

LOCATION: R.M. 31.9 on San Gabriel River, Brazos River Basin, about 10 miles northeast of Taylor, TX., in Williamson County.

DRAINAGE AREA:

709 square miles  
463 square miles (incremental)  
One inch of runoff 37,813 ac-ft  
One inch of runoff (incremental) 24,693 ac-ft

DAM:

Type: Rolled earth fill  
Length: 16,320' (including spillway)  
Maximum Height: 115'  
Top Width: 30'

SPILLWAY:

Crest Elev: 528.0' msl  
Length: 950'  
Type: Ogee  
Control: None

INFLOW:

Spillway design flood peak, cfs 521,000  
Spillway design flood volume, ac-ft 903,800  
Spillway design flood runoff, inches 23.90

OUTFLOW:

Total routed peak outflow, cfs 342,330  
Spillway, cfs 342,330  
Outlet works, cfs 0

OUTLET WORKS:

Type: 1 gate controlled conduit  
Dimension: 18' diameter  
Invert Elevation: 457.0' msl  
Control: 2-8'x18' hydraulically operated slide gates

LOW-FLOW OUTLETS:

Intake Dimensions: 3'x4'  
Number: 4  
Control: 1-3'x4' manually operated slide gate at each intake to wet well

1-2'x4' manually operated gate in wet well with invert elevation 486.0' msl

Intake Invert Elevations:

Level #1 - 504.0' msl  
Level #2 - 498.0' msl  
Level #3 - 492.0' msl  
Level #4 - 486.0' msl

POWER FEATURES:

None

(Sheet 1 of 3)

GRANGER DAM AND LAKE - FIRST PHASE  
WITH GEORGETOWN LAKE IN SYSTEM  
(SAN GABRIEL RIVER PROJECT)

Feature	: Elev : Feet : (msl)	: Reser- : voir : Area : (acres)	: Reservoir Capacity			: Spillway : Capacity : (cfs)	: Outlet Works : Capacity : (cfs)
			: Accumu- : lative : (ac-ft)	: Runoff : (inches) : (1)	: Incre- : mental : (ac-ft)		
Top of Dam	555.0	21,000					
Maximum Design Water Surface	550.3	19,220	579,900	23.48		342,330	13,700
Top of Flood Control Pool and Spillway Crest	528.0	11,040	244,200	9.89	162,200		
Top of Conservation Pool	504.0	4,400	65,500	2.65	37,900		
Sediment Reserve					44,100 (2)		
Total Storage					244,200		
Maximum Tailwater	481.5						
Streambed	440.0						

(1) Based on a drainage area of 463 square miles

(2) Estimated 100 years of sediment storage distributed as follows: 16,500 ac-ft between elev 528.0 and 504.0' msl  
27,600 ac-ft below elev 504.0' msl

**AUTHORIZATION:** Flood Control Act approved 3 Sep 54 (PL 83-780) (HD 535/81/2). Modified by Flood Control Act approved 23 Oct 62 (PL 87-874) (HD 591/87/2).

**PROJECT COST ESTIMATE (OCT 82):**

Federal:	\$62,000,000
Non-Federal:	None*
Total:	\$62,000,000

**ANNUAL O&M COST (FY 81):**

Federal:	\$ 563,000
Non-Federal:	173,000
Total:	\$ 736,000

**STATUS OF PROJECT:** Construction initiated 24 Oct 72. Deliberate impoundment began 21 Jan 80. Project is complete and operational. Georgetown Lake impounded 3 Mar 80 and is also operational.

**\*NON-FEDERAL PARTICIPATION AND LOCAL COOPERATION:**

A water supply contract with the Brazos River Authority was approved on 24 Apr 81 for 100 percent (37,900 ac-ft) of the conservation storage between elevations 504.0 and 440.0 ft msl. BRA will pay an estimated \$13,293,000, excluding interest, in addition to their share of annual O&M cost, for this water supply storage space.

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GRANGER DAM AND LAKE - FIRST PHASE  
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(SAN GABRIEL RIVER PROJECT)

COST ALLOCATION METHOD:

Separable costs - remaining benefits

LOCAL AGENCY: Brazos River Authority

LAND ACQUISITION:

	: Guide Contour ('msl)	: Area (Acres)
Fee simple	533.0	13,589
Easement		1,731
Total		15,320

FLOOD DATA:

Date	: Peak Discharge (1)
	: (cfs)
Sep 21	160,000
Jul 40	34,500
Jun 44	37,500
Apr 57	155,000
Oct 59	71,500

(1) At Georgetown gage

REMARKS:

The data presented herein is based on Georgetown Lake in the system.

Dependable yield\*: 25 cfs or 16.2 MGD

\*Based on a critical dry period from 1947-1957 and 100 years of sedimentation.

Visitation (1982): 321,637

Shoreline at top of conservation pool:  
NOT PROVIDED

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