

step

1

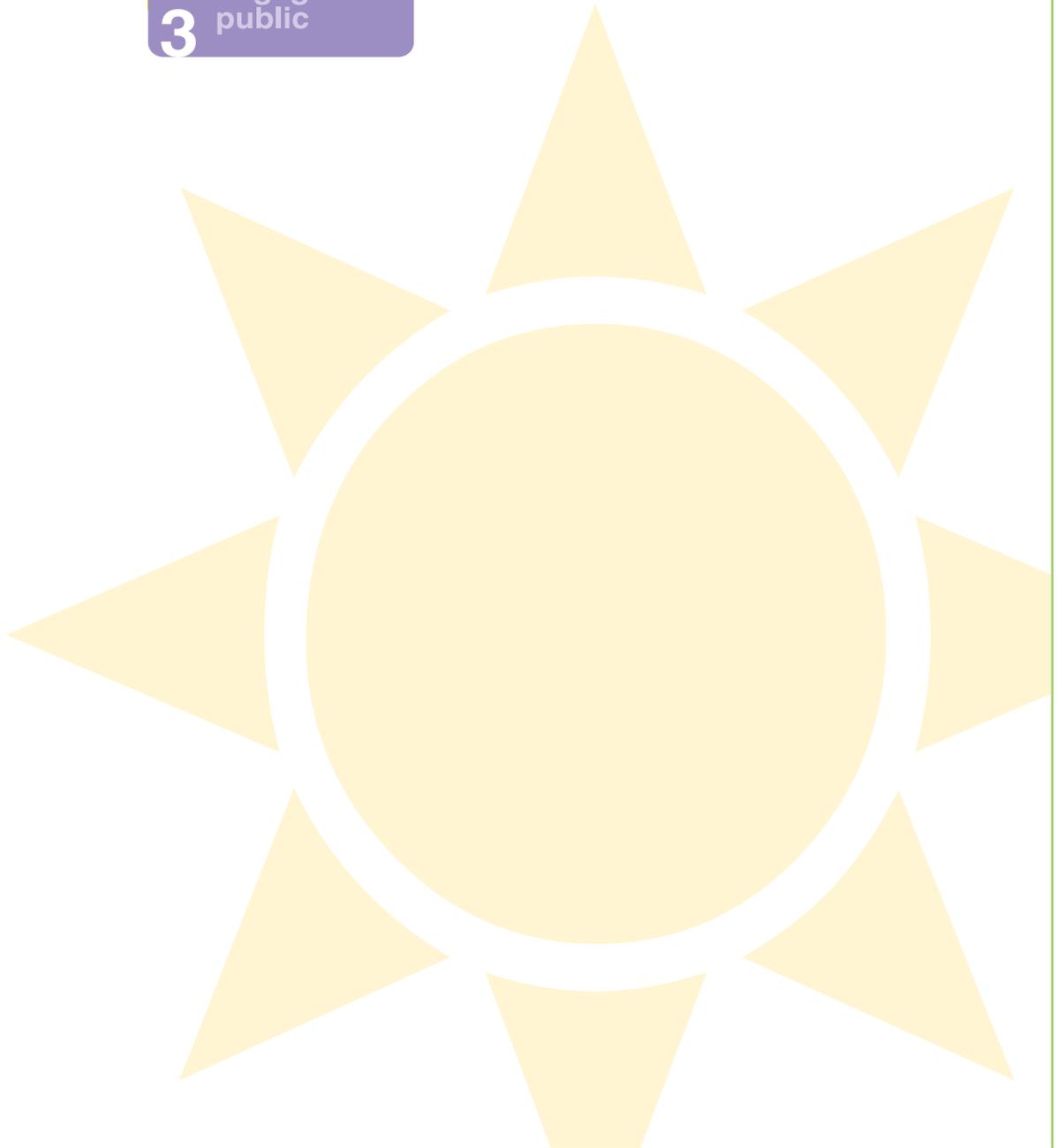
assess
community
support

2

build the
planning
team

3

engage the
public



assess community support

Overview

Much of mitigation planning involves cycles of learning about your community and then acting on what you have discovered. The more you understand the issues, important concerns, and capabilities in your community, the more you can develop a planning process that reflects community values and thereby generates support for projects and outcomes.

Among the first steps in the planning process is measuring the level and source of community support for planning, and working on securing any needed support where gaps are identified. Step 1 provides questions to prompt you to identify and obtain appropriate sources of necessary ingredients for successful planning. Step 1 also discusses how to determine the appropriate geographic area in which to focus the planning effort. Step 2 will assist you in seeking answers to the questions posed in Step 1 so that you can begin to establish the organizational framework for the planning effort.

The remainder of this section provides guidance on how to deal with deficiencies in any of these particular areas. If your community is really ready to go, that is great! If not, as is more frequently the case, you may need to work hard to build support. This may take a couple of meetings or many months, depending on the community's level of readiness. Once you have "primed the pump," you can begin enlisting others to form the planning team, Step 2 of *Getting Started*.



Mitigation planning is not a linear process.

With the exception of the risk assessment, most tasks can be completed in any order that works for the community, particularly when you are working on building support in your community. For example, what would happen if you completed Step 1 and determined that the appropriate level of government for your mitigation planning efforts was the town, but later on, you realized the town did not have sufficient resources or the proper authority to develop and approve the mitigation plan? You may need to revisit this step after contacting the county.

Furthermore, if the community is not ready to plan (i.e., there is no political support for planning or the community has inadequate funding), it may be more appropriate in some cases to begin instead with Step 3, *Engage the Public* to build public pressure to support mitigation planning. This will allow the community to build the support for planning before the planning team is established. It is also possible that you will have to complete a minimal type of risk assessment in order to obtain support for the planning process. In that case, you would refer to *Understanding Your Risks* (FEMA 386-2).

Procedures and techniques

Task A. Determine the planning area.

Under DMA 2000 regulations,

local governments may be defined in many different ways. A local government may be defined by a political boundary such as an incorporated city, county, parish, or township, or it might not have a distinct political boundary, for example a watershed or metropolitan region.

DMA

In consultation with the state, identify the areas or jurisdictions to be included in the mitigation planning process. Local governments most often create a mitigation plan that covers their entire political jurisdiction, be it a county, city, township, parish, borough, or unincorporated community that falls under a county's jurisdiction, but the plan does not usually cross jurisdictional boundaries.

In many instances, however, planning on a broader scale can bring additional resources, such as staff and experience, to the effort and can help to address hazards that may originate outside of a community's jurisdictional boundaries. It may be a practical and cost-saving way to approach hazard reduction for a large number of communities, particularly if hazards and vulnerabilities are similar across a large area. An example of a multi-jurisdictional planning area would be several towns located along the same fault zone whose main hazard is earthquakes, or communities that lie within the same watershed.

