STATE AND LOCAL MITIGATION PLANNING
how-to guide

Getting Started

building support for mitigation planning

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building support for migitation planning
GETTING STARTED

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the hazard mitigation planning process

Hazard mitigation planning is the process of determining how to reduce or eliminate the loss of life and property damage resulting from natural and human-caused hazards. Four basic phases are described for the hazard mitigation planning process as shown in this diagram.

For illustration purposes, this diagram portrays a process that appears to proceed sequentially. However, the mitigation planning process is rarely a linear process. It is not unusual that ideas developed while assessing risks should need revision and additional information while developing the mitigation plan, or that implementing the plan may result in new goals or additional risk assessment.

organize resources

From the start, communities should focus on the resources needed for a successful mitigation planning process. Essential steps include identifying and organizing interested members of the community as well as the technical expertise required during the planning process.

assess risks

Next, communities need to identify the characteristics and potential consequences of hazards. It is important to understand how much of the community can be affected by specific hazards and what the impacts would be on important community assets.

develop a mitigation plan

Armed with an understanding of the risks posed by hazards, communities need to determine what their priorities should be and then look at possible ways to avoid or minimize the undesired effects. The result is a hazard mitigation plan and strategy for implementation.

implement the plan and monitor progress

Communities can bring the plan to life in a variety of ways ranging from implementing specific mitigation projects to changes in the day-to-day operation of the local government. To ensure the success of an on-going program, it is critical that the plan remains relevant. Thus, it is important to conduct periodic evaluations and make revisions as needed.

foreword

foreword

The Federal Emergency Management Agency (FEMA) has developed this series of mitigation planning "how-to" guides to assist states, communities, and tribes in enhancing their hazard mitigation planning capabilities.

These guides are designed to provide the type of information state and local governments need to initiate and maintain a planning process that will result in safer communities. These guides are applicable to states and communities of various sizes and varying ranges of financial and technical resources.

This how-to series is not intended to be the last word on any of the subject matter covered; rather, it is meant to provide easy to understand guidance for the field practitioner. In practice, these guides may be supplemented with more extensive technical data and the use of experts when necessary.

mit-i-gate\ 1: to cause to become less harsh or hostile; 2: to make less severe or painful.

As defined by DMA 2000- hazard mitigation: any sustained action taken to reduce or eliminate the long-term risk to human life and property from hazards.

plan-ning\: the act or process of making or carrying out plans; *specif*: the establishment of goals, policies, and procedures for a social or economic unit.

The Disaster Mitigation Act of 2000

In the past, federal legislation has provided funding for disaster relief, recovery, and some hazard mitigation planning. The Disaster Mitigation Act of 2000 (DMA 2000) is the latest legislation to improve this planning process and was put into motion on October 10, 2000, when the President signed the Act (Public Law 106-390). The new legislation reinforces the importance of mitigation planning and emphasizes planning for disasters before they occur. As such, this Act establishes a pre-disaster hazard mitigation program and new requirements for the national post-disaster Hazard Mitigation Grant Program (HMGP).

Section 322 of the Act specifically addresses mitigation planning at the state and local levels. It identifies new requirements that allow HMGP funds to be used for planning activities, and increases the amount of HMGP funds available to states that have developed a comprehensive, enhanced mitigation plan prior to a disaster. States and communities must have an approved mitigation plan in place prior to receiving post-disaster HMGP funds. Local and tribal mitigation plans must demonstrate that their proposed mitigation measures are based on a sound planning process that accounts for the risk to and the capabilities of the individual communities.

State governments have certain responsibilities for implementing Section 322, including:

- Preparing and submitting a standard or enhanced state mitigation plan;
- Reviewing and updating the state mitigation plan every three years;
- Providing technical assistance and training to local governments to assist them in applying for HMGP grants and in developing local mitigation plans; and
- Reviewing and approving local plans if the state is designated a managing state and has an approved enhanced plan.

DMA 2000 is intended to facilitate cooperation between state and local authorities, prompting them to work together. It encourages and rewards local and state pre-disaster planning and promotes sustainability as a strategy for disaster resistance. This enhanced planning network will better enable local and state governments to articulate accurate needs for mitigation, resulting in faster allocation of funding and more effective risk reduction projects.

To implement the new DMA 2000 requirements, FEMA prepared an Interim Final Rule, published in the Federal Register on February 26, 2002, at 44 CFR Parts 201 and 206, which establishes planning and funding criteria for states and local communities.

The how-to guides cover the following topics:

- Getting started with the mitigation planning process, including important considerations for how you can organize your efforts to develop an effective mitigation plan (FEMA 386-1);
- Identifying hazards and assessing losses to your community or state (FEMA 386-2);
- Setting mitigation priorities and goals for your community or state and writing the plan (FEMA 386-3);
- Implementing the mitigation plan, including project funding and maintaining a dynamic plan that changes to meet new developments (FEMA 386-4);
- Evaluating potential mitigation measures through the use of benefit-cost analysis and other techniques (FEMA 386-5);
- Incorporating special considerations into hazard mitigation planning for historic structures and cultural resources (FEMA 386-6);
- Incorporating considerations for human-caused hazards into hazard mitigation planning (FEMA 386-7);
- Using multi-jurisdictional approaches to mitigation planning (FEMA 386-8); and
- Finding and securing technical and financial resources for mitigation planning (FEMA 386-9).

Why should you take the time to read these guides?

- It simply costs too much to address the effects of disasters only after they happen;
- State and federal aid is usually insufficient to cover the extent of physical and economic damages resulting from disasters;
- You can prevent a surprising amount of damage from hazards if you take the time to anticipate where and how they occur;
- You can lessen the impact and speed the response and recovery process for both natural and human-caused hazards; and

- The most meaningful steps in avoiding the impacts of hazards are taken at the state and local levels by officials and community members who have a personal stake in the outcome and/or the ability to follow through on a sustained program of planning and implementation.

The guides focus on showing how mitigation planning:

- Can help your community become more *sustainable and disaster-resistant* through selecting the most appropriate mitigation measures, based on the knowledge you gain in the hazard identification and loss estimation process;
- Can be incorporated as an *integral component* of daily government business;
- Allows you to *focus your efforts on the hazard areas most important to you* by incorporating the concept of determining and setting priorities for mitigation planning efforts; and
- Can *save you money* by providing a forum for engaging in partnerships that could provide technical, financial, and/or staff resources in your effort to reduce the effects, and hence the costs, of natural and human-caused hazards.

These guides provide a range of approaches to preparing a hazard mitigation plan. There is no one right planning process; however, there are certain central themes to planning, such as engaging citizens, developing goals and objectives, and monitoring progress. Select the approach that works best in your state or community.

introduction

introduction

This first guide in the State and Local Mitigation Planning How-to series discusses the activities and issues involved in initiating a hazard mitigation planning process. The topics covered here are presented within the context of the beginning phase of the mitigation planning process, although many of these activities will continue more or less behind the scenes throughout the process. Therefore, the efforts you put into identifying and organizing your resources early on will pay dividends later as you progress through some of the more challenging tasks of mitigation planning. This how-to guide thus covers not only this first phase of the planning process, but also provides snapshots of later phases. You will then be able to begin the planning process knowing ahead of time what types of resources you may need to call upon in the future. Lastly, but perhaps most importantly, elected officials, community staff, citizens, and businesses will benefit from the knowledge, organization, positive attitude, and energy that you and your team demonstrate.

Communities that already participate in other FEMA programs such as the Community Rating System (CRS), Flood Mitigation Assistance Program (FMA), and Hazard Mitigation Grant Program (HMGP), but are interested in updating current plans to account for additional hazards and current regulations, should skim through this guide to verify that they have a good framework in place for their (potentially multi-hazard) planning effort before starting the hazard identification and risk assessment work described in the second how-to guide, Understanding Your Risks: Identifying Hazards and Estimating Losses (FEMA 386-2). You should also check with the State Hazard Mitigation Officer (SHMO) for any additional planning requirements that must be met within your particular state or region.

Using a planning approach in hazard mitigation

Hazard mitigation is any action that reduces the effects of future disasters. It has been demonstrated time after time that hazard mitigation is most effective when based on an inclusive, comprehensive, long-term plan that is developed before a disaster actually occurs. However, in the past, many communities have undertaken mitigation actions with good intentions but with little advance

Phases of Emergency Management

To better structure the way in which communities in the United States respond to disasters, the "four phases of emergency management" were introduced in the early 1980s after the similarities between natural disaster preparedness and civil defense became clear. This approach can be applied to all disasters.

Mitigation is defined as any sustained action taken to reduce or eliminate long-term risk to life and property from a hazard event. Mitigation, also known as prevention, encourages long-term reduction of hazard vulnerability. The goal of mitigation is to save lives and reduce property damage. Mitigation can accomplish this, and should be cost-effective and environmentally sound. This, in turn, can reduce the enormous cost of disasters to property owners and all levels of government. In addition, mitigation can protect critical community facilities, reduce exposure to liability, and minimize community disruption. Examples include land use planning, adoption of building codes, and elevation of homes, or acquisition and relocation of homes away from floodplains.

Preparedness includes plans and preparations made to save lives and property and to facilitate response operations.

Response includes actions taken to provide emergency assistance, save lives, minimize property damage, and speed recovery immediately following a disaster.

Recovery includes actions taken to return to a normal or improved operating condition following a disaster.

In 1996, FEMA estimated that Oregon had avoided about $10 million a year in flood losses because of strong land-use planning that considers natural hazards. This was not accomplished by accident but through the foresight of previous Oregon administrations to call for local plans to include inventories, policies, and ordinances to guide development in hazard-prone areas for the previous 25 years. Using a comprehensive approach to planning has resulted in reduced losses from flooding, landslides, and earthquakes.

Getting Started: Building Support for Mitigation Planning is part of a series of guides that will help you identify, plan, and evaluate measures that can reduce the impacts of natural hazards in your community or state through a comprehensive and orderly process known as **Hazard Mitigation Planning**.
As detailed in the Foreword, the process consists of four basic phases as shown below. This guide, *Getting Started*, addresses the first phase of the planning process, which consists of creating a mitigation planning team that has broad representation, and developing public support for the planning process. The second phase, *Assess Risks,* explains identifying hazards and assessing losses. The third and fourth phases, *Develop a Mitigation Plan* and *Implement the Plan and Monitor Progress*, discuss establishing goals and priorities, selecting mitigation projects, and writing, implementing, and revisiting the mitigation plan, respectively.

planning. In some of these cases, decisions have been made "on the fly" in the wake of a disaster. In other cases, decisions may have been made in advance but without careful consideration of all options, effects, and/or contributing factors. The results have been mixed at best, leading to less than optimal use of limited resources.

Understandably, there is often pressure to do something tangible as quickly as possible, especially in the period immediately following a disaster. This type of response frequently occurs at the expense of working out which projects and policies would be the best ones to pursue through some sort of planning process.

The primary purpose of hazard mitigation planning is to identify community policies, actions, and tools for implementation over the long term that will result in a reduction in risk and potential for future losses community-wide. This is accomplished by using a systematic process of learning about the hazards that can affect your community or state, setting clear goals, identifying appropriate actions, following through with an effective mitigation strategy, and keeping the plan current.

Effective planning forges partnerships that will bring together the skills, expertise, and experience of a broad range of groups to achieve a common vision for the community or state, and can also ensure that the most appropriate and equitable mitigation projects will be undertaken. Hazard mitigation planning is most successful when it increases public and political support for mitigation programs, results in actions that also support other important community goals and objectives, and influences the community's or state's decision making to include hazard reduction considerations.

Communities with up-to-date mitigation plans will be better able to identify and articulate their needs to state and federal officials, giving them a competitive edge when grant funding becomes available. Planning also enables communities and states to better identify sources of technical and financial resources outside of traditional venues.

In general, the amount of effort that citizens put into planning often reflects the significance of the problems to members of the community. However, since many citizens are not even aware that vulnerability to hazards may be an issue within their community, hazard mitigation planning is often hindered by:

- Lack of understanding of the hazards and risks and that effective solutions to these issues are available;

What is Planning?

It is important to have a good understanding of what is meant by "planning" in this context. As a general practice, planning is a way that people figure out how to accomplish a goal or solve a problem. The methods for planning are quite varied, based on what people are trying to do. The following examples of planning in your personal life can be used to understand the different approaches to planning, including mitigation planning.

Sometimes people plan as they go, literally making it up along the way. For example, if you decide to take a weekend drive in the country with your family, the "plan" simply consists of deciding when to leave the house and the general direction you will take to get out of town. As you travel the roadways, your family makes decisions about where to stop, where to turn, and when to head back home, i.e., the plan continues to be developed as it occurs. This type of planning is fine when the desired result is simply to have an experience without a lot of specific expectations.

