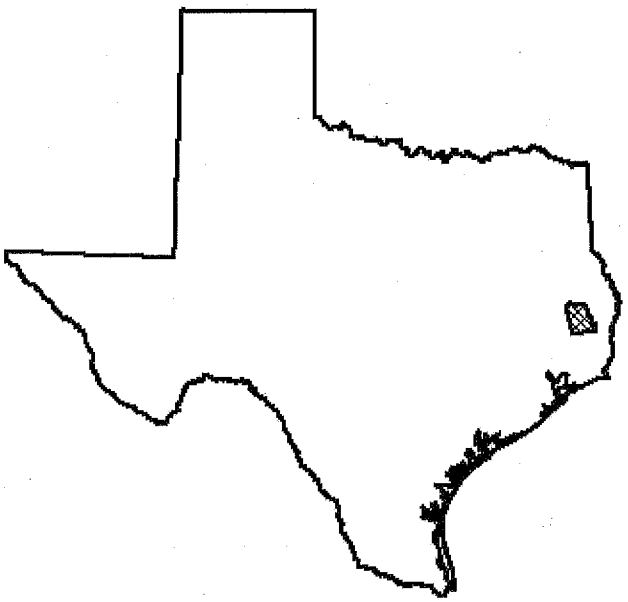
FLOOD INSURANCE STUDY

TYLER COUNTY, TEXAS
AND INCORPORATED AREAS

COMMUNITY NAME	COMMUNITY NUMBER
CHESTER, TOWN OF	481140
COLMESNEIL, CITY OF*	480415
WOODVILLE, CITY OF	481035
TYLER COUNTY UNINCORPORATED AREAS	481034

*Non-floodprone



EFFECTIVE DATE: APRIL 4, 2011

Federal Emergency Management Agency

Flood Insurance Study Number
48457CV000A

NOTICE TO
FLOOD INSURANCE STUDY USERS

Communities participating in the National Flood Insurance Program have established repositories of flood hazard data for floodplain management and flood insurance purposes. This Flood Insurance Study may not contain all data available within the repository. It is advisable to contact the community repository for any additional data.

Selected Flood Insurance Rate Map panels for the community contain information that was previously shown separately on the corresponding Flood Boundary and Floodway Map panels (e.g., floodways, cross sections). In addition, former flood hazard zone designations have been changed as follows:

Old Zone	New Zone
C	X

Part or all of this Flood Insurance Study may be revised and republished at any time. In addition, part of this Flood Insurance Study may be revised by the Letter of Map Revision process, which does not involve republication or redistribution of the Flood Insurance Study. It is, therefore, the responsibility of the user to consult with community officials and to check the community repository to obtain the most current Flood Insurance Study components.

Initial Countywide FIS Effective Date: April 4, 2011

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FLOOD INSURANCE STUDY
TYLER COUNTY, TEXAS AND INCORPORATED AREAS

1.0 INTRODUCTION

1.1 Purpose of Study

This Flood Insurance Study (FIS) revises and updates information on the existence and severity of flood hazards in the geographic area of Tyler County, including the Cities of Colmesneil and Woodville and Town of Chester; and the unincorporated areas of Tyler County (referred to collectively herein as Tyler County), and aids in the administration of the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973. This study has developed flood-risk data for various areas of the community that will be used to establish actuarial flood insurance rates and to assist the community in its efforts to promote sound floodplain management. Minimum floodplain management requirements for participation in the National Flood Insurance Program (NFIP) are set forth in the Code of Federal Regulations at 44 CFR, 60.3.

Please note that City of Colmesneil is non-floodprone.

In some States or communities, floodplain management criteria or regulations may exist that are more restrictive or comprehensive than the minimum Federal requirements. In such cases, the more restrictive criteria take precedence, and the State (or other jurisdictional agency) will be able to explain them.

1.2 Authority and Acknowledgements

The sources of authority for this FIS report are the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973.

