Morris Sheppard Dam and Possum Kingdom Lake

OWNER

The Brazos River Authority.

ENGINEER (Design)

Ambursen Engineering Corporation.

LOCATION

On the Brazos River in Palo Pinto County, 18 miles southeast of Graham.

DRAINAGE AREA

22,550 square miles, of which 9,240 is probably noncontributing.

DAM

Type	Ambursen-type, buttress with flat-slab deck and an earthen dike
Length	2,740 ft
Height	189 ft
Top width	14.8 ft

SPILLWAY

Type	Gated-controlled ogee weir
Control	9 roof-weir gates, each 73.66 by 13 ft
Crest elevation	987.0 ft above msl

OUTLET WORKS

Type	1 conduit, 54-inch diameter
Control	Valve
Invert	874.8 ft above msl

Normal discharge is from turbine operation.

POWER GENERATION FEATURES

Two generating units, each 11,250 kw capacity.

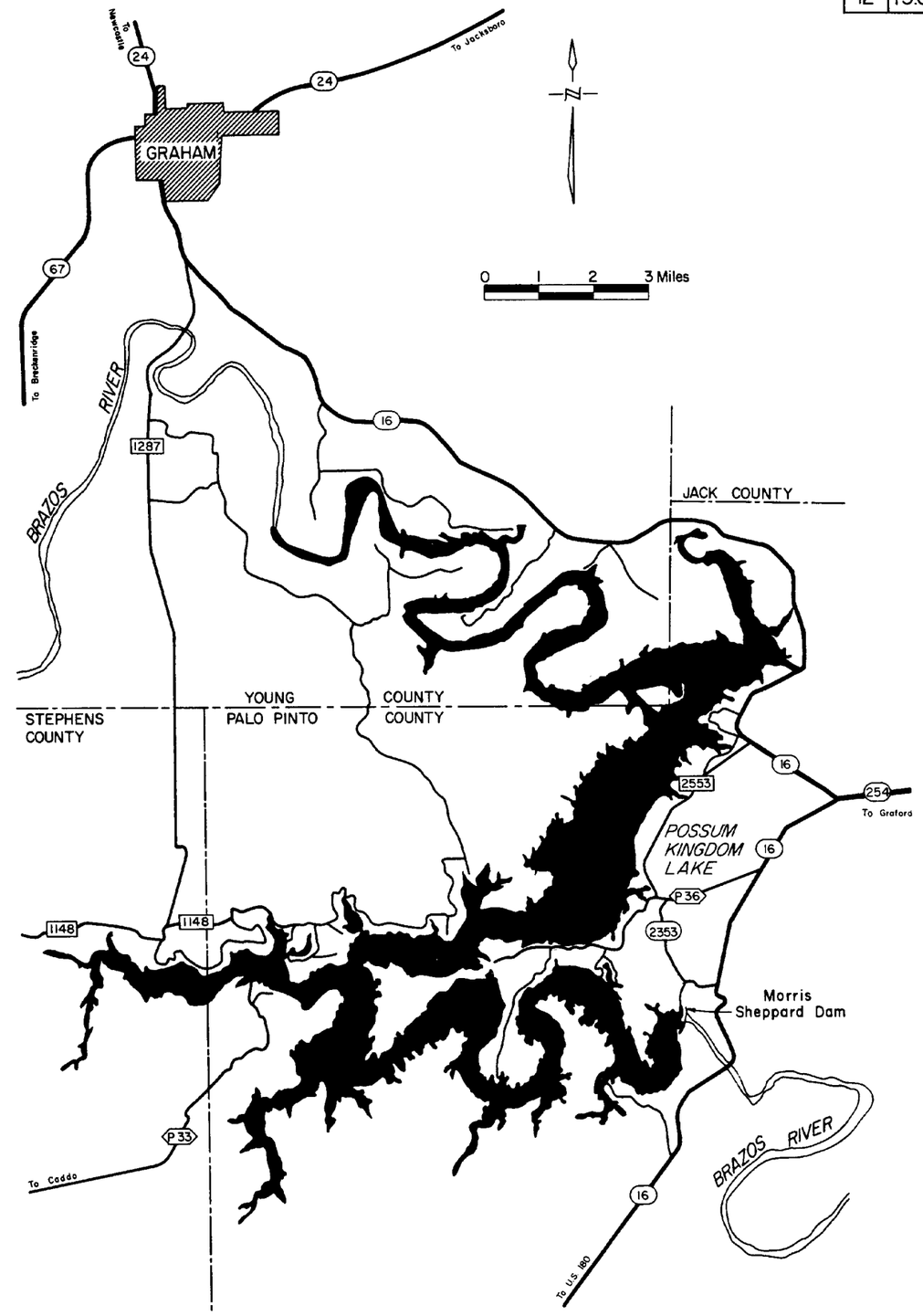
STATE AUTHORIZATION

Permit No. 1262 (Application No. 1351) May 9, 1938, allows construction of a dam to impound 750,000 acre-feet of water and the appropriation of 1,500,000 acre-feet of water annually for municipal, industrial, mining, irrigation, recreational and power generation uses.

FEATURE	ELEVATION (FEET ABOVE MSL)	CAPACITY (ACRE-FEET)	AREA (ACRES)
Top of dam	1,024.0	–	–
Top of gates	1,000.0	570,243	17,700
Spillway crest	987.0	383,272	11,682
Invert of penstock	911.5	5,000	725
Invert of 54-inch outlet	874.8	–	–
Usable conservation storage space	–	–	–

GENERAL

Construction started	May 29, 1938
Dam completed	March 21, 1941
Deliberate storage began	March 21, 1941
Power generation began	April 17, 1941
General contractor	C. F. Lytle and A. L. Johnson
Estimated cost of the dam	$7,000,000



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Information courtesy of the Brazos River Authority