

How to Improve Local Hazard Mitigation Planning

NHMA Hazard Mitigation Planning Committee

Final Draft – January 7, 2013

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This white paper has been prepared and endorsed by the Natural Hazard Mitigation Association (NHMA), a non-profit organization which brings together individuals and organizations working in the field of Hazard Mitigation. The objective of the paper was to document common challenges and to make several key recommendations for improving local hazard mitigation planning nationwide. It was prepared by NHMA’s Hazard Mitigation Planning Committee and is based on the contributions of many individuals who participated in monthly committee meetings and other discussions throughout 2012.

Introduction

Hazard mitigation has multiple definitions and can include a wide range of activities, depending on differing perspectives and the number and types of hazards the definition covers. Common examples of mitigation practice can include the application of building codes to new development in hurricane and earthquake areas, acquisitions and relocations of structures in flood zones, fire-safe construction in wildland-urban interface areas, and minimizing disruption of the natural environment.

The Federal Emergency Management Agency (FEMA) defines hazard mitigation as “sustained action to reduce or eliminate long-term risk to human life and property from natural and human-caused hazards.”¹ The American Planning Association expands this definition, describing “sustained action” as “a loss prevention function characterized by planned, long-term alteration of the built environment to ensure resilience against natural and human-caused hazards.”² Hazard mitigation principles are mirrored by the insurance industry, where reducing losses and risk is known as “risk management” and “loss control”. Thus, hazard mitigation can very generally be defined as systematic disaster loss prevention through execution of planned management or alterations of the built and natural environment.

From the perspective of the Natural Hazard Mitigation Association (NHMA) there is no a single, precise or all-encompassing definition. However, all definitions have a unifying theme: to reduce threats to life and property caused by natural hazards, while also reducing threats to beneficial natural systems or processes. It is therefore appropriate that many different approaches and disciplines are included under the broad umbrella of “hazard mitigation.”³

Hazard mitigation planning is of fundamental importance to States, Territories, Tribal governments, regional planning agencies, and most of all, local communities, as it is the systematic process by which governmental entities can identify and reduce hazard risks and vulnerabilities that threaten to damage or disrupt their social, physical, economic, and environmental resources. Hazard mitigation planning is therefore a central tenet of creating, promoting, and maintaining community resiliency and sustainability. The mitigation planning process represents an opportunity to pull a wide range of technical disciplines and stakeholders together around the shared goal of increasing community resilience and protecting shared values. For maximum effectiveness, stakeholders should include a cross-section of representation from the whole community including the private sector, non-profit organizations, neighborhood groups, private citizens, and multiple government agencies/departments. Mitigation planning results in the development of long and short-term strategies to reduce hazard vulnerability, which serve as a springboard for positive and, sometimes, creative change to the manner in which communities manage risk. A mitigation plan is a repository for detailed information on community hazard risks, existing capabilities or actions, and planned risk management strategies. The plan’s routine implementation and maintenance process provides a forum for participation and coalition building that can help influence behavior in public and private sectors with regard to hazards.

NHMA supports mitigation planning and the nationwide mitigation efforts of FEMA, which allow communities to leverage funding through unified Hazard Mitigation Assistance (HMA) programs: the

¹ 44 CFR Part 201.2 – Definitions.

² Schwab, James C., Ed., *Hazard Mitigation: Integrating Best Practices into Planning*, American Planning Association: Planning Advisory Service Report Number 560, May 2010

³ Natural Hazard Mitigation Association (NHMA), “Position Statement: A Framework for Hazard Mitigation,” http://nhma.info/uploads/publications/Framework_for_Mitigation_Final.pdf (Apr 19, 2012).

Hazard Mitigation Grant Program (HMGP), Pre-Disaster Mitigation (PDM), and the new program funded by the National Flood Insurance Program (NFIP) which will combine the existing Flood Mitigation Assistance (FMA), Repetitive Flood Claims (RFC), and Severe Repetitive Loss (SRL) programs per the 2012 Biggert-Waters NFIP Reform Act. However, the benefits of hazard mitigation planning go well beyond grant program eligibility.

