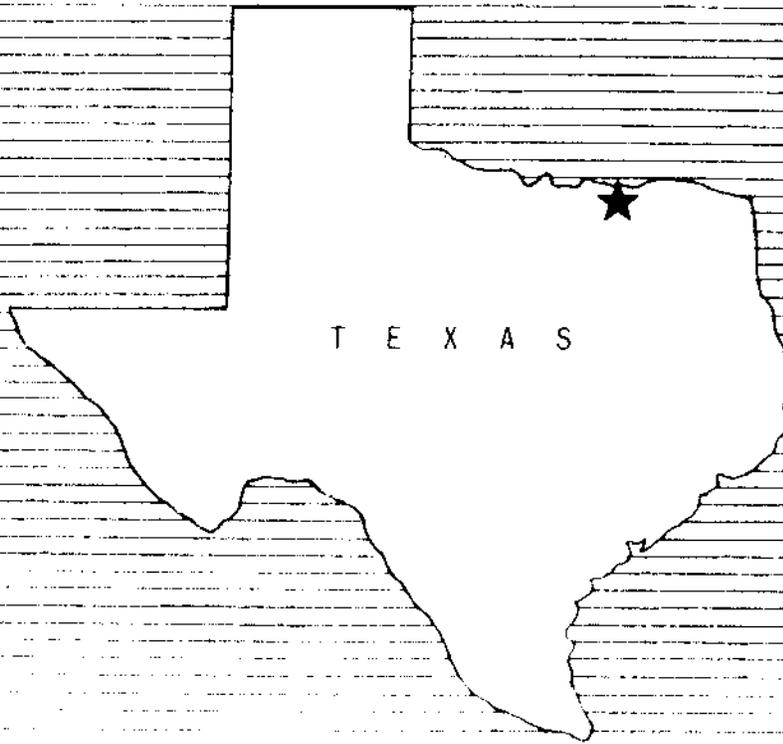


SUPPLEMENTAL WORK PLAN NUMBER II  
FOR  
WATERSHED PROTECTION, FLOOD PREVENTION, RECREATION  
AND  
AGRICULTURAL AND NON-AGRICULTURAL WATER MANAGEMENT  
**CHOCTAW CREEK WATERSHED**  
GRAYSON COUNTY, TEXAS



October 1971

SUPPLEMENTAL WATERSHED WORK PLAN AGREEMENT NO. II

Between the

Choctaw Watershed Water Improvement District  
Local Organization

Upper Elm-Red Soil and Water Conservation District  
Local Organization

Grayson County Commissioners Court  
Local Organization

City of Sherman  
Local Organization

City of Denison  
Local Organization

City of Bells  
Local Organization

City of Howe  
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 Choctaw Creek Watershed, State of Texas, executed by the Sponsoring Local Organization named therein and the Service, became effective on the 12th day of October 1966; and

Whereas, the Supplemental Watershed Work Plan Agreement for Choctaw Creek Watershed, State of Texas, executed by the Sponsoring Local Organization and the Service became effective on the 17th day of August, 1971; and

Whereas, in order to carry out the watershed work plan as supplemented, for said watershed, it has become necessary to modify said Watershed Work Plan Agreement, as supplemented; and

Whereas, it has become necessary to modify the watershed work plan, as supplemented, 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 been found necessary to modify the Watershed Work Plan, as supplemented, to reflect current policy and terminology relative to engineering and project administration costs; and

Whereas, a Supplemental Watershed Work Plan No. II which modifies the Watershed Work Plan dated November 1965, and the Supplemental Watershed Work Plan dated June 1970, 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; as supplemented:

1. A paragraph numbered 16 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	55.93	44.07	91,200

2. Paragraph numbered 1 is modified to read as follows:

Except as hereinafter provided, the Sponsoring Local Organization will acquire without cost to the Federal Government such land rights as will be needed in connection with the works of improvement. (Estimated cost \$2,192,791). The percentages of this cost to borne by the Sponsoring Local Organization and the Service are as follows:

