Acquisition/Elevation Worksheet

For preliminary Benefit-Cost Analysis conducted by the Tennessee Emergency Management Agency's Mitigation Division

Applies to the following mitigation activities: **ACQUISITION/DEMOLITION, ACQUISITION/STRUCTURE RELOCATION, STRUCTURE ELEVATION, AND MITIGATION RECONSTRUCTION projects**. For assistance, contact the State of Tennessee Mitigation Technical Unit.

IMPORTANT: This worksheet is required as part of your application. The Tennessee Emergency Management Agency's Mitigation Division will assist you with your Benefit-Cost Analysis (BCA) for your project and review your BCA. The following is needed to evaluate cost-effectiveness. Once a preliminary BCA is completed, the reviewer will contact you with results and/or to collect support documentation.

NOTE: A complete worksheet will expedite the Technical Review.

Requirements

To complete a successful project application, a minimum amount of technical information is required for review. Data collected in this worksheet will provide reviewers with preliminary information necessary to evaluate project eligibility, feasibility, and cost-effectiveness. Carefully review and confirm that you are aware of the following information.

All projects shall provide protection against a 100-year storm event. Activities shall be completed in strict compliance with Federal, State, and Local applicable Rules and Regulations.

Acquisition/Demolition: Mitigation activities shall include all associated debris be removed to clear the site, the land be converted to open space, and deed restricted as set forth in the FEMA program requirements concerning the acquisition of property for open space [44 CFR 206.434 (e)].

Acquisition/Structure Relocation typically involves the acquisition of land and the physical relocation of an existing structure on that land to an area outside of a hazard-prone area, such as outside of the Special Flood Hazard Area (SFHA) or a regulatory erosion zone. Relocation must conform to all applicable state and local regulations.

Elevation: The habitable living areas of the original structure shall be elevated, and the non-habitable areas (if any) shall be converted to storage or parking. The project shall be designed and constructed in compliance with the Tennessee Building Code, ASCE 24-14 or latest edition, the Federal Flood Risk Management Standards (FFRMS), NFIP standards in 44 CFR, Part 60 and/or local floodplain ordinances, or any other applicable local regulations.

Mitigation Reconstruction: Any enclosed space at grade level shall have hydrostatic vents and can only be used for storage or parking only. The square footage of the newly constructed and elevated structure shall be no more than ten (10) percent greater than the original square footage. The project shall be designed and constructed in compliance with the Tennessee Building Code, ASCE 24-14 or latest edition, the Federal Flood Risk Management Standards (FFRMS), NFIP standards in 44 CFR, Part 60 and/or local floodplain ordinances, or any other applicable local regulations.

I confirm that I have reviewed the requirements listed above (signature):	

FEMA has approved an approach to demonstrating cost-effectiveness for certain Acquisition/Demolition, Acquisition/Structure Relocation, Structure Elevation, and Mitigation Reconstruction projects based on pre-calculated benefits which require minimal documentation if certain requirements are met.

BEFORE PROCEEDING TO THE NEXT SECTION PLEASE SELECT AN OPTION BELOW:

Does your project meet all the requirements from the below FEMA memorandum?
Pre-Calculated Benefits for Projects in the Special Flood Hazard Area
Pre-Calculated Benefits for Severe Repetitive Loss and Repetitive Loss Acquisition Projects (Acquisition projects only)
Substantial Damages Waiver (Acquisition projects only)

☐ Yes (Only complete Section I of this worksheet)	☐ No (Complete all sections of this worksheet)	☐ N/A

For additional information and resources, please refer to FEMA Technical Review Job Aids for Acquisition and Elevation projects.

Section I - Project General Information

Project Name:	*Worksheet completed by:* *Name:* _____ *Title:* _____
Sub-Applicant:	*Phone:* _____ *Email:* _____

Section II - Project Cost Information

Mitigation Project Cost: $_____	*Annual Maintenance Cost:* $_____

Section III - Project-Specific Information

Select the type of project you are proposing:	— Select —
Does the property have an Elevation Certificate?	— Select —
Does the property have a Property Worksheet?	— Select —

The table below allows data entry for up to 8 locations. If your project has more than 8 locations, you can either submit a second Acquisition/Elevation Worksheet or attach a separate list, providing the information requested below and in Section IV, as applicable.