Reasons for Multi-Jurisdictional Planning

- Creates partnerships.
- Is practical for addressing issues best dealt with on a larger scale, such as watersheds, which do not recognize political boundaries.
- Takes advantage of existing planning mechanisms, such as regional planning organizations.
- Can create economies of scale and enable pooling of limited resources.



Smaller jurisdictions may also benefit from working together because of the additional resources and expertise that collaboration can bring. Many counties with numerous townships and incorporated municipalities may use a county approach simply for the sake of streamlining, since counties often provide emergency management services to their jurisdictions, whether incorporated or not. Communities should also consider working with an existing regional planning commission or other regional planning organization.

While DMA 2000,

along with CRS and FMA, allow multi-jurisdictional plans, you should still check with the State Hazard Mitigation Officer (SHMO) to determine if this is a viable approach.

DMA

A multi-jurisdictional approach carries with it the increased opportunity for conflict, however, so if you have the option of choosing a jurisdiction with which to work, care should be given to selecting jurisdictions with similar characteristics and goals.

Consider including localities that you have teamed with in the past. Your jurisdiction already may be working together with another nearby jurisdiction, or may work closely with a regional planning district. If so, it may be a natural fit to become part of a larger planning area. How your planning area is defined is up to you and the state, but the one thing that the jurisdictions must have in common is the commitment and the shared sense that something needs to change. For more detailed guidance, see *Multi-Jurisdictional Approaches to Mitigation Planning* (FEMA 386-8).

Defining the Planning Area

States should help communities to determine the optimal planning areas in which they will work. This determination may be based on state planning goals, statewide planning initiatives already underway, and resource availability.





Consult with the State Hazard Mitigation Officer (SHMO)

The states play an important role in determining the appropriate planning area for local hazard mitigation planning efforts. Given the diversity of state and local planning authorities throughout the nation, the DMA and the Interim Final Rule define "local government" broadly and provide the states with the necessary flexibility to determine how local governments will be involved in the hazard mitigation planning process. Some states may encourage a particular level of local government to have the lead responsibility for "local" plan development – be it an incorporated municipality, township, county or regional level of government. Other state mitigation planning programs may encourage a considerable range of flexibility in how communities can work together with adjacent jurisdictions, such as the development of local hazard mitigation plans on a watershed basis. Communities should contact the state emergency management office and, in particular, the SHMO, early on to obtain guidance for determining the appropriate planning area.

Task B. Determine if the community is ready to begin the planning process.

Below is a series of questions designed to help you assess the availability of key elements necessary for a successful planning process: KNOWLEDGE, SUPPORT, and RESOURCES. Seeking answers to these questions will help you determine what you should focus on to ensure that you have the necessary ingredients in place to begin planning:

Knowledge. Answering the following four questions can help you begin to determine the level of understanding about hazard mitigation planning and risk reduction in your community. If you determine that your public officials are either unfamiliar with hazard mitigation or unconvinced that investing in mitigation measures before a disaster strikes will save more money than it would cost to recover from the disaster, you should consider engaging in the activities related to "Knowledge" that are included later in this step under Task C to help increase knowledge of hazard mitigation in your community.

1. How much do elected and/or appointed officials know and understand about hazards in their area? Do they know what they and the community can do to reduce their effects? Has there been recent disaster (or severe weather) activity?
2. How much do the citizens know about hazards in the community?
3. Do officials and citizens understand that their actions, behavior, and decisions affect their vulnerability and that steps can be taken to reduce risks?



States should assist local jurisdictions

in assessing support for mitigation planning. In addition, states should build

their own support for mitigation planning by educating new state officials and department heads and seeking to build collaborative relationships.

4. Is there a difference between the risk perceived by the community and the actual risk (to the extent that risk is currently known)?

Support. Answering the following questions can help you begin to determine the level of support for hazard mitigation planning and mitigation project implementation in your community. If you determine that your local government elected and/or appointed officials or citizens do not know how they and the private sector can support mitigation, consider engaging in activities related to "Support" included later in this step under Task C to help identify strategies to increase the level of support for hazard mitigation. If you are unfamiliar with other types of planning activities at work in your community that can help support mitigation planning and activities, review these examples as well in the "Support" section under Task C.

5. Do elected and appointed officials understand how local, state, and federal levels each support hazard mitigation and emergency management?
6. Is there something (not necessarily hazard-related) that citizens are dissatisfied with that may be located in a hazard area (i.e., tourism, economic development, blight, transportation issues) that could be dealt with in context of mitigation planning? How can the mitigation plan contribute to other planning initiatives?
7. How likely is it that there will be an individual to serve as a champion to provide leadership and/or support for mitigation planning (individual, organization, or business)?
8. What would it take to identify or recruit a planning team leader? How will you capitalize and build on expanding enthusiasm?
9. Is there an existing FMA or CRS flood mitigation plan or other single hazard plan?
10. Is there an existing system for planning in the community? Is there a planning department? A community plan? Are there local staff with planning capabilities with whom you can collaborate?
11. Is there a history of community interest and/or involvement in environmental issues? Recreational issues? Safety issues?



12. Is there an existing land use map, GIS system, contour map, soils map, topographic map, or other material that can be used to better understand the hazards context of the community?

Resources. Answering the following questions can help you begin to determine the availability of resources and capabilities for hazard mitigation planning and mitigation measures in your community. If you determine that you are unfamiliar with programs that may be available in your community or state, or need financial resources to initiate the planning process, consider the activities related to "Resources" that are included later in this step under Task C to help identify untapped resources to support hazard mitigation.

13. Are you aware of the range of non-FEMA or non-mitigation programs available to assist in mitigation projects?
14. What are the major employers, industries, and organizations that help shape the culture of the community? Are they willing to be involved?

It may be difficult to obtain these answers. If so, you may wish to go ahead and begin to build your planning team knowing that you can come back to this section for guidance on issues related to knowledge, support, and resources for planning. The answers to these questions should be compiled and incorporated into your plan document, particularly in the capability analysis section that you will develop during Phase 3 of the planning process. This information, coupled with hazard and vulnerability information you will collect in Phase 2, will shape the projects and policies adopted in your mitigation plan.

If your community can satisfactorily answer each of the questions above and is clearly ready to begin a mitigation plan, go to Step 2. If not, go to the appropriate part of Task C below.

Task C. Remove roadblocks.

