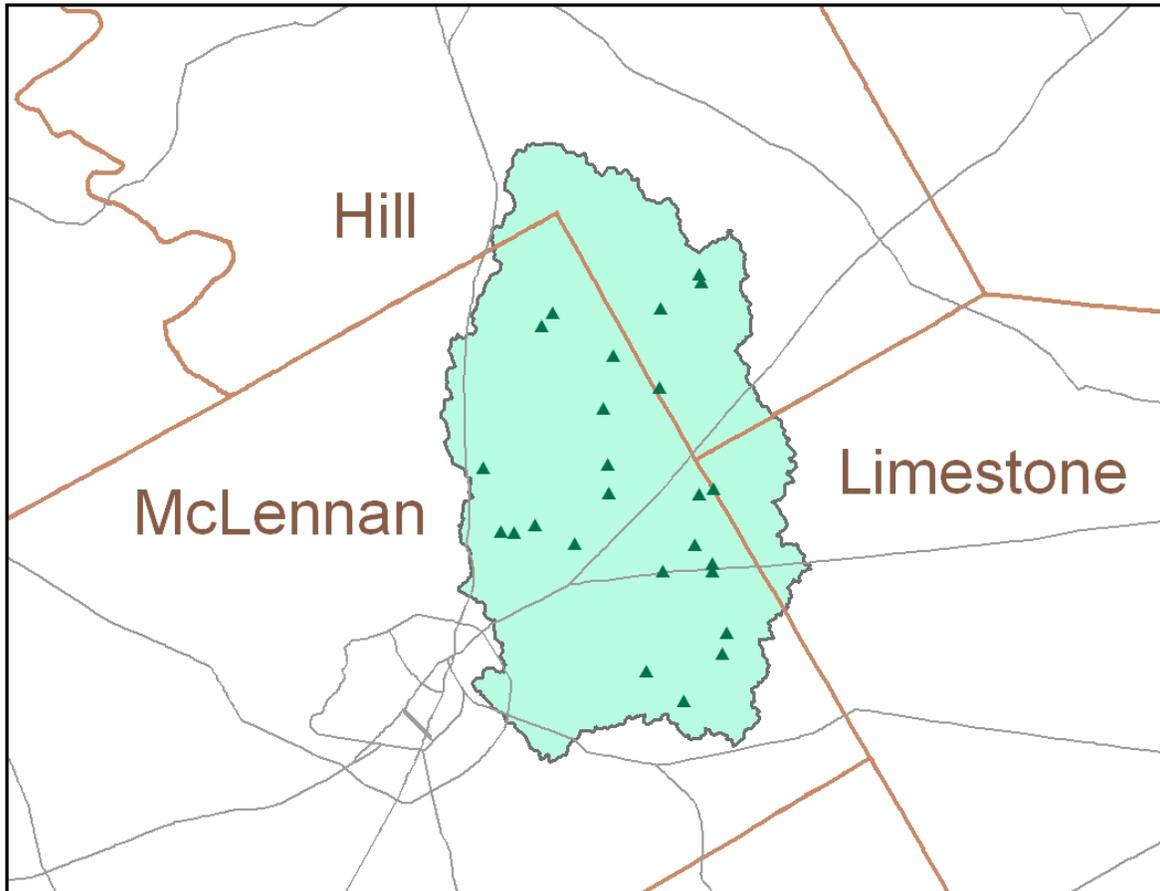


**SUPPLEMENTAL WATERSHED PLAN AND AGREEMENT NO. VII**  
for  
**TEHUACANA CREEK WATERSHED**  
of the  
**BRAZOS RIVER WATERSHED**  
**McLENNAN, HILL AND LIMESTONE COUNTIES, TEXAS**



**Prepared By:**  
**U.S. Department of Agriculture**  
**Natural Resources Conservation Service**

**In Cooperation With:**  
**McLennan County Soil and Water Conservation District**  
**Hill County-Blackland Soil and Water Conservation District**  
**Limestone-Falls Soil and Water Conservation District**  
**McLennan and Hill Counties Tehuacana Creek Water Control and Improvement District No. 1**  
**McLennan County**  
**Hill County**

**NOVEMBER 2008**

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SUPPLEMENTAL WATERSHED AGREEMENT NO. VII

