HAZARD MITIGATION ASSISTANCE (HMA) GRANTS
HMGP-4372 & HMGP-4379
FY-2018-PDM / FY-2018-FMA

Massachusetts Emergency Management Agency
Department of Conservation and Recreation

Part One

What is Hazard Mitigation? Why is it Important?

Hazard Mitigation

Saving Lives, Infrastructure, and Money

- *Hazard mitigation: The effort to reduce loss of life and property by* ***lessening the impact of disasters****. In order for mitigation to be effective we need to take action now—before the next disaster—to reduce human and financial consequences later (analyzing risk, reducing risk, and insuring against risk).*
- FEMA's mitigation programs help reduce the impact of events and our dependence on taxpayer-funded federal assistance for disaster recovery.
- Mitigation strengthens national preparedness and resilience goals.
- FEMA's Hazard Mitigation Assistance Programs are not intended as a source of funding for repair, replacement or deferred maintenance activities (rehabilitation). Projects should provide an increased level of protection, that will ultimately reduce, or eliminate risk to people and property from the effects of natural hazards.

Part Two

Discussion of the **H**azard **M**itigation **A**ssistance (**HMA**) Grant Programs

- **Hazard Mitigation Grant Program (HMGP) Application Period: OPENS 8/3/2018**
  - ***Disaster declaration dates: 6/25/18 (HMGP 4372) & 7/19/2018 (HMGP 4379)***
- **Pre-Disaster Mitigation Grant (PDM) Application Period: OPENS 10/1/2018**
- **Flood Mitigation Assistance Grant (FMA) Application Period: OPENS 10/1/2018**

Hazard Mitigation Grant Program (HMGP)

- Available only After a Presidential (aka Federally Declared) Disaster
- Available Statewide – not just in declared counties
- Available for 'all-hazard' mitigation **projects** (flood, wind, etc.) and **planning;**
- There is no minimum or maximum project/planning grant award amount (within availability of funds)
- **There is a 25% non-Federal share required on all grant awards**
- Certain Private Non-Profit organizations **are** eligible for HMGP grants
- Authorized by Section 404 of Stafford Act
- 36-month maximum period of performance (beginning 1 year after declaration date) (HMA 2015)*
- Application period opens 8/3/18
- Early Deadline: 1/4/19
- Final Deadline: 4/1/19

**Extensions to this program are allowed, per HMA Guidance, Part VI, D.4.1*

Pre-Disaster Mitigation (PDM)

- Nationally-competitive grant program – **State deadline: 1/4/19**
- PDM funds available for all-hazard mitigation projects (seismic, wildfire, landslide, wind, drought, flood, etc.), and planning.
- **$235,200,000 available nationwide** ($575,000 Fed share State set-aside)
- Advance Assistance funding: NTE $200,000 (unlimited number of sub-apps)
- States may submit **one** sub-application for the Resilient Infrastructure funding
- Eligible sub-applicants are States, local governments, and tribes
- There is a 25% non-Federal cost share required on all grant awards
- $4,000,000 limit on project budgets (federal share)
- 36-month maximum period of performance (from funding selection date)*
- NEW! Period of Performance for resilient infrastructure projects will be 54 months
- Each state is limited to a total of 9 (nine) <u>competitive</u> <u>project</u> sub-applications

**Extensions to this program are allowed, per HMA Guidance, Part VI, D.4.1*

Flood Mitigation Assistance (FMA)

- Nationally-competitive grant program – **State deadline: 1/4/19**
- FMA funds available for "flood related" hazards only, with an emphasis on Repetitive Loss and Severe Repetitive Loss Properties
- The Flood Mitigation Assistance (FMA) program is authorized by the National Flood Insurance Reform Act (NFIRA) of 1994 with the goal of reducing or eliminating claims under the NFIP.
- **$160,000,000 available nationwide**
- Eligible sub-applicants are States, local governments, and Tribes
  - Homeowners must apply though the local government for FMA grants
- There is the possibility for a Federal share greater than 75% (RL & SRL)
- 36-month maximum period of performance (from funding selection date)*

**Extensions to this program are allowed, per HMA Guidance, Part VI, D.4.1*

Statement of Interest Form (NEW!)

- New in this round of grant funding, and in order to help strengthen sub-applications, MEMA/DCR is requesting, but not requiring, that potential sub-applicants submit a **Statement of Interest** for us to provide the strongest technical assistance possible.
- Online form will include information on the potential project, to better understand the project and guide sub-applicants towards specific considerations and program requirements.
- Statement of Interest deadline is **10/1/2018**.
- Click link under the 'What would you like to do?' section at: *https://www.mass.gov/hazard-mitigation-assistance-grant-programs*

Part Three

Eligible Project and Activity Types

Identifying an Eligible Project

- Perform a review of the actions specified in your Local Hazard Mitigation Plan to identify opportunities to develop mitigation projects.
- Consult your Department of Public Works or Emergency Manager about historical problem areas. Review records from past emergency events (including wind, flooding, power loss).
- Specify the problem, and identify alternatives that will solve the problem. Conduct a feasibility review to identify obstacles to implementing the project. Potentially negative environmental impacts of the proposed project should be identified at this stage of the process.
- Perform a Benefit-Cost Analysis (BCA) to determine if your project is cost effective.

