

LOCATION: R.M. 5.0 on Waxahachie Creek,
Richland-Chambers Creeks Watershed, Trinity
River Basin, about 5 miles south of Ennis,
TX, in Ellis County.

INFLOW:
Spillway design flood peak, cfs 163,500
Spillway design flood volume, ac-ft 277,700
Spillway design flood runoff, inches 30.10

DRAINAGE AREA:
178 square miles
One inch of runoff 9,493 acre-feet

OUTFLOW:
Total routed peak outflow, cfs 78,000
Spillway, cfs 78,000
Outlet works, cfs 0

DAM:
Type: Rolled earth fill
Length: 15,400' (including spillway)
Maximum Height: 82'
Top Width: 20'

OUTLET WORKS:
Type: 1 gate controlled conduit
Dimension: 10' diameter
Invert Elev: 391.0' msl
Control: 2-5'x10' sluice gates

SPILLWAY:
Crest Elev: 439.0' msl
Length 350' net at crest
Type: Broadcrested
Control: None

POWER FEATURES:
None

Feature	Reservoir Capacity						
	Elev Feet (msl)	Reser- voir Area (acres)	Accumu- lative (ac-ft)	Runoff (inches)	Incre- mental (ac-ft)	Spillway Capacity (cfs)	Outlet Works Capacity (cfs)
Top of Dam	460.0						
Maximum Design Water Surface	455.9	9,480	268,400	28.27		78,000	3,700
Top of Flood Control Pool and Spillway Crest	439.0	6,040	140,000	14.75	79,600		3,120
Top of Conservation Pool	421.0	3,570	54,900	5.78	42,800		2,360
Sediment Reserve					17,600*		
Total Storage					140,000		
Streambed	377.6						

*Estimated 100 years of sediment storage distributed as follows: 5,500 ac-ft between elev 439.0 and 421.0' msl
12,100 ac-ft below elev 421.0' msl

(Sheet 1 of 2)

AUTHORIZATION: "Bardwell Reservoir - Construction," an act approved 31 Mar 60 (PL 86-399) (HD 424/82/2).

FINAL PROJECT COST (APR 77):

Federal:	\$10,920,729.08
Non-Federal:	None*
Total:	\$10,920,729.08

ANNUAL O&M COST (FY 81):

Federal:	\$ 619,000
Non-Federal:	86,800
Total:	\$ 705,800

COST ALLOCATION METHOD:

Separable costs - remaining benefits

LOCAL AGENCY: Trinity River Authority

LAND ACQUISITION:

	: Guide Contour ('msl)	: Area (Acres)
Fee simple	444.0	7,493
Easement	444.0	625
Total		8,118

FLOOD DATA:

Date	: Peak Discharge
	: (cfs)
Dec 13 (Historical)	86,300 (2)
May 44	48,000 (1)
May 48	59,900 (2)
Apr 57	43,000 (2)
May 57	23,200
Apr 73	31,600 (3)

- (1) Chambers Creek near Corsicana gage
- (2) Richland gage
- (3) Based on change in lake contents

STATUS OF PROJECT: Construction of project was initiated in Aug 63. Deliberate impoundment began 20 Nov 65. Project is complete and operational.

*NON-FEDERAL PARTICIPATION AND LOCAL COOPERATION:

Water supply storage contract with the Trinity River Authority were approved on 24 Jun 63 and supplemented 9 Oct 69. TRA will pay \$3,290,587.39, in addition to their share of annual O&M cost, for this water supply storage space.

REMARKS:

Dependable yield*: 17.4 cfs or 11.2 MGD

*Based on critical dry period 1953-1957 and 100 years of sedimentation.

Visitation (1981): 985,812

Shoreline at top of conservation pool: 25 miles

(Sheet 2 of 2)