Mitigation planning roadblocks related to knowledge, support, and planning resources, such as lack of interest and limited funding, can be overcome in several ways:

- Educating public officials about the benefits of reducing potential losses through pre-disaster mitigation plan-



ning and about the costs of not having a mitigation plan can help convince them of the importance of mitigation planning. It can also give them a new understanding of what is at stake if they do not develop a plan for reducing losses from hazards.

- Identifying leaders in other communities who were successful in developing and/or implementing mitigation plans can help bring peers together to benefit from experience.
- Identifying a team leader in a position of authority, such as a community leader, elected official, or influential agency head, can help tremendously in convincing elected officials and others to support the planning effort.
- Capitalizing on new regulations such as those implementing the DMA, which require states and local communities to have approved plans to be eligible for post-disaster mitigation funding, can serve as an entry point of discussion with elected officials.
- Identifying existing processes such as comprehensive planning that can be expanded to include the development of a mitigation plan or include hazard mitigation elements.
- Identifying self-interests in mitigation for a variety of sectors of the community or state to obtain broad support.
- Identifying a variety of potential funding and technical resources to support the planning process and being ready to provide this information to others.

Following are steps you can take to overcome these roadblocks.

Knowledge

1. Educate public officials on hazards and risks in your area.

- a. **Have statistics ready about the last disaster.** Many public officials are unfamiliar with hazard mitigation planning and the mitigation planning process. Unless your community or state has experienced a recent disaster, local elected officials might not be very familiar with



local hazards and the associated risks. Before you or others meet with the officials, make sure you are well prepared and have done your homework. Know the details of recent hazard events, such as the number of households that were damaged or destroyed, the number of businesses that closed, or the reduction in tourism as a result of recent disaster events. For details on estimating losses, refer to Phase 2 of the mitigation planning process in *Understanding Your Risks* (FEMA 386-2).

If it has been some time since the last disaster event, you may find it difficult to convince officials that your community is vulnerable to hazards. You are likely to get a negative response if you try to scare these officials into action. Some communities have always relied on the promise that since disasters happen so infrequently, it is better to wait until a disaster strikes than to try to change the way the community conducts its daily business. If this is the case, you may wish to skip to Step 3, *Engage the Public* first.

- b. **Discuss general options.** If you discuss potential mitigation options that the community currently has under consideration, try to be as inclusive as possible, without going into too many details. Only mentioning preventive actions, such as restricting development in hazard areas and enforcing stricter building codes, may give the officials the wrong impression about the true range and flexibility of mitigation options. Be sure to stress to officials that the plan's mitigation goals, objectives, and strategies will be determined with the public's input and support. For more details on developing an implementation strategy, refer to Phase 3 of the mitigation planning process in *Developing a Mitigation Plan* (FEMA 386-3).
- c. **Remember the bottom line.** Elected officials are concerned about the safety and economic well-being of their constituents. To gain their support, therefore, you should emphasize how mitigation planning helps to achieve these goals. In particular, elected officials like to hear about the economic benefits associated with public actions, so provide as much information as possible on the costs of a disaster and how mitigation



States can often provide

general information to local jurisdictions about prior disasters within their state. In addition, they

should be speaking with local elected and appointed officials regarding new regulatory requirements for planning under DMA, as well as assistance the state will provide for planning. States should also be developing hazard reduction policies and goals that will become part of local planning considerations.



Go to www.hazardmaps.gov

to find multi-hazard mapping information for your community or state. It

is a Web-based collection of natural hazards information and supporting data.





Six broad categories of mitigation measures include:

1. **Prevention.** Measures such as planning and zoning, open space preservation, land development regulations, building codes, storm water management, fire fuel reduction, soil erosion, and sediment control.
2. **Property Protection.** Measures such as acquisition, relocation, storm shutters, rebuilding, barriers, floodproofing, insurance, and structural retrofits for high winds and earthquake hazards.
3. **Public Education and Awareness.** Measures such as outreach projects, real estate disclosure, hazard information centers, technical assistance, and school age and adult education programs.
4. **Natural Resource Protection.** Measures such as erosion and sediment control, stream corridor protection, vegetative management, and wetlands preservation.
5. **Emergency Services.** Measures such as hazard threat recognition, hazard warning systems, emergency response, protection of critical facilities, and health and safety maintenance.
6. **Structural Projects.** Measures such as dams, levees, seawalls, bulkheads, revetments, high flow diversions, spillways, buttresses, debris basins, retaining walls, channel modifications, storm sewers, and retrofitted buildings and elevated roadways (seismic protection).

Summary of "Benefits of Mitigation Planning"

- Leads to cost-effective selection of risk reduction actions
- Builds partnerships
- Contributes to sustainable communities
- Establishes funding priorities



actions can reduce those costs to individuals, businesses, communities, states, and the federal government, particularly for a disaster that recently affected your community or a nearby community.

- d. **Be informative but brief.** When elected officials hold meetings, there is usually a multitude of issues before them. These officials will appreciate and respond positively if you are organized and prepared for the meeting. Be clear and concise about your needs and activities, keeping your speaking time to a minimum whenever possible.
- e. **Provide examples and success stories from nearby communities.** Public officials like to talk to fellow officials and counterparts, and they will usually speak with them before contacting state or federal staff. If you offer them positive examples from nearby communities, there is a good chance your officials will be interested in pursuing similar programs, which could give the planning process a big boost. Among the many sources of information on mitigation successes are FEMA's Web site (www.fema.gov) and CD-ROM, *Mitigation Resources for Success* (FEMA 372), and the Web site for the Association of State Floodplain Managers (ASFPM) at www.floods.org.

2. Tout the benefits of hazard mitigation and mitigation planning.

Many of the benefits of hazard mitigation planning are discussed in this guide, including identifying cost-effective and technically feasible mitigation measures that will reduce losses from future disasters; building partnerships with sectors not previously involved; facilitating funding priorities, especially following a disaster; and creating more sustainable communities. Improved disaster resistance can also be used to attract new businesses and residents, which results in an improvement to the overall economy.

- a. **Planning leads to judicious selection of risk reduction actions.** Hazard mitigation planning is the systematic process of learning about the hazards that can affect your community or state; setting clear goals; and identifying and implementing policies, programs, and actions that reduce the effects of losses from future



disasters. A hallmark of the planning approach is the careful selection of these mitigation activities through continued community participation and technical and cost analyses.



