





To raise awareness and encourage utilization of **hazard mitigation measures** that reduce or eliminate the threat of *future* similar damage to facilities that are repaired, restored or reconstructed after a disaster. Assistance is available through the Federal Emergency Management Agency (FEMA) Public Assistance (PA) program and authorized under **Section 406** of the *Robert T. Stafford Disaster Relief and Emergency Assistance Act* (Stafford Act), 42 U.S.C. 5172.

INTENDED AUDIENCE

This publication is intended for **local** and **State** officials, Federally recognized **Tribal governments**, those **applying** for and/or **receiving** recovery-funding grants through the **FEMA PA** program and other disaster-recovery and mitigation **stakeholders**.

Hazard mitigation (HM) defined ...

Hazard Mitigation (HM) is defined in Federal law [44 Code of Federal Regulations (CFR) 201.2] as any *sustained action* taken to **reduce** or **eliminate** the **long-term risk** to human **life** and **property** from hazards.

Funding sources

There are multiple funding sources available to eligible Subrecipient (Applicant) for BOTH post-disaster as well as non-disaster HM activities.

Funding sources are **authorized** through the *Robert T. Stafford Disaster Relief and Emergency Assistance Act* (Stafford Act), Sections 404, 406 and 203; Sections 1323, and 1366 of the *National Flood Insurance Act of 1968* (NFIA). [SOURCE: FEMA Recovery Policy (RP) 9526.1]

POST-DISASTER MITIGATION FUNDING

FEMA PA 406 HM ASSISTANCE GRANTS

Stafford Act provides **authority** to fund the repair, restoration or replacement of **damaged** facilities as a **result of a disaster**. **Additional funding** for **HM measures** may be available through Section 406 of the Stafford Act. This is typically referred to as 406 HM. [SOURCEs: Stafford Act \$406(c)(1)(B)(iii); 44 CFR 206.226; FEMA RP 9526.1 — Hazard Mitigation Funding Under Section 406 (Stafford Act)]

FEMA 404 HAZARD MITIGATION GRANT PROGRAM (HMGP)

There is also funding for **post-disaster** hazard mitigation measures through the **FEMA Hazard Mitigation Grant Program** (**HMGP**), authorized under **Section 404** of the Stafford Act. This is also called 404 HM.

Because **both** the 406 HM program and the 404 HMGP program are available as a result of a disaster, it is easy to get them **confused**. It is important to know that **BOTH of these resources may be available** to fund **post-disaster** mitigation initiatives.

POST-DISASTER MITIGATION	
406 Hazard Mitigation (HM)	404 Hazard Mitigation Grant Program (HMGP)
Post-disaster	Post-disaster
Funding through FEMA PA Program	Funding through FEMA HMGP Program Funding is limited.
Incident-specific Grants	Multi-hazard/Area-wide Grants
Funding available for Disaster-damaged Elements of Facilities Only	Funding available for Damaged + Non-damaged Facilities

NON-DISASTER RELATED MITIGATION FUNDING

• FEMA ANNUAL HM GRANTS

There are other grant opportunities available through the FEMA annual competitive grants process for non-disaster mitigation

This publication focuses on PA post-disaster 406 HM.

For more information about other grant opportunities, please see the Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP) publication the **NEW 10** things to know about **funding** hazard mitigation at: **gohsep.la.gov/publications.aspx OR** go to **FEMA's Hazard Mitigation Assistance** (HMA) **page** at: **fema.gov/hazard-mitigation-assistance**

Fundamentals of FEMA PA 406 hazard mitigation (HM)

APPLICABILITY

406 HM funding can **only** be spent on **eligible permanent repair work.** [SOURCE: FEMA RP 9526.1]

406 HM measures MUST be cost effective.

406 HM can be used **only** to fund protective measures that **reduce or eliminate** the threat of *future* **similar** damages to a **disaster-damaged** element or facility.

COST EFFECTIVENESS

FEMA requires all HM projects to be **cost effective**. Cost effective simply means that benefits (avoidance of future damages) of a mitigation measure are appropriate to the expenditure. Benefits must **equal** or **exceed** the cost of the hazard mitigation measure.