Hazard mitigation provides long-term benefits associated with reduced risk and increased public safety, particularly when linked or integrated with other local community planning tools and processes. While the goals behind the program are clear, in practice, mitigation planning has become a critical concern not only for NHMA, but also for practitioners, governmental agencies, and local communities across the nation. Local mitigation planners face similar challenges and constraints in developing, adopting and implementing meaningful strategies; therefore, the Hazard Mitigation Planning Committee developed this white paper to: (1) discuss the regulatory background of mitigation planning; (2) examine current issues or problem areas in the practice and execution of mitigation planning; and (3) recommend potential solutions to help communities become more effective at reducing losses to hazards, and to achieve increased sustainability and resiliency through more holistic approaches to mitigation planning.

Background

Hazard mitigation is distinguished from prevention, protection, response, and recovery, and is the only traditional phase of emergency management specifically dedicated to ending the cycle of building and rebuilding to the same pre-event standards following a disaster. The Disaster Mitigation Act of 2000 (DMA 2000) was the most recent legislative effort by the U.S. Congress to improve coordinated planning for natural hazard risk reduction at the State, Tribal, regional and local levels of government. This legislation amended the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act) and was put into effect on October 10, 2000⁴ to reinforce the importance of pre-event planning and mitigation, with an emphasis on local mitigation planning. DMA 2000 also authorized the first pre-disaster mitigation grant program (PDM) which provides funds annually to communities across the nation for mitigation planning and project implementation.

Section 322 of DMA 2000 requires that State, Tribal, regional, and local governments have an approved mitigation plan in place prior to receiving pre- and post-disaster funding under FEMA's HMA programs. In response FEMA developed an Interim Final Rule⁵ in 2002, which established planning requirements and funding criteria for States and local governments. In addition, FEMA prepared a series of instructional "How-to Guides" in 2002 and 2003 to assist local communities in preparing their hazard mitigation plans.⁶ These publications, along with FEMA's subsequent guidance and field and web-deployed training courses, help guide a community from getting started in the planning process to finding and securing technical resources for mitigation planning. In addition, many State-level government agencies developed supplemental guidance and training on mitigation planning for their own local communities.

In response to the initial review of results under DMA 2000 and to prepare communities for updating local plans, FEMA developed a Local Multi-Hazard Mitigation Planning Guidance document in July 2008.

⁴ Public Law 106-930

⁵ 44 CFR Parts 201 and 206

⁶ See FEMA Publication Series 386, <http://www.fema.gov/hazard-mitigation-planning-resources#1>

This guidance was updated in 2011 with the revised Local Mitigation Plan Review Guide.⁷ The purpose of this Guide is to help Federal and State officials assess plans in a fair and consistent manner, and to ensure approved plans meet the expectations and requirements of the Stafford Act and the regulations found at 44 CFR, Part 201.6.

In addition, FEMA is currently finalizing a new “Local Hazard Mitigation Planning Handbook” to update and expand on the earlier guidance materials and to showcase best practices and effective mitigation examples. The Handbook was made available for comments in July 2012 and is expected to be released in early 2013.

Challenges Facing Mitigation Planning

Although there is widespread agreement with the goals and benefits of mitigation planning, in practice, the quality in both the development and review of local plans can vary significantly. Even plans that meet regulatory requirements may still fail to have meaningful mitigation actions, gain full participation of key stakeholders or the community at-large, or be integrated with other local planning and community development activities. These and other common challenges are further described below.

