National Mitigation Framework

Second Edition
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Homeland Security

Executive Summary

Threats and hazards present long-term risks to people and their property. Mitigation is risk management action taken to avoid, reduce, or transfer those risks. By reducing the impact of disasters, mitigation supports protection and prevention activities, eases response, and speeds recovery to create better prepared and more resilient communities. The National Mitigation Framework establishes a common platform and forum for coordinating and addressing how the Nation manages risk through mitigation capabilities. This Framework describes mitigation roles across the whole community. The Framework addresses how the Nation will lessen the impact of disaster by developing, employing, and coordinating core mitigation capabilities to reduce loss of life and property. Building on a wealth of evidence-based knowledge and community experience, the Framework seeks to increase risk awareness and promote resilience building by leveraging mitigation enhancing products, services, and assets across the whole community.

Mitigation exists at every level—from the family that creates a sheltering plan in case of a tornado, to corporate continuity of operations plans, to emergency plans for manufacturing facilitates to local codes and zoning that systemically address risks in a community's buildings. Developing and maintaining a culture of preparedness to build widespread resilience throughout communities is a priority for the Nation. Cultivating this culture across the whole community will reduce the human impact of disasters, enhance emergency response professionals' ability to perform critical tasks more effectively, and allow communities to recover more efficiently. Individuals, families, businesses, non-profit organizations, and local, state, tribal, territorial, and Federal governments share responsibility for preparedness. Drawing upon the support and guidance of the whole community, these entities can manage risk and vulnerability, and community residents can feel confident knowing they live in safer, more secure, and resilient communities.

A culture of preparedness is built over time on a shared acknowledgment of the certainty of future catastrophes; the importance of initiative and accountability at all levels; the role of individuals and stakeholders in preparedness; and finally, the roles of the whole community in creating a prepared Nation. Additionally, the culture of preparedness is demonstrated by the four guiding principles, which include; Resilience and Sustainability, Leadership and Locally Focused Implementation, Engaged Partnerships and Inclusiveness, and Risk-conscious Culture. These principles lay the foundation for the Mitigation mission and the execution of its core capabilities.

Effective mitigation begins with a comprehensive understanding of risk based on vulnerabilities to threats and hazards. Aiming toward the ultimate goal of sustainability and resilience, mitigation requires a process of continuous learning, adapting to change, managing risk, and evaluating progress. Sound assessment requires risk information—based on credible science, technology, and intelligence—validated by experience. Understanding the risks makes it possible to develop strategies and plans to manage them. Managing risks from threats and hazards requires decision making to accept, avoid, reduce, or transfer those risks. Avoiding, reducing, and transferring risks are ways to reduce the long-term vulnerability of a community and build individual and community resilience. This Framework is driven by risk, rather than the occurrence of incidents. By fostering comprehensive risk considerations, the Framework encourages whole community behaviors and activities that will reduce the likelihood of exposure and vulnerability of communities.

The Nation increases its resilience when it manages risks broadly, from local incidents to widespread, severe, and catastrophic disasters. Building and sustaining a culture of preparedness and a mitigation-mindset will make the Nation more socially, ecologically, and economically resilient before, during, and after an incident. Resilience in communities and the Nation depends on the whole community working together.

The National Mitigation Framework explores seven core capabilities required for entities involved in mitigation: threats and hazards identification, risk and disaster resilience assessment, planning, community resilience, public information and warning, long-term vulnerability reduction, and operational coordination.

Coordinating structures are composed of representatives from multiple departments or agencies, public and/or private sector organizations, or a combination of these. Coordinating structures are able to facilitate the preparedness and delivery of capabilities, and they provide guidance, support, and integration to aid in the preparedness of the whole community and building resilience locally, regionally, and nationally. They ensure ongoing communication and coordination among all parties involved in preparing and delivering capabilities.

The coordinating structures for mitigation focus on enabling efforts that embed risk management, adaptation, and mitigation in all planning, decision making, and development. Regardless of the level of the coordinating structure, consideration of risk management, adaptation, and mitigation will reduce the Nation's risk and associated consequences. Given the risk-based premise (rather than an incident-based focus), the majority of coordinating structures originate and are sustained at a regional and local scale.

At the National scale, the Mitigation Framework Leadership Group (MitFLG) coordinates mitigation efforts across the Federal Government and assesses the effectiveness of mitigation capabilities developed and deployed across the Nation. The MitFLG includes relevant local, state, tribal, and Federal Government representatives. The MitFLG non-Federal members help to ensure appropriate integration of Federal efforts across the whole community.