Planning Reduces Losses and Facilitates Recovery

Most of the city of Kinston, North Carolina is located in the 50-year floodplain and is extremely vulnerable to flooding. When Hurricane Floyd hit in 1999, the city was still recovering from Hurricane Fran that hit three years earlier. Fran inflicted major damage to the city and prompted Kinston to undertake a new recovery strategy guided by two objectives: to substantially or permanently reduce flood hazards in the county and to revitalize existing neighborhoods and business developments in a long-term effort to empower citizens to be self-sufficient, and in the process, improve their quality of life. As such, the city undertook an acquisition and relocation program to reduce potential flooding losses from storms. Using federal and state funding, the city had acquired approximately 100 houses before Hurricane Floyd hit in 1999. Of these houses, 95% would have flooded and more than 75% would have been substantially damaged. Estimates for property and displacement losses exceeded \$6 million. The city's investment in this program paid off. The city spent \$2.1 million on this program.



States can provide

guidance and can assist local communities in the development of hazard mitigation plans. The states will be working with FEMA to develop their own mitigation plans and will know what FEMA is looking for to approve plans under DMA 2000. In turn, states will work with their communities to help them produce a plan that will meet DMA 2000 criteria.

- b. **Planning builds partnerships.** Hazard mitigation planning is one of the best ways to enhance collaboration and gain support among the parties whose interests might be affected by hazard losses. Working side by side, a broad range of stakeholders can forge partnerships that pool skills, expertise, and experience to achieve a common vision for the community or state, helping to ensure that the most appropriate and equitable mitigation projects are undertaken. The increased collaboration may also reduce duplication of efforts that results when stakeholders work in isolation. Hazard mitigation planning is most successful when the public and elected officials support mitigation programs and the identified mitigation actions support other community goals and objectives.
- c. **Planning contributes to sustainable communities.** There has been an increasing awareness in the last few years of the concept of sustainability and its intrinsic link with natural and human-caused hazard risk reduction. Sustainability is attained when decisions made by the present generation do not reduce the options of future generations. The present generation passes on to the next a natural, economic, and social environment that will provide a continuing high quality of life.



Planning Helps Solve Multiple Needs

There were only three unaffected houses available for purchase in the \$40,000 to \$60,000 range in Louisa County in rural Iowa after terrible flooding occurred in 1993. As the county has limited affordable housing opportunities, instead of demolishing 175 flood-damaged homes and temporarily displacing nearly 5% of the county's population, the county partnered with the Muscatine Center for Social Action (MCSA) to address the shortage of affordable housing. MCSA has a history of taking on projects no one else is willing or able to do and, working with the county, assumed responsibility for relocating the structurally sound homes out of the floodplain and initiated an outreach campaign to find potential buyers. The partnership provided a valuable service to the residents and community by keeping the tax base within the county and providing affordable and safe housing for county residents.



A sustainable community

considers the following issues when planning for and with their citizens:

1. Environmental quality and quality of life;
2. Disaster resistance;
3. Economic vitality and a fair legacy for future generations; and
4. The impact of its actions and policies on adjacent jurisdictions as well as the greater surrounding region and beyond.



Planning Promotes Sustainability



One of the most widely recognized examples of the connection between hazard mitigation and sustainability involves the acquisition of flood-prone properties in low-income areas. In such areas, mitigation projects can fail if adequate affordable housing cannot be provided for those who are displaced. When emergency management, planning, and affordable housing advocates coordinate their activities, the result is newer, better, and safer housing for the affected residents. Some states have been successful in using weatherization funds, provided by the U.S. Department of Energy's Weatherization Assistance Program (WAP) for residential structures to retrofit homes against wind and flood damage, thereby linking energy efficiency and disaster prevention. The result is safer, more energy efficient homes.

An example of this collaboration is Valmeyer, Illinois. After the Mississippi River flood of 1993, Valmeyer used funds from the Office of Energy Efficiency and Renewable Energy, Department of Energy, to incorporate sustainable technologies into the design and construction of a new town out of the floodplain.

An essential characteristic of a sustainable community is its resilience to disasters. For more information, see *Planning for a Sustainable Future: the Link Between Hazard Mitigation and Livability* (FEMA 364) and *Rebuilding for a More Sustainable Future: An Operational Framework* (FEMA 365).

Using a planning approach to reduce hazard losses can facilitate the incorporation of sustainable concepts in both pre- and post-disaster timeframes. The mitigation planning process can support a more robust and sustainable planning effort by assuring that land use planning and development regulations guide development in directions that facilitate many goals simultaneously.

Sustainable communities look for ways to combine policies, programs, and design solutions to bring about multiple objectives and seek to address and integrate social and environmental concerns. The planning process can provide a framework within which state and local governments can link sustainability and loss reduction to other goals.

For example, sustainable communities often emphasize open space planning by promoting greenways, parks, and landscaping. Effective use of open space can prevent development from encroaching into floodplains, active fault zones, landslide areas, and other disaster-prone areas.

- d. **Planning establishes funding priorities.** Communities and states that have up-to-date mitigation plans are better able to identify and articulate their needs to state and federal officials when funding becomes available, particularly following a disaster. Communities with mitigation plans in place can often begin the recovery process more quickly when a disaster occurs. Such communities can present projects as an integral part of an overall, agreed-upon strategy, rather than as projects that exist in isolation. Furthermore, by having established priorities ahead of time, states and communities are better able to identify technical and financial resources outside traditional venues. To encourage planning, only those states and communities with approved plans that meet the DMA 2000 criteria will be

eligible to receive HMGP funds for mitigation projects. Under the new regulations, states with enhanced plans can receive funding under HMGP equal to 20% of the total estimated Stafford Act disaster assistance (Individual and Public Assistance), rather than the 15% traditionally allocated.

Support for planning

Elected officials tend to be more receptive to understanding the benefits of hazard mitigation planning following a disaster. Many officials, however, may not be aware of the vulnerabilities to hazards if disasters have rarely occurred in your area. It is the officials' responsibility to protect the health, safety, and welfare of their constituents, and, in fact, most building, zoning, and subdivision codes and ordinances begin with such a preamble. Therefore, it is important for you to be able to explain to state and local government decision makers, private sector entities, citizens, universities, and nonprofit organizations why they should support mitigation planning programs. Equally important to discuss are the benefits they would derive from such support, and the roles they can play to ensure the success of the planning process.

To be successful, mitigation planning, just like all community planning, requires collaboration between, and support from, federal, state, local, and regional governments; citizens; the private sector; universities; and non-profit organizations. Many of these entities have specific statutory authorities; some have funding resources available, and some can provide technical assistance to support mitigation efforts. Most importantly, they all contribute toward ensuring that the planning process results in practicable actions tailored to local needs and circumstances.

1. Support from local government.

Local governments are responsible for enacting and/or enforcing zoning ordinances, land use plans, building codes, and other measures to protect life and property. They are responsible for informing citizens of the risks hazards pose to people, property, and the environment, and the measures they can take to reduce losses from such risks.