When there is a more specific goal in mind, a more thoughtful planning approach is required. For example, this time your family needs to visit relatives in a distant city. You research and evaluate your options for traveling, weighing the cost of various transportation alternatives (cars, trains, airplanes, etc.) versus the amount of time it requires for each mode of transport. You decide on a method and a time to travel that meets your needs and budget, make the necessary travel arrangements, and undertake the journey. In so doing, the planning process helps you realize the goal of visiting your relatives using your resources (in this case, time and money) in the most efficient manner. This approach only involves a few simple steps – researching and comparing options, and implementation – and works well to attain a single distinct result.

When the ultimate goal is more complex, however, the planning process required to reach a successful result must account for more issues and takes a little more effort. Suppose you want to plan for your eventual retirement so that you and your spouse will have enough funds to take care of your basic needs and to enjoy yourselves. You (perhaps with the help of a financial advisor) take stock of your resources and earning potential, your likely expenses over time, and options for saving and investing your money to provide different levels of return and security. As part of this process, you evaluate the risk that is inherent in different types of investments, the number of years you will be working and saving, and a host of other factors. During the planning process, you will probably refine and revise your retirement goals as you find out more about what you can realistically accomplish. Also, an important difference in this type of planning process, compared with the previous two examples, is that you will be making decisions about how to start your investment program, but if you are wise, you will revisit your financial plan from time to time to make sure it continues to fit your needs and capabilities.

In doing so, you will have embarked on a long-term planning process that:

- Has an overarching mission (in this example, "attaining financial security") but also allows for flexibility regarding specific actions to be taken as the plan develops;
- Accounts for the interactions of a number of dynamic factors that might influence your decision making; and
- Does not have a finite life span, i.e., ultimate success requires periodic attention through the years to make sure that your mission is attained.

You have also expanded your decision-making framework in such a way that all of the other decisions in your life will now have to consider your financial goals with respect to retirement. Your retirement goals have now become integrated into other important decisions in your life.

Why Follow a Planning Process?

The planning process is as important as the plan itself. A thorough planning process can help your community or state:

- Create a vision of what it wants to become in the future.
- See the big picture of how the economy, environment, and people will change.
- Select and agree on common goals.
- Involve as many people, local organizations, and businesses as possible.
- Find out how much time, money, and other resources are necessary to create positive change.
- Regularly evaluate the success of the plan in achieving your goals, and update the plan as needed to account for new information, changes in community goals, or new laws and regulations.
- Develop connections with organizations and institutions that will sustain your planning outcomes.

Guidelines for Community-Wide Planning

- Planning is not a product, but rather a process. Effective planning efforts result in high-quality and useful plans, but written plans are only one element in the process.
- Planning must be based on a realistic assessment of hazards and of the likely consequences of disaster events. Hazard and vulnerability assessments are integral to all community-wide planning efforts.
- Planning efforts should be based as much as possible on a community's disaster experience, information on the experiences of other communities, and research-based planning principles. Both experience and research help communities understand what to expect when disasters occur.
- No agency or organization should plan for disasters in isolation from other organizations whose efforts are required to make plans work. With this goal in mind, a critical initial task in all planning efforts is to identify and engage planning partners at the very start of the planning process.
- In addition to being multi-organizational, the planning process must also be inclusive – that is, it should involve governmental agencies at various levels, as well as private sector and community-based organizations.
- Planning efforts should seek to provide a range of benefits and incentives for those involved in the process – benefits that they will receive even if disasters do not occur.
- While planning is a long-term process, that process should involve tangible milestones and intermediate successes on which future efforts can build.

Source: Project Impact Evaluation Team, University of Delaware Disaster Research Center, 2002.

- Lack of readiness to begin or to invest in the process due to this lack of understanding; and
- Difficulty obtaining resources to undertake a planning process.

Elected officials have to balance many competing interests. Their efforts and resources are often consumed by what are considered more immediate concerns; e.g., finding solutions to congested roadways, fluctuating economic conditions, overcrowding in schools, etc. It is difficult sometimes to dedicate the limited resources of a community toward dealing with a problem such as hazard risk reduction, especially when the problem may be difficult to recognize on a daily basis.

When communities or states have not experienced significant disasters within recent memory, the true magnitude of the problem may not be recognized. Even if the basic threats are generally known, the descriptions often used to characterize the magnitude of events can mislead the public as to the inherent risk. For example, a "100-year flood" can sound like something you don't have to worry about in the short term, but in reality it can strike at any time.

If communities do not believe that they are at risk from potential hazards, efforts to initiate citizen involvement and partnerships may be for naught. Many residents assume that current building codes, zoning regulations, subdivision review processes, and/or permitting will adequately protect them, but this is not always the case. Education is a key part of the planning process, and overcoming a lack of awareness should be an integral part of the planning process.

A community self-assessment tool is provided in Step 1 of this guide to determine what issues may need to be tackled before any significant efforts in planning are initiated. This guide points you in the direction of a number of resources that can be used to help convince the right people that mitigation planning is worth the effort and is a good investment for the future of your community or state. This is particularly important early on to set the proper context for the initiation of partnerships and citizen involvement throughout the planning process. The results of your self-assessment can be folded into your capability assessment (Phase 3 of the planning process) to help define the appropriate mitigation actions your community will support. Furthermore, this guide provides information on various ways mitigation planning may be

integrated into existing community or state planning processes so that over time, hazard reduction becomes part of the fabric of planning for community growth and change, and is not seen as an additional or adjunct planning effort. This integration will also enable communities to seek out resources for mitigation planning that previously may have been overlooked as viable.

This introductory material assumes that you, the reader, have some knowledge of hazard mitigation but do not know much about mitigation planning. This guide also assumes you are uncertain about how much support you may have within your community or state to undertake such an effort. This guide provides you, and others like yourself, background information and basic steps to help you organize and initiate your planning effort.

How do you use this and other how-to guides?

Developing a plan is a first step toward an end or goal. This guide shows how to use the planning process to reach your goal(s) and to engage key people to buy in and create momentum toward that end.

The planning process is as individual as the jurisdiction that engages in it. Each community or state approaches growth and change in a unique way, and your planning process should fit your community's particular 'personality.' As a result, you should not consider the step-by-step sequence included in this and other how-to guides to be the only way to pursue mitigation planning. At the same time, the process illustrated here is based on certain steps common to successful planning. *Getting Started* provides detailed information on the first of four phases of the hazard mitigation planning process as described in the how-to guides.

Organize Resources. The first phase of the mitigation planning process includes assessing your readiness to plan, establishing a planning team, securing political support, and engaging the community.

Assess Risks. The second phase of the mitigation planning process involves identifying and evaluating natural hazards and preparing damage loss estimates. Knowing where hazards can affect your built environment and the likely outcome of damages and losses resulting from a hazard event will help you focus on your most important assets first. This will build the scientific and technical foundations of your mitigation strategy. This phase of the mitigation planning

If after reviewing these materials, you feel you have completed all the steps in Phase 1 as a result of other related planning processes, then go to Phase 2, *Assess Risks – Understanding Your Risks* (FEMA 386-2).

process is explained in *Understanding Your Risks: Identifying Hazards and Estimating Losses* (FEMA 386-2).

Develop a Mitigation Plan. The third phase of the mitigation planning process builds on the risk assessment by developing the mitigation goals and objectives and ensuring that you are focusing on the identified risks and potential losses. This phase focuses on identifying mitigation measures to help achieve your goals and objectives and reduce future disaster-related losses, and then capture your efforts in a written plan document. This phase of the mitigation planning process will be explained in *Developing a Mitigation Plan: Identifying Mitigation Measures and Implementation Strategies* (FEMA 386-3).

Implement and Monitor Progress. The fourth phase of the mitigation planning process involves adopting, implementing, monitoring, and reviewing the plan to ensure that the plan's goals and objectives are met. Periodic review of the plan will help keep the plan current, reflecting the changing needs of the community or state. This phase of the mitigation planning process will be explained in *Bringing the Plan to Life: Assuring the Success of the Hazard Mitigation Plan* (FEMA 386-4).

The planning process outlined in this series of how-to guides will help you meet the basic planning requirements of FEMA's mitigation programs. You must keep in mind, however, that different FEMA mitigation programs, such as those in Table 1, sometimes have different planning requirements that must be met to be eligible for participation in these programs. Therefore, when submitting a plan, you can either tailor it according to the specific criteria of the program, or submit a comprehensive, multi-hazard plan that includes a "crosswalk," i.e., identify for the reviewer what sections of the plan address the program's requirements. For example, if you are completing a Flood Mitigation Assistance (FMA) program or Community Rating System (CRS) plan, it may need to be expanded to receive credit under DMA 2000, but if you complete a DMA plan, all other program requirements are likely to be met.

FEMA developed guidance to meet planning criteria in DMA 2000 for communities with plans created under other FEMA programs. Some states may have criteria that meet or exceed the recommendations for planning found in this document. Contact your state emergency management office for additional guidance regarding the unique planning considerations within your state.

DMA

The Disaster Mitigation Act of 2000 is also driving the strengthening of many pre-existing mitigation planning requirements for non-mitigation-related programs. For example, the Fire Management Assistance Grant Program was authorized by Section 420 of the Stafford Act and by DMA 2000, and provides for the amelioration, management, and control of any fire on publicly or privately owned forest or grassland that threatens such destruction as would constitute a major disaster. Assistance must be requested while the fire is still burning and constitutes the threat of a major disaster. Grants are provided through the Grantee to state and local governments and Indian tribal governments at a 75 percent federal cost-share **provided that fire hazards are addressed in an existing state mitigation plan**. Program regulations for the Fire Management Assistance Grant Program are located in 44 CFR Part 204.

Table 1. Hazard Mitigation Planning Process Local Planning Requirements By Program

FEMA How-to Series		Hazard Mitigation Grant and Pre-Disaster Mitigation Program (DMA 2000 Plan Criteria)	Flood Mitigation Assistance Program	Community Rating System Floodplain Management Planning (10-Step Process)
Planning Requirements	Phase 1 Organize Resources	Coordination among agencies	Coordination with other agencies or organizations.	Coordination with other agencies
		Integration with other planning efforts	Involve the public, including a description of the planning process. Public involvement may include workshops, public meetings, or public hearings.	Involve the public
		Involve the public throughout the planning process		Organize to prepare the plan
		State coordination of local mitigation planning		
	Phase 2 Assess Risks	Identify all hazards	Flood hazard area inventory that identifies the flood risk, including estimates of the number and types of structures at risk and repetitive loss properties.	Assess the flooding hazard
		Profile hazard events		
		Assess vulnerability	Problem identification, including a description of the existing flood hazard, the extent of flood depth and damage potential, and the applicant's floodplain management goals.	Assess the problem
		Estimate potential losses		
	Phase 3 Develop the Mitigation Plan	Documentation of planning process	Review of possible mitigation actions, including the identification and evaluation of cost-effective and technically feasible mitigation actions.	Set goals
		Capability assessment		Review possible activities
		Develop hazard mitigation goals		Draft an action plan
		Identification and analysis of mitigation measures		
		Funding sources		
	Phase 4 Implement and Monitor Progress	Adoption	Documentation of the formal plan adoption by the legal entity submitting the plan (e.g., Governor, mayor, county executive).	Adopt the plan
		Implementation of mitigation measures		Implement, evaluate, and revise the plan
		Implementation through existing programs		
		Monitoring, evaluation, and updating the plan		
		Continued public involvement		

Types of information found in the how-to series

The how-to series contains several types of information. Some information is highlighted with icons. Additional information can be found in Appendix B, *Library*. To illustrate how the how-to information is used, newspaper articles of the fictional town of Hazardville are provided.

Icons

Guidance focused solely on the role of **"states"** is identified as a sidebar with this icon. Although much of the information will be the same for local, tribal, and state governments, there are different requirements for state and local mitigation plans. Furthermore, states have additional responsibilities to assist local entities in their planning efforts. Guidance focusing on local governments applies to tribes as well.

The **"DMA"** icon provides information relating to the mitigation planning requirements outlined in the Disaster Mitigation Act (DMA) of 2000.

The **"Caution"** icon alerts you to important information and ways to avoid sticky situations later in the planning process.

The **"Glossary"** icon identifies terms and concepts for which a detailed explanation is provided in the Glossary included in Appendix A.

The **"Tips"** icon identifies helpful hints and useful information that can be used in the planning process.

Library

A mitigation planning **"Library"** has been included in Appendix B. The library has a wealth of information, including Web addresses, reference books, and other contact information to help get you started. All of the Web sites and references listed in the how-to guide are included in the library.

Town of Hazardville Articles

Applications of the various steps in the mitigation planning process are illustrated through a fictional community, the Town of

The Hazardville Post

Vol. CXI No. 65 Thursday, January 22, 2002

Mayor Declares a New Way of Thinking for the Town of Hazardville

[Hazardville, EM] Mayor McDonald returned from the annual National Conference of Mayors last week seemingly a new man. "It all fits now, like finding a giant missing piece of a jigsaw puzzle!" Mayor McDonald excitedly proclaimed in a press conference yesterday. The Mayor attended several workshops focusing on communities that have incorporated sustainable development concepts into their city, county, and town planning. "These communities are now safer places to live, work and do business, and I want that for Hazardville as well," McDonald said.

