APPENDIX C.   MEETING DOCUMENTATION

Appendix C includes meeting agendas, sign-in sheets, and minutes (where applicable and available) for meetings convened during the development of the Fort Bend County Hazard Mitigation Plan Update.

Fort Bend County HMP Update
Pre-Kick-Off Meeting - Agenda
September 26, 2022

1. **Meeting Goals:** Agree on draft workplan and schedule; determine degree of support for CRS credits; confirm SOW and additional items; agree on areas to expedite; agree on schedule drivers; confirm County and Tt responsibilities

2. **Introductions**

3. **Planning Team**
   - Core Planning Team (CPT) meetings –
     - Fort Bend OEM
     - Tetra Tech
   - Steering Committee -
     - Commissioners Court
     - Community Development
     - Drainage District
     - Engineering
     - OEM
     - Road and Bridge
   - Local Mitigation Planning Team –
     - Steering Committee and municipalities:
       - Fort Bend County
       - Arcola (C)
       - Beasley (C)
       - Fairchilds (V)
       - Fulshear (C)
       - Katy (C) *did not participate in 2018*
       - Kendleton (C)
       - Meadows Place (C)
       - Missouri City (C) (CRS 7)
       - Needville (C)
       - Orchard (C)
       - Pearland (C) (CRS 6) *did not participate in 2018*
       - Pleak (V)
       - Richmond (C)
       - Rosenberg (C)
       - Simonton (C)
       - Stafford (C)
       - Thompsons (T)
       - Weston Lakes (C)
   - Stakeholders
     - Businesses
     - Coastal Plains Soil and Water Conservation District
     - Fort Bend Chamber of Commerce
     - Health care – hospitals, clinics, nursing homes, local and county health departments
     - Levee Improvement Districts
     - Municipal and County Services – OEM, police, fire, roads/bridges, etc.
     - Neighboring Counties
     - Schools/Universities
     - Utility Providers – phone/electricity/water/gas
   - Public meetings – all planning team meetings will be open to the public

4. **Data Collection**

- Grant agreement from TDEM and FEMA – if applicable
- FEMA Plan Review Tool from previous plan
- Stakeholders
- Information Gathering Worksheets
- Critical Facility Inventory
- Data Wish List
- NFIP Data Request
- FEMA CAV request
- Dam request
- HMP website

5. **Hazards of Concern Identification**
   - Tt suggests the following (but will confirm with the Planning Partnership during their kick-off meeting):

2018 HMP	2019 State HMP	2023 County HMP Update
Dam/Levee Failure	Dam/Levee Failure	Dam/Levee Failure
Drought	Drought	Drought
Expansive Soils	Expansive Soils	Expansive Soils
Extreme Heat	Extreme Heat	Extreme Temperature (heat/cold)
Floods	Riverine Flooding	Flood (Riverine/Flash/Stormwater)
Hailstorms	Hailstorms	Hailstorms
Hurricanes/Tropical Storms	Hurricanes, Tropical Storms and Depressions	Hurricanes and Tropical Storms
Land Subsidence	Land Subsidence	Land Subsidence
Lightning	Lightning	Lightning
-	-	Pandemic/Disease Outbreak
Tornadoes	Tornadoes	Tornado
Wildfires	Wildfire	Wildfire
Windstorms	Severe Winds	Windstorms
Severe Winter Storms	Winter Weather	Winter Weather
-	Severe Coastal Flooding	-
-	High Wind	-
-	Earthquakes	-
-	Extreme Cold	-
-	Coastal Erosion	-
-	Inland Erosion	-

6. **Public and Stakeholder Outreach**
   - Steering Committee
   - Planning Partnership
   - Stakeholders

- General Public

7. **In-Kind Services Tracking**

8. **Work Plan**
    - Current plan expires in February 2023
    - Kick-Off Meetings
        - ○ Core Planning Team – September 26th
        - ○ Steering Committee – week of October 10th
        - ○ Planning Partnership – week of October 17th
    - Goals and Objectives –
        - ○ Steering Committee – week of November 7th
    - Mitigation Strategy Workshop – December 2022
    - Risk Assessment Workshop – February 2023 (Tt to confirm with GIS of their schedule)
    - Public Review Period – February 2023 (14 days)
    - Draft to TDEM – March 2023
    - Draft to FEMA – April 2023
    - Tentative APA – May 2023
        - ○ If the plan is approved before mid-July 2023, there should be no ramifications of having a lapse between expiration date and approval date
        - ○ Fort Bend County to notify TDEM of this schedule to confirm this submittal date is acceptable

9. **Next Steps**

Virtual Meeting
Join Online | *Meeting ID: 253 766 967 547 | Passcode: 2udezq*
Or
Dial-in Number (toll): 832-856-3579 | Conference ID: 561 368 964#

1. **Welcome and Introductions**

2. **In-Kind Services Tracking**

3. **Benefits of Hazard Mitigation and Overview**
   - Purpose and expected outcomes of the Hazard Mitigation Plan
   - 2023 enhancements

4. **Project Organization**
   - Key Agencies
   - Municipal Participants
   - Stakeholders

5. **Steering Committee Roles and Responsibilities**

6. **Hazards of Concern Identification**

7. **Critical Facilities and Lifelines**

8. **Goals and Objectives**

9. **Public and Stakeholder Outreach**
   - Strategy – press releases, social media posts, capture of miscellaneous outreach, HMP website
   - Tracking

10. **Schedule**
    - Overview and Milestones
    - Meeting Schedule

11. **Questions / Wrap-Up**

Purpose of Meeting:	Planning Partnership Meeting #1
Location of Meeting:	Microsoft Teams
Date/Time of Meeting:	November 9, 2022

Attendees:	Misty Tiemann- Secretary of Beasley
Rodney Grimmer-Senior Coordinator of Fort Bend
Andrea James- Planning Coordinator of Fort Bend
Charles Brockett- Fort Bend
Mark Vogler-Fort Bend
Mary Staff-Fort Bend
Scott Wieghat-Fort Bend
Vanessa McKeehan-Fort Bend
Greg Babst- Deputy Coordinator of County HS&EM
Mark Flathouse-County EMC
Craig Kalkomey-Director of Fort Bend Utility Auth.
Felix Vargas-Fulshear
Christina Flores-City of Kendleton Secretary
Gary Stewart Chief of Police of Meadows Place
Jack Ashton- Meadows Place Asst. Chief of Police
Rod Hainey- Public Works Director of Meadows Place
Trameka Jewett-EMC for Missouri City
Jim Whitehead- Richmond
Robert Oliver-Richmond
Darrell Himly-Rosenberg
Rigo Calzoncin-Rosenberg
Erica Molina-Simonton
Gabriel Lavine-Sugar Land
Brian Rutherford-Tetra Tech
Heather Apgar-Tetra Tech
(281) 533-0172
David Jordan (Guest)
Melissa
Rick Staigle
Shashi Kumar (Guest)

Agenda Summary:	HMP Overview, Planning partnership, public and stake holder outreach, worksheets

Item No.	Description	Action By:
1.	Welcome and Introductions •	Heather
2.	In-Kind Tracking •	Heather
3.	Benefits of Hazard Mitigation and Overview •	Heather
4.	Project Organization and Overview •	Heather

5.	Steering Committee Roles and Responsibilities •	Heather
6.	Hazards of Concern Identification	
7.	Critical Facilities and Lifelines •	Heather
8.	Goals and Objectives	
9.	Public and Stakeholder Outreach	
10.	Schedule	
11.	Questions/Wrap-Up	

Fort Bend County, Texas
Hazard Mitigation Plan – 2023 Update

Steering Committee Kick-Off Meeting | November 9, 2022

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Agenda

- Welcome and Introductions
- Benefits of Hazard Mitigation
- Hazard Mitigation Planning Overview
- Project Organization
- Steering Committee Responsibilities
- Public and Stakeholder Outreach
- Update Hazards of Concern and Risk Assessment

- Critical Facilities and Lifelines
- Goals and Objectives
- Schedule
- Questions/Next Steps/Wrap Up

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3

Hazard Mitigation Planning Overview

- What is hazard mitigation?
- How does this support resiliency and recovery?
- Why update the plan?
- What is the process?

✓ Authorized by the Disaster Mitigation Act of 2000
✓ Provides an overview of the impacts of natural hazards on communities
✓ Provides a roadmap to reducing the impact of these hazards
✓ Requires a FEMA-approved natural hazard mitigation plan to be eligible for Pre-Disaster Mitigation Funding
✓ 5 year updates required to maintain eligibility

Organize the Resources → Identify Hazards/ Perform Risk Assessment → Public and Stakeholder Involvement → Mitigation Strategy → Assemble the Plan → Plan Maintenance → Plan Review and Adoption

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4

Hazard Mitigation – What is it?

Mitigation is a sustained action taken to reduce or eliminate long-term risk to life and property from a hazard event

-or-

Any action taken to reduce future disaster losses

"provides the blueprint for reducing the potential losses identified in the risk assessment, based on existing authorities, policies, programs and resources, and local ability…" (CFR).

Mitigation

Prepare / Prevent

Event

Recovery

Response

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Slide 6

Why Update?

- The mitigation plan update will:
  - Help the County prepare for and mitigate the effects of disasters
  - Continue to allow the County and participating partners to be eligible for pre- and post-disaster mitigation funding
  - Support Community Rating System (CRS) participation/rating of municipalities

Hazard	Losses (1950 – June 2022)
Dam/Levee Failure	-
Drought	$1 million (property) $7.3 million (crop)
Expansive Soils	-
Extreme Cold	-
Extreme Heat	-
Flood (Flash)	$805 billion (property) $52,000 (crop)
Hailstorms	$2.897 million (property)
Hurricanes	$400 million (property)
Land Subsidence	-
Lightning	$574,000 (property)
Pandemic/Disease Outbreak	-
Tropical Storms	$12.34 million (property)
Tornadoes	$16.183 million (property)
Wildfires	-
Windstorms	-
Severe Winter Storms	-
TOTAL	**$805,432,994 billion (property) $7.404 million (crop)**

Source: NOAA-NCEI 2022

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Slide 7

What's at Risk?

- FEMA Disaster Declarations

11 Hurricane

5 Flood

3 Fire

3 Severe Storm(s)

2 Biological

2 Severe Ice Storm

1 Coastal Storm

Fort Bend, Texas
27 Disaster Declaration(s)

Year of Declaration Date	Declaration Title	Disaster Number
1983	HURRICANE ALICIA	689
1991	SEVERE THUNDERSTORMS	930
1994	SEVERE THUNDERSTORMS AND FLOODING	1041
1998	TROPICAL STORM CHARLEY	1239
	TX-FLOODING 10/18/98	1257
1999	EXTREME FIRE HAZARDS	3142
2001	TX-TROPICAL STORM ALLISON-06-06-2001	1379
2002	SEVERE STORMS, TORNADOES AND FLOODING	1439
2005	HURRICANE KATRINA EVACUATION	3216
	HURRICANE RITA	1606
		3261
2006	EXTREME WILDFIRE THREAT	1624
	LAKE OLYMPIA FIRE	2639
2007	HURRICANE DEAN	3277
2008	HURRICANE GUSTAV	3290
	HURRICANE IKE	1791
		3294
2015	SEVERE STORMS, TORNADOES, STRAIGHT-LINE WINDS AND ...	4223
2016	SEVERE STORMS AND FLOODING	4269
		4272
2017	HURRICANE HARVEY	4332
2020	COVID-19	3458
	COVID-19 PANDEMIC	4485
	HURRICANE HANNA	3530
	TROPICAL STORMS MARCO AND LAURA	3540
2021	SEVERE WINTER STORM	3554
	SEVERE WINTER STORMS	4586

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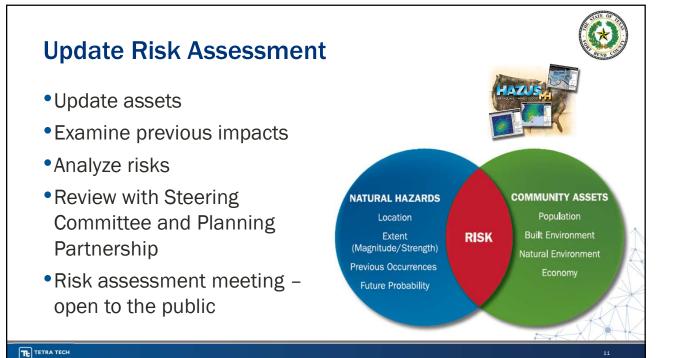7

Steering Committee Responsibilities

- Guide the Planning Team (jurisdictions) through the HMP update process
- Oversee the planning process from start to finish
- Actively contribute, review and provide feedback, identify mitigation actions, etc. This includes:
  - Formalizing the natural hazards of concern
  - Updating/developing mitigation goals and objectives
  - Developing a public and stakeholder outreach strategy
  - Assisting with the development of the county-level mitigation strategy
  - Reviewing plan documents

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Update Risk Assessment

- Update assets
- Examine previous impacts
- Analyze risks
- Review with Steering Committee and Planning Partnership
- Risk assessment meeting – open to the public

NATURAL HAZARDS
Location
Extent (Magnitude/Strength)
Previous Occurrences
Future Probability

RISK

COMMUNITY ASSETS
Population
Built Environment
Natural Environment
Economy

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2018 Hazards of Concern

- Dam/Levee Failure
- Drought
- Expansive Soils
- Extreme Heat
- Floods
- Hailstorms
- Hurricanes/Tropical Storms
- Land Subsidence
- Lightning
- Tornadoes
- Wildfires
- Windstorms
- Severe Winter Storms

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2023 Potential Hazards of Concern

- Dam/Levee Failure
- Derechos
- Drought
- Extreme Temperature (heat/cold)
- Flood (Riverine/Flash/Stormwater)
- Geologic Hazards (expansive soils, subsidence)
- Hurricane/Tropical Storm
- Pandemic/Disease Outbreak
- Severe Weather (Lighting/Hail/Wind/Derechos)
- Tornado
- Wildfire
- Winter Weather

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EXERCISE – Identifying Hazards of Concern

- Looking at the hazards included in the 2018 plan...
  - Have additional hazards impacted the County since 2018?
  - Have hazard been mitigated and no longer cause damage?
  - Should hazards be regrouped to align with the 2019 State HMP?
  - Should additional hazards be included?
- How have hazards affected the county? Where are your problem areas?
- Quick survey!
  - We will send around a quick online survey to get your input on the hazards of concern for the 2023 HMP – Stay tuned!

