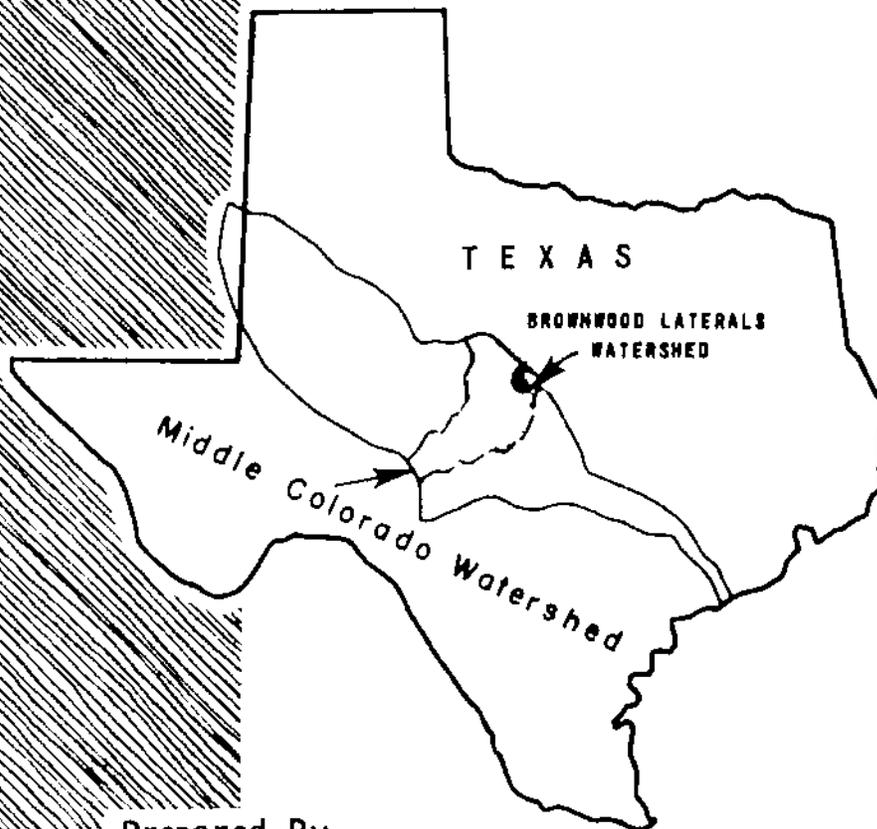


SUPPLEMENTAL
WATERSHED WORK PLAN

**BROWNWOOD LATERALS
WATERSHED**

OF THE MIDDLE COLORADO RIVER WATERSHED
BROWN AND MILLS COUNTIES, TEXAS



Prepared By
SOIL CONSERVATION SERVICE
U. S. DEPARTMENT OF AGRICULTURE
Temple, Texas
November 1971

SUPPLEMENTAL WATERSHED WORK PLAN AGREEMENT

Between the

Brown-Mills Soil and Water Conservation District ✓
Local Organization

Brown County Commissioners Court ✓
Local Organization

Mills County Commissioners Court ✓
Local Organization

City of Brownwood, Texas ✓
Local Organization

State of Texas
(hereinafter referred to as the Sponsoring Local Organization)

and the

Soil Conservation Service
United States Department of Agriculture
(hereinafter referred to as the Service)

Whereas, the Watershed Work Plan Agreement for the Brownwood Laterals Watershed, State of Texas, executed by the Sponsoring Local Organization named therein and the Service, became effective on the 22nd day of December 1964; and

Whereas, in order to carry out the watershed work plan for said watershed, it has become necessary to modify the watershed work plan to comply with the provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Public Law 91-646, 84th Stat. 1894); and

Whereas, it has become necessary to modify the Watershed Work Plan to reflect current policy and terminology relative to engineering and project administration costs; and

Whereas, a Supplemental Watershed Work Plan which modified the watershed work plan dated December 1964 for said watershed has been developed through the cooperative efforts of the Sponsoring Local Organization and the Service; which plan is annexed to and made a part of this agreement; and

Now, therefore, the Sponsoring Local Organization and the Service hereby agree upon the following modifications of the terms, conditions, and stipulations of said Watershed Work Plan Agreement:

1. A paragraph numbered 11 is added to read as follows:

The Sponsoring Local Organization will provide relocation advisory assistance services and make the relocation payments to displaced persons as required by the Uniform Relocation Assistance and Real

Property Acquisition Policies Act of 1970 (Public Law 91-646, 84th Stat. 1894) effective as of January 2, 1971, and the Regulations issued by the Secretary of Agriculture pursuant thereto. Prior to July 1, 1972, the Sponsoring Local Organization will comply with the real property acquisition policies contained in said Act and Regulations to the extent that they are legally able to do so in accordance with their State law. After July 1, 1972, the real property acquisition policies contained in said Act shall be followed in all cases.

