

Lewisville Dam and Lewisville Lake

OWNER

The U.S. Government. Operated by the U.S. Army Corps of Engineers, Fort Worth District.

ENGINEER (Design)

U.S. Army Corps of Engineers.

LOCATION

On Elm Fork Trinity River in Denton County, 22 miles northwest of Dallas.

DRAINAGE AREA

1,660 square miles.

DAM

Type Earthfill
 Length 32,888 ft including the spillway
 Maximum height 125 ft
 Top width 20 ft

SPILLWAY

Type Ogee
 Length 560 ft
 Crest elevation 532.0 ft above msl
 Control None

LOW FLOW OUTLETS

Type 2 steel pipes
 Size Each 60-inch diameter
 Lowest invert elevation 481.0 ft above msl
 Control 48-inch valve on each pipe at downstream end

FLOODWATER OUTLET WORKS

Type 1 conduit with 3 inlets
 Size 16 ft diameter
 Invert elevation 448.0 ft above msl
 Control 3 broome-type gates, each 6.5 by 13 ft

AUTHORIZATION

Federal: River and Harbor Act, March 2, 1945.
 PL 329/84/1 changes name of the dam from Garza-Little Elm to Lewisville.
 State: Permit No. 1476 (Application No. 1579) January 20, 1949, to the city of Dallas for appropriation of 415,000 acre-feet of water annually (includes 300,000 from old Lake Dallas permit) for municipal and industrial purposes.
 Permit No. 1706 (Application No. 1590) June 17, 1954, to the city of Denton authorizes storage of 21,000 and annual use of 11,000 acre-feet of water for municipal use.

RESERVOIR DATA (Based on 1960 survey by the U.S. Army Corps of Engineers)

FEATURE	ELEVATION (FEET ABOVE MSL)	CAPACITY (ACRE-FEET)	AREA (ACRES)
Top of dam	560.0	-	-
Maximum design water surface	553.0	2,082,800	66,100
Top of flood control storage space	532.0	999,700	39,080
Top of conservation storage space	515.0	464,500	23,280
Invert of low flow outlet (lowest)	481.0	44,080	4,750
Invert of floodwater outlet works	448.0	30	12
Streambed	435.0	0	0
Sediment reserve below	515.0	28,500	-
Usable conservation storage space	-	436,000	-

Note: Proposed modification will change storage space at top of conservation pool to 648,400 acre-feet at elevation 522.0 feet above mean sea level. Usable conservation storage space will be 615,500 acre-feet (32,900 acre-feet of sediment reserve below elevation 522.0 and 7,800 acre-feet above elevation 522.0).

GENERAL

Construction started November 28, 1948
 Impoundment of water began November 1, 1954
 Dam completed August 1955
 General contractor Edward Morgan Company and Jones & Gillis, Jackson, Mississippi
 Estimated cost \$21,971,000