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Community Lifelines

- Review 2018 critical facility inventory to ensure complete
- Crosswalk and identify lifelines

Lifelines provide indispensable service that enables the continuous operation of critical business and government functions, and is critical to human health and safety, or economic security

Critical Facilities are those facilities considered critical to the health and welfare of the population and that are especially important following a hazard. As defined for this HMP, critical facilities include essential facilities, transportation systems, lifeline utility systems, high-potential loss facilities, and hazardous material facilities.

Essential facilities are a subset of critical facilities that include those facilities that are important to ensure a full recovery following the occurrence of a hazard event. For the County risk assessment, this category was defined to include police, fire, EMS, schools/colleges, shelters, senior facilities, and medical facilities.

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Community Lifelines

- To be reviewed:
  - Alert and Warning Systems
  - Critical Infrastructure
  - Energy and Utilities
  - EMS sites
  - Fire departments
  - Government Services
  - Hazardous Facilities
  - Healthcare Facilities
  - Long Term Care Facilities
  - Mass Transit
  - Parks and Open Space
  - Police departments
  - Rail lines
  - Responder Communications
  - Rivers/Streams
  - Roadways
  - Sheltering Locations

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Community Lifelines

- What additional facilities and lifelines should we add? Types to consider:
  - Utility locations – substations, pump stations, treatment plants
  - Critical food establishments – food pantries, grocery stores, senior nutrition
  - COVID-19 locations – testing and vaccination sites
  - Others?

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Mitigation Strategy

- Goals
  - What outcomes do you want to achieve?
- Actions
  - What specific actions will be taken to reduce risk from hazards?
- Action Plan
  - How will the actions be prioritized and implemented?

Goals

Actions

Action Plan

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Goals and Objectives Review and Update

Goal Number	Goal
1	Educate and inform citizens regarding potential emergency situations related to natural hazards, including those resulting from groundwater depletion.
2	Decrease the risk to life and property through planning, preparing and mitigating.
3	Performing projects that reduce the impact of natural hazards in order to increase resiliency and enhance the ability to recover.

Goal	Objectives	Actions
Minimize new development in hazard-prone areas	Reduce the number of vulnerable structures in flood hazard areas.	Amend zoning ordinance to permit only open space and uses within floodplains.

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Public and Stakeholder Outreach

- Social Media Posts
- Press Release
- HMP website – will work with the County to set this up
- Planning Partnership meetings open to the public
- Stakeholder Survey
- Public Survey
- Neighboring County Outreach
  - Notified of planning process
  - Survey

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Next Steps / Upcoming Schedule

- Take online survey to update goals – *to be distributed via email*
- Planning Partnership Kick-Off (Steering Committee and Municipalities) – November 16th
- Steering Committee Meeting to discuss goals/objectives– December
- Mitigation Strategy Workshop – early February (tentatively)
- Risk Assessment Meeting – late March (tentatively)
- Public Review Period – April 2023
- Draft Plan to TDEM – April 2023
- Final Draft to FEMA – May 2023
- APA – June 2023

Organize the Resources → Identify Hazards/ Perform Risk Assessment → Public and Stakeholder Involvement → Mitigation Strategy → Assemble the Plan → Plan Maintenance → Plan Review and Adoption

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Questions?

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Fort Bend County Project Contacts

Greg Babst, Deputy Emergency Management Coordinator
(281) 238-3428 | Gregory.Babst@fortbendcountytx.gov

Tetra Tech Project Contacts

Brian Rutherford, Project Manager   Heather Apgar, Lead Planner
(281) 414-6741 | brian.rutherford@tetratech.com   (973) 630-8046 | heather.apgar@tetratech.com

Thank You!

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1. **Welcome and Introductions**

2. **In-Kind Services Tracking**

3. **Benefits of Hazard Mitigation and Project Overview**
   - Purpose and expected outcomes of the Hazard Mitigation Plan
   - 2023 enhancements
   - Project overview

4. **Public and Stakeholder Outreach**
   - Strategy – press releases, social media posts, capture of miscellaneous outreach, HMP website
   - Tracking

5. **Hazards of Concern Identification**

6. **Worksheets**

7. **Schedule**
   - Overview and Milestones
   - Meeting Schedule

8. **Questions / Wrap-Up**

Join meeting remotely:
   - Dial-in by phone: 832-856-3579 Phone Conference ID: 706 121 334#
   - Or join via MS Teams – click here to join
     - Meeting ID: 250 159 412 945
     - Passcode: Ckdtbd

Purpose of Meeting:	Planning Partnership Meeting #1
Location of Meeting:	Microsoft Teams
Date/Time of Meeting:	11 AM-November 16, 2022

Attendees:		
	Heather Apgar- Tetra Tech	Tiffany Malzahn-Brazos River Authority
	Emily Vassallo-Tetra Tech	Shayna Van Slyke-Fort Bend
	Erika Corsi- Tetra Tech	Misty Tiemann-Secretary of Beasley
	Brian Rutherford- Tetra Tech	Rodney Grimmer-Senior Coordinator Fort Bend
	Jim Whitehead	Andrea James-Planning Coordinator Fort Bend
	Rick Staigle	Charles Brockett-Fort Bend
	FBC	Mark Vogler
	Jim Bass-Tetra Tech	Greg Babst-Deputy Coordinator Fort Bend HSEM
	Rigo Calzoncin- City of Rosenberg, Director of Public Services	Christina Flores- Secretary of Kendleton
	Donnie Naylor-Brazos River Authority Emergency Management Coordinator	Gary Stewart- Chief of Police Meadows Place
		Jack Ashton- Assist. Police Chief Meadows Place
		Rod Hainey-Public Works Director Meadows Place
	Scott Wieghat-Fort Bend	281-533-0172
	Tyler Werlin- LID Solutions	832-361-9677
	Stacy Slawinski -Fort Bend	832-490-6903
	Jeffery Janecek-Fort Bend	Rick Staigle
	Robert Oliver- City of Richmond EMC	Douglas Barners-Fort Bend
	Trameka Jewett-Missouri City EMC	Elida Ubernosky-Fort Bend
	Mark Vogler	Grady Prestage
	Annette Guajardo-Arcola	Shenae Theriot-Mericle-UASI Grants Manager
	Craig Kalkomey-Director of Fort Bend Utility Auth.	Christina Honzell-Fort Bend HSEM Regional Planner
	Erica Molina-Simonton	Frank Garza- Fort Bend HSEM Regional Planner
	Felix Vargas-City of Fulshear	Kenny Seymour-Fulshear
	Gabrial Lavine-Sugar Land	Russell Piper-Inframark
	Vladimir Hidrovo-Alban -Fort Bend	Jeff Perry-Levee Management Services
	Darrell Himly-Rosenberg	Tyler Werlein-LID Solutions
	Sashi Kumar	Larry Bittner- Mayor of Pleak
		Hector Acevedo-Quail Valley UD

Agenda Summary:	HMP Overview, Planning partnership, public and stake holder outreach, worksheets

Item No.	Description	Action By:
1.	**Welcome and Introductions** • Heather introduces 2023 HMP update- explains this meeting will assist how to fill out worksheets.	-
2.	**In-Kind Tracking** • Explanation of participation recording: meetings, input, worksheets, outreach, surveys	Tetra Tech to provide link to in-kind tracker
3.	**Benefits of Hazard Mitigation and Overview** • Make connections, evaluate risks, look at specific hazards and actions that can be taken. Integrating hazard mitigation plan into day-to-day operation, Incorporate new FEMA local HMP guidance • Need two mitigation actions for every HOC • Understand impact of climate change on hazards	-

	• Look at socially vulnerable populations- what is county and jurisdiction doing to address this? • Overview is broken into 7 steps • Hazard mitigation definition- sustained action taken to reduce or eliminate risk to life and property from a hazard event • Why update? - FEMA requirement; helps look at new impacts/hazards; allows us to look at new data and allows municipalities to provide new input	
4.	**Project Organization and Overview** • Planning partnership- Each participating municipality that would like to adopt the plan; must complete worksheets, provide input to planners; attend meetings; identify mitigation actions for your community; involve the public o Participation Tracker explanation • Steering Committee- guides planning partnership and oversees planning process • Stakeholders- local business, nonprofits, emergency services present in county • TDEM- provide guidance to County to meet FEMA guides; will evaluate plan	-

5.	**Update Risk Assessment**
	• Look at previous impacts, update assets, analyze risks
	• Review of 2018 HOC List
	• 2023 Potential HOC
	     o Include Heat and Cold for extreme temp
	     o Include riverine/flash/stormwater flood
	     o Include severe weather as one HOC
	     o Pandemic/Health and Safety addition
	Update Capability Assessment
	• Planning, Administrative, technical, financial, educational and outreach capabilities
	Update Mitigation Strategy
	• Evaluate status of mitigation actions
	• Identify New actions/projects
	• Mitigation Workshop-TBD
	Update Other Sections of Plan
	• County Profile
	• Planning Process
	• Plan Maintenance
	Submit HMP for Review
	• Review draft with planning team
	• Public review for 14 days
		Tetra Tech to distribute worksheets to participants

6.	**Went over each Worksheet** • **Worksheet A-** first table is an explanation of affects felt from County and each jurisdiction from list of FEMA hazards in the worksheet; can add other events that were not FEMA declarations in second table: helps planners see damages and problems • **Worksheet B-**We prepopulated data from 2018 plan; Looks at building code, zoning, and land use codes, staffing available, public outreach • **Worksheet C-**NFIP, CRS Floodplain administrator questionnaire: whoever is most knowledgeable of NFIP program and flooding should fill out • **Worksheet E-** new building permits, looks at new major development and anticipated major development; survey being sent out **Worksheet D-** update mitigation strategy status from the plan in 2018 and note if it needs to be included in update; worksheets will be blank for those that did not participate in 2018 plan. Heather provides description of table information and status rankings: no progress, ongoing, complete. Another table present for additional actions/projects that may be needed	Tetra Tech to distribute worksheets to participants

7.	**Public and Stakeholder Outreach** • Social Media Posts, • Press Release, • HMP website • Surveys for stakeholder, public and neighboring counties o Heather provides information and tips for getting surveys out there; requests photos of social media posts and actions taken by jurisdictions to spread the word **Next Steps** • Heather provides tentative schedule to all meeting attendees • Complete worksheets, workshops, risk assessment meetings, public review, rough draft, final draft public review meeting • Submission to TDEM (30 days) • They can add comments for review • Submit to FEMA (45 days) • They can add comments for review • Approvable Pending Adoption Status • Then HMP can be adopted	-
	Worksheets- • **Worksheet A – Hazard Event History –** dollar amounts incredibly helpful for this • **Worksheet B – Capability Assessment** • **Worksheet C – NFIP FPA Questionnaire –** best person to fill this out is Floodplain Admin – if no Floodplain Admin, person with most knowledge about flooding should fill this worksheet out • **Worksheet D – Action Review** – previous actions, need progress description of those actions for plan update. If no progress – please explain why • **Worksheet E – Building Permits –** need to document how much development has/will occur within the county in the next 5 years	Tetra Tech to distribute worksheets to participants

Meeting concurred at 11:47 AM with no questions or concerns from the attendees. Craig and Brian offer help and assistance to all the municipalities involved.

Fort Bend County, Texas
Hazard Mitigation Planning Partnership Meeting #1
Sign-In Sheet
November 16, 2022

Name	Agency/Department	Position	Phone	E-mail
Gary Stewart	Meadows Place P.D.	Chief of Police	832/754-9188	stewart@cityofmeadowsplace.org
Jack Ashton	"	Asst Chief	281/725/133	ashton@cityofmeadowsplace.org
Larry Bittner	Village of Pleak	Mayor	281-750-2985	LARRY_BITTNER@SBCGL0B3Al.NET
Andrea James	Fort Bend HHS	Planning Coordinator	832-363-7120	Andrea.James@FortBendcountytx.gov
Shevic Menicle	Fort Bend OEM	UASI Grants Mngr	832.451.8186	Shevae.menicle@FortBendcountytx.gov
Kristina Honzell	Fort Bend OEM	EM Specialist	832.473.0225	KRISTINA.HONZELL@FBCTX.gov
Rodney Grimmer	Fort Bend OEM	EM Specialist	832-473-2880	rodney.grimmer@fbctx.gov
Frank Garza	"	EM Specialist II	832-403-1248	Frank.Garza@fbcTX.gov
Christina Flores	City of Kendleton	City Secretary	(113)476-153e	christina.flores@kendletontx.net
Greg Babst	FBC-HS+EM	Deputy	832-363-7049	GREGORY.BABST@FortBendcountyTX.Gov
Brian Rutherford	Tetra Tech	Consultant	281-414-6741	brian.rutherford@tetratech.com

Fort Bend County, Texas
Hazard Mitigation Plan – 2023 Update
Planning Partnership Kick-Off Meeting | November 16, 2022

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Agenda

- Welcome and Introductions
- Hazard Mitigation Planning Overview
- Planning Partnership Responsibilities
- Public and Stakeholder Outreach
- Completing Worksheets

- Schedule
- Questions/Next Steps/Wrap Up

TETRA TECH

3

3

Hazard Mitigation Planning Overview

- What is hazard mitigation?
- How does this support resiliency and recovery?
- Why update the plan?
- What is the process?

✓ Authorized by the Disaster Mitigation Act of 2000
✓ Provides an overview of the impacts of natural hazards on communities
✓ Provides a roadmap to reducing the impact of these hazards
✓ Requires a FEMA-approved natural hazard mitigation plan to be eligible for Pre- and Post-Disaster Mitigation Funding
✓ 5-year updates required to maintain eligibility

Organize the Resources → Identify Hazards/ Perform Risk Assessment → Public and Stakeholder Involvement → Mitigation Strategy → Assemble the Plan → Plan Maintenance → Plan Review and Adoption

TETRA TECH

4

4

Hazard Mitigation – What is it?

Mitigation is a sustained action taken to reduce or eliminate long-term risk to life and property from a hazard event

-or-

Any action taken to reduce future disaster losses

"provides the blueprint for reducing the potential losses identified in the risk assessment, based on existing authorities, policies, programs and resources, and local ability…" (CFR).