A major component of this sustainable development is hazard mitigation, which is any action that reduces or eliminates the loss of life or property damage resulting from hazards such as floods, earthquakes, hazardous material spills, and tornadoes. Mayor McDonald said, "Although we have a Floodplain Administrator, we really haven't considered the many other types of natural and human-caused hazards, which is surprising when you consider that we seem to be vulnerable to many different hazards. Our community has not been using the planning department to deal with risk reduction, and after a closer look, I feel our planning department should play a larger role in supporting risk reduction programs. The planning department maintains a wealth of information on existing infrastructure, buildings, and population demographics, and keeps up with growth issues in and around Hazardville. It also manages the local planning process, and thus understands what is important to citizens as Hazardville grows and changes. They are in a pivotal position to help guide our mitigation planning process."

Mayor McDonald has been very busy meeting in closed-door sessions with members of the Town Council and several members of the town government this week. He has promised to release more information in the next few days.

Hazardville, located in the State of Emergency. Hazardville, a small community with limited resources and multiple hazards, is developing a multi-hazard mitigation plan. Newspaper accounts illustrate the various steps in the mitigation planning process.

Worksheet

Finally, to help track your progress, a worksheet has been developed to correspond with Step 2 of this guide. This worksheet is included at the end of Step 2 and also in Appendix C. Use this form to record your progress as you undertake the process of building support for mitigation planning.

step

1 assess community support

2 build the planning team

3 engage the public

1

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.

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.

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.

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.

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).

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:

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.

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?

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 Operation*s, 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.

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.

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-

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.

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.

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.

DMA

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.

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-*

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.

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.

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.

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-

DMA 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.

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 planning 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.

step
1
assess community support
2
build the planning team
3
engage the public

2 build the planning team

Overview

Once you have the support for initiating the mitigation planning process, it is time to identify a group of dedicated and interested individuals to be on your planning team. These individuals will be the "workhorses" who will see the planning process through. Selecting members who are a good fit will become critical to the eventual success of your community's mitigation planning process. Creating a planning team can be one of the most challenging aspects of the process. Involving a variety of people from different segments of the community will allow all sides of the issues to be examined and will help ensure broad-based support for the plan. Many communities already have a Local Emergency Planning Committee (LEPC) in place to deal with hazardous material (HAZMAT) spill contingencies and to improve the safety of all agencies involved with HAZMAT. Some LEPCs deal with natural hazards as well, and they would be a good base from which to build your planning team.

If your community has developed a comprehensive plan, you may want to identify those who participated in the process and add them to your mitigation planning team. Alternatively, you could determine that the mitigation planning process could be integrated into the existing comprehensive plan.

In CRS, reference is made (and points are given) for involving community *staff*, the *public*, and *stakeholders* in the flood mitigation planning process as the planning "committee." To obtain maximum points under CRS, you may wish to organize your planning committee or team (as referenced here) according to the CRS approach. Additionally, points are awarded if a planner prepares the plan. Regardless of the approach used, make sure that you take into account the unique strengths and weaknesses of those available in your community to help create, implement, and maintain the plan.

Consider Establishing a Steering Committee

Some communities or states may find the need to first organize a core group of individuals into a steering committee. This group will provide leadership and support in the early stages of creating a mitigation plan, oversee the planning process, and be the point of contact for the various interest groups in the community or state. This steering committee may later be absorbed into the larger planning team.

Depending on the size of your community, you may have a wealth of potential candidates from which to choose. Consider selecting candidates who have the trust and respect of others and can represent different interests within the community. Ideally, you would like to have representation from each major interest group in the community on the committee.

When selecting potential steering committee members, look for people who:

- Possess the ability to command the respect of citizens, businesspersons, and government elected officials.
- Are visionary and open to new ideas.
- Have the desire, time, and commitment to address the issues.
- Have the ability to communicate planning and hazard concepts to colleagues, citizens, and others.
- Have opposed mitigation planning, or planning in general, in the past (theory of inviting your "enemies").
- Understand local politics and issues.
- Have planning experience or hazard knowledge.

The planning team should consist of community leaders, representatives of local government agencies, business owners and operators, interested citizens, and anyone else who has an interest in reducing hazards in your community. While it can be a challenge to bring together all of the experiences, personalities, resources, and policies in your community, it is nonetheless a critical part of the planning process. It is especially good to include past activists or "squeaky wheels" because this will bring them into the process and hopefully educate them, as well as other committee members, on why certain projects are or are not feasible, including projects which are of particular concern to them. Ensuring that your team has an equitable and diverse representation will enhance your planning efforts and help build support for mitigation.

The American Planning Association (APA) is a professional association to which many planners belong. Planners can be certified through the American Institute of Certified Planners, a subsection of APA, by passing a comprehensive exam. These individuals must meet certain criteria for planning experience and demonstrate their knowledge of a wide variety of planning subjects and professional ethics.

Procedures & Techniques

Task A. Create the planning team.

The planning team should be built on existing organizations or boards whenever possible. Larger communities may want to consider building on capabilities that already exist within their agencies and departments. For example, as mentioned previously,

LEPCs can provide a good base from which to create a planning team.

The planning team can welcome anyone who is available to participate regularly in the meetings. Smaller subgroups may have to be established later in the process if there are numerous issues the team wants to explore, if hazard-specific groups are desired, or if the number of stakeholders is too large for effective discussion of issues.

1. **Select a chair of the committee.** An experienced chair will understand how to navigate issues related to team momentum, conflict, team composition, and schedules for completing tasks.

2. **Determine your stakeholders.** Stakeholders are individuals or groups that will be affected in any way by a mitigation action or policy and include businesses, private organizations, and citizens. There is no "best" way to identify stakeholders; indeed, the stakeholders you involve may change several times during the mitigation process as the needs or focus of the team or processes change. Brainstorming with the planning team is a good way to bring to light candidates that you may have missed earlier. Discuss the following questions with

Planning Team members should think about organizations and people they know who might be interested in helping with the mitigation plan. They should be asked to provide contact information at the first meeting so that the planning team can consider additional candidates to invite.

Help! Do You Need a Consultant?

Decide if you need or want a consultant to assist you in the planning process. Although leading the mitigation planning process does not require formal training in planning, engineering, or science, sometimes it is necessary to hire someone to assist you in all or portions of the planning process. You may need assistance if:

- Your community does not have enough staff to devote someone to lead the process as part of their job duties;
- You wish to have targeted assistance in identifying hazards, risks, and vulnerabilities, and in performing loss estimates;
- You feel you need an outside facilitator to manage public meetings or to assist in goal setting or prioritizing; or
- No one in the community feels comfortable leading the planning process, or has the time to devote to it.

Hourly rates for planning consultants vary depending on their experience. In addition to private consultants, consider contracting with your regional planning agency, if one exists. Issues such as finding a consultant you are comfortable with, determining the scope of work, guidelines for how much of a role the consultant will have during the process, and how they will interact with the lay planners are all important to consider before hiring a consultant.

Many communities hire outside consultants to assist them in the coordination, facilitation, and implementation of the mitigation planning process. If your community decides to hire a consultant to assist with your mitigation plan, consider looking for a planner that:

- Understands that each community has unique demographic, geographic, and political considerations that need to be taken into account when creating a fully integrated mitigation plan.
- Understands all pertinent regulations and considerations as they apply to the mitigation plan (e.g., requirements of DMA 2000, state and local ordinances, and NFIP requirements).
- Recognizes that community input and public participation are keys to any successful mitigation plan.
- Is familiar with emergency management and multi-hazard mitigation concepts.
- Will provide you with the names and phone numbers of past clients.

For more information on hiring and working with a planning consultant, go to the American Planning Association Web site at www.planning.org, or see the additional Web sites and references that are listed in the Library in Appendix B.

Specialized Planning Team Members

You have an opportunity to include planning team members who have specialized areas of expertise. For example, if your mitigation plan will include sensitive areas, lands with endangered species, or historic structures, you will want to include people representing these issues on your planning team. In addition, if you are including technological hazards in your mitigation plan, such as hazardous materials or terrorism, invite members with the background and expertise to identify appropriate mitigation measures to reduce the risks from these hazards.

As referenced in the Introduction, additional how-to guides will be prepared as special issues arise. These guides may suggest appropriate people or departments to include on your planning team to address these issues. Check the FEMA Web site or contact your State Hazard Mitigation Officer for new guides.

your team members and see what kind of candidates you identify:

- Who are the representatives of those most likely to be affected?
- Who might be responsible for what is intended?
- Who is likely to mobilize in support of the mitigation planning process? Against it?
- Who can make the planning process more effective through their participation or less effective by their nonparticipation or outright opposition?
- Who are the "voiceless" for whom special efforts may have to be made?
- Who can contribute financial or technical resources?

3. **Include stakeholder representation from the following groups.** Even if these groups decline to participate early on, keep them in mind for later participation and advice when you are further along in the planning process. Also, copy them on meeting notices and meeting minutes. The level of participation from each of the groups that follows can range from advisory to active participant.

   - **Neighborhood groups and other non-profit organizations and associations.** These entities often act as advocates for citizens and can be essential in garnering support and local buy-in from citizens. These groups include neighborhood associations, housing organizations, watershed associations and other environmental groups, historical preservation groups, parent-teacher organizations, church organizations, and the local Red Cross.
   - **State, regional, and local government representatives.** State, regional, and local agencies can provide local expertise and guidance on statutes and programs that can provide grants. In addition, local agency representatives from departments such as public works, recreation, fire, or public safety can provide the team with valuable technical expertise. Representatives from neighboring communities should also be included. Key state representatives include the State Hazard Mitigation Officer, Na-

tional Flood Insurance Program coordinator, State Coastal Zone Manager, State Geologist, State Climatologist, and other state agencies associated with the federal agencies mentioned below.

- **Businesses and development organizations.** Local businesses are vital to the economic health of the community. Involving local businesses and the local units of national or regional chains will help ensure that the local economy becomes more disaster resistant, and it will yield a larger resource base for project implementation.
- **Elected officials.** Elected officials can help validate the hazard mitigation program and process by providing visibility and political influence. These officials often can expedite legislative and budget considerations, proclamations and resolutions, and directives to local personnel and agencies.
- **Federal agency representatives.** Federal agencies can provide technical expertise, knowledge about government processes, guidance on federal programs and grants, and awareness about current trends in the area. These federal agencies can include the regional FEMA office, the district Army Corps of Engineers office, Economic Development Administration, Environmental Protection Agency, U.S. Fish and Wildlife Service, U.S. Geological Survey, National Weather Service, U.S. Department of Agriculture, and the Natural Resources Conservation Service (NRCS) planners. In coastal areas, the National Oceanic and Atmospheric Administration (NOAA) may be able to provide technical assistance on coastal issues.
- **Academic institutions.** Academic institutions can provide valuable resources to both state and local government mitigation planning. State universities are often engaged in research that addresses state, regional, or local issues, and they can provide the latest data related to your community or state.

If possible, a community or state planner should be identified to be the expert, guide, and facilitator of the planning process. Local, regional, or state government agencies such as the planning, housing, environmental, or transportation departments can also be

Many graduate students may be interested in undertaking a community or statewide social, environmental, planning, hazard mapping, or geological information initiative as their thesis or class project. A class instructor may also be willing to coordinate a class project that could assist a community or state in their hazard identification and risk analysis or planning needs. Collaborating with local universities and colleges could provide low to no-cost planning assistance and would provide students with hands-on experience. When considering this kind of assistance, be prepared to address the following issues:

- Can the project be completed within one or two semesters? If not, can the project be broken down into smaller tasks?
- Will there be a sufficient amount of guidance and internal organization to enable the instructors and students to perform the projects successfully?
- Understand that the students will need guidance in understanding and adhering to any regulations.

valuable resources when looking for professional planners. Regional economic development and planning districts may be particularly active in your state and could facilitate the planning process. These planners work daily with planning processes, planning resources, and plan development. Therefore, they are familiar with the legislative and political framework in which the mitigation plan must operate. It is also beneficial to have a plan leader with experience chairing other committees, ideally other planning committees. This helps greatly in all steps of the planning process.

States may decide to identify specific state or regional planning resources to support local plan development. The state can help local communities to identify planning team members and should participate in some way on the planning team.

Communities and states should also consider looking for candidates with spirit, enthusiasm, and the time to dedicate to the initiative. Look towards the leaders and advocates who are already involved with activities to improve the quality of life in the community.

Task B. Obtain official recognition for the planning team.

Your individual community must decide whether this planning team will serve only as an advisory committee or if it will be a decision-making body. Either way, your planning efforts will be more successful if your team is designated with the official authority to develop a mitigation plan. Your planning team should consider obtaining official recognition in the form of a council resolution, a proclamation, a Memorandum of Agreement (MOA), or a Memorandum of Understanding (MOU). This recognition can go a long way toward demonstrating community or state support for mitigation action, and it greatly increases the plan's chances of being formally adopted.

Task C. Organize the team.

