ederal funding for mitigation is available on a regular basis for pre-disaster mitigation activities and as federal assistance following a presidential disaster declaration.

Table 1 provides a side-by-side comparison of available funding programs administered by FEMA. Although each program is constrained in a number of ways, as explained below, the following sources of federal funding may be available for mitigation projects for critical facilities:

Many other federal and state funding sources may be available to support planning and construction (or upgrades) of some critical facilities, but this manual does not identify or list such sources. Owners, planners, and community leaders are encouraged to contact appropriate state agencies to learn more.

- O Section 406 Public Assistance (PA) is a post-disaster program established under Section 406 of the Stafford Act—it is jointly administered by FEMA and individual states. As part of the reimbursements made to restore damaged public facilities and certain private non-profit (PNP) facilities, public assistance funds may be made available for cost-effective mitigation measures undertaken as part of the recovery. The amount of Section 406 Mitigation funds made available in any given disaster is not computed by a formula, but is based on a project-by-project evaluation of the feasibility and cost-effectiveness of mitigation measures.
- O Section 404 Hazard Mitigation Grant Program (HMGP) is a postdisaster program established under Section 404 of the Stafford Act. It offers funding to states, communities, and other eligible

grant recipients to invest in long-term measures that will reduce vulnerability to future natural hazards. The states have a strong role in administering HMGP, with FEMA providing oversight. Contact the State Hazard Mitigation Officer (SHMO) for state-specific information. General guidelines and resources for this program can be found on the FEMA website (www.fema.gov/fima/hmgp).

- O Pre-Disaster Mitigation (PDM), established under Section 203 of the Stafford Act, is a nationally competitive grant program designed to assist states and communities to develop mitigation plans and implement mitigation projects. PDM funds are appropriated annually. FEMA convenes national panels to evaluate eligible applications. Applications are submitted by states following the state selection process. Communities should contact the SHMO for state-specific PDM procedures. PDM program guidance and other information can be found on the FEMA website (www.fema.gov/government/grant/pdm/index.shtm).
- O Flood Mitigation Assistance (FMA) is a grant program funded by the National Flood Insurance Program (NFIP) and focused on buildings that are insured by the NFIP, with particular attention to buildings that have received multiple claim payments. As with the HMGP, FMA is state-administered, and information and assistance is available from the SHMO. General guidelines and resources for this program can be found on the FEMA website (www.fema.gov/government/grant/fma/index.shtm).

As part of the Hurricane Katrina recovery in Mississippi and Louisiana, FEMA initiated a post-disaster Partnering Mitigation Programs initiative to combine funding from Section 406 and Section 404 where possible. Section 406 mainly funds the repair and restoration of storm damage; thus, some building elements may remain exposed to future damage. The initiative fosters a cooperative approach to making decisions to use both PA and HMGP funds to accomplish recovery as well as mitigation of facilities as whole buildings in a seamless fashion.

Table 1: Side-by-Side of FEMA Programs

ltem	PA (406)	HMGP (404)	PDM (203)	FMA
Eligible Applicants and Sub-applicants for Project Grants	State and local governments; PNP organizations or institutions that own or operate a PNP facility (as defined in regulation); Indian tribes or authorized tribal organizations and Alaska Native villages or organizations, but not Alaska native corporations with ownership vested in private individuals.	State and local governments; PNP organizations or institutions that own or operate a PNP facility (as defined in regulation); Indian tribes or authorized tribal organizations and Alaska Native villages or organizations, but not Alaska native corporations with ownership vested in private individuals.	State-level agencies; local governments, Indian tribes, authorized Indian tribal organizations, and Alaska Native villages; public colleges and universities; tribal colleges and universities. PNP organizations and private colleges and universities are not eligible sub-applicants, but a relevant state agency or local government may apply on their behalf.	State agencies, NFIP-participating communities (have zoning and building code jurisdiction), and local authorities designated to plan and implement projects.
Eligible Activities	Basic assistance to repair the damaged elements of public facilities and infrastructure. Eligible mitigation activities are only those that protect against direct physical damages to structures, building, and contents.	Eligible activities include structural and nonstructural mitigation measures that are feasible and cost-effective. Projects may count benefits in terms of building and contents damages, displacement costs, loss of function, and casualties and loss of life.	Eligible measures must be cost- effective and designed to reduce injuries, loss of life, and damage and destruction of property, including damage to critical services and facilities under the jurisdiction of the states or local governments.	
Cost Share	75 percent federal 25 percent non- federal	75 percent federal 25 percent non- federal	75 percent federal 25 percent non- federal Small, impoverished communities may be eligible for 90 percent federal share.	75 percent federal 25 percent non- federal

Table 1: Side-by-Side of FEMA Programs (continued)