TEHUACANA CREEK WATERSHED, TEXAS

Between the

McLennan County Soil and Water Conservation District  
Local Organization

Hill County-Blackland Soil and Water Conservation District  
Local Organization

Limestone-Falls Soil and Water Conservation District  
Local Organization

McLennan and Hill Counties Tehuacana Creek  
Water Control and Improvement District No. 1  
Local Organization

McLennan County  
Local Organization

Hill County  
Local Organization

(Referred to herein as Sponsoring Local Organizations)  
State of Texas

and the

Natural Resources Conservation Service  
(Formerly the Soil Conservation Service)  
United States Department of Agriculture  
(Referred to herein as NRCS)

Whereas, the Watershed Work Plan Agreement for Tehuacana Creek Watershed, State of Texas, executed by the Sponsoring Local Organizations named therein and the NRCS, became effective on the 26th day of June 1959; and

Whereas, a Supplemental Watershed Work Plan Agreement for said watershed, executed by the Sponsoring Local Organizations named therein and the NRCS became effective on the 18th day of March 1960; and

Whereas, a Supplemental Watershed Work Plan Agreement No. II for said watershed, executed by the Sponsoring Local Organizations named therein and the NRCS became effective on the 30th day of August 1971; and

Whereas, a Supplemental Watershed Work Plan Agreement No. III for said watershed, executed by the Sponsoring Local Organizations named therein and the NRCS became effective on the 4th day of January 1974; and

Whereas, a Supplemental Watershed Work Plan Agreement No. IV for said watershed, executed by the Sponsoring Local Organizations named therein and the NRCS became effective on the 26th day of December 1974; and

Whereas, a Supplemental Watershed Work Plan Agreement No. V for said watershed, executed by the Sponsoring Local Organizations named therein and the NRCS became effective on the 11th day of January 1979; and

Whereas, a Supplemental Watershed Work Plan Agreement No. VI for said watershed, executed by the Sponsoring Local Organizations named therein and the NRCS became effective on the 6th day of February 1997; and

Whereas, in order to carry out the watershed plan for said watershed, it has become necessary to modify said watershed agreement, as supplemented; and

Whereas, the responsibility for administration of the Watershed Protection and Flood Prevention Act, as amended, has been assigned by the Secretary of Agriculture to the NRCS; and

Whereas, a Supplemental Watershed Plan Agreement No. VII, which modifies the Watershed Work Plan dated June 26, 1959, as supplemented, for said watershed has been developed through the cooperative efforts of the Sponsoring Local Organizations and NRCS and;

Now, therefore, the Secretary of Agriculture through the NRCS and the Sponsoring Local Organizations hereby agree upon the following modifications of the terms, conditions, and stipulations of said watershed agreement, as supplemented;

**(1) Delete from the planned works of improvement in McLennan County: Grade Stabilization Structure Nos. 9-7, 13-5 and 105.**

**(2) Paragraph number 1 is modified to read as follows:**

The Sponsoring Local Organizations will acquire with other than Public Law 83-566 funds, such real property as will be needed in connection with the works of improvement. Estimated Cost \$4,135,200. (Base Price 2007)

**(3) Paragraph number 3 is modified to read as follows:**

The amounts and percentages of construction costs to be paid by the Sponsoring Local Organizations and by NRCS are as follows:

Works of Improvement	Sponsoring Local Organizations	NRCS	Estimated Construction Costs
25 FRS	0 %	100 %	\$12,558,500
18 GSS	0 %	100 %	\$2,173,000

**(4) Paragraph number 4 is modified to read as follows:**

The amounts and percentages of engineering services costs to be borne by the Sponsoring Local Organizations and by NRCS are as follows:

Works of Improvement	Sponsoring Local Organizations	NRCS	Estimated Engineering Costs
25 FRS	0 %	100 %	\$4,877,000
18 GSS	0 %	100 %	\$1,367,000

**(5) Paragraph number 5 is modified to read as follows:**

The Sponsoring Local Organizations and NRCS will each bear the costs of project administration that each incurs, estimated to be \$102,500 and \$5,177,400 respectively.

**(6) Paragraph number 14 is modified as follows:**

The third paragraph of the Certification Regarding Drug-Free Workplace Requirements (7 CFR 3017, Subpart F) is being corrected to include the word “guilt” and will read as follows:

*Conviction* means a finding of guilt (including a plea of nolo contendere) or imposition of sentence, or both, by any judicial body charged with the responsibility to determine violations of the Federal or State criminal drug statutes;

All other provisions of the Certification Regarding Drug-Free Workplace Requirements (7 CFR 3017, Subpart F) will remain unchanged.