Eligible Mitigation Project Activities

HMA Guidance, 2015, Part III Section E.1 Eligible Activities, pg. 33

Table 3: Eligible Activities by Program

Eligible Activities	HMGP	PDM	FMA
1. Mitigation Projects	✓	✓	✓
Property Acquisition and Structure Demolition	✓	✓	✓
Property Acquisition and Structure Relocation	✓	✓	✓
Structure Elevation	✓	✓	✓
Mitigation Reconstruction	✓	✓	✓
Dry Floodproofing of Historic Residential Structures	✓	✓	✓
Dry Floodproofing of Non-residential Structures	✓	✓	✓
Generators	✓	✓	
Localized Flood Risk Reduction Projects	✓	✓	✓
Non-localized Flood Risk Reduction Projects	✓	✓	
Structural Retrofitting of Existing Buildings	✓	✓	✓
Non-structural Retrofitting of Existing Buildings and Facilities	✓	✓	✓
Safe Room Construction	✓	✓	
Wind Retrofit for One- and Two-Family Residences	✓	✓	
Infrastructure Retrofit	✓	✓	✓
Soil Stabilization	✓	✓	✓
Wildfire Mitigation	✓	✓	
Post-Disaster Code Enforcement	✓		
Advance Assistance	✓		
5 Percent Initiative Projects	✓		
Miscellaneous/Other[1]	✓	✓	✓
2. Hazard Mitigation Planning	✓	✓	✓
Planning Related Activities	✓		
3. Technical Assistance			✓
4. Management Cost	✓	✓	✓

[1] Miscellaneous/Other indicates that any proposed action will be evaluated on its own merit against program requirements. Eligible projects will be approved provided funding is available.

Localized Flood Risk Reduction Projects

- Projects must demonstrate an upgrade in flow or capacity (level of protection).
- The application must document historic damages, or provide an engineer's report that damages would likely occur based on common recurrence intervals.
- Projects that provide drainage for roads where none exists may be eligible if they will minimize stormwater damage.
- Massachusetts Stream Crossing Standards will be required, to the most practical extent possible, where applicable (MA Division of Ecological Restoration).

Westford – Groton Rd./Rte. 40 Culvert

HMGP-1994

This project included the replacement of an existing stone arch culvert and 60" metal pipe with a new 12' wide by appx. 5.5' high precast concrete bridge system, meeting MA Stream Crossing Standards to the fullest extent possible.

Completed Fall 2016

Before…

After…

Non-Localized Flood Risk Reduction Projects

- These projects are larger than localized projects - **regional in scale.**
- May include the construction, demolition, or rehabilitation of dams; construction or modification of dikes, levees, floodwalls, seawalls, groins, jetties, breakwaters, and stabilized sand dunes; and large-scale channelization of a waterway.
- Non-localized Flood Risk Reduction Projects **cannot:**
  - constitute only repairs.
  - constitute a section of a larger flood control system.
  - duplicate the flood prevention activities of other Federal agencies on the same site.

Northampton – Channel Restoration

HMGP-1895

This project at Roberts Meadow Brook involved channel restoration including the addition of cross-vane structures, stabilized channel bottom, riffle & pool complexes, planted bank fall benches and upland plantings in the riparian corridor.

Completed Spring 2018

Before…

After…

Other Mitigation Projects

- Soil Stabilization
  - Protection of critical utilities from erosion is a great use of this eligible activity.
  - The use of geotextiles, stabilization sod, installing vegetative buffer, decreasing slope angles, and using slope anchoring means are eligible construction methods.
- Wind Mitigation
  - Structural / non-structural retrofitting of existing buildings.
  - Hurricane safe room construction projects.

Greenfield – Slope Stabilization

HMGP-1959

Green River Cemetery Bank Stabilization

Recurrent landslide issues mitigated to restore and protect cemetery, public, and private facilities.

$217,120 Total Cost

- $162,840 FEMA Grant
- $54,280 local share

Completed Spring 2016

Before…

After…

Harwich – Wind Retrofit Community Shelter

HMGP-1642

Community shelter & cable access emergency station

Clear polycarbonate resin panels for all window openings

Annual drill (and O&M) for installation

$53,900 total cost ($40,425 HMGP grant)

Completed 2011

Generators

- A permanently installed generator that is a stand-alone project may be considered if the generator protects a critical facility.
- Portable generators are eligible provided that they meet all requirements as described in HMA Guidance.
- A Benefit-Cost Analysis (BCA) is required for PDM Program.
- (BCA is strongly recommended for HMGP. A BCA narrative may be acceptable for certain applications.)

Southborough – DPW Generator

HMGP-4110

This project involved the replacement of an under-powered emergency generator with a new 175 KW generator and a 400 amp automatic transfer switch mounted on a new concrete pad.

Completed Winter 2015

Local Hazard Mitigation Planning Projects

HMA Guidance, 2015, Part III Section E.1.3.1 Eligible Activities, pg. 39-40

- 2018 Commonwealth Local Hazard Mitigation Planning Grant
- Eligible mitigation planning activities may only include:
  - Development of a new mitigation plan
  - Comprehensive review and update of an existing FEMA-approved hazard mitigation plan
  - Other planning activities as described in guidance
- No BCA required for planning applications.
- Failure to complete planning grant = FEMA recoupment of grant funds.
- Must have an approved plan to get HMA **project** grants.