1. **Have an informal kick-off.** Once potential candidates have been identified, it is important to convene the group to enlist their participation and educate them about hazard mitigation planning. This meeting should generate a sense of teamwork among individuals who may not be used to working together, or who come from different backgrounds or have different values and interests. The first meeting should focus on creating a mood for learning rather than jumping directly into problem solving. Participants will probably come to this first meeting with preconceived notions of what they already know about hazards and what they think can be done about them.

Memorandum of Understanding

The following provides an example Memorandum of Understanding (MOU) for a typical planning effort where the community government is being represented by the Planning Department, which serves as the lead staff resource for the community. Reading and signing a similar MOU should be one of the first tasks of the planning team.

I. Purpose

As part of the Community Mitigation Planning Program, a Memorandum of Understanding (MOU) must be executed between the **[insert community name]** and the authorized citizen representative of the **[insert planning team name]** planning area. The plan created as a result of this MOU will be presented to the Planning Commission and City Council for adoption.

When adopted, plans provide guidance to city boards, commissions, and departments. Adopted plans serve as a guide and do not include a specific financial commitment by the city. All adopted plans should address land use, community facilities, and transportation networks. Priority projects are considered for recommendation as a part of the Annual Improvement Project Report. This report is forwarded to the City Council.

The intent of this MOU is to ensure that the mitigation plan is developed in an open manner involving neighborhood stakeholders, and that it is consistent with city policies and is an accurate reflection of the community's values. Its purpose is to form a working relationship between the citizens of **[insert community name]** and the **[insert community name]** Planning Department.

This MOU sets out the responsibilities of all parties. The MOU identifies the work to be performed by the planning team and Planning Department. Planning tasks, schedules, and finished products are identified in the Work Program.

II. Responsibilities

A general list of responsibilities follows:

COMMUNITY PLANNING TEAM RESPONSIBILITIES

1. Ensure that the planning team includes representatives from the neighborhood stakeholders groups, including all residents, neighborhood associations, community groups, property owners, institutions, businesses, schools, etc. The Planning Director should approve the final composition of the planning team.
2. Develop the Work Program with the *Planning Department.*
3. Organize regular meetings of the planning team in coordination with the *Planning Department.*
4. Assist the *Planning Department* with organizing public meetings to develop the plan.
5. Identify the community resources available to support the planning effort, including people to serve as meeting facilitators and committee chairs.
6. Assist with recruiting participants for planning meetings, including the development of a mailing list, distribution of flyers, and placement of meeting announcements in neighborhood newsletters.
7. Gain the support of neighborhood stakeholders for the recommendations found within the plan.
8. Submit the proposed plan to the city for interdepartmental review.
9. Work with the Planning Department to incorporate interdepartmental comments into the proposed plan.
10. Submit the proposed plan to the Planning Commission and City Council for consideration.
11. After adoption, develop a Coordinating Committee to monitor and work toward plan implementation.
12. After adoption, publicize the plan to neighborhood interests and ensure new community members are aware of the plan and its contents.

PLANNING DEPARTMENT STAFF RESPONSIBILITIES

1. Assign a planning staff member to provide technical assistance and necessary data to the planning effort.
2. Coordinate and facilitate community meetings with the assistance of the planning team.
3. Provide any necessary materials, handouts, etc., necessary for public planning meetings.
4. Work with the planning team to collect and analyze data and develop goals and implementation strategies.
5. Provide assistance with the creation of the plan, including review, editing, and formatting.
6. Coordinate with other city departments, public agencies, and other stakeholders during plan development.
7. Coordinate the city interdepartmental review.
8. Prepare for plan consideration by the Planning Commission and City Council.

Director of Planning	**Planning Team Chair**
Name: Signed after selection	Name: Signed after selection
Signature:	Signature:
Date:	Date:

During subsequent meetings, you may want to spice up the meeting by watching a short video or conducting a "what if" exercise to find out what locations or assets may be vulnerable to hazards. Information on conducting tabletop mitigation exercises or a list of videos can be found on the FEMA Web site or the FEMA publications warehouse at 1-800-480-2520.

The first gathering should be relaxed, friendly, and brief. The meeting should focus on an introduction of the team members, what the meeting is for, and what the team wants to accomplish. This first meeting should include a discussion of roles and responsibilities, decision-making processes, conflict resolution strategies, administrative procedures, financial management, and communication strategies. Consider showing a video about planning (floodplain planning, for example) as this could help orient the participants and provide background information on why planning is important. These issues are essential to sustaining the planning process over the long run. When possible, a representative from the state should provide an overview of mitigation planning and DMA 2000 or other applicable requirements. Over the course of the next few meetings, it would be helpful for the team to create a chart of the planning process that includes a timeline. The chart should describe who is responsible for what and when, what each member's roles are, and how each party's contribution is related to the overall process. The chart should not remain static; it should be continually updated and revised as the planning process progresses.

A few simple guide rules should be posted somewhere in the room, and should include each of the following guidelines:

- Everyone participates fully
- All input is honored
- Keep your personal agendas outside of the team
- One colleague speaks at a time
- Be honest and speak what's on your mind
- No one is ridiculed or made to feel unimportant
- Look for connections
- Trust the process
- Have some fun

2. **Prepare for the first formal meeting.** Before the first formal meeting is convened, the team leader should determine the local procedural requirements for these meetings. These laws usually concern whether the team can have closed meetings, whether the records and minutes must be available to the public, and whether there must be public notices of the meetings. The team leader or chair of the planning team should also help develop issues and points of discussion for the first meeting from the information it has collected. An agenda should be developed and sent to the members before the first meeting. Someone should be designated for each of the three roles that are vital to conducting meetings: the chair, a facilitator, and someone to record all of the information. These roles should have been appointed prior to the first formal meeting.

   A designated team member or two should also begin to gather data and information about things like the resources the community has available, the date of the most recent disaster, damage estimates from the most recent disaster, etc.

3. **Develop a mission statement.** The planning team is now ready to develop a mission statement that will describe the overall purpose of developing the mitigation plan. Often the term "mission" is used interchangeably with "vision." However, the mission statement is about the plan's purpose while the vision statement is about where your community wants to be in the future as an outcome of your mission. You may choose to develop both. Developing a mission statement is the first step toward developing goals to guide you in accomplishing your mission. Subsequently, you will develop objectives and activities to support these goals. Goals and objectives will be discussed in more detail in *Developing a Mitigation Plan* (FEMA 386-3).

   Developing a mission statement will help team members to understand what outcomes they want to achieve. This step will help build a common understanding of the purpose of the plan. The central theme for your mission statement should acknowledge in some way that a specific problem exists and that there are ways to solve it. The mission statement should answer the following questions:

   - Why is the plan being developed?
   - What does the plan do?
   - For whom or where?
   - How does the plan do this?

4. **Establish responsibilities.** Each planning team member should have a clear understanding of what is expected of them as a member of the team, what they can expect from the team and the planning process, and how much time they will need to dedicate to the initiative. Team members should have answers to each of the following questions:

   - What do you see as your role and responsibility in this initiative?
   - To be successful, what do you need from the rest of the team?
   - To be successful, what do you need to give to the team in return?
   - How do you see the plan contributing to the betterment of the community?

Mission and Vision Statements

Mission statements describe the overall duty and purpose of the planning process. Vision statements describe the ultimate outcome that you strive for through your mission.

North Carolina Natural Hazards Mitigation Plan (August 2001)

- Mission statement – To make North Carolinians, communities, state agencies, local governments, and businesses less vulnerable to the effects of natural hazards through the effective administration of hazard mitigation grant programs, hazard risk assessments, wise floodplain management, and a coordinated approach to mitigation policy through state, regional, and local planning activities.
- Vision statement – Institutionalize a statewide hazard mitigation ethic through leadership, professionalism, and excellence, leading the way to a safe, sustainable North Carolina.

- What specific things will this committee do to ensure such an outcome?

5. **Assign key roles and provide job descriptions to team members.** Assignments should be broad to accommodate future growth of the team. A focus that is too narrow in scope could require reorganization after the size of the team increases. Also, community professional staff or a consultant could perform some of these functions as well. Types of roles include:

   - Developing public information
   - Public outreach to special interest groups
   - Technical assistance from agencies or departments that are involved
   - Meeting location planner
   - Meeting documentation – One person should keep a record of all meeting minutes, voting and attendance records, resolutions of the team, open public meetings, and research work summaries. The designated member may also be in charge of posting notices for meetings and press releases. Keeping good records will provide documentation to support the team's decisions and provide evidence that the decisions were well considered. Your team might want to tape the meetings for easier and more complete record keeping. Minutes should be provided to each member of the partnership, including members who are not present at the meetings. Communication networks that provide access to the information, such as email or a Web page, can be established.

6. **Establish a regular meeting schedule.** During initial meetings, the team should decide upon a meeting schedule that is frequent enough to hold the team's interest, but flexible enough so that team members do not burn out early in the process. Scheduling outside field trips and visits to nearby towns and communities are good ways to give team members first-hand knowledge of problems in the area, and they can also help break the monotony of meetings. Have one team member create a calendar of meeting dates, times, and locations and send a copy to all team members.

DMA

Documentation of the planning process, including public involvement, is required to meet DMA 2000 (see 44CFR §201.4(c)(1) and §201.6(c)(1)). The plan must include a description of the planning process used to develop the plan, including how it was prepared, who was involved in the process, and how other agencies participated. A description of the planning process should include how the planning team or committee was formed, how input was sought from individuals or other agencies who did not participate on a regular basis, what the goals and objectives of the planning process were, and how the plan was prepared. The description can be in the plan itself or contained in the cover memo or an appendix.

Initially, the team will require frequent meetings to organize the process and to further define the mission and responsibilities of the team. Later, the structure of the workgroups, projects, grant applications, and disaster events will determine the frequency of the meetings. One of the goals of any mitigation planning team should be to increase coordination among its members so that it almost becomes second nature whether the meeting structure is formal or relaxed.

7. **Set goals for each meeting.** To ensure focus, the meeting facilitator should set goals for each meeting and share these goals with the group. When setting meeting goals, be sure that the following questions are addressed:

   - How will I measure the success of this meeting—what specific things need to be seen or heard?
   - Are we making progress?
   - What will participants take away from the meeting? What will be its value?
   - If this meeting were a press event, what headline would I want to come out of this meeting?

8. **Set future meeting agendas; keep it action-oriented.** Urge members to submit future agenda requests that outline what the individual would like the planning team to do, why he or she would like the planning team to do it, and what benefit it will bring to the planning team and project as a whole. This prevents unnecessary agenda items that can be handled on an individual or subgroup basis and reveals topics that need to be further developed before they are submitted to the entire planning team.

   When developing the agenda for team meetings, use action-oriented words that not only state what you are going to talk about, but connote activity and outcomes. This will help keep your meeting focused and cut down on time. Examples of a few action-oriented words are: *recruit, evaluate, decide, assess, monitor, appoint, select, determine, recommend, publicize, follow-up, write, send, design,* and *publish.*

9. **Set timelines for projects to be completed.** Timelines are critical to the success of a hazard mitigation team. They keep the team focused on its mission and serve as a method to measure progress.

Actual terminology can vary from planning team to planning team. Whether your team has workgroups, subcommittees, or task forces, the function of these groups is the same.

Example planning team committees or workgroups include:

- Risk Assessment
- Infrastructure
- Critical Facilities
- Land Use Planning and Zoning
- Businesses

10. **Consider forming subcommittees or workgroups.** One option for organizing members of the planning team is to create workgroups or subcommittees. Workgroups or subcommittees that meet independently of the full planning team focus on one central issue and usually provide the leadership, research, and plan-writing responsibilities for that issue. Many planning teams choose to use the workgroup/subcommittee option for several different reasons. Some planning teams use workgroups or subcommittees to concentrate participants with similar interests or expertise into one group. Others use them to foster more organized and productive meetings than an assemblage of the entire team would provide. Other planning teams choose workgroups or subcommittees simply to help prevent "burnout" caused by participating in too many meetings.

Look out for Common Planning Pitfalls

Sometimes planning teams experience difficulty working together as a unified group. These problems can result from a lack of commitment to the cause, unclear missions or goals, personality conflicts, personal agendas, or ill-defined roles for the team members. Most of these problems will work themselves out over time, but on rare occasions, this difficulty could threaten the very existence of the group, or the ability to achieve the team goals. This may happen explosively through conflict or quietly through indifference. If this occurs within your team, consider trying different strategies to get the team back on track.

1. **Recognize the constraints and limitations of a public-private relationship.** The concept of public-private partnerships is still a relatively new concept for planning. The diversity of these stakeholders will add complexity to the relationships and could cause increased tensions among team members. The team must be alert to possible tensions of any kind and should be prepared to take immediate action to address the issue before it becomes a major impediment to the team's efforts. Problems will arise when team members perceive an inequality of power, have a lack of trust of other team members, are unclear about their roles, or do not feel that their expectations for the planning process are being met in any way.