Lack of Meaningful Mitigation Actions

Mitigation is a unique part of the emergency management cycle, separate but often linked throughout prevention, protection, response, and recovery, because the focus of mitigation is to develop unique strategies that will permanently alter the physical environment (or prevent such alterations) in order to achieve a long-term reduction in hazard risk. Proper planning means developing goals and strategies to reduce vulnerabilities before the next hazard event. However, because mitigation planning is often driven or made possible through funding available post-disaster, and administered through state and local emergency management agencies, the plans tend to focus on preparedness and response-related activities rather than sustained, long-term mitigation strategies. Planning teams are often comprised of emergency managers without inclusion of a broader group of planners (e.g., community planners overseeing land use, zoning and comprehensive plans) and other key local stakeholders. As a result the range of actions considered for inclusion in the plans are heavily geared toward enhancing preparedness such as purchasing emergency equipment, developing warning systems, or increasing public awareness, all with the goal of addressing identified unmet needs for community readiness or to fill gaps made apparent by the latest disaster event. These activities, while important, are generally easier to develop and implement without full stakeholder participation or involvement, whereas mitigation activities require more time, a larger financial commitment, and higher administrative capacity. In addition, mitigation projects can be controversial and necessitate broad political support. The significant difference between mitigation and preparedness is that mitigation addresses the root cause of issues caused by natural hazards, whereas preparedness focuses on responding to the symptoms of the issues.

In addition to actions that are more focused on preparedness, some actions are not validated because there is not a significant connection with the risk assessment elements of the plan. This is a critical linkage and should be the foundation of any community mitigation strategy. While the development and prioritization of meaningful mitigation actions should be the central outcome of any planning process, this step is often completed in the concluding stages when stakeholder participation and interest may be diminished. Plan preparers are often juggling many priorities and pressed for time, and since the

⁷ Federal Emergency Management Agency (FEMA), “Local Mitigation Plan Review Guide,” <http://www.fema.gov/library/viewRecord.do?fromSearch=fromsearch&id=4859> (Oct. 1, 2011).

connection between the risk assessment and evaluation of mitigation actions is not always clear, the most important and complex step of the planning process is given the least amount of time and focus by both the planning team and, subsequently, the community. With little time or focus devoted to creating a solid, actionable mitigation strategy, or failure to connect it with the risk assessment, the result is mitigation goals and actions that are too broad or generic to be implemented in ways that address the specific, relevant issues within the community.

Effective mitigation planning requires the involvement of multiple departments and various key stakeholders to gain a comprehensive view of ways to make a community more resilient. It is difficult to engage stakeholders and local officials when the importance and benefits of mitigation planning are not communicated effectively, or when steps to gain advance commitments are not put in place at the beginning of the process. This can result in mitigation actions which are more narrow and tailored to the more immediate needs of the community (often preparedness and response) rather than long-term, strategic, and meaningful risk reduction measures. Further, it is difficult for plan reviewers and the general public to understand how specific mitigation actions were developed and the reason for their inclusion when connection to vulnerabilities identified through the risk assessment process is not well established.

Lack of Integration and Implementation

When plans are not developed within a comprehensive, holistic approach to risk management, the result is a lack of integration into other planning tools or mechanisms routinely used by local government. Mitigation plans are not meant to be stand-alone documents that are left on shelves until needed, but instead are to be functional or “living” documents that continuously facilitate action or guide routine decision making. Therefore mitigation plans should be accompanied by a sustained plan maintenance process that continues, after the plan is adopted, in guiding and monitoring implementation of listed mitigation actions and addressing needs for recurring plan updates. Mitigation plans should be consulted when developing land use or comprehensive plans, capital improvement programs, emergency operations plans, and other related policy or procedure documents that may have an effect on future community growth or hazard vulnerability.

This is not often the case in practice, however, as resources are often limited for local planning committees and agency staff. If plans are viewed solely as vehicles for pursuing FEMA grant funding instead of a locally-owned, comprehensive planning document, planners may limit their outlook and effort to simply meeting the minimum standards per Federal requirements (letter of the law) and miss opportunities to engage in a process for meaningful risk reduction implementation (spirit of the law). Federally funded mitigation projects are certainly a critical piece to the risk reduction puzzle, but should not be the ultimate focus or means for implementing local mitigation strategies. Instead, projects should supplement more holistic, locally led efforts to plan for and design more resilient communities, with long-term risk reduction serving as a guiding principle and integrated throughout other local plans and policies.

