

Abilene Dam and Lake Abilene

OWNER

City of Abilene.

ENGINEER (Design)

J. D. Trammell for original dam.
Freese and Nichols for 1941 and 1957 repairs.

LOCATION

On Elm Creek in Taylor County, 6 miles northwest of Tuscola.

DRAINAGE AREA

110 square miles.

DAM

Type Earthfill
Length 5,040 ft
Height 51 ft
Top width 16± ft
Top elevation 2,024± ft above msl

SPILLWAY (emergency)

Type Masonry (uncontrolled)
Location Near left end of dam
Length 250 ft
Elevation 2,009.7 ft above msl (Earth ridge upstream of concrete ogee at elevation 2,018± ft above msl controls the flow to spillway)

SPILLWAY (secondary emergency)

Location Left of concrete spillway
Type Natural earth (with earthplug)
Length 500± ft
Elevation 2,018± ft above msl

OUTLET WORKS

Type Concrete tower and conduit
Size 10 ft vertical and 7 ft horizontal
Crest elevation 2,012.3 ft above msl (A 2.5 ft high metal extension has been removed)

LOW FLOW OUTLET

Type 24 inch diameter pipe to the 7 ft conduit
Invert elevation 1,968.8 ft above msl

STATE AUTHORIZATION

Permit No. 253 (Application No. 259) September 7, 1918 authorized a dam to create a reservoir of 45,000 acre-feet capacity (actual capacity is only 9,790 acre-feet) and annual use of 1,675 acre-feet of water.

RESERVOIR DATA

Capacity 7,900 acre-feet with an area of 595 acres at elevation 2,012.3 ft above msl which is top of the concrete outlet structure. This elevation was established by two Texas Water Development Board field parties in 1971 and 1972. Data is based on U.S. Coast and Geodetic Survey bench mark K-1152 elevation 2,051.253 and bench mark J-1152 elevation 1,999.451. Capacity and area are from the area-capacity curve by Freese and Nichols dated 1948 and adjusted for the established elevation.

GENERAL

Construction started 1919
Dam completed May 1921
Impoundment of water began August 1, 1921
Extensive repairs 1941 and 1957
General contractor R. C. Lewis Construction Co.
Cost of the dam \$212,000