2018 Commonwealth Local Hazard Mitigation Planning Grant – Option #1

Multi-Community Planning Grant

- State will apply to FEMA and manage the funds with a standard scope of work and budget.
- Communities will submit a letter of intent and budget to be included in the application to FEMA (both for HMGP and PDM).
- State will sub-grant the FEMA award to the communities who apply.*
- Communities will have a choice to hire a consulting firm, Regional Planning Agency or contract employee.

*The community's letter of interest submission does not guarantee an award to that community, but, will be prioritized to maximize the number of communities included in the state application.

2018 Commonwealth Local Hazard Mitigation Planning Grant – Option #2

Competitive Planning Application

- Communities submit a Stand-alone HMA Planning Application which will be ranked in accordance with the state's applicable ranking criteria
- For communities that wish to have an expanded/enhanced scope of work that goes above and beyond the standard scope of work (i.e. more detailed risk analysis, a robust stakeholder process, translation service etc.)
- Communities will submit a statement of interest by 10/1/2018

2018 Commonwealth Local Hazard Mitigation Planning Grant

Submission Process and Application Deadline

- Option #1 Submit a Letter of Intent/Non-Federal Cost Share Commitment and required forms
  - Signed by the chief elected or appointed official for the municipality
- Option #2 Submit Full Application
- Due by the State deadline: 1/4/19 (early HMGP and final PDM); 4/1/19 (final HMGP)
- Letter template, sample letter and planning guidance is available on the MEMA webpage
- Submit via email: mitigation@mass.gov

2018 Commonwealth Local Hazard Mitigation Planning Grant

PRIORITIES

1. Communities with no approved LHMPs
2. Communities with expired LHMPs
3. Communities with approved LHMPs set to expire in 2018 -2020
   A. Will be ranked in order of latest to expire within that time period
4. Communities who have/will be participating in the EEA Municipal Vulnerability Program (MVP)

Property Acquisition & Structure Elevation

- Homeowners must work through the community during the application process. Homeowners cannot apply directly.
- Acquisitions must be voluntary. This mean the grant cannot be used to pay for eminent domain.
- Under FMA Program – For **Severe Repetitive Loss Properties** FEMA may contribute up to 100% of the cost.
- Under FMA Program – For **Repetitive Loss Properties** FEMA may contribute up to 90% of the cost.
- For all other properties FEMA may contribute up to 75% of the cost.
- The Non-Federal cost share shall not come from the town or state and the typical source is the homeowner.
- The benefit cost-analysis (BCA) requirement is waived for properties in a NFIP mapped flood zone if the cost of the project is less than or equal to $276,000 for acquisitions and $175,000 for elevations.
- Owner must carry flood insurance in perpetuity.

Scituate – Structure Elevation

Funded under SRL 2012 Grant Program (Two Homes total)

Elevation of structures is noted as an ongoing hazard mitigation strategy for the Town

Completed Winter 2014

Resilient Infrastructure Projects (NEW!)

- This funding is an opportunity to advance capital projects on a community level, ready for investment that will reduce risks, prevent loss of life and lead to significant savings by reducing damage from future disasters and lowering flood insurance premiums.
- Eligible activities include, but are not limited to:
  - Infrastructure protective measures (including hazard-specific retrofit projects), Utility protective measures (including hazard-specific retrofit projects), Water and sanitary sewer system protective measures, Localized flood control to protect critical facilities, Floodwater storage and diversion, and more…
- Under PDM only; 1 project per state; up to $10 million Federal cost share maximum.

Nature-Based Solutions/Low Impact Development

- NBS use natural systems, mimic natural processes, or work in tandem with traditional approaches to address natural hazards like flooding, erosion, drought, and heat islands.
- Incorporating NBS in local planning, zoning, regs, and built projects can help communities reduce their exposure to these impacts, resulting in reduced costs, economic enhancement, and safer, more resilient communities.
- LID is an approach to land development (or re-development) that works with nature to manage stormwater as close to its source as possible, employing principles such as preserving & recreating natural landscape features, minimizing effective imperviousness to create functional &appealing site drainage that treat stormwater as a resource rather than a waste product (source: EPA)

Co-Benefits

Benefit	Reduces Stormwater Runoff											Improves Community Livability						
Practice	Reduces Water Treatment Needs	Improves Water Quality	Reduces Grey Infrastructure Needs	Reduces Flooding	Increases Available Water Supply	Increases Groundwater Recharge	Reduces Salt Use	Reduces Energy Use	Improves Air Quality	Reduces Atmospheric CO_2	Reduces Urban Heat Island	Improves Aesthetics	Increases Recreational Opportunity	Reduces Noise Pollution	Improves Community Cohesion	Urban Agriculture	Improves Habitat	Cultivates Public Education Opportunities
Green Roofs	●	●	●	●	○	○	○	●	●	●	●	●	◒	●	◒	◒	●	●
Tree Planting	●	●	●	●	○	◒	○	●	●	●	●	●	●	●	●	◒	●	●
Bioretention & Infiltration	●	●	●	●	◒	◒	○	○	●	●	●	●	●	◒	◒	○	●	●
Permeable Pavement	●	●	●	●	○	◒	●	◒	●	●	●	○	○	●	○	○	○	●
Water Harvesting	●	●	●	●	●	◒	○	◒	◒	◒	○	○	○	○	○	○	○	●

● Yes ◒ Maybe ○ No

Source: Center for Neighborhood Technology's The Value of Green Infrastructure

What Projects are **Ineligible**?