<u>Works of Improvement</u>	<u>Sponsoring Local Organization (percent)</u>	<u>Service (percent)</u>	<u>Estimated Land Rights Cost (dollars)</u>
<u>Multiple-Purpose Structure No. 35 and Basic Recreation Facilities (Sherman)</u>			
Payments to landowners for about 1,070 acres, cost of modification of improvements, and land rights appraisal costs	64.62	35.38	608,000
Legal fees, survey costs, flowage easements, and other costs	100.00	-	18,750
<u>Multiple-Purpose Structure No. 38 and Basic Recreation Facilities (Denison)</u>			
Payments to landowners for about 22 acres, cost of modification of improvements, and land rights appraisal costs	50.00	50.00	17,800
Legal fees, survey costs, flowage easements, and other costs	100.00	-	6,100
<u>All Other Structural Measures</u>	100.00	-	1,542,141

3. Paragraph numbered 4 is modified to read as follows:

The percentages of the 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 Cost</u> (dollars)
Multiple-Purpose Structure No. 1 (Sherman)	53.20	46.80	32,323
Multiple-Purpose Structure No. 4 (Sherman)	64.00	36.00	20,790
Multiple-Purpose Structure No. 10A (Sherman)	11.33	88.67	5,766
Multiple-Purpose Structure No. 13 (Howe)	63.33	36.67	9,455
Diversion Works	100.00	-	2,625
Multiple-Purpose Structure No. 30 (Bells)	43.02	56.98	7,801
Diversion Works	100.00	-	2,625
Multiple-Purpose Structure No. 34 (Choctaw WWID)	20.87	79.13	3,646
Multiple-Purpose Structure No. 35 (Sherman)	50.62	49.38	27,757
Basic Recreation Facilities	50.00	50.00	12,672
Multiple-Purpose Structure No. 38 (Denison)	-	100.00	7,145
Basic Recreation Facilities	50.00	50.00	6,490
110,180 feet of Stream Channel Improvement	-	100.00	20,900
21,600 feet of Drainage Main and Laterals	-	100.00	1,194
33 Single-Purpose Floodwater Retarding Structures	-	100.00	154,540
7 Grade Stabilization Structures	-	100.00	1,515

4. Paragraph numbered 5 is modified 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 \$251,913 and \$614,258 respectively.

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

Choctaw Watershed Water Improvement District  
Local Organization

By J. G. McEwen  
Title President  
Address Rt 4 Sherman Tex 75090  
Date Nov 5 1971 Zip code

The signing of this agreement was authorized by a resolution of the governing body of the Choctaw Watershed Water Improvement District Local Organization

adopted at a meeting held on June 7 1967

J. H. A.  
(Secretary, Local Organization)

Address Sherman Tex 75090 Zip Code  
Date 11/9/71

Upper Elm-Red Soil and Water Conservation District  
Local Organization

By J. H. Bayer  
Title Chairman  
Address Muenster Texas Zip Code  
Date 11-11-71 76252

The signing of this agreement was authorized by a resolution of the governing body of the Upper Elm-Red Soil and Water Conservation District Local Organization

adopted at a meeting held on Nov. 11, 1971

Ruth Tamplin  
(Secretary, Local Organization)

Address Valley View Texas Zip Code  
Date 11-11-71 76272

Grayson County Commissioners Court  
Local Organization

By L. Trubble

Title County Judge

Address Sherman, Texas  
Zip code

Date 11-9-71 75090

The signing of this agreement was authorized by a resolution of the governing body of the Grayson County Commissioners Court  
Local Organization

adopted at a meeting held on 11-9-71

Paul E. L.  
(Secretary, Local Organization)

Address Sherman, Texas  
Zip Code

Date 11-9-71

City of Sherman  
Local Organization

By S. E. Gillespie

Title Mayor

Address P.O. Box 1106 Sherman, Texas 75090  
Zip Code

Date Nov 5 1971

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

adopted at a meeting held on Nov 5, 1971

Jack Sears  
(Secretary, Local Organization)

Address P.O. Box 1106 Sherman, Tex. 75090  
Zip Code

Date Nov 5, 1971

City of Denison  
 Local Organization  
 By Robert L. Cherry  
 Title Mayor  
 Address Denison Texas 75020  
 Zip code  
 Date Nov. 17, 1971

The signing of this agreement was authorized by a resolution of the governing body of the City of Denison Local Organization adopted at a meeting held on November 17, 1971