Item	PA (406)	HMGP (404)	PDM (203)	FMA
Funding Source	The Disaster Relief Fund after a presidential disaster declaration; public assistance must be authorized specifically as part of the disaster declaration.	The Disaster Relief Fund after a presidential disaster declaration; HMGP must be authorized specifically as part of the disaster declaration.	An annual appropriation by Congress.	Annual appropriation by Congress, by transfer of income from the National Flood Insurance Fund.
Planning Requirement	For categories C-G assistance, a state must have an approved mitigation plan.	For disasters declared after 11/1/04, state and local governments must have an approved mitigation plan.	State and local mitigation plans must be adopted and approved by FEMA prior to the beginning of the selection process, as a precondition for receiving project grants.	Recipient must have adopted a mitigation plan approved by FEMA prior to receipt of grant funds.
Application Deadline	Project worksheets usually are due no later than 60 days after a formal briefing presented by FEMA and the state (extensions may be granted in unusual circumstances).	Applications must be submitted to FEMA within 12 months of the disaster declaration date (extensions may be granted in unusual circumstances).	Varies by year; contact state agency for additional information.	Usually late spring; specific date varies by year, contact state agency for additional information.

Public Assistance (Section 406)

Following a presidential disaster declaration, the PA program provides assistance for debris removal, emergency protective measures, and permanent restoration of publicly owned infrastructure. Eligible recipients of this assistance include state and local governments, Indian tribes or authorized tribal organizations, and Alaska Native villages. Certain PNP organizations may also receive assistance. Eligible PNPs include educational, utility, irrigation, emergency, medical, rehabilitation, temporary or permanent cus-

todial care facilities (including those for the aged and disabled), and other PNP facilities that provide essential services of a governmental nature to the general public. Certain PNPs that provide "critical services" may apply directly to FEMA, including PNPs that provide power, sewer, wastewater treatment, communications, emergency medical care, and water (including water provided by an irrigation organization or facility).

As soon as practical after the declaration, the state, assisted by FEMA, conducts Applicants' Briefings for state, local, and PNP officials, to inform them of the assistance available and the application procedure. A request for public assistance must be filed with the state within 30 days after an area is designated eligible for assistance.

Following the Applicants' Briefing, a kickoff meeting is conducted with each eligible grant recipient, where specific damages are discussed, needs assessed, and a plan of action put in place. A combined federal/state/local team proceeds with project formulation—the process of documenting eligible facilities and determining the cost for fixing the identified eligible damages.

The team prepares a project worksheet for each project. Eligible projects fall into the following categories:

Category A: Debris removal

Category B: Emergency protective measures

Category C: Roads and bridges

Category D: Water control facilities

Category E: Public buildings and contents

Category F: Public utilities

Category G: Parks, recreational, and other

The facility owner must pay for all costs that are not eligible for Section 406 reimbursement. The non-federal share can be a combination of cash and in-kind resources. Federal funding from other sources cannot be used as matching funds, with the exception of federal funding provided to states under the Community Development Block Grant program from the Department of Housing and Urban Development.

FEMA reviews and approves the project worksheets and obligates the federal share of the costs to the state, which, in turn, disburses the funds to local applicants. The federal share is not less than 75 percent of the eligible project costs (except in extraordinary circumstances, when some costs are eligible for 90 or 100 percent reimbursement).

Damaged buildings that are in a mapped floodplain and insured by NFIP may have access to an insurance payment to help cover the cost of mitigation, provided the damage caused by flooding is determined to be "substantial damage." A building is substantially damaged when the value of the work required to repair it to its predamaged condition equals or exceeds 50 percent of the market value of the building. In these cases, increased cost of compliance coverage in NFIP flood insurance policies provides to owners up to \$30,000 to bring the building into compliance with floodplain management requirements. This payment may be used as part of the non-federal match of grantfunded mitigation projects designed to address flood hazards.

Section 406 provides FEMA with the authority to fund mitigation measures in conjunction with the repair of damaged facilities involving permanent restorative work (Categories C, D, E, F, and G projects). The mitigation measures must be related to the eligible disaster damages and must directly reduce the potential of future, similar damages to the eligible facility. In providing this discretionary authority, Congress recognized that the postdisaster period offers unique opportunities to prevent the recurrence of similar damage in future disasters. These measures are additional to any other measures undertaken for the purpose of compliance with applicable codes and standards, although such compliance, itself, could be considered a form of mitigation. The following are examples of the types of mitigation required for compliance with building codes that are eligible under Section 406:

- Improved building materials such as impact-resistant windows or flood-resistant materials
- Anchoring of rooftop equipment
- Improved installation methods or techniques
- O New or higher elevation (for flood-prone facilities)

Owners of eligible public facilities often wish to repair and restore a damaged facility in ways that exceed the current building code requirements, in order to further reduce or eliminate future damage. Where it can be demonstrated that doing so is cost-effective, the added costs of such actions are eligible under FEMA Policy 9526.1 governing the implementation of the Section 406 program. Unfortunately, this approach rarely meets all the identified mitigation needs, because the funding can be used only for the damaged elements—mitigation of vulnerable but undamaged elements is not allowed. For example, a police station with some damaged windows can use Section 406 funds to replace the dam-

aged windows with impact-resistant windows, but cannot replace undamaged windows. To address this limitation, facility owners should seek other sources of mitigation funding, such as the Hazard Mitigation Grant Program described below.

