



A Natural Hazard Mitigation “Project” Saves Money

The 2005 Multi-hazard Mitigation Council Study* “shows that money spent on reducing the risk of natural hazards is a sound investment. On average, a dollar spent by on hazard mitigation (actions to reduce disaster losses) provides about \$4 in future benefits.”

Benefits were defined as losses to society avoided and included:

- ✓ Reduced direct property damage (e.g., buildings contents, bridges, pipelines)
- ✓ Reduced direct business interruption loss (e.g., damaged industrial, commercial or retail facilities)
- ✓ Reduced indirect business interruption loss (e.g., ordinary multiplier or “ripple effect”)
- ✓ Reduced nonmarket damage (e.g., environmental damage to wetlands, parks, and wildlife and damage to historic structures)
- ✓ Reduced human losses (e.g., deaths, injuries, homelessness)
- ✓ Reduced cost of emergency response (e.g., ambulance service and police and fire protection)

And what does that mean...

- Under a typical FEMA hazard mitigation grant of 75% under the HMGP, FMA, PDM and RFC programs. (See NJOEM Handouts #3 Fact Sheet and #44 FEMA Grant program Comparison for more information.)
 - A project that costs a total of \$100,000
 - Would receive FEMA funding reimbursement of \$75,000
 - With the local share of \$25,000
 - Future benefits would be \$400,000
 - Or 16 times the local cost of the mitigation project
- Under a FEMA hazard mitigation grant of 90% (or more) under the RFC program. (See NJOEM Handouts #3 Fact Sheet and #44 FEMA Grant program Comparison for more information.)
 - A project that costs a total of \$100,000
 - Would receive FEMA funding reimbursement of \$90,000
 - With the local share of \$10,000
 - Future benefits would be \$400,000
 - Or 40 times the local cost of the mitigation project

*The two-volume study report is available for free download at:

<http://www.nibs.org/MMC/mmchome.html> .

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Some projects to consider independently or with FEMA funding* are:

***Hard Projects** – Physical measures to avoid or reduce damage resulting from disasters (typically eligible for FEMA funding):

- Acquiring, elevating, or relocating buildings, lifelines or other structures threatened by floods
- Strengthening buildings and lifelines to resist flooding, earthquake or wind force
- Improve drainage and land conditions

Soft Projects – Activities that lead to policies, practices, and other activities to reduce risks (which typically can lead to an eligible FEMA funded project):

- Assessing hazards, vulnerability, and risk
- Conducting planning to identify mitigation efforts, policies, practices and set priorities
- Educating decision-makers and building constituencies
- Facilitating the selection, design, funding of mitigation projects

Goal Oriented Projects – Develop hazard mitigation benefits that (which typically are addressed as a local hazard mitigation strategy):

- Reduce direct property damage (e.g., buildings, contents, bridges, pipelines)
- Reduce direct business interruption loss (e.g., damages to industrial, commercial, and retail facilities)
- Reduce indirect business interruption loss (e.g., ordinary economic “ripple” effects)
- Reduce non-market environmental damage (e.g., wetlands, parks, wildlife)
- Reduce other non-market damage (e.g., historic sites)
- Reduce societal losses (e.g., casualties, homelessness)
- Reduce need for emergency response (e.g., ambulance service, fire protection)

Projects, described in the report, that work include:

- Structural improvement to a specific public facilities to reduce or prevent damage
- Community-wide or system-wide improvement projects
- Purchase and demolish homes in flood prone area
- Elevation or relocation of repetitively flood damaged homes
- Construction of disaster resistant safe rooms and shelters
- Road grading and drainage improvement projects to reduce the effects of flooding
- Construction of detention and retention basins as part of a storm water management program
- Education programs to increase the public’s awareness of hazards, mitigation and preparedness
- Improving communications and transmission of emergency information
- Installation of automated hazard mitigation information systems, early flood warning systems and gauges
- Tree trimming and removal programs to reduce the loss of property and facilitate emergency response
- Installation of bulkheads to reduce flood damage and business losses
- Construction of flood control projects – berms, levees, and dikes
- Development of local hazard mitigation plans

FEMA Hazard Mitigation funding available through NJ Office of Emergency Management

- **Hazard Mitigation Grant Program** (Post disaster program)
- **Flood Mitigation Assistance Program** (Pre disaster program)
- **Pre Disaster Mitigation Program – Competitive** (Pre disaster program)
- **Repetitive Flood Claim and Severe Repetitive Loss Programs** (NFI P administered)