- Projects that do not reduce the risk to people, structures, or infrastructure.
- Projects that are dependent on another action to be effective and/or feasible.
- Projects which are repair or replacement, deferred maintenance, replacement of existing infrastructure (e.g. replacement of obsolete utility systems [pumps, generators, etc.]). considered regular pre-scheduled, or damage-induced maintenance.
- Projects for which actual physical work has occurred.
- Projects located in Coastal Barrier Resources System (CBRS) Units or in otherwise protected areas (OPAs), other than property acquisition.
- Projects that involve land that is contaminated with hazardous waste.
- Projects that primarily address ecological or agricultural issues.
- Preparedness measures and response equipment (e.g., sandbags, bladders, geotubes, response training, electronic evacuation road signs, interoperable communications equipment).

For complete details see HMA Guidance, Part III, Section E.2 (page 42-44)

Part Four

FEMA Grants 101 – Overview of Application Process & Timelines

What you need to know about FEMA Mitigation Grants…

- MEMA is conduit for applications and funding to and from FEMA. MEMA manages the State Contracts/Grant Awards.
- The process from grant application to grant award can take several months to a year (or longer) - please be prepared.
- It is the sub-applicant's responsibility to maintain, and keep current, their local hazard mitigation plan for eligibility.
- It is the sub-recipient's responsibility to ensure that proper procurement is undertaken for projects which use federal funds. **See 2 CFR 200, as well as State procurement regulations, before applying.**

2 CFR 200 - Procurement

- All applicants must adhere to federal, state, and local procurement standards, whichever is most stringent.
- Procurement methods must be documented and submitted to MEMA, along with all contracts between community/contractor.
- Key areas to review for changes or increased requirements:
  - Conflict of Interest Disclosures (200.112)
  - Compliance Disclosures (200.113)
  - Internal Control Standards (200.303)
  - **Local and PNP Procurement (200.318-326)**
  - Federal and non-Federal Sub-recipient Monitoring (220.331)

Reimbursement Based Program

- If awarded a grant, **all FEMA HMA programs are managed on a 'reimbursement' basis;**
  - Standard 'State Contract' is mechanism for funding.
  - Cash flow - must have sufficient local funds to pay engineers, contractors, etc. – reimbursement requests for federal funds can take 6-8 weeks.
  - Supporting documentation is required to release funds. All costs must be paid and allowable according to the approved Scope of Work.
  - Indirect costs are **limited** to 5% of the total project cost.
  - Partial reimbursements are allowable.
  - Quarterly performance reporting is required.
  - No additional funds are available for cost overruns under PDM/FMA; be conservative (but reasonable) in developing cost estimates.
  - Include a line item for up to 5% for contingencies (7% for historic)

Grant Cost Share

- **HMGP** cost share is 75% federal/25% non-federal
- **PDM** cost share is 75% federal/25% non-federal
- **FMA** cost share varies depending on the project. Available cost shares include: 75% federal/25% non-federal, 90%/10%, and 100%/0%
- Non-federal share may include:
  - Cash
    - Local, state, private cash payments (e.g. MassWorks Grant, MVP Funds, etc.)
    - Federal grants are not allowable unless the authorizing statute for that grant explicitly allows the funds to be used as cost share for other Federal grants.
    - Force account labor (e.g. DPW staff),
  - In-Kind Contributions
    - equipment, materials, volunteer or donated labor
- Local share source must be detailed in your application.
- Proper documentation IS REQUIRED for reimbursement.
- Non-federal share for mitigation projects benefitting private structures cannot come from state or local tax revenue and is generally provided by the individual property owner.

Prerequisites & Related Requirements

- All FEMA HMA grant project applications require State/Local FEMA-approved 'Multi-Hazard Mitigation Plan' at the time of application*.
- Proposed projects must be cost-effective using FEMA Benefit-Cost Ratio Software (v5.3); BCR must be greater than 1.0
- Must comply with 44CFR Parts 9 & 10 (Floodplain mgmt. & wetland protection).
- Must be able to be permitted under Federal, State & local permit procedures.
  - Environmental review information must be included in the application
  - Considerations for the NLEB should be included in your application (tree cutting between October-April)

* Plan approval must be before 1/4/19 or 4/1/19, depending on submission deadline. If not, interested sub-applicants not meeting this state requirement must coordinate with the State Hazard Mitigation Officer or designee.

How To Apply – **HMGP ONLY**

- DR-4372-HMGP & DR-4379-HMGP are combined into ONE (1) application, and is available on MEMA Website at:

https://www.mass.gov/service-details/hazard-mitigation-grant-program-hmgp

1. Applications for mitigation projects are required to be submitted electronically (Adobe .pdf files) via email, file sharing website or via a thumb-drive sent to MEMA HQ. Email address is: mitigation@mass.gov
2. Statement of Interest deadline (for potential mitigation projects): 10/1/2018
3. Sub-application deadline first (early) date: 1/4/2019, 3:00PM
4. Sub-application final deadline: 4/1/2019, 3:00PM
5. Applications must be submitted with authorized signatures.