In implementing the National Mitigation Framework, partners are encouraged to develop a shared understanding of broad-level strategic implications as they make critical decisions in building future capacity and capability. Effective implementation of this Framework hinges on the inclusion and understanding of the whole community in carrying out the Mitigation unifying principles and doctrine.

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Introduction

The National Preparedness System outlines an organized process for the whole community to move forward with its preparedness activities and achieve the National Preparedness Goal. The National Preparedness System integrates efforts across the five preparedness mission areas—Prevention, Protection, Mitigation, Response, and Recovery—in order to achieve the goal of a secure and resilient Nation. The National Mitigation Framework, part of the National Preparedness System, sets the strategy and doctrine for how the whole community builds, sustains, and delivers the Mitigation core capabilities identified in the National Preparedness Goal in an integrated manner with the other mission areas. This second edition of the National Mitigation Framework reflects the insights and lessons learned from real-world incidents and the implementation of the National Preparedness System.

Prevention: The capabilities necessary to avoid, prevent, or stop a threatened or actual act of terrorism. Within the context of national preparedness, the term "prevention" refers to preventing imminent threats.

Protection: The capabilities necessary to secure the homeland against acts of terrorism and manmade or natural disasters.

Mitigation: The capabilities necessary to reduce loss of life and property by lessening the impact of disasters.

Response: The capabilities necessary to save lives, protect property and the environment, and meet basic human needs after an incident has occurred.

Recovery: The capabilities necessary to assist communities affected by an incident to recover effectively.

Framework Purpose and Organization

This Framework establishes a common platform and forum for coordinating and addressing how the Nation manages risk using mitigation capabilities and describes mitigation roles across the whole community.[1] While businesses make money by taking risks, they lose money by failing to manage those risks effectively. Similarly, in the public sector, choices are made every day that affect the consequences, duration, and costs of responding to and recovering from adverse incidents. Mitigation requires systematically anticipating and adjusting to trends that could endanger the future of the community. Appropriate choices made before an event can help to manage or reduce long-term risk and potentially reduce response requirements. Further, mitigation during the recovery phase helps strengthen and build a more resilient community to withstand future disasters.

Building on long-held American values of civic engagement, the Nation must engage in an ongoing dialogue about how to prepare for the future. Demonstrating clear and measurable returns on investment through mitigation is essential to that dialogue and necessary to build a resilient, risk-conscious culture. A mature, risk-conscious culture is measured in two ways. First, it is measured by its reduction of risk to life and property. Second, it is measured by whether it has sufficient capacity

[1] The whole community includes individuals and communities, the private and nonprofit sectors, faith-based organizations, and all levels of government (local, regional/metropolitan, state, tribal, territorial, insular area, and Federal). Whole community is defined in the National Preparedness Goal as "a focus on enabling the participation in national preparedness activities of a wider range of players from the private and nonprofit sectors, including nongovernmental organizations and the general public, in conjunction with the participation of all levels of government in order to foster better coordination and working relationships." The National Preparedness Goal is located online at http://www.fema.gov.

to continue to promote the social, ecological, and economic vitality of the community when adapting to changing conditions or continuing essential services and recovering from an adverse incident.

Starting with existing structures and capabilities, this Framework outlines how the Nation can expand its commitment to mitigation and strengthen resilience. The National Mitigation Framework discusses seven core capabilities required for all entities involved in mitigation:

- Threats and Hazards Identification
- Risk and Disaster Resilience Assessment
- Planning
- Community Resilience
- Public Information and Warning
- Long-term Vulnerability Reduction
- Operational Coordination.

Those who play a role in mitigation range from an individual making decisions about how to manage the risks in his or her life, to local and tribal jurisdictions and large metropolitan regions working to manage their community members' risks from threats and hazards, to state, territorial, and Federal agencies administering funding large, complex programs and projects. Our challenge is to build a society that is robust, adaptable, and has the capacity for rapid recovery. Providing individuals and communities with information, resources, knowledge, and skills will facilitate actions that help to strengthen community resilience and mitigate the impact of disasters. As a whole, the Nation increases its resilience when it manages risks across this spectrum, from narrow-impact incidents to widespread, severe, and catastrophic disasters. Building and sustaining a mitigation-minded culture of preparedness will make the Nation more socially, ecologically, and economically resilient before, during, and after an incident. Resilience in communities and the Nation depends on the whole community working together.

