

Pertinent Data - Joe Pool Dam & Lake  
(See Exhibit A for Supplementary Data)

LOCATION: R.M. 11.2 on Mountain Creek, Trinity River Basin, 10 miles southwest of Dallas, TX.

DRAINAGE AREA: 232 square miles  
One inch of runoff 12,373 acre-feet

DAM:  
Embankment Type: Rolled earth fill  
Length (including spillway): 24,200 feet  
Maximum Height: 108.5 feet  
Top Width: 30.0 feet

SPILLWAY:  
Crest Elev: 541.0 feet NGVD  
Length: 50 feet net at crest  
Type: Broadcrested

<u>LAND ACQUISITION:</u>	Guide Contour	Area (Acres)
Fee simple	541.0 NGVD	14,777
Easement		2,796
<u>Total</u>		<u>17,573</u>

INFLOW:  
Spillway design flood peak, cfs 342,200  
Spillway design flood volume, ac-ft 360,700  
Spillway design flood runoff, inches 29.15

OUTFLOW (AT MAXIMUM DESIGN WATER SURFACE):  
Total routed peak outflow, cfs 11,900  
Spillway discharge, cfs 11,900  
Outlet works discharge, cfs 0

OUTLET WORKS:  
Type: 1 conduit with 2 gated inlets  
Dimension: 10.5 feet diameter conduit  
Invert Elev: 466.0 feet NGVD  
Control: Two 4.75' x 10.5' service gates

LOW FLOW OUTLET:  
Type: 1 transition conduit  
Size: 2 x 5 feet  
Control: 4 selector gates 3' x 5'  
Invert Elevation: 486.0, 495.0, 504.0, 513.0

<u>Feature</u>	<u>Elev Feet (NGVD)</u>	<u>Reser-voir Area (acres)</u>	<u>Reservoir Capacity</u>			<u>Spillway Capacity (cfs)</u>	<u>Outlet Works Capacity (cfs)</u>
			<u>Incre-mental (ac-ft)</u>	<u>Accumu-lative (ac-ft)</u>	<u>Equivalent Runoff (inches)</u>		
Top of Dam	564.5						
Max Design Water Surface	559.5	18,600	279,700	642,400	51.92	11,900	4,460
Spillway Crest	541.0	12,470	58,700	362,700	29.31		
Top of Flood Control Pool	536.0	10,940	123,100	304,000	24.57		3,880
Top of Conservation Pool	522.0	7,470	142,900	176,900	14.30		3,460
Sediment Reserve			38,000*				
Maximum Tailwater	474.0						
<u>Streambed</u>	<u>456.0</u>						

\*Estimated 100 years of sediment storage distribution: 4,000 ac-ft between elevation 536.0' and 522.0 feet ngvd;  
NOTE: Area capacity data is 1985 condition 34,000 ac-ft below elevation 522.0 feet ngvd

AUTHORIZATION: River and Harbor Act approved 27 Oct 65  
(PL 89-298) (HFD 276/89/1)

PROJECT COST ESTIMATE (OCT 82):

Federal:	\$155,596,000
Non-Federal:	64,404,000*
Total:	\$220,000,000

ESTIMATED ANNUAL O&M COSTS (OCT 81):

Federal:	\$ 359,000
Non-Federal:	990,000
Total:	\$ 1,349,000

COST ALLOCATION METHOD:

Separable costs - remaining benefits

LOCAL AGENCY: Trinity River Authority

LAND ACQUISITION:

	: Guide Contour ('msl) :	Area (Acres)
Fee simple	541.0	14,777
Easement		2,796
Total		17,573

FLOOD DATA

Date	Peak Discharge (cfs)
Jan 28	35,900 (1)
May 42	29,300 (2)
Mar 45	23,100 (2)
Jun 57	25,400 (2)
Apr 66	33,500 (2)
May 69	36,000 (2)
Apr 76	38,100 (1)

- (1) Mountain Creek near Grand Prairie gage.  
(2) Estimated from change in reservoir contents and releases from Mountain Creek Reservoir

STATUS OF PROJECT Under construction. Initia-  
~~tion of construction began land purchase 16 Sep~~  
~~77. As of Oct 82, project is 44% complete.~~  
~~Deliberate impoundment scheduled for Dec 85.~~

\*NON-FEDERAL PARTICIPATION AND LOCAL COOPERATION:

A water supply storage contract with the Trinity River Authority was approved on 15 Jun 77 for 100 percent (142,900 ac-ft) of the conservation storage below elevation 522.0 ft msl. TRA will pay an estimated \$52,711,000, in addition to their share of the annual O&M cost, for this water supply storage cost.

A recreation contract with TRA was approved 15 Jun 77 and later modified and approved 21 Mar 80 to permit the State of Texas to participate in recreational development at this project. TRA will pay an estimated \$11,693,000 in addition to O&M costs associated with their recreational areas. The State will provide \$9,639,000 during construction for construction of a State park and will operate and maintain their own park. TRA is responsible for operating and maintaining all recreational park areas outside the State Park.

REMARKS:

Dependable yield\*\*: 22 cfs or 14.2 MGD

\*\*Based on critical dry period from 1947-1957 and 2020 year conditions.

Visitation (1981): N/A

Shoreline at top of conservation pool: 60 miles