

Pertinent Data - Cooper Dam and Jim Chapman Lake
(See Exhibit A for Supplementary Data)

LOCATION:

River Mile 23.2 on South Sulphur River about 4 miles southeast of Cooper, Texas, in Delta and Hopkins Counties.

EMERGENCY SPILLWAY:

Crest Elevation: 446.2 feet NGVD
Length: 700 feet
Type: Uncontrolled Ogee Weir

DRAINAGE AREA:

479 square miles above dam site.
One inch of runoff 25,387 acre-feet

INFLOW:

Spillway design flood peak, cfs 268,500
Spillway design flood volume, ac-ft 847,000
Spillway design flood volume, inches 33.36

DAM:

Type: Rolled earth fill
Length: 28,072 feet
Maximum Height: 79.5 feet
Top Width: 30 feet

OUTFLOW:

Total routed peak outflow, cfs 138,596
Emergency spillway, cfs 134,700
Outlet works, cfs 3,000

POWER FEATURES: None

OUTFLOW WORKS:

Type: 1 gate-controlled conduit
Dimension: 10.5 feet diameter
Invert Elev: 394.0 feet NGVD
Control: 4.45' x 10.5' service gates

Feature	Elevation feet (NGVD)	Reservoir Area (acres)	Reservoir Capacity			Spillway Capacity (cfs)	Outlet Works Capacity (cfs)
			Incremental (ac-ft)	Accumulative (ac-ft)	Runoff (inches)		
Top of Dam	464.5	33.600		955,200			
Maximum Design Water	459.5	27,602	354,027	794,700	31.30	134,700	3,896
Top of Flood Control Pool	446.2	22,735	130,361	440,673	17.36		3,450
Top of Conservation Pool	440.0	19,305	273,120	310,312	12.22		3,211
Sediment Storage	415.5	5,103	37,192	37,192*	1.47		
Total Storage Streambed	386.0		602,943				

*Estimated 100 years of sediment storage below elevation 446.2 feet NGVD; 27,730 ac-ft

Cooper Dam and Jim Chapman Lake taken from water control manual

AUTHORIZATION: Flood Control Act approved 3 Aug 55
(PL 84-218) (HD 488/83/2).

PROJECT COST ESTIMATE (1 OCT 82):

Federal:	\$166,000,000
Non-Federal:	227,000
Total:	\$166,227,000

ANNUAL O&M COST (FY 82):

Federal:	\$ 875,900
Non-Federal:	218,900
Total:	\$ 1,094,800

COST ALLOCATION METHOD:

Separable cost - remaining benefits

LOCAL AGENCY: North Texas Municipal Water District,
Sulphur River Municipal Water District, and the City
of Irving

LAND ACQUISITION:

	: Guide Contour ('msl)	: Area (Acres)
Fee simple	451.2	58,583*
* Includes: Cooper Lake area		(33,083)
Mitigation Lands		(25,500)

FLOOD DATA:

Date	: Peak Discharge (1)
	: (cfs)
May 53	23,800
May 57	23,200
Nov 57	23,200
May 66	30,500
Dec 71	42,500

(1) South Sulphur River Near Cooper, Texas

Visitation (1982): N/A

Shoreline at top of conservation pool: NOT PROVIDED

STATUS OF PROJECT: Construction on the Cooper
Lake and Channels Project was suspended in 1971
pending completion of an Environmental Impact
Statement (EIS), and in 1978 the Court issued a
Memorandum Opinion detailing five inadequacies in
the previously prepared EIS. In March 1981 the
Fort Worth District released a final Supplemental
EIS correcting those deficiencies. On 30 Dec 82,
the Court continued its permanent injunction
against construction of Cooper Lake and detailed
numerous deficiencies in the SEIS. Officials are
considering appealing the 1982 decision.

*NON-FEDERAL PARTICIPATION AND LOCAL COOPERATION:

Water supply storage contracts with the North
Texas Municipal Water District, Sulphur River
Municipal Water District and city of Irving were
approved on 4 Nov 77 for 36.86 percent (100,625
ac-ft), 26.78 percent (71,750 ac-ft), and 36.86
percent (100,625 ac-ft) of the conservation stor-
age between elevations 440.0 and 415.5 ft msl,
respectively. NTMWD, SRMWD, and the city of
Irving will pay an estimated \$9,207,638,
\$6,565,428, and \$9,207,637, respectively, in
addition to their share of the annual O&M cost,
for their respective water supply storage space.

Local interests are required to furnish without
cost to the United States lands, easements, and
rights-of-way including highway and utility relo-
cations for construction of channels and levees.
Also, maintain and operate all works after com-
pletion and preserve channel capacities by pre-
venting encroachments, etc.

REMARKS:

Dependable yield**: 169 cfs or 109.2 MGD

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