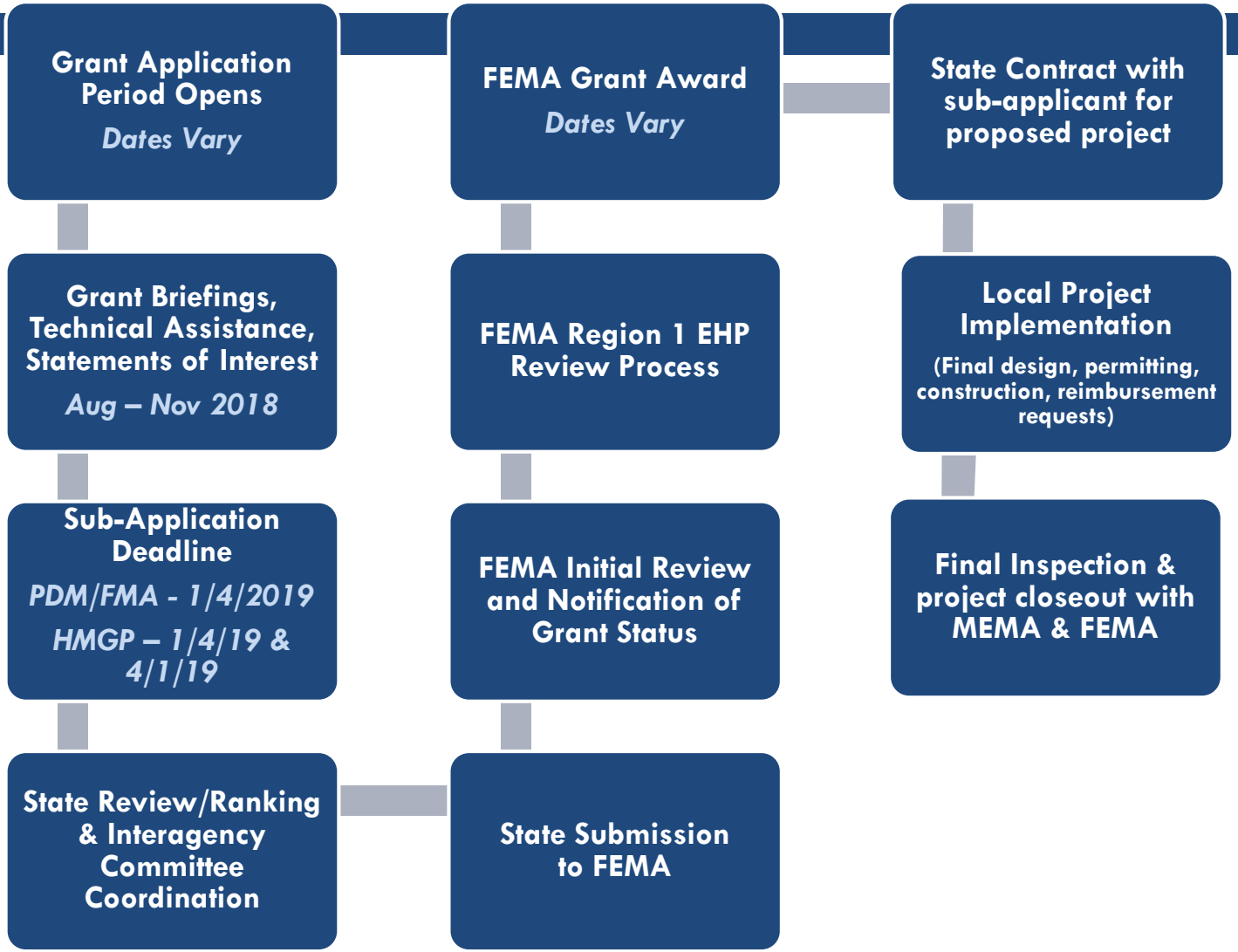
How To Apply – **PDM & FMA ONLY**

- Steps to access eGrants
  1. Letter from the Chief Elected Official or Town Manager/Administrator (authorized signatory) must be submitted to MEMA before your account can be activated
  2. Go to the eGrants site: https://portal.fema.gov
  3. Click on "New User" and register following the instructions.
  4. Please notify us once step 3 is complete at mitigation@mass.gov
  5. Application is completed online using FEMA's eGrants system at Instructions are available on MEMA Website at:

https://www.mass.gov/service-details/pdm-fma-grants

  6. Sub-application final deadline for PDM/FMA: 1/4/2019, 3:00PM
  7. Applications must be submitted with authorized signatures.

HMA Grant Application Process



PDM Ranking and Selection Process

For PDM, State is limited to submitting 9 project sub-applications.

The review and ranking process for State will be based on the Project Evaluation Criteria and will have a limited opportunity to ask for application clarifications.

