



## US Army Corps of Engineers



Table Rock Dam is located on the White River in Southwestern Missouri eight miles upstream and Southwest of Branson, Missouri. Table Rock Lake extends 79 miles upstream along the White River and inundates areas in Missouri and Arkansas.

Table Rock Dam is 6423 feet long and consists of a concrete section 1602 feet long and two earth embankment sections having a length of 4821 feet. The dam rises 252 feet above the riverbed, contains 1,230,000 cubic yards of concrete and 3,320,000 cubic yards of embankment. Four 18 foot diameter penstocks convey water to four 50,000 kilowatt generating units in the powerhouse. The first two units were ready for generation of power in June 1959, and installation of units three and four was complete in August 1961.

Table Rock Dam's spillway capacity was evaluated as a result of a dam safety program in the 1990's. Using improved weather data and more modern technology and safety requirements, engineers determined that the lake would rise ten feet higher during the worst-case flood than previously calculated. An event of this magnitude would overtop the earthen embankment and destroy Table Rock Dam with catastrophic losses in downstream areas including Branson. To prevent the potential loss of life and property damages, congress approved and authorized construction of the Dam Safety Project. After considering several options and gathering considerable public input, an auxiliary spillway was determined to be the best solution. The auxiliary spillway was completed in 2005 at a cost of apx \$65,000,000

Table Rock Lake provides a storage capacity of 3,462,000 acre-feet, of which 760,000 are for flood-control and 2,702,000 are for generation of power. The flood control storage is equivalent to a depth of 3.5 inches of water over the entire contributing drainage area above the dam, 4020 square miles. At the top of flood control pool the lake has a surface area of 52,300 acres and a shoreline of 857 miles. The full conservation pool covers an area of 43,100 acres and has a shoreline of 745 miles.

Table Rock Lake is being operated during flood periods in conjunction with other lakes in the basin to prevent damages along the White and lower Mississippi Rivers. Since May 1957 flood reduction in the White River has resulted from the combined effect of the Table Rock, Bull Shoals, and Norfolk Lakes, with Beaver Lake effecting regulation since 1964.

### Table Rock Dam Statistics

Length of the dam – 6423 feet

Length of the Concrete Section – 1602 feet

Length of the Earth Embankment – 4821 feet

Maximum height of the dam above the streambed – 252 feet

Concrete in the dam – 1,230,000 cubic yards

Earth embankment – 3,320,000 cubic yards

Length of the spillway – 531 gross feet

Spillway crest gates (10) size – 45 ft x 37 ft

Outlet conduits (4) size – 4 ft x 9 ft

Elevations

Top of the dam – 947 feet above mean sea level

Spillway crest – 896 feet above mean sea level

Power Development

Generating Units – 4

Rated capacity of each unit – 50,000

Station installed capacity – 200,000

### Table Rock Lake Statistics

Top of the flood control pool – 931 feet above mean sea level

Top of the conservation pool – 915 feet above mean sea level

Surface area of the lake

Top of flood-control pool – 52,300 acres

Top of conservation pool – 43,100 acres

Shoreline length

Top of flood-control pool – 857 miles

Top of conservation pool – 745 miles

Storage Capacity

Flood control – 760,000 acre feet

Power drawdown and dead – 2,702,000 acre feet

Lake total – 3,462,000 acre feet

Copied from US Army Corps of Engineers website December 31, 2012.

<http://www.swl.usace.army.mil/missions/recreation/lakes/tablerocklake/damandlakeinformation.aspx>