Mitigation | Prepare / Prevent | Event | Recovery | Response

TETRA TECH

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Why Update?

- The mitigation plan update will:
  - Help the County prepare for and mitigate the effects of disasters
  - Continue to allow the County and participating partners to be eligible for pre- and post-disaster mitigation funding
  - Support CRS participation/rating of municipalities

Hazard	Losses (1950 – June 2022)
Dam/Levee Failure	-
Drought	$1 million (property) $7.3 million (crop)
Expansive Soils	-
Extreme Cold	-
Extreme Heat	-
Flood (Flash)	$805 billion (property) $52,000 (crop)
Hailstorms	$2.897 million (property)
Hurricanes	$400 million (property)
Land Subsidence	-
Lightning	$574,000 (property)
Pandemic/Disease Outbreak	
Tropical Storms	$12.34 million (property)
Tornadoes	$16.183 million (property)
Wildfires	-
Windstorms	-
Severe Winter Storms	-
TOTAL	**$805,432,994 billion (property) $7.404 million (crop)**

Source: NOAA-NCEI 2022

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Project Organization

Steering Committee

Planning Partnership
- Steering Committee
- Fort Bend County
- Arcola (C)
- Beasley (C)
- Fairchilds (V)
- Fulshear (C)
- Kendleton (C)
- Meadows Place (C)
- Missouri City (C)
- Needville (C)
- Orchard (C)
- Pleak (V)
- Richmond (C)
- Rosenberg (C)
- Simonton (C)
- Stafford (C)
- Sugar Land (C)
- Thompsons (T)
- Weston Lakes (C)

Core Planning Team
Fort Bend County HS&EM
Tetra Tech

Stakeholders

Texas Division of Emergency Management (TDEM)

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3

Planning Partnership Roles and Responsibilities

- As the municipal representative for your community, you need to actively participate throughout the process in order to be included in the plan. This includes:
  - Coordinate and facilitate local efforts
  - Attend meetings
  - Provide information and feedback (e.g., complete municipal worksheets)
  - Involve the public and community stakeholders in the planning process
  - Identify mitigation actions for your community
  - Adopt the plan
  - Implement the plan and monitor its progress
- All participation will be documented in the HMP

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Participation Tracker

Jurisdiction Name	Requirements Met (Y/N)					
	Planning Process	Hazard Identification and Risk Assessment	Mitigation Strategy	Plan Review, Evaluation, and Implementation	Plan Adoption	State Requirements

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Update Risk Assessment

- Update assets
- Examine previous impacts
- Analyze risks
- Review with Steering Committee and Planning Partnership
- Risk assessment meeting – open to the public

NATURAL HAZARDS
Location
Extent (Magnitude/Strength)
Previous Occurrences
Future Probability

RISK

COMMUNITY ASSETS
Population
Built Environment
Natural Environment
Economy

TETRA TECH

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2018 Hazards of Concern

- Dam/Levee Failure
- Drought
- Expansive Soils
- Extreme Heat
- Floods
- Hailstorms
- Hurricanes/Tropical Storms

- Land Subsidence
- Lightning
- Tornadoes
- Wildfires
- Windstorms
- Severe Winter Storms

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2023 Potential Hazards of Concern

- Dam/Levee Failure
- Derechos
- Drought
- Earthquake?
- Expansive Soils
- Extreme Temperature (heat/cold)
- Flood (Riverine/Flash/Stormwater)
- Hailstorms
- Hurricane/Tropical Storm

- Inland Erosion
- Land Subsidence
- Lightning
- Pandemic/Health and Safety
- Severe Weather (Lighting/Hail/Wind)
- Tornado
- Wildfire
- Winter Weather

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Worksheet A – Hazard Event History

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Update the Capability Assessment

- Capabilities
  - Planning and Regulatory Capability
  - Administrative and Technical Capability
  - Financial Capability
  - Education and Outreach

Worksheet B – Capability Assessment

Worksheet C – NFIP FPA Questionnaire

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Worksheet E – Building Permits

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Update the Mitigation Strategy

- Determine the status of mitigation actions
- Identify new mitigation actions/projects
  - Focus on specific, implementable, and achievable actions!
  - Look at your list of critical facilities and lifelines – what do they need to be operational during a disaster?
  - Two mitigation actions for every hazard of concern!
- Conduct Mitigation Strategy Workshop – date TBD

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Worksheet D – Action Review

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Update Other Sections of Plan

- County Profile
  - Taking the previous profile from the last plan and updating it accordingly
- Planning Process
  - Documentation of the update process
- Plan Maintenance
  - Incorporation into other plans as well as identifying way to incorporate other plans into the updated HMP
  - Identify a game plan for annually reviewing and updating the HMP

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Submit HMP for Review

- Review Draft with Planning Team
- 14-day Public Comment Period
- Conduct Public Meeting to Review the Draft
- Submit for Texas Division of Emergency Management (TDEM) Review
  - 30 days
- Submit for Federal Emergency Management Agency (FEMA) Review
  - 45 days
- "Approvable Pending Adoption" Status

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Adopt the HMP

- Fort Bend County and at least one participating municipality need to adopt the HMP in order for it be considered 'approved'
- Once FEMA approves the plan, adoption can begin
- Adoption deadline – TBD

Implement the HMP

- Regular Planning Team meetings
- Stakeholder meetings
- Implement mitigation actions and projects
  - Integrate actions where appropriate

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Public and Stakeholder Outreach

- Social Media Posts
- Press Release
- HMP website – will work with the County to set this up
- Planning Partnership meetings open to the public
- Stakeholder Survey
- Public Survey
- Neighboring County Outreach
  - Notified of planning process
  - Survey

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Next Steps / Upcoming Schedule

- Complete worksheets – to be distributed via email – due December 7th
- Mitigation Strategy Workshop – early February (tentatively)
- Risk Assessment Meeting – late March (tentatively)
- Public Review Period – April 2023 (tentatively)
- Draft Plan to TDEM – April 2023 (tentatively)
- Final Draft to FEMA – May 2023 (tentatively)
- APA – June 2023 (tentatively)

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Questions?

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Fort Bend County Project Contacts

Greg Babst, Deputy Emergency Management Coordinator
(281) 238-3428 | Gregory.Babst@fortbendcountytx.gov

Tetra Tech Project Contacts

Brian Rutherford, Project Manager
(281) 414-6741 | brian.rutherford@tetratech.com

Heather Apgar, Lead Planner
(973) 630-8046 | heather.apgar@tetratech.com

Thank You!

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1.   **Welcome and Introductions**

2.   **In-Kind Services Tracking**

3.   **Participation Status**
- (28/43) jurisdictions have not submitted any worksheets
- (3/43) jurisdictions submitted some worksheets
- (12/43) jurisdictions submitted all worksheets

4.   **Project Schedule and Status**
- Risk Assessment Meeting – TBD
- Public Involvement – Ongoing
- Stakeholders – Ongoing
- Mitigation Strategy Workshop – TBD
- Draft Plan to Core Planning Team – April/May 2023
- Final Draft Plan to OEMA – June 2023
- Final Draft Plan to FEMA – August 2023

5.   **Review/Finalize Hazards of Concern Review**

6.   **Review/Finalize Goals and Objectives**

7.   **Public and Stakeholder Outreach**
- Strategy – press releases, social media posts, capture of miscellaneous outreach, HMP website
- Tracking

8.   **Next Steps/Questions**

Purpose of Meeting:	Steering Committee Meeting #2	
Location of Meeting:	Microsoft Teams	
Date/Time of Meeting:	February 9, 2023	

Attendees:	Heather Apgar – Tetra Tech Jessica Stokes – Tetra Tech Brian Rutherford – Tetra Tech Mark Vogler – Fort Bend Engineering, Chief Drainage Engineer Michael Wagner – Fort Bend County, Special Projects Coordinator Scott Wieghat – Fort Bend Roads and Bridges, Director Gregory Babst – Fort Bend HS&EM, Deputy Coordinator Carol Borrego – Fort Bend Community Development, Director Andrea James – Fort Bend HS&EM, Planning Coordinator Rick Staigle – Fort Bend Engineering, Assistant County Engineer Craig Kalkomey – Fort Bend County, Director of Fort Bend Utility Rodney Grimmer – Fort Bend HS&EM, Senior Planning Coordinator

Agenda Summary:	Participation status, project schedule and status, review/finalize hazards of concern, review/finalize goals and objectives, public and stakeholder outreach

Item No.	Description	Action By:
1.	**Welcome and Introductions**	--
2.	**In-Kind Tracking**	--
3.	**Participation Status** • (5/43) jurisdictions have not submitted any worksheets • (3/43) jurisdictions submitted some worksheets • (10/43) jurisdictions submitted all worksheets • (7/18) jurisdictions need to submit their LOIP	Tetra Tech • Will continue to reach out to jurisdictions to assist with Worksheet completion. • Will be sending out survey tomorrow (02/10) to collect input on critical facilities.
4.	**Project Schedule and Status** • Risk Assessment Meeting – 03/22/23 • Public Involvement/Stakeholders – Ongoing • Website up and running • Mitigation Strategy Workshop – 03/01/23 • Draft Plan to Core Planning Team – April/May 2023 • Final Draft Plan to TDEM – May/June 2023 • Final Draft Plan to FEMA – July/August 2023 • Plan Adoption – September/October 2023 • Stakeholder and Public surveys running by 02/10	Tetra Tech • Arrange meeting with Steering Committee to have separate meeting to finalize hazard ranking.
5.	**Review/Finalize Hazards of Concern Review** • Review polling results o Steering Committee is in agreement on 2023 Hazards of Concern, including addition of Pandemic/Disease Outbreak	--

6.	**Review/Finalize Goals and Objectives**
	• Review polling results
	    o Steering Committee is in agreement on 2023 updated goals
	    o Steering Committee is in agreement on 2023 objectives
		--

7.	**Public and Stakeholder Outreach** • Strategy – press releases, social media posts, capture of miscellaneous outreach, HMP website • Stakeholder and Public surveys running by 02/10 • Website up and running	Tetra Tech • Wrapping up surveys and sending to County by 02/10.
8.	**Next Steps/Questions** • Risk Assessment Meeting – 03/22/23 • Public Involvement/Stakeholders – Ongoing • Website up and running • Mitigation Strategy Workshop – 03/01/23 • Draft Plan to Core Planning Team – April/May 2023 • Final Draft Plan to TDEM – May/June 2023 • Final Draft Plan to FEMA – July/August 2023 • Plan Adoption – September/October 2023 • Stakeholder and Public surveys running by 02/10	County • Submit critical facilities survey responses by 02/21. Tetra Tech • Will send critical facilities survey by 02/10.
9.	**Conclusion** Call ended at 10:30 CST/11:30 EST	--

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Fort Bend County, TX Hazard Mitigation Plan – 2023 Update

Steering Committee Meeting – Goals, Objectives, and Hazards of Concern

February 9, 2023

Leading with Science®

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Agenda

- Participation Status
- Project Schedule and Status
- Review/Finalize Hazards of Concern Review
- Review/Finalize Goals and Objectives
- Public and Stakeholder Outreach
- Next Steps/Questions

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Participation Status

- Annex updates are in progress
- Homework Worksheets were sent out to all participating jurisdictions
  - The jurisdictions that have not yet submitted any worksheets can be found on the following slide
- Critical Facilities and Community Lifelines
  - Ongoing
  - We will be sending out a survey this week to collect input on the critical facilities

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Jurisdiction	Tt Assignment	LOIP	Worksheet A - Hazard Event History	Worksheet B - Cap. Ass.	Worksheet C - NFIP FPA	Worksheet D - Past Action Progress	Worksheet E - Building Permits
Fort Bend County	Brian/Heather	N/A					
Arcola (C)	Emily V.						
Beasley (C)	Emily V.	X	X	X	X	X	X
Fairchilds (V)	Emily V.		X	X			
Fulshear (C)	Emily V.	X	X	X	X	X	X
Katy (C)	Emily V.	City is not participating					
Kendleton (C)	Emily V.	X					
Meadows Place (C)	Chris H.	X	X	X	X	X	
Missouri City (C)	Chris H.	X	X	X	X	X	X
Needville (C)	Chris H.						
Orchard (C)	Chris H.	X					

Jurisdiction	Tt Assignment	LOIP	Worksheet A - Hazard Event History	Worksheet B - Cap. Ass.	Worksheet C - NFIP FPA	Worksheet D - Past Action Progress	Worksheet E - Building Permits
Pearland (C)	Chris H.	City is not participating - County to confirm					
Pleak (V)	Chris H.	X	X	X	X	X	X
Richmond (C)	Mike F.	X	X	X	X	X	X
Rosenberg (C)	Mike F.		X	X	X	X	X
Simonton (C)	Erika C.	X	X	X	X	X	X
Stafford (C)	Erika C.	X	X	X	X	X	X
Sugar Land (C)	Heather/Brian	X	X	X	X	X	X
Thompsons (C)	Erika C.		X	X	X	X	X
Weston Lakes (C)	Erika C.		X	X	X	X	X

Schedule – Overview and Milestones

- Planning Process - ongoing
- Steering Committee Meeting #2 – **TODAY!**
- Risk Assessment Meeting – **March 22, 2023**
  - Does the Steering Committee want a separate meeting to finalize the ranking for the County?
- Update Risk Assessment – **Ongoing**
- Mitigation Strategy Workshop – **March 1, 2023**
- Review Hazards of Concern – **Today!**
- Goals and Objectives – **Today!**

- Public Involvement – **Ongoing**
  - Inform public of HMP and HMP website via social media and local websites
  - https://www.fortbendcountytxhmp.com/
- Stakeholders – **Ongoing**
  - Need to finalize the list of stakeholders and send out survey
- Draft Plan to Steering Committee – **April/May 2023**
- Final Draft Plan to TDEM – **May/June 2023**
- Final Draft Plan to TDEM – **July/August 2023**

