Pertinent Data – SAM RAYBURN DAM AND RESERVOIR
(See Exhibit A for Supplementary Data)

LOCATION: In Jasper County, R.M. 25.2 on Angelina River, Neches River Basin, 10 miles northwest of Jasper, Texas

DRAINAGE AREA:
3,449 square miles
One inch of runoff 183,947 acre-feet

DAM:

Type:	Rolled earth fill
Length:	19,430 feet (including spillway and dikes)
Maximum Height:	120 feet
Top Width:	42 feet
Dikes:	10 feet

SPILLWAY:

Crest Elev:	176.0 feet NGVD
Length:	640 feet net opening
Type:	Labyrinth, 16 cycles
Control:	None

INFLOW:

Spillway design flood peak, cfs	395,600
Spillway design flood volume, ac-ft	3,784,700
Spillway design flood runoff, inches	20.57

OUTFLOW:

Total routed peak outflow, cfs	147,400
Spillway, cfs	125,300
Outlet works, cfs	22,100

OUTFLOW WORKS:

Type:	2 gate-controlled conduits
Dimension:	10’x20’ into 180 foot conduit
Invert Elev:	105.0 feet NGVD
Control:	2-10’x20’ tractor type gates plus 1 emergency tractor type gate

POWER FEATURES:

Units:	2-26,000 KW
Installed Capacity:	52,000 KW
Dependable Capacity:	49,000 KW

Feature	Elev Feet (NGVD)	Reser-voir Area (acres)	Reservoir Capacity: Accumu-lative (ac-ft)	Reservoir Capacity: Runoff (inches)	Reservoir Capacity: Incre-mental (ac-ft)	Spillway Capacity (cfs)	Outlet Works Capacity (cfs)
Top of Dam	190.0						
Max Design Water Surface	183.0	180,000	5,610,000	30.50		125,300	22,100
Spillway Crest	176.0	153,800	4,442,400	24.15		0	
Top of Flood Control Pool	173.0	142,700	3,997,600	21.73	1,099,100		
Top of Power Pool	164.4	114,500	2,898,500	15.56	1,446,500		
Top of Power Head and Sediment Reserve	149.0	74,040	1,452,000	7.89	1,452,000		
Total Storage					3,997,600		
Maximum Tailwater	121.5						
Streambed	70.0						

AUTHORIZATION: River and Harbor Act of 2 Mar 45 (PL 79-14) (SD 98/76/1), modified by River and Harbor Act of 30 Jun 48 (PL 80-858). PL 88-123 approved 11 Sep 63 changed name of project from McGee Bend to Sam Rayburn Reservoir.

PROJECT COST ESTIMATE (OCT 81):

Federal:	$65,315,000
Non-Federal:	3,000,000*
Total:	$68,315,000

ANNUAL O&M COST (FY 81):

Federal:	$ 1,681,100
Non-Federal:	5,700
Total:	$ 1,686,800

COST ALLOCATION METHOD:
Separable costs - remaining benefits

LOCAL AGENCY: Lower Neches Valley Authority and City of Lufkin, Texas

LAND ACQUISITION:

	Guide Contour ('msl)	Area (Acres)
Fee simple	171.0	112,101
Easement	179.0	27,723
Forest service land		33,310
Total		173,134

FLOOD DATA:

Date	Peak Discharge (cfs)
Aug 15	82,000
Sep 44	49,900
Feb 66	82,000
Apr 68	123,000
Jun 68	84,000
Feb 69	100,000
May 69	170,000
Jun 73	140,900
Oct 73	86,800
Dec 73	125,600

STATUS OF PROJECT: Construction of project initiated 7 Sep 56. Deliberate impoundment began 29 Mar 65. Power generation began 23 Sep 65. Commercial power operation began 1 Jul 66 (1 unit) and 1 May 68 (2 units). Project is complete and operational.

*NON-FEDERAL PARTICIPATION AND LOCAL COOPERATION: As a unit of the authorized four reservoir system plan for the Neches-Angelina Rivers Basin, this project constructed subject to contribution by local interests of $5,000,000 toward the first cost of the system upon completion of the entire system. Public Law 80-858 provides that the sponsoring agency will be permitted to withdraw from B. A. Steinhagen Lake not to exceed 2,000 cfs for its own use. The Lower Neches Valley Authority contributed $2 million toward the construction of Dam "B" and $3 million toward construction of Sam Rayburn. By resolution of 8 Sep 55, LNVA also agreed to contribute an additional $200,000 annually for 50 years after completion of Sam Rayburn. A water supply contract with LNVA was approved by the Secretary of the Army on 22 Jan 57 embodying the above provisions.

LNVA pays no O&M cost except on features and appurtenances which may be provided and owned by the Authority.

A contract with the city of Lufkin was approved on 22 May 69 for 2.98 percent (43,000 ac-ft) of the conservation storage between elevations 164.4 and 149.0 ft msl. City of Lufkin will pay an estimated $525,600, in addition to their share of the annual O&M cost, for this water supply storage space.

REMARKS: Marketing agency for the hydropower generated is the Southwestern Power Administration.

Construction of related projects in Neches-Angelina River Basin included in this authorizing Act, i.e., power facilities at Dam "B" and construction of Dam "A" and Rockland Reservoir is to be deferred until justified by future conditions.

Dependable yield*: 1,263 cfs or 816.3 MGD

*Based on a critical dry period 1953-1957 and 50 years of sedimentation.

Visitation (1981): 2,473,397

Shoreline at top of power pool: 560 miles

(Sheet 3 of 3)

SAM RAYBURN DAM AND RESERVOIR