The following FEMA priorities for funding will be used for PDM selections for the national ranking process:

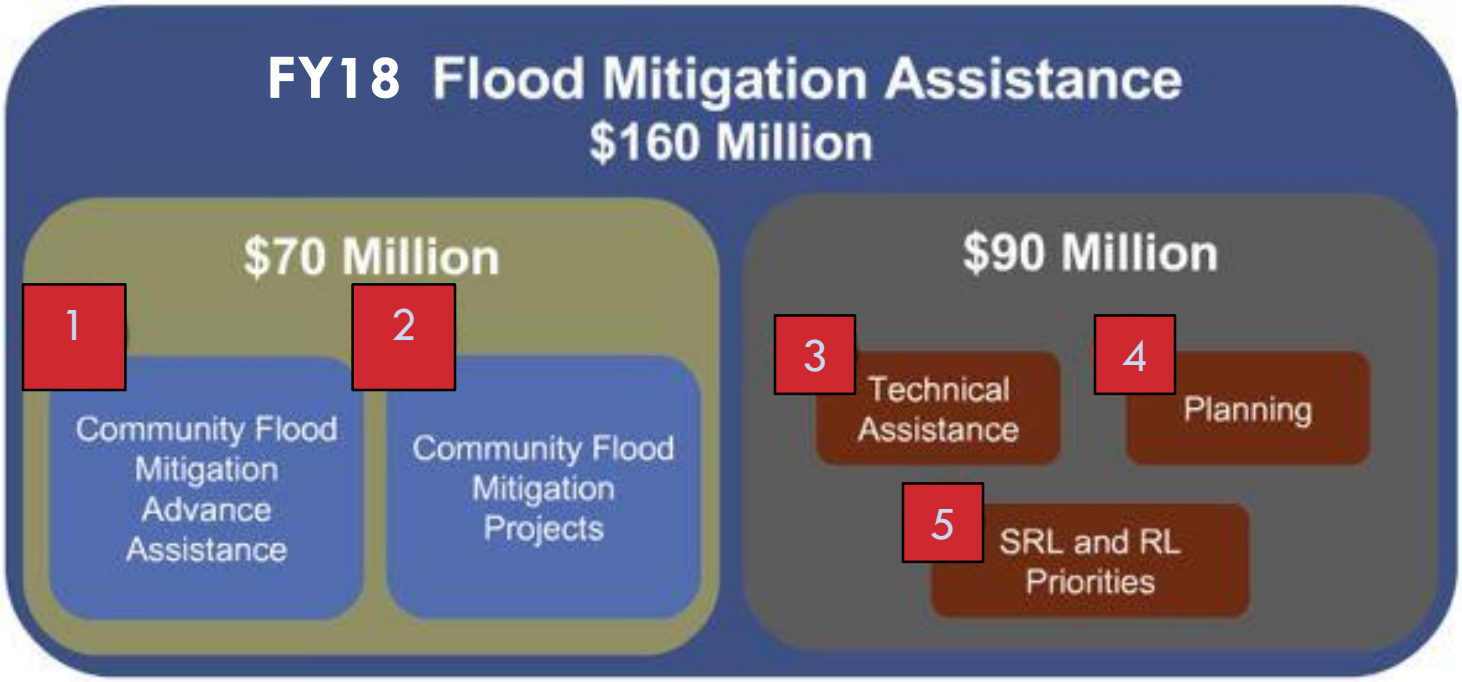
1. Each state / tribe has a maximum of $575,000 set-aside.
2. Mitigation planning sub-applications
3. Mitigation project sub-applications

FEMA will further prioritize activities in communities with:

1. Indication of public-private partnership
2. Building Code Effectiveness Grading Schedule (BCEGS) rating
3. Benefit Cost Ratio (BCR)

FMA Ranking and Selection Process

The review and ranking process for MEMA/DCR will be based on the Project Evaluation Criteria. MEMA/DCR will have a limited opportunity to ask for application clarifications.



Project Evaluation Criteria

(updated for 4372 & 4379)

Project Viability: (up to 60pts.)

- 1. *Project Scope*. The project adequately mitigates current hazards by providing a well-defined scope of work and level of protection above what currently exists. (0-10 points)
- 2. *Budget*. The project budget/cost estimate is detailed. (0-10 points)
- 3. *Benefit Cost Analysis*. A well-defined 'Benefit-Cost Analysis' (BCA) is provided with relevant supporting documentation. (0-12 points)
- 4. *Timeline*. The application demonstrates through a clear and realistic work schedule the capability of the applicant to implement and complete the project in a timely manner. This includes a plan for obtaining all required state and local environmental permitting that may be required. (0-8 points)
- 5. *Commitment*. The application demonstrates commitment to complete the project and is substantiated by providing documentation of the non-federal cost share, signed support by the chief administrative official, and a description of the decision making process. (0-12 points)
- 6. *Consistency with Planning*. The application details how the proposed mitigation activity is consistent with the FEMA-approved hazard mitigation plan (HMP) for the local jurisdiction. (0-8 points)

<u>Resiliency:</u> Up to 40 total points

- 7. *Co-Benefits and Transferability*. The project will improve resilience (or ability of the system to withstand current and future hazards and disturbances) at, adjacent to, and beyond the project site through key resilience factors. The project offers opportunities for other municipalities to learn from the techniques deployed and offers a replicable approach applicable in other locations across the state. (0-12 points)
- 8. *Nature-based solutions*. The project promotes utilization of nature-based solutions and provides environmental benefits. (0-10 points)
- 9. *Declared Event*. The project mitigates the type of hazard that caused the declared event and is in the federally declared disaster area. (0-4 points) *Declared Counties for 4372 & 4379: Barnstable, Bristol, Essex, Middlesex, Nantucket, Norfolk, Plymouth, Suffolk, and Worcester.*
- 10. *Repeat damages*. If the project is not implemented there will likely be a detrimental impact, loss of essential services, damage to critical facilities, infrastructure, and/or economic hardship. (0-14 points)