   When dealing with government agencies there are laws, regulations, and procedures that their representatives are expected to follow. The private sector may also have constraints and limitations on how they can operate in a partnership relationship from issues such as serving as boards of directors, company policies, grant restrictions, and legal regulations. Small businesses may be limited in the amount of resources they can contribute and the amount of time they can devote to the partnership. Recognizing and understanding the constraints and limitations of both sides through discussions and strategies to address the issues will enable the team to function more effectively.

2. **Check level of understanding.** Some information that will be discussed during the team meetings will be somewhat technical, but critical to the success of the mitigation planning process. Ask questions of the participants to make sure they understand everything that is discussed and why it is important before misunderstandings become a barrier to further progress.

3. **Go back to the drawing board.** The planning team or chair of the planning team may need to determine whether the proper team members have been invited to participate, to define more clearly the purpose and direction of the hazard mitigation team and its roles.

4. **Check on the speed of the planning process.** Too much time between meetings or steps in the planning process may cause the team to lose interest. The team may want to consider assigning homework for each member before the meetings so that more work can be completed in less time, and by tightening up deadlines to finish the planning process more quickly.

5. **Conduct icebreaker exercises at the beginning and middle of each meeting.** Icebreakers such as mental or physical games or exercises can enhance creative thinking and help create a relaxed, more informal atmosphere.

6. **Appoint or hire a trained facilitator to run meetings.** Facilitators are skilled professionals who help meetings run more smoothly and efficiently, and help keep the focus of meetings on track.

The Hazardville Post

Vol. CXI No. 65 Thursday, March 13, 2002

Planning Committee Looks for Members

[Hazardville, EM] The Hazardville Mitigation Committee is seeking new members.

Mr. Joe Norris, Planning Department Director and Chair of the newly formed Town of Hazardville Organization for Risk Reduction (THORR), stated; "In forming this committee we are looking for people who want to plan for the future and support the idea of planning before a disaster strikes, which is the only way to truly make our community safer, healthier, and more economically resilient."

Mr. Norris was tasked with organizing a committee to create a hazard mitigation plan. The committee should include stakeholders or people directly affected by disasters. Although there is no "best way" to single these people out, Mr. Norris said he is looking for people willing to support the mitigation planning process as well as those with access to financial and/or technical resources. He is enlisting the help of neighborhood associations, housing organizations, local environmental groups, historical preservation groups, and the local American Red Cross in order to generate a successful and well-integrated mitigation plan.

Mr. Norris said when interviewed, "Team members should have a clear understanding of what is expected of them and how much of his or her time will be needed or dedicated to the initiative. I want potential team members to walk away from any given meeting or forum feeling that they have helped Hazardville on the road to establishing a successful mitigation plan that will reduce losses from future disasters."

"We need to develop a mission statement and a vision that will unite the committee, and ultimately the community. We need to build a relationship that is based on an understanding and commitment to achieve a positive outcome for current and future generations who live and work in Hazardville."

A proposed work plan and schedule, which will be reviewed and agreed upon by the planning committee, is included at the end of this article. This should give residents an idea of the planning process and the actions that the committee will be responsible for. If you are interested in participating, please call Joe Norris at (888) 222-1111.

Draft Work Plan

Hazard Identification, Analysis and Risk Assessment (June '02 – October '02)

- Project Initiation Meeting
- Public Meeting #1
- Hazard Identification
- Hazard Events Profile
- Community Asset Inventory
- Risk Assessment/Loss Estimation
- Progress and Coordination Meetings

Capability Assessment (June '02 – October '02)

- Plans, Policies, and Programs Examination
- Assessment of Previous Mitigation Activities
- Identification of Resources
- Public Meeting #2
- Progress and Coordination Meetings

Assessment of Alternative Hazard Mitigation Measures and Needs (November '02 – January '03)

- Develop Goals and Objectives
- Research of Mitigation Alternatives
- Progress and Coordination Meeting
- Evaluate the Mitigation Measures
- Mitigation Recommendations
- Public Meeting #3

Development of Implementation Strategy (February '03 – May '03)

- Progress and Coordination Meetings
- Mitigation Action Plan
- Public Meeting #4
- Public Hearing: present the draft Hazard Mitigation Plan
- Final Presentation: elected and appointed officials or other designated forum

Production of Final Plan (March '03 – May '03)

- Draft Plan
- Final Plan
- Adoption of plan by Planning Committee and City Council

Ongoing Activities (ongoing from June '03)

- Plan Evaluation
- Plan Updates
- Incorporate changes into plan

Work Schedule

Task	2002							2003				
	6/30	7/31	8/31	9/30	10/31	11/30	12/31	1/31	2/28	3/31	4/30	5/31
Hazard Identification & Vulnerability Assessment												
Capability Assessment												
Alternative Mitigation Measures												
Implementation Strategy												
Planning Team Meetings	#1	#2		#3		#4		#5		#6		
Public Meetings		#1			#2		#3		#4			
Draft Mitigation Plan												
Public Hearing											✓	
Adoption of Plan by Planning Committee and City Council												✓

In establishing a planning team, you want to ensure that you have a broad range of backgrounds and experiences represented. Below are some suggestions for agencies to include in a planning team. There are many organizations, both governmental and community-based, that should be included when creating a local team. In addition, state organizations can be included on local teams, when appropriate, to serve as a source of information and to provide guidance and coordination.

Use the checklist as a starting point for forming your team. Check the boxes beside any individuals or organizations that you have in your community/state that you believe should be included on your planning team so you can follow up with them.

Task A. Create the planning team – *Suggestions for team members.* Date:_____

Local/Tribal

- ☐ Administrator/Manager's Office
- ☐ Budget/Finance Office
- ☐ Building Code Enforcement Office
- ☐ City/County Attorney's Office
- ☐ Economic Development Office
- ☐ Emergency Preparedness Office
- ☐ Fire and Rescue Department
- ☐ Hospital Management
- ☐ Local Emergency Planning Committee
- ☐ Planning and Zoning Office
- ☐ Police/Sheriff's Department
- ☐ Public Works Department
- ☐ Sanitation Department
- ☐ School Board
- ☐ Transportation Department
- ☐ Tribal Leaders

Special Districts and Authorities

- ☐ Airport and Seaport Authorities
- ☐ Business Improvement District(s)
- ☐ Fire Control District
- ☐ Flood Control District
- ☐ Redevelopment Agencies
- ☐ Regional/Metropolitan Planning Organization(s)
- ☐ School District(s)
- ☐ Transit/Transportation Agencies

Others

- ☐ Architectural/Engineering/Planning Firms
- ☐ Citizen Corps
- ☐ Colleges/Universities
- ☐ Land Developers
- ☐ Major Employers/Businesses
- ☐ Professional Associations
- ☐ Retired Professionals

State

- ☐ Adjutant General's Office (National Guard)
- ☐ Board of Education
- ☐ Building Code Office
- ☐ Climatologist
- ☐ Earthquake Program Manager
- ☐ Economic Development Office
- ☐ Emergency Management Office/State Hazard Mitigation Officer
- ☐ Environmental Protection Office
- ☐ Fire Marshal's Office
- ☐ Geologist
- ☐ Homeland Security Coordinator's Office
- ☐ Housing Office
- ☐ Hurricane Program Manager
- ☐ Insurance Commissioner's Office
- ☐ National Flood Insurance Program Coordinator
- ☐ Natural Resources Office
- ☐ Planning Agencies
- ☐ Police
- ☐ Public Health Office
- ☐ Public Information Office
- ☐ Tourism Department

Non-Governmental Organizations (NGOs)

- ☐ American Red Cross
- ☐ Chamber of Commerce
- ☐ Community/Faith-Based Organizations
- ☐ Environmental Organizations
- ☐ Homeowners Associations
- ☐ Neighborhood Organizations
- ☐ Private Development Agencies
- ☐ Utility Companies
- ☐ Other Appropriate NGOs

1 assess community support
2 build the planning team
step 3 engage the public

3

engage the public

Overview

Although the planning team represents a cross-section of the community, it is important to include broad public participation in the planning process as well. Involving stakeholders who are not part of the core team in all stages of the process will introduce the planning team to different points of view about the needs of the community. It will also provide opportunities to educate the public about hazard mitigation, the planning process, any findings, and could be used to generate support for the mitigation plan.

The stakeholders to involve include those individuals who do not regularly participate in the planning process, but may be affected or have an interest in the plan and its implications. Such stakeholders include public officials, agency heads, neighborhood and other civic organizations, business associations, institutions, and individual citizens.

Involving these stakeholders in a public participation process will aid in developing support for the plan and its implementation. Getting these stakeholders' support, however, may be a challenge. Two obstacles are commonly encountered. First, most people may not be aware of risks in their community; secondly, they may not know what mitigation is or how it can compliment an array of existing goals. Therefore, it is important to find ways to engage these stakeholders and educate them about the planning process and the benefits of mitigation to them personally and at the community level.

This step will show you how to identify the stakeholders, organize your public participation activities, and incorporate public feedback into your decision-making process.

Public Participation Methods

Groups make decisions in many ways. In a partnership, the level of enthusiasm or involvement of individual members is tied directly to the feeling of ownership in the project. Using a consensus-based approach to decision making helps promote an attitude of respect for other opinions while ensuring a process that allows everyone to participate and be heard. This differs from the majority-rule concept, in which members of the group may leave the decision-making process feeling unhappy with the outcome. Majority rule is a legitimate way to make decisions when the situation does not warrant the time consuming process of consensus. The group should be able to decide whether the seriousness and significance of the situation requires consensus or majority rule.

Consensus is a way of working together as a group to reach a decision or solution. The consensus-based approach is an important part of working and acting as a team because it forces the individual members to move beyond their own self-interests and take into consideration the positions of other stakeholders. It is an informal discussion involving talking issues through, understanding what other people are saying and feeling, and then trying to work out decisions acceptable to everyone. All of the members should be a part of the decision and should feel the decision that was reached was the best possible one for the team. The decision may not be their personal preference, but it is one they should be able to support.

For additional information, including techniques you can use to reach consensus, see *Getting to Yes: Negotiating Agreement Without Giving In*, and *Breaking the Impasse: Consensus Approaches to Resolving Public Disputes* (see Appendix B).

Procedures & Techniques

Task A. Identify the public.

Identifying the people to involve will be similar to what you did in Step 2, Task A, when you created the planning team. In this step, however, you will be looking more toward educating and informing the public about what is happening and how proposed measures may affect them, providing opportunities for them to voice their concerns, and integrating their feedback as you make decisions.

As a start, you may have developed a list of stakeholders when you identified members for the planning team. Revisit this list to see who declined to join the planning team and put them on your contact list. Also, as you learned more about your community, you may have encountered other stakeholders you may not have originally considered. Revisit the questions in Step 2, Task A.2 to help you identify these people. You may also have lists of participants from previous planning efforts. Review these lists and select those who should be contacted.

An effective way to identify leaders in the community (this would include people who may not necessarily be heads of organizations or elected officials, but who command the respect of community members, e.g., a lawyer, neighborhood activist, or philanthropist) is to ask team members and those who attend public participation activities to name individuals they think should be contacted. You will notice that the same names keep coming up. You may want to personally invite these people or follow-up a mailing to them with a phone call to ensure that they are aware of the next planning team meeting.

Task B. Organize public participation activities.

1. Schedule public participation activities.

During your organization of the team (Step 2), you set up a regular meeting schedule (Task C) and a timeline for completing certain phases of your plan. Revisit this schedule and identify points where it is important to inform the public of what is happening and to seek their input to assist you in making a decision. For example, you may want to hold a public meeting at the beginning of the planning process to let stakeholders know the purpose of your planning effort and how you are approaching it. You may have one or more people join the team after such a meeting. Once they understand what is involved, they may decide it is worth their time. Another good time to invite public involvement is after you have completed your risk assessment and damage loss estimation [see *Understanding Your Risks* (FEMA 386-2)]. This will give the public a chance to learn specific information about the community's vulnerabilities, which can be a revelation as to why mitigation planning is important. You may also want to get feedback and input on setting goals, and identifying and selecting mitigation alternatives. Stakeholders should review and agree with your selection and evaluation criteria. Once you have a draft plan that the public can review, invite them to provide comments before the plan is presented formally for adoption [see *Bringing the Plan to Life* (FEMA 386-4)]. Note that Hazardville held four public meetings during the one-year planning process.

Determine the appropriate public participation method for different types of stakeholders.
Not everyone likes to participate or voice opinions in a large meeting setting. Others may prefer to learn about community initiatives during their regularly scheduled association meetings. It is important to assess how best to reach your stakeholders. Ask others on the team what they have done in the past to inform or get input from stakeholders. The public participation methods that will work for your community or state depends on the size of your community, the extent of citizen involvement, governmental policies, and the capabilities of the officials to support the planning initiative. Review how you have handled this

in the past and what produced good results. You may have found that elected officials prefer a one-on-one briefing. Businesses, non-profits, and institutions may have welcomed you at their business association meetings or invited you to speak at their regularly scheduled breakfasts. The team can also ask to be added to the agendas of scheduled community group meetings, including neighborhood associations, community service groups (Lions, Jaycees, etc), business alliances, and the local Chamber of Commerce, to explain and talk about the planning process. Take advantage of the meeting infrastructure already in place.

