

ANNEX O

**HAZARD
MITIGATION**

Brackett ISD

APPROVAL & IMPLEMENTATION

Annex O

Hazard Mitigation

Signature

Date

Signature

Date

NOTE: The signature(s) will be based upon local administrative practices. Typically, the individual assigned primary responsibility for this emergency function will approve the annex by signing the first signature block with the second signature block for the Superintendent. Alternatively, each person assigned tasks within the annex may sign the annex.

ANNEX O

HAZARD MITIGATION

I. AUTHORITY

- A. See Section I of the Basic Plan for general authorities.
- B. The Robert T. Stafford Disaster Relief and Emergency Assistance Act (PL 93-288), as amended by the Disaster Mitigation Act of 2000 (PL 106-390)
- C. Applicable district policies appointing members of the district Hazard Mitigation Team (HMT).
- D. Applicable district policies pertaining to emergency management or mitigation plans.
- E. Applicable school district policies pertaining to mitigation, floodplain management, zoning regulations, land management, and/or construction standards, etc.

II. PURPOSE

- A. This annex describes the district's organization, and assigns tasks, and responsibilities for coordinated hazard mitigation planning and implementation activities and actions.
- B. This annex addresses mitigation as a long-term, on-going process, and identifies planning and implementation actions applicable to both pre-incident and post-incident situations.
- C. This annex is applicable to and ensures that mitigation planning and implementation services address and are provided to the entire area of responsibility covered in the Brackett ISD Emergency Operations Plan.
- D. This annex explains the methodologies and progressive steps as to how we plan to identify the hazards that affect us and to systematically reduce the identified levels of risk and vulnerability to these hazards.
- E. This annex explains the district's participation in mitigation planning and implementation activities.

III. EXPLANATION OF TERMS

A. Acronyms

AOR	Area of Responsibility
B/C	Benefit/Cost
DEM	Division of Emergency Management
FMA	Flood Mitigation Assistance Program
GIS	Geographical Information System
GPS	Global Positioning System
HMGP	Hazard Mitigation Grant Program
HMC	Hazard Mitigation Coordinator
HMT	Hazard Mitigation Team
MAP	Mitigation Action Plan
NFIP	National Flood Insurance Program
PA	Public Assistance (Program)
PDM	Pre-Disaster Mitigation Program
SOP	Standard Operating Procedures

B. Definitions

Appropriate Mitigation Measures. Mitigation actions that balance the cost of implementation against the potential cost of continued damages, if such measures are not taken. Mitigation measures should be less costly to implement than the damages they are intended to prevent. Floodplain management, acquisition of flood prone property, enhanced insurance coverage, and the adoption and enforcement of safe land use regulations and construction standards are considered as highly appropriate mitigation actions.

Area of Responsibility. The entire area covered by the district comprehensive Emergency Operations Plan that is:

Brackett ISD facilities, staff and students

Benefit/Cost. The ratio between the cost of implementing a mitigation project versus the benefits (amount of future cost savings) potentially achieved.

Disaster. A hazard caused event that results in widespread or severe damage, injury or loss of life, property or resources, and exceeds the recovery capabilities of the district. Disaster assistance provided by the Federal or State government is intended to supplement local government resources and so enhance recovery capabilities to achieve a speedy and efficient return to pre-incident conditions.

Disaster Resistant Community. A community-based initiative that seeks to reduce vulnerability to natural hazards for the entire designated area through mitigation actions. This approach requires cooperation between government agencies, the district, volunteer groups, individuals, and the business sectors of a community to implement effective mitigation strategies.

Hazard Analysis. A document that provides a risk based quantitative method of determining mitigation and preparedness priorities and consists of a hazard assessment, vulnerability assessment, and risk assessment. A Hazard Analysis identifies vulnerabilities and risks within each district within the community and is a living document that is reviewed and updated annually

Hazard Event. Any occurrence in which people and/or property are adversely affected by the consequences of a natural or man-made hazard.

Hazard Mitigation. Sustained actions taken to eliminate or reduce long-term risk to people and property from hazards and their effects. The goal of mitigation is to save lives and reduce damages to property, infrastructure, and the environment and, consequently to minimize the costs of future disaster response and recovery activities.

