2

implement the plan recommendations

Overview

Citizens and officials who participated in creating the plan will expect to see results from their hard work and effort. This step describes how to place the recommendations of the plan within the administrative framework of your state, tribe, or community. The section presents ideas on how the planning team can get the recommendations implemented on schedule and, over time, integrate mitigation actions into the day-to-day operations of government agencies. It will also show how to bring action items within the mitigation strategy to fruition through creative use of available resources.

When implementing the plan, various stakeholders will have distinct roles and responsibilities:

The Planning Team. During the implementation of the mitigation strategy, the planning team's role may change to one of overseer. As the developers of the mitigation plan, the planning team should also regularly monitor its progress. The planning team can help ensure that the spirit of the plan is not sidetracked by political or personal concerns, and keep the community energized so citizens can hold the government accountable for the legitimate performance of the plan. The team can also alert officials to issues that may affect emergency management and hazard mitigation.

Elected Officials and Local Administrators. The executive or delegated administrator may be a likely candidate for keeping all participating local agencies or departments on track. Elected officials play a unique role in the implementation of the plan. They will be pressured by those opposed to the plan as well as those who expect to see it enacted as intended. Furthermore, elected officials have the capacity and responsibility to distribute resources among competing interests. The planning team will have identified supportive elected officials not only when organizing to prepare the plan (Phase 1, *Getting Started*, FEMA 386-1), but also when evaluating the relevant political factors of potential mitigation actions (see *Developing the Mitigation Plan*, FEMA 386-3, Step 2).

Elected officials and local administrators should provide:

- **Oversight.** Officials not only can assign staff and provide incentives to implement planning initiatives, they also can support the hard work of the professional staff and volunteers.
- **Visibility.** Community leaders must keep the spotlight on the identified hazard-related problems and opportunities and make sure that problems are not overlooked by any relevant department or office—community planning, emergency services, zoning, public service, and economic development, for example.
- **Budgets.** Elected officials and local administrators must ensure that the community's annual budget includes funding to implement previously adopted long-term actions. This includes commitments that the community has made to cost-share, maintain, operate, repair, or otherwise bear the burden for activities that may have been undertaken with outside assistance.

(continued on page 2-2)

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Partners–Nonprofit Organizations and Businesses. Throughout implementation of the plan, the planning team should consider innovative ways for its partners to facilitate the implementation of projects. The nonprofit and private sectors can help in a number of ways, including lending expertise, discounted materials, staff or volunteer time, or meeting space. The planning team can, in turn, offer the private organizations an opportunity for greater public exposure, and thus greater name recognition. The planning team can also offer tips and expertise in mitigation; businesses often do not realize the danger that their property or sources of income face from hazards. The planning team can inform partners about the hazards they potentially face, the ways they can mitigate these hazards, and how their staff can mitigate hazards at home.

Citizens. Citizens have an ongoing role to play in project implementation. The planning team should actively seek volunteers to help implement programs and activities. Knowledgeable citizens also can be recruited to provide expertise in specific subject areas. The more you involve people in implementing the plan, the greater the support it will receive.

State Agencies. State agencies can lend their time, expertise, and funds to the implementation of hazard mitigation projects. Make sure your list of state contacts is very broad, as the resources of one state agency may be unknown to another.

Academic Institutions. Colleges and universities can provide technical expertise to projects that may require Geographic Information System (GIS), engineering, planning, or other technical assistance. They can also provide meeting space, laboratories, and other logistical support.

In the third phase of the planning process, the planning team identified mitigation actions and implementation strategies that included target dates for the completion of projects and assigned responsibilities to agencies, departments, organizations, or specific people (see Steps 2 and 3 of *Developing the Mitigation Plan,* FEMA 386-3). This information should help the planning team meet the objectives of the plan on time and provide indicators by which the implementation will be monitored and evaluated.

It is important to decide how success will be determined before implementation and evaluation occur. From an administrative standpoint, success may be simply a measure of whether the project was finished on time, and within budget. On the other hand, even projects that are well thought out and executed may not be completed for a long period of time due to the nature of the project, the lack of available funding, or other reasons beyond the control of the community. In this case, it is important to identify successes in the short-term, even if completion is not in sight. For example, if a community decides to pursue zoning changes in flood hazard areas, the actual changes may not occur for years due to administrative procedures that must be followed within the context of local and state zoning and land use law. However, successes (in the form of completion of milestones) can and should be identified along the timeline that is appropriate for that type of mitigation action. In this zoning example, short-term successes can include key meetings or briefings held to present risk information to support zoning changes.

In Step 3, you will also measure the effectiveness of your mitigation actions. It will be therefore important in Step 2 to establish indicators of effectiveness.

The planning team should also determine the manner in which plan implementation will be monitored. In any incorporated community, there are elected or appointed officials who have the ultimate responsibility for carrying out specific community policies and programs. The planning team should continue to serve as a resource to the community by helping its leaders identify, measure, and publicize successes, and mobilize community members to contribute and participate where appropriate. The planning team can also work to secure funding to implement the plan.