This countywide FIS report was completed by Comprehensive Flood Risk Resources & Response Joint Venture (CF3R), for the Federal Emergency Management Agency (FEMA), under Contract No. EMT-2002-CO-0049, Task Order No. 041. The project involved refinement of Special Flood Hazard Areas (SFHAs) established in the effective studies and was completed in May 2009.

The coordinate system used for the production of this FIRM is Texas State Plane Central Zone (FIPSZONE 4203). The Horizontal datum used was North American Datum 1983, GRS1980 (NAD 83). Differences in the datum and spheroid used in the production of FIRMs for adjacent counties may result in slight positional differences in map features at the county boundaries. These differences do not affect the accuracy of information shown on the FIRM.

1.3 Coordination

The initial Consultation Coordination Officer (CCO) meeting was held on April 9, 2008, and attended by representatives of FEMA and CF3R, community officials, other interested agencies and citizens.

The results of the study were reviewed at the final CCO meeting held on February 3, 2010, and attended by representatives of FEMA, CF3R and community officials. All problems raised at that meeting have been addressed in this study.

2.0 AREA STUDIED

2.1 Scope of Work

This FIS report covers the geographic area of Tyler County, Texas, including the incorporated communities listed in Section 1.1.

Approximate analyses were used to study all areas. The scope and methods of study were proposed to, and agreed upon, by FEMA and representatives of Tyler County.

2.2 Community Description

Tyler County is located in southeastern Texas near the Louisiana border. The County shares its boundaries with four other counties: Angelina County (north), Jasper County (east), Hardin County (south) and Polk County (west). Tyler County is bounded on the north and east by the Neches River. The total area of the County is 936 square miles and the net land area is approximately 923 square miles (Reference 1).

Tyler County has had a population increase in the last decade, growing from 16,646 (1990 census) to 20,871 (2000 census). The population of Tyler County has increased by 25% from 1990 to 2000. But it is projected to decrease between 2000 and 2006 to 20,557 (Reference 1). The City of Woodville is the county seat and is located in the central part of the county.

The land in Tyler County is gently rolling, with an elevation ranging from 32 feet to 500 feet above sea level. Northern and eastern Tyler County is drained to the Neches River via Caney, Russell, Billiams, Pamplin, Wolf, Theuvenins, and Rush creeks. The southwestern part of the county contains numerous springs and drains into Horsepen, Hickory, Turkey, and Cypress creeks. The largest body of water in the county is B.A. Steinhagen Lake on the Neches River (Reference 2).

Two main soil types are found in Tyler County. In the northern, rolling two-thirds are clayey to sandy marine and continental deposits, and in the level, southern one-third are recent noncalcareous and calcareous clayey flood plain and alluvium. Tyler County is primarily covered by pine and hardwood forests. Temperatures range from an average high of 94 degrees Fahrenheit (°F) in June to 38 °F in January. Average annual precipitation for the county is 40 to 50 inches (Reference 2).

2.3 Principal Flood Problems

Floods are and continue to be one of the most destructive and costly natural hazards facing Tyler County and occur predominantly along the primary creeks.

There have been several flooding events in Woodville in recent decades along both Turkey Creek and Little Turkey Creek that have caused damage to roadways and numerous homes and other facilities. From 1996 to 1999, the rainfall in any 24-hour

period has exceeded 3 inches a total of 7 times. During two of those events, rainfall was in excess of 7 inches. The Woodville flood of 1996 occurred when approximately 12 inches of rain fell in about 12 hours (Reference 3).

2.4 Flood Protection Measures

Town Bluff Project (formerly and still commonly known simply as "Dam B") is located midway between Jasper and Woodville, Texas, in the heart of the East Texas Pineywoods. The Dam assists Sam Rayburn Reservoir in providing flood control to the Angelina & Neches River basins in Southeast Texas, supply water to the Lower Neches Valley Authority and the Beaumont area, produce a clean source of electric generation, and to offer some of the best fishing, camping, and birding in Texas (Reference 4).