ID	*Project Location (address)*	*Existing Foundation Type*	**Proposed Foundation Type*	*How many feet is the lowest floor being raised?*
01.		— Select —	Continous Wall	
02.		— Select —	Continous Wall	
03.		— Select —	Continous Wall	
04.		— Select —	Continous Wall	
05.		— Select —	Continous Wall	
06.		— Select —	Continous Wall	
07.		— Select —	Continous Wall	
08.		— Select —	Continous Wall	
09.		— Select —	Continous Wall	
10.		— Select —	Continous Wall	
11.		— Select —	Continous Wall	

**Applicable only to Structure Elevation and Mitigation Reconstruction projects.*

Section IV – Historical Damage Information

Flood event history may be provided when historic losses have occurred at the project location. List documented flood losses from historical flood events. In the ID column, please refer to the ID associated with the structure, as identified in the table above.

Prop ID	Disaster Number	Date of Flood Event	Est. Flood Depth Above Finished Floor (Ft)	Structural Damage ($)	Content Damage ($)	Displacement Costs ($)
				$	$	$
				$	$	$
				$	$	$
				$	$	$
				$	$	$
				$	$	$
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				$	$	$
				$	$	$
				$	$	$
				$	$	$
				$	$	$

Section V - Additional Information

Please use this page to expand on the information provided above or to include any additional information relevant to the proposed mitigation project.

ACQUISITION/ELEVATION WORKSHEET INSTRUCTIONS

Refer to the instructions below to complete the Acquisition/Elevation Worksheet using the best available data.

Section I – Project General Information

Project Name: Enter the name of the project title. The title should be short but descriptive (e.g., City of Spring Hill, Southwind Run, Elevation).

Sub-Applicant: Enter your organization's legal name.

Worksheet completed by: Enter the name, title, phone number, and email of the person completing this Worksheet. This person must have the knowledge and/or the resources to accurately answer all questions and provide supporting documentation, as needed. Information may come from multiple credible sources.

Section II – Project Cost Information

Mitigation Project Cost: Enter the total cost of the project. A lump sum on this worksheet is acceptable for preliminary BCA, but a detailed breakdown attached to your application is required. For more detailed information on eligible and ineligible costs, refer to the HMA Guidance.

Annual Maintenance Cost: Enter the cost associated with maintaining the effectiveness of the components installed as part of the elevation/mitigation reconstruction project. For acquisition projects, you may leave this field blank.

Section III – Project-Specific Information

Project Location: Provide a full description of the specific geographical location(s) of the project, including full address(es) with street name and number, city, state, and zip code. For more than 8 locations, please provide information on Section V of this worksheet.

Type of Mitigation:
Acquisition: The purchase of a structure and its associated land parcel. The acquisition may be combined with demolition or the relocation of the structure to an area not prone to flooding. In both cases, the acquired land is deed-restricted In perpetuity means **forever** to eliminate future damage.

Property Worksheet(s) Will provide an overview: Each property must have a unique identification number (i.e., Property ID# 001, 002, 003, etc.). This number is placed in the ID# column, as well as on all the pages of the next section for each property (a tab is provided). **Property ID Section 01-08** For each site involved in the project, provide the homeowner(s) name, actual physical street address **(do not use PO Box or Route address)**, city, state, zip code, and total property cost. The Total Property Cost is the amount of all costs associated with each property, i.e., acquisition, legal fees, demolition, etc., calculated in Individual Property Worksheets, line 40.

Property Data 09-16. To obtain the Flood Insurance Rate Map (FIRM), go to https://msc.fema.gov/portal/home If the structure's percent of damage is 50 percent or more, a substantial damage certification from your local building inspector should be submitted with the application.

Appraisal, Demolition, Legal Fees, Appraisal, and Closing, contact the appropriate services to receive an estimate. Any legal fees, i.e., title search, deed recordation, etc., should be included in Closing Costs.

To determine the Pre-Disaster Fair Market Value for properties two methods may be used:

- The amount listed on the property's tax card, plus a percentage.
- Licensed appraisal service

Note: Pre-disaster fair market value is what the property and/or structure(s) would be worth had no disaster-related damage taken place.

The same type of method must be used for all properties to insure fairness and equality. If appraisal services are selected, the same appraisal service must inspect all properties for the same reason and determine the pre-disaster fair market value. However, since the applicant cannot be assured of reimbursement for the appraisal service, it is not advised to use this method to develop the application.

The recommended option for applicants to use is the amount listed on the property's tax card plus 25 percent, in the beginning, to speed up the application process. Then, when the project is approved, contract an appraisal service to determine pre-disaster fair market value.

The Uniform Relocation Act (URA) mandates anyone who is displaced by an activity utilizing federal funds is eligible for additional financial assistance. Property owners are not eligible for URA benefits because of the voluntary nature of FEMA's programs. However, tenants are eligible as they have no choice in the selling of their residence (see Appendix C for details on URA benefits).