Your team may decide that frequent meetings are no longer practical. It may consider an alternative, such as periodically issuing a memorandum to keep team members informed of progress in implementing the plan. An annual internal review of progress by the planning team is also a good monitoring method. Keep in mind that the need for maintaining sustained communication is more important than the form of communication selected.

Procedures & Techniques

Task A. Confirm and clarify responsibilities.

In Step 3 of *Developing the Mitigation Plan* (FEMA 386-3), the planning team identified who would be involved in implementation of the mitigation actions. Now is the time to revisit those assignments and confirm that the responsible parties understand their duties. One way to communicate your expectations to public agencies and other organizations with specific responsibilities is to draw up a Memorandum of Agreement (MOA) among the different agencies and organizations. An MOA is a non-binding statement that defines the duties, responsibilities, and commitment of the different parties or individuals as established by the hazard mitigation strategy developed in Phase 3. It provides a clear statement of values, principles, and community hazard mitigation goals, and establishes an organizational structure to assist in measuring and evaluating the plan's progress.

The MOA should include:

- A vision or goal statement;
- An organizational structure to maintain the effort over time;

- A statement that specifies the duration of the MOA and how it will be reviewed or revised;
- A statement indicating how decisions will be made to continue the MOA;
- A statement describing the circumstances under which partners should consult each other;
- A statement requiring the organization to submit periodic or annual reports on the progress of its projects or programs;
- A statement regarding responsibility for actions; and
- A resource commitment statement on the staffing, technical resources, and funding that the department, agency, or organization is expected to provide.

Example of a Memorandum of Agreement

Agreement is made this 4th day of March 2003 by these parties:

The Town of Hazardville (the Town) and its local corporate and nonprofit partners, and the State of Emergency and its partners

WHEREAS the parties:

Strive to create sustainable communities that are resistant to the human and economic costs of disasters;

Recognize that actions taken in advance of disasters are effective in reducing losses; that partnerships among government agencies, private companies, voluntary and professional associations, educational institutions, and community organizations are essential for the success of these efforts;

Recognize that vulnerable conditions exist in public and private facilities, and the utility and transportation systems that serve them; that increasing population growth and diversity, escalating disaster costs, and other factors increase the Town's vulnerability to disaster;

Recognize that financial support is necessary to enable the expansion and integration of public and private mitigation efforts;

Agree to continue to receive and encourage the input of stakeholders with the State, Town, businesses and nonprofit organizations in Hazardville, neighboring communities, citizens, and other appropriate partners;

NOW, THEREFORE, it is mutually agreed that the parties voluntarily enter into this non-binding Agreement to establish the Town of Hazardville Partnership for Disaster Mitigation (the Partnership).

The principal objective of this Agreement is to further develop private, volunteer, and public-sector capabilities (people, policies, resources, working relationships, long-term plans, and a schedule for accomplishments) necessary to carry out projects that will reduce vulnerability to risk and minimize losses.

1. **MEMBERSHIP.** Membership in the Partnership is open and can be expanded to include new (additional) partners in the future. The Partnership will work together to advise the Town and participate in the implementation of the Town of Hazardville Hazard Mitigation Plan to further mutual loss-reduction goals subject to the terms and conditions recited below.
2. **TERM.** The respective duties, responsibilities, and commitments of the parties hereto shall commence on the date this Agreement is signed by the parties and may be periodically renewed or revised at the option of the parties.

(continued on page 2-5)

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3. **CONSULTATIONS.** The Partners shall make their representatives available to consult with the Town of Hazardville on ways in which the Hazard Mitigation Initiative (see Appendix A below) can be improved and applied successfully. The Partners, in consultation and conjunction with other public-sector entities and related community-wide initiatives, shall consult with each other on:
   - Identification and delineation of natural and manmade hazards within the Town;
   - Assessment of risk to and vulnerability of buildings, facilities, utilities, communications, and transportation systems in the public and private sectors;
   - Techniques to plan for, reduce, and manage expected losses; and
   - Technical and financial assistance and incentives to facilitate loss reduction projects.
4. **ANNUAL EVALUATION.** The parties shall annually review the Partnership created by this Agreement to determine and document successes achieved over the past year and discuss actions to be undertaken in the following year. The Partnership will prepare an Annual Report describing accomplishments resulting from the Hazardville Hazard Mitigation Initiative and implementation of the Hazardville Hazard Mitigation Plan. The Partnership shall also make recommendations for improving this Agreement and other disaster mitigation/recovery strategies.
5. **RESOURCE COMMITMENT.** The parties will consider committing human, technical, and financial resources, coordinate with current and future partners, and carry out the fundamental actions of this voluntary, non-binding Agreement.
6. **THE HAZARD MITIGATION INITIATIVE.** This Agreement includes two Appendices. Appendix A offers an overview of the Hazardville Hazard Mitigation Initiative. Appendix B lists commitments made by the parties to be included as part of the Hazardville Hazard Mitigation Plan that will be acted upon after execution of this Agreement. These actions will constitute steps toward accomplishing the loss-reduction goal. The period of time for completing defined actions will be set and reported by the Partnership.

