



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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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



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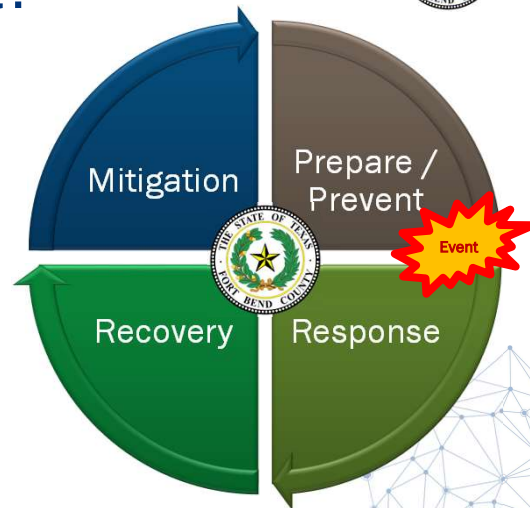
Hazard Mitigation – What is it?

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).



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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 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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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



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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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



Update Risk Assessment

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





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!



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.





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



Community Lifelines

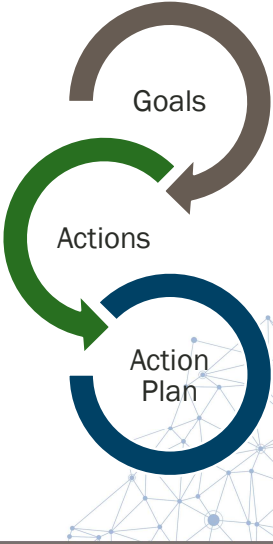
- What additional facilities and lifelines should we add? Types to consider:
 - Utility locations – substations, pump stations, treatment plants
 - Critical food establishments – food pantries, grocery stores, senior nutrition
 - COVID-19 locations – testing and vaccination sites
 - Others?







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?




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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


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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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


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


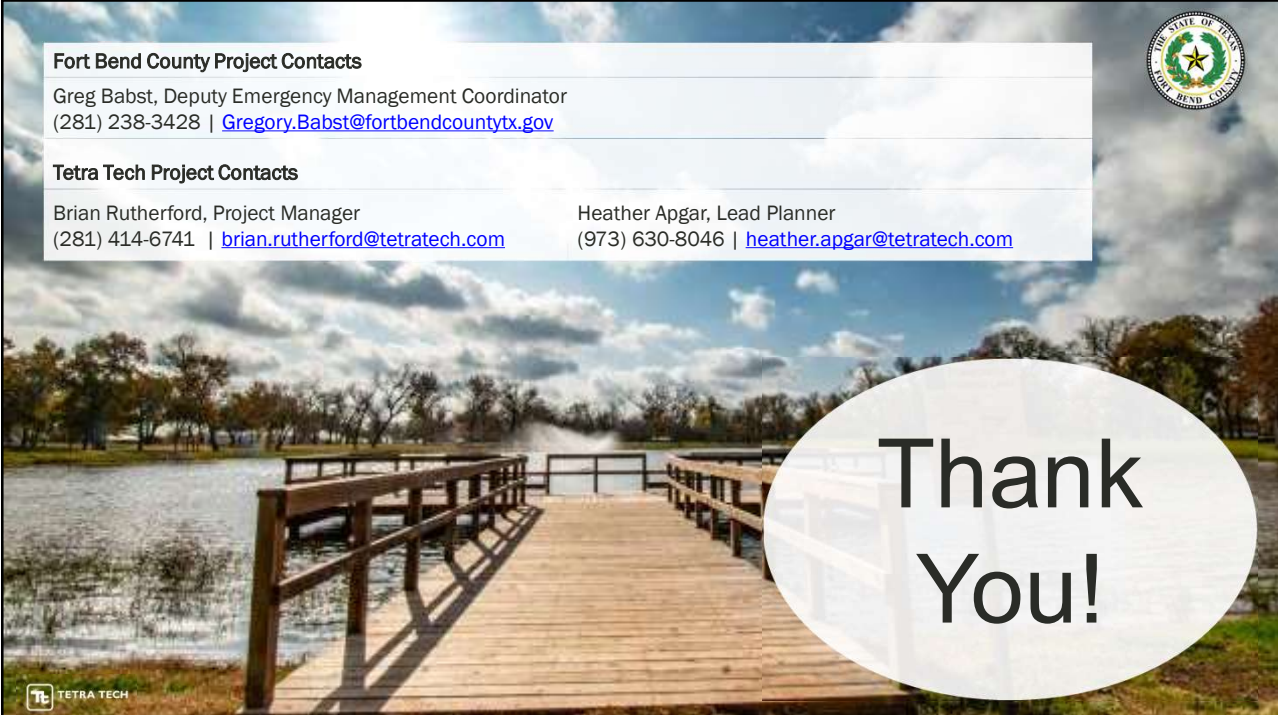
Questions?



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Thank You!



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