The Service will bear 100 percent of the first \$25,000 of relocation payment costs for any person, business, or farm operation displaced prior to July 1, 1972. Any such costs for a single dislocation in excess of \$25,000 and all costs for relocation payments for persons displaced after July 1, 1972, will be shared by the Sponsoring Local Organization and the Service as follows:

	<u>Sponsoring Local Organization</u> (percent)	<u>Service</u> (percent)	<u>Estimated Relocation Payment Costs</u> (dollars).
Relocation Payments	34.99	65.01	8,700

2. Paragraph numbered 4 is deleted.

3. A paragraph numbered 12 is added to read:

The percentages of construction costs of structural measures to be paid by the Sponsoring Local Organization and the Service are as follows:

<u>Works of Improvement</u>	<u>Sponsoring Local Organization</u> (percent)	<u>Service</u> (percent)	<u>Estimated Construction Cost</u> (dollars)
All Structural Measures	-	100.00	2,789,430

4. A paragraph numbered 13 is added to read as follows:

The percentages of engineering costs to be borne by the Sponsoring Local Organization and the Service are as follows:

<u>Works of Improvement</u>	<u>Sponsoring Local Organization</u> (percent)	<u>Service</u> (percent)	<u>Estimated Engineering Costs</u> (dollars)
All Structural Measures	-	100.00	174,380

5. A paragraph numbered 14 is added to read as follows:

The Sponsoring Local Organization and the Service will each bear the costs of Project Administration which it incurs, estimated to be \$17,300 and \$485,620 respectively.

6. A paragraph numbered 15 is added to read as follows:

The program conducted will be in compliance with all requirements respecting nondiscrimination as contained in the Civil Rights Act of 1964 and the regulations of the Secretary of Agriculture (7C.F.R.15.1-15.12), which provides that no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any activity receiving Federal financial assistance.

7. The Sponsoring Local Organization and the Service further agree to all other terms, conditions, and stipulations of said Watershed Work Plan Agreement not modified herein.

Brown-Mills Soil and Water Conservation District

Local Organization

By Kenneth L. Boyd
 Title CHAIRMAN

Address BROWNWOOD, TEXAS

Date NOVEMBER 22, 1971 Zip Code

The signing of this agreement was authorized by a resolution of the governing body of the Brown-Mills Soil and Water Conservation District

adopted at a meeting held on NOVEMBER 22, 1971
 Local Organization

(Secretary, Local Organization)

Address Brownwood, Texas Zip Code
 Date November 22, 1971

Brown County Commissioners Court
Local Organization

By William C. Brulson

Title COUNTY JUDGE

Address BROWNWOOD, TEXAS

Date NOVEMBER 24, 1971 Zip code

The signing of this agreement was authorized by a resolution of the governing body of the Brown County Commissioners Court
Local Organization
 adopted at a meeting held on NOVEMBER 22, 1971

Mrs. Lucie Bell
 (Secretary, Local Organization)

Address BROWNWOOD, TEXAS

Date NOVEMBER 24, 1971 Zip Code

Mills County Commissioners Court
Local Organization

By Carl Rogers

Title COUNTY JUDGE

Address GOLDTHWAITE, TEXAS

Date November 24, 1971 Zip Code

The signing of this agreement was authorized by a resolution of the governing body of the Mills County Commissioners Court
Local Organization
 adopted at a meeting held on October 11, 1971

Sharon A. Bryant
 (Secretary, Local Organization)

Address GOLDTHWAITE, TEXAS

Date November 24, 1971 Zip Code

City of Brownwood, Texas
Local Organization

By H. J. Harlow

Title MAYOR

Address BROWNWOOD, TEXAS
Zip Code

Date NOVEMBER 23, 1971

The signing of this agreement was authorized by a resolution of the governing body of the City of Brownwood, Texas
Local Organization

adopted at a meeting held on NOVEMBER 23, 1971

Cliff C. Chapp
(Secretary, Local Organization)