IN WITNESS WHEREOF, each party has caused this Agreement to be executed by its duly authorized representatives on the date first mentioned above.

Appendix A – Hazardville Hazard Mitigation Initiative – Proposed Actions:

The Hazardville Hazard Mitigation Initiative is an element of this Memorandum of Agreement. In summary, the Initiative addresses the following:

A. **Reducing flood hazards to low-income, residential structures.** The Town of Hazardville Emergency Management Agency, the Hazardville Department of Planning, and the Hazardville Habitat for Humanity are working to acquire flood-prone, low-income housing in the manufactured-housing park and other low-income areas in the floodplain, and to find appropriate, affordable housing for displaced residents.

B. **Establishing public education and outreach projects.** The Partnership will cooperate to inform the public about the accomplishments of the Hazardville Hazard Mitigation Initiative, progress of projects, and upcoming public planning efforts. Working with Hazardville Hardware, the Partnership will also educate the public on insurance, family disaster preparedness planning, and other safety tips to protect houses from natural and technological hazards.

C. **Strengthening the community's resistance to seismic and landslide hazards by retrofitting vulnerable structures.** This project component will strengthen the community's housing stock to resist damage from earthquakes by (1) developing a consistent, sustainable retrofit capability among local builders, contractors, and homeowners; (2) seismically retrofitting vulnerable structures in the downtown business district; and (3) incorporating standardized retrofit practices into home and downtown commercial rehabilitation programs.

   Under this component, the Partnership will also strive to find additional funding to complete the retrofit of the Town's lighthouse, threatened by coastal erosion.

Appendix B – Hazardville Hazard Mitigation Initiative – Resource Commitments:

The Town of Hazardville will:

1. Provide leadership for the Partnership and serve as the point of contact for the Hazardville Hazard Mitigation Initiative.

(continued on page 2-6)

(continued from page 2-5)

2. Provide financial management of the grant funds provided to the Town for hazard mitigation projects, including Hazard Mitigation Grant Program funds, Flood Mitigation Assistance funds, Pre-Disaster Mitigation funds, etc.
3. Procure the support and assistance of appropriate Town departments and agencies to further the objectives of the Hazardville Hazard Mitigation Initiative.
4. Supply meeting space and other logistical support for Partnership meetings.

The State of Emergency will:

1. Supply peer review of plans, planning processes, and project implementation to identify potential problems, recommend solutions, or procure appropriate State support.
2. Attend project review meetings to meet with partners implementing the projects.
3. Facilitate Federal grants applied for by the Town and the Partnership.

Hazardville Department of Planning will:

1. Supervise the acquisition and demolition of vulnerable structures in the floodplain.
2. Designate the resultant publicly owned open space as an area precluded from future development.

Hazardville Department of Housing will:

1. Support the acquisition and demolition of the flood-prone houses of low-income residents by providing additional funding for replacement housing in non-hazardous areas.

Hazardville Habitat for Humanity will:

1. Solicit its corporate and other partners to supply building materials for new, affordable housing.
2. Organize volunteers to build new, affordable housing in non-hazard areas for current residents of the manufactured home park and other low income areas in the floodplain.

Hazardville Hardware will:

1. Design and fund public education brochures advising the public about hazard mitigation for homeowners, safety during hazard events, and the importance of purchasing insurance.
2. Develop a marketing display for the Hazardville Hardware store advertising hazard mitigation for homeowners and related products that can be purchased at the store.

Capability Assessment Results

In completing your capability assessment in Phase 3 of the planning process, you identified policies, programs, practices, and procedures that could be modified to accommodate hazard mitigation actions. Consider developing an implementation strategy that addresses recommendations that can be easily implemented first, followed by those that need to be modified, and last, those that require the adoption of new regulations or policies or infusion of outside funding sources for implementation.

Task B. Begin to integrate mitigation actions throughout government operations.

The planning team should work with chief administrative officials to begin to integrate the newly adopted hazard mitigation goals and actions into the general operations of its government and partner organizations. By initially working within existing administrative mechanisms, communities and states can quickly and efficiently implement and finance their hazard mitigation projects and programs, and incorporate them into their governing systems. The following sections discuss several options to consider.

1. Use processes that already exist.

A good initial strategy is to take advantage of tools and procedures that were identified in your capability assessment in Step 2 of

Developing the Mitigation Plan, FEMA 386-3. Your research of Social, Technical, Administrative, Legal, Economic, and Environmental (STAPLEE) criteria for mitigation activity should have uncovered information on the administrative, financial, or legal mechanisms in your state, tribe, or community. These mechanisms are already in use and familiar to the governmental departments and organizations. This will give the planning implementation phase a strong initial boost, especially if your plan calls for expanding existing agency mandates or departmental funds, or creating new programs later on.