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Project Status

Data Collection – In Progress	Risk Assessment - In Progress	Public Involvement - Ongoing	Mitigation Strategy
• Plan Collection – In progress • General Building Stock – Update in Progress • Critical Facility Inventory – Update In Progress	• Hazard Profile Drafts – In progress • Vulnerability Assessment – In progress • Risk Assessment Meeting – **3/22/23**	• Social Media Posts • Public Survey • Stakeholder Surveys • Public Outreach –Tetra Tech to provide materials	• Confirm Goals And Objectives – Today! • Confirm Hazards of Concern – Today! • Municipal Annex Updates - In Progress • Mitigation Workshop – **3/1/23** • Develop Mitigation Strategy – Pending • We will need to have a meeting with the SC to identify new actions

Phase 1 — Organize the Resources | Phase 2 — Risk Assessment | Phase 3 — Public Involvement Strategy | Phase 4 — Update Mitigation Strategy | Phase 5 — Update Maintenance Strategy | Phase 6 — Assemble the Plan | Phase 7 — Plan Review and Adoption | Phase 8 — Project Management

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3

Update Risk Assessment

- Update assets
- Examine previous impacts
- Analyze risks
- Review with Steering Committee and Planning Partnership
- Risk assessment meeting

NATURAL HAZARDS
Location
Extent (Magnitude/Strength)
Previous Occurrences
Future Probability

RISK

COMMUNITY ASSETS
Population
Built Environment
Natural Environment
Economy

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2018 Hazards of Concern

- Dam/Levee Failure
- Drought
- Expansive Soils
- Extreme Heat
- Floods
- Hailstorms
- Hurricanes/Tropical Storms
- Land Subsidence
- Lightning
- Tornadoes
- Wildfires
- Windstorms
- Severe Winter Storms

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2023 Potential Hazards of Concern

- Dam/Levee Failure
- Drought
- Extreme Temperature (heat/cold)
- Flood (Riverine/Flash/Stormwater)
- Geologic Hazards (expansive soils, subsidence)
- Hurricane/Tropical Storm
- Pandemic/Disease Outbreak
- Severe Weather

(Lighting/Hail/Wind/Derechos)
- Tornado
- Wildfire
- Winter Weather

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Hazards of Concern – Survey Input

- Dam/Levee Failure
- Disease Outbreak
- Drought
- Extreme Temperature (heat/cold)
- Flood (Riverine/Flash/Stormwater)
- Geologic Hazards (expansive soils, subsidence)
- Hurricane/Tropical Storm
- Severe Weather (Lighting/Hail/Wind/Derechos)
- Tornado
- Wildfire
- Winter Weather

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Hazards of Concern

- Are there any new or additional natural hazards that should be considered for the plan update?
  - Climate Change – will be incorporated throughout the HMP to meet FEMA requirements
  - Vectors (Mosquitos)
  - Urban heat island
  - Utility outages – will be incorporated into profiles where appropriate
  - Secondary impacts – will be incorporated in each hazard profile

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Mitigation Strategy

- Goals
  - What outcomes do you want to achieve?
- Actions
  - What specific actions will be taken to reduce risk from hazards?
- Action Plan
  - How will the actions be prioritized and implemented?

Goals

Actions

Action Plan

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Goals and Objectives – Review and Update

Goal Number	Goal	Modify, Add, or Remove?
1	Educate and inform citizens regarding potential emergency situations related to natural hazards., including those resulting from groundwater depletion.	
2	Decrease the risk to life and property from hazards through planning, preparing and mitigating.	
3	Performing projects that reduce the impact of natural hazards in order to increase resiliency and enhance the ability to recover.	
4	Enhance coordination between local, county, state, and federal agencies by understanding the impact of hazards in Fort Bend County and developing policies and strategies to effectively manage and reduce risk.	
5	Support continuity of operations pre-, during, and post- hazard events including the support of community lifelines and critical facilities.	

Goal: Minimize new development in hazard-prone areas

Objectives: Reduce the number of vulnerable structures in flood hazard areas.

Actions: Amend zoning ordinance to permit only open space and uses within floodplains.

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Goals and Objectives Review and Update

Objective Number	Objectives
1	Evaluate and improve safety & loss reduction codes/standards for hazards that affect Fort Bend County and its municipalities.
2	Develop and strengthen public/private partnerships between the County, non-profits, and the business community.
3	Identify funding sources and increase awareness of funding sources to obtain funding for mitigation projects from a variety of federal, state, regional and local entities.
4	Promote sustainable communities and hazard resilient development.
5	Promote the use of emergency notification systems and weather alert systems for all hazards.
6	Develop publications and information on all hazards that could potentially impact Fort Bend County.
7	Incorporate hazard mitigation into community planning mechanisms, codes/ordinances, day-to-day operations, and projects.
8	Identify, protect, and assist socially vulnerable populations recover from hazard impacts.
9	Ensure continuity of operations of government, non-government, commerce, private sector, non-profit, and infrastructure.
10	Implement mitigation measures that promote the reliability of community lifeline systems.

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Public and Stakeholder Outreach

- Social Media Posts
- Press Release
- HMP website –
  https://www.fortbendcountytxhmp.com/
- Planning Team meetings open to the public and stakeholders
- Stakeholder Survey
- Public Survey
- Neighboring County Outreach
  - Notified of the planning process
  - Survey

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Next Steps/Schedule

- **Planning Process**
  - Steering Committee Meeting #2 – **TODAY!**
- **Update Risk Assessment**
  - Data collection is underway; confirm building and critical facility inventory
  - Discuss risk assessment results – **March 22nd**
- **Public and Stakeholder Outreach**
  - Ongoing throughout the planning process
- **Capability Assessment**
  - Currently working on reviewing plans, studies, codes, and ordinances

- **Mitigation Strategy**
  - Continue working with municipalities
  - Mitigation Strategy Workshop with FEMA and State – **March 1st**
- **Plan Maintenance**
  - Utilizing the BATool to review/update actions from 2023 HMP
  - Finalize plan maintenance procedures
- **Develop Plan**
  - Draft Plan to SC – **April/May 2023**
  - Draft to TDEM – **May/June 2023**
  - Draft to FEMA – **July/August 2023**
  - Adoption – **September/October 2023**

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Fort Bend County Project Contacts

Greg Babst, Emergency Management Coordinator
(281) 238-3428 | Gregory.Babst@fortbendcountytx.gov

Tetra Tech Project Contacts

Brian Rutherford, Project Manager
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Heather Apgar, Lead Planner
(973) 630-8046 | heather.apgar@tetratech.com

Thank You!

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1) Welcome
2) Progress Report
   - Participation Status
   - Next steps in updating annexes

3) Public and Stakeholder Outreach
   - Strategy – press releases, social media posts, capture of miscellaneous outreach, HMP website
   - Tracking

4) Risk Assessment
   - What is risk?
   - Process
   - Preliminary results

5) Identifying Mitigation Strategies
   - How do you reduce risk?
   - Identifying mitigations actions and strategies
   - Complete one form for every action - https://forms.office.com/r/skApygNAJZ

6) Schedule

7) Questions / Wrap-Up

Today's Agenda

1. Welcome
2. Progress Report
3. Public and Stakeholder Outreach
4. Risk Assessment Overview
5. Identifying Mitigation Strategies
6. Schedule
7. Questions/Next Steps/Wrap Up

Project Schedule

✓ November 9, 2022   Steering Committee Kick-Off Meeting

✓ November 19, 2022   Municipal Kick-Off Meeting

✓ November – February   Data Collection and Update Hazard Profiles

✓ February 9, 2023   Steering Committee Meeting #2 (Goals and Objectives)

✓ March 29, 2023 – TODAY!   Risk Assessment Presentation and Identifying Mitigation Actions

☐ April 2023   Update and Finalize Jurisdictional Annexes

☐ May 2023 (tentative)   Public Review Period

☐ May-June 2023 (tentative)   Submit Plan to TDEM and FEMA

☐ July-August 2023 (tentative)   APA

TETRA TECH

Participation Status

- Annex updates are in progress

- Next round of worksheets (online forms) will go out in the next week
  - Feedback on hazard ranking
  - Mitigation actions

- If your municipality is highlighted, we are missing information for your annex

- Fort Bend County
- Arcola (C)
- Beasley (C)
- **Fairchilds (V)**
- Fulshear (C)
- Katy (C) – not participating
- **Kendleton (C)**
- **Meadows Place (C)**
- Missouri City (C)
- **Needville (C)**
- **Orchard (C)**
- Pearland (C) – not participating
- Pleak (V)
- Richmond (C)
- Rosenberg (C)
- Simonton (C)
- Stafford (C)
- Sugar Land (C)
- Thompsons (C)
- Weston Lakes (C)

Public and Stakeholder Outreach

- Public Outreach Toolkit
  - Social media templates and posts
  - Press release templates
  - Printable materials

- Surveys
  - Stakeholders
  - Neighboring communities
  - Public

- County Project Website

- Thank you to everyone for helping with this!

Sign Up for District Alerts!

HOME   CONSTRUCTION   EMERGENCY OPS   MEETINGS   RESOURCE CENTER   CONTACT

Hazard Mitigation Plan
March 23, 2023 by FBCLID 2

Fort Bend County is updating its Hazard Mitigation Plan.

Fort Bend County Levee Improvement District No. 2 is participating in the County's plan and are looking for your input! If you live or work in Fort Bend County, we would appreciate your contribution to help us better understand the hazards that impact you and your community.

Take a few minutes to complete the survey:
https://www.surveymonkey.com/r/FortBendHMPPublic

- Fort Bend County Hazard Mitigation Action Plan

Fort Bend County Hazard Mitigation Plan 2023 Update

Fort Bend County and participating jurisdictions are updating the countywide Hazard Mitigation Plan. The goal of this plan is to identify projects that can reduce damages from future hazards and make the County more resilient.

As part of the planning process, we are looking for your input on what hazards affect you most and what the County can do to reduce hazard impacts.

Live or work in Fort Bend County? Take our survey!

https://www.surveymonkey.com/r/FortBendHMPPublic

Upcoming Meetings
Wednesday, April 26, 2023 at 8:30 AM

Join Microsoft Teams Meeting
+1 346-708-3424
United States, Houston (Toll)
(888) 465-4424
United States (Toll-free)
Conference ID: 210 506 39##

The Board generally meets on the third Wednesday at 8:30 AM. Please check agenda for meeting location.

Quick Links
FBCLID 2 Rain and Stream Gauges
Brazos River Level Gauge
Financial & Tax Information
Landowner's Bill of Rights and Condemnation Procedures
Pay Tax Bill

ADA Notice
For persons with questions or needing help regarding website accessibility, or to request the provided information in alternative formats, please call (713) 980-6400.

Weston Lakes, TX · Follow
21h

Fort Bend County Hazard Mitigation Plan 2023 Update

Fort Bend County and participating jurisdictions are updating the countywide Hazard Mitigation Plan. The goal of this plan is to identify projects that can reduce damages from future hazards and make the County more resilient.

As part of the planning process, we are looking for your input on what hazards affect you most and what the County can do to reduce hazard impacts.

Live or work in Fort Bend County? Take our survey!

https://www.surveymonkey.com/r/FortBendHMPPublic

For more information about this process, please contact:
Greg Babst, HS&EM Interim Director
Gregory.Babst@fortbendcountytx.gov

LIFE EXTENSION
Texas A&M System

THE STATE OF TEXAS · FORT BEND COUNTY

FORT BEND COUNTY HAZARD MITIGATION ACTION PLAN UPDATE

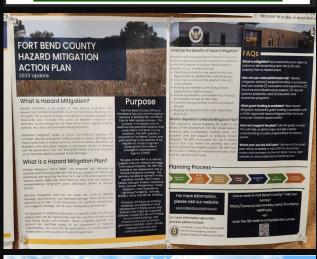Complete the Fort Bend County Hazard Mitigation Plan Survey today. **Your opinion matters!**

Find out more on our website – https://www.fortbendcountytxhmp.com/

FORT BEND COUNTY HAZARD MITIGATION ACTION PLAN 2023 Update

What is Hazard Mitigation?

Purpose

What is a Hazard Mitigation Plan?

Planning Process

What are the benefits of Hazard Mitigation?

FAQs

Fort Bend County Office of Emergency Management · Follow

Is your family storm-ready? Have ideas for making Fort Bend County more resilient to disasters? Let us know! We are updating the County's Hazard Mitigation Plan and are looking for your involvement to help us update the HMP. Take a few minutes to complete the survey: https://www.surveymonkey.com/r/FortBendHMPPublic

Fort Bend County Hazard Mitigation Plan 2023 Update

Fort Bend County and participating jurisdictions are updating the countywide Hazard Mitigation Plan. The goal of this plan is to identify projects that can reduce damages from future hazards and make the County more resilient.

As part of the planning process, we are looking for your input on what hazards affect you most and what the County can do to reduce hazard impacts.

Live or work in Fort Bend County? Take our survey!

https://www.surveymonkey.com/r/FortBendHMPPublic

For more information about this process, please contact:
Greg Babst, HS&EM Interim Director
Gregory.Babst@fortbendcountytx.gov

FORT BEND COUNTY MITIGATION PLAN PUBLIC SURVEY

FORT BEND COUNTY IS SEEKING INPUT FOR THE 2023 HAZARD MITIGATION ACTION PLAN. THE PLAN WILL ADDRESS THE COUNTY'S RISKS POSED BY HAZARDS AND IDENTIFY SPECIFIC STRATEGIES TO HELP REDUCE OR ELIMINATE RISKS.

TAKE THE SURVEY TODAY

https://www.surveymonkey.com/r/FortBendHMPPublic

Fort Bend County, TX
Hazard Mitigation Action Plan 2023 Update

Home   About   What's Mitigation?   Calendar   Meetings   Explore the Plan   Websites

Welcome to the Fort Bend County Hazard Mitigation Action Plan (HMP) Website. This website provides project updates, resources, and links to hazard mitigation in support of the HMP update.

The project aims to save lives and property by reducing hazard vulnerability for Fort Bend County and participating jurisdictions. During the course of this planning project, county and local leaders and the community will work in tandem to identify risks, assess capabilities, and formulate a strategy to reduce disaster vulnerability.

Public participation and feedback are vital parts of the hazard mitigation planning process. The Fort Bend County HMP Steering Committee has developed a Mitigation Survey to assist in providing the public an outlet to contribute to the HMP update. This survey will be used to create portions of the HMP.