> **Resilient communities** proactively protect themselves against hazards, build self-sufficiency, and become more sustainable. Resilience…involves technical, organizational, social, and economic dimensions. It is fostered not only by government, but also by individual, organization, and business actions.[2]

Effective mitigation[3] begins with identifying the threats and hazards a community faces and determining the associated vulnerabilities and consequences. Sound assessment requires risk information—based on credible science, technology, and intelligence—validated by experience. Understanding risks makes it possible to develop strategies and plans to manage them. Managing risks from threats and hazards requires decision making to accept, avoid, reduce, or transfer those risks. Avoiding and reducing risks are ways to reduce the long-term vulnerability of a community and build individual and community resilience.

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[2] Godschalk, David R., et.al. 2009. "Estimating the Value of Foresight: Aggregate Analysis of Natural Hazard Mitigation Benefits and Costs." Journal of Environmental Planning and Management 52(6):739–56.

[3] National Preparedness Goal includes a definition of "mitigation" that extends beyond the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act). The term "mitigation" under National Preparedness Goal "refers to those capabilities necessary to reduce loss of life and property by lessening the impact of disasters. Mitigation capabilities include, but are not limited to, community-wide risk reduction projects; efforts to improve the resilience of critical infrastructure and key resource lifelines; risk reduction for specific vulnerabilities from natural hazards or acts of terrorism; and initiatives to reduce future risks after a disaster has occurred."

When preparing mitigation plans and activities, it is critical to consider the implications in context of the economy, housing, health and social services, infrastructure, and natural and cultural resources. Taking such a broad view enables leaders to assess existing interdependencies, associated vulnerabilities, and cascading effects, so that communities understand the risks thoroughly enough to plan not only for those identified and quantified but also for residual risks.

America's security and resilience work is never finished. While the Nation is safer, stronger, and better prepared than it was a decade ago, the commitment to safeguard the Nation against its greatest risks, now and for decades to come, remains resolute.

Intended Audience

The National Mitigation Framework is inclusive of the whole community with meaningful roles for individuals, nonprofit entities and nongovernmental organizations, the private sector, communities, critical infrastructure owners, and governments Nation-wide. By providing equal access to and use of the necessary knowledge and skills, this Framework seeks to enable the whole community to contribute to and benefit from national preparedness. This includes children[4]; older adults; people with disabilities and others with access and functional needs[5]; those from religious, racial, and ethnically diverse backgrounds; people with limited English proficiency; and owners of animals including household pets and service animals.

Scope

The National Preparedness Goal defines the core capabilities necessary to prepare for the specific types of incidents that pose the greatest risk to the security of the Nation. The National Planning Frameworks describe coordination efforts to deliver the capabilities defined in the Goal. Developing and updating the National Preparedness Goal involved a coordinated effort with other Executive Branch departments and agencies and consultation with local, state, tribal, and territorial governments, the private, nonprofit, and nongovernmental sectors, and the public.

The National Mitigation Framework is one of five frameworks developed to enable achievement of the goal of a secure and resilient Nation with the capabilities required to prevent, protect against, mitigate, respond to, and recover from the threats and hazards that pose the greatest risk across the whole community. The Framework addresses how the Nation lessens the impact of disasters by developing, employing, and coordinating core mitigation capabilities to reduce loss of life and property. Building on a wealth of objective and evidence-based knowledge and community experience, the Framework seeks to increase risk awareness and leverage mitigation products, services, and assets across the whole community.

> Mitigation is the thread that permeates the fabric of national preparedness.

This Framework describes the seven core capabilities necessary for successful mitigation that will lead to a more resilient Nation. This Framework is driven by risk rather than the occurrence of

[4] Children require a unique set of considerations across the core capabilities contained with this document. Their needs must be taken into consideration as part of any integrated planning effort.

[5] Access and functional needs refers to persons who may have additional needs before, during and after an incident in functional areas, including but not limited to: maintaining health, independence, communication, transportation, support, services, self-determination, and medical care. Individuals in need of additional response assistance may include those who have disabilities; live in institutionalized settings; are older adults; are children; are from diverse cultures; have limited English proficiency or are non-English speaking; or are transportation disadvantaged.

incidents. By fostering comprehensive risk considerations, the Framework encourages behaviors and activities that will reduce the exposure to risk and vulnerability of communities.