Administrative

- **Departmental or organizational work plans, policy, and procedural changes.** Updating the work plans, policies, or procedures to include hazard mitigation concepts and activities can help integrate the plan into daily operations. These changes can include how major development projects and subdivision reviews are addressed in hazard-prone areas or ensure that hazard mitigation concerns are considered in the approval of major capital improvement projects.
- **Job descriptions.** Working with department or agency heads to revise job descriptions of government staff to include mitigation-related duties could further institutionalize hazard mitigation. This change would not necessarily result in great financial expenditures or programmatic changes.

Budgetary

- **Capital and operational budgets.** Instead of solely relying on funding from hazard mitigation programs or other external sources of grant monies, states, tribes, and communities might consider a line item for mitigation project funding in their capital or operational budgets. Having a line item in these budgets may not guarantee funding every year, but it is certainly easier to get the money allocated if it is already there. Examples include a revolving fund to finance a buyout program or a low-interest program to fund retrofits.

Examples of using existing resources to accomplish mitigation:

- The Department of Public Works could adopt more rigorous procedures for inspecting and cleaning debris from streams and ditches. Instead of cleaning only after storms or complaints from citizens, the Department could require inspections of streams and ditches at least semi-annually.
- The Planning Department could add hazard vulnerability to subdivision and site plan review criteria and incorporate any necessary actions at the planning stage.
- A community conservation society or other interested voluntary organization could perform inventories of historic sites in hazard areas that might require special treatment to protect them from specific hazards.

You may want to add

some or all of the following language into job descriptions for a community planner, floodplain manager, emergency manager, building code official, or water resources engineer in the Public Works Department:

Knowledge, Skills, and Abilities

Knowledge. Knowledge of the principles of emergency management, specifically hazard mitigation. Knowledge of the principles and practices of sustainable development and how it is incorporated into hazard mitigation planning. Knowledge of FEMA's pre- and post-disaster mitigation programs, as well as other federal agency programs (HUD, EPA, SBA) that provide technical and/or financial assistance for implementing pre- or post-disaster mitigation planning. Knowledge of private/non-governmental programs that can support reconstruction and mitigation strategies.

Skills. Consensus building and team building, communication (verbal and written)/interpersonal skills.

Abilities. Ability to apply planning principles and tools to the goals of hazard loss reduction.

See *Developing the Mitigation Plan* (FEMA 386-3) for more information on using the following implementation tools for hazard mitigation:

- Building Codes
- Zoning Ordinances
- Subdivision Ordinances
- Special Hazard Area Regulations

Regulatory

- **Executive Orders, ordinances, and other directives.** The governing body or local executive often has the authority to issue directives to require departments and agencies to carry out certain hazard mitigation actions. Using one of these mechanisms, the governing body or executive can direct department heads to provide progress reports to the planning team on the hazard mitigation initiatives that the departments are responsible for carrying out.

Integrating Hazard Elements into Comprehensive Planning

- For guidance on what to include in a local hazard element, see the American Planning Association's *Growing Smart Legislative Guidebook* at www.planning.org/growingsmart.
- In July 2002, the Institute for Business & Home Safety (IBHS) published a report entitled *Summary of State Land Use and Natural Hazards Planning Laws*. This report focused on the relationship between state planning laws and other statutes that addressed natural hazards and their effect on local-level comprehensive planning and land-use regulations. More information about the results of this report is available at http://www.ibhs.org/research_library/view.asp?id=302.
- Oregon has long been recognized as a pioneer in local planning for natural hazards. In 1969, Oregon adopted Senate Bill 10, which required every city and county in the state to have comprehensive land use plans that met state requirements. This mandate, however, did not grant any authority to enforce the requirement or provide for any technical support or training to the communities. Subsequently, Senate Bill 100 was passed to address these issues, creating the Land Conservation and Development Commission (LCDC). Among its responsibilities, the LCDC was charged with establishing statewide planning goals that were to be congruent with regional, county, and city concerns; preparing statewide planning guidelines, model ordinances, and regulations; and ensuring widespread citizen involvement and input throughout all phases of the planning process.

  One of the state planning goals requires Oregon communities to inventory known natural hazards and to implement appropriate safeguards for development in hazard areas. On behalf of the LCDC, the Department of Land Conservation and Development (DLCD) developed *Planning for Natural Hazards: Oregon Technical Resource Guide* to help communities appraise and potentially improve the effectiveness of the natural hazard planning element in their comprehensive plans. The guide also provides useful information on how to identify and plan for a variety of natural hazards, and implement programs to address them. The publication is available online at http://www.lcd.state.or.us/hazhtml/Guidehome.htm.

