

Eagle Mountain Dam and Eagle Mountain Reservoir

OWNER
Tarrant County Water Control and Improvement District Number One.

ENGINEER (Design)
Hawley, Freese and Nichols (original).
Freese, Nichols and Endress (1971 spillway).

LOCATION
On the West Fork Trinity River in Tarrant County, 14 miles northwest of Fort Worth.

DRAINAGE AREA
1,970 square miles.

DAM

Type	Two sections of earthfill and a concrete spillway separated by high ground of Eagle Mountain and Burgess Gap
Length	4,800 ft
Maximum height	85 ft
Top width	25 ft

SPILLWAY (emergency)

Type	Natural ground
Location	At Burgess Gap, between dam and concrete spillway
Length	1,300 ft
Crest elevation, top of fuse plug	676.0 ft above msl
Crest elevation, bottom of fuse plug	670.0 ft above msl

NEW SIDE CHANNEL SPILLWAY

Location	Spillway levee section
Type	Concrete side channel ogee to forebay discharging through a 25 ft square conduit
Control	6 roller gates, each 11.25 by 22.0 ft
Crest elevation	637.0 ft above msl

OLD SPILLWAY

Type	Concrete ogee with four bays, each 25 ft wide Three bays have vertical lift roller type gates
Crest elevation	649.1 ft above msl

STATE AUTHORIZATION

Permit No. 1074 (Application No. 1145) May 1, 1928, with a priority date July 13, 1925, authorized a dam to impound 210,000 acre-feet of water with annual diversion of 159,600 acre-feet for municipal, industrial, and irrigation use all or part of which may be transmitted to Lake Worth for storage and distribution.

Permit No. 1074A (Application No. 1145A) September 20, 1965, reduces the 93,000 acre-feet released from Bridgeport Reservoir to 90,600 acre-feet. The 162,000 acre-feet of water authorized to be directed from Eagle Mountain Reservoir is reduced to 159,600 acre-feet. Permit No. 1073B reduces the releases from Bridgeport Reservoir to Eagle Mountain Reservoir to 86,000 acre-feet annually.

RESERVOIR DATA (Based on 1968 survey by U.S. Army Corps of Engineers)

FEATURE	ELEVATION (FEET ABOVE MSL)	CAPACITY (ACRE-FEET)	AREA (ACRES)
Top of dam	682.0	—	—
Crest of emergency spillway	676.0	558,250	19,050
Base of emergency spillway	670.0	451,630	16,490
Crest of service spillway	649.1	190,460	9,200
Invert of low flow outlet	599.9	90	0
Usable conservation storage space	—	190,460	—

GENERAL

Construction started	January 23, 1930
Dam completed	October 24, 1932
Impoundment of water began	February 28, 1934
General contractor	McKenzie and Uvalde Construction Companies
Estimated cost of original dam	\$3,637,000

NEW SPILLWAY ADDED 1971

Contractor	Guy H. James Construction Co.
Estimated cost	\$2,565,679
Completed	July 31, 1971

