State NFIP Coordinator
State CTP Program
Manage FEMA Grants:
  - Flood Mitigation Assistance (FMA)
  - Severe Repetitive Loss (SRL) Grant Program
State of Texas – Flood Protection Planning Grants
  - Watershed Based
  - 50/50 State/Local Match
  - Identifying Mitigation Actions

Texas Water Development Board
What is FloodFUND?

- Research project to gather information from identified stakeholders on current and planned flood mitigation projects throughout Texas

**Water Research Grant Program**

The Texas Water Development Board offers grants to any person(s) or political subdivision(s) of the State of Texas for water research that addresses one of the Texas Water Development Board’s research topics published in the recent Request For Proposals. The Board defines research to be scientific activities that are undertaken to address practical problems rather than to expand the frontiers of knowledge.

Financing of the Water Research Program is through the TWDB’s Research and Planning Fund.
What is FloodFUND?

- How to quantify flood mitigation needs across Texas?

- Flood Funding Needs Database (FloodFUND)
Who are the stakeholders?

- Initially identified approximately 2,500 stakeholders
- Contact information for 1,820 stakeholders
  - Communities – 1373
  - Counties – 277
  - Regional Organizations – 64
  - State and Federal Agencies – 63
  - Others involved with funding flood mitigation programs – 43
Developing the Project

- What data do we need?
- Project types?
- Reason for project?
- Project cost?
- Status?
- Mitigation plan?
- Flooding events?
- Capital Improvement Program?
- Stormwater Utility Fund?
Gathering Project Data

- Outreach and Data Collection – Jan to April 2011
- Website: www.TexasFloodFUND.org
  - Online Questionnaire

YOUR HELP IS NEEDED! The Texas Water Development Board is collecting information about the cost of flood mitigation projects currently under construction and planned throughout Texas. This funding information will be critical in the development of the 2012 State Water Plan.

MAKE SURE YOUR COMMUNITY IS INCLUDED... Your participation is important to ensure that the State Water Plan reflects your jurisdiction’s flood mitigation projects and their cost. This data could influence future legislation for flood mitigation project funding in Texas.

THANK YOU FOR RECOGNIZING THE IMPORTANCE OF FLOOD CONTROL IN TEXAS. As a thank you for your participation, you will receive a digital copy of the FloodFUND research report.

This Questionnaire includes approximately 15 questions and should require no more than 30 minutes to complete.

Click here to begin a new questionnaire.

If you are returning to complete a questionnaire, please enter your phone number and click the Continue Questionnaire button.

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HALFF was selected by the Texas Water Development Board to research Flood Mitigation Funding in the State of Texas. The Flood Funding Needs Database (FloodFUND) is being utilized to collect responses from Texas stakeholders including communities, counties, and local, state, and federal agencies involved in flood control projects.
Gathering Project Data

- Website: www.TexasFloodFUND.org
  - Online Questionnaire
- TFMA Lightning Rod Newsletter
- Halff Water Resources Newsletter
- Emails
- Calls
- Meetings
Gathering Project Data

- One-on-one conversations
- Additional data sources
  - Texas Colorado River Floodplain Coalition (TCRFC)
  - North Central Texas Council of Governments (NCTCOG)
  - U.S. Army Corps of Engineers
- TFMA 2011 Spring Conference booth
Gathering Project Data

- 2009 TWDB/NCTCOG Map Needs Assessment (MNA) documented...
  - 1,291 new mapping needs
  - 2,370 miles of stream
  - $44 Million in Flood Mapping Needs
- 2013 Discovery will utilize MNA data and update results
Gathering Project Data
Results

- Questionnaire Responses fed into GIS database and analyzed

Stakeholder data

- City
- County
- Federal
- River Authority
- State Agency
- Academic
- Other

GIS database
• 254 responses
  • 790 projects
  • $330 Million in mapping needs from Upper Trinity and TCRFC MNA efforts

• $10.47 BILLION in projects
Results

Responding Stakeholder Types

- City - 74.80%
- County - 15.75%
- Federal - 1.18%
- River Authority - 1.18%
- State - 0.39%
- Academic - 0.39%
- Other - 6.30%
Results

Stakeholder Project Types (Number of Projects)