- **Comprehensive planning.** Adding a hazard element to the comprehensive plan is one of the most effective mechanisms to institutionalize hazard mitigation for new construction. For communities with a comprehensive plan, *Getting Started* (FEMA 386-1) listed several reasons why a community should integrate mitigation planning and comprehensive planning. A primary benefit of combining these processes is that they both influence the location, type, and characteristics of physical growth, specifically buildings and infrastructure. While planning in and of itself may not be regulatory, it uses regulatory mechanisms (zoning, development ordinances, etc.) for implementing goals and objectives. Additionally, in many parts of the country, the comprehensive planning process is an established activity that is already familiar to the public, and it usually generates a great deal of interest and public participation.

2. Secure traditional sources of financing.

In Phase 3 of the planning process, potential sources of funding to implement the priorities in your mitigation strategy were identified. Now that the plan has been adopted, you have a strong basis for obtaining these resources. Communities and states have a range of tools to finance projects. Use of fees, taxes, bonds, and loans to finance projects are options if there is proper state enabling legislation, local author-

ity, and enough political will. Once the plan has been adopted, there is a legitimate basis for initiating the process required to use these financial tools.

All of your plan's mitigation recommendations probably cannot be implemented using local funding sources. Furthermore, it may take some time to work through the legal and administrative processes to use proceeds from bond issues and similar vehicles. To supplement local funds, communities can apply for grants from federal or state governments, nonprofit organizations, and foundations, as well as seek funding from other private sources. The advantage of applying for grants is that they do not have to be paid back or generate long-term debt; however, most federal grants require state and/or local governments to provide some matching funds.

State and federal grants are a logical source of funding for some of the larger, more costly mitigation initiatives. Many federal grant mechanisms allow local "in-kind services" as a match for federal dollars, as well as the possibility of using state grant funds to meet the local match requirements. Review your capability assessment from Phase 3 and consider looking to regional planning agencies, universities, or economic development districts, if present and active in your state, for research or grant-writing technical assistance. The adjacent sidebar describes three major FEMA mitigation grant programs. Don't forget the potential of other federal grant programs for community development, even if they are not specifically disaster or mitigation related—the U.S. Department of Housing and Urban Development's Community Development Block Grant (CDBG), for example. For more on funding sources, see *Planning for a Sustainable Future: The Link Between Hazard Mitigation and Sustainability* (FEMA 364), and the *Mitigation Resources for Success CD* (FEMA 372).

3. Develop creative partnerships, funding, and incentives.

Incentives that minimize financial or administrative burden can stimulate momentum to undertake mitigation initiatives. For example, states and communities can provide tax rebates for code upgrades, offer reduced property taxes and insurance premiums for citizens and businesses that take steps to lower their exposure to hazards, or provide low interest loans for retrofit projects.

Some states, tribes, and communities have developed creative ways to get things done without spending a lot of their money. These

Three FEMA programs that provide funding for hazard mitigation actions are the **Pre-Disaster Mitigation Program (PDM), Flood Mitigation Assistance Program (FMA), and the Hazard Mitigation Grant Program (HMGP).** Web access to information on these programs is available at www.fema.gov/fima/.

- PDM, authorized under DMA 2000, provides pre-disaster funding to states, tribal, and local governments, and tribal organizations for mitigation planning and projects through a competitive process. A FEMA- approved mitigation plan is required to receive project funding. Check with your FEMA Regional Office or SHMO for the latest information on availability of funds.
- FMA provides annual grants to communities, tribes, and states to reduce the risk of flood damage to structures with flood insurance coverage. This funding is available for mitigation planning, implementation of mitigation actions, and technical assistance. An approved flood mitigation plan is required to receive project grants, but is not required for planning or technical assistance grants. Interim final regulations implementing this program can be found at 44 CFR Part 78.
- HMGP provides post-disaster grants to states, tribes, and local governments to implement long-term hazard mitigation actions after a major disaster declaration. FEMA can fund up to 75% of the eligible costs of each project, and up to 7% of HMGP funds available per state may be used for planning. An approved mitigation plan is required to receive project funding. See Interim Final Rules at 44 CFR §201 and §206.

governments have engaged untapped resources by developing relationships with businesses, nonprofit organizations, and volunteers. Time spent earlier in the planning process developing relationships with citizens, businesses, and other communities can really pay off at this point in the process (see *Getting Started*, FEMA

Some examples of different types of partnerships that can provide funding or other resources to implement hazard mitigation actions are provided below. See *Mitigation Resources for Success* (FEMA 372) for additional examples and a more detailed discussion of funding mitigation actions.