Lewis Blanton  
 (Secretary, Local Organization)  
 Address Denison Texas 75020  
 Zip Code  
 Date Nov. 17, 1971

City of Bells  
 Local Organization  
 By W. Ray Rice  
 Title Mayor  
 Address Bells Texas  
 Zip Code  
 Date 11/9/71

The signing of this agreement was authorized by a resolution of the governing body of the City of Bells Local Organization adopted at a meeting held on \_\_\_\_\_

J. P. Young  
 (Secretary, Local Organization)  
 Address Bells Texas 75414  
 Zip Code  
 Date 11/9/71

City of Howe  
Local Organization

By Raymond W Butts

Title Mayor

Address Howe, Texas 75059  
Zip Code

Date 11-20-71

The signing of this agreement was authorized by a resolution of the governing body of the City of Howe

Local Organization

adopted at a meeting held on 11-20-71

Howe Texas  
(Secretary, Local Organization)

Address George Barnes  
Zip Code

Date 11-20-70

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 M J Shear, Acting  
State Conservationist

Date NOV 1971

SUPPLEMENTAL  
WATERSHED WORK PLAN NO. II  
FOR  
WATERSHED PROTECTION, FLOOD PREVENTION, RECREATION,  
AND  
AGRICULTURAL AND NON-AGRICULTURAL WATER MANAGEMENT

CHOCTAW CREEK WATERSHED  
Grayson County, Texas

Prepared Under the Authority of the Watershed  
Protection and Flood Prevention Act, (Public Law  
566, 83rd Congress, 68 Stat. 666), as amended.

Prepared By:

Choctaw Watershed Water Improvement District

Upper Elm-Red Soil and Water Conservation District

Grayson County Commissioners Court

City of Sherman

City of Denison

City of Bells

City of Howe

With Assistance By:

U. S. Department of Agriculture  
Soil Conservation Service  
October 1971

SUPPLEMENTAL  
WATERSHED WORK PLAN NO. II

CHOCTAW CREEK WATERSHED  
Grayson County, Texas  
October 1971

PURPOSE OF THE SUPPLEMENTAL WORK PLAN

It has become necessary to modify the watershed work plan, as supplemented, for Choctaw Creek 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, as supplemented, 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, as supplemented.

Works of Improvement to be Installed

Under present conditions the acquisition of land rights needed for the installation of structural measures will require the following apparent relocations: Floodwater Retarding Structure No. 2, relocation of contents of two barns; Floodwater Retarding Structure No. 6, relocation of one family; Floodwater Retarding Structure No. 7, relocation of one family and the contents of one barn; Floodwater Retarding Structure No. 9, relocation of one farming operation and one family; Floodwater Retarding Structure No. 37, relocation of one family; Multiple-Purpose Structure No. 1, relocation of three families and contents of one barn; Multiple-Purpose Structure No. 35, relocation of two dairying operations and one family; Multiple-Purpose Structure No. 38, relocation of one television repair business and one family; and stream channel improvement along Postoak Creek, contents of one barn.

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 \$91,200. After July 1, 1972, the share of these costs to be borne by Public Law 566 funds is 44.07 percent and the share to be borne by other funds is 55.93 percent, and are based upon the ratio of Public Law 566 funds and other funds to the total project costs less relocation payments. For those displacements prior to July 1, 1972, Public Law 566 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.

Public Law 566 project administration costs consist of construction inspection, maintenance of records and accounts, contract administration, and assistance to the cities of Sherman and Denison and to Grayson County in providing relocation advisory assistance.

The local costs for project administration includes sponsors' costs relative to contract administration, overhead and organizational costs, whatever construction inspection they desire to make at their own expense, and all relocation advisory assistance services costs. Estimated costs of \$4,000 for providing relocation advisory assistance services are expected to amount to \$1,800 for the City of Sherman, \$400 for the City of Denison, and \$1,800 for Grayson County.

#### Comparison of Costs and Benefits

The total average annual cost of structural measures (amortized total installation costs, plus operation and maintenance) is \$317,946. These measures are expected to produce average annual benefits, excluding secondary benefits, of \$431,181, resulting in a benefit to cost ratio of 1.4:1.0. The ratio of total average annual project benefits accruing to structural measures, \$468,901, to the average annual cost of structural measures, \$317,946, is 1.5:1.0 (revised table 6).