Address BROWNWOOD, TEXAS
Zip Code

Date NOVEMBER 23, 1971

Local Organization

By _____

Title _____

Address _____
Zip Code

Date _____

The signing of this agreement was authorized by a resolution of the governing body of the _____
Local Organization

adopted at a meeting held on _____

(Secretary, Local Organization)

Address _____
Zip Code

Date _____

Soil Conservation Service
United States Department of Agriculture

By L. J. ...
State Conservationist

Date _____

SUPPLEMENTAL
WATERSHED WORK PLAN

BROWNWOOD LATERALS WATERSHED
Of the Middle Colorado River Watershed
Brown and Mills Counties, Texas

Plan Prepared and Works of Improvement
to be Installed Under the Authority
of the Flood Control Act of 1944
as Amended and Supplemented

Prepared By:

Brown-Mills Soil and Water Conservation District
Brown County Commissioners Court
Mills County Commissioners Court
City of Brownwood, Texas

With Assistance By:

U. S. Department of Agriculture
Soil Conservation Service

November 1971

SUPPLEMENTAL
WATERSHED WORK PLAN

BROWNWOOD LATERALS WATERSHED
Of the Middle Colorado River Watershed
Brown and Mills Counties, Texas

November 1971

PURPOSE OF THE SUPPLEMENTAL WORK PLAN

It has become necessary to modify the watershed work plan for Brownwood Laterals watershed to incorporate provisions for implementing the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970. In order to simplify the cost-sharing of relocation payments and set forth the provisions for providing relocation advisory assistance services, it is necessary to modify the watershed work plan to reflect current policy and terminology relative to engineering and project administration costs.

The following are changes and modifications made in appropriate parts of the watershed work plan.

Works of Improvement to be Installed

Under present conditions, the acquisition of land rights needed for the installation of Floodwater Retarding Structure No. 1 will result in the displacement of two families from two owner-occupied dwellings. No other displacement or relocation is apparent at this time. However, if other relocations become necessary, relocation payments will be cost-shared in accordance with percentages shown in the work plan agreement.

Explanation of Installation Costs

The total costs for apparent eligible relocation payments resulting from dislocations indicated under "Works of Improvement to be Installed" are estimated to be \$8,700. After July 1, 1972, the share of these costs to be borne by Flood Control Act of 1944 funds is 65.01 percent and the share to borne by other funds is 34.99 percent, and are based upon the ratio of Federal funds and other funds to the total project costs less relocation payments. For those displacements prior to July 1, 1972, Federal funds will provide the first \$25,000 for each displacement.

Engineering services costs consist of, but are not limited to, detailed surveys, geologic investigations, laboratory analyses, reports, designs, and cartographic services.

Federal project administration costs consist of construction inspection, maintenance of records and accounts, contract administration, and assistance to Brown County in providing relocation advisory assistance .

The local costs for project administration include sponsors cost for overhead and organizational costs, whatever construction inspection they desire to make at their own expense, and all relocation advisory assistance service costs. Local costs for providing relocation advisory assistance services are estimated to be \$500.

Comparison of Costs and Benefits

The total average annual cost of structural measures (amortized total installation cost, plus operation and maintenance) is \$134,006. These measures are expected to produce average annual benefits, excluding secondary benefits, of \$337,311, resulting in a benefit to cost ratio of 2.5:1.0. The ratio of total average annual project benefits (\$388,139) accruing to structural measures to the average annual cost of structural measures (\$134,006) is 2.9:1.0.

Project Installation

The Brown County Commissioners Court will be responsible for providing relocation advisory assistance services and the local share of relocation costs. The Brown County Commissioners Court through its own facilities and staff will: (1) provide personally, or by first class mail, written notice of displacement and appropriate application forms to each displaced person, or business, (2) give displaced persons notice to vacate at least 90 days prior to the date they must move, (3) assist in filing applications, (4) review and approve applications for relocation assistance, (5) review and process grievances in connection with displacements, and (6) make relocation payments.