Public-Private Partnerships. Partnership agreements between local governments and businesses or organizations can be advantageous for all parties involved. Private organizations and businesses routinely offer discounted or free goods and services to local governments in exchange for publicity or other benefits. In the end, the governments, organizations, businesses, and the public can all benefit from working together. Examples of successful public/private partnerships include the following:

- In Houston, Texas, FEMA and two prominent home improvement stores teamed up to provide information and advice on cleaning up and rebuilding after flooding caused by Tropical Storm Allison. FEMA Hazard Mitigation Teams staffed booths at both stores for three days, providing information on mitigation methods and techniques and the importance of flood insurance. By providing space, the stores played an important role in promoting community awareness of flooding hazards and helped foster public involvement in recovery.
- In Kinston, North Carolina, affordable housing was disproportionately affected by Hurricanes Fran and Floyd. The Permanent Housing Initiative, a partnership between the North Carolina Division of Emergency Management, the North Carolina Department of Corrections, and private sector home improvement companies, was formed to help address the housing shortage and subsequent housing acquisitions. Using a Habitat for Humanity housing model, energy efficient and hazard-resistant affordable housing was constructed in already established neighborhoods. Homes were constructed by volunteers using prefabricated wall panels (made by prison labor experienced in construction) and other donated tools and materials. The foundation, electrical system, and ductwork were done by certified professionals.
- In an effort to promote awareness of hurricanes and flooding in the coastal community of Virginia Beach, Virginia, the city held a Home Safety and Preparedness Exposition that included a section devoted to building disaster-resistant communities. More than 20 local businesses and organizations and the Virginia Department of Emergency Management sponsored the event. In return, sponsors were given display booths at the event to promote their goods and services.

Community Volunteers. State and local governments rely upon their citizens to perform work that might otherwise have to be paid for by money from government coffers. Some governments have institutionalized volunteerism by requiring students to contribute volunteer hours to local and regional initiatives. Others have partnered with nonprofit agencies, organizations, schools, and businesses to give their time and energy to help further community goals.

- Citizen Corps is a program within the USA Freedom Corps that promotes several initiatives to engage volunteers in Homeland Security efforts, including mitigation actions, across the country. These community-based efforts include Community Emergency Response Teams (CERTs), Neighborhood Watch, Volunteers in Police Service, Operation TIPS, and the Medical Reserve Corps.
- Following flooding in 1993, the City of Petersburg, Illinois, bought out riverfront property that had been flooded and engaged a group of high school students, the Community Problem Solvers (CmPS), to formulate a creative solution for rehabilitating the area as perpetual open space. The CmPS developed a garden and a preschool playground, a solution that was responsive to the needs of the neighborhood, city government requests, and federal government requirements. To fund the project, the CmPS team applied the same initiative and creativity that they had used to design it. The team organized a "Decorate an Abe" contest in honor of former Petersburg resident Abraham Lincoln. Area businesses sponsored and decorated Abe silhouettes, and residents paid to vote for their favorites. The "Abes" were later auctioned off to raise additional funds. In addition, the team designed and sold Historic Petersburg placemats. Volunteers from civic organizations donated funds to sponsor specific pieces of playground equipment, and a local business donated Lincoln Bears to be sold. Preschool children participated in a clean-up day at the site. Overall, many Petersburg residents

contributed their funds, talents, and energy to make the project successful. The CmPS members not only helped minimize its community's vulnerability to flooding, they did it in a way that promoted community pride and civic involvement.

- Oakland, California, developed a community partnership called Safety and Future Empowerment (SAFE). Two initiatives, the Week of Caring and Spring Break, brought together city firefighters, corporate employees, students, the California Office of Emergency Services, and AmeriCorps members to make homes in the community safer and less vulnerable to earthquakes and fire. Four volunteer teams spread out across the city for a week to make the homes of elderly and low-income residents more disaster resistant. The teams installed smoke alarms and cupboard latches, strapped water heaters and free-standing cabinets to house frames, and rigged safety releases on window security bars. Local businesses donated or provided supplies at reduced costs in support of the effort.

State cooperation. Local governments often underestimate the wealth of resources that their states can provide. States are excellent sources of funding, support, and technical assistance. State geological surveys, water resources agencies, and departments of planning or natural resources often have useful data related to hazard identification and risk assessments. Your state may also have a GIS department that can provide data and support.

Unfortunately, localities sometimes pay for studies that have already been conducted by the state. You can avoid these duplications by inviting your state officials to participate in the planning process to help ensure that studies or reports can be compiled from readily available sources.

State fairs and other state-sponsored events can be great places for displays on hazard reduction techniques and hazard awareness campaigns. States can further help publicize awareness and generate interest by declaring a Hazard Awareness Week and promoting related local events on their Web sites.

In-kind resources. Federal or state grants often require the awarded locality to provide matching funds to cover a percentage of hazard mitigation project costs. In-kind resources, however, substitute monetary outlay with services that the community can perform. For example, HMGP pays up to 75% of the eligible costs of a hazard mitigation project, but the remaining amount must also be contributed to the project by non-federal sources. A municipality without sufficient resources can ask the state to help fund the match through state or Community Development Block Grant funds, or it can use in-kind resources. In-kind resources can be labor or salaries contributed toward the implementation of the project (such as technical or administrative support from community officials and personnel). The dollar value of the resource must be calculated, and those costs must be allowable under the grant. Communities can have quite a bit of leeway in developing sources of in-kind resources; however, your state's specific program requirements must be verified first. Federal regulations regarding in-kind matches for FEMA's grant programs can be found at 44 CFR §13.24.