Any tenants now residing in a proposed property must be notified of the homeowner's intent to participate in this project. If any of the residences are vacant, any potential or new tenant moving in must be notified of the property owner's intent to participate before any lease or moving-in takes place. The new tenants would not qualify for URA benefits because they would have been informed prior to moving in of the property owner's intent.

Uniform Relocation Assistance (URA) benefits vary and are dependent upon the type of structure the resident was in but will not exceed $5,250.00. For application purposes, this amount may be used for each household.

Comparable Housing is provided when an owner-occupied residence cannot find comparable housing with funds received from acquiring their property. For example, if a property was acquired at a pre-event value of $50,000.00, and the seller could not find a comparable property for that amount, the seller could receive up to $22,500.00 additional funds.

If any properties are owner-occupied, it might be advisable to include this $22,500.00 amount in the application to ensure the availability of the funds and to avoid a lengthy scope change and contract amendment.

Subtotal of all costs (entries 29-35) to acquire the property

Your project may generate Program Income. Program income can result from the sale of salvage or the lease of acquired property. Any income generated before the grant period ends must be used to defray the overall costs of the project. This in turn will reduce the total grant funding.

For example, if the total cost estimate for an acquisition project is $12,000, but salvage is sold for $2,000 before grant closeout, that $2,000 is program income. Consequently, the total cost for the project would then be $10,000 ($12,000 minus $2,000). Therefore, the Federal share for this project would be no more than 75 percent of $10,000 or $7,500.

Very few applicants know of any program income amounts during the application phase and place $0.00 in the allotted space.

The official definition of Duplication of Benefits can be found in Section 312 of the Stafford Act and further clarified in 44 CFR 206.191. However, duplication of benefits is an issue in property acquisition projects because property owners receive pre-event value for damaged properties. It is possible that other forms of assistance might pay for the same eligible activities that FEMA's mitigation programs do. Recipients should not receive money from more than one source for the same activity, nor for an activity that could be provided through another source.

For instance, Increased Cost of Compliance insurance benefits pay a portion of a qualifying owner's cost to elevate or relocate after a flood. Since these are also eligible costs under FEMA's programs, the homeowner cannot receive funds for the same costs. However, if the insurance claim does not pay the total mitigation cost, the remainder may be requested. The Increased Cost of Compliance insurance claim payment would then be counted as cost-share.

Another instance is insurance claims from structural damage to a property owner. Because the cost of the property is set at pre-disaster value, the claim from structural damage would be deducted. It is considered a duplication of benefits.

Upon project approval from FEMA, exact duplication of benefits determination will begin. The search period will be from the past three years. Therefore, an estimate from homeowners (if possible) would be used for this entry. However, very few applicants know the exact (if any) duplication of benefit amounts during the application phase and place $0.00 in the allotted space. See Appendix H for more information on Duplication of Benefits.

Subtotal of all costs (entries 37-38) to offset no. 36. above.

The total cost to acquire properties is derived by subtracting No. 39 from No. 36. This amount should equal the amount placed on the *Property Overview*.

Benefit-Cost Analysis Data

It is not mandatory that applicants perform a Benefit Cost Analysis. However, an analysis of each property must be achieved prior to submission to FEMA. If this has not yet been done, it would be prudent to contact the State Hazard Mitigation Officer for immediate assistance in this area. The reason for this is due to any properties that do not meet or exceed a Benefit- Cost Ratio of 1.0 is ineligible. The analysis can prevent unnecessary compilation of Property Worksheets if it is deemed to be unbeneficial.

If a Benefit Cost Analysis has not been performed for each property, then this section is critical. It is very important to know the history of each site. The more information you provide, the easier it will be for the project to be assessed. Include all information regardless of whether or not the site area was involved in a Presidentially declared disaster.

This section covers the BCA - Damage Frequency Assessment. Only one of these areas must be completed. The Full Data Module requires information from surveys and/or the Flood Insurance Study. The Damage Frequency Assessment requires obtaining historical damage information from the property owners/tenants. Use whichever method is the easiest.

Note: Once the grant is closed out, any income generated by the property belongs to the community as the titleholder.

Pre-Calculated Benefits for Acquisitions

49. If a property does not reach a BCR of 1.01 or greater, it may qualify using the Pre-Calculated Benefits for Acquisitions.