All mitigation activities funded with Section 406 funds must be cost-effective. To facilitate recovery, FEMA can apply one of several tests to determine cost-effectiveness:

- Measures may cost to up to 15 percent of the total eligible cost of the eligible repair work on a particular project.
- O Certain pre-approved mitigation measures identified in FEMA policies will be determined to be cost-effective, as long as the cost of the mitigation measure does not exceed 100 percent of the eligible cost of the repair project.
- For measures that do not meet the first or second test, the project applicant must demonstrate cost-effectiveness using an acceptable benefit/cost analysis. FEMA developed benefit/ cost models that are specific to hurricanes, coastal flooding, riverine flooding, earthquakes, and tornadoes.

Hazard Mitigation Grant Program (Section 404)

Section 404, HMGP, is FEMA's primary hazard mitigation program to help implement long-term mitigation measures following major disaster declarations. Under HMGP, each state manages its own program, and eligible participants include state and local governments, tribes, and PNP organizations. The program funds up to 75 percent of the costs of individual FEMA-approved projects. The total amount of funding made available after specific disasters depends on several variables.

HMGP funds have been used for many types of projects, including the following:

Wind-resistant Retrofits. Existing facilities that were built before current code requirements may be eligible to be retrofitted to resist high winds. For any given building, applicable measures are identified by conducting an evaluation of the building. Critical facilities have been retrofitted with shutters for windows and doors, and anchoring of architectural features and rooftop equipment.

- O **Floodproof Retrofits.** Depending upon the nature of the flood risk, elevating an existing flood-prone structure or incorporating dry floodproofing techniques may be the most practical approach to meet NFIP requirements and those administered by states and local governments.
- O Code Upgrades. Certain measures intended to provide a level of protection that exceeds the minimum requirements of the applicable building code may be eligible. This approach to mitigation is especially applicable for critical facilities that serve vital post-disaster functions.
- Relocation. In some cases, it may be viable to physically move a structure to a new location outside of high-risk flood hazard areas. Relocated buildings must be placed on a site located outside of the 100-year floodplain and any regulatory erosion zones, in conformance with all applicable state or local land use regulations.
- Acquisition and Demolition. The community purchases the flooddamaged property and demolishes the structure. The acquired property must be maintained as open space in perpetuity.

Pre-Disaster Mitigation (Section 203)

PDM provides funds to state and local governments for hazard mitigation planning and the implementation of cost-effective mitigation projects unrelated to a specific disaster. PDM is administered directly by FEMA. Eligible applicants include states, tribes, territories, and local governments (PNPs can apply if sponsored by an eligible applicant). Grants are awarded on a nationwide competitive basis and without a formula-based allocation.

Similar to HMGP, PDM has funded numerous projects that improve wind- and flood-resistance of critical facilities such as emergency operations centers, hospitals, fire stations, police sta-

tions, and wastewater treatment plants. Specific measures include strengthening exterior walls, anchoring rooftop equipment, installing shutters, and elevation of facilities or equipment above the 100-year flood elevation. Other types of projects may be eligible, provided they meet the program requirements and are cost-effective. Each year, FEMA issues PDM program guidance with specific criteria.

Cost Share for Small, Impoverished Communities

PDM grants awarded to small, impoverished communities may receive a federal cost share of up to 90 percent of eligible costs. To qualify, a community must meet several eligibility criteria related to population, average annual income, unemployment rate, and other conditions.

Flood Mitigation Assistance Program

FMA is designed to fund mitigation projects that are cost-effective and in the best interest of NFIP. Funds are provided annually from income collected from flood insurance policyholders. Each state manages its own program. Eligible grant recipients must have a FEMA-approved mitigation plan. Eligible recipients include communities that have land use authority and participate in the NFIP, certain other local authorities, and state agencies. The program funds up to 75 percent of certain eligible costs for measures that reduce or eliminate flood damage to buildings that are insured by the NFIP, including buildings and facilities owned by public agencies and PNP entities.

Eligible activities under the FMA program include acquisition, increased elevation, relocation, demolition, floodproofing, and activities that bring nonresidential structures into compliance with minimum NFIP requirements and state and local codes, and minor physical activities such as drainage improvements. As with HMGP, if an NFIP-insured building is damaged by a flood and found to be eligible for the increased cost of compliance claim payment to bring the building into compliance, the payment can be used as part of the required non-federal match for FMA grants.