

SUPPLEMENTAL WATERSHED AGREEMENT NO. V
ATTOYAC BAYOU WATERSHED, TEXAS
BY
EXCHANGE OF CORRESPONDENCE

Since the original Watershed Agreement was signed on the 14th day of July 1965, and subsequent supplements since, it has become necessary to modify that agreement in order to carry out the installation of the plan.

Multiple-purpose Structure No. 23 will be moved downstream approximately 2600 feet (792.5 meters) from its present location and will be renumbered 23A. The movement will increase the drainage area from 26.23 square miles (67.9 square kilometers) to 27.27 square miles (70.6 square kilometers). Moving the structure downstream affords a better foundation condition for the dam as well as a more desirable location for the emergency spillway. The construction costs of the dam will be less expensive due to a shorter distance being involved. The classification of the structure will not change. Table 3 is attached.

The construction of multiple-purpose structure No. 23A will inundate 692 acres resulting in a loss of approximately 2,500 wildlife habitat units.

As a result of a habitat evaluation procedure prepared by the habitat evaluation team it has been found that additional mitigation measures are needed to compensate for the loss of the 2,500 wildlife habitat units. The preservation and management of a tract of 852 acres of bottomland hardwoods along the Angelina River bottom will provide approximately 4,550 habitat units which should replace those lost by the construction of the multiple-purpose structure. The sponsors will obtain the land rights needed in connection with the 852 acres to provide for this mitigation measure. The mitigation measure will be added to the project agreement.

The proposed greentree reservoir was found to be inadequate to mitigate for the loss of habitat units and will be deleted from the project plan.

Paragraph Numbered 1 is modified to read as follows:

The sponsors will acquire such land rights as will be needed in connection with the works of improvement. The percentage of this costs to be borne by the Sponsors and by the SCS are as follows:

<u>Works of Improvement</u>	<u>Sponsors</u> (percent)	<u>SCS</u> (percent)	<u>Estimated Landrights Cost 1/</u> (dollars)
Multiple-Purpose Structure No. 23A and Basic Recreational Facilities			
Payment to landowners for about 1,254 acres	50.00	50.00	1,120,000
Cost of Alteration or Modification of Improvements and Construction of Access Road	50.00	50.00	1,534,300
Legal Fees, Survey Costs, Flowage Easement and other	100.00	0.00	65,700
Mitigation Measure	50.00	50.00	306,000
13 Floodwater Retarding Structures	100.00	0.00	209,000

1/ Updated Price Index 1993 Dollars

All other terms, conditions and stipulations of the watershed agreement not modified herein remain the same and are agreed to:

Attoyac Bayou Watershed Authority
Local Organization

By Glenn Adams
Title Ward Chairman
Date 6-21-94

The signing of this agreement was authorized by a resolution of the governing body of the Attoyac Bayou Watershed Authority adopted at a meeting held on 06-21-94

Renai Lambert
(Secretary, Local Organization)
Address P.O. Box 627 Gallison, TX 75849
Date 6/21/94

Nacogdoches County Commissioners Court
Local Organization

By *Christine Strickland*

Title County Judge

Date June 27, 1994

The signing of this agreement was authorized by a resolution of the governing body of the Nacogdoches County Commissioners Court adopted at a meeting held on June 27, 1994.

Carol Wilson, County Clerk
(Secretary, Local Organization)

Address 101 W. Main Nacogdoches, TX

Date June 27, 1994

Nacogdoches Soil and Water Conservation District
Local Organization

By *Charles Ray Meji*

Title Chairman

Date June 30, 1994

The signing of this agreement was authorized by a resolution of the governing body of the Nacogdoches Soil and Water Conservation District adopted at a meeting held on 6-30-94.

Joseph Michael
(Secretary, Local Organization)

Address 4609 NW Stallings

Date 6-30-94

Shelby County Commissioners Court
Local Organization

By *Floyd A. Watson*
FLOYD A. WATSON
Title COUNTY JUDGE
Date JULY 11, 1994

The signing of this agreement was authorized by a resolution* of the governing body of the Shelby County Commissioners Court adopted at a meeting held on July 11, 1994.

*See Motion of Agenda Item 10 of attached Minutes of the July 11, 1994 Meeting.