Communities are the first to feel the effects of disasters; therefore, local governments should do everything possible to protect their citizens from hazard risks and ensure that their community complies with federal and other regulations designed to



Planning Facilitates Funding

In Texas, the Harris County Flood Control District (HCFCD), a division of the Harris County Public Infrastructure Department, implements a progressive and efficient Acquisition/Buyout Program during and between flooding events. Funding for the HCFCD comes primarily from a dedicated property tax, specifically an "ad valorem" tax. The HCFCD uses other federal agencies as partners to augment funding, i.e., FEMA, US Army Corps of Engineers, and Department of Housing and Urban Development. The HCFCD allocates county and flood control funds for the purchase of homes in the county's floodplain. It sets priorities and provides a ranking for properties throughout the county that are vulnerable to flooding. HCFCD maintains an extensive database of every property that has flooded, including details on property location, floodplain location, dates of events and inspections, damage amounts, permit information, substantial damage information, and whether it was referred to a buyout program. For example, after Tropical Storm Allison hit, FEMA, the HCFCD, and the State of Texas created a "fast track" buyout process which allowed over 200 houses to be bought in the first ten months after the flooding. This ongoing planning allowed the HCFCD to quickly leverage federal funding in the immediate aftermath of Tropical Storm Allison.



Local Government Powers that Apply to Hazard Reduction



Planning. Although the degree of planning authority of a local jurisdiction is determined by state legislation, all local governments can use a planning process to educate, encourage participation, and reach consensus on promoting hazard mitigation.

Regulatory Power. Local jurisdictions have the authority to regulate land use development and construction through zoning, subdivision regulations, design standards, and floodplain regulations (note: many states have adopted statewide model building codes wherein the local governments are not allowed to modify or change the code).

Spending Authority. The way in which local jurisdictions use public funds can influence development in hazard areas. One fiscal management tool that many communities embrace is the capital improvement program, which is generally a 5-year plan for funding improvements to public facilities.

Taxing Power. If the private sector seeks development in hazard areas, special taxing districts can be created to balance more equitable and appropriate public investments. Preferential assessments can also be used as incentives to retain agricultural and open-space uses in high hazard areas.

Acquisition. Local governments can acquire lands in high hazard areas through conservation easements, purchase of development rights, or outright purchase.

reduce disaster costs. Local governments are responsible for addressing hazard threats within the community and for following a sound planning process for identifying and selecting the best solution for the community. They are responsible for ensuring that each citizen has an opportunity to provide input into the development of local mitigation projects and activities, in the same tradition as comprehensive planning for communities.

2. Support from state government.

State governments play a significant role in supporting mitigation planning. States administer programs that provide assistance for mitigation initiatives and act as the liaison between federal and local governments for all phases of emergency management. In many states, the Emergency Management Office is assigned these responsibilities. The SHMO serves as the point of contact and coordinates all matters relating to hazard mitigation planning and implementation. Planning departments, environmental agencies, and natural resource agencies may share or assist in these responsibilities.

The states ensure that local governments uphold federal regulations intended to reduce losses due to hazards. To do this effectively, the state should provide technical and/or financial resources to their local governments to achieve common mitigation goals. States continuously evaluate their own facilities and resource capabilities and produce and maintain statewide mitigation plans based on their own priorities, and on local needs and priorities. The state should educate and inform local governments, businesses, and citizens about the hazards and risks within the state, and should assist them in developing plans to reduce the risk. The state's role in coordinating hazard mitigation planning has become even more important with the passage of DMA 2000.

3. Support from the federal government.

The Federal Emergency Management Agency (FEMA) is the lead federal agency responsible for providing technical and financial assistance to state and local governments for disaster mitigation planning and the implementation of mitigation projects. FEMA also promotes mitigation activities and programs among federal, state, and local governments, as well as businesses, academic institutions, and non-profit organizations. FEMA has been given the authority to implement the Disaster Mitigation Act of 2000 (DMA 2000); however, other federal



agencies implement programs that may also provide support for mitigation goals, such as the Department of Housing and Urban Development's Community Development Block Grant program. Examples of federal assistance available for mitigation are included on the FEMA CD, *Mitigation Resources for Success* (FEMA 372), available through FEMA's publication warehouse.

4. Support from the private sector.

Businesses and private organizations have much to gain by reducing their risks to hazards, in terms of their own well-being, as well as contributing to reducing risks in the community as a whole. Historically, more than 25% of businesses never reopen after a disaster. Even if a business is not physically damaged during a disaster, it cannot operate if its employees cannot get to work, if water and electricity are unavailable, or if customers fear safety hazards.

5. Citizen support.

Citizens are ultimately responsible for their own safety and for protecting their assets from damage by preparing for potential disasters that could occur within their community. It is important that they find out about local hazards and identify measures they can take to reduce their impact on their homes and families. For example, the purchase of insurance that will cover their risk from these hazards is one specific approach. The larger issue of economic viability of the community is also very important to citizens, so it is crucial to convey to citizens how involvement in a mitigation planning process helps protect economic assets from disaster losses.

6. Support from academic institutions.

Academic institutions often have their own emergency response or operations plans to ensure the safety of their faculty, staff, and students. Often, however these institutions are unfamiliar with the hazards that could threaten their facilities and have not identified measures that can be taken to reduce their impact. Just as with private sector entities, schools stand to sustain losses in disasters and can gain much by supporting and participating in planning. In addition, they can often provide valuable resources to the community, such as technical expertise, facilities in which to host meetings, post-disaster services and facilities, and student resources to assist in data gathering.



The ability of businesses to recover

after a flood, fire, earthquake, or other disaster could be the difference between

community survival and failure. When a major company that employs a large percentage of a community's population remains closed following a disaster, employees may leave town or seek jobs elsewhere.

What happened in Elkins, West Virginia is just one example. The Kingsford Manufacturing Company's charcoal production plant employs more than 100 residents in this small town. "The Kingsford plant is an essential member of its local community, contributing over \$8.5 million to the economy in direct impact including payroll, taxes, and purchases of supplies, utilities, and raw materials from local lumber mills. Additionally, the Kingsford plant's total economic impact on this community is estimated annually at \$23 million." (*Protecting Business Operations*, FEMA 331.)

In November 1985, the plant sustained \$11 million in damage and 2 months of downtime when it received more than 7 feet of floodwaters. After it was shut down twice in 1996 due to flooding, resulting in another \$4 million in damages, the plant developed a mitigation strategy to reduce its risk from future flood losses. The alternative of moving the plant to another community out of the floodplain could have spelled economic doom for Elkins.