#### Project Installation

The City of Sherman has assumed responsibility for providing those relocation advisory assistance services and relocation costs associated with Multiple-Purpose Structures Nos. 1 and 35 and Postoak Creek stream channel improvement. The City of Denison has assumed these responsibilities for Multiple-Purpose Structure No. 38. Grayson County has likewise assumed these responsibilities for Floodwater Retarding Structures Nos. 2, 6, 7, 9, and 37. Each sponsor will through its own facilities, for those structures for which it has assumed responsibility, (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.

Each sponsor, having responsibility for furnishing relocation advisory assistance services 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 families.

#### 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 aforementioned sponsors for those structures for which they have assumed responsibility. Sherman and Denison have adequate funds available as the result of bond issues and Grayson County has adequate funds available from tax resources.

## REVISED TABLE 1 - ESTIMATED PROJECT INSTALLATION COSTS

Choctaw Creek Watershed

Grayson County, Texas

Installation Cost Item	Number To Be Applied	Unit	Estimated Cost (Dollars) 1/		
			Public Law 566 Funds	Other Funds	Total
<b>LAND TREATMENT</b>					
Soil Conservation Service					
Cropland	40,138	Acre	-	362,586	362,586
Grassland	92,902	Acre	-	1,700,178	1,700,178
Technical Assistance			25,267	170,924	196,191
SCS Subtotal			25,267	2,233,688	2,258,955
<b>TOTAL LAND TREATMENT</b>			25,267	2,233,688	2,258,955
<b>STRUCTURAL MEASURES</b>					
<b>Construction</b>					
Soil Conservation Service					
Floodwater Retarding Structures	33	No.	2,016,075	-	2,016,075
Stream Channel Improvement	110,180	Foot	391,600	-	391,600
Grade Stabilization Structures	7	No.	15,950	-	15,950
Drainage Main and Laterals	21,600	Foot	5,775	1,925	7,700
Multiple-Purpose Structures	8	No.	1,092,630	1,253,530	2,346,160
Basic Recreational Facilities	2	No.	212,905	212,905	425,810
Diversion Works	2	No.	-	150,000	150,000
<b>Subtotal Construction</b>			3,734,935	1,618,360	5,353,295
<b>Engineering Services</b>					
Soil Conservation Service			247,102	70,142	317,244
<b>Subtotal - Engineering Services</b>			247,102	70,142	317,244
<b>Relocation Payments</b>					
Soil Conservation Service			40,192	51,008	91,200
<b>Subtotal - Relocation Payments</b>			40,192	51,008	91,200
<b>Project Administration</b>					
Soil Conservation Service					
Relocation Advisory Assistance Services			-	4,000	4,000
Construction Inspection			284,377	88,549	372,926
Other			329,881	159,364	489,245
<b>Subtotal - Project Administration</b>			614,258	251,913	866,171
<b>Other Costs</b>					
Land Rights			223,990	1,968,801	2,192,791
Water Rights			-	7,700	7,700
<b>Subtotal - Other Costs</b>			223,990	1,976,501	2,200,491
<b>TOTAL STRUCTURAL MEASURES</b>			4,860,477	3,967,924	8,828,401
<b>TOTAL PROJECT</b>			4,885,744	6,201,612	11,087,356

1/ Price Base: 1971 for all structural measures except floodwater retarding structures Nos. 20, 21, 23, 33, and 39 which are at actual construction cost.

October 1971



REVISED TABLE 2 - ESTIMATED STRUCTURAL COST DISTRIBUTION - Continued  
 Choctaw Creek Watershed  
 Crayson County, Texas  
 (Dollars) 1/