Guiding Principles

The four guiding principles for mitigation include Resilience and Sustainability, Leadership and Locally Focused Implementation, Engaged Partnerships and Inclusiveness, and a Shared Risk-conscious Culture. These principles lay the foundation for the Mitigation mission area and the execution of its core capabilities.

Resilience and Sustainability

Preparing people, property, critical infrastructure resources, and the economy to withstand or absorb the impact of an incident and rebound in a manner that sustains our way of life in the aftermath makes communities and the Nation more resilient. Individuals, communities, nongovernmental organizations, all levels of government, and the private sector should consider the long-term economic, health, social, and environmental dimensions of their choices and ensure resilience is continuously improved.

> The National Mitigation Framework addresses two dimensions of **resilience**[6]:
>
> Community resilience is **an inclusive, informed process** that addresses social, health, economic, natural and cultural, technical, and organizational dimensions within a community—preparing a community to consciously mitigate rather than ignore risks.
>
> Resilience is **an outcome**—the state of being able to adapt to changing conditions and then withstand and rebound from the impacts of disasters and incidents.

Sustainability employs a longer-term approach through plans, policies, and actions that reflect a comprehensive understanding of the economic, social, and environmental systems within a community. Ensuring that actions to reduce long-term vulnerability can be maintained and supported overtime is critical to the overall performance of those actions and the overall resilience they contribute to for a community.

Leadership and Locally Focused Implementation

Mitigation empowers formal and informal local leaders to embrace their ownership of building resilient and sustainable communities. Effective, ongoing mitigation efforts are led at the local level, working to identify, plan for, and reduce vulnerabilities and promote long-term personal and community resilience and sustainability. Everyday decisions and actions can have unexpected implications for risk management and, therefore, should be viewed through the mitigation lens to help build a culture of preparedness. Leaders at the state, tribal, territorial, insular area, and Federal levels support local leadership by facilitating effective ongoing mitigation by setting a vision, aligning programs, and supporting local efforts as needed.

Engaged Partnerships and Inclusiveness

Mitigation is advanced through the actions of many groups to collectively reduce risk vulnerability to the whole community. No one entity can accomplish these goals. These partnerships may include, but are not limited to:

[6] The National Mitigation Framework builds on the definition of resilience as defined in the National Preparedness Goal.

- All levels of government
- Faith-based organizations
- Nonprofit organizations
- Private/corporate entities
- Advocacy groups
- Community associations
- Academia
- Professional groups
- Neighbors.

The most effective partnerships within a community capitalize on multidiscipline coalitions and all available resources—identifying, developing, fostering, and strengthening new and existing coordinating structures to create a unity of effort and expand the capacity of all those involved to increase resilience. Many community organizations and partners have active roles in the other mission areas as well.

Establishing trusted relationships among leaders and communities prior to a disaster is essential to preparedness, and community resilience, and sustainability. These relationships enhance and strengthen day-to-day mitigation efforts and are critical for timely and effective response and recovery activities. Effective and meaningful inclusiveness generates public awareness and support to reach the common objective of mitigating risk and promoting resilience.

Participation within these partnerships should include seniors, people with disabilities, and others with access and functional needs, racially, culturally, and ethnically diverse communities, people with limited English proficiency, and advocates for children. In addition to advocates for diverse populations, it is also important to include experts and advocates for important community concerns such as the needs of pets and other animals, the environment, and historical and cultural assets.

A Shared Risk-conscious Culture

A risk-conscious culture is founded on the shared understanding that future disasters will occur and that every person has a responsibility to prepare for and respond appropriately to these risks. The American people, resources, economy, and way of life are bolstered and made more resilient by the whole community acknowledging, anticipating, communicating, and preparing for future threats and hazards—both internal and external—through comprehensive and deliberate risk management. The value of a risk management approach or strategy to decision makers is not in the promotion of a particular course of action, but rather in the ability to distinguish among various risk management choices for accepting, avoiding, reducing, or transferring the risk within the larger context.

Acknowledging the risk of future incidents fosters a risk-conscious culture that enables community leaders to routinely and systematically evaluate a wide variety of threats and hazards. However, future conditions are not necessarily reflective of past conditions, requiring a consideration of science-based data and expertise to help inform decisions. Community leaders can then prioritize strategies, resources, and efforts using a well-informed comprehensive approach to preparedness. A risk-conscious culture involves providing clear, meaningful, consistent, and accessible information.