386-1). For more details on funding and creatively using planning resources, see FEMA 372, *Mitigation Resources for Success.*

Task C. Monitor and document the implementation of your projects and actions.

As mentioned earlier, the planning team must continuously monitor and document the progress of the plan's recommended actions. This documentation is essential for determining the progress made on the hazard mitigation initiatives.

The planning team may decide to ask the agencies, departments, organizations, or people with duties identified in the mitigation strategy to periodically submit a work progress report on those projects being implemented. This report will come in handy at evaluation time. If there is a problem with the project or program, the planning team will be better able to pinpoint where the prob-

lem lies. An example of the report agencies could use should include the following information:

- The hazard mitigation action's objectives;
- Who the lead and supporting agencies responsible for implementation are;
- How long the project should take, including a delineation of the various stages of work along with timelines (milestones should be included);
- Whether the resources needed for implementation, funding, staff time, and technical assistance are available, or if other arrangements must be made to obtain them;
- The types of permits or approvals necessary to implement the action;
- Details on the ways the actions will be accomplished within the organization, and whether the duties will be assigned to agency staff or contracted out; and
- Current status of the project, identifying any issues that may hinder implementation.

Requiring the responsible parties to explain exactly how and when the project or programs will be carried out helps determine the extent of the project's progress. It also helps break the implementation process into smaller, more manageable tasks. The responsible agency, department, or organization can decide the particulars of incorporating these additional considerations into their daily operations, while the planning team will know what to expect and when to expect it. See **Worksheet #1: Progress Report** to help you monitor progress.

Task D. Establish indicators of effectiveness or success.

In Step 3, you will measure or evaluate the effectiveness of your mitigation project and initiatives. It will be important to establish measurable indicators of effectiveness now so that those involved in the projects understand how their actions contribute to the success of the projects. Indicators should be tied to the goals and objectives of the plan and its projects. They are often expressed as numerical representations of planning objectives.

For example, if an objective of the planning process is to increase community participation in risk reduction, and a related initiative includes an outreach program to introduce new partners to

Worksheet #1 Progress Report step 2

Progress Report Period: October 1, 2003 (date) to December 31, 2003 (date)

Project Title: Raging River Views Park Flood Acquisition Project Project ID#: HVMP-2003-01

Responsible Agency: Hazardville Department of Planning

Address: 1909 Burnham Way

City/County: Hazardville, Emergency

Contact Person: Eunice Euclid Title: Grants Administrator

Phone #(s): (555) 555-8473 email address: eeuclid@town.hazardville.em

List Supporting Agencies and Contacts:

Hazardville Department of Housing: Noah Hudson (555) 555-8465

Hazardville Habitat for Humanity: Carter Goodman (555) 555-9432

Total Project Cost: $360,000

Anticipated Cost Overrun/Underrun: $N/A

Date of Project Approval: July 21, 2003 Start date of the project: November 15, 2003

Anticipated completion date: Summer 2005

Description of the Project (include a description of each phase, if applicable, and the time frame for completing each phase):

Acquire and demolish 14 structures located at the Raging River Views Park. Work with Habitat for Humanity and the Department of Housing to construct new housing or rehabilitate existing housing for displaced low-income residents. The Department of Housing will also provide funds for temporary housing to displaced residents.

Milestones	Complete	Projected Date of Completion
Conduct surveys of ground and first-floor elevations	✓	
Obtain Notices of Intent by owners	✓	
Conduct structure appraisals	✓	
Send letters of offer to homeowners		1/31/04
Perform title work		3/30/04
Acquire structures		6/30/04
Begin construction of new housing or reconstruction of existing housing for relocated residents		6/30/04
Send payment for relocation to renters		9/30/04
Finalize contract for demolition		1/12/05
Demolish structures		4/26/05
Landscape open parcels		6/30/05

Plan Goal(s)/Objective(s) Addressed:

Goal: Minimize losses to existing and future structures within hazard areas.

Objective: Reduce potential damages to the manufactured home park in the floodplain.

Indicator of Success (e.g., losses avoided as a result of the acquisition program):

In most cases, you will list losses avoided as the indicator. In cases where it is difficult to quantify the benefits in dollar amounts, you will use other indicators, such as the number of people who now know about mitigation or who are taking mitigation actions to reduce their vulnerability to hazards.

Losses Avoided. After a major flood (100-year), the Department of Economic Development will assist the Planning Department in calculating the losses avoided.