Please keep checking back regularly for information on upcoming events, to take our public survey, and to review and comment on the draft plan. If you would like to get in touch with the project team, please fill out the form at the end of the page and someone will be in touch shortly.

FORT BEND COUNTY HAZARD MITIGATION ACTION PLAN UPDATE
LIVE OR WORK IN THE COUNTY? WE NEED YOUR HELP!
CLICK HERE TO TAKE THE PUBLIC SURVEY

FORT BEND COUNTY HAZARD MITIGATION ACTION PLAN UPDATE
REPRESENT AN ORGANIZATION OR GROUP THAT WORKS IN THE COUNTY? WE NEED YOUR HELP!
CLICK HERE TO TAKE THE SURVEY

Upcoming Meetings
Events in March 2023–February 2024

FORT BEND COUNTY HAZARD MITIGATION ACTION PLAN 2023 UPDATE

YOUR INPUT IS NEEDED TO HELP REDUCE LOSSES FROM DISASTERS

VISIT THE HAZARD MITIGATION WEBSITE TO LEARN MORE

https://www.fortbendcountytxhmp.com

FORT BEND COUNTY HAZARD MITIGATION ACTION PLAN
2023 Update

What is Hazard Mitigation?   Purpose
What is a Hazard Mitigation Plan?   FAQs
Planning Process

Risk Assessment

How are the rankings calculated?
What is the preliminary ranking?

2023 Hazards of Concern

- Dam/Levee Failure
- Disease Outbreak
- Drought
- Extreme Temperature (heat/cold)
- Flood (Riverine/Flash/Stormwater)
- Geologic Hazards (expansive soils, erosion)
- Hurricane/Tropical Storm

- Severe Weather (Lighting/Hail/ Wind/Derechos)
- Tornado
- Wildfire
- Winter Weather

What is Risk?

- ✓ Hazard
  - Something that has the potential to cause damage

- ✓ Exposure
  - People, property and infrastructure located in hazard-prone areas

- ✓ Vulnerability
  - Characteristics of community assets that make them susceptible to damages from the hazard

- ✓ Risk
  - Probability of damages to people, property, and infrastructure

HAZARD + EXPOSURE = RISK

LIGHTNING

Lightning is a hazard

Standing under a tree during a thunderstorm is a risk

Purpose of the Risk Assessment

- To get a better understanding of the risks you face
- Initial results based on available data
- Quantitative data (population/structures exposed, structural damages within hazard zones) used when available
- Qualitative community input (such as unmapped flood areas) integrated to adjust results
- Local community input to adjust relative rankings

TETRA TECH

Spatial Hazard Data

County Specific Building Data

Scientific Modeling (HAZUS v5 & ArcGIS)

Historic Data

Comprehensive List of Expected Damages ($$$)

Preliminary Hazard Ranking Formula

TETRA TECH

Impact to Population
Impact to Property
Impact to Economy

Local community input to adjust preliminary rankings

Probability of Occurrence (30%) **+** Impacts (30%) **+** Adaptive Capacity (30%) **+** Climate Change (10%) **→** Preliminary Hazard Ranking

How did we measure impact?

TETRA TECH

Probability of Occurring

→ **Unlikely** - not likely to occur or less than 1% annual chance of occurring

→ **Rare** - between 1 and 10% annual chance of occurring

→ **Occasional** - between 10 and 100% annual chance of occurring

→ **Frequent** - 100% chance occurring; occurs multiple times a year

→ **Low** - <15% exposed
→ **Medium** - 15-29% exposed
→ **High** - >30% exposed

→ **Low** - <15% exposed
→ **Medium** - 15-29% exposed
→ **High** - >30% exposed

→ **Low** - <9% exposed
→ **Medium** – 10-19% exposed
→ **High** - >20% exposed
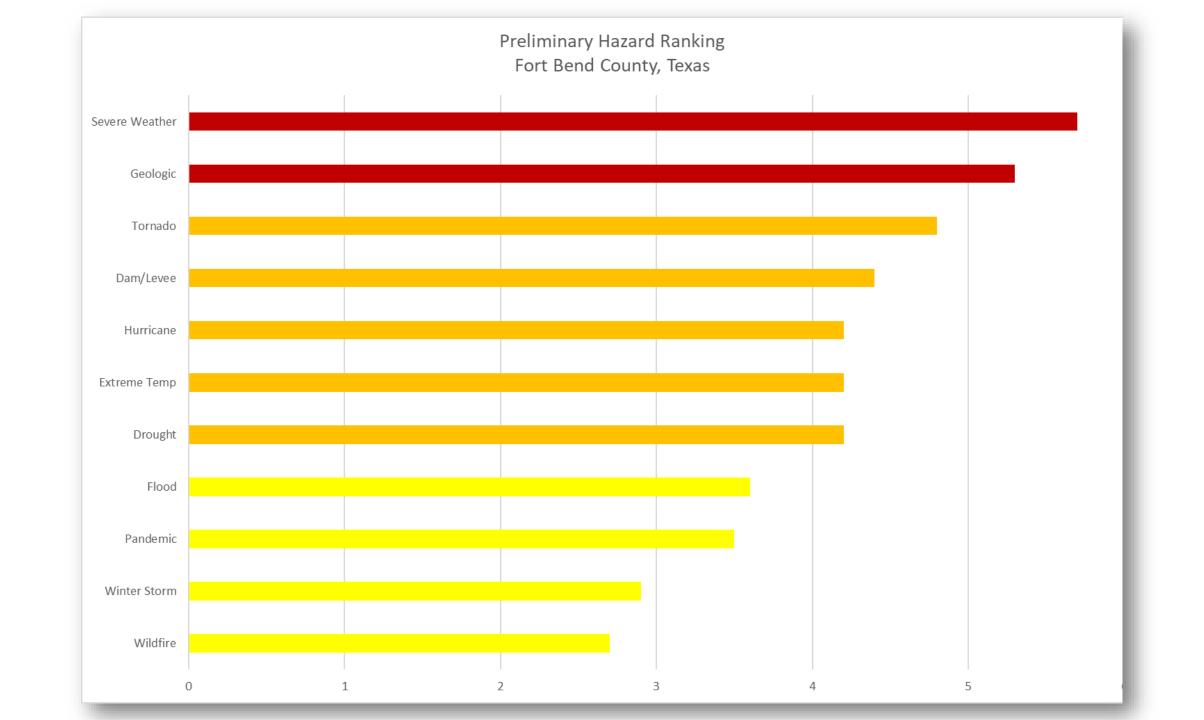
How did we measure impact?

Capacity

→ **Low** (-1) - Weak/outdated/inconsistent plans, policies, codes/ordinances in place; no redundancies; limited to no deployable resources; limited capabilities to respond; long recovery.

→ **Medium** (0) - Plans, policies, codes/ordinances in place and meet minimum requirements; mitigation strategies identified but not implemented on a widespread scale; county/jurisdiction can recover but needs outside resources; moderate county/jurisdiction capabilities.

→ **High** (1) - Plans, policies, codes/ordinances in place and exceed minimum requirements; mitigation/protective measures in place; county/jurisdiction has ability to recover quickly because resources are readily available, and capabilities are high.

Climate Change

→ **Low** (1) - No local data is available; modeling projects are uncertain on whether there is increased future risk; confidence level is low (inconclusive evidence).

→ **Medium** (2) - Studies and modeling projections indicate a potential for exacerbated conditions due to climate change; confidence level is medium to high (suggestive to moderate evidence).

→ **High** (3) - Studies and modeling projections indicate exacerbated conditions/increased future risk due to climate change; very high confidence level (strong evidence, well-documented and acceptable methods).

Preliminary Hazard Ranking
Fort Bend County, Texas

Hazard	Value
Severe Weather	~5.7
Geologic	~5.3
Tornado	~4.8
Dam/Levee	~4.4
Hurricane	~4.2
Extreme Temp	~4.2
Drought	~4.2
Flood	~3.6
Pandemic	~3.5
Winter Storm	~2.9
Wildfire	~2.7

Preliminary Hazard Ranking

TETRA TECH

Jurisdictions	Hazard Ranking											
	Dam/Levee	Drought	Extreme Temp	Flood	Geologic (Erosion)	Geologic (Expansive Soils)	Hurricane	Pandemic	Severe Weather	Tornado	Winter Storm	Wildfire
Arcola (C)	Low	Low	Low	Low	Low	High	Medium	Low	High	Medium	Low	Low
Beasley (C)	Low	Medium	Medium	Low	Low	High	Medium	Low	High	Medium	Low	Low
Fairchilds (V)	Medium	Medium	Medium	High	Low	High	Medium	Low	High	Medium	Low	Low
Fulshear (C)	Low	Low	Low	Low	High	Low	Medium	Low	High	Medium	Low	Low
Kendleton (C)	Medium	Medium	Medium	Low	Low	High	Medium	Low	High	Medium	Low	Low
Meadows Place (C)	Low	Medium	Medium	Low	Low	High	Medium	Low	High	Medium	Low	Low
Missouri City (C)	Medium	Medium	Medium	Low	Medium	High	Medium	Low	High	Medium	Low	Low
Needville (C)	Medium	Medium	Medium	Low	High	Medium	Medium	Low	High	Medium	Low	Low
Orchard (C)	Low	Medium	Medium	Low	Low	Medium	Medium	Medium	High	Medium	Low	Low
Pleak (V)	Low	Low	Low	Low	High	High	Medium	Low	High	Medium	Low	Low
Richmond (C)	Medium	Medium	Medium	Low	Low	High	Medium	Low	High	Medium	Low	Low
Thompsons (T)	Medium	Low	Low	High	High	High	Medium	Low	High	Medium	Low	Low
Weston Lakes (C)	Low	Low	Low	Low	High	High	Medium	Low	High	Medium	Low	Low
Fort Bend County	**Medium**	**Medium**	**Medium**	**Low**	**High**	**High**	**Medium**	**Low**	**High**	**Medium**	**Low**	**Low**

Dam/Levee Failure

- Number of dams
  - 20 dams (USACE) – none identified as high hazard
- Number of levees
  - 12 levee systems (USACE); majority used for flood risk reduction
- No reported failures or incidents
  - Any events we should include?
- Potential mitigation actions

Preliminary Hazard Ranking
MEDIUM

Disease Outbreak/Pandemic

- Previous Events –
  - Looked at COVID-19, Influenza, and West Nile Virus

- Exposure –
  - Entire county exposed and vulnerable; however, not occurring multiple times a year
  - Severe events can lead to staffing and bed shortages in hospitals

- Potential mitigation actions

Preliminary Hazard Ranking
LOW

TETRA TECH

Drought

- Previous Events –
  - Between 1996 and 2022, 13 events reported; however, this may not represent all drought events

- Exposure –
  - Entire county exposed and vulnerable
  - Increased risk to vulnerable populations (65+ / <5)

- Potential Impacts –
  - Increase wildfire/brush fire risk
  - Impacts to farms
  - Drinking water supply

- Potential mitigation actions

Preliminary Hazard Ranking
MEDIUM

Extreme Temperature (heat/cold)

- Previous Events –
  - Looked at both hot and cold events
  - Between 1999 and 2022, 9 events reported; however, this may not represent all events

- Exposure –
  - Entire county exposed and vulnerable
  - Increased risk to vulnerable populations (65+ / <5)

- Potential Impacts –
  - Increase wildfire/brush fire risk
  - Impacts to farms
  - Long periods of warm temperatures can lead to drought conditions

- Potential mitigation actions

Preliminary Hazard Ranking

MEDIUM

TETRA TECH

Flood (Riverine, Flash, Stormwater)

Preliminary Hazard Ranking
LOW

- Previous Events –
  - Looked at riverine, flash, and stormwater flooding
  - Between 1997 and 2022, 58 events reported; however, this may not represent all events
    - $8 billion in property damage

- Exposure –
  - 17,793 people living in the 1% SFHA (2.2% of total population)
  - 26% of land located in 1% SFHA
  - 20% of community lifelines in 1% SFHA

- Potential mitigation actions

Geological Hazards

- Expansive Soils
  - Little to no information on incidents in the County
  - Exposure – assets located in areas with >6% extensibility (shrink-swell potential of soils) – high is anything over 6%
- Potential mitigation actions

Preliminary Hazard Ranking
HIGH

Expansive Soils Hazard Area
- Linear Extensibility >6%
- County
- U.S.
- State
- Toll
- County Road
- Railroad

Data Sources: U.S. Geological Survey, National Geospatial Program 2022; Texas Department of Transportation 2022; U.S. Department of Agriculture, Natural Resources Conservation Service 2022
Notes: City (C), Township (T), Village (V)

Geological Hazards

- Erosion
  - Previous events – any events we can include in our profile?
  - Exposure – assets located in areas with K-factor >0.49

- Potential mitigation actions

Preliminary Hazard Ranking **HIGH**

Hurricane/Tropical Storm

Preliminary Hazard Ranking
MEDIUM

- Previous events –
  - 36 storms recorded within 60 miles of Fort Bend County
  - 12 FEMA declarations

- Exposure –
  - Assets exposed to 100-year peak wind gusts (Cat 2 and 3-level winds)

- Potential Impacts –
  - Power outages
  - Infrastructure damage

- Potential mitigation actions

Severe Weather (Lightning, Hail, Wind, Derechos)

- Previous events –
    - Over 200 severe weather events; $7.8 million in damages
    - 3 FEMA declarations
- Exposure –
    - All assets exposed
- Potential Impacts –
    - Power outages
    - Infrastructure damage
- Potential mitigation actions

Preliminary Hazard Ranking

HIGH

TETRA TECH

Tornado

- Previous events –
  - 74 tornadoes since 1950; over $15 million in damages
- Exposure –
  - All assets exposed
- Potential Impacts –
  - Power outages
  - Infrastructure damage
- Potential mitigation actions

Preliminary Hazard Ranking

MEDIUM

TETRA TECH

Wildfire

- Previous events –
  - Most fire occurred on November 24, 2020 in Needville
  - 3 FEMA declarations – wildfire threat (1999 and 2006) and Lake Olympia Fire (2006)
  - Any other events we should include?

