
MARK TWAIN LAKE MASTER PLAN

CLARENCE CANNON DAM AND MARK TWAIN LAKE MONROE CITY, MISSOURI

CHAPTER 2 SETTING AND FACTORS INFLUENCING MANAGEMENT AND DEVELOPMENT

2.1 DESCRIPTION OF RESERVOIR

Mark Twain Lake is a civil works project consisting of a lake/reservoir impounded by an earthen and concrete dam structure, power generation plant, outlet works, spillway, re-regulation dam, and public use lands and facilities. Clarence Cannon Dam, and its associated features, became operational in 1984. Approximately 54,762 acres of land were acquired in fee title for the reservoir, downstream operational areas, and recreation areas. An additional 9,740 acres of flowage easement was acquired to accommodate a flood elevation of 642.0 feet NGVD¹. The operational facilities at Mark Twain Lake are described as follows:

Location. Clarence Cannon Dam and Mark Twain Lake are located on the Salt River in northeastern Missouri, generally in Monroe and Ralls Counties. The main dam site is located in Ralls County at mile 63.0 on the Salt River, approximately 12 miles southeast of Monroe City, Missouri. A re-regulation dam is located approximately 9.5 miles downstream from the main dam site. The project area is served on the north by U.S. Highway 24, and on the south by State Highway 154. State Highway 107 bisects the project area from north to south, and provides a major reservoir crossing near Florida, Missouri. State Highway J crosses the main dam, and is the primary north-south transportation corridor on the eastern side of the lake.

Clarence Cannon Dam. Clarence Cannon Dam consists of a compacted earth embankment, a gated concrete spillway, a concrete hydroelectric power plant and a water temperature control weir. State Highway J crosses the top of the dam. The total length of the dam is 1,940 feet with the centerline of the dam running in a near north-south direction. The concrete portion of the dam is 845.75 feet in length, and abuts the southern rim of the valley.

- **Earth Embankment.** The compacted earth embankment has a crest elevation of 653.0 feet NGVD. The embankment is about 1,094 feet in length.
- **Spillway.** The spillway is part of the concrete portion of the dam, and is 230 feet in length. It begins 360 feet from the southern rim of the valley. The spillway is topped by

¹ Note: All elevations cited are in terms of the National Geodetic Vertical Datum (NGVD)