Some other participation methods you may want to consider for your community or state include: hosting a public workshop, establishing a hotline, conducting interviews, and distributing a questionnaire. Workshops can be held during different milestones in the planning process for large or small groups of community or state representatives, business representatives, and citizens. These meetings can bring problems and issues to the table and provide new ideas for solutions.

Holding regular community meetings can create a public forum in which questions can be asked, issues can be raised, answers can be given, and concerns can be addressed. These public meetings will also help you sell mitigation beyond the planning team to the community at large. As part of this, you need to agree on the public participation rules. You may decide to use the same ones that apply to the planning team or modify this list. Also, agree on how you will handle conflict beforehand.

A hotline can be established so that anyone with a concern, question, or comment can reach a person who will be able to speak knowledgeably about the planning process. This number should be well publicized in newsletters, news releases, meeting announcements, etc. The key to an effective hotline is ensuring that callers feel that the person at the other end of the hotline is interested in what they have to say, and not whether or not they have all the answers. A cost-effective alternative to a telephone hotline would be to post an e-mail address or use an interactive Web site.

Interviews allow you to gather information from key people, including community representatives or leaders, heads of civic groups, and people who will be most affected by the plan and might be more comfortable talking one-on-one. Obviously, you cannot interview everyone, but by interviewing key community members, you can gather specific qualitative information that you probably cannot obtain in any other way.

Questionnaires can also be used to gather valuable information that people might not feel comfortable disclosing face-to-face. The questionnaire can be as simple or detailed as you want and is a good way to collect a lot of information on citizens' knowledge of hazards as well as what mitigation activities they'd like to see implemented. An excellent example is the questionnaire used by the Partners for Disaster Resistance: Oregon Showcase State Program, which is included as Appendix D.

Once you determine how to best approach public stakeholders, assign responsibilities for:

- Organizing mailings;
- Logistical coordination;
- Meeting facilitation;
- Establishing a hotline;
- Contacting interviewees; and
- Developing presentation materials.

Again, select the method, or methods, most appropriate for your community and assign responsibilities accordingly.

Analyze, evaluate, and incorporate comments.
As a team, decide how to analyze, evaluate, respond, and incorporate comments into your decision-making process. Stakeholders should know that you will listen to their opinions and suggestions, and that you will decide how to best incorporate these into the plan. They should be warned, however, that while suggestions are welcome, they will not always be acted upon. However, stakeholders deserve an explanation of your decision. Someone should be assigned the responsibility for organizing the feedback you receive, including summarizing meeting points,

identifying and tracking key issues, and responding to feedback.

Keeping track of and analyzing public comments can get complicated if you have a large amount of information coming in. Develop a process for organizing and storing the comments you receive. This can be based on such things as the topic addressed in the comment, the geographic area of the person making the comment, or whether it is a positive or negative comment. It doesn't matter how the feedback is organized, as long as you ensure that the comments are incorporated into the various stages of the planning process. The Library in Appendix B contains references that include more specific information on how to analyze and evaluate public feedback.

2. Document results.

Documenting results is a crucial part of analyzing, evaluating, and incorporating public feedback. As mentioned previously, all public comments, regardless of the source of the comment, should be recorded and organized. After each public participation activity, results should be documented so that they can be referred to later. Decision makers will use the public comments to ensure that all issues are addressed during the formation of the mitigation plan. The documentation of the feedback serves as a permanent record that shows you included public input during the planning process. A specific person or persons from the planning team should be designated the central contact for public feedback. This person will be responsible for maintaining and organizing the comments.

Obtain Letters of Support or Endorsement

During public outreach activities, you may come to realize that certain groups or organizations strongly support your mitigation plan and planning process. Try to get these organizations to provide you with letters of support or endorsement. To ease this process, provide them with a template letter that they can tailor and send back to you. These letters will let you know who is interested and can possibly help you, and will also be of assistance during the formal plan adoption process. They may also help in continuing to attract new participants.

Task C. Develop a public education campaign.

You will need a specific way to present information to each type of stakeholder. When meeting with elected and public officials, for example, you may want to present a brief PowerPoint presentation that can be expanded for use in a larger public meeting setting. You may leave brochures with them that can also be distributed at fairs or libraries. Look at the activities and map out what information would be useful to leave with stakeholders and what information you need to prepare for presentation purposes. The following are information materials you can prepare as part of your education campaign, as well as venues for distributing them.

1. News media.

One of the easiest and most effective ways to inform and involve the public is through the media. Print, radio, and television media have the ability to affect and shape our opinions and behavior, and influence our preferences and choices. Your team might want to include a special insert in the local paper, broadcast public meetings on the local access channel or through public service announcements, or even produce a video highlighting recent disasters and damages in your community or state.

You can contact local reporters and give them a press kit, which is a folder summarizing the key information that includes your goals and actions, to pique their interest and provide them with accurate information. You can also do a news release, which you write and provide to local news media. If your story generates enough interest, a feature story may be done. This is a full news story written by a reporter. A news conference is another way to get information out, but to generate enough interest and ensure that the media will show up, these are usually only done for major announcements by well known people.

You can also contact local publications and newsletters and ask them to include information about the plan and the planning process. Examples of local organizations that might have publications include: watershed organizations, historic societies, volunteer organizations, technical associations, garden clubs, and churches.

While the media is a good source for getting information to the public, you do have to be careful. Sometimes the media can distort the information you give them or give it a different spin. The media likes attention-grabbing headlines so they may try to make your plan controversial in some way. You should work on establishing an honest, working relationship with a local reporter so that each of you has someone to turn to when you need to gather or provide information to the community.

2. Brochures, fliers, and newsletters.

Brochures, fliers, and newsletters are relatively inexpensive to produce and can be useful in reaching audiences that might not otherwise have the opportunity to learn more about hazards that affect your community. Someone on the planning team can create the brochure or newsletter, or perhaps you can find a volunteer willing to produce it. Make sure these publications are reviewed and approved by key members of the planning team before they are distributed. The brochures should be clear and easy to read and understand. The brochures, fliers, and newsletters should include information about the planning committee and what the mitigation plan is expected to accomplish in your community or state. Make sure that the

FEMA's *Mitigation Resources for Success* CD (FEMA 372) is full of materials and practical ideas for building community awareness. The success stories from other communities or states may ignite a wealth of new ideas in your planning team. The Mitigation Library contains brochures, fact sheets, and step-by-step instructions on disaster preparedness, mitigation, response, and recovery. To order, call the FEMA publications warehouse at 1-800-480-2520.

documents include a designated department or contact name and phone number in case anyone wants to learn more about the initiative. These documents can be distributed through utility bills, grocery or department stores, government buildings, and libraries throughout the community or state.

3. Outreach activities at festivals, fairs, and bazaars.

Public events provide unique opportunities for planning team members to interact with the public in a relaxed and informal atmosphere. The planning team may want to ask the event coordinators if they would consider donating a booth or a table to display hazard and mitigation-related brochures, fliers, and newsletters. During the event, team members can talk to citizens about their experience with hazards and try to get feedback on any mitigation activities the team is considering. This also provides people with an opportunity to ask questions face to face. Someone on the planning team should be in charge of keeping track of the dates of local fairs, festivals, etc. and should be responsible for contacting the organizers of the events.

When creating a mitigation plan in response to the Cerro Grande Fire, the town of Los Alamos, NM created a Web page to announce public meetings, gain public input into the process and development of the plan, and to inform the public about the potential mitigation measures and the progress of the mitigation plan.

4. Get your planning team connected to the Internet.

As more communities learn about the Internet and obtain the resources to set up Web sites, more people come to expect information at their fingertips. Almost all state, regional, and local governmental entities now have Web sites. Linking to a Web page on these sites can be an excellent way to publicize and highlight your planning efforts. The Web page can be as simple as a description of the planning initiative with upcoming meeting dates, times, and minutes from the last meeting, or it can be highly developed with links to mitigation and hazard resources and sites. The Web site could also be used to post questionnaires for citizens to determine their perceptions of hazards and risks in the community or state, as well as provide an additional outlet to generate feedback on issues.

The Hazardville Post

Vol. CXI No. 65 Thursday, May 3, 2002

THORR to Hold Public Workshop

[Hazardville, EM] The Town of Hazardville Organization for Risk Reduction (THORR) is organizing a facilitated workshop to educate the community on the mitigation planning process and to outline opportunities for public input in the planning process. This meeting will also serve as a forum for the public to voice their opinions and concerns about the mitigation plan. Ms. Rita Booke, head of the local Citizen's for Action group, has agreed to record all public comments and will post them and their responses on the THORR Web page. Ms. Booke stated, "Public input into this process is so important, I really hope people come to the meeting and voice their opinions and ask questions. Without public comments this process will not be nearly as effective; in fact, we're counting on public input to help us shape the plan."

Mr. Joe Norris, Planning Department Director and Chair of THORR, said he would be available to answer questions on the day of the workshop. "I have details about the last flood and how it affected the community as a whole," said Mr. Norris. "These details are not easily forgotten since I, as well as many others, lost crops and ended up doing major repairs on our homes after the flooding of May 2000."

Mary Tremble, Director of Hazardville's Emergency Management Agency, will discuss the disasters that have occurred in the past in and around Hazardville, and state representatives from the Office of Emergency Preparedness (OEP), Office of the Environment, and Office of Planning will be on hand to demonstrate their support for the planning process. Hazardville received a $20,000 grant from the State Emergency Management Agency's Pre-Disaster Mitigation Grant Program to complement local funding to develop Hazardville's All-Hazard Risk Reduction Plan.

Starting May 5, 2002, local radio station WHAM will begin announcing the date, time, and location of the workshop to ensure that as many people as possible are aware of what is happening and, therefore, better informed. Jim Snow, owner of Snow's Snowplows and the business leader of THORR, and Mr. Norris will also distribute posters and fliers announcing the workshop.

afterword

afterword

You have organized your resources, established your planning team, and engaged the public. The work you have done in this first phase will continue to pay dividends throughout the planning process. You are now ready to move to the next phase of the hazard mitigation planning process, Assess Risks.

The next how-to guide in this series, *Understanding Your Risks* (FEMA 386-2), will walk you through a four-step process of identifying your hazards and estimating the potential losses from future hazard events. The loss estimation is important to help you identify the hazards or assets you should address first in your mitigation plan.

As detailed in the Foreword, the Hazard Mitigation Planning process consists of four basic phases.

The next how-to in the series, *Understanding Your Risks*, will provide the factual basis for your plan.

appendices

appendix a
glossary

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

Asset Any manmade or natural feature that has value, including, but not limited to people; buildings; infrastructure like bridges, roads, and sewer and water systems; lifelines like electricity and communication resources; or environmental, cultural, or recreational features like parks, dunes, wetlands, or landmarks.

Building A structure that is walled and roofed, principally above ground and permanently affixed to a site. The term includes a manufactured home on a permanent foundation on which the wheels and axles carry no weight.

Coastal Zone The area along the shore where the ocean meets the land as the surface of the land rises above the ocean. This land/water interface includes barrier islands, estuaries, beaches, coastal wetlands, and land areas having direct drainage to the ocean.

Community Rating System (CRS) CRS is a program that provides incentives for National Flood Insurance Program communities to complete activities that reduce flood hazard risk. When the community completes specified activities, the insurance premiums of the policyholders in those communities are reduced.

Contour A line of equal ground elevation on a topographic (contour) map.

Debris The scattered remains of assets broken or destroyed in a hazard event. Debris caused by a wind or water hazard event can cause additional damage to other assets.

Disaster Mitigation Act of 2000 (DMA 2000) DMA 2000 (Public Law 106-390) is the latest legislation to improve the planning process. It was signed into law on October 10, 2000. This new legislation reinforces the importance of mitigation planning and emphasizes planning for disasters before they occur.

Earthquake A sudden motion or trembling that is caused by a release of strain accumulated within or along the edge of earth's tectonic plates.

Erosion Wearing away of the land surface by detachment and movement of soil and rock fragments, during a flood or storm or over a period of years, through the action of wind, water, or other geologic processes.

Extent The size of an area affected by a hazard or hazard event.

Fault A fracture in the continuity of a rock formation caused by a shifting or dislodging of the earth's crust, in which adjacent surfaces are differentially displaced parallel to the plane of fracture.

Federal Emergency Management Agency (FEMA) Independent agency created in 1979 to provide a single point of accountability for all federal activities related to disaster mitigation and emergency preparedness, response, and recovery.

Flood Depth Height of the flood water surface above the ground surface.

Flood Hazard Area The area shown to be inundated by a flood of a given magnitude on a map.

Flood Insurance Rate Map (FIRM) Map of a community, prepared by FEMA, shows both the special flood hazard areas and the risk premium zones applicable to the community under the National Flood Insurance Program.

Flood Zone A geographical area shown on a FIRM that reflects the severity or type of flooding in the area.

