



Water-Data Report 2007

03589000 WILSON LAKE NEAR FLORENCE, AL

Middle Tennessee-Elk Basin
Pickwick Lake Subbasin

LOCATION.--Lat 34°47'46", long 87°37'27" referenced to North American Datum of 1927, Colbert County, AL, Hydrologic Unit 06030005, at cooling-water intake at Wilson Dam on Tennessee River, 2.9 mi southeast of Florence, 4.1 mi upstream from Cypress Creek, 15.5 mi downstream from Wheeler Dam, and at mile 259.4.

DRAINAGE AREA.--30,750 mi², approximately.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--April 1924 to current year. Prior to August 1926 monthend contents only, publish in WSP 1306.

GAGE.--Water-stage recorder. Datum of gage is NGVD of 1929.

REMARKS.--Reservoir is formed by concrete gravity dam with fixed ogee crest. Spillway equipped with 58 Stoney gates 20.54 ft high by 38 ft wide. Storage began Apr. 14, 1924. Revised capacity table used after Dec. 31, 1970. Total capacity at elevation 507.88 ft (top of gates) is 322,800 ft³/s-day of which 26,800 ft³/s-day is controlled flood storage above elevation 504.50 ft (minimum pool). Reservoir is used for navigation, flood control, and power. Records furnished by Tennessee Valley Authority.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 329,800 ft³/s-day, Apr. 29, 1963; maximum elevation, 508.38 ft, May 19, 1983; minimum contents, 233,200 ft³/s-day, Apr. 6, 1927, elevation, 501.30 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents during year, 323,800 ft³/s-day, June 27, elevation, 508.01 ft; minimum contents, 298,400 ft³/s-day, Jan. 7, elevation, 504.84 ft.

CORRECTIONS.--Contents in 2006 report were erroneously published in acre-feet. The correct units for the contents were ft³/sec-day.

MONTHEND ELEVATION AND CONTENTS AT MIDNIGHT, WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007

| Date | Elevation (feet) | Contents (acre-feet) | Change in contents (equivalent in cubic feet per second) | |
|--------------------|---------------------|-------------------------|--|------|
| | | | (acre-feet) | |
| Sept. 30 | 507.18 | 317,100 | -- | -- |
| Oct. 31 | 506.91 | 314,900 | -2,200 | -71 |
| Nov. 30 | 507.17 | 317,000 | +2,100 | +70 |
| Dec. 31 | 506.00 | 307,600 | -9,400 | -303 |
| CAL YR 2006 | | | +2,200 | +6 |
| Jan. 31 | 505.61 | 304,400 | -3,200 | -103 |
| Feb. 28 | 505.40 | 302,900 | -1,500 | -54 |
| Mar. 31 | 505.87 | 306,500 | +3,600 | +116 |
| Apr. 30 | 507.10 | 316,400 | +9,900 | +330 |
| May 31 | 507.18 | 317,200 | +800 | +26 |
| June 30 | 507.25 | 317,600 | +400 | +13 |
| July 31 | 507.23 | 317,500 | -100 | -3 |
| Aug. 31 | 507.46 | 319,300 | +1,800 | +58 |
| Sept. 30 | 507.35 | 318,400 | -900 | -30 |
| WTR YR 2007 | | | +1,300 | +4 |