Resilience is an end-state of effective risk management and a mature culture of preparedness. Risk management, in this context, includes identifying opportunities to build resilience into planning,

resourcing to reduce risk in advance of a hazard, and mitigating the consequences of disasters that occur. By focusing on the preparedness and resilience of the community as a whole, the community's adaptive capacity to mitigate and recover is enhanced, whether that risk has been identified or not. All the mission areas rely on an understanding of the risk of potential threats and hazards and the impacts of those threats and hazards to inform the development and maintenance of capabilities and work towards building resilience.

Risk Basis

Risk is the potential for an unwanted outcome resulting from an incident or caused by systemic degradation, as determined by its likelihood, associated consequences, and vulnerability to those consequences. The whole community must maintain the ability to conduct mission-essential functions during an actual hazard or incident to ensure delivery of core capabilities for all mission areas.

Results of the Strategic National Risk Assessment, contained in the second edition of the National Preparedness Goal, indicate that a wide range of threats and hazards continue to pose a significant risk to the Nation, affirming the need for an all-hazards, capability-based approach to preparedness planning. The results contained in the Goal include:

- Natural hazards, including hurricanes, earthquakes, tornadoes, drought, wildfires, winter storms, and floods, present a significant and varied risk across the country. Climate change has the potential to cause the consequence of weather-related hazards to become more severe.
- A virulent strain of pandemic influenza could kill hundreds of thousands of Americans, affect millions more, and result in considerable economic loss. Additional human and animal infectious diseases, including those undiscovered, may present significant risks.
- Technological and accidental hazards, such as transportation system failures, dam failures, and chemical spills or releases, have the potential to cause extensive fatalities and severe economic impacts. In addition, these hazards may increase due to aging infrastructure.
- Terrorist organizations or affiliates may seek to acquire, build, and use weapons of mass destruction. Conventional terrorist attacks, including those by "lone actors" employing physical threats such as explosives and armed attacks, present a continued risk to the Nation.
- Cyber-attacks can have catastrophic consequences, which in turn, can lead to other hazards, such as power grid or financial system failures. These cascading hazards increase the potential impact of cyber incidents. Cybersecurity threats exploit the increased complexity and connectivity of critical infrastructure systems, placing the Nation's security, economy, and public safety and health at risk.
- Some incidents, such as explosives attacks or earthquakes, generally cause more localized impacts; while other incidents, such as human pandemics, may cause impacts that are dispersed throughout the Nation, thus creating different types of impacts for preparedness planners to consider.

In addition to these findings, climate change has the potential to adversely impact a number of threats and hazards. Rising sea levels, increasingly powerful storms, and heavier downpours are already contributing to an increased risk of flooding. Droughts and wildfires are becoming more frequent and severe in some areas of across the country.

Cybersecurity poses its own unique challenges. In addition to the risk that cyber-threats pose to the Nation, cybersecurity represents a core capability integral to preparedness efforts across the whole community. In order to meet the threat, the whole community must not only consider the unique core

capability outlined in the Protection mission area, but must also consider integrating cyber mitigation tasks throughout the Mitigation core capabilities.

Mitigation, as a mission area, is specifically intended to minimize risks associated with these threats and hazards. No single threat or hazard exists in isolation. As an example, a hurricane can lead to flooding, dam failures, and hazardous materials spills. The National Preparedness Goal, therefore, focuses on Mitigation core capabilities that can be applied to deal with cascading effects as well as other unknown risks. Figure 1 depicts some of the threats and hazards that guided the development of this Framework. Communities should consider them in their analyses.