Status (Please check pertinent information and provide explanations for items with an asterisk. For completed or canceled projects, see Worksheet #2 — to complete a project evaluation):

Project Status

- [x] Project on schedule
- [ ] Project completed
- [ ] Project delayed*

*explain: _____

- [ ] Project canceled

Project Cost Status

- [x] Cost unchanged
- [ ] Cost overrun*

*explain: _____

- [ ] Cost underrun*

*explain: _____

Summary of progress on project for this report:

A. What was accomplished during this reporting period?

The Department of Planning contacted the owners of the properties vulnerable to floods to determine their willingness to sell their properties. Of the 14 property owners contacted, 10 agreed to have their homes acquired. An appraiser contracted by the Department of Planning estimated the value of the 10 properties.

B. What obstacles, problems, or delays did you encounter, if any?

The owners of four properties refused to sell. There has been some limited neighborhood opposition to various suggestions for the community open space created by the acquisitions.

C. How was each problem resolved?

The Department of Planning has proposed to the residents a design charrette to develop alternatives for the open space that would be created, with the understanding that no permanent structures can be constructed on the open parcels after acquisition and demolition has been completed. Recreational activities will be limited to passive uses such as trails and bike paths.

Next Steps: What is/are the next step(s) to be accomplished over the next reporting period?

1. Send offer letters to homeowners.
2. Do title work.
3. Work with the Department of Housing and Habitat for Humanity to identify existing housing for rehabilitation and viable vacant parcels to construct new housing for the displaced residents.

Other comments:

None

Adapted from the North Carolina HMGP Progress Report Form at http://www.dem.dcc.state.nc.us/mitigation/document_index.htm.

mitigation, an indicator could be the number of organizations that are on the planning team.

Task E. Celebrate success.

It is important to maintain community support throughout the implementation process. One particularly effective technique is to simply keep the community informed about the incremental progress and success of the program. Sharing the findings of progress reports with interested organizations, neighborhood groups, elected officials, and citizens keeps stakeholders up-to-date on your accomplishments and possible setbacks. Posting these findings on your local Web site or including them in your newsletter will help everyone stay informed of your progress. Consider holding events to recognize key milestones to keep the public interested. Step 3 contains more information about how to maintain this important part of the overall effort.

Summary

Implementation is the culmination of the initial planning process. Monitoring progress and maintaining momentum is key to ensuring success of the planning process. Through the implementation of your plan, you will draw upon the diverse resources of your state, tribe, or community. While many of the tools you use already exist in one form or another, your team should try to use as much creativity and resourcefulness as possible to advance your plan's goals and objectives.

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Hazardville Partnership Completes First Home

(Part 2 of a 4-Part Series on the Hazard Mitigation Implementation Process)

[Hazardville, EM] "Yep, that's my new house," Susan Harris grinned. "I can't believe how great it looks!" As Mrs. Harris showed off the interior of the nearly completed house, she noted where her furniture would go. "I would have put my mother's sideboard over here," frowning as she pointed to a spot in the dining room, "but it was ruined in the flood in 2002. It had been passed down from her mother, and I had wanted to pass it down to my daughter."

Mrs. Harris is just one of the residents of Hazardville affected by flooding in 2002. She and nine of her neighbors have had their homes bought by the town and are working with town, state, and federal officials to build new homes out of the floodplain. "My house really wasn't worth very much, and I don't have enough income to handle a big mortgage payment," Mrs. Harris said, "but the town has been working with the Hazardville Habitat for Humanity to help me build a new one."

Habitat for Humanity requires contributions of "sweat equity" in order to be eligible for participation in their program. Mrs. Harris claims that thanks to her contribution she is now quite capable of fixing just about everything in her new home. "Since my husband passed away almost 10 years ago, I have had to rely on my friends to help out with even simple repairs. Now that I have helped with the construction of several of my neighbor's houses I am very comfortable using all kinds of tools!" Mrs. Harris is so comfortable with her new skills that she is thinking about building her own shed after she gets settled.

"The process is working!" beamed Joe Norris, lead planner for Hazardville. Norris, referring to the hazard mitigation plan adopted by the town in 2003, pointed to the emphasis the Town of Hazardville Organization for Risk Reduction (THORR) had placed on reducing flooding and disaster-related damages to existing structures while recognizing the needs of residents with limited resources. Part of that emphasis was on creating and following through with community partnerships.

The Town of Hazardville Partnership for Disaster Mitigation is a partnership of nonprofits, businesses, and local, state, and federal agencies. The Partnership is an initiative that Hazardville established in 2003, following adoption of the hazard mitigation plan. Each partner contributed something to the effort. Funding from the FMA program was used to purchase ten repetitive loss structures. Local businesses contributed to the project by donating building materials and supplies. Community volunteers worked throughout the summer to make this a reality for Mrs. Harris and the other homeowners.

1 adopt the mitigation plan
2 implement the plan recommendations
step 3 evaluate your planning results
4 revise the plan