Local Hazard Mitigation Team (HMT). Members of the district HMT, meet regularly to evaluate hazards, identify strategies, coordinate resources and implement measures that will reduce the vulnerability for staff, students and property to damage from hazards. The HMT is a partnership through which district, governmental, public, civic and private sector entities come together to support and participate in activities to determine and implement methods, and commit resources to reduce the district's level of risk. Team membership is listed in Appendix 1 to this annex. The roles and responsibilities of each team member organization/agency are described in Section VI.B.3.b.

Mitigation Action Plan (MAP).

A document that outlines the nature and extent of vulnerability and risk from natural and man-made hazards present in a jurisdiction and describes the actions required to minimize the effects of those hazards. A mitigation action plan also describes how prioritized mitigation measures will be funded and when they will be implemented. The area of coverage for a MAP is based on commonly shared hazards, needs, and capabilities; plans may be prepared for a single school, or the entire district.

Public Assistance Program. For the purposes of this annex, this refers to disaster recovery grants authorized under Section 406 of the Stafford Act to repair the damages to district facilities following a major disaster declaration. PL 106-390 requires mitigation components be added to repair projects to reduce repetitive damages.

Risk Factors. A group of identifiable facts and assumptions concerning the impact of specific or associated hazards. An analysis of interrelated risk factors provides a means to determine the degree (magnitude) of risk produced by a particular hazard or an incident and, consequently, provides a means to determine the priority of mitigation planning and implementation activities. A sample listing of risk factors are as follows:

1. Number of previous events involving this hazard.
2. Probability of future events occurring that involves this hazard.
3. Number of people killed or injured during previous events and number of people potentially at risk from future events involving this hazard.
4. Damages to homes, businesses, schools, public facilities, special-needs facilities, and unique historic or cultural resources, crops, livestock that have been caused by previous events or are potentially at risk from future events involving this hazard.
5. Capabilities and shortfalls of district emergency management organization to effectively respond to emergency situations involving this hazard.

6. Recovery activities needed to return Brackett ISD to pre-event status. The recovery process involves not only time requirements, but also the associated costs to repair damages, restore services, and return economic stability after occurrence of the event.

Sectoring. Dividing the district into manageable geographic segments for defining specific types of information concerning what is vulnerable and at risk in each sector. Sectioning facilitates mitigation and preparedness planning as well as response, search and rescue, and damage assessment operations.

IV. SITUATION & ASSUMPTIONS

A. Situation

1. Our current *Hazard Analysis* indicates we are vulnerable and at risk from hazards that have caused, or have the potential for causing, loss of life, personal injuries, and/or extensive district damage. We have suffered incidents, emergencies, and disasters in the past and are still vulnerable and at risk from future similar occurrences.
2. Our area of responsibility has been divided into [number] of sectors to facilitate the collection of vulnerability and risk data, and for conducting damage assessment operations.
3. Our local HMT has been appointed and is operational under the leadership of our Hazard Mitigation Coordinator (HMC).

B. Assumptions

1. Exposure to risk from hazards exists whether or not an incident actually occurs.
2. The adverse impact of hazards can be directly affected by hazard mitigation actions accomplished prior to occurrence of an emergency situation. Effective post-event mitigation actions can also reduce the risk of repeat disasters.
3. Hazard mitigation planning and implementation activities are an on-going program/process and are an integral and complimentary part of our comprehensive emergency management program.
4. Mitigation actions to save lives and reduce damages can be achieved through properly coordinated group efforts. These efforts will require the cooperation of various levels of the district and will be enhanced by the involvement and partnership of talented individuals with expertise in varying disciplines from both the public and private sectors.
5. The effective, long-term reduction of risks is a goal and responsibility shared by all residents.

V. CONCEPT OF OPERATIONS

A. General

1. This annex is not intended to describe in detail all aspects of our mitigation program. The achievement of hazard mitigation objectives is a high district priority, and all district staff will seek out and implement risk reduction measures.
2. The Hazard Mitigation Coordinator (HMC) is responsible for the coordination of all mitigation activities of the district
3. The data collection process described in this annex provides a systematic means to identify hazards and assess their impact on the district and will facilitate the development and maintenance of the school's *Hazard Analysis* by the HMT.
4. The "Notice of Interest and Hazard Mitigation Team Report" (Appendix 3 to this annex) provides a means to develop a multi-disciplined, on-going mitigation planning and implementation process and facilitates the development and maintenance of our *Mitigation Action Plan* by the HMT. It also facilitates the development, and expedited submission of applications for mitigation grants to implement mitigation projects.
5. Consistent with capabilities, the HMC and members of the HMT will participate in appropriate training and exercises related to their hazard mitigation responsibilities.
6. Consistent with capabilities, we will utilize the most current information and guidance provided by DEM to include web-based assistance available via the Internet.