3.0 ENGINEERING METHODS

For the flooding sources studied by detailed methods in the community, standard hydrologic and hydraulic study methods were used to determine the flood-hazard data required for this study. Flood events of a magnitude that is expected to be equaled or exceeded once on the average during any 10-, 50-, 100-, or 500-year period (recurrence interval) have been selected as having special significance for floodplain management and for flood insurance rates. These events, commonly termed the 10-, 50-, 100-, and 500-year floods, have a 10-, 2-, 1-, and 0.2-percent chance, respectively, of being equaled or exceeded during any year. Although the recurrence interval represents the long-term, average period between floods of a specific magnitude, rare floods could occur at short intervals or even within the same year. The risk of experiencing a rare flood increases when periods greater than 1 year are considered. For example, the risk of having a flood that equals or exceeds the 1-percent-annual-chance flood in any 50-year period is approximately 40 percent (4 in 10); for any 90-year period, the risk increases to approximately 60 percent (6 in 10). The analyses reported herein reflect flooding potentials based on conditions existing in the community at the time of completion of this study. Maps and flood elevations will be amended periodically to reflect future changes.

3.1 Hydrologic Analyses

Hydrologic analyses are carried out to establish peak discharge-frequency relationships for each flooding source studied by detailed methods affecting the community.

None of the flooding sources in the county were studied in detail.

3.2 Hydraulic Analyses

Analyses of the hydraulic characteristics of flooding from the sources studied are carried out to provide estimates of the elevations of floods of the selected recurrence intervals. Users should be aware that flood elevations shown on the FIRM represent rounded whole-foot elevations and may not exactly reflect the elevations shown on the Flood Profiles or in the Floodway Data tables in the FIS report. Flood elevations shown on the FIRM are primarily intended for flood insurance rating purposes. For construction and/or floodplain management purposes, users are cautioned to use the flood elevation data presented in this FIS in conjunction with the data shown on the FIRM.

None of the flooding sources in county were studied by detailed hydraulic methods.

3.3 Vertical Datum

All FIS reports and FIRMs are referenced to a specific vertical datum. The vertical datum provides a starting point against which flood, ground, and structure elevations can be referenced and compared. Until recently, the standard vertical datum used for newly created or revised FIS reports and FIRMs was the National Geodetic Vertical Datum of 1929 (NGVD). With the completion of the North American Vertical Datum of 1988 (NAVD), many FIS reports and FIRMs are now prepared using NAVD as the referenced vertical datum.

Flood elevations shown in this FIS report and on the FIRM are referenced to the NAVD. These flood elevations must be compared to structure and ground elevations referenced to the same vertical datum. Some of the data used in this revision were taken from the prior effective FIS reports and FIRMs and adjusted to NAVD88. The datum conversion factor from NGVD29 to NAVD88 in Tyler County is 0.004 feet.

For additional information regarding conversion between the NGVD and NAVD, visit the National Geodetic Survey website at www.ngs.noaa.gov, or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC- 3, #9202
1315 East- West Highway
Silver Spring, MD 20910- 3282

Temporary vertical monuments are often established during the preparation of a flood hazard analysis for the purpose of establishing local vertical control. Although these monuments are not shown on the FIRM, they may be found in the Technical Support Data Notebook associated with the FIS report and FIRM for this community. Interested individuals may contact FEMA to access these data.

To obtain current elevation, description, and/or location information for benchmarks shown on this map, please contacts the Information Services Branch of the NGS at (301) 713-3242 or visit their website at www.ngs.noaa.gov.

4.0 FLOODPLAIN MANAGEMENT APPLICATIONS

The NFIP encourages State and local governments to adopt sound floodplain management programs. To assist in this endeavor, each FIS report provides 1-percent-annual-chance floodplain data, which may include a combination of the following: 10-, 2-, 1-, and 0.2-percent-annual-chance flood elevations; delineations of the 1- and 0.2-percent -annual-chance floodplains; and a 1-percent-annual-chance floodway. This information is presented on the FIRM and in many components of the FIS report, including Flood Profiles, Floodway Data tables, and Summary of Stillwater Elevation tables. Users should reference the data presented in the FIS report as well as additional information that may be available at the local community map repository before making flood elevation and/or floodplain boundary determinations.