Floodplain Any land area, including watercourse, susceptible to partial or complete inundation by water from any source.

Hazard A source of potential danger or adverse condition.

Hazard Event A specific occurrence of a particular type of hazard.

Hazard Identification The process of identifying hazards that threaten an area.

Hazard Mitigation Sustained actions taken to reduce or eliminate long-term risk from hazards and their effects.

HAZUS (Hazards U.S.) A GIS-based, nationally standardized, loss estimation tool developed by FEMA.

Hurricane An intense tropical cyclone, formed in the atmosphere over warm ocean areas, in which wind speeds reach 74 miles per hour or more and blow in a large spiral around a relatively calm center or "eye." Hurricanes develop over the north Atlantic Ocean, northeast Pacific Ocean, or the south Pacific Ocean east of 1600E longitude. Hurricane circulation is counter-clockwise in the Northern Hemisphere and clockwise in the Southern Hemisphere.

Infrastructure Refers to the public services of a community that have a direct impact on the quality of life. Infrastructure includes communication technology such as phone lines or Internet access, vital services such as public water supplies and sewer treatment facilities, and includes an area's transportation system such as airports, heliports, highways, bridges, tunnels, roadbeds, overpasses, railways, bridges, rail yards, depots; and waterways, canals, locks, seaports, ferries, harbors, drydocks, piers, and regional dams.

Landslide Downward movement of a slope and materials under the force of gravity.

Local Emergency Planning Committee (LEPC) LEPCs consist of community representatives and are appointed by the State Emergency Response Commissions (SERCs), as required by Superfund Amendments and Reauthorization Act (SARA), Title III. They develop an emergency plan to prepare for and respond to chemical emergencies. They are also responsible for coordinating with local facilities to find out what they are doing to reduce hazards, prepare for accidents, and reduce hazardous inventories and releases. The LEPC serves as a focal point in the

community for information and discussions about hazardous substances, emergency planning, and health and environmental risks.

Magnitude A measure of the strength of a hazard event. The magnitude (also referred to as severity) of a given hazard event is usually determined using technical measures specific to the hazar

Mitigate To cause something to become less harsh or hostile, to make less severe or painful.

Mitigation Plan Systematically evaluating community policies, actions, and tools, and setting goals for implementation over the long term that will result in a reduction in risk and minimize future losses community-wide.

National Flood Insurance Program (NFIP) Federal program created by Congress in 1968 that makes flood insurance available in communities that enact minimum floodplain management regulations as indicated in 44 CFR §60.3.

National Weather Service (NWS) Prepares and issues flood, severe weather, and coastal storm warnings and can provide technical assistance to federal and state entities in preparing weather and flood warning plans.

Planning The act or process of making or carrying out plans; the establishment of goals, policies, and procedures for a social or economic unit.

Preparedness Actions that strengthen the capability of government, citizens, and communities to respond to disasters.

Probability A statistical measure of the likelihood that a hazard event will occur.

Recovery The actions taken by an individual or community after a catastrophic event to restore order and lifelines in a community.

Regulatory Power Local jurisdictions have the authority to regulate certain activities in their jurisdiction. With respect to mitigation planning, the focus is on such things as regulating land use development and construction through zoning, subdivision regulations, design standards, and floodplain regulations.

Response The actions taken during an event to address immediate life and safety needs and to minimize further damage to properties.

Risk The estimated impact that a hazard would have on people, services, facilities, and structures in a community; the likelihood of a hazard event resulting in an adverse condition that causes injury or damage. Risk is often expressed in relative terms such as a high, moderate, or low likelihood of sustaining damage above a particular threshold due to a specific type of hazard event. It also can be expressed in terms of potential monetary losses associated with the intensity of the hazard.

Scale A proportion used in determining a dimensional relationship; the ratio of the distance between two points on a map and the actual distance between the two points on the earth's surface.

Stafford Act The Robert T. Stafford Disaster Relief and Emergency Assistance Act, PL 100-107 was signed into law November 23, 1988 and amended the Disaster

Relief Act of 1974, PL 93-288. The Stafford Act is the statutory authority for most federal disaster response activities, especially as they pertain to FEMA and its programs.

Stakeholder Individual or group that will be affected in any way by an action or policy. They include businesses, private organizations, and citizens.

State Hazard Mitigation Officer (SHMO) The representative of state government who is the primary point of contact with FEMA, other state and federal agencies, and local units of government in the planning and implementation of pre- and post-disaster mitigation activities.

Substantial Damage Damage of any origin sustained by a structure in a Special Flood Hazard Area whereby the cost of restoring the structure to its before-damaged condition would equal or exceed 50 percent of the market value of the structure before the damage.

Tectonic Plate Torsionally rigid, thin segments of the earth's lithosphere that may be assumed to move horizontally and adjoin other plates. It is the friction between plate boundaries that cause seismic activity.

Topographic Characterizes maps that show manmade features and indicate the physical shape of the land using contour lines.

Tornado A violently rotating column of air extending from a thunderstorm to the ground.

Tropical Cyclone A generic term for a cyclonic, low-pressure system over tropical or sub-tropical waters.

Tropical Storm A tropical cyclone with maximum sustained winds greater than 39 mph and less than 74 mph.

Tsunami Great sea wave produced by submarine earth movement or volcanic eruption.

Vulnerability Describes how exposed or susceptible to damage an asset is. Vulnerability depends on an asset's construction, contents, and the economic value of its functions. Like indirect damages, the vulnerability of one element of the community is often related to the vulnerability of another. For example, since many businesses depend on uninterrupted electrical power, if an electric substation is flooded it will affect not only the substation itself, but a number of businesses as well. Often, indirect effects can be much more widespread and damaging than direct ones.

Vulnerability Assessment The extent of injury and damage that may result from a hazard event of a given intensity in a given area. The vulnerability assessment should address impacts of hazard events on the existing and future built environment.

Wildfire An uncontrolled fire spreading through vegetative fuels, exposing and possibly consuming structures.

appendix b
library

Web Sites

American Planning Association:	http://www.planning.org
Association of State Floodplain Managers:	http://www.floods.org
Developing the Implementation Strategy:	http://www.pro.gov.uk/recordsmanagement/eros/framework.pdf
	http://www.allhandsconsulting.com/ERI_books.htm
	http://www.esri.com/news/arcuser/0100/firetools.html
	http://www.pmel.noaa.gov/~bernard/hazard3.pdf
	http://www.uli.org/Pub/Pages/d_search/allbooks.cfm
Federal Emergency Management Agency: Mitigation Planning	http://www.fema.gov/fima/planning.shtm
Community Rating System:	http://www.fema.gov/nfip/crs.htm
Flood Hazard Mapping:	http://www.fema.gov/mit/tsd/st_main.htm
Flood Mitigation Assistance Program:	http://www.fema.gov/fima/planfma.shtm
Hazard Mitigation Grant Program:	http://www.fema.gov/fima/hmgp
Individual Assistance Programs:	http://www.fema.gov/rrr/inassist.shtm
Interim Final Rule:	http://www.access.gpo.gov/su_docs/fedreg/a020226c.html
Multi-Hazard Mapping:	http://www.hazardmaps.gov
National Flood Insurance Program:	http://www.fema.gov/nfip
Public Assistance Program:	http://www.fema.gov/rrr/pa
Oregon Natural Hazards Workgroup:	http://www.uoregon.edu/~onhw/index2.htm
Working with Consultants:	http://ntweb03.asiandevbank.org/oes0019p.nsf/pages/209ATP
	http://www.mapnp.org/library/staffing/outsrcng/consult/consult.htm
	http://abcnews.go.com/sections/business/WorkingWounded/workingwounded001020.html

Publications

Creighton, James L., 1992 — The Program for Community Problem Solving. Involving Citizens in Community Decision Making: A Guidebook.

FEMA — Publications Warehouse 1-800-480-2520.

Mitigation Resources for Success CD (FEMA 372).

Planning for a Sustainable Future: the Link Between Hazard Mitigation and Livability (FEMA 364).

Protecting Business Operations (FEMA 331).

Rebuilding for a More Sustainable Future: An Operational Framework (FEMA 365).

Fisher, Roger and William Ury, 1981 — Getting to Yes: Negotiating Agreement without Giving In. Penguin Books: New York.

Schwab, Jim et al., 1998 — Planning for Post-Disaster Recovery and Reconstruction. American Planning Association: Chicago.

Susskind, Lawrence and Jeffry Cruikshank, 1987 — Breaking the Impasse: Consensual Approaches to Resolving Public Disputes. Basic Books: New York.

appendix c

worksheet

Worksheet #1 Build the Planning Team

In establishing a planning team, you want to ensure that you have a broad range of backgrounds and experiences represented. Below are some suggestions for agencies to include in a planning team. There are many organizations, both governmental and community-based, that should be included when creating a local team. In addition, state organizations can be included on local teams, when appropriate, to serve as a source of information and to provide guidance and coordination.

Use the checklist as a starting point for forming your team. Check the boxes beside any individuals or organizations that you have in your community/state that you believe should be included on your planning team so you can follow up with them.

Task A. Create the planning team – *Suggestions for team members.* Date:_____

Local/Tribal

- ☐ Administrator/Manager's Office
- ☐ Budget/Finance Office
- ☐ Building Code Enforcement Office
- ☐ City/County Attorney's Office
- ☐ Economic Development Office
- ☐ Emergency Preparedness Office
- ☐ Fire and Rescue Department
- ☐ Hospital Management
- ☐ Local Emergency Planning Committee
- ☐ Planning and Zoning Office
- ☐ Police/Sheriff's Department
- ☐ Public Works Department
- ☐ Sanitation Department
- ☐ School Board
- ☐ Transportation Department
- ☐ Tribal Leaders

Special Districts and Authorities

- ☐ Airport and Seaport Authorities
- ☐ Business Improvement District(s)
- ☐ Fire Control District
- ☐ Flood Control District
- ☐ Redevelopment Agencies
- ☐ Regional/Metropolitan Planning Organization(s)
- ☐ School District(s)
- ☐ Transit/Transportation Agencies

Others

- ☐ Architectural/Engineering/Planning Firms
- ☐ Citizen Corps
- ☐ Colleges/Universities
- ☐ Land Developers
- ☐ Major Employers/Businesses
- ☐ Professional Associations
- ☐ Retired Professionals

State

- ☐ Adjutant General's Office (National Guard)
- ☐ Board of Education
- ☐ Building Code Office
- ☐ Climatologist
- ☐ Earthquake Program Manager
- ☐ Economic Development Office
- ☐ Emergency Management Office/State Hazard Mitigation Officer
- ☐ Environmental Protection Office
- ☐ Fire Marshal's Office
- ☐ Geologist
- ☐ Homeland Security Coordinator's Office
- ☐ Housing Office
- ☐ Hurricane Program Manager
- ☐ Insurance Commissioner's Office
- ☐ National Flood Insurance Program Coordinator
- ☐ Natural Resources Office
- ☐ Planning Agencies
- ☐ Police
- ☐ Public Health Office
- ☐ Public Information Office
- ☐ Tourism Department

Non-Governmental Organizations (NGOs)

- ☐ American Red Cross
- ☐ Chamber of Commerce
- ☐ Community/Faith-Based Organizations
- ☐ Environmental Organizations
- ☐ Homeowners Associations
- ☐ Neighborhood Organizations
- ☐ Private Development Agencies
- ☐ Utility Companies
- ☐ Other Appropriate NGOs

appendix d

example questionnaire

Disaster Resistant Design

www.OregonShowcase.org

March 2002

Dear Oregon Citizen,

We need your help! Oregon is embarking on an initiative to assist communities in reducing risk from natural hazards: the *Partners for Disaster Resistance: Oregon Showcase State Program.* In December 2000, Governor John Kitzhaber signed an Executive Order designating Oregon a "Showcase State for Natural Disaster Resistance And Resilience." *Partners for Disaster Resistance* is now providing citizens and organizations statewide with an opportunity to prepare for and minimize the impact of natural hazards.

This questionnaire is designed to help us understand household preparedness for disasters. We are developing a strategic plan to prioritize activities to assist Oregon communities reduce their risk from natural disasters. The information you provide about your needs for disaster preparedness will help improve coordination of preparedness and risk reduction activities within the state.

Your returned survey indicates your willingness to take part in the study. Your participation in this study is voluntary. If you have questions regarding your rights as a research participant, please contact the Office of Human Subjects Compliance, University of Oregon, 5219, Eugene, OR 97403, or call (541) 346-2510. *All individual survey responses are strictly confidential, and are for research purposes only.*

Your opinions are important to us. Please return your completed survey no later than **Monday, April 1st, 2002.**

If you have questions regarding the survey, feel free to contact the Oregon Natural Hazards Workgroup at (541) 346-3588.

Thank you for your participation!