- Exposure –
  - Assets located in Moderate Threat areas

- Potential mitigation actions

Preliminary Hazard Ranking

LOW

Legend

Wildfire Hazard Area
- Low Threat
- Moderate Threat
- County Boundary
- Interstate
- U.S. Highway
- State Highway
- Toll Road
- County Road
- Railroad
- Waterbody

Data Sources: U.S. Geological Survey, National Geospatial Program 2022; Texas Department of Transportation 2022; Texas A&M Forest Service 2022
Notes: City (C), Township (T), Village (V)

Winter Weather

- Previous events –
  - 9 events since 1997 with most recent storm in February 2022
  - 2 FEMA declarations (2021 and 2022)
- Exposure –
  - All assets exposed; vulnerable populations at higher risk
- Potential Impacts –
  - Power outages
  - No heat
- Potential mitigation actions

Preliminary Hazard Ranking

LOW

Mitigation Strategy

How do you reduce risk?

- How do you reduce risk for a hazard?
    - **Manipulate the Hazard**
        - Structural flood control (e.g., flood walls, levees)
    - **Reduce/Eliminate Exposure**
        - Acquire floodprone properties
    - **Reduce Vulnerability**
        - Retrofit (e.g., floodproofing structures)
    - **Increase Capability**
        - $, preparation, technical assistance, planning enforcement

Using Your Mitigation Strategy to Reduce Risk

TETRA TECH

- What is a *Mitigation Strategy*?
  - A group of projects or actions to reduce the impacts of the hazards of concern on your community
    — Plans and Regulations

    — Structure and Infrastructure Studies and Projects

    — Natural Systems Protection Studies and Projects

    — Education and Awareness Programs

- Terms to describe the Mitigation Strategy include:
  - **Mitigation Action Plan** or **Action Plan**
  - **Mitigation Projects** or **Initiatives** or **Actions**

Your Mitigation Strategy table is included in your annex. We will use action worksheets and online forms to collect details on the actions you will include in the 2023 Update.

Requirements for the Mitigation Strategy Update

- TDEM and FEMA would like to see more creative/big projects that would work well under the BRIC grant program

- 2018 projects
  - If a project is not finished and still a priority, include in 2023 HMP
  - Remove general projects or make more specific
  - Remove routine maintenance
  - Remove ongoing capabilities

- Minimum of 2 mitigation actions for EACH hazard of concern
  - One action can cover multiple hazards and jurisdictions. For example, education program on mitigation technics you can implement – applies to all hazards and all jurisdictions.

Other Mitigation Actions to Consider

- Local Disaster Debris Management Plans
- Substantial Damage Management Plan
- Actions to address high-hazard or significant-hazard dams
- Public education and outreach programs
- Generators at critical facilities and community lifelines
- Floodproofing critical facilities and community lifelines
- Addressing repetitive and severe repetitive loss properties

Connecting to the Mitigation Strategy

- Need a clear connection between vulnerability and proposed mitigation actions.
- Capability assessment provides insight into challenges and opportunities for the mitigation strategy.
- Provides the factual basis for activities proposed in the mitigation strategy.

Capability Assessment

Hazards of Concern

Risk Assessment

Problem Areas in Community

Mitigation Strategy

Where do you need to focus?

- Stronger connection between the risk assessment and mitigation strategy

- More specific, achievable actions
  - Specific projects, in specific locations, in a specific timeframe

- Diverse actions
  - You need at least 2 actions per hazard of concern. Think about actions that can cover multiple hazards.
  - Include a variety of action types (e.g., developing plans, outreach, structural, etc.)

Where do you start?

TETRA TECH

- **Problems –**
  - Turn challenges/obstacles/gaps into mitigation actions
  - Examine historic impacts
  - Review the risk and capability assessment results
  - RL/SRL properties
  - Stormwater/urban flooding areas
  - Critical facilities and lifelines located in a hazard area (if feasible)
  - Additional areas of vulnerability

  - Previous FEMA HMA submitted projects – awarded/unawarded

- Include 'carry-over' actions from the 2018 HMP
  - More specific or address different aspects of the original problem

- Identify new actions

- Two actions for every hazard of concern

Range of Mitigation Actions

- Primary types of mitigation actions to reduce long-term vulnerabilities include:

Local Plans and Regulations
- Substantial Damage Management Plans
- Update comprehensive plans to include hazard mitigation
- Open space plan
- Debris management plan

Structural Projects
- Structural elevations of flood-prone properties
- Drainage improvements
- Stormwater improvements
- Backup power to critical facilities and community lifelines

Natural Systems Protection
- Stream and wetland restoration
- Erosion control
- Vegetative management to help with flooding, erosion, etc.
- Water quality improvement

Education and Outreach
- Developing and implementing multi-hazard public awareness programs
- Enhancing municipal website to include hazard mitigation and preparedness
- Real estate disclosure for flooding and other hazards
- Working with the private sector to enhance hazard awareness

Proposed Action Table

- Each municipality will need to complete the *Proposed Hazard Mitigation Initiatives* table in your annex

- Each column needs to be filled in. Tetra Tech will assist you with completing each cell.

- Action Worksheets will need to be completed for all projects.
  - Online form

Initiative Number	Mitigation Initiative Name	Description of the Problem and Solution	New or Existing Assets?	Hazard(s) to be Mitigated	Goals Met
2021-Your Town-001	Repetitive Loss Property Outreach	Problem: There are 100 repetitive loss properties located in the City. According to NFIP claims records, these properties have experienced extensive flood damage through the years. Without proper mitigation, the structures will continue to experience flood damages. Solution: Conduct outreach to the property owners to inform them of their repetitive loss designation and provide mitigation options to protect the structures. If the property owners choose elevation or acquisition, the City will develop a grant application to fund acquisitions or elevations of the properties.	Existing	Flood, Severe Storm, Hurricanes/ Tropical Storms	All

Lead and Support Agencies	Potential Funding Sources	Estimated Benefits	Estimated Cost	Timeline	Priority	Mitigation Category
City Floodplain Administrator, Property Owner	Borough Budget for outreach; FEMA FMA or HMGP for mitigation measures	Increase resilience of structure and City; decrease flood damages	<$10,000 for outreach; mitigation costs vary depending on project	One year for outreach; 5 years for mitigation measures	High	EAP, SIP

Next Steps / Upcoming Schedule

- Complete worksheets – to be distributed via email – due December 7th

- Mitigation Strategy Workshop – early February (tentatively)

- Risk Assessment Meeting – late March (tentatively)

- Public Review Period – April 2023 (tentatively)

- Draft Plan to TDEM – April 2023 (tentatively)

- Final Draft to FEMA – May 2023 (tentatively)

- APA – June 2023 (tentatively)

Questions?

Fort Bend County Project Contacts

Greg Babst, Deputy Emergency Management Coordinator
(281) 238-3428 | Gregory.Babst@fortbendcountytx.gov

Tetra Tech Project Contacts

Brian Rutherford, Project Manager
(281) 414-6741 | brian.rutherford@tetratech.com

Heather Apgar, Lead Planner
(973) 630-8046 | heather.apgar@tetratech.com

Thank You!

Fort Bend County
Hazard Mitigation Action
Plan
2023 Update

Steering Committee Meeting #4
Plan Maintenance & Mitigation
Actions
May 30, 2023 | 1:00 pm

If you are joining virtually, please enter your name and department/agency in the chat.

1

Today's Agenda

1. Welcome
2. Progress Report
3. Public and Stakeholder Outreach
4. Maintaining the 2023 HMP
5. Identifying Mitigation Strategies
6. Schedule
7. Questions/Next Steps/Wrap Up

2

Project Schedule

✓	November 2022	Kick-Off Meetings
✓	November – February	Data Collection and Update Hazard Profiles
✓	February 9, 2023	Steering Committee Meeting #2 (Goals and Objectives)
✓	March 29, 2023	Risk Assessment Presentation and Identifying Mitigation Actions
☐	June 7, 2023	Mitigation actions due (County)
☐	June 9, 2023	Draft sections (Volume I) available for Steering Committee Review (OneDrive)
☐	June 16, 2023	All input from Steering Committee and Planning Partnership due
☐	June 19-July 3, 2023	Public Review Period
☐	June 19, 2023	Draft Plan Presentation (virtual) – confirm date
☐	July 7, 2023 (tentative)	Submit Plan to TDEM
☐	August 21, 2023 (tentative)	Submit Plan to FEMA
☐	October 5, 2023 (tentative)	APA

Fort Bend County Hazard Mitigation Action Plan Update

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Jurisdiction	Mitigation Actions	Notes
Fort Bend County	NEED ACTIONS	Need to identify mitigation actions for the County and for the LIDs
Arcola (C)	X	No input on actions received to date; Tt developed actions for the city; annex will be sent to city on 5/30/23
Beasley (C)	X	Received actions; Tt developed additional actions to meet the two actions/hazard requirement; annex will be sent to city on 5/30/23
Fairchilds (V)	X	Received actions; Tt developed additional actions to meet the two actions/hazard requirement; annex will be sent to village on 5/30/23
Fulshear (C)	X	Received actions; Tt developed additional actions to meet the two actions/hazard requirement; annex will be sent to city on 5/30/23
Katy (C)	Not Participating	
Kendleton (C)	X	Annex will be sent to city on 5/30/23
Meadows Place (C)	X	Received actions; Tt developed additional actions to meet the two actions/hazard requirement; annex will be sent to village on 5/30/23
Missouri City (C)	X	Annex will be sent to city on 5/30/23
Needville (C)	X	Received actions; Tt developed additional actions to meet the two actions/hazard requirement; annex will be sent to village on 5/30/23
Orchard (C)	X	Received actions; Tt developed additional actions to meet the two actions/hazard requirement; annex will be sent to village on 5/30/23
Pearland (C)	Not Participating	
Pleak (V)	X	Received actions; Tt developed additional actions to meet the two actions/hazard requirement; annex will be sent to village on 5/30/23
Richmond (C)	X	Received actions; need to identify two actions for disease outbreak/pandemic
Rosenberg (C)	X	Received actions; need to identify two actions for disease outbreak/pandemic
Simonton (C)	X	Received actions; need to identify two actions for disease outbreak/pandemic
Stafford (C)	NEED ACTIONS	No input on actions received to date
Sugar Land (C)	X	Received actions; need to identify two actions for disease outbreak/pandemic
Thompsons (C)	NEED ACTIONS	No input on actions received to date
Weston Lakes (C)	NEED ACTIONS	No input on actions received to date

4

Public and Stakeholder Outreach

TETRA TECH

- Public Outreach Toolkit
  - Social media templates and posts
  - Press release templates
  - Printable materials
- Surveys
  - Stakeholders
  - Neighboring communities
  - Public
- County HMP website
- Thank you to everyone for helping with this!

Fort Bend County, TX
Hazard Mitigation Action Plan 2023 Update

Home   About   What's Mitigation?   Calendar   Meetings   Explore the Plan   Websites

Welcome to the Fort Bend County Hazard Mitigation Action Plan (HMP) Website. This website provides project updates, resources, and links to hazard mitigation in support of the HMP update.

The project aims to save lives and property by reducing hazard vulnerability for Fort Bend County and participating jurisdictions. During the course of this planning project, county and local leaders and the community will work in tandem to identify risks, assess capabilities, and formulate a strategy to reduce disaster vulnerability.

Public participation and feedback are vital parts of the hazard mitigation planning process. The Fort Bend County HMP Steering Committee has developed a Mitigation Survey to assist in providing the public an outlet to contribute to the HMP update. This survey will be used to create portions of the HMP.

Please keep checking back regularly for information on upcoming events, to take our public survey, and to review and comment on the draft plan. If you would like to get in touch with the project team, please fill out the form at the end of the page and someone will be in touch shortly.

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FORT BEND COUNTY HAZARD MITIGATION ACTION PLAN UPDATE
REPRESENT AN ORGANIZATION OR GROUP THAT WORKS IN THE COUNTY? WE NEED YOUR HELP!
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Fort Bend County Hazard Mitigation Action Plan Update

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Plan Maintenance

How is Fort Bend County and the participating jurisdictions going to keep the plan current over the next five years?

6

Plan Maintenance

- HMP Coordinator
- Monitoring
- Integration of hazard mitigation with existing and future programs
- Continuous evaluation and progress reports
  - FEMA Worksheets and BATool^{SM}
- Updating
- Continued public involvement

Plan Maintenance = keeping the HMP accurate, current, and relevant

Monitor

Public Involvement

2023 HMP

Evaluate

Integrate

Update

Fort Bend County Hazard Mitigation Action Plan Update

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Plan Maintenance Matrix

Task	Approach	Timeline	Lead Responsibility	Support Responsibility
Monitoring	Preparation of status updates and action implementation tracking as part of submission for Annual Progress Report.	October or upon major update to Comprehensive Plan or major disaster	Jurisdictional points of contact identified in Section 8 (Planning Partnership) and Section 9 (Jurisdictional Annexes)	Jurisdictional implementation lead identified in Section 8 (Planning Partnership) and Section 9 (Jurisdictional Annexes)
Integration	In order for integration of mitigation principles action to become an organic part of the ongoing county and municipal activities, the county will incorporate the distribution of the safe growth worksheet for annual review and update by all participating jurisdictions.	October each year with interim email reminders to address integration in county and municipal activities.	HMP Coordinator and jurisdictional points of contact identified in Section 8 (Planning Partnership) and Section 9 (Jurisdictional Annexes)	HMP Coordinator
Evaluation	Review the status of previous actions as submitted by the monitoring task lead and support to assess the effectiveness of the plan; compile and finalize the Annual Progress Report	Finalized progress report completed by October 14th of each year	Steering Committee; Plan Maintenance element	Jurisdictional points of contacts identified in Section 9 (Jurisdictional Annexes)
Update	Reconvene the planning partners, at a minimum, every 5 years to guide a comprehensive update to review and revise the plan.	Every 5 years or upon major update to Comprehensive/Master Plan or major disaster	HMP Coordinator	Jurisdictional points of contacts identified in Section 9 (Jurisdictional Annexes)

Fort Bend County Hazard Mitigation Action Plan Update

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Slide 9

2023	2024	2025	2026	2027
Month 1 • Municipal adoption resolutions • Confirm planning partnership	**Month 1** • Annual HMP status meeting with FBCHS&EM	**Month 1** • Annual HMP status meeting with FBCHS&EM	**Month 1** • Annual HMP status meeting with FBCHS&EM	
Month 2-12 • Review the status of previous actions; update status via the BATool℠	**Month 2-12** • Review the status of previous actions; update status via the BATool℠	**Month 2-12** • Review the status of previous actions; update status via the BATool℠	**Month 2-12** • Review the status of previous actions; update status via the BATool℠	Update the 2023 HMP
Month 11 Prepare status updates and action implementation tracking as part of the annual progress report submittal	**Month 11** Prepare status updates and action implementation tracking as part of the annual progress report submittal	**Month 11** Prepare status updates and action implementation tracking as part of the annual progress report submittal	**Month 11** Prepare status updates and action implementation tracking as part of the annual progress report submittal	
Month 12 • Generate and distribute annual progress report	**Month 12** • Generate and distribute annual progress report • *Apply for funding for next plan update*	**Month 12** • Generate and distribute annual progress report	**Month 12** • Generate and distribute annual progress report	

⭐ Utilize BATool to complete this step

9

Slide 10

TETRA TECH

BATool℠

- What is it?
  - Online progress reporting for individual mitigation actions – pre-populated by Tetra Tech
  - Web-based, SQL server database created by Tetra Tech
  - Scalable for multiple applications: Federal, State or Local
  - Secure environment
  - Includes reporting function
- Each jurisdiction has a designated Point of Contact will log in with the general user name and password for the BATool [link: https://www.ttbatool.org]
  - Once the plan is approved, we will send around the user name and password
- Each jurisdiction will sign in and indicate progress made on mitigation actions
- You can add or remove actions as well

Fort Bend County Hazard Mitigation Action Plan Update

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12

Mitigation Strategy

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Mitigation Strategy

- Complete one form per action – https://forms.office.com/r/skApygNAJZ
- Need two actions per hazard of concern

TETRA TECH

Fort Bend County HMP - Mitigation Strategies

Please use this form to develop your mitigation strategy. One form is needed for each strategy/action and FEMA Region VI requires two actions per hazard of concern. However, one action can address multiple hazards. If you need assistance, please reach out to Heather Apgar (heather.apgar@tetratech.com).