Under DMA 2000,

states have an opportunity to create enhanced state mitigation plans that will demonstrate their mitigation capabilities and can obtain up to an additional 5% in HMGP funding. States should also ensure that communities know that post-disaster funding, such as the HMGP, will only be awarded to communities with approved local mitigation plans (refer to Interim Final Rule at 44 CFR Parts 201 and 206 published in the Federal Register on February 26, 2002).

States that have an approved mitigation plan in place can still use up to 7% of the HMGP funds for mitigation planning after a major disaster declaration.

The Pre-Disaster Mitigation Program (PDM), authorized by DMA 2000, can provide pre-disaster funding to states, communities, and tribes for cost-effective hazard mitigation activities that are identified in a mitigation plan, and for planning itself.



7. Support from a champion.

Having a prominent and well-respected community business leader, elected official, or agency head advocate for the initiation of the planning process will help you enlist the support of other officials and community leaders. This also increases the "human" aspect of loss reduction by associating it with a recognizable personality.

8. Capitalize on new regulations.

DMA 2000 and its implementing regulations provide significant opportunities for states and local governments to strengthen mitigation efforts through planning. Interim Final Regulations implementing DMA 2000 were published February 26, 2002. These regulations provide guidelines for the planning process and the content of plans. According to these regulations, states and communities must have approved plans in place to receive HMGP funds. States must have approved plans in place to receive any non-emergency Stafford Act funds.

States and communities with existing mitigation plans are urged to revise them to comply with the new DMA 2000 regulations. In addition, tying mitigation planning into other ongoing planning initiatives can significantly streamline your planning efforts and build coalitions across units of local government, the private sector, and your community. Integrating mitigation planning with other efforts provides the opportunity to draw from other plans, which enables hazard reduction goals, objectives, and actions to align with other community goals, values, and policies.

9. Create support by expanding current planning initiatives to include mitigation concepts, policies, and activities.

Some opportunities to increase support for mitigation activities may include those shown below. Note that many of these opportunities are best used after mitigation actions are identified in Phase 3 of the planning process. However, knowing early on that you can use these tools to further support planning can help lend momentum to early planning efforts. In addition, these tools are efficient as implementing mechanisms for mitigation actions identified in Phase 3 of the planning process.

By examining various community plan documents, you may discover public dissatisfaction or concern with issues or physical features that have implications for hazard reduction. For ex-

Identify an upcoming opportunity

for your community or state to initiate planning for hazards. Recently experienced disasters may provide increased awareness and concern for developing a mitigation plan. This interest can act as a catalyst for structuring a successful mitigation planning effort. Such catalysts do not necessarily have to reside in the community itself. They can involve a high profile disaster elsewhere, a recent hazards analysis study, a book or popular movie about a disaster, or other activities that focus attention on hazards and risks.



ample, citizens may be concerned about a blighted downtown business district that also happens to lie in the floodplain. By tapping into the existing momentum for this issue, you can channel some of the same support into reducing losses in that area.

- a. **Comprehensive and other community-oriented planning activities.** Not all communities have comprehensive plans or are required to develop them under state-enabling legislation, but all communities need to plan for their future. Integrating mitigation concepts and policies into existing plans provides expanded means for implementing initiatives via well-established mechanisms. As comprehensive plans are reviewed and updated, and after mitigation strategies are developed, mitigation policies and activities should be incorporated into elements of the plan such as economic development, transportation, recreation, historic preservation, and housing. A natural hazards element may also be desired. Planning for future land uses by considering hazard constraints and opportunities, addressing environmental concerns, and incorporating hazard reduction into capital improvements and infrastructure elements are all potential mitigation opportunities.

Some other special purpose community plans that can be used to help support mitigation planning include:

- Stormwater management plans: these plans describe actions to maintain system capacity to handle stormwater, which also provides flood mitigation benefits;
- Open space and recreation plans: these plans target locations for open space and recreation areas where property acquisition or buyout programs in hazard areas can complement the planned improvements;
- Redevelopment and housing plans: these plans identify areas where construction is occurring or will occur. Opportunities exist to incorporate mitigation techniques into retrofit activities and new construction, and to influence the location of redevelopment away from hazard areas; and
- Transportation plans: these plans identify and prioritize road improvement projects where mitiga-



Disasters can affect

your community's housing, economy, transportation, cultural resources, and natural resources, which are

all usually covered in a comprehensive plan. A comprehensive plan reflects what the community would like to see happen in the future. The plan is carried out through other local measures such as capital improvements, zoning, and subdivision ordinances. The comprehensive plan can incorporate mitigation strategies identified in the community's mitigation plan to discourage new development in hazard-prone areas and encourage practices that are consistent with the mitigation goals. Some mitigation activities, such as the acquisition of land in high hazard areas, can tie in with pre-existing community goals, such as preserving open space, improving environmental quality and natural features, and enhancing recreational opportunities.



More information and resources regarding comprehensive plans,

including developing hazard elements, can be found on the American Planning Association's Web site at www.planning.org. You may also contact your local planner, regional planning agency, or state planning agency for more information.



tion of transportation and utility systems can be incorporated.

- b. **Capital improvement plans.** State and local governments and private organizations of any size have capital improvement plans for building new facilities and replacing inadequate facilities. These plans could incorporate mitigation principles into planned projects such as locating new public buildings out of high hazard areas or sizing adequate culverts to accommodate floodwaters. These plans could also include provisions for upgrading replacement facilities using the latest mitigation techniques; ensuring that new facilities are built to the most current codes, standards, and specifications; and avoiding the extension of public facilities in hazard areas.
- c. **Floodplain remapping or updating.** FEMA is currently in the process of updating Flood Insurance Rate Maps (FIRMs) for approximately 3,300 communities. Over the next five to seven years, more than 2,700 new digital maps of flood-prone communities that have never been mapped before will also be included in this program. The new and updated information that will be delineated on the maps is an important impetus to either revise your existing mitigation and floodplain management plans, or to create a new mitigation plan to address flood hazards. Check with your local floodplain administrator or your state National Flood Insurance Program (NFIP) coordinator to discuss the public participation requirements of revising your FIRMs and how the flood hazard will affect risk in your jurisdiction.

It is always important to revisit the mitigation plan every time a flood map is revised, particularly if floodplains encompass developed areas. For more information on FEMA's flood hazard mapping, or to find out if your community is scheduled to be remapped, go to http://www.fema.gov/mit/tsd/st_main.htm, or talk to your state NFIP coordinator.