Sincerely,

André LeDuc
State Coordinator,
Partners for Disaster Resistance:
Oregon Showcase Program
www.OregonShowcase.org

Suzanne Hildick
Executive Director,
American Red Cross,
Oregon Trail Chapter
www.PrepareForLife.org

Beverlee Venell
Director,
Oregon Emergency Management
www.osp.state.or.us/oem/

Household Natural Hazards Preparedness Questionnaire

Thank you for taking the time to answer this questionnaire and participating in the *Partners for Disaster Resistance: Oregon Showcase State Program.* This questionnaire is designed to help Oregon gauge household preparedness for disasters and knowledge of tools and techniques that assist in reducing risk and loss from natural hazards. The information you provide about your needs for disaster preparedness will help improve public/private coordination of preparedness and risk reduction activities within the state. We ask that you please take a few minutes to complete this questionnaire.

NATURAL HAZARD INFORMATION

1. In the past five years have you or someone in your household experienced a natural disaster such as an earthquake, severe windstorm, flood, wildfire, or other type of natural disaster?
   - ☐ Yes
   - ☐ No (***IF NO Skip to Question 2***)

   1.1. If ("YES") which of these natural disasters have you or someone in your household experienced? (***Please check all that apply***)
   - ☐ Coastal erosion
   - ☐ Drought
   - ☐ Dust storm
   - ☐ Earthquake
   - ☐ Flood
   - ☐ Landslide / debris flow
   - ☐ Wildfire
   - ☐ Household Fire
   - ☐ Tsunami
   - ☐ Volcanic eruption
   - ☐ Windstorm
   - ☐ Winter storm
   - ☐ Other (specify) _____

2. How concerned are you personally about the following natural disasters effecting Oregon? (***Circle the corresponding number for each hazard)***

Natural Disaster	Extremely Concerned	Very Concerned	Concerned	Somewhat Concerned	Not Concerned
Coastal Erosion	1	2	3	4	5
Drought	1	2	3	4	5
Dust Storm	1	2	3	4	5
Earthquake	1	2	3	4	5
Flood	1	2	3	4	5
Landslide / debris flow	1	2	3	4	5
Wildfire	1	2	3	4	5
Household Fire	1	2	3	4	5
Tsunami	1	2	3	4	5
Volcanic hazard	1	2	3	4	5
Wind storm	1	2	3	4	5
Winter storm	1	2	3	4	5
Other _____	1	2	3	4	5

Page 2 Partners for Disaster Resistance: Oregon Showcase State Program

Disaster Resistant Design

www.OregonShowcase.org

3. Have you ever received information about how to make your family and home safer from natural disasters?
   - ☐ Yes
   - ☐ No (***IF NO Skip to Question 4***)

   3.1. If "YES", how recently?
   - ☐ Within the last 6 months
   - ☐ Between 6 and 12 months
   - ☐ Between 1 and 2 years
   - ☐ Between 2 and 5 years
   - ☐ 5 years or more

   3.2. From whom did you **last** receive information about how to make your family and home safer from natural disasters? (***Please check only one***)
   - ☐ News media
   - ☐ Government agency
   - ☐ Insurance agent or company
   - ☐ Utility company
   - ☐ American Red Cross
   - ☐ Other non-profit organization
   - ☐ Not sure
   - ☐ Other _____

4. Who would you most trust to provide you with information about how to make your family and home safer from natural disasters? (***Please check all that apply***)
   - ☐ News media
   - ☐ Government agency
   - ☐ Insurance agent or company
   - ☐ Utility company
   - ☐ University or research institution
   - ☐ American Red Cross
   - ☐ Other non-profit organization
   - ☐ Not sure
   - ☐ Other _____

5. What is the most effective way for you to receive information about how to make your family and home safer from natural disasters? (***Please check all that apply***)

   Newspapers:
   - ☐ Newspaper stories
   - ☐ Newspaper ads

   Television:
   - ☐ Television news
   - ☐ Television ads

   Radio:
   - ☐ Radio news
   - ☐ Radio ads

   Other methods:
   - ☐ Schools
   - ☐ Outdoor advertisements (billboards, etc.)
   - ☐ Books
   - ☐ Mail
   - ☐ Fire Department/Rescue
   - ☐ Internet
   - ☐ Fact sheet / brochure
   - ☐ Chamber of Commerce
   - ☐ Public workshop/meetings
   - ☐ Magazine
   - ☐ Academic Institutions
   - ☐ Other (please explain)

   _____

   _____

6. To assist in communicating information to Oregonians about how to better prepare for a natural disaster, which of the following phrases do you think is the easiest to understand? (***Please check only one***)
   - ☐ Natural disaster readiness
   - ☐ Disaster preparedness
   - ☐ Emergency preparedness
   - ☐ Natural hazard risk reduction
   - ☐ Other, please explain _____

There are many things that you can do to prepare for a natural disaster or emergency event. What you have on hand when a disaster strikes, or are trained to do when a disaster strikes can make a big difference for your comfort and safety in the hours and days following the disaster, whether it is a natural disaster or other emergency. Basic services, such as electricity, gas, water and telephones, may be cut off, or you may have to evacuate at a moment's notice. The following questions focus on your household's preparedness for disaster events.

7. In the following list, please check those activities that you have done in your household, plan to do in the near future, have not done, or are unable to do. (***Please check one answer for each preparedness activity***)

In your household, have you or someone in your household:

Preparedness activity	Have Done	Plan To Do	Not Done	Unable To Do
A. Attended meetings or received written information on natural disasters or emergency preparedness?	☐	☐	☐	☐
B. Talked with members in your household about what to do in case of a natural disaster or emergency?	☐	☐	☐	☐
C. Developed a "Household/Family Emergency Plan" in order to decide what everyone would do in the in event of a household emergency?	☐	☐	☐	☐
D. Prepared a "Disaster Supply Kit" (Stored extra food, water, batteries, or other emergency supplies)?	☐	☐	☐	☐
E. In the last year, has anyone in your household trained in first aid or Cardio-Pulmonary Resuscitation (CPR)?	☐	☐	☐	☐

8. Building a disaster supply kit, receiving first aid training and developing a household/family emergency plan are inexpensive activities that require a personal time commitment. How much time (per year) are you willing to spend on preparing your self/household for a natural disaster or emergency event?
(Check only one)

- ☐ 0-1 hour
- ☐ 2-3 hours
- ☐ 4-7 hours
- ☐ 8-15 hours
- ☐ 16+ hours
- ☐ Other (please explain) _____

9. What steps, if any, have you or someone in your household taken to prepare for a natural disaster?
(Check all that apply)

Have stored or stocked up on:

- ☐ Food
- ☐ Water
- ☐ Flashlight(s)
- ☐ Batteries
- ☐ Battery-powered radio
- ☐ Medical supplies (First aid kit)
- ☐ Fire extinguisher
- ☐ Smoke detector on each level of the house
- ☐ Prepared a Disaster Supply Kit
- ☐ Received First Aid/CPR Training
- ☐ Made a fire escape plan
- ☐ Developed a reconnection plan: Where to go and who to call
- ☐ Discussed utility shutoffs
- ☐ Other (please explain) _____

Disaster Resistant Design

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10. Does your household have insurance coverage for flood events?
    - ☐ Yes (*If you answered YES skip to Question 11*)
    - ☐ No

    10.1. If "NO", what is the main reason your household does not have insurance for flood events? (*Please check only one*)
    - ☐ Not located in the floodplain
    - ☐ Too expensive
    - ☐ Not necessary
    - ☐ Never considered it
    - ☐ Deductibles too high/not worth it
    - ☐ Not familiar with it/ don't know about it
    - ☐ Other _____

11. Does your household have insurance coverage for earthquake events?
    - ☐ Yes (*If you answered YES skip to Question 12)*
    - ☐ No

    11.1. If "NO", what is the main reason your household does not have earthquake insurance? (*Please check only one)*
    - ☐ Too expensive
    - ☐ Not available
    - ☐ Not necessary
    - ☐ Never considered it
    - ☐ Deductibles too high/not worth it
    - ☐ Not familiar with it/ don't know about it
    - ☐ Other _____

NATURAL HAZARD RISK REDUCTION

Risk reduction activities are those actions you can take to protect your home from natural hazard events, such as earthquakes, floods or wildfires. You can do nonstructural modifications or retrofits to protect your home's contents against damage, often at minimal cost. You can also conduct structural retrofits to strengthen your home's structure or skeleton, although modifications to a structure tend to be quite involved and generally require the expertise of a registered design professional (engineer, architect or building contractor).

12. Did you consider the possible occurrence of a natural hazard when you bought/moved into your current home?
    - ☐ Yes
    - ☐ No

13. Would you be willing to spend more money on a home that had features that made it more disaster resistant?
    - ☐ Yes
    - ☐ No

14. How much more money <u>are you willing to spend</u> to better protect your family and home from natural disasters? *(Check only one)*
    - ☐ $5000 and above
    - ☐ $2500 - $4999
    - ☐ $1000 - $2499
    - ☐ $500 - $999
    - ☐ $100 - $499
    - ☐ Less $100
    - ☐ Nothing
    - ☐ Don't know
    - ☐ Other, please explain

    _____

    _____

Question 15 includes nonstructural and structural modifications that make your home more resistant to earthquakes. There are many measures that can be taken for other natural hazards, such as wildfires and floods.

15. What nonstructural or structural modifications for earthquake have you made to your home? ***(Please check all that apply)***

Nonstructural
- ☐ Anchor bookcases, cabinets to wall
- ☐ Secure water heater to wall
- ☐ Install latches on drawers/cabinets
- ☐ Fit gas appliances with flexible connections
- ☐ Others (please explain) _____

Structural:
- ☐ Secure home to foundation
- ☐ Brace inside of cripple wall with sheathing
- ☐ Brace unreinforced chimney
- ☐ Brace unreinforced masonry & concrete walls and foundations
- ☐ Others (please explain) _____

16. Which of the following incentives, if any, would motivate you to take additional steps to better protect your family and home from a natural disaster? (***Check all that apply***.)
- ☐ Insurance discount
- ☐ Low interest rate loan
- ☐ Lower new home construction costs
- ☐ Mortgage discount
- ☐ Tax break or incentive
- ☐ None
- ☐ Other (please explain) _____

GENERAL HOUSEHOLD INFORMATION

17. Please indicate your age: _____

18. Gender
- ☐ Male
- ☐ Female

19. Please indicate your level of education:
- ☐ Grade school/no schooling
- ☐ Some high school
- ☐ High school graduate/GED
- ☐ Some college/trade school
- ☐ College degree
- ☐ Postgraduate degree
- ☐ Other

20. Zip code: _____

21. County: _____

22. How long have you lived in Oregon?
- ☐ Less than one year
- ☐ 1-5 years
- ☐ 5-9 years
- ☐ 10-19 years
- ☐ 20 years or more

23. If you have lived in Oregon for less than 20 years, in what state did you live before you moved to Oregon?
- ☐ California
- ☐ Idaho
- ☐ Washington
- ☐ Other _____

24. Do you have access to the Internet or World Wide Web?
- ☐ Yes
- ☐ No

25. Do you own or rent your home?
- ☐ Own
- ☐ Rent

26. Do you rent/own a:
- ☐ Single-family home
- ☐ Duplex
- ☐ Apartment (3-4 units in structure)
- ☐ Apartment (5 or more units in structure)
- ☐ Condominium / townhouse
- ☐ Manufactured home
- ☐ Other _____

Other Comments:

THANK YOU VERY MUCH FOR PROVIDING THIS INFORMATION

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*For more information on **Partners for Disaster Resistance** or on this survey, please contact Oregon Natural Hazards Workgroup at 1209 University of Oregon, Eugene, OR 97403-1209, call (541) 346-3588, email showcase@oregon.uoregon.edu, or visit www.OregonShowcase.org*

For more information on mitigation and preparedness please visit the websites of our partners on the Internet

Partners for Disaster Resistance: Showcase State Program

For more information on the partnership visit www.OregonShowcase.org

List of Current Partners

- Interagency Hazard Mitigation Team
- Oregon Emergency Management
- Department of Geology & Mineral Industries
- Department of Land Conservation and Development
- Department of Consumer and Business Services
  - Insurance Division
  - Building Codes Division
- State Fire Marshal's office
- Department of Forestry
- Department of Transportation
- American Red Cross, Oregon Trail Chapter
- Federal Emergency Management Agency, Region 10
- Insurance Information Service of Oregon & Idaho
- Institute for Business & Home Safety
- Oregon Emergency Management Association
- Oregon Natural Hazards Workgroup, Community Service Center, University of Oregon
- Oregon, Project Impact Communities
- Public Entity Risk Institute
- SAFECO Insurance Companies
- Small Business Development Networks

Oregon Emergency Management

For more information visit www.osp.state.or.us/oem/

Public Entity Risk Institute

For more information visit www.riskinstitute.org

Institute for Business & Home Safety

For more information on home and business safety, visit www.ibhs.org

American Red Cross, Oregon Chapters:

For more information on Family Disaster Preparedness, call your local Red Cross Chapter or visit www.PrepareForLife.org

Those who cannot remember the past are condemned to repeat it

George Santayana

FEMA

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