Section 1

Contact Information
Complete this section with your contact information.

1. Name *
Enter your answer

2. Title *
Enter your answer

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Mitigation Actions to Consider

TETRA TECH

Action Starting Point	Dam/Levee Failure	Drought	Extreme Temperature	Flood	Geologic Hazards	Hurricane/ Tropical Storm	Pandemic/ Disease Outbreak	Severe Weather	Tornado	Wildfire	Winter Weather
Countywide Debris Management Plan	X			X	X	X		X	X	X	X
Substantial Damage Management Plan	X			X	X	X		X	X	X	X
Identification of key healthcare stakeholders and providers (including medical clinics and drugstores)			X				X				
Inventory of healthcare facilities (hospitals, medical clinics, long-term care facilities)			X				X				
Dam Safety Evacuation Education and Outreach	X			X							
High Water Warning Systems	X			X		X		X			
Develop and implement an education and outreach program to architects, builders and developers who work in the County to understand the hazard risks in the County	X			X	X	X		X	X	X	X
Critical facilities in the floodplain (e.g., MUD stations, WWTP)				X		X		X			
Dams – Barker Reservoir, Lake Sommerville, Kitty Hollow	X			X							

Fort Bend County Hazard Mitigation Action Plan Update

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Questions?

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Fort Bend County Project Contacts

Greg Babst, Deputy Emergency Management Coordinator
(281) 238-3428 | Gregory.Babst@fortbendcountytx.gov

Tetra Tech Project Contacts

Brian Rutherford, Project Manager
(281) 414-6741 | brian.rutherford@tetratech.com

Heather Apgar, Lead Planner
(973) 630-8046 | heather.apgar@tetratech.com

Thank You!

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Purpose of Meeting:	Draft Plan Presentation
Location of Meeting:	Microsoft Teams
Date/Time of Meeting:	3 PM-June 20, 2023

Attendees:		
	Heather Apgar- Tetra Tech	Scott Wieghat, FBC Road and Bridge
	Emily Vassallo-Tetra Tech	Misty Tiemann, City of Beasley
	Andy Myers, Commissioner	Greg Babst
	Robert Oliver, City of Richmond	Mark Vogler
	Janeen Spates, Community Development	Carol Borrego
	Jack Ashton, Meadows Place PD	Sharon Valiante
	Jim Whitehead	Felix Vargas, City of Fulshear
	Trameka Jewett, Missouri City	Chief Stewart
	Caroline Egan, Sugar Land	Rick Staigle
	Rigo Calzoncin, City of Rosenburg	Erica Molina
	Craig Kalkomey, Simonton, Fort Bend LID 2 and 14	Keelan Spaulding, Town of Thompson VFD
	Andrew Vanchau, FBC Precinct 3	

Agenda Summary:	Welcome; Progress Report; Draft Plan Review; Questions/Next Steps/Wrap Up

Item No.	Description	Action By:
1.	**Welcome and Introductions** • Heather introduces herself and Greg Babst welcome's everyone and says a few words	-
2.	**Project Schedule** • Heather Presents the overall project schedule with dates that have been met and those that are tentative	-
3.	**Annex Progress** • Heather presents action worksheet link for municipalities to identify additional actions. • Heather states that all municipalities have until June 23rd to review and send back an updated annex. • Heather displays a status table of all municipalities in terms of who Tt has heard back from	County and municipalities will identify additional actions and revise their annex by June 23rd, no later than the 27th
4.	**Public and Stakeholder Outreach** • Heather discusses public outreach toolkit, including social media templates and posts, press release templates and printable materials. • Heather discusses Survey's used to collect input on the draft plan. • Heather discusses the HMP website	Tt to provide outreach materials next week
5.	**What's New in the 2023 Update** • Heather discusses the new FEMA requirements. • Heather discusses critical facilities list. • Heather discusses Hazards of Concern • Heather discusses Jurisdictional annexes	-
6.	**Section Contents** • Volume 1: o Includes sections 1-7; planning process; county profile; risk assessment; methodology; hazards of concern; methodology; hazard rankings capability assessment; mitigation strategies; plan maintenance. • BATool	-

	o Heather explains what the BATool is and who has access to the tool.
	• **Volume 2:**
	  o Includes sections 8-9; planning partnership; jurisdictional annexes.
	• **Appendices:**
	  o Includes Appendix A-H; Plan adoption; participation documentation; meeting documentation; public and Stakeholder outreach documentation; mitigation strategy supplementary data; plan maintenance tools; critical facilities; linkage procedures	

7.	**Review the Draft Plan** • Entire plan will be posted on HMP website on Wednesday June 28th for a 14-day review period. • TDEM will begin their review after public review. • Public feedback to be incorporated as appropriate prior to submittal to TDEM/FEMA for their review.	Tt to post for public review on June 28th
8.	**Next Steps** • Edits/comments due by June 27th • Annex input due June 23rd • Public Review (June 28th-July 12th) • Draft to TDEM by July 19th • Draft Plan for FEMA review/approval by September 2nd • FEMA approves plan ~October 2023 • Implement Projects and Maintain the Plan	-
9.	**Questions?** • No questions	Tt to change Greg's title to Emergency Management Coordinator

Meeting concurred at 3:41 pm with no questions or concerns from the attendees. Greg and Heather offer help and assistance to all the municipalities and County agencies involved.

Fort Bend County
Hazard Mitigation Action
Plan
2023 Update

Draft Plan Presentation
June 20, 2023 | 2:00 pm

If you are joining virtually, please enter your name and department/agency in the chat.

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Today's Agenda

1. Welcome
2. Progress Report
3. Draft Plan Review
4. Questions/Next Steps/Wrap Up

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Project Schedule

TETRA TECH

✓	November 2022	Kick-Off Meetings
✓	November – February	Data Collection and Update Hazard Profiles
✓	February 9, 2023	Steering Committee Meeting #2 (Goals and Objectives)
✓	March 29, 2023	Risk Assessment Presentation and Identifying Mitigation Actions
✓	June 7, 2023	Mitigation actions due (County)
☐	June 20, 2023	Draft Plan Presentation (virtual)
☐	June 27, 2023	Draft sections (Volume I) available for Steering Committee Review (OneDrive)
☐	July 12, 2023	All input from Steering Committee and Planning Partnership due
☐	June 28-July 12, 2023	Public Review Period
☐	July 19, 2023 (tentative)	Submit Plan to TDEM
☐	September 2, 2023 (tentative)	Submit Plan to FEMA
☐	October 17, 2023 (tentative)	APA

Fort Bend County Hazard Mitigation Action Plan Update

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Annex Progress

TETRA TECH

- Looking ahead…
    - Identify new mitigation actions ASAP (if you have not done so)
    - Complete action worksheets - https://forms.office.com/r/skApygNAJZ
    - Tetra Tech sent out your annex last week. You have until June 23rd to make revisions before we post for public review – if we do not hear from you by June 23rd, your annex will be posted as-is for public review

Fort Bend County Hazard Mitigation Action Plan Update

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Jurisdiction	Mitigation Actions	Municipal Feedback Provided?	Notes
Fort Bend County	X		Tt to finalize annex to send to Steering Committee for review/input
Arcola (C)	X		No input on actions received to date; Tt developed actions for the city; annex sent to City on 5/30
Beasley (C)	X		Received actions; Tt developed additional actions to meet the two actions/hazard requirement; annex sent to City on 5/30
Fairchilds (V)	X	X	Received actions; Tt developed additional actions to meet the two actions/hazard requirement; annex sent to Village on 5/30
Fulshear (C)	X		Received actions; Tt developed additional actions to meet the two actions/hazard requirement; annex sent to City on 5/30
Katy (C)	Not Participating		
Kendleton (C)	X		Annex will be sent to city on 5/30/23
Meadows Place (C)	X	X	Received actions; Tt developed additional actions to meet the two actions/hazard requirement; annex send to City on 5/30
Missouri City (C)	X	X	Annex will be sent to city on 5/30/23
Needville (C)	X		Received actions; Tt developed additional actions to meet the two actions/hazard requirement; annex send to City on 5/30
Orchard (C)	X		Received actions; Tt developed additional actions to meet the two actions/hazard requirement; annex send to City on 5/30
Pearland (C)	Not Participating		
Pleak (V)	X	X	Received actions; Tt developed additional actions to meet the two actions/hazard requirement; annex sent to Village on 5/30
Richmond (C)	X		Received actions; annex sent to City on 6/16
Rosenberg (C)	X		Received actions; annex sent to City on 6/16
Simonton (C)	X		Received actions; annex sent to City on 6/15
Stafford (C)	Tt developed actions		No input on actions received to date; Tt incorporating carried over actions; annex sent to City on 6/15
Sugar Land (C)	X	X	Received actions; annex sent to City on 5/30
Thompsons (C)	Tt developed actions		No input on actions received to date; Tt incorporating carried over actions; annex sent to City on 6/15
Weston Lakes (C)	Tt developed actions		No input on actions received to date; Tt incorporating carried over actions; annex sent to City on 6/15

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Public and Stakeholder Outreach

Tt TETRA TECH

- Public Outreach Toolkit
  - Social media templates and posts
  - Press release templates
  - Printable materials
- Surveys
  - Input on draft plan
  - We will provide outreach materials next week
- County HMP website
- Thank you to everyone for helping with this!

Fort Bend County, TX
Hazard Mitigation Action Plan 2023 Update

Home   About   What's Mitigation?   Calendar   Meetings   Explore the Plan   Websites

Welcome to the Fort Bend County Hazard Mitigation Action Plan (HMP) Website. This website provides project updates, resources, and links to hazard mitigation in support of the HMP update.

The project aims to save lives and property by reducing hazard vulnerability for Fort Bend County and participating jurisdictions. During the course of this planning project, county and local leaders and the community will work in tandem to identify risks, assess capabilities, and formulate a strategy to reduce disaster vulnerability.

Public participation and feedback are vital parts of the hazard mitigation planning process. The Fort Bend County HMP Steering Committee has developed a Mitigation Survey to assist in providing the public an outlet to contribute to the HMP update. This survey will be used to create portions of the HMP.

Please keep checking back regularly for information on upcoming events, to take our public survey, and to review and comment on the draft plan. If you would like to get in touch with the project team, please fill out the form at the end of the page and someone will be in touch shortly.

Fort Bend County Hazard Mitigation Action Plan Update

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What's New in the 2023 Update?

- New FEMA requirements
  - Participation – engaged and actively participating throughout the process
  - Stakeholder involvement
  - Community lifelines
  - Socially vulnerable populations
  - Effects of future conditions (i.e., climate change) on hazards
  - Current and future capabilities integrating hazard mitigation
  - Two mitigation actions per hazard

Local Mitigation Planning Policy Guide

FP 206-21-0002

Released April 19, 2022, Effective April 19, 2023

OMB Collection #1660-0062

FEMA

7

What's New in the 2023 Update?

- **Critical facilities** – updated inventory and included community lifelines
  - This includes – airports, academia, bridges, transportation, communication, dams, utilities, pump stations, wells, etc.

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TETRA TECH

What's New in the 2023 Update?

- **Hazards of Concern –**
  - Incorporated new hazards, and concise hazard profiles, including recent events
  - Risk assessments for each hazard
  - Climate change impacts incorporated into the probability of future occurrences
  - Adaptive capacity to reduce vulnerability used in hazard ranking
  - Impacts on population (general and socially vulnerable), buildings, lifelines, and economy

Fort Bend County Hazard Mitigation Action Plan Update

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TETRA TECH

What's New in the 2023 Update?