4.1 Floodplain Boundaries

To provide a national standard without regional discrimination, the 1-percent-annual-chance flood has been adopted by FEMA as the base flood for floodplain management purposes. The 0.2-percent-annual-chance flood is employed to indicate additional areas of flood risk in the community. For each stream studied by detailed methods, the 1- and 0.2-percent-annual-chance floodplain boundaries have been delineated using the flood elevations determined at each cross section. Between cross sections, the boundaries were interpolated using USGS topographic maps at a scale of 1:24,000 (Reference 5).

The 1-percent-annual-chance floodplain boundaries are shown on the FIRM. On this map, the 1-percent-annual-chance floodplain boundary corresponds to the boundary of the areas of special flood hazards. Small areas within the floodplain boundaries may lie above the flood elevations, but cannot be shown due to limitations of the map scale and/or lack of detailed topographic data.

For the streams studied by approximate methods, only the 1-percent-annual-chance floodplain boundary is shown on the FIRM. Streams in Tyler County were studied by approximate method.

4.2 Floodways

Encroachment on floodplains, such as structures and fill, reduces flood-carrying capacity, increases flood heights and velocities, and increases flood hazards in areas beyond the encroachment itself. One aspect of floodplain management involves balancing the economic gain from floodplain development against the resulting increase in flood hazard. For purposes of the NFIP, a floodway is used as a tool to assist local communities in this aspect of floodplain management. Under this concept, the area of the 1-percent-annual-chance floodplain is divided into a floodway and a floodway fringe. The floodway is the channel of a stream, plus any adjacent floodplain areas, that must be kept free of encroachment so that the base flood can be carried without substantial increases in flood heights. Minimum Federal standards limit such increases to 1 foot, provided that hazardous velocities are not produced. The floodways in this study are presented to local agencies as minimum standards that can be adopted directly or that can be used as a basis for additional floodway studies.

The area between the floodway and 1-percent-annual-chance floodplain boundaries is termed the floodway fringe. The floodway fringe encompasses the portion of the floodplain that could be completely obstructed without increasing the water-surface elevation (WSEL) of the base flood more than 1 foot at any point. Typical relationships between the floodway and the floodway fringe and their significance to floodplain development are shown in Figure 1.

No floodways were computed for Tyler County.

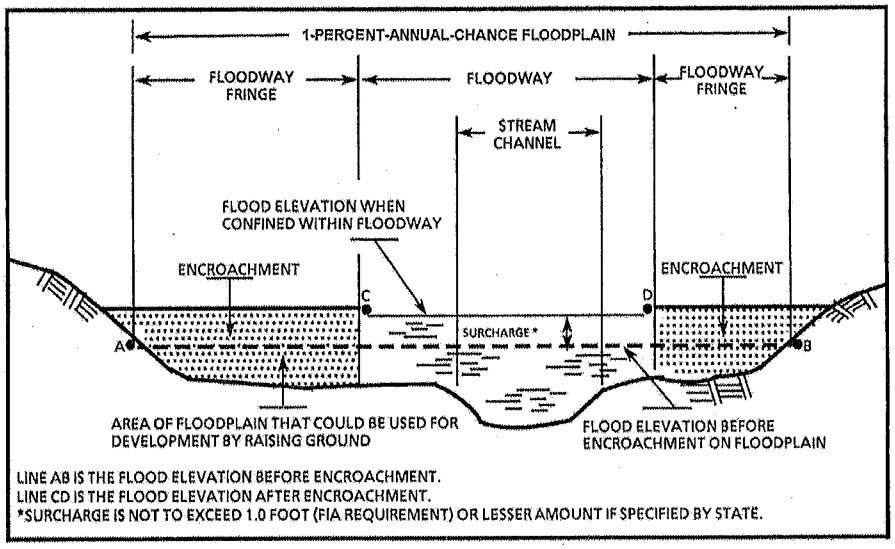

Figure 1. Floodway Schematic

5.0 INSURANCE APPLICATIONS

For flood insurance rating purposes, flood insurance zone designations are assigned to a community based on the results of the engineering analyses. These zones are as follows:

Zone A

Zone A is the flood insurance rate zone that corresponds to the 1-percent-annual-chance floodplains that are determined in the FIS report by approximate methods. Because detailed hydraulic analyses are not performed for such areas, no base (1-percent-annual-chance) flood elevations (BFEs) or depths are shown within this zone.

