Copied from an original at The History Center Diboll, TX 2004:014 www.TheHistoryCenterOnline.com

McGEE BEND RESERVOIR

(UNDER CONSTRUCTION)

U. S. ARMY ENGINEER DISTRICT, FORT WORTH
CORPS OF ENGINEERS
FORT WORTH, TEXAS

SAN AUGUSTINE

NACOGDOCHES CO.
ANGELINA CO.
SAN AUGUSTINE CO.
SABINE CO.
JASPER CO.
POLK CO.
TYLER CO.

LACYVILLE
WODEN
CHIRENO
DENNING
REDLAND
ETOILE
EWING
HERTY
LUFKIN
HUNTINGTON
BURKE
DIBOLL
SHAWNEE
ZAVALLA
NANCY
MACUNE
CHINQUAPIN
BRONSON
BROADDUS
PINELAND
BROOKELAND
FERGUSON
ROCKLAND
CORRIGAN
MOSCOW
COLMESNEIL
TOWN BLUFF
JASPER

S.P.
A. & N. R.
G.C. & S.F.

59 69 103 94 287 1669 226 21 1277 147 705 184 96 63 255 190 777 92

ATTOYAC BAYOU
AYISH BAYOU
ANGELINA RIVER
NECHES RIVER
SAN AUGUSTINE BAYOU
Wolf Creek
Sandy Creek

TOP OF CONSERVATION POOL ELEV. 164.0

TOP OF FLOOD CONTROL POOL ELEV. 173.0

McGEE BEND DAM

DAM "B"

SCALE OF MILES
4 0 4 8

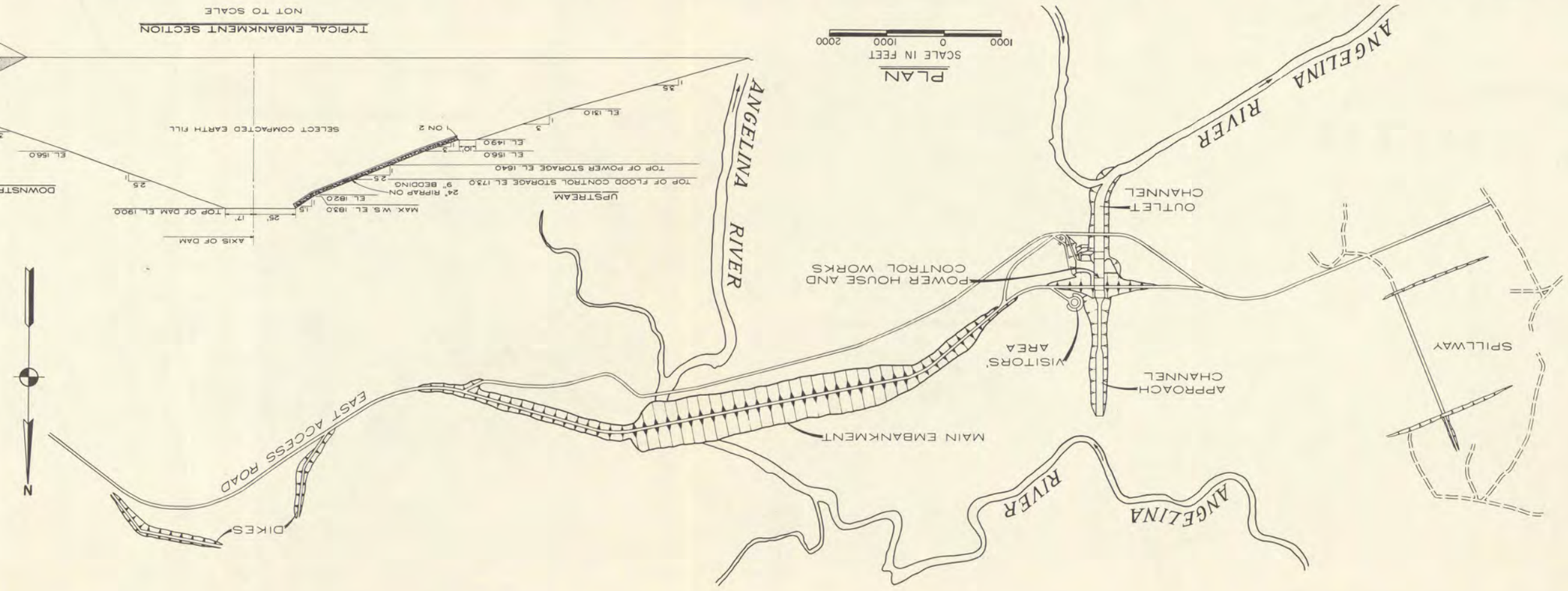
AMARILLO
TEXARKANA
DALLAS
FT. WORTH
MARSHALL
LONGVIEW
LUFKIN
DAM SITE
EL PASO
WACO
TEXAS
AUSTIN
BEAUMONT
HOUSTON
GALVESTON
SAN ANTONIO
LAREDO