The Brown County Commissioners Court will provide such measures, facilities, or services as may be necessary or appropriate in order to, (1) determine the need, if any, of displaced persons for relocation assistance, (2) provide current and continuing information on the availability, prices, and rentals of comparable decent, safe, and sanitary sale and rental housing, and of comparable commercial properties and locations for displaced businesses and farm operations, (3) assure, that within a reasonable period of time prior to displacement, replacement dwellings will be available, (4) assist a displaced person displaced from his business or farm operation in obtaining and becoming established in a suitable replacement location, (5) supply information concerning housing programs, disaster loan programs, and other Federal or State programs offering assistance to displaced persons, (6) provide other advisory services to displaced persons in order to minimize hardships to such persons in adjusting to relocation, (7) advise displaced persons that they should notify the displacing agency before they move, and (8) prior to initiation of acquisition, provide persons from whom it is planned to acquire land a brochure or pamphlet outlining the benefits to which they may be entitled.

Construction of any floodwater retarding structure causing a displacement will not be initiated until decent, safe, and sanitary replacement housing is available for all displaced persons.

Financing Project Installation

The Local share of costs for relocation payments and all project administration costs for relocation advisory assistance services will be borne by the Brown County Commissioners Court which has adequate funds available from tax resources.

REVISED TABLE 1 - ESTIMATED PROJECT INSTALLATION COST
 Brownwood Laterals Watershed, Texas
 (Middle Colorado River Watershed)

Installation Cost Item	Unit	Number	Estimated Cost (Dollars) ^{1/}			Total
			Federal	Other		
			Funds	Non-	Non-	
			Federal	Federal	Federal	
		Land	Land	Land		
LAND TREATMENT						
Soil Conservation Service						
Cropland	Acre	73,000	-	780,832		780,832
Pastureland	Acre	201,390	-	609,328		609,328
Technical Assistance			40,000	-		40,000
TOTAL LAND TREATMENT			40,000	1,390,160		1,430,160
STRUCTURAL MEASURES						
<u>Construction</u>						
Soil Conservation Service						
Floodwater Retarding Structure	No.	26	2,356,580	-		2,356,580
Stream Channel Improvement	Miles	8.15	432,850	-		432,850
Subtotal - Construction			2,789,430	-		2,789,430
<u>Engineering Services</u>						
Soil Conservation Service			174,380	-		174,380
Subtotal - Engineering Services			174,380	-		174,380
<u>Relocation Payments</u>						
Soil Conservation Service			5,660	3,040		8,700
Subtotal - Relocation Payments			5,660	3,040		8,700
<u>Project Administration</u>						
Soil Conservation Service			-	500		500
Relocation Advisory Assistance Services			239,860	3,800		243,660
Construction Inspection			245,760	13,200		258,960
Other			485,620	17,300		502,920
Subtotal - Administration			485,620	17,300		502,920
<u>Other Costs</u>						
Land Rights			-	470,935		470,935
Subtotal - Other			-	470,935		470,935
TOTAL STRUCTURAL MEASURES			3,455,090	491,275		3,946,365
TOTAL PROJECT			3,495,090	1,881,435		5,376,525

^{1/} Price Base: 1971 prices except structural measures constructed which are actual costs.

November 1971

REVISED TABLE 2 - ESTIMATED STRUCTURAL COST DISTRIBUTION
 Brownwood Laterals Watershed, Texas
 (Middle Colorado River Watershed)

(Dollars) 1/

Item	Installation Cost - Federal Funds		Installation Cost-Other Funds		Total	
	2/	2/	2/	2/	2/	2/
	Construction:Engineering:Payments:	Relocation: Payments:	Relocation: Payments:	Land : Rights :	Other :	Installation Cost
Structural Measures Constructed:						
Floodwater Retarding Structures (12)	714,620	54,730	-	65,940	65,940	835,290
Subtotal	714,620	54,730	-	65,940	65,940	835,290
Remaining Structural Measures:						
Floodwater Retarding Structures to be Constructed						
1	118,560	7,120	5,660	131,340	3,040	144,280
2	272,260	13,610	-	285,870	-	312,980
2A	51,110	4,090	-	55,200	-	68,150
3	312,410	15,620	-	328,030	-	351,020
4	246,520	12,330	-	258,850	-	307,910
5	57,900	4,630	-	62,530	-	68,580
9B	111,160	6,670	-	117,830	-	128,890
9C	53,460	4,280	-	57,740	-	60,490
18	89,670	6,280	-	95,950	-	120,260
22	43,970	3,520	-	47,490	-	50,240
23	33,860	3,390	-	37,250	-	39,230
24	78,950	5,530	-	84,480	-	89,980
25	60,000	4,200	-	64,200	-	67,610
26	112,130	6,730	-	118,860	-	128,210
Subtotal	1,641,960	98,000	5,660	1,745,620	3,040	1,937,830
Stream Channel Improvement:						
Adam Branch	255,750	12,790	-	268,540	-	437,665
Willis Creek	177,100	8,860	-	185,960	-	232,660
Subtotal	432,850	21,650	-	454,500	-	670,325
Subtotal - Watershed	2,789,430	174,380	5,660	2,969,470	3,040	3,443,445
Project Administration				485,620		502,920
GRAND TOTAL	2,789,430	174,380	5,660	3,455,090	3,040	3,946,365