Item	Installation Cost - Public Law 566				Installation Cost - Other Funds				Total	2/	3/	
	Construc- tion	Engineer- ing	Land Rights	Relocation: Payments	Construc- tion	Engineer- ing	Land Rights	Relocation: Payments				
Grade Stabilization Structures 101 thru 107	15,950	1,515	-	-	17,465	-	-	725	-	-	725	18,190
Subtotal	15,950	1,515	-	-	17,465	-	-	725	-	-	725	18,190
Drainage Main 1 and Laterals, 1A, 1B, and 1C	5,775	1,194	-	-	6,969	1,925	-	3,350	-	-	5,275	12,244
Subtotal	5,775	1,194	-	-	6,969	1,925	-	3,350	-	-	5,275	12,244
Subtotal - All Structural Measures	3,734,935	247,102	223,990	40,192	4,246,219	1,618,360	70,142	1,968,801	51,008	7,700	3,716,011	7,962,230
Project Administration	xxx	xxx	xxx	xxx	614,258	xxx	xxx	xxx	xxx	xxx	251,913	866,171
GRAND TOTAL	3,734,935	247,102	223,990	40,192	4,860,477	1,618,360	70,142	1,968,801	51,008	7,700	3,967,924	8,828,401

1/ Price Base: 1971

2/ Relocation payments for displacements prior to July 1, 1972 will be shared as provided in PL-91-646 and in paragraph numbered 1 of the Supplemental Watershed Work Plan Agreement.

3/ Actual construction cost.

October 1971

REVISED TABLE 2A - COST ALLOCATION AND COST SHARING SUMMARY

Choctaw Creek Watershed  
Grayson County, Texas  
(Dollars) 1

Item	COST ALLOCATION							Total	
	Prevention	Flood	Municipal	Water	Supply	Irrigation	Drainage		Recreation
<b>Single-Purpose</b>									
33 Floodwater Retarding Structures, 110,180 feet of Stream Channel Improve- ment, and 7 Grade Stabilization Structures	3,595,746	-	-	-	-	-	-	-	3,595,746
<b>Multiple-Purpose</b>									
Structure No. 1	474,281	540,642	-	-	-	-	-	-	1,014,923
Structure No. 4	239,144	426,646	-	-	-	-	-	-	665,790
Structure No. 10A	102,384	-	-	-	-	-	13,042	-	115,426
Structure No. 13	112,460	195,720	-	-	-	-	-	-	308,180
Diversion Works	-	77,625	-	-	-	-	-	-	77,625
Structure No. 30	97,778	74,823	-	-	-	-	-	-	172,601
Diversion Works	-	77,625	-	-	-	-	-	-	77,625
Structure No. 34	41,263	-	-	-	10,983	-	-	-	52,246
Structure No. 35	202,268	509,440	-	-	-	-	-	-	1,192,807
Basic Recreation Facilities	-	-	-	-	-	-	-	481,099	481,099
Structure No. 38	77,725	-	-	-	-	-	-	381,272	381,272
Basic Recreation Facilities	-	-	-	-	-	-	-	66,220	66,220
Drainage Main and Laterals	6,122	-	-	-	-	-	6,122	151,800	151,800
<b>TOTAL</b>	4,949,171	1,902,521	10,983	6,122	1,093,433	7,962,230			

1/ Price Base: 1971 for structures to be constructed and actual costs for structural measures constructed.

REVISED TABLE 2A - COST ALLOCATION AND COST SHARING SUMMARY - Continued  
 Choctaw Creek Watershed  
 Grayson County, Texas  
 (Dollars) 1/

Item	COST SHARING										Total			
	Public Law 566	Municipal:	Flood	Prevention:	Irrigation:	Drainage:	Recreation:	Total	Flood	Prevention:		Irrigation:	Drainage:	Recreation:
Single-Purpose														
33 Floodwater Retarding Structures, 110,180 feet of Stream Channel Improvement, and 7 Grade Stabilization Structures	-	-	2,619,486	976,260	-	-	-	2,619,486	976,260	-	-	-	-	976,260
Multiple-Purpose														
Structure No. 1	-	2,649	353,622	120,659	537,993	-	-	356,271	120,659	537,993	-	-	-	658,652
Structure No. 4	-	-	173,804	65,340	426,646	-	-	173,804	65,340	426,646	-	-	-	491,986
Structure No. 10A	-	-	78,142	24,242	-	-	80,511	78,142	24,242	-	-	13,042	-	37,284
Structure No. 13	-	-	80,511	31,949	195,720	-	-	80,511	31,949	195,720	-	-	-	227,669
Diversion Works	-	-	-	-	77,625	-	-	-	-	77,625	-	-	-	77,625
Structure No. 30	-	-	78,405	19,373	74,823	-	-	78,405	19,373	74,823	-	-	-	94,196
Diversion Works	-	-	-	-	77,625	-	-	-	-	77,625	-	-	-	77,625
Structure No. 34	-	-	36,832	4,431	-	-	-	36,832	4,431	-	-	-	-	15,414
Structure No. 35	-	3,971	202,268	442,091	505,469	-	-	235,852	442,091	505,469	-	-	245,247	750,716
Basic Recreation Facilities	-	-	-	-	-	-	-	189,636	-	-	-	-	-	191,636
Structure No. 38	-	-	77,725	30,497	108,222	-	-	77,725	30,497	108,222	-	-	-	35,723
Basic Recreation Facilities	-	-	-	-	75,850	-	-	-	-	75,850	-	-	-	75,950
Drainage Main and Laterals	-	-	4,447	1,675	-	-	-	2,522	1,675	-	-	-	3,600	5,275
TOTAL	-	6,620	3,705,242	1,243,929	1,895,901	10,983	4,246,219	2,522	531,835	3,600	561,598	3,716,011		