HIGHWAY MILES TO DAM

Jasper	15
Lufkin	48
Beaumont	89
Houston	152
Galveston	172
Dallas	219
Fort Worth	250



Copied from an original at The History Center Diboll, TX 2004:014 www.TheHistoryCenterOnline.com



Building McGee Bend Dam - The construction of McGee Bend Dam is a big job requiring the combined effort of the Corps of Engineers and its construction contractors.

Construction of the dam, the outlet works, hydro-electric power plant, spillway, relocations, etc., all demand careful planning and construction.

In connection with this project, the Corps of Engineers has, in the past, been concerned with the preparation of watershed studies, and the development of project plans in order that this dam serve as a unit in the development of the water resources of the Neches-Angelina basin. As the project entered the construction phase, the Corps of Engineers became responsible for the writing of specifications, the award of contracts and supervising the construction.

Throughout the entire construction effort, Army Engineers will make certain that the quality of the earthfills made and the concrete that is placed meet contract requirements. In guaranteeing the quality of all work, the Corps of Engineers insists on careful inspection with field and laboratory control of all phases of construction.

Foundation conditions for McGee Bend Dam have been determined in advance by drilling closely-spaced diamond drill holes in the area, from which cores of the foundation materials were obtained for study.

All construction of this project will normally be accomplished by private contractors working under supervision of the Corps of Engineers. Such construction contracts are advertised for public bids with award to the lowest bidder meeting the government's requirements.

It will take a number of years to complete the McGee Bend project, and the construction program will be geared to a most economical and orderly plan based upon the availability of funds.

Real estate to be purchased for this project will also be geared to construction requirements, with those areas to be used for the construction of the dam, spillway, powerhouse, relocations, etc., to be purchased first.

Depending upon their ultimate use in connection with this project, certain lands are purchased outright by the government, while areas to be subjected to only infrequent flooding will remain in private ownership with the government acquiring flowage easements.

First construction on the project was initiated in April 1956 with work on a natural gas pipe line crossing the project area. Construction of the east access road to the damsite proper, the first portion of the embankment, and dikes "A" and "B" was completed in March 1959. Construction of the uncontrolled spillway was completed in January 1959. In December 1958 work began on the second portion of the embankment.

The crest of the dam will provide a 34-foot roadway which the Texas State Highway Department has agreed to take over and maintain upon completion of the structure.

Recreation - An extra dividend: In addition to its use for flood control, water conservation and generation of hydro-electric power, the McGee Bend Reservoir will bring new recreational opportunities to the surrounding area. With the lake open to all, swimming, boating, picnicing, fishing and other out-door activities will be available to the general public. In cooperation with other federal, state and local agencies, plans will be formulated to assure the orderly development of the lake shores for the benefit of the visiting public.

McGEE BEND DAM AND RESERVOIR
Angelina River, Texas

Four projects have been authorized as a unit by the Congress for the Neches and Angelina River basin: McGee Bend Dam, Rockland Dam, Dam "A" and Dam "B". The projects are designed to serve flood control and the development of the water resources of this watershed; DAM "B", near Jasper, Texas, has been the first project to be constructed. It was initiated by the Corps of Engineers, U. S. Army, in 1947 and placed in operation in 1951. The cost of this undertaking is $7,970,000, of which local interests represented by the Lower Neches Valley Authority contributed $2,000,000.