- d. **Existing mitigation plans and other emergency management plans.** Communities and states should review existing mitigation plans and update them to meet DMA 2000 requirements. However, planning does not end



with this update. It is important to understand that vulnerability to hazards does change over time. Drainage patterns, shoreline erosion, water levels, population demographics, and development patterns within hazard areas are not constants. New research and an improved understanding of hazards and the development of new mitigation approaches will also require you to update your mitigation plan. Finally, plans often have to be updated within an established timeframe in order to be compliant with federal and state regulations. This update provides an excellent opportunity to begin incorporating multi-hazard mitigation principles into these plans. *Bringing the Plan to Life* (FEMA 386-4) will address the plan maintenance and update processes.

Emergency operations plans identify preparedness and response procedures into which mitigation considerations could be incorporated to facilitate post-disaster reconstruction and recovery. To keep plans up-to-date, states and local governments must conduct real-life exercises based on actual risk scenarios. Issues that emerge from post-disaster scenarios often draw attention to pre-disaster mitigation activities that can be undertaken now to prevent future disaster losses.

FEMA can make available post-disaster mitigation and recovery exercises for flood, earthquake, and hurricane disaster scenarios. Exercises designed to assist communities in pre-disaster mitigation planning are also being developed. Check with your FEMA regional office.

- e. **Post-disaster recovery planning.** Trying to organize and prioritize projects in a post-disaster situation without a previously adopted mitigation plan can be a disaster in its own right. Officials face extraordinary pressure to immediately rebuild affected areas back to pre-disaster conditions, eliminating the possibility of reducing losses from future events. A mitigation plan that addresses post-disaster issues before the event could help to take some of the pressure off elected officials, and would provide a publicly supported reason for a more sustainable redevelopment effort. See *Planning for Post-*



Do not assume that hazard elements in local, state, or other federal plans required by state law automatically meet DMA 2000 requirements. You should review any existing hazard elements against the Interim Final Rule published in the Federal Register February 26, 2002 (44 CFR Parts 201 and 206) to determine compliance. Your SHMO can also help you.



After the initial approval, state mitigation plans must be reviewed, updated, and submitted for re-approval by FEMA every three years. Local mitigation plans must be reviewed, updated, and re-submitted to FEMA every five years.



Disaster Recovery and Reconstruction for guidance, available from the FEMA publications warehouse.

10. Support from other programs.

- a. The **National Flood Insurance Program** (NFIP) offers federally-backed flood insurance to help reduce disaster losses from flooding. It provides flood insurance to property owners for structures that otherwise would be uninsurable because of their susceptibility to flooding, in exchange for communities adopting and implementing floodplain management regulations to minimize future flood losses to new construction.
- b. The **Community Rating System** (CRS) is a program under NFIP that recognizes and encourages community floodplain management activities that exceed the minimum NFIP standards. The CRS recognizes community efforts beyond the NFIP minimum standards by reducing flood insurance premiums from 5% to 45% for the community's property owners, depending on the amount of public information and floodplain management activities that the community undertakes. Communities receive credit under CRS for developing a flood mitigation plan.
- c. The **Flood Mitigation Assistance Program** (FMA) is a program under the NFIP that provides funding for states and communities for the preparation of mitigation plans and for flood mitigation projects. Plans required under FMA can serve as the basis of DMA 2000 plans, and can be expanded using the criteria in the Interim Final Rule implementing DMA 2000.
- d. **Pre-Disaster Mitigation Program** (PDM), authorized under DMA 2000, provides for pre-disaster funding of mitigation planning and projects on a competitive basis. An approved mitigation plan is required to receive funding. Check with your FEMA regional office for latest information on availability of funds.

See Table 1 (page xi) for planning requirements for the HMGP, PDM, FMA, and CRS programs.



Planning resources

There are three primary types of resources that will facilitate your planning efforts: technical, financial, and human.

1. **Technical resources** for mitigation planning include professional advice on matters related to economics, science, engineering, mapping, and planning, as well as procedural information. In mitigation planning, expertise on this wide array of topics is often needed in order to have enough information to make determinations as to project type and priority. Not all of this expertise is needed in the beginning stage of planning. However, you should note when you feel you will need to obtain such assistance and where you might obtain such assistance. Technical resources also include data necessary to complete risk assessments or make project decisions.
2. **Financial resources** are critical for implementing most projects, as well as for securing the technical resources discussed above. In addition to the "traditional" FEMA funding programs, you should seek out community, state, and other federal agency funding sources from programs with missions related to the type of mitigation activity being pursued. For example, funding for mitigation of transportation facilities should also be sought from transportation programs. Financial resources for planning will be summarized in this section.
3. **Human resources.** In addition to private citizens, employers, industries, and organizations can provide the staff and expertise necessary to conduct a meaningful planning process.

1. Technical resources.

These include existing planning, engineering, and scientific resources on staff, GIS, local universities and colleges, and regional planning associations. States often have staff devoted to technical matters within the state, such as the State Geologist and State Climatologist. Program staff such as the State Hurricane Program Manager and State Earthquake Program Manager can also provide technical assistance.



FEMA's *Mitigation Resources for Success CD (FEMA 372)*

features a variety of technical, case study, and federal program information that will help build support and provide resources for undertaking hazard mitigation activities and programs. You will find useful information, publications, technical fact sheets, photographs, case studies, and federal and state mitigation program information and contacts. The vast array of documents and photographs are available for exporting to other documents, Web sites, and publications, and for use in educational and training presentations. To obtain a copy, call the FEMA publications warehouse at 1-800-480-2520.



How the Disaster Mitigation Act of 2000 (DMA 2000) Relates to the Stafford Act

The Stafford Act authorizes federal assistance after the President determines that a disaster has overwhelmed state and local resources. FEMA and other agencies administer most Stafford Act assistance, which includes such things as:

- Provision of temporary housing assistance, including vouchers, minor repairs to homes, and the use of mobile homes;
- Repair, reconstruction or replacement of public facilities;
- Aid for individuals and families through grants for personal, uninsured emergency needs;
- Clearance of debris;
- Access to counseling and legal services; and
- Funding for mitigation grants.

Although the Stafford Act does provide some funding for mitigation initiatives, mainly through its Hazard Mitigation Grant Program (HMGP), it is geared towards helping communities and victims respond and recover after a disaster has occurred.

The Disaster Mitigation Act of 2000 (DMA 2000) amends the existing Stafford Act. These amendments authorize the President to provide grants to state and local governments for pre-disaster mitigation activities, delineate criteria to be used in awarding such grants, and define mitigation planning requirements that state and local governments must meet before receiving additional funding. If state and local governments meet these criteria and get their plan approved by FEMA, they are eligible to receive increased funding under HMGP, which is implemented under Section 404 of the Stafford Act.