The Center for Sustainable Community Design and the Center for the Study of Natural Hazards and Disasters at the University of North Carolina recently conducted an evaluation of planning under the Community Rating System (CRS), including plans developed under DMA 2000 planning criteria and submitted for CRS credit. Through their evaluation, researchers determined that plans were not well coordinated with other planning mechanisms or policies for mitigation, including land use or infrastructure investment programs. Some of the main barriers to implementation identified in the study included lack of public awareness, insufficient staffing or funding, and the complexity of the

program. If local mitigation plans are not developed using a comprehensive approach, not focused on meaningful mitigation strategies, and are not compelling to elected officials or to the public, they are much less likely to be implemented.

Lack of Participation

Local mitigation planning processes are often conducted with minimal public or stakeholder engagement. A lack of or token participation from critical stakeholders, including planning and community development departments and other local government entities, often leads to planning that only meets the minimum planning requirements and results in very little meaningful risk reduction.

FEMA planning requirements are fairly open and unrestricted in terms of how the public must be involved during the plan development or update process. For example, the requirements do not set a specific number of public meetings to be held nor do they espouse a specific number of stakeholders or agencies to contact. This flexibility, coupled with the fact that public input is often difficult to obtain, leads to plans meeting the public engagement criteria by holding one or two public meetings after publishing notices with limited visibility for a subject that traditionally draws little public attention.

By not actively engaging key stakeholder groups and the public, planners miss the opportunity to enhance the mitigation plan at every key milestone. There are some real advantages to involving the public, including: increased local knowledge of previous events; strengthened resident, business and political support; and improved goals that better reflect local concerns and fit the community's needs.

Lack of Focus on Plan Quality in Plan Review Process

While plans are meant to be unique to the community or area that they address, increased consistency, dialogue, and clarity in State and Federal plan reviews is needed so that local officials tasked with ownership of the plan can spend more time meeting the goals of the program and guiding the plan toward active, achievable risk reduction instead of meeting FEMA "checklist" plan requirements.

There is often too great an emphasis by local planners or consultants on quickly developing a plan to meet State and FEMA approval to be eligible for FEMA mitigation grants, instead of developing a meaningful plan that will result in on-going policies and actions that reduce future risk. An important goal of mitigation plans should be modifying the normal process of 'community business' to better build resiliency from natural hazards. While it is important to follow State and FEMA guidelines in plan development or updates, local planning teams often place an inordinate emphasis on doing so rather than focusing on broad, community-based solutions to manage risk – including those that may or may not be eligible for grant funds through FEMA, yet still help to build resiliency and meet multiple objectives at the local level. For example, although FEMA only requires the inclusion of mitigation actions to reduce natural hazards, addressing other potential threats, secondary impacts or related community issues such as climate change, water quality, or historic preservation can lead to the development of policies that reduce future risk while also achieving other community objectives.

Recommendations

Each community is unique; therefore the focus of any local mitigation plan should be on developing appropriate mitigation actions for that particular community and its specific needs. Risks vary from community to community, and so should any associated mitigation actions. Each community should

focus on their political, cultural, physical, economic, and environmental factors in developing unique actions. Otherwise, it is difficult to gain support of the community to implement actions going forward.

Because such varied perspectives are inherent to mitigation planning, no one solution will ensure effectiveness in plans nationwide; however the following recommendations illustrate ways to meet common challenges that mitigation planners face.

Encourage Early Plan Development

Many of the challenges to sustained mitigation planning occur because there is a lack of time and resources available within local communities to maintain the momentum gained during plan development. Encouraging on-going maintenance and early plan update procedures in advance of plan expiration dates will provide opportunities to preserve and enhance relationships with stakeholders, review other current planning mechanisms, and engage the public in the mitigation planning process. Mitigation is a lengthy process, and in order to develop long-lasting strategies, a comprehensive, whole-community approach is needed.

Engage Stakeholders and Increase Public Awareness

To develop a more comprehensive approach to planning, community leaders and plan developers should foster relationships with other groups to promote planning among several programs, such as those implemented by the U.S. Army Corp of Engineers (USACE), U.S. Fish & Wildlife Service (USFWS), and the National Oceanic and Atmospheric Administration (NOAA) – not to mention the wide range of non-governmental organizations with similar missions, such as The Nature Conservancy and other groups which operate from global to local levels with an abundance of expertise and technical resources. With shrinking federal dollars for planning, communities may want to meet several federal planning programs with a single or consolidated planning process with multiple stakeholder committees. Such integration can help maximize efficiencies and bolster support and local commitments to the planning process.