**(7) Paragraph number 17** (containing the most recent provisions to the Uniform Relocation Assistance and Real Property Acquisition Policies Act) is added as a numbered paragraph to read as follows:

The sponsoring local organization hereby agrees to comply with all of the policies and procedures of the Uniform Relocation Assistance and Real Property Acquisition Policies Act (42 U.S.C. 4601 et. seq. as further provided by Uniform Relocation Assistance and Real Property Acquisition for Federally Assisted Programs, 49 CFR Part 24, and 7 C.F.R. Part 21) when acquiring real property interests for this federally assisted project. If the sponsoring local organization is legally unable to comply with the real property acquisition requirements of the Act, it agrees that, before any Federal financial assistance is furnished; it will provide a statement to that effect, supported by an opinion of the chief legal officer of the state containing a full discussion of the facts and law involved. This statement may be accepted as constituting compliance.

The costs of relocation payments in connection with the displacements under the Uniform Relocation Assistance and Real Property Acquisition Policies Act will be shares by the Sponsoring Local Organizations and NRCS are as follows:

	Sponsoring Local Organizations	NRCS	Estimated Relocation Payment Costs
Relocation Payments	35.9 %	64.1 %	\$0

**(8) Paragraph number 18** (containing the most recent non-discrimination statement) is added as a numbered paragraph to read as follows:

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

**(9) Paragraph number 19 is added to the plan agreement to read as follows:**

The sponsors will obtain and bear the cost for all necessary Federal, State, and local permits required by law, ordinance, or regulation for installation of the works of improvement.

The Sponsoring Local Organizations and NRCS further agree to all other terms, conditions, and stipulations of said watershed agreement not modified herein.

**McLennan County Soil and Water Conservation District**  
Local Organization

By *Tom Staudeman*  
Title *Chairman*  
Date *3-10-09*

The signing of this agreement was authorized by a resolution of the governing body of the McLennan County Soil and Water Conservation District adopted at a meeting held on *March 10, 2009*.

*Carmen A. Eyzoldt*  
(Secretary, Local Organization)

---

**Hill County-Blackland Soil and Water Conservation District**  
Local Organization

By *John K. Langer*  
Title *Chairman*  
Date *5-20-2009*

The signing of this agreement was authorized by a resolution of the governing body of Hill County-Blackland Soil and Water Conservation District adopted at a meeting held on *May 20, 2009*.

*Chloe F. ...*  
(Secretary, Local Organization)

---

**Limestone-Falls Soil and Water Conservation District**  
Local Organization

By Claude L. Throck

Title CHAIRMAN

Date 3-16-09

The signing of this agreement was authorized by a resolution of the governing body of Limestone-Falls Soil and Water Conservation District adopted at a meeting held on MARCH 16, 2009.

John R. Schlemmer  
(Secretary, Local Organization)

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**McLennan and Hill Counties Tehuacana Creek Water Control and Improvement District No. 1**  
Local Organization

By Scott M. Felton

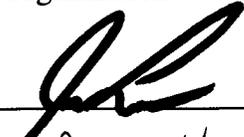
Title Chairman

Date 7/30/2010

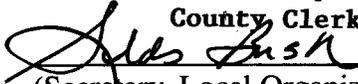
The signing of this agreement was authorized by a resolution of the governing body of McLennan and Hill Counties Tehuacana Creek Water Control and Improvement District No. 1 adopted at a meeting held on July 30, 2010.

Eddie Lee Thompson  
(Secretary, Local Organization)

**McLennan County**  
Local Organization

By   
Title COUNTY JUDGE  
Date 8/18/09

The signing of this agreement was authorized by a <sup>MOTION</sup> resolution of the governing body of McLennan County adopted at a meeting held on 8/18/09.

Attest: J/A. "Andy" Harwell  
County Clerk, McLennan County  
  
(Secretary, Local Organization) Gilda Bush  
Deputy County Clerk

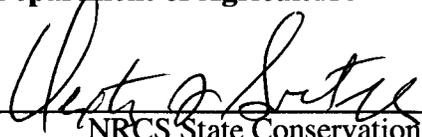
**Hill County**  
Local Organization

By   
Title County Judge  
Date 6/23/2009

The signing of this agreement was authorized by a resolution of the governing body of Hill County adopted at a meeting held on 6/23/2009.