The values for the use of pre-calculated benefits to determine the cost-effectiveness of acquisitions in Special Flood Hazard Areas (SFHA) are:

- Acquisitions: $323,000 per structure

BCA - Full Data 50-62 obtain the Flood Insurance Study (FIS)

BCA - Damage Frequency Assessment 63-75, 76-88, and 89-101

This information should contain all damage amounts, regardless of whether the damage was filed with a flood insurance provider. Additionally, when compiling the damages, remember to consider both direct and indirect costs. Direct costs are costs such as structural damage, content damage, repair work that is contracted, etc. Indirect costs are costs such as time missed from work, additional miles traveled due to road closure, emergency rescue services, relocation from uninhabitable structure(s) while being repaired, etc. As the cost of the project must be justified for your proposal to even be considered, it is imperative to disclose as much information as possible – and essential that dollar amounts be given. Type of Event refers to flooding, snowstorm, tornado, etc. Level of Event refers to 10-, 20-, or 50-year flood (if known).

Acquisition/Structure Relocation: typically involves the acquisition of land and the physical relocation of an existing structure on that land to an area outside of a hazard-prone area, such as outside of the Special Flood Hazard Area (SFHA) or a regulatory erosion zone. Relocation must conform to all applicable state and local regulations.

Elevation: Raising a building to place the lowest floor at or above the designated Base Flood Elevation (BFE) according to designs that may include extended foundation walls, fill, piles, piers, or other techniques. The Federal Flood Risk Management Standard (FFRMS) requires the elevation of the lowest floor to be a minimum of 2 feet above BFE. Hence, the final design elevation shall be BFE + 2 feet or to the elevation specified in local ordinances, if higher.

If a property does not reach a BCR of 1.01 or greater, it may qualify using the Pre-Calculated Benefits for Elevation.

The values for the use of pre-calculated benefits to determine the cost-effectiveness of elevations in Special Flood Hazard Areas (SFHA) are:

- Elevations (and Mitigation Reconstruction3): $205,000 per structure

Mitigation Reconstruction: Mitigation reconstruction is the construction of an improved, elevated structure on the same site where an existing structure and/or foundation has been partially or completely demolished or destroyed. These projects include either total or partial demolition of the structure and result in the construction of code-compliant and hazard-resistant structures on elevated foundation systems. The Federal Flood Risk Management Standard (FFRMS) requires the lowest floor of the structure to be constructed a minimum of 2 feet above BFE. Hence, the final design elevation shall be BFE + 2 feet or to the elevation specified in local ordinances, if higher.

Existing Foundation Type:
Slab: Also known as slab-on-grade, the lowest floor of the structure is formed by a concrete slab that sits directly on the ground. The slab may be supported by independent footings or integral grade beams.

Pier: An upright (vertical) support member of a building usually constructed of masonry or cast-in-place concrete, with a height limited to a maximum of three times the smallest lateral dimension. It is designed and constructed to function as an independent structural element in supporting and transmitting building and environmental loads to the ground.

Pile: An upright (vertical) support member of wood, steel, or precast concrete, usually long and slender in shape, that is driven or jetted into the ground and supported primarily by friction between the piling and the surrounding earth.

Proposed Foundation Type: If proposing an elevation or mitigation reconstruction project, select the type of foundation to be constructed to properly address all loads and be appropriately connected to the floor structure above.

Elevation Certificate Available? If an elevation certificate is available, please include it as an attachment to your application. An Elevation Certificate documents important features of your property, including its location, flood zone, building characteristics, and most importantly, the elevation of its lowest floor.

How many feet will the structure be elevated above the BFE: Enter this information only if you are proposing an elevation or mitigation reconstruction project. At a minimum, the structure must be elevated or constructed 2 feet above the BFE in compliance with the Federal Flood Risk Management Standard (FFRMS). Be mindful of any local ordinances, if higher.

Section IV – Historical Damage Information

Storm Name: Enter the name given to the natural hazard event when the damage occurred.

Date of Event: Enter the date of the historical outage event.

Estimated Flood Depth Above Finished Flood Elevation: Enter the amount of water, in feet, that was recorded above the finished floor of the property. The flood depth can be provided using the best data available. Please be ready to support the information if the TEMA Mitigation Division requests.

Structural Damage: Enter the total cost of structural damage due to each flood event. Damage costs may be documented with Insurance claims, receipts from repair of flood damages, FEMA Public Assistance Worksheets, property owner affidavits, or other relevant sources.

Content Damage: Enter the total cost of content damage due to each flood event. Damage costs may be documented with Insurance claims, receipts from repair of flood damages, FEMA Public Assistance Worksheets, property owner affidavits, or other relevant sources.

Displacement Costs: Enter the total displacement cost due to each flood event. Displacement costs occur when occupants (of residential, commercial, or public buildings) are displaced to temporary quarters while damage is repaired. These costs include rent and other monthly costs, such as furniture rental and utilities, and one-time costs, such as moving and utility hook-up fees. They can also include loss of business income for commercial buildings