PEACHES CONWAY
Peaches Conway
~~Secretary, Local Organization~~
CLERK OF COURT
Address P. O. BOX 592
CENTER, TX 75935
Date JULY 11, 1994

Shelby Soil and Water Conservation District
Local Organization

By *John F. Chiles*
Title *Chairman*
Date *6-28-94*

The signing of this agreement was authorized by a resolution of the governing body of the Shelby Soil and Water Conservation District adopted at a meeting held on 6-28-94.

John F. Chiles
(Secretary, Local Organization)
Address 1110 Lenaha St Center
Date 6/28/94 754

Rusk County Commissioners Court
Local Organization

By Andrea Hedge
Title County Judge
Date July 11, 1994

The signing of this agreement was authorized by a resolution of the governing body of the Rusk County Commissioners Court adopted at a meeting held on July 11, 1994.

Alic Henderson Deputy
(Secretary, Local Organization)
Address Rusk County Clerk's Office
Date 11 July 1994

Rusk Soil and Water Conservation District
Local Organization

By August Jones
Title Chairman
Date July 18, 1994

The signing of this agreement was authorized by a resolution of the governing body of the Rusk Soil and Water Conservation District adopted at a meeting held on July 18, 1994.

Albert Evans
(Secretary, Local Organization)
Address 501 South Marshall Henderson
Date July 18, 1994

Piney Woods Soil and Water Conservation District
Local Organization

By D L Wall
Title Chairman
Date 12 July 94

The signing of this agreement was authorized by a resolution of the governing body of the Piney Woods Soil and Water Conservation District adopted at a meeting held on 12 July 94.

J C Wall
(Secretary, Local Organization)

Address 101 S. Bolivar - Sta. Augustine, FL
Date 12 July 94

Soil Conservation Service
United States Department of Agriculture

Approved By Harry W. Oneth
Harry W. Oneth
State Conservationist

Date AUG 3 1994

TABLE 3: STRUCTURAL DATA - DAMS WITH PLANNED STORAGE CAPACITY
ATTOYAC BAYOU WATERSHED, TEXAS

ITEM	UNIT	STRUCTURE NUMBER 23A
Class of Structure		B
Seismic Zone		0
Uncontrolled Drainage Area	SQ. MI.	27.27
Runoff Curve No. (1 Day) (Average AMC II)		48
Time of Concentration (Tc)	HR.	4.8
Elevation Top of Dam	FT.	362.0
Elevation Crest Emergency Spillway	FT.	355.0
Elevation Crest High Stage Inlet	FT.	348.0
Elevation Crest Lowest Ungated Outlet	FT.	348.0
Emergency Spillway Type		Veg.
Emergency Spillway Bottom Width	FT.	400
Emergency Spillway Exit Slope	%	8.0
Maximum Height of Dam	FT.	58
Volume of Fill	CU. YD.	381,200
Total Capacity 1/	AC. FT.	15,031
Sediment Submerged 100 Years	AC. FT.	364
Recreational Pool	AC. FT.	8,708
Sediment Aerated	AC. FT.	73
Floodwater Retarding	AC. FT.	5,886
Surface Area		
Sediment Pool	AC.	79
Recreational Pool	AC.	692
Floodwater Retarding Pool	AC.	1,003
Principal Spillway Design		
Rainfall Volume (1 Day)	IN.	9.52
Rainfall Volume (10 Day)	IN.	16.50
Runoff Volume (10 Day)	IN.	4.23
Capacity of High Stage (Maximum)	CFS	580
Dimensions of Conduit (Box Culvert)	IN.	4.5'x4.5'
Frequency Operation (Emergency Spillway)	% CHANCE	> 1.0
Emergency Spillway Hydrograph		
Rainfall Volume	IN.	9.79
Runoff Volume	IN.	3.28
Storm Duration	HR.	6
Velocity of Flow (Ve)	FT./SEC.	0
Maximum Reservoir Water Surface Elevation	FT.	353.8
Freeboard Hydrograph		
Rainfall Volume	IN.	20.41
Runoff Volume	IN.	13.29
Storm Duration	HR.	6
Maximum Reservoir Water Surface Elevation	FT.	362
Discharge Per Foot of Width (Oe/b)	AC. FT.	29.5
Bulk Length	FT.	400
Capacity Equivalents		
Sediment Volume	IN.	0.30
Recreational Volume	IN.	5.99
Floodwater Retarding Volume	IN.	4.05

f/ At Emergency Spillway Crest

2/ Included in Sediment Submerged 100 Years