- Acquisition/Relocation/Elevation - 4.22%
- Channelization - 9.12%
- Dam - 2.20%
- Detention/Retention Basin - 4.05%
- Levee - 0.17%
- Localized Drainage - 57.28%
- Stream Restoration/Erosion Control/Bank Stabilization - 5.24%
- Other - 17.74%
Amount of Funding ($) per Project Type

- Acquisition/Relocation/Elevation - 11.84%
- Channelization - 13.40%
- Dam - 0.59%
- Detention/Retention Basin - 16.98%
- Levee - 9.21%
- Localized Drainage - 44.97%
- Stream Restoration/Erosion Control/Bank Stabilization - 3.01%
How to cover the whole state?

\[
\frac{\text{Reported Stakeholder Project dollars}}{\text{2008 Population Covered by Stakeholder Projects}} = \frac{\text{Total Estimated Flood Mitigation Project Costs in Texas}}{\text{Total Texas Population (2010)}}
\]

\[
\frac{19.01 \text{ million people}}{25.145 \text{ million people}} = \frac{\$10.47 \text{ Billion}}{\$X}
\]

\[
X = \text{Total Estimated Flood Mitigation Project Costs in Texas} = \$13.85 \text{ Billion}
\]
FloodFUND Report

- Sent to all responding stakeholders
- Used to develop 2012 State Water Plan

Results
2012 State Water Plan

- Used to determine funding needs across Texas
- Estimated $231B needed for “water supply, water and wastewater infrastructure, and flood control.”

http://www.twdb.state.tx.us/waterplanning/swp/
American Council of Engineering Companies, Texas Chapter

- 2012 Gold Award

**Results**

Texas historically leads the nation in deaths from flash flooding and prior to Hurricane Katrina led the nation in flood damages, flood insurance claims, and repetitive loss structures.

In 2010, the Texas Water Development Board solicited qualifications for a research grant to identify and prioritize flood funding needs. HALFF Associates proposed the Flood Funding Needs Database (FloodFund) and was selected to complete the research.

HALFF used a unique approach to gather and analyze stakeholder project data by using a GIS-based database linked to an online questionnaire. This allowed for efficient data collection for a number of project stakeholders within a compressed project timeline. This methodology also allowed for future analysis and addition of subsequent data to determine how funding needs change over time.

The project reached out to more than 2,500 stakeholders, including any entity involved in the funding of flood mitigation projects. Stakeholders were asked to provide information on flood events and flood mitigation programs in their jurisdiction. Respondents represented approximately 75% of the overall Texas population and information was submitted for 795 projects.

The data was used to project an estimated $15.8 billion in current and planned flood control mitigation project costs. This information was used in the development of the 2012 State Water Plan and will demonstrate to the Texas Legislature the extraordinary needs for flood control funding.
Moving Forward…
Moving Forward…

North Texas Discovery FY12

FEMA RiskMAP Program
Risk Mapping, Assessment, and Planning (RiskMAP) is a Federal Emergency Management Agency (FEMA) Program that provides communities with flood information and tools to help them better understand and reduce flood risk. By improving the ability to better plan for their future, through education on the process of updating maps, risk assessment tools, and floodSmart tools, and planning and contract support, RiskMAP strengthens local abilities to make informed decisions about reducing risk. The North Central Texas Council of Governments (NCTCOG) has been awarded a FEMA grant to assist local governments in implementing recommendations from the RiskMAP planning process as it pertains to floodplain maps within the Lower West Fork Trinity Watershed.

Discovery
Discovery is the first phase of the overall Flood Mitigation process. During Discovery, we will interact with stakeholders within the region to collect information about local flood risk, floodplain maps, mitigation plans, mitigation actions, flooding history, development plans, and floodplain management activities to help communities identify areas of risk. The Discovery process is the “Discovery” of flood hazards and floodplains through participation with different federal, state, local, and private organizations, discussions with public and private organizations, and through public meetings to ensure that there is accurate information about the flood risk within the area. The data gathered during this phase of the process will be used to determine the potential flood risk within the area.

FEMA, HALFF, and NCTCOG will be conducting a series of regional meetings throughout the watershed to present the floodplain maps and discuss the potential flood risk in the region. These meetings will be “open house” style and community residents will be able to provide their flood risk mitigation options and concerns. Attend a Discovery Meeting! Details on Next Page.

Key to Features
- NCTCOG led Discovery HUC-8s
- RAMPP led Discovery HUC-8
- Other HUC-8s
- NCTCOG Boundary

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Areas of Mitigation Interest (AoMI)