DMA 2000 shifts federal emergency management policy away from a reactive "response and recovery" emphasis. Emphasis is now placed on identifying hazards before they occur, preventing future losses, and minimizing the impact of disasters.

Local and state higher education institutions can often be excellent sources of student and faculty expertise and data. In addition, the National Earthquake Hazards Reduction Program (NEHRP) provides technical materials to the 45 states and territories that have earthquake program managers. Some technical assistance is provided through the National Earthquake Technical Assistance Program (NETAP) sponsored by FEMA.

2. Financial resources.

Pre-Disaster Programs

- The Pre-Disaster Mitigation Program (PDM), authorized by DMA 2000, can provide funding to states, communities, and tribes for cost-effective hazard mitigation planning activities that complement a comprehensive mitigation program and reduce injuries, loss of life, and damage and destruction of property before a disaster strikes. Check with your FEMA regional office on the status of funding.
- The Flood Mitigation Assistance Program (FMA) provides funding to assist states and communities in implementing measures to reduce or eliminate the long-term risk of flood damage to buildings, manufactured homes, and other insurable structures. The three types of grants available through FMA are planning, project, and technical assistance grants. Only communities that participate in the National Flood Insurance Program (NFIP) can apply for project and technical assistance grants. Planning grants are to be used by states and communities to prepare flood mitigation plans, with a focus on repetitive loss properties. Currently, funding for FMA is provided through the NFIP and is funded at \$20 million annually.

Post-Disaster Programs

- The Stafford Act (Public Law 100-107, as amended) authorizes funding for all federal disaster-related assistance in place today.
- The Hazard Mitigation Grant Program (HMGP), authorized by Section 404 of the Stafford Act, provides grants to state, local, and tribal governments (up to 15% of the FEMA disaster funds they re-

ceive) to implement long-term hazard mitigation measures after a major disaster declaration.

- The Assistance to Individuals and Households Grant Program is authorized by Section 411 of the Stafford Act and authorizes grants to be used for mitigation measures to cover serious unmet, disaster-related real property losses.
- The Public Assistance Program (PA) is authorized under Section 406 of the Stafford Act. This program provides funding, following a disaster declaration, for the repair, restoration, or replacement of damaged facilities belonging to governments and to private nonprofit entities, and for other associated expenses, including emergency protective measures and debris removal. The program also funds mitigation measures related to the repair of damaged public facilities.



Start identifying funding resources to support the planning process.

Many grants can help pay for creating the plan, while others can help pay for the activities themselves. There are many federal agencies that offer grants and technical assistance for general planning that may be used towards mitigation planning.

Some states and local governments hire or task an individual to track down different grants that may be available. A few states have automated computer systems to help local governments locate funding for mitigation projects. Planning initiatives almost always gain more support from local officials if there is a potential for grant money from an outside source that can help pay for cost-effective actions that result from the plan. Numerous resources are available to local governments to help fund mitigation efforts. The need for outside funding sources reinforces the need to look at multi-objective planning. Some funding sources are not specifically designated for hazard mitigation planning, but can be used for that if it accomplishes the specified goal in tandem with hazard mitigation. An example of approaching mitigation planning in a multi-objective context is a community that wants to bury its power lines to reduce wind-related damages. This community might be able to tap into blight-reduction grants from the Department of Housing and Urban Development (as power lines are usually seen as unsightly and can detract from the community's character). Refer to the *Mitigation Resources for Success CD* (FEMA 372) for other federal programs.



Check with your State Hazard Mitigation Officer (SHMO)

for technical assistance and sources of funding for planning. In addition, consult with the SHMO for planning guidance and to get the most up-to-date requirements.



The state should assist local jurisdictions in identifying funding for mitigation planning or to fund mitigation measures.



3. Human resources.

These include the community's citizens, businesses, and association leaders who want to be involved in the planning process.

In addition to the staff it brings, private sector participation can also lead to financial and in-kind resources. Citizens with expertise in areas such as survey techniques, fundraising, public relations, and other technical subjects can be valuable to the planning team. For additional guidance on planning resources, see *Securing Resources for Mitigation Planning* (FEMA 386-9).



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Mayor Challenges Town to Reduce Disaster Costs

[Hazardville, EM] In an attempt to follow through on his commitment to make Hazardville a safer place to live, work, and do business, Mayor McDonald has appointed Joe Norris, the Planning Department Director, to head a hazard mitigation steering committee. To assist him with these efforts, the City Council has appointed to the committee David Waters, Hazardville's Floodplain Manager, Wendy Soot, Hazardville's Fire Marshall, Mary Tremble, Director of Hazardville's Emergency Management Agency, and Rita Booke, head of the local Citizens for Action group.

Mr. Waters, Hazardville's Floodplain Manager, is excited about the opportunity to work with Mr. Norris to integrate all of the Town's plans together. "It certainly is long overdue that Hazardville begins to take a comprehensive approach to deal with our hazards. We are a small town that seems to be repeatedly plagued by problems brought on by floods and landslides. In addition, I understand there is a substantial risk for a major earthquake

in the region," said Mr. Waters.

Mr. Waters finds that by getting many of the local business members together, he is able enlist their help and build partnerships that will help Hazardville become a safer place to live and work. He has asked Jim Snow, owner of Snow's Snowplows and a local business leader, to research efforts to gain outside support in the form of grants and local monetary resources. Jim explains, "Grants will help cover the activities necessary to implement the plan. Getting this committee together to develop a plan will help save more of our tax dollars in the long run. It will help our town become more efficient at dealing with risks, and will save things from being destroyed."

Disasters can affect our community's economy, housing, transportation, cultural resources, and natural resources. These elements are all part of the bigger picture. Ms. Tremble, Director of Hazardville's Emergency Management Agency, sees that as a member of the hazard mitigation plan-

ning team, she can help update the existing emergency management plan by reviewing and focusing on the recent disasters and the community's vulnerabilities to hazards, and by ensuring that the plan is compliant with federal and state regulations and plans.

Mayor McDonald commented in the interview, "We need to think on a more regional scale. When a disaster occurs, there are no boundary lines stating how far a flood can reach or how much damage an earthquake can cause for a community or communities. Some flooding problems are multi-jurisdictional, and therefore, I have asked the Hazardville planning team to consider working closely on this mitigation planning effort with our neighbors to the north, Soppytown, to deal with the flooding and watershed issues in a coordinated manner." At the time of press, no response was forthcoming from Soppytown's Mayor Smith. If you are interested in becoming involved in the plan, please call the Planning Department at 888-777-6666.