Cost-effective mitigation measures include:

- Applicable mitigation measures that cost up to 15% of the total eligible repair cost (e.g. equipment elevation, window shutters, hurricane clips, headwalls, floodwalls, erosion control, etc.).
- Certain mitigation measures (see Appendix A of FEMA RP 9526.1)
 are predetermined as cost effective if the cost of the mitigation
 measure:
 - Does not exceed 100% of the total eligible cost of the eligible repair work on the project;
 - Is appropriate to the disaster damage (e.g. wind, flood, rain, etc.);
 - Prevents future similar damage;
 - Is directly related to the eligible damaged elements;
 - Does not increase risks or cause adverse effects to surrounding areas or damage from another hazard;
 - Is technically feasible for the hazard + location; and

Meets requirements stipulated in policy + law + regulation.

Those measures include:

- Drainage + crossings + bridges
 - Sanitary/storm sewer systems
 - Wastewater treatment plants
 - Potable water systems
 - Electrical power distribution systems
 - Above ground storage tanks
 - Underground pipelines

For those mitigation measures that **do not fall within** the above two (2) categories, an **acceptable Benefit-Cost Analysis** (BCA) methodology must be used to demonstrate cost effectiveness.

To learn more, please visit: fema.gov/benefit-cost-analysis.

EXAMPLE

SCENARIO 1: A project cost **\$2M** to restore a flooded building to its pre-disaster condition. FEMA can approve **up to** an **additional \$2M** in **406 HM** funding for cost-effective, mitigation measures.

SCENARIO 2: A project cost **\$2M** to restore. The proposed mitigation measures cost **more than \$2M** – an analysis is **required** to determine if the additional expenditure is **cost effective**.

BEFORE MITIGATION: ROAD NEAR HOLLY BEACH ERODED



AFTER MITIGATION: ROAD NEAR HOLLY BEACH EROSION CONTROL MATS



406 HM is an important post-disaster funding opportunity!

Here's why.

Damage to **public infrastructure** can vary greatly, **depending upon the location**, **condition** and **magnitude** of a disaster. Mitigation helps **fund solutions** to safeguard your community.

VALUE OF MITIGATION MEASURES

- Hazard mitigation measures result in safer + stronger communities by reducing loss of life and/or property due to an emergency or disaster.
 - Stronger communities lessen physical and financial impacts of disaster at the State + Federal level and to local + Tribal communities.
- Hazard mitigation measures result in more resilient communities, enabling them to recover more rapidly from future disasters.

PERMANENT WORK CATEGORIES C Roads + Bridges

Water Control Facilities

E Buildings + Equipment

F Utilities

Parks + Recreational + other

It makes sense to break the cycle of damage-repair-damage-repair...

For every \$1 spent on mitigation, approximately \$4 are saved in future reduced losses.*

(SOURCE: *United States Congressional Budget Office, Potential Cost Savings from the Pre-Disaster Mitigation Program,

2007.)

Breaking the Cycle of Destruction

BEFORE MITIGATION: CULVERTS WASHED OUT DURING EVENT



AFTER MITIGATION: NEW CULVERT WITH PROTECTIVE HEADWALL



Here's how.

GETTING STARTED IS AS EASY AS IMPORTANT TO KNOW 1, 2, 3, 4 . . .

- Step 1: When evaluating disaster damages, Subrecipients (Applicants) are encouraged and responsible to identify potential hazard mitigation opportunities.
- **Step 2:** Hazard mitigation opportunities are then evaluated for cost effectiveness and applicability (see previous panel).
- Step 3: Subrecipients (Applicants) prepare a Hazard Mitigation Proposal

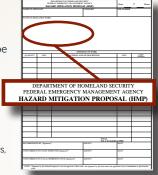
The HMP must:

- Identify cause + damages to be mitigated;
- Include **proposed** mitigation measures;
- Demonstrate methodology (including scope of work [SOW]. determination of cost effectiveness. etc.) used to determine applicability of proposed mitigation measures.

Step 4: HMP is **submitted** through GOHSEP to FEMA.

Proposed 406 HM measure(s) must be approved by FEMA prior to start of work to ensure eligibility and compliance with Federal requirements.

- · Frequently, due to the urgency of repair, potential mitigation measures are not fully explored, leaving the disaster damage/repair cycle to repeat in future events.
- Both 404 + 406 HM funding can be used in combination on certain projects. FEMA will help you determine the appropriate split. (To learn more, please visit fema.gov/medialibrary/assets/documents/15271 and fema.gov/pdf/government/ grant/pa/9526_1.pdf.)
 - You must be able to identify specific mitigation work to be accomplished under each separate program.
- Those applying for 406 HM funding through the FEMA PA program should be aware there may be a non-Federal or local cost share.
 - If the approved project involves a completely new or replacement facility on the same or different site, 406 HM funding cannot be used.
 - 406 HM funding may be approved for an Improved Project (IP) - any project where additional improvements are made to the facility while making disaster repairs.
 - 406 HM funding will NOT be applied toward an Alternate Project (AP) - the alternative use of project funding to repair, replace or newly construct alternative public infrastructure on the same or different site.
 - If mitigation work begins prior to FEMA approval, funding for the entire project may be jeopardized.



HAZARD MITIGATION PROPOSAL (HMP) TEMPLATE

AFTER MITIGATION: PUMP STATIONS WITH ELEVATED CONTROL BOX

AFTER MITIGATION: ROLL-DOWN SHUTTERS ADDED TO STOREFRONT





ACRONYMS

AP Alternate Project

BCA Benefit-Cost Analysis

CFR Code of Federal Regulations

FEMA Federal Emergency Management

Agency

GOHSEP Governor's Office of Homeland

Security and Emergency

Preparedness **HM** Hazard Mitigation

HMA Hazard Mitigation AssistanceHMGP Hazard Mitigation Grant ProgramHMP Hazard Mitigation Proposal

IP Improved Project

NFIA National Flood Insurance Act

PA Public Assistance

PACL Public Assistance Crew Leader

RP Recovery Policy
SAL State Applicant Liaison

SOW Scope of Work

REFERENCES

44 CFR

ecfr.gov/cgi-bin/text-idx?SID=55b626c34d 6c81858c72b0fddaaeff48&mc=true&tpl=/ ecfrbrowse/Title44/44chapterI.tpl

FEMA Benefit-Cost Analysis fema.gov/benefit-cost-analysis

FEMA Benefit-Cost Analysis Toolkit Version 5.1 fema.gov/media-library/assets/

documents/92923

FEMA 321 – Public Assistance Policy Digest

- January 2008

fema.gov/media-library/assets/documents/25653

FEMA 322 — Public Assistance Guide

– June 2007

– June 2007

fema.gov/media-library/assets/

documents/25651

FEMA 549 — Hurricane Katrina in the Gulf Coast: Mitigation Assessment Team Report — Building Performance Observations, Recommendations, and Technical Guidance — 2006

fema.gov/media-library/assets/documents/4069

FEMA P-787 — Catalog of FEMA Building Science Branch Publications and Training Courses — April 2015.

fema.gov/media-library/assets/documents/12909

FEMA RP 9526.1 — Hazard Mitigation Funding Under Section 406 (Stafford Act)

fema.gov/pdf/government/grant/pa/9526_1.pdf

Small Business Toolkit: Tools and Resources to Plan, Prepare and Protect

fema.gov/small-business-tookkit-toolsresources-plan-prepare-and-protect

Robert T. Stafford Disaster Relief and Emergency Assistance Act (Public Law 93-288) as amended

fema.gov/media-library/assets/

documents/15271



For more information on 406 Hazard Mitigation (HM), contact your GOHSEP Public Assistance (PA) State Applicant Liaison (SAL) OR FEMA Public Assistance Coordinator OR

Call GOHSEP at 225-925-7500.

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