\_\_\_\_\_  
(Secretary, Local Organization)

**Natural Resources Conservation Service**  
**United States Department of Agriculture**

Approved By  ~~Acting~~  
NRCS State Conservationist

Date AUG 23 2010

## INTRODUCTION

The plan for watershed protection and flood prevention for the Tehuacana Creek Watershed became effective on June 26, 1959. The plan was prepared by the local sponsoring organizations with technical assistance from the Natural Resources Conservation Service (formerly the Soil Conservation Service).

Tehuacana Creek Watershed comprises an area of 196,480 acres (307 square miles). It is located in McLennan, Hill and Limestone Counties, Texas. The watershed heads near the town of Penelope in southern Hill County and flows southward for approximately 21 miles to its confluence with the Brazos River, five miles east of the city of Waco, McLennan County, Texas. Historically, the primary watershed problem has been the frequency of flooding along Tehuacana Creek and its principal tributaries. These floods have caused severe damage to both agricultural land and nonagricultural land such as roads, bridges and railroads.

The original work plan developed to address this problem included the installation of 31 Floodwater Retarding Structures (FRS), 11.7 miles of channel improvements and land treatment measures. Thirty-two Grade Stabilization Structures (GSS) were later added by Supplemental Work Plan No. III in 1974 and treatment of critically eroding areas was added as an 80/20 cost-share assistance program by Supplemental Work Plan No. V in 1979.

The original work plan has been supplemented six times since 1959. These supplements addressed the following items:

Supplement I – Effective date March 18, 1960, added McLennan County as a sponsoring local organization.

Supplement II – Effective date August 30, 1971, provided for a name change for one of the sponsoring local organizations due to realignment of soil and water district boundaries, added provisions of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, and added compliance provisions with respect to nondiscrimination as contained in the Civil Rights Act of 1964.

Supplement III – Effective date January 4, 1974, deleted FRS Nos. 3, 3A, 4, 5, and 27; added FRS No. 5A, added 32 GSS's, and modified the work plan to reflect the effects of Trading House Creek Reservoir installed by the Texas Power and Light Company.

Supplement IV – Effective date December 26, 1974, deleted FRS No. 2 and added FRS No. 2A.

Supplement V – Effective date January 11, 1979, added land treatment measures and cost share assistance provisions for stabilization of critical areas on approximately 100 acres.

Supplement VI – Effective date February 6, 1997, deleted FRS Nos. 5A and 13, and deleted 10.1 miles of channel improvement.

Several changes were also made to the work plan by exchange of correspondence that resulted in deleting 1.6 miles of channel improvement and deleting 11 GSS's.

Actions to date include the installation of 25 FRS's, 18 GSS's, critical area treatment and the planned land treatment. Installation of these measures has reduced many of the resource problems in the watershed.

The purpose of this supplement is to further modify the plan at the request of the sponsoring local organizations to delete the three remaining works of improvements (GSS Nos.9-7, 13-5 and 105).

The sponsors requested the deletion of these three GSS's because it was determined that landrights would be impossible to obtain due to a lack of cooperation from the current landowners and excessively high cost of obtaining easements. The sponsors are willing to accept the level of protection afforded by the completion of 25 FRS's, 18 GSS's, critical area treatment and planned land treatment measures. Land treatment measures continue to be carried out with assistance from other ongoing programs. The deletion of these three GSS's will complete the project as planned and supplemented.

## SUPPLEMENTAL WATERSHED PLAN NO. VII

### TEHUACANA CREEK WATERSHED BRAZOS RIVER WATERSHED McLENNAN, HILL and LIMESTONE COUNTIES, TEXAS

#### Need For Supplement

Since the original Watershed Agreement became effective on the 26th day of June 1959, it has become necessary to modify that agreement in order to facilitate the completion of the project. The sponsoring local organizations have requested the following changes in the original watershed plan as supplemented:

- (1) Delete Grade Stabilization Structure (GSS) Nos. 9-7, 13-5 and 105 from the planned works of improvement in McLennan County.
- (2) Update costs to 2007 prices.
- (3) Modify statement regarding certifications on drug-free workplace.
- (4) Assign paragraph numbers and include current language to changes made in Supplemental Watershed Agreement No. II.
- (5) Add paragraph on obtaining required permits.