(See footnotes on next page) November 1971

REVISED TABLE 2 - ESTIMATED STRUCTURAL COST DISTRIBUTION - Contd.
Brownwood Laterals Watershed, Texas
(Middle Colorado River Watershed)

- 1/ Price Base: 1971 prices for structural measures remaining to be constructed and actual costs for structural measures constructed.
- 2/ Relocation payments for displacements prior to July 1, 1972, will be shared as provided in PL-91-646 and as shown in the Supplemental Watershed Work Plan Agreement

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REVISED TABLE 4 - ANNUAL COSTS
 Brownwood Laterals Watershed, Texas
 (Middle Colorado River Watershed)

(Dollars) 1/

Evaluation Unit	: Amortization : of : Installation : Cost <u>2/</u>	: Operation : and : Maintenance : Cost	: Total
26 Floodwater Retarding Structures and 8.15 Miles of Stream Channel improvement	108,985	9,104	118,089
Project Administration	15,917		15,917
GRAND TOTAL	124,902	9,104	134,006

1/ Price Base: Installation - 1971 prices for structural measures remaining to be constructed and actual costs for structural measures constructed, Operation and Maintenance - Adjusted Normalized prices.

2/ 100 Years at 3.0 percent.

November 1971

REVISED TABLE 5 - ESTIMATED AVERAGE ANNUAL FLOOD DAMAGE REDUCTION BENEFITS
 Brownwood Laterals Watershed, Texas
 (Middle Colorado River Watershed)

(Dollars) 1/

Item	Estimated Average Annual Damage		Damage Reduction Benefit
	Without Project	With Project	
Floodwater			
Crop and Pasture	140,355	80,465	59,890
Other Agricultural	68,080	26,874	41,206
Nonagricultural			
Road, Bridge, Street, Business and Residential	119,904	11,585	108,319
Subtotal	328,339	118,924	209,415
Sediment			
Overbank Deposition	35,166	24,447	10,719
Erosion			
Flood Plain Scour	43,855	29,989	13,866
Indirect	40,168	17,336	22,832
TOTAL	447,528	190,696	256,832

1/ Long-term prices as projected by ARS, September 1957

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REVISED TABLE 6 - COMPARISON OF BENEFITS AND COSTS FOR STRUCTURAL MEASURES
Brownwood Laterals Watershed, Texas
(Middle Colorado River Watershed)

(Dollars)

Evaluation Unit	AVERAGE ANNUAL BENEFITS				Average :		
	Damage : Reduction:	Changed Land Use : Agricultural : Urban :	Inci- : dental :	Second- : ary :	Outside : Watershed:	Annual : Cost :	Benefit- : Cost : Ratio
26 Floodwater Retarding Structures and 8.15 Miles of Stream Channel Improvement	238,852	27,947 50,163	15,316	50,828	5,033	118,089	3.3:1.0
Project Administration						15,917	
GRAND TOTAL	238,852	27,947 50,163	15,316	50,828	5,033	134,006	2.9:1.0

1/ Long-Term price levels as projected by ARS, September 1957.
 2/ Includes \$1,917 benefits from livestock water, \$2,112 benefits from irrigation, and \$11,287 from recreation.
 3/ Includes \$1,382 and \$2,117 from reduction of flood damage to Pecan Bayou below the project and to the main stem of the Colorado River, respectively, and \$1,534 from reduction of sediment damage to Lake Buchanan.
 4/ From Table 4.
 5/ In addition, it is estimated that land treatment measures will provide flood damage reduction benefits of \$17,980 annually.