B. Overview of Mitigation Process

Hazard mitigation is an on-going process that begins with the establishment of a district based planning group referred to as the local HMT. The team's first job is development of the *Hazard Analysis* that provides a means for prioritizing mitigation and preparedness needs based on levels of vulnerability and risk. The next step in the process is the development of our *Mitigation Action Plan* that defines specific mitigation measures designed to address the needs identified in the hazard analysis, to include actions that are to be taken, who will take them, how much they will cost, and how they will be funded. The next step is to implement the measures identified in the *Mitigation Action Plan* using a variety of funding sources identified through an on-going and active search for funding opportunities. The final step is to monitor and evaluate the effectiveness of implemented mitigation measures and to repeat the process-review and update the *Hazard Analysis* and the *Mitigation Action Plan*, continue the active search for funding opportunities, implement mitigation measures consistent with availability of funds, and monitor and evaluate their effectiveness.

C. Pre-Event and Post-Event Relationships.

1. General

Hazard mitigation activities are not only a response to an event and a known hazard, but are also an active search for ways to prevent or reduce the impact from newly discovered hazards. The mitigation process is long-term in nature and, therefore, is an on-going element of the emergency management program that directly influences preparedness, response, and recovery requirements. Mitigation activities can be initiated at any time, but are classified as either pre-event or post-event actions. These actions are not mutually exclusive and will be merged into a coordinated, continuous mitigation process.

2. Pre-Event Mitigation

Activities that take place prior to the occurrence of an emergency situation. This time frame provides a more relaxed atmosphere for the development and implementation of long-term, multi-hazard oriented mitigation measures. This time frame is preferred and is the most appropriate for reducing risks and potential damages.

3. Post-Event Mitigation

Activities that take place after an emergency situation has occurred and has already adversely affected the district. These activities are a response and are too late to prevent or reduce impacts already suffered. Heightened hazard awareness and a desire for speedy recovery, provide an emphasis for conducting mitigation activities during this time frame. Mitigation opportunities can be identified and implemented which can be very effective in reducing potential damages from future events.

D. Activities by Phases of Emergency Management

Hazard mitigation actions are an on-going process, and are more appropriately classified and associated with the time frames before, during, and after occurrence of an emergency situation caused by a hazard. The following is a sequenced set of actions that should be taken by the HMT during each time frame:

1. Pre-Event Period

- a. Develop and maintain a *Hazard Analysis*.
- b. Develop and maintain a hazard *Mitigation Action Plan*.
- c. Apply for grants and loans to conduct studies and implement mitigation projects.
- d. Conduct studies and implement mitigation projects.
- e. Provide vulnerability and risk data for use in the district development planning, exercise design, emergency preparedness planning, and floodplain management.

2. Incident Response Period

- a. Assist decision makers and emergency responders better understand potential impact consequences and emergency response needs by providing detailed

vulnerability and risk data for all sectors impacted or likely to be impacted by the incident.

- b. Assist decision makers and emergency responders answer “What if” questions through use of appropriate real-time and model based damage assessment tools.

3. Post-Incident Period

- a. Conduct site surveys to record damage “Footprint” and record and map high-water marks and other benchmarks to verify inputs and results of damage assessment tools. Inspect and evaluate effectiveness of previously implemented mitigation measures. Evaluate accuracy of floodplain maps and studies and identify any mapping needs.
- b. Complete Hazard Mitigation Team Reports based on observations and findings from site inspections. Begin development of potential mitigation project application(s) based on team reports.
- c. Provide assistance to decision makers for prioritization of damage assessment operations, conducting substantial damage determinations, and preparation of request for a state and/or federal disaster declaration by providing detailed incident impact data.
- d. Provide assistance to state and federal mitigation team activities once a disaster is declared.
- e. Review Hazard Mitigation Team Reports and update hazard analysis and mitigation action plan.