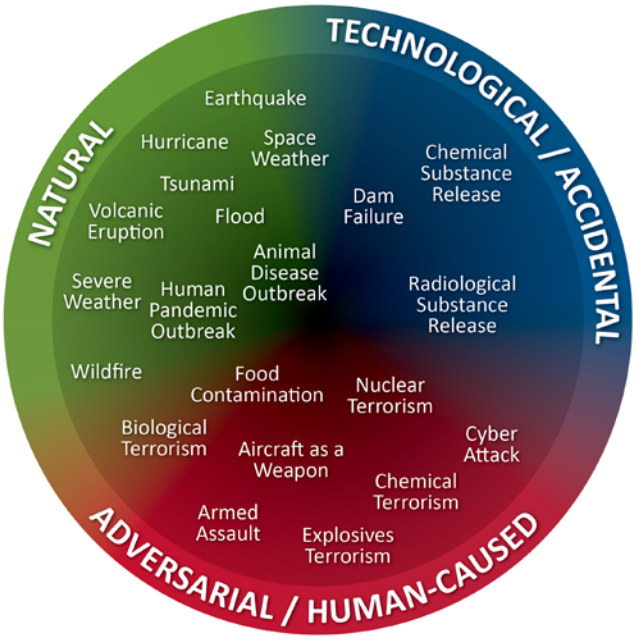

Figure 1: Examples of Threats and Hazards by Category

Planning for and managing the "greatest risks" are fundamental components of the National Preparedness Goal and the National Preparedness System. Regardless of whether mitigation occurs at the individual, community, regional, or national level, each entity coordinates with mitigation partners vertically and horizontally to identify, clarify, and prioritize risks.

Roles and Responsibilities

Resilience depends on the whole community—individuals and communities, the private and nonprofit sectors, faith-based organizations, and all levels of government (local, regional/metropolitan, state, tribal, territorial, insular area, and Federal) nongovernmental organizations; private (see Figure 2). Inclusiveness and partnership throughout these levels can ensure the best use of available knowledge, resources, and efforts. All levels of public and private entities have a role in community resilience and sustainability and being able to perform essential functions during a wide range of emergencies to ensure resiliency. With a long-term view, mitigation leaders need to ensure that resilience is an outcome of their overall preparedness. Leaders strengthen community and economic vitality while reducing the long-term vulnerabilities when they support, promote, align, and implement these policies and activities. This is complemented by research, development, and investment—the basis of new and improved long-term vulnerability reduction

capabilities—making these investments an increasingly effective, cost-efficient, and sustainable approach for the whole community to build resilience.

Figure 2: Composition of the Whole Community

Individuals, Families, and Households

A prepared individual or family is the foundation of a resilient community. Mitigation begins with individual awareness and action. Informed decisions facilitate actions that reduce risk and enable individuals, families, and households to better withstand, absorb, or adapt to the impacts of threats and hazards and quickly recover from future incidents. Adverse incidents can compromise safety, physical and behavioral health, property, and financial well-being. Safe, secure, and prepared individuals, families, and households are often less dependent on response services, which, in turn, places fewer responders in hazardous response situations. Individuals, families, and households should take actions and the basic steps to prepare themselves for emergencies. Joint planning and participation by diverse populations are essential to increasing and sustaining community resilience. Members of the whole community benefit from mitigation actions, as they can expect fewer disruptive disaster impacts and a decreased need for supplemental resource support.

Possible individual, family, and household efforts to increase their resilience may include:

- Preparing an emergency supply kit and household emergency plans and practicing what to do in an emergency.
- Maintaining appropriate insurance coverage.
- Ensuring that a tornado safe room or shelter is quickly and easily accessible.
- Routinely removing pine needles from the roof and gutters to reduce the likelihood of a home catching fire from wildfire embers and creating a space free of ignitable vegetation around the home.
- Ensure family members are vaccinated as medically appropriate.
- Installing a home generator.
- Elevating heat pumps, water heaters, and air conditioners high enough to stay dry during a flood event.

Communities

Communities are unified groups that share goals, values, or purposes rather than geographic boundaries or jurisdictions. Communities bring people together in different ways for different reasons, but each provide opportunities for sharing information and promoting collective action. Communities have the ability to promote and implement mitigation activities without necessarily holding a formal position of authority within a jurisdiction.

Communities advancing mitigation can include social and community service groups and institutions, neighborhood partnerships, communities representing and/or including those with disabilities and others with access and functional needs, online communities, hazard-specific coalitions, and communities of practice. While the scale will vary, communities may be the most effective actors to take specific action to manage and reduce their specific risks. In many communities, local Citizen Corps Councils[7] assist in bringing government and civic leaders and organizations together. These local Citizen Corps Councils engage broad participation in assessing and reviewing community risks and are positioned to integrate resources from the community.

Nongovernmental Organizations

Nongovernmental organizations and nonprofit organizations—including voluntary organizations, faith-based organizations, national and professional associations, and educational institutions—play an essential role in facilitating resilience across the whole community. These organizations are inherently independent and committed to specific interests and values. They can augment government efforts and provide services to groups such as children, people with disabilities and others with access and functional needs, ethnically and racially diverse communities, people with limited English proficiency, and animal owners, including those with household pets and service animals. Nongovernmental organizations can provide training and education to communities, including how-to guides. They can represent communities and many groups in mitigation policy discussions.