To increase public awareness, local planners should develop a community-specific “public outreach strategy” for not only the plan development or update process but also the plan implementation and maintenance phase following plan adoption. This outreach strategy should be based on conveying the basic mitigation message, allowing a “give and take” with the public and local stakeholders on perceptions and facts about risk, and best practices or successful examples from other similar communities to realize meaningful and appropriate mitigation actions. This may result in simply combining or “piggybacking” outreach for mitigation purposes with other community outreach activities that have demonstrated past success with public and stakeholder participation.

Every community should be opportunistic and seek to maximize partnerships with other agencies, non-profit organizations, local businesses and others with a vested interest in creating and maintaining a community that is resilient to hazards and disasters.

Focus on Attainable and Meaningful Mitigation Activities

While the mitigation planning and funding programs are routinely administered through the Federal, State and local emergency management stovepipe, community planners (i.e., land use and community development specialists) should act as leaders for the development and organization of the mitigation plan whenever possible. Planners are often trained and experienced in guiding very similar planning

processes and will have first-hand knowledge of important opportunities to integrate the effort with other local planning mechanisms or processes in place.

In addition, a community's long-term needs should be assessed first for potential mitigation actions, even if it means an uphill process working with agencies or departments not accustomed to integration of hazard mitigation into their plans, policies and programs, recommending politically unpopular ideas, or selecting actions that may not be directly or easily funded through an HMA grant. In fact, FEMA mitigation grant support should not be the main focal point when drafting or evaluating possible actions. The full potential of a plan will not be realized unless it reviews all possible projects and activities that can help the community to be more resilient. For example, most strong mitigation actions, such as building codes, land use management, and public information programs do not require federal funding to be implemented.

There should be agreement not only at FEMA but across all its Federal agency partners that the goal of mitigation planning is not simply to pre-identify fundable mitigation projects, but to increase overall resiliency and sustainability within the community through non-structural means. Local mitigation planners should be encouraged by FEMA and State plan reviewers to focus on the quality of meaningful mitigation actions versus the quantity of mitigation actions or HMA-eligible projects. Plans should include actions to reduce hazard vulnerabilities identified in the risk assessment, even if these include projects that cannot be funded by existing grant programs. For example, a regulatory zoning action to minimize or prohibit development in known hazard areas may not result in a FEMA-funded grant project, but essentially has benefits that would exceed the value of multiple mitigation projects and for arguably much less cost. The sole outcome of the plan and planning process should be to drive down risk in the most effective and expedient manner through a comprehensive range of actions that transform the way a community conducts daily and long-term decision-making. Further, the plan's assessment of local capabilities must acknowledge the very real constraints of limited staff, budget, or political will to accomplish priority mitigation actions, and both local planners and plan reviewers should consider this assessment as critical to the evaluation of the appropriateness of mitigation actions proposed in the plan.

In order to strengthen the linkage between risk assessment findings and mitigation actions, local planners should include the rationale for each proposed mitigation action. This can be done through one or two sentence descriptions of the hazard effects or vulnerable asset(s) to be protected by the action, perhaps pulled directly from the risk assessment, that justify the need for each action.

Link Mitigation with Other Planning Mechanisms

Mitigation partners and practitioners must do a better job of communicating the benefits of mitigation to community leaders and the general public, particularly in support of integrating mitigation into local planning and community development decisions. This can be achieved by demonstrating that the most powerful and cost-effective method for reducing future risk is through existing planning and decision making processes that influence community growth and development.

In developing mitigation actions, planning team members should consider not only how each action may be implemented, but also ways to incorporate the action into existing planning mechanisms. In addition to performing a comprehensive review of the general costs and benefits of each action, planners should include an additional category for opportunities for better integration. Local planners should also recruit local 'champions' from several walks of life to convey the mitigation message and support mitigation actions.