Zone X

Zone X is the flood insurance rate zone that corresponds to areas outside the 0.2-percent-annual-chance floodplain, areas within the 0.2-percent-annual-chance floodplain, areas of 1-percent-annual-chance flooding where average depths are less than 1 foot, areas of 1-percent-annual-chance flooding where the contributing drainage area is less than 1 sq. mi, and areas protected from the base flood by levees. No BFEs or depths are shown within this zone.

6.0 FLOOD INSURANCE RATE MAP

The FIRM is designed for flood insurance and floodplain management applications.

For flood insurance applications, the map designates flood insurance rate zones as described in Section 5.0 and, in the 1-percent-annual-chance floodplains that were studied by detailed methods, shows selected whole-foot BFEs or average depths. Insurance agents use zones and

BFEs in conjunction with information on structures and their contents to assign premium rates for flood insurance policies.

For floodplain management applications, the map shows by tints, screens, and symbols, the 1- and 0.2-percent-annual-chance floodplains, floodways, and the locations of selected cross sections used in the hydraulic analyses and floodway computations.

The countywide FIRM presents flooding information for the entire geographic area of Tyler County. Previously, FIRMs were prepared for each incorporated community and the unincorporated areas of the County identified as flood-prone. This countywide FIRM also includes flood-hazard information that was presented separately on Flood Boundary and Flood Maps (FBFMs), where applicable. Historical data relating to the maps prepared for each community are presented in Table 1 "Community Map History".

7.0 OTHER STUDIES

This FIS report either supersedes or is compatible with all previous studies published on streams studied in this report and should be considered authoritative for the purposes of the NFIP.

This FIS report is also in agreement with ongoing Flood Insurance Studies in the adjacent counties of Angelina, Hardin, Jasper, and Polk.

8.0 LOCATION OF DATA

Information concerning the pertinent data used in the preparation of this study can be obtained by contacting FEMA Region VI, Federal Insurance and Mitigation Division, 800 North Loop 288, Denton, Texas 76209.

COMMUNITY NAME	INITIAL IDENTIFICATION	FLOOD HAZARD BOUNDARY MAP REVISION DATE	FIRM EFFECTIVE DATE	FIRM REVISION DATE
Chester, Town of	August 13, 1976	None	April 4, 2011	None
Colmesneil, City of*	None	None	None	None
Woodville, City of	July 2, 1976	None	October 26, 1982	None
Tyler County, Unincorporated Areas	November 8, 1977	None	October 1, 1991	None

*Non-floodprone

TABLE 1

FEDERAL EMERGENCY MANAGEMENT AGENCY

TYLER COUNTY, TX AND INCORPORATED AREAS

COMMUNITY MAP HISTORY

9.0 BIBLIOGRAPHY AND REFERENCES

1. U.S. Census Bureau, State & County Quick Facts, http://quickfacts.census.gov, January 18, 2008.

2. The Handbook of Texas Online, http://www.tshaonline.org/handbook/online, January 18, 2008.

3. Flood Mitigation Plan Woodville, City of Woodville, Texas, May 2000.

4. U.S. Army Corps of Engineers, Town Bluff Project, http://www.swf-wc.usace.army.mil/townbluff, March 23, 2009.

5. U.S. Department of the Interior, Geological Survey, 7.5-Minute Series Topographic Maps, Scale 1:24,000, Contour Interval 10 Feet, Texas, 1999. Published by Texas Natural Resource Information System (TNRIS) as vectorized contour data.