Private Sector Entities

Private sector entities (e.g., local businesses, large corporations, healthcare providers, childcare providers, and other service providers) are integral parts of the community, and their perspectives are indispensable in mitigation efforts. Mitigation is a sound business practice that reduces disaster losses and quickens restoration of normal operations. Private sector investments in continuity and vulnerability reduction have broad benefits.

As the owners and operators of the majority of the Nation's infrastructure, private sector entities are essential to improving resilience through planning and long-term vulnerability reduction efforts. A more resilient private sector strengthens community resilience by helping to sustain economic vitality and ensuring the delivery of goods and services in the aftermath of a disaster. Among numerous activities that promote and implement the mitigation core capabilities, businesses analyze and manage their own risks, volunteer time and services, operate business emergency operations centers,

[7] The mission of Citizen Corps is to harness the power of every individual through education, training, and volunteer service to make communities safer, stronger, and better prepared to respond to the threats of terrorism, crime, public health issues, and disasters of all kinds. The Citizen Corps Councils bring together leaders from relevant sectors of communities to coordinate the Citizen Corps effort. The purpose of the Council is to have all decision makers at the table to manage existing volunteer resources, leverage mutually supportive endeavors among the represented groups, and direct the overall local plans to implement Citizen Corps in the community.

help protect America's infrastructure, and promote the return on investment realized from increased resilience, developed continuity of operations plans, and reduced vulnerability.

Local Governments

Working to protect the health, safety, and welfare of the people they represent, local governments also bear responsibility for mitigation activities. Across multiple levels of public service, they develop, assess, and implement mitigation core capabilities with consideration given to the economy, housing, health and social services, infrastructure, and natural and cultural resources. Local governments often join together and take a regional approach to mitigation, such as across watersheds or nuclear emergency planning zones.

Most mitigation occurs at the local level, where communities apply a localized understanding of risks to effective planning and identify strategic mitigation options. Since local governments are directly connected to community plans and goals, they can provide a better understanding of local vulnerabilities as they relate to risk reduction activities. Making the connection between community resilience priorities and private sector development is a challenge most often addressed directly at the local level. Actions to reduce long-term vulnerability, such as effective building code adoption and enforcement, are applied in both the pre-disaster planning and the post-disaster recovery activities of the jurisdiction. Local governments must also improve resiliency by preparing for recovery and integrating mitigation policies into the recovery phase to ensure opportunities are not lost for risk reduction during rebuilding. Mitigation and recovery planning should work hand-in-hand to operationalize mitigation through recovery after disasters.

State, Tribal, Territorial, and Insular Area Governments

State, tribal, territorial, and insular area governments are responsible for the public safety, security, health, and welfare of the people who live in their jurisdictions. These levels of government serve an integral role as a conduit for vertical coordination among Federal agencies and local governments. They implement mitigation core capabilities through designated officials, such as State or Tribal Hazard Mitigation Officers or National Flood Insurance Program Coordinators. State, tribal, territorial, and insular area governments can promote resilience through their legislative bodies by implementing legislation that facilitates mitigation in all relevant functional components of the government, such as laws governing local land use and development decisions or building codes.

As sovereign nations, tribal governments govern and manage the safety and security of their lands and community members along with their Federal partners. Local, state, and Federal governments work with the sovereign tribal governments to ensure integration of their mitigation efforts.

Federal Government

The President leads the Federal Government mitigation efforts to prepare the Nation for all hazards, including natural disasters, acts of terrorism, and other manmade disasters. Supporting the whole community with Federal resources, data, information, and leadership requires an engaged and responsive Federal role in mitigation. All Federal departments and agencies must cooperate with one another and with local, state, tribal, and territorial governments, community members, and the private sector to the maximum extent possible. The Secretary of Homeland Security has the broad responsibility of coordinating preparedness activities, including mitigation activities, to respond to and recover from terrorist attacks, natural disasters, and other emergencies to ensure Federal unity of effort. As described in the Coordinating Structures and Integration section, most Executive Branch departments and agencies also play important roles in advancing mitigation and resilience in the Nation. For example, the Federal Emergency Management Agency (FEMA) plays a role in

coordinating Federal mitigation policy and the effectiveness of mitigation capabilities as they are developed and deployed across the Nation.

