633,000	1,610,000
15	1,507,000	1,538,000	1,546,000	1,553,000	1,535,000	1,660,000	2,007,000	1,800,000	2,019,000	1,764,000	1,628,000	1,699,000
16	1,503,000	1,538,000	1,541,000	1,541,000	1,543,000	1,643,000	1,987,000	1,793,000	2,041,000	1,751,000	1,626,000	1,744,000
17	1,500,000	1,539,000	1,537,000	1,540,000	1,592,000	1,629,000	1,970,000	1,785,000	2,043,000	1,741,000	1,626,000	1,766,000
18	1,499,000	1,539,000	1,537,000	1,541,000	1,645,000	1,758,000	1,978,000	1,774,000	2,009,000	1,730,000	1,629,000	1,752,000
19	1,503,000	1,537,000	1,538,000	1,539,000	1,670,000	1,944,000	1,983,000	1,752,000	1,988,000	1,718,000	1,624,000	1,732,000
20	1,504,000	1,538,000	1,536,000	1,538,000	1,676,000	2,010,000	1,971,000	1,720,000	2,001,000	1,706,000	1,617,000	1,728,000
21	1,510,000	1,541,000	1,538,000	1,537,000	1,672,000	2,000,000	1,948,000	1,693,000	1,998,000	1,694,000	1,610,000	1,722,000
22	1,516,000	1,540,000	1,538,000	1,535,000	1,680,000	1,950,000	1,920,000	1,676,000	1,995,000	1,680,000	1,601,000	1,716,000
23	1,519,000	1,540,000	1,541,000	1,538,000	1,685,000	1,896,000	1,906,000	1,667,000	2,006,000	1,667,000	1,588,000	1,708,000
24	1,522,000	1,538,000	1,542,000	1,537,000	1,688,000	1,855,000	1,934,000	1,663,000	2,018,000	1,653,000	1,569,000	1,700,000
25	1,523,000	1,539,000	1,544,000	1,535,000	1,691,000	1,832,000	1,977,000	1,666,000	2,004,000	1,643,000	1,548,000	1,691,000
26	1,525,000	1,537,000	1,536,000	1,537,000	1,686,000	1,808,000	1,972,000	1,677,000	1,976,000	1,630,000	1,525,000	1,684,000
27	1,529,000	1,536,000	1,537,000	1,535,000	1,682,000	1,788,000	1,934,000	1,721,000	1,950,000	1,629,000	1,510,000	1,677,000
28	1,530,000	1,537,000	1,538,000	1,537,000	1,680,000	1,766,000	1,904,000	1,748,000	1,927,000	1,626,000	1,508,000	1,669,000
29	1,533,000	1,538,000	1,538,000	1,540,000	1,676,000	1,747,000	1,880,000	1,744,000	1,931,000	1,626,000	1,506,000	1,660,000
30	1,534,000	1,537,000	1,540,000	1,541,000	---	1,731,000	1,869,000	1,735,000	1,932,000	1,626,000	1,503,000	1,649,000
31	1,540,000	---	1,539,000	1,537,000	---	1,736,000	---	1,714,000	---	1,626,000	1,499,000	---
<b>Max</b>	1,540,000	1,541,000	1,572,000	1,607,000	1,691,000	2,010,000	2,083,000	1,899,000	2,043,000	1,912,000	1,633,000	1,766,000
<b>Min</b>	1,499,000	1,536,000	1,535,000	1,534,000	1,535,000	1,629,000	1,698,000	1,663,000	1,702,000	1,626,000	1,499,000	1,491,000
<b>Elevation, in feet, at end of month</b>	742.06	742.01	742.05	742.01	745.09	746.35	749.06	745.89	750.29	744.01	741.12	744.50
<b>Change in contents, in acre-ft</b>	+24,000	-3,000	+2,000	-2,000	+139,000	+60,000	+133,000	-155,000	+218,000	-306,000	-127,000	+150,000

	Calendar Year 2007	Water Year 2008
<b>Max</b>	2,166,000	2,083,000
<b>Min</b>	1,499,000	1,491,000
<b>Change in Contents, in Acre-ft</b>	-21,000	+133,000

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