- **Jurisdictional Annexes**
  - Each jurisdiction has its own 'chapter' of the HMP that focuses on what impacts your jurisdiction and the population you serve.
  - Enhanced capability assessment including how hazard mitigation is integrated
  - Two mitigation actions for every hazard of concern

Fort Bend County Hazard Mitigation Action Plan Update

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Section Contents – Volume I

TETRA TECH

- **Section 1 – Introduction**
  - —Mitigation planning overview
  - —Participating jurisdictions
  - —2023 updates and summary of changes since last plan
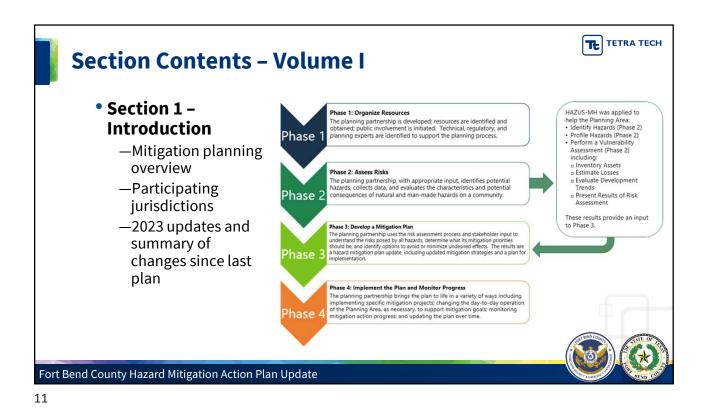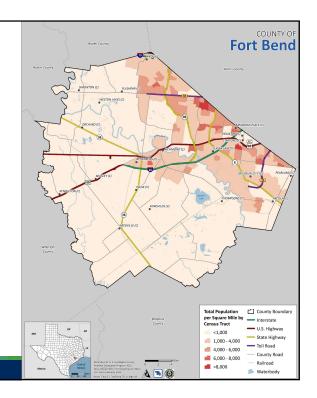
Phase 1: Organize Resources
The planning partnership is developed; resources are identified and obtained; public involvement is initiated. Technical, regulatory, and planning experts are identified to support the planning process.

Phase 2: Assess Risks
The planning partnership, with appropriate input, identifies potential hazards, collects data, and evaluates the characteristics and potential consequences of natural and man-made hazards on a community.

Phase 3: Develop a Mitigation Plan
The planning partnership uses the risk assessment process and stakeholder input to understand the risks posed by all hazards, determine what its mitigation priorities should be, and identify options to avoid or minimize undesired effects. The results are a hazard mitigation plan update, including updated mitigation strategies and a plan for implementation.

Phase 4: Implement the Plan and Monitor Progress
The planning partnership brings the plan to life in a variety of ways including implementing specific mitigation projects; changing the day-to-day operation of the Planning Area, as necessary, to support mitigation goals; monitoring mitigation action progress; and updating the plan over time.

HAZUS-MH was applied to help the Planning Area:
- Identify Hazards (Phase 2)
- Profile Hazards (Phase 2)
- Perform a Vulnerability Assessment (Phase 2) including:
  o Inventory Assets
  o Estimate Losses
  o Evaluate Development Trends
  o Present Results of Risk Assessment

These results provide an input to Phase 3.

Fort Bend County Hazard Mitigation Action Plan Update

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Section Contents – Volume I

TETRA TECH

- **Section 2 – Planning Process**
  - —Plan participants (committees, stakeholders, etc.)
  - —Activities
  - —Ongoing process

Date	DMA 2000 Requirement	Description of Activity	Participants
September 26, 2022	2	Pre-Kick Off Meeting with Fort Bend County: Plan timing and administration, data needs and sharing, hazards of concern, dates, and next steps	Fort Bend OEM, Tetra Tech
November 09, 2022	2	Steering Committee Meeting #1: Introduce Steering Committee to the HMP update process, discuss mitigation planning, project organization, roles and responsibilities, data collection, hazards of concern, and schedule of the plan.	City of Beasley, Fort Bend OEM, Fort Bend County Utility Authority, City of Fulshear, City of Kendleton, City of Meadows Place PD, City of Meadows Place Public Works, Missouri City OEM, City of Richmond, City of Rosenberg, City of Simonton, City of Sugar Land, Tetra Tech
November 19, 2022	2, 4a	Planning Partnership Meeting #1: Introduce process, discuss mitigation planning, project organization, roles and responsibilities, data collection, hazards of concern, and schedule of plan.	City of Beasley, Fort Bend OEM, Fort Bend County Utility Authority, City of Fulshear, City of Kendleton, City of Meadows Place PD, City of Meadows Place Public Works, Missouri City OEM, City of Richmond, City of Rosenberg, City of Simonton, City of Sugar Land, Brazos River Authority, LID Solutions, City of

Organize the Resources → Risk Assessment → Public Involvement Strategy → Mitigation Strategy → Plan Maintenance → Assemble the Plan → Plan Review and Adoption

Fort Bend County Hazard Mitigation Action Plan Update

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Section Contents – Volume I

- **Section 3 – County Profile**
  - History & Physical Setting
  - Major Hazard Event History
  - Population and Demographics
  - General Building Stock
  - Land Use and Population Trends
  - Critical Facilities & Community Lifelines

Section Contents – Volume I

- **Section 4 – Risk Assessment**
  - Identification of Hazards of Concern
    - Process to go through all potential hazards and identify the hazards that have the potential to impact the Planning Area
  - Methodology and Tools
    - Describes the various procedures and tools used to complete the risk assessment
    - Steps to do so included identifying and profiling each hazard of concern; determine exposure to each hazard; and assess the vulnerability of exposed population/buildings/economy

Section Contents – Volume I

- **Section 4 – Risk Assessment**
  - ▪ Hazard Profiles
    - —Created individual sections for each hazard of concern.
    - —Each section includes:
      - • Hazard Profile – description, location, extent, worst-case scenario, previous occurrences, climate change projections, and probability of future events
      - • Vulnerability Assessment – impact on life/health/safety, impact on building stock and critical facilities, impact on economy, impact on the environment, future changes that may impact vulnerability, and changes in vulnerability since the last plan
  - ▪ Hazard Ranking
    - —Provides a preliminary ranking (high, medium, low) of each hazard to show the Planning Area's hazards of greatest risk

Fort Bend County Hazard Mitigation Action Plan Update

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Section Contents – Volume I

- **Section 5 – Capability Assessment**
  - ▪ What is currently available at the federal, state, and county level to support mitigation in Fort Bend County
    - —Available plans, programs, & resources
    - —Administrative and technical capabilities
    - —Fiscal capabilities
    - —Education and outreach

Planning and Regulatory

Administrative and Technical

Financial

Education and Outreach

Fort Bend County Hazard Mitigation Action Plan Update

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Section Contents – Volume I

TETRA TECH

- **Section 6 - Mitigation Strategies**
  - Past accomplishments
  - Goals and Objectives
  - Mitigation strategy development and update
    - —Action identification
    - —Evaluation and prioritization
    - —Benefit/cost review

	2023 HMP Update Goals
1	Educate and inform citizens regarding potential emergency situations related to hazards.
2	Decrease the risk to life and property from hazards through planning, preparing, and mitigating.
3	Performing projects that reduce the impact of natural hazards in order to increase resiliency and enhance the ability to recover.
4	Enhance coordination between local, county, state, and federal agencies by understanding the impact of hazards in Fort Bend County and developing policies and strategies to effectively manage and reduce risk.
5	Support continuity of operations pre-, during, and post- hazard events including the support of community lifelines and critical facilities.

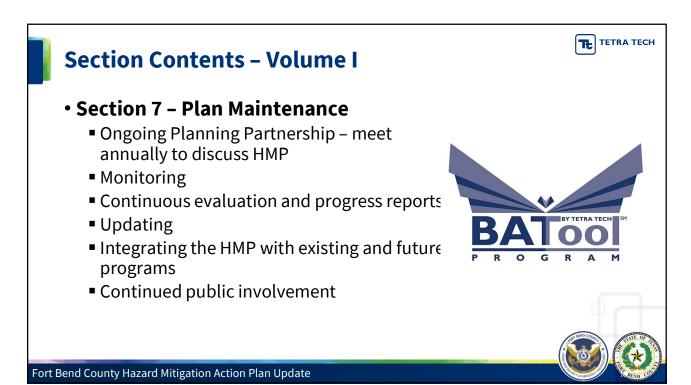|	2023 HMP Update Objectives
1	Evaluate and improve safety & loss reduction codes/standards for hazards that affect Fort Bend County and its municipalities.
2	Develop and strengthen public/private partnerships between the County, non-profits, and the business community.
3	Identify funding sources and increase awareness of funding sources to obtain funding for mitigation projects from a variety of federal, state, regional and local entities.
4	Promote sustainable communities and hazard resilient development.
5	Promote the use of emergency notification systems and weather alert systems for all hazards.
6	Develop publications and information on all hazards that could potentially impact Fort Bend County.
7	Incorporate hazard mitigation into community planning mechanisms, codes/ordinances, day-to-day operations, and projects.
8	Identify, protect, and assist socially vulnerable populations recover from hazard impacts.
9	Ensure continuity of operations of government, non-government, commerce, private sector, non-profit, and infrastructure.
10	Implement mitigation measures that promote the reliability of community lifeline systems.

Fort Bend County Hazard Mitigation Action Plan Update

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Section Contents – Volume I

TETRA TECH

- **Section 7 – Plan Maintenance**
  - Ongoing Planning Partnership – meet annually to discuss HMP
  - Monitoring
  - Continuous evaluation and progress reports
  - Updating
  - Integrating the HMP with existing and future programs
  - Continued public involvement

BATool
BY TETRA TECH SM
P R O G R A M

Fort Bend County Hazard Mitigation Action Plan Update
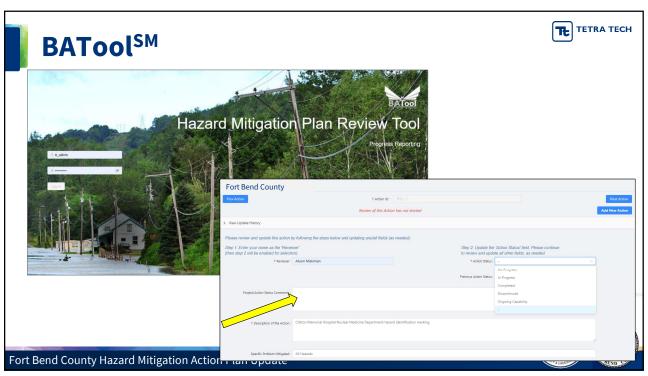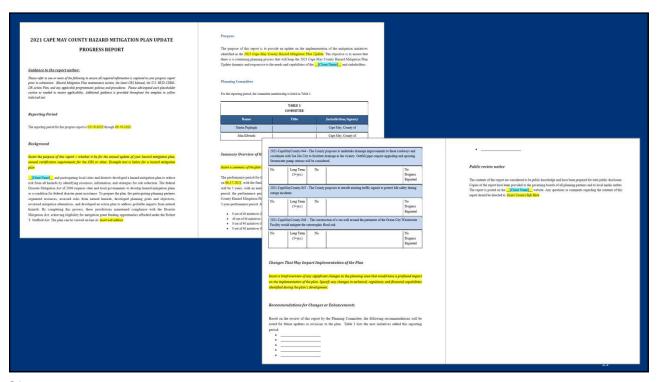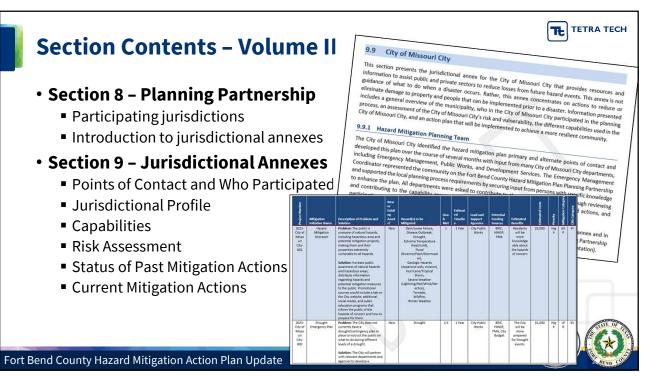
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BATool^SM

TETRA TECH

- What is it?
  - Online progress reporting for individual mitigation actions – pre-populated by Tetra Tech
  - Web-based, SQL server database created by Tetra Tech
  - Scalable for multiple applications: federal, state or local
  - Secure environment
  - Includes reporting function
- Each jurisdiction has a designated Point of Contact will log in with the general username and password for the BATool [link: https://www.ttbatool.org]
  - Once the plan is approved, we will send around the username and password
- Each jurisdiction will sign in and indicate progress made on mitigation actions
- You can add or remove actions as well

Fort Bend County Hazard Mitigation Action Plan Update

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BATool^SM

TETRA TECH

Fort Bend County Hazard Mitigation Action Plan Update

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Section Contents – Volume II

TETRA TECH

- **Section 8 – Planning Partnership**
  - Participating jurisdictions
  - Introduction to jurisdictional annexes
- **Section 9 – Jurisdictional Annexes**
  - Points of Contact and Who Participated
  - Jurisdictional Profile
  - Capabilities
  - Risk Assessment
  - Status of Past Mitigation Actions
  - Current Mitigation Actions

Fort Bend County Hazard Mitigation Action Plan Update

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Section Contents - Appendices

TETRA TECH

- Appendix A   Plan Adoption
- Appendix B   Participation Documentation
- Appendix C   Meeting Documentation
- Appendix D   Public and Stakeholder Outreach Documentation
- Appendix E   Mitigation Strategy Supplementary Data
- Appendix F   Plan Maintenance Tools
- Appendix G   Critical Facilities
- Appendix H   Linkage Procedures

Fort Bend County Hazard Mitigation Action Plan Update

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Review the Draft Plan

TETRA TECH

- The entire plan will be posted on the Fort Bend County HMP website for a 14-day review period (starting Wednesday, June 28th)
  - You can review sections of the plan during the public review, and we will incorporate any applicable revisions into the final deliverable to the State and FEMA
- TDEM will begin their review after the public review period
- Public feedback to be incorporated as appropriate prior to submittal to TDEM/FEMA for their review
  - If needed, we will hold a brief meeting to discuss public comments and how to incorporate – date TBD

Fort Bend County Hazard Mitigation Action Plan Update

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Next Steps

TETRA TECH

- Review/Edits
  - Volume I edits/comments due no later than **June 27th**
  - Annex input is due **June 23rd**
  - Any edits received after this date will not be part of the public review period
    - They will be included in the draft submitted to TDEM
- Public Review Period (14 days) – June 28th through July 12th
- Submit Draft Plan for TDEM review by July 19th
- Submit Draft Plan for FEMA review/approval by September 2nd (tentative)
- FEMA approves plan (~October 2023); begin adoption
- Implement Projects and Maintain the Plan ➡ Increase Resilience!

Fort Bend County Hazard Mitigation Action Plan Update

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Questions?

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Thank You!

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