Part Five

Application Elements

Project Applications Components

Application Sections (some minor differences between eGrants and HMGP)

- Application Information (or cover sheet)
- Scope of Work
- Work Schedule
- Project Cost Estimate
- Environmental (EHP) Compliance Information
- Benefit-Cost Analysis (BCA)
- Assurances and Certifications

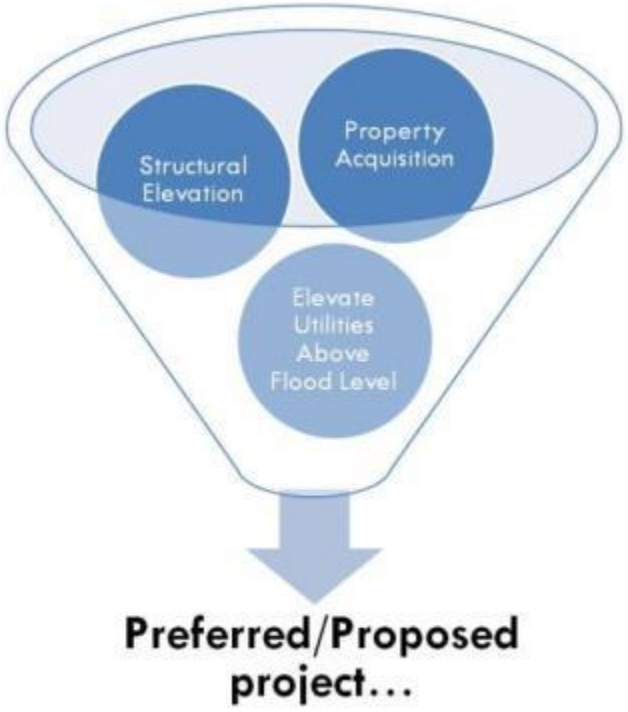
Scope of Work Questions

You should plan to attach and upload additional documentation, photos, drawings, narratives, descriptions, studies, etc.

- Briefly describe the need for this activity. Why should this mitigation activity be completed?
- Who will the mitigation activity benefit and/or impact?
- How will the mitigation activity be implemented?
- Describe how the project is technically feasible (include engineering design parameters, schematic design, level of protection, etc.)
- Who will manage and complete the mitigation activity?
- Will the project address the hazards identified and what risks will remain from all hazards after project implementation (residual risk)?
- When will the mitigation activity take place?
- Please identify the entity that will perform any long-term maintenance and provide a maintenance schedule and cost information.

Alternatives Analysis

- Explain why this project is the best alternative.
- What alternatives were considered to address the risk? Have potential EHP issues been considered? Why is the proposed activity considered the best alternative?



Project Schedule

- Develop an estimated project schedule with target dates that includes all important milestones.
- Schedule should reflect duration in number of months to complete each tasks; don't reference specific calendar dates.
- All tasks identified in the SOW and cost estimate should appear in the schedule.
- Proposed schedules must not exceed the POP for the grant.
- HMGP allows for up to 36 months from close of the application period (from either 6/25/19 or 7/19/2019.)
- PDM & FMA allows for up to 36 months <u>from funding selection date</u>. NEW! Period of Performance for resilient infrastructure projects will be 54 months.

Cost Estimate (Budget) Considerations

- Be conservative w/cost estimates:
  - Consider grant award date & future construction costs/timing
  - Include everything from your scope of work
- Avoid 'lump sum' cost items – unit quantities needed
- Contingency Cost: An allowance in the total cost estimate to cover situations that cannot be fully defined at the time the cost estimate is prepared, but that will likely result in additional eligible costs
  - 5% maximum (7% for historic structures); show as its own line item in budget
- Indirect costs have specific funding restrictions under PDM and FMA; see program guidelines -- Indirect costs are **not allowed** under HMGP

Cost Estimate							
Item Name	Cost Classification	Grant Budget Class	Subgrant Budget Class	Unit Quantity	Unit of Measure	Unit Cost ($)	Cost Estimate ($)
						* Total Cost Estimate	$

Example Cost Estimate Items

- Pre-Award Costs (if appropriate)
  - Biological Study, Archeological Survey, BCA development, Environmental Assessments, etc.
- Engineering and design
  - Survey, wetlands delineation
  - H&H analyses
  - Engineering drawings
- Permitting & easements
- Prepare bid package and obtain contractor
- Construction
  - Mobilization - Site access, storage, staging, and security
  - Temporary construction, earthwork, de-watering, clearing & grubbing, excavation, etc.
  - Installation of structures, pipes, equipment, etc.
  - On-site project management (construction inspection)
  - Site restoration, seeding, paving, demobilization
- Contract Closeout, MEMA/FEMA site visit

Pre-Award Costs

- Costs directly related to developing mitigation application:
  - Preliminary design, conducting Benefit-Cost Analysis, environmental/historic preservation coordination
  - Funded subject to FEMA discretion
  - Must be described in scope of work
  - List as a separate line item in budget
  - Projects not selected for funding will not receive reimbursement for pre-award costs
  - For costs beginning on or after 6/25/18 (HMGP 4372), 7/19/2018 (HMGP 4379) or 10/1/18 (PDM/FMA)*

*If submitting under both HMGP and PDM/FMA, note that any pre-award costs incurred prior to 10/1/18 cannot be reimbursed under PDM/FMA. Also, pre-award costs incurred between 6/25 & 7/19 are only eligible under HMGP 4372.