1/ Price Base: 1971 for structural measures to be constructed and actual costs for structural measures constructed.

2/ Relocation payments.

October 1971

REVISED TABLE 4 - ANNUAL COST

Choctaw Creek Watershed  
Grayson County, Texas

(Dollars) 1/

Evaluation Unit	:Amortization of: : Installation : Cost	:Operation and: : Maintenance : Cost <u>2/</u>	: Total
33 Floodwater Retarding Structures; 110,180 feet of Stream Channel Improvement; Multiple-Purpose Structures 1, 4, 10A, 13, 30, 34, 35, and 38, including Basic Recrea- tional Facilities; and Grade Stabilization Structures 101, 102, 103, 104, 106, and 107	260,515	28,130	288,645
21,600 feet of Drainage Main and Laterals and Grade Stabilization Structure 105	457	452	909
Project Administration	28,392	xxx	28,392
<b>GRAND TOTAL</b>	289,364 <u>3/</u>	28,582 <u>4/</u>	317,946

1/ Price Base: 1971 for all structural measures except floodwater retarding structures nos. 20, 21, 23, 33, and 39 which are at actual construction cost.

2/ Long term prices as projected by ARS, September 1957.

3/ Amortized for 100 years at 3.125 percent, except for Multiple-Purpose Structure No. 10A, which was amortized at 3.25 percent.

4/ Includes replacement costs of \$2,016 for basic recreational facilities and for any structure or appurtenance requiring replacement before end of 100-year evaluation period.

REVISED TABLE 6 - COMPARISON OF BENEFITS AND COSTS FOR STRUCTURAL MEASURES

Choctaw Creek Watershed  
Grayson, Texas, Texas  
(Dollars)

Evaluation Unit	AVERAGE ANNUAL BENEFITS 1/										Benefit-Cost Ratio
	Flood Prevention	Agricultural Water Management	Non-Agricultural Water Management	Water Management	Incidental	Municipal Water	Recreation	Supply	Secondary	Total	
33 Floodwater Retarding Structures; 110,180 feet of Stream Channel Improvement; Multiple-Purpose Structures 1, 4, 10A, 12, 30, 34, 35, and 38, Including Basic Recreational Facilities and Grade Stabilization Structures 101, 102, 103, 104, 106, and 107 3/	197,039	4,236	2,331	67,918	157,757	97,165	466,446	288,645	1,641.0		
21,600 feet of Orainage Main and Laterals and Grade Stabilization Structure 105	950		950	555	2,455	909	2,741.0				
Project Administration	xxx	xxx	xxx	xxx	xxx	xxx	28,392	xxx	xxx	xxx	
<b>GRAND TOTAL 4/</b>	<b>197,039</b>	<b>4,236</b>	<b>2,331</b>	<b>67,918</b>	<b>157,757</b>	<b>97,165</b>	<b>468,901</b>	<b>317,946</b>	<b>1,541.0</b>		

1/ Price Bases Long term prices as projected by ARS, September 1957.  
2/ From table 4.  
3/ Interrelated measures.  
4/ In addition, it is estimated that land treatment measures will provide flood damage reduction benefits of \$8,847 annually.

October 1971