#### Effects of Deleting the Works of Improvement

The watershed protection provided by the planned works of improvement to be deleted at the request of the sponsoring local organizations will be foregone. Twenty-five (25) Floodwater Retarding Structures, eighteen (18) GSS's, critical area treatment and the land treatment measures have been installed and are providing protection to the watershed and the floodplain downstream. Deletion of GSS Nos. 9-7, 13-5 and 105 will result in only minor damage reduction benefits being reduced. The secondary benefits associated with these structures will also not be realized. The sponsors are willing to accept the reduction in benefits to the work plan by the deletion of GSS Nos. 9-7, 13-5 and 105.

#### Comparison of Benefits and Costs

The total average annual project cost (amortized land treatment and total structural measures costs) plus operation, maintenance and replacement is \$1,426,300. These measures are expected to produce average annual benefits of \$2,174,700. The benefit:cost ratio is 1.5 to 1.0.

## **APPENDICES**

APPENDIX A: Table 1 - Estimated Installation Cost

Table 2 - Estimated Cost Distribution – Structural and Non – Structural Measures

APPENDIX B: Support Maps

## APPENDIX A

### Tables 1-2

Table 1 - Estimated Installation Cost

Table 2 - Estimated Cost Distribution – Structural and Non-Structural Measures

**Final Table 1 – Estimated Installation Cost**  
 Tehuacana Creek Watershed, Texas  
 (Brazos River Watershed)

Installation Cost Item	Number		Estimated Cost (Dollars) <sup>1</sup>		
	Unit	Non-Fed. Land	PL-566 Funds	Other Funds	Total
			Non-Fed. Land NRCS <sup>2</sup>	Non-Fed. Land	
<b>LAND TREATMENT-ACCELERATED</b>					
Cropland	Acres to be Protected	19,490	-	\$3,935,700	\$3,935,700
Grassland		16,380	-	\$1,986,800	\$1,986,800
Critical Area Stabilization	Acres	100	\$528,100	\$132,000	\$660,100
Technical Assistance	-	-	\$1,188,400	-	\$1,188,400
<b>TOTAL LAND TREATMENT</b>			\$1,716,500	\$6,054,500	\$7,771,000
<b>STRUCTURAL MEASURES</b>					
Floodwater Retarding Structures	No.	25	\$12,558,500	-	\$12,558,500
Grade Stabilization Structures	No.	18	\$2,173,000	-	\$2,173,000
Subtotal – Construction			\$14,731,500	-	\$14,731,500
<b>INSTALLATION SERVICES</b>					
Engineering			\$6,244,000	-	\$6,244,000
Project Administration			\$5,177,400	\$102,500	\$5,279,900
Subtotal – Installation Services			\$11,421,400	\$102,500	\$11,523,900
<b>OTHER COSTS</b>					
Landrights			-	\$4,135,200	\$4,135,200
Subtotal – Other Costs			-	\$4,135,200	\$4,135,200
<b>TOTAL STRUCTURAL MEASURES</b>			\$26,152,900	\$4,237,700	\$30,390,600
<b>TOTAL PROJECT</b>			\$27,869,400	\$10,292,200	\$38,161,600
<sup>1</sup> 2007 Prices					
<sup>2</sup> Federal agency responsible for assisting in installation of works of improvement.					

November/2008

**Final Table 2 - Estimated Cost Distribution - Structural and Non-structural Measures**

Tehuacana Creek Watershed, Texas

(Brazos River Watershed)

(Dollars) <sup>1/</sup>

Structure Number or Name	Installation Cost – PL-566 Funds				Installation Cost – Other Funds					Total Installation Cost
	Construction	Engineering	Project Administration	Total PL-566	Construction	Engineering	Land Rights	Project Administration	Total Other	
Constructed Measures										
25 FRS	\$12,558,500	\$4,877,000	\$3,711,900	\$21,147,400	\$0	\$0	\$4,011,900	\$89,600	\$4,101,500	\$25,248,900
18 Grade Stabilization Structures	\$2,173,000	\$1,367,000	\$1,465,500	\$5,005,500	\$0	\$0	\$123,300	\$12,900	\$136,200	\$5,141,700
<b>GRAND TOTAL</b>	\$14,731,500	\$6,244,000	\$5,177,400	\$26,152,900	\$0	\$0	\$4,135,200	\$102,500	\$4,237,700	\$30,390,600

<sup>1</sup> 2007 Prices

November/2008

## APPENDIX B

### **Support Maps**

Revised Project Map

# Revised Project Map

