



Water-Data Report 2006

03426300 OLD HICKORY LAKE

Lower Cumberland Basin
Lower Cumberland-Old Hickory Lake Subbasin

LOCATION.--Lat 36°17'50", long 86°39'20" referenced to North American Datum of 1927, Sumner County, TN, Hydrologic Unit 05130201, at Old Hickory Dam on Cumberland River, 2.0 mi west of Hendersonville, 10 mi northeast of the State Capitol in Nashville, and at mile 216.2.

DRAINAGE AREA.--11,673 mi².

SURFACE-WATER RECORDS

PERIOD OF RECORD.--June 1954 to current year.

GAGE.--Water-stage recorder. Datum of gage is sea level; gage readings have been reduced to elevations NGVD. Prior to Apr. 4, 1957, nonrecording gage at same site and datum.

COOPERATION.--Records furnished by U.S. Army Corps of Engineers.

REMARKS.--Reservoir is formed by concrete gravity dam with earth embankment. Spillway is equipped with six taintor gates, each 41 ft high and 45 ft wide. Closure of dam was made in June 1954 and water in reservoir was raised sufficiently to maintain navigation through the lock. Water in reservoir first reached ordinary minimum pool elevation Dec. 30, 1956. Revised capacity table used after Sept. 30, 1970. Total capacity at elevation 450.0 ft, maximum surcharge pool, 274,600 cfs-days of which 63,000 cfs-days between elevations 450.0 ft and 445.0 ft, normal pool, are induced surcharge storage provided to compensate for loss of natural valley storage incurred by construction of the project, and 31,800 cfs-days between elevations 445.0 ft and 442.0 ft, ordinary minimum pool, are used for power production. Contents of 179,800 cfs-days below elevation 442.0 ft, is dead storage. Reservoir is used for navigation and power. Monthend elevation and contents at 2400, for the water year are provided in the following table.

MONTHEND ELEVATION AND CONTENTS AT 2400, WATER YEAR OCTOBER 2005 TO SEPTEMBER 2006

DATE	Elevation (feet)	Contents (cfs-days)	Change in contents (cfs-days)
Sept. 30...	444.67	207,900	
Oct. 31...	444.75	208,800	900
Nov. 30...	445.10	212,800	4,000
Dec. 31...	444.75	208,800	-4,000
CALENDAR YEAR			-10,300
Jan. 31...	444.60	207,100	-1,700
Feb. 28...	445.09	212,600	5,500
Mar. 31...	444.85	209,900	-2,700
Apr. 30...	444.08	201,400	-8,500
May 31...	445.06	212,300	10,900
June 30...	444.77	209,000	-3,300
July 31...	445.04	212,100	3,100
Aug. 31...	445.05	212,200	100
Sept. 30...	444.96	211,200	-1,000
WATER YEAR			3,300

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 277,200 cfs-days, May 9, 1984, elevation, 450.18 ft; minimum, after first filling to ordinary minimum pool, 179,400 cfs-days, Oct. 22, 1957, Oct. 28, 1969, elevation, 441.96 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 236,600 cfs-days, Jan. 24, elevation, 447.10 ft, minimum, 201,000 cfs-days, Apr. 30, elevation, 444.04 ft.

REVISIONS.--WSP 2110: Drainage area.