E. Brackett ISD Hazard Mitigation Team

1. Members of the HMT provide a multi-disciplined, local capability to identify mitigation opportunities and implement mitigation measures in both a pre-event and post-event situation. Our HMT has primary responsibility for mitigation activities for the district.
2. The HMT is not viewed as an organization with rigid membership and regular duties, but rather one of flexible membership whose makeup and duties are dependent upon the particular mitigation activity under consideration. This flexibility allows the HMC to tailor the group to meet the situation while insuring the involvement of appropriate individuals from the district and community.
3. The HMT are the local experts that understand local concerns, issues, and capabilities to achieve local mitigation goals and objectives. The HMT, under the leadership and coordination of the HMC, is collectively responsible for development, distribution, and maintenance of the local *Hazard Analysis, Mitigation Action Plan*, and this annex.
4. The HMC and the Team will also be responsible for providing assistance necessary for submission and administration of HMGP and PDM grants.

F. Brackett ISD Hazard Analysis

Our *Hazard Analysis* will be developed through a joint effort of our HMT. It will be a stand alone product consisting of maps, databases, charts, atlases, and other supporting documentation that is reviewed and updated at least annually by the HMC with assistance from the HMT. The analysis provides a risk-based quantitative method to prioritize mitigation and preparedness needs for the district.

G. Mitigation Action Plan

Our *Mitigation Action Plan* will be developed through joint efforts of our district's HMT. It is reviewed annually and updated at least every three years by the HMC with assistance from members of the HMT. Our mitigation action plan outlines our mitigation goals, our risk reduction strategy for each of the significant hazards that threaten our school/district, and a discussion of on-going risk reduction activities. Our plan also details what is to be done, how much it will cost, who will be responsible for the action, how it will be funded, and provides an implementation schedule. It is an action plan for accomplishment of vulnerability and risk reduction measures for our area of responsibility. Our plan supplements, and is in concert with the *State of Texas Hazard Mitigation Plan*, and focuses on mitigation actions that affect our area of responsibility.

VI. ORGANIZATION & ASSIGNMENT OF RESPONSIBILITIES

A. Organization

1. Hazard mitigation is a function that requires the coordination of a variety of multi-disciplined on-going activities. The **superintendent**, is responsible for the overall emergency management program for the school district, and has designated a team within the district organization that is responsible for hazard mitigation.
2. The HMT organization provides the flexibility to involve all team members in the problem solving process, or to involve only those team members who possess the specific skills needed to mitigate a hazard specific condition.

B. Task Assignments

1. The district will:
 - a. Appoint team to exercise primary responsibility to coordinate hazard mitigation activities and an individual to serve as HMC.
 - b. Appoint support teams and organizations to provide representation to the HMT.
2. The Hazard Mitigation Coordinator will:

- a. Coordinate all hazard mitigation related activities for the **district**, to include development, distribution, and maintenance of the local *Hazard Analysis, Mitigation Action Plan*, and this annex.
 - b. Assist in selecting supporting teams and individual members of the HMT, assign tasks, and manage the various activities of the team so as to accomplish mitigation functional responsibilities for the jurisdiction.
 - c. Insure development, distribution and retention of mitigation reports, records and associated correspondence, and manage implementation of appropriate mitigation measures.
 - d. Develop Standard Operating Procedures (SOPs) for compiling information, determining priority of efforts, preparing reports, and monitoring implementation and effectiveness of mitigation measures.
 - e. Maintain this annex and insure that all component parts are updated and contain current data.
 - f. Conduct or assist in annual reviews and scheduled updates of district mitigation action plan.
 - g. Periodically review, download, and utilize the most current guidance material from the DEM website: www.txdps.state.tx.us/dem.
3. Hazard Mitigation Team members will:
- a. General
 - (1) Assist in the accomplishment of team objectives as assigned by the HMC.
 - (2) Provide technical assistance and functional expertise in disciplines as assigned in Appendix I of this Annex.
 - (3) Conduct or assist in annual reviews and scheduled updates of the district mitigation action plan.

VII. DIRECTION & CONTROL

- A.** The HMC will manage the activities of the HMT and coordinate all hazard mitigation related activities of this district.
- B.** Lines of Succession
 - 1. Lines of succession for the HMC will be in accordance with the district Standard Operating Procedures (SOP).