As the second unit in the plan of improvement for this watershed, Congress, in 1955, appropriated first construction funds for initiation of McGEE BEND DAM to be located on the Angelina River approximately 10 miles northwest of Jasper. This project is designed to control floods, generate hydro-electric power, and conserve water for municipal, industrial and agricultural uses. Cooperating in this undertaking is the Lower Neches Valley Authority, an agency of the State of Texas, which has agreed to contribute $3,000,000, and has also offered to pay an additional $10,000,000 at the rate of $200,000 annually for a period of 50 years after completion of the project.

It has been estimated that annual benefits of over $4,500,000 would result from the operation of McGee Bend Reservoir due to control of floods, the conservation of water for various purposes, and the generation of power. This power will be marketed by the Southwestern Power Administration, an agency of the Department of Interior.

Flood Control - With a flood control storage of 1,148,900 acre-feet (1 acre-foot equals 1 acre of water 1 foot deep), the reservoir, operating as a unit on the Neches-Angelina basin, will provide reasonable control of the maximum flood of record in the lower Neches River Valley.

The McGee Bend Dam and Reservoir project will reduce flooding almost entirely on the Angelina River, below the dam site, and afford considerable protection to Beaumont and the surrounding territory in the lower Neches River Valley.

Hydro-electric Power - There is 1,383,500 acre-feet of reservoir capacity allocated to the production of hydro-electric power. In addition, 1,508,400 acre-feet of reservoir capacity is for power head, sediment reserve, etc. The regulated flow of water to be discharged through the turbines may be used for agricultural, municipal and industrial purposes.

The Dam - The dam will consist of an earth embankment with a concrete power intake and flood control outlet works combined, located near the right abutment. The overall length of the dam, including the uncontrolled spillway located in a saddle about 7,000 feet west of the main embankment, is about 19,430 feet and the maximum height above stream bed is 120 feet.

The earth portion of the embankment will be constructed of selected soils carefully placed and compacted, with most of the up-stream face of the embankment to be protected from wave action by 27 inches of riprap.

Flood waters which are stored in the reservoir will be discharged through two 10- by 20-foot gate controlled conduits located in the outlet works, invert elevation 105.0 feet msl. Only during prolonged and extreme flooding would the uncontrolled spillway go into operation.

The reservoir - At the top of power pool, elevation 164.0, the lake will cover an area of about 114,500 acres, with approximately 560 miles of shore line.

The stream - The Angelina River has its source in the eastern part of the State, near Henderson, Texas. The stream flows generally in a southeast direction for about 205 miles, where it joins the Neches River at river mile 126.1. The total watershed of the Neches River, which includes the Angelina River, has a drainage area of 10,129 square miles. The Angelina River has a total drainage area of 3,574 square miles of which 3,453 square miles are above McGee Bend Dam.

STATISTICS

Dam

Length, overall	19,430 ft.
Height, maximum, above stream bed	120 ft.
Width of Crown, minimum	42 ft.
Width of base, maximum	750 ft.
Spillway, Uncontrolled, length	2,200 ft.

Flood Control Outlet

2 Gate controlled conduits, each	10 ft. x 20 ft.

Power Plant

Power penstocks	
4 penstocks, each	18 ft. x 26 ft.
Turbines	
2 Kaplan type, vertical shaft, capacity at 70 ft. of head, ea.	41,300 h.p.
Generators	
2 units, normal capacity, each	26,000 kw
Average annual power production	121,640,000 kwh

Reservoir

Flood control pool	
Elevation above mean sea level	173 ft.
Capacity	1,148,900 ac.ft.
Area	141,300 ac.
Power pool	
Elevation above mean sea level	164 ft.
Capacity	1,383,500 ac.ft.
Area	114,500 ac.
Power head and sediment storage	1,508,400 ac.ft.
Total controlled storage	4,040,800 ac.ft.

The McGee Bend project is being constructed under the immediate supervision of the District Engineer, U.S. Army Engineer District, Fort Worth, Texas.

McGEE BEND
DAM AND RESERVOIR
(UNDER CONSTRUCTION)



U.S. ARMY ENGINEER DISTRICT, FORT WORTH
CORPS OF ENGINEERS
FORT WORTH, TEXAS
REVISED JUNE 1960

2004:014 0375

THE HISTORY CENTER 2004:014