Environmental and Historic Preservation (EHP)

- Environmental and Historic Preservation (EHP) refers to FEMA's review process for ensuring the protection and enhancement of environmental, historic, and cultural resources, as required by Federal environmental and historic preservation laws and Executive Orders.
- The EHP review process ensures HMA program and grant compliance with 44 C.F.R. Parts 9, Floodplain Management and the Protection of Wetlands and Part 10, Environmental Considerations, and with all applicable EHP laws including but not limited to:
  - National Environmental Policy Act (NEPA)
  - National Historic Preservation Act (NHPA)
  - Endangered Species Act (ESA)
  - E.O. 11988 (Floodplain Management)
  - E.O. 11990 (Protection of Wetlands)

Environmental and Historic Preservation (EHP)

- EHP considerations may require identifying alternate project types and/or locations and, as necessary, modifying the project.
- Two key considerations are whether the proposed project is located in an area that has endangered or threatened species or critical habitat, and whether the proposed project might impact historic or cultural resources.
- If the project could result in adverse impacts to those resources, it might be necessary to change the scope of the project to avoid those impacts or to incorporate mitigation measures to minimize the impacts to those resources.

Benefit-Cost Analysis (BCA)

- Required for all <u>project</u> applications (except plans);
- BCA looks at damages twice – before & after mitigation;
- Benefits = damages & losses avoided with mitigation project implementation
  - Avoided physical damages to infrastructure, buildings, contents, etc.
  - Economic impact of loss of function for roads, bridges, utilities, detour times, etc.
  - Avoided emergency response costs (evacuations, EOC costs, debris removal & clean-up costs)

Benefit-Cost Analysis (BCA)

- ***Don't wait to start thinking about BCA. Use as a project screening tool before developing full application!***
- All data and assumptions must be clearly documented & attached to BCA;
- FEMA requires the submission of the BCA export file (.zip file format) for mitigation projects submitted for HMA programs.
- Benefit-Cost Ratio (BCR) must be above 1.0 to be 'cost-effective';
- FEMA BCA Toolkit (software, training & resources):
  - Free download:

    http://www.fema.gov/benefit-cost-analysis
  - **Must use BCA Version 5.3**

Recurrence Intervals (RI)

- RI is a statistical measurement based on historic data denoting the average recurrence interval over a defined time line.
- RI is expressed in the YEAR STORM: 5, 10, 25, 50, 100, 500 typically. They equate to percentages. A 100-year storm means there is a 1% chance of the event happening in a year. The lower the year storm, the higher the probability.
- The RI is important because the BCA software uses it to predict damages. The more damages you have at a smaller RI will make the software compute a higher BCR number.
  - Potential sources include: Frequencies or Reoccurrence Intervals (RIs) linked to documented Flood, Insurance Study (FIS) data, USGS streamgauge data, NOAA tide gauge data and NOAA Precipitation Frequency Data Server (PFDS).

Part Six

After the Application is Submitted – What Happens Now?

State and Federal Review

- State Review and Ranking/Selection
- FEMA Region I review (for HMGP)
  - FEMA programmatic review is conducted at the Regional office. This is followed by FEMA environmental & historic preservation (EHP) review.
  - State is Obligated the funds, and sub-recipient will be notified.
- National Review (for PDM & FMA)
  - Not selected
  - Did Not Meet HMA Requirements (may be eligible for an appeal)
  - Identified for Further review
    - FEMA environmental & historic preservation (EHP) review is then conducted at the Regional office.
    - State is Obligated the funds, and sub-recipient will be notified.
- Funds will not be awarded & project cannot start until FEMA programmatic and EHP review is completed.

State Standard Contract

- Contract Package will be sent to Sub-recipient for execution with 60 days of receipt.
- Quarterly reporting is required.
- For HMGP, projects in excess of $1million in federal share will be awarded incrementally through 'SFM'
- Site visits and sub-recipient monitoring will be conducted (including MEMA / FEMA final site visit).
- All bids, specifications, permits, procurement, sub-contracts and as-built plans must be submitted.

FEMA Resources

RESOURCES

Mitigation eGrants System Webpage:

https://www.fema.gov/mitigation-egrants-system-0

eGrants Helpdesk:

MTeGrants@fema.dhs.gov

1-855-228-3362

BCA Helpline:

BCHelpline@fema.dhs.gov

1-855-540-6744

Feasibility and Effectiveness Helpline:

FEMA-BuildingScienceHelp@fema.dhs.gov

Environmental and Historic Preservation:

EHPHelpline@fema.dhs.gov

1-866-222-3580

HMA Helpline:

HMAGrantsHelpline@fema.dhs.gov

1-866-222-3580

Additional Assistance:

State Hazard Mitigation Team "Technical Assistance Meetings"

- We strongly encourage interested sub-applicants meet with mitigation staff one-on-one to discuss project proposals, application process, general mitigation issues, etc.

  - To schedule an appointment email: mitigation@mass.gov

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*Check the Mitigation Program and Grants section of the MEMA website for more information and grant resources (under **Resources for Public Officials**)*

https://www.mass.gov/hazard-mitigation-assistance-grant-programs