VIII. INCREASED READINESS ACTIONS

Hazard Mitigation activities are ongoing and standard increased readiness actions are not applicable.

IX. ADMINISTRATION & SUPPORT

A. Records and Reports

1. The district's Emergency Management Coordinator maintains records of previous hazard events. These records contain data pertinent to risk factor analysis and, consequently, aid in determination of mitigation requirements. Risk factor analysis provides a means to determine significant levels of risk or significant hazard events that require initiation of a Hazard Mitigation Team Report.
2. The "Notice of Interest and Hazard Mitigation Team Report" provides a means to identify, record, and coordinate on going mitigation planning and implementation activities. The report is a management tool to facilitate the identification of mitigation opportunities and the development of an action plan and implementation schedule. The report is used to document mitigation opportunities discovered during the damage assessment process following occurrence of emergency situations, and also to document and facilitate the implementation of findings and recommendations identified in the *Hazard Analysis* or land use, development, flood control, or other special comprehensive studies. This report system also provides a means to increase inter-governmental participation in the mitigation process through exchange of ideas, technical assistance and guidance. This report is a component of our *Mitigation Action Plan*, and is also used to notify the state of our interest in applying for a mitigation program grant. This form may be found in Appendix 3 to this annex.
3. The instructions for completing the "Notice of Interest and Hazard Mitigation Team Report" are located in Tab A to Appendix 3 to this annex. The most current version of these instructions are also available as "Mitigation Job Aid #1" on the DEM website at www.txdps.state.tx.us/dem under "documents".
4. Additional reports to evaluate effectiveness and monitor long-term implementation measures will be prepared as needed. Records pertaining to loans and grant programs will be maintained in accordance with applicable program rules and regulations.

B. Release and Distribution of Information

1. Completed Hazard Mitigation Team Reports, the *Hazard Analysis*, and the *Mitigation Action Plan* will be presented to the superintendent for review, approval, adoption, and implementation.
2. Completed reports, historical records and associated correspondence will be maintained and utilized as a management tool for the continued development of a mitigation strategy for this district.

X. ANNEX DEVELOPMENT & MAINTENANCE

- A. The HMC has overall responsibility for the development and maintenance of all components of this annex, to include reports, records, SOPs, and associated correspondence files.
- B. The HMC, with assistance from the HMT and in conjunction with the Emergency Management Coordinator, will ensure that copies of this annex are distributed to all HMT members, all jurisdictions within our area of responsibility, the Division of Emergency Management, and other agencies/organizations as appropriate.

XI. REFERENCES

- A. Division of Emergency Management (DEM), *State of Texas Emergency Management Plan*.
- B. DEM, *State of Texas Hazard Analysis*
- C. DEM, *State of Texas Hazard Mitigation Plan*.
- D. DEM-21, *Mitigation Handbook*.
- E. Local Hazard Analysis, (date).
- F. Local Hazard Mitigation Action Plan, (date).

APPENDICES:

- 1 Hazard Mitigation Team
- 2 Mitigation Reference Records
- 3Notice of Interest and Hazard Mitigation Team Report

Tab A - Mitigation Job Aid #1: Instructions for Completing the NOI/Hazard Mitigation Team Report

**Appendix 2
MITIGATION REFERENCE RECORDS**

[Data below are examples]

	Title/Subject	Date	Prepared By	File Location
1.				
2.				
3.				
4.				
5.				
6.				
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20.				

NOTICE OF INTEREST AND HAZARD MITIGATION TEAM REPORT

Jurisdiction: _____ County: _____ Date: _____

1. Hazard Mitigation Coordinator/Project Officer: Address:
Phone#: _____ Fax#: _____ E-mail: _____
2. Impact Area:
3. Hazard Identification:
4. Incident Period:
5. Number of Previous Events Involving this Hazard:
6. Number of Residents at Risk from this Hazard:
7. Background and Discussion:
8. Hazard Mitigation Team Recommendations:
Work Element # 1
Mitigation Action:
Lead Agency:
Estimated Cost:
Funding Method:
Schedule:

CONTINUATION SHEET
(Use this and additional pages as needed to detail multiple work elements)

Work Element # ___
Mitigation Action:
Lead Agency:
Estimated Cost:
Funding Method:
Schedule:

Work Element # ___
Mitigation Action:
Lead Agency:
Estimated Cost:
Funding Method:
Schedule: