The Federal Emergency Management Agency (FEMA) recognizes that after a disaster, the best time to protect a facility from future, similar damage is during the recovery period. Mitigation projects done during the recovery reduce overall cost and construction efforts associated with retrofitting a repaired facility.

If you qualify for repairs through FEMA’s Public Assistance (PA) Program (Robert T. Stafford Disaster Relief and Emergency Act, Section 406), you may also be eligible for additional funding to protect your facility.

During the recovery process, FEMA will assist you with assessing damage, developing a Hazard Mitigation Proposal, and evaluating the cost-effectiveness of mitigation projects.

Examples of Mitigation Projects Funded by Public Assistance

- **Flood door to provide facility dry floodproofing mitigation**
- **Steel reinforced concrete and waterproofed flood walls around a building to protect facility from the horizontal pressure of flood water**
- **Heat pump elevated 4 feet above ground to prevent flooding damage**
- **Concrete wingwalls around a culvert to prevent road erosion**
Lourdes Hospital, a critical care hospital in Binghamton, New York is on the banks of the Susquehanna River.

In 2006, the river flooded, forcing the hospital to evacuate its patients and close for 2 weeks. In addition, the disaster caused $20 million in damages to the facility.

After deciding that relocating to avoid future, similar damage was not an option, the hospital incorporated a PA mitigation project into its repairs.

A floodwall was built around the facility and in the event of flooding, entry-point gates would automatically trigger from floodwater pressure and raise to completely seal the property.

The hospital used Section 406 Hazard Mitigation funding under PA from FEMA and New York State to fund the floodwall, which was completed in 2010, 4 years after the initial flood event.

Just a year later in 2011, Tropical Storms Irene and Lee made landfall within 10 days of each other, causing the Susquehanna River to crest at over 25 feet—nearly twice the level necessary to declare a flood in that area.

Because floodwaters never breached Lourdes Hospital’s floodwall (photo), the facility was able to remain fully operational.

How Can Public Assistance Mitigation Benefit You?

- Prevents or reduces loss of function for public services
- Helps avoid repetitive damage from disasters
- Provides a long-term solution to a problem

Who Pays for Your Public Assistance Mitigation Project?

Projects are funded by a combination of federal and non-federal sources. The federal share is determined by FEMA and may be used to pay a minimum of 75 percent of eligible costs. Any remaining eligible costs are derived from non-federal sources (e.g., state, community).

Eligibility Requirements

FEMA will verify damage is the result of a declared disaster and that mitigation measures do not negatively impact the facility’s operation or make it susceptible to devastation from another hazard.

FEMA evaluates proposed PA mitigation measures for four main factors: risk reduction, cost-effectiveness, technical feasibility, and compliance with applicable laws and regulations (described on the next page).
The Four Main Factors Required for Proposed PA Mitigation

1. The proposed measure must reduce the impact of future, similar damages to the facility.

2. The proposed mitigation must be cost-effective (see the sidebar to the right).

3. The proposed mitigation must be technically feasible.

4. The proposed mitigation must be compliant with federal Environmental Planning and Historic Preservation regulations, laws, and Executive Orders as applicable.

Cost-Effectiveness

PA hazard mitigation measures must meet one of the following tests of cost-effectiveness:

- Demonstrate that a mitigation project is cost-effective with FEMA’s Benefit-Cost Analysis (BCA) toolkit.
- The cost for the mitigation measure does not exceed 15 percent of the damaged facility’s repair cost to which mitigation measures apply.
- The mitigation measure must specifically be listed in Appendix J: Cost-Effective Hazard Mitigation Measures, AND the cost of the mitigation measure does not exceed 100 percent of the damaged facility’s repair cost to which the mitigation measure applies.

The following are examples of cost-effective PA hazard mitigation measures listed in the Public Assistance Program and Policy Guide Appendix J that protect infrastructure:

- Replace drainage structure with a larger structure.
- Install submersible pumps in water or wastewater plants.
- Elevate equipment above the base flood elevation.
- Anchor storage tanks to prevent movement.
- Install shut-off valves on underground pipes.
- Dry floodproof buildings.
- Install connectors to secure roofs to walls.
- Construct floodwalls to retain floodwater.
Process Flowchart

START

Request PA

Inventory disaster damage

Site inspection to verify disaster damage

Identify PA mitigation opportunities to prevent future damage from a similar event

Write a scope of work for the Hazard Mitigation Proposal (HMP)

Calculate the estimated cost of the HMP

Determine the cost-effectiveness of the HMP – 15%, 100%, or BCA

Come to agreement on HMP

Perform the HMP work

Collect actual costs of the HMP

END

Submit the completed HMP costs to FEMA at project closeout for reimbursement

Where Can You Find Further Guidance?


A list of cost-effective mitigation measures is included in Appendix J.


– If you are currently recovering from a disaster, contact your assigned FEMA Public Assistance Program Delivery Manager. You can find contact information in your Applicant Event Profile in FEMA’s Public Assistance Grants Portal.

The Public Assistance Alternative Procedures (Section 428) Pilot Program is a capped grant program available through PA. It can be a valuable tool for a faster, more flexible, and less costly disaster recovery while also improving long-term resilience and mitigation against future disasters. For more information, please contact your PA Program Delivery Manager or visit https://www.fema.gov/alternative-procedures.