Further, several Executive Branch departments and agencies, including those identified by Presidential directive as Sector-Specific Agencies (SSA) for the critical infrastructure sectors,[8] play a leadership role in coordinating programs to address the effects of deliberate efforts by criminals and terrorists to destroy or exploit elements of the Nation's infrastructure and to strengthen the national resilience of that infrastructure to all hazards. The Federal Government, in coordination with local, state, tribal, and territorial partners and the private sector, also contributes to the development and delivery of the core capabilities in a way that ensures the protection of privacy, civil rights, and civil liberties.

Collaboration Across Roles

Many of the activities within the Mitigation mission area require a cross-section of stakeholders in order to achieve success. While not intended to be exhaustive, Table 1 illustrates the responsibilities and demonstrates the various roles that need to be involved.

[8] See the National Infrastructure Protection Plan for more information on the SSAs.

Table 1: Examples of Roles and Responsibilities That Advance Mitigation

Role/Responsibility	Individuals, Families, and Households	Communities	Nongovernmental Organizations	Private Sector Entities	Local Governments	State, Tribal, Territorial, and Insular Area Governments	Federal Government
Work with the Federal Government to inform the assessment, development, and coordination of mitigation core capabilities.		X	X	X	X	X	
Coordinate the national assessment and report on the progress made within the mitigation core capabilities.							X
Provide leadership to promote, integrate, and enable an outcome of state and community empowerment to risk reduction and/or adaptation across all mission areas.		X	X	X	X	X	X
Use regulatory authorities and provide funds, incentives, expertise, and leadership to promote the development, implementation, and assessment of mitigation core capabilities. For example, use financial incentives and targeted capital improvement projects to reduce long-term vulnerabilities.					X	X	X
Contribute to the general understanding of risk through the collection, development, analysis, and sharing of information about threats, hazards, and vulnerabilities, as well as through constant evaluation and enhancement of risk assessment methodologies.			X	X	X	X	X
In coordination with other mission areas, develop, fund, and deliver training curricula for grades K–12, trade/technical schools, colleges and universities, continuing education, and the whole community to develop proficiency in understanding risks and mitigation.	X	X	X	X	X	X	X
Engage with local leaders and planners to share perspectives on localized threats and hazards, vulnerabilities, and priorities for incorporating mitigation into community planning and development, as well as continuity and recovery plans, therefore making achieving resilience a part of the community both before and after a disaster.	X	X	X	X	X	X	X

Role/Responsibility	Individuals, Families, and Households	Communities	Nongovernmental Organizations	Private Sector Entities	Local Governments	State, Tribal, Territorial, and Insular Area Governments	Federal Government
Assess risks and disaster resilience. Maintain awareness of threats, hazards, and vulnerabilities.	X	X	X	X	X	X	X
Incorporate resilience principles and priorities into ongoing activities, including family preparedness plans, economic and community planning and development, construction and assessment of infrastructure, comprehensive plans, disaster response and recovery support, homeland security research and development, training, and exercises. Identify leaders who will be responsible for applying mitigation capabilities to these areas and identify ways to incentivize integration into existing organizational processes.	X	X	X	X	X	X	X
Acquire funding or resources and take action to reduce risk through projects, such as home elevation, or processes, such as enforcing building codes.	X	X	X	X	X	X	
Provide functional capacity and technical expertise to implement long-term vulnerability reduction projects across the whole community, whether engineering a bridge to withstand an earthquake, planning a future development for resilience, or building redundancies into critical infrastructure and lifeline systems.		X	X	X	X	X	X
Identify loss reduction and loss control methods and resources to develop mitigation strategies that reduce risks from threats and hazards to personnel, assets, and operations. Maintain continuity of government and/or continuity of operations/business continuity.	X	X	X	X	X	X	X
Become familiar with public information and warning systems, share information with friends and neighbors, build skills to enhance behavioral health resilience, plan ahead, and promote mitigation efforts within communities.	X	X	X	X	X		

Role/Responsibility	Individuals, Families, and Households	Communities	Nongovernmental Organizations	Private Sector Entities	Local Governments	State, Tribal, Territorial, and Insular Area Governments	Federal Government
Conduct and fund outreach and education to effectively communicate successful practices, local mitigation priorities, and event-specific warnings and information in ways that are clear, consistent, accessible, and culturally and linguistically appropriate. Plan ahead and incorporate the needs of those with disabilities and others with access and functional needs.		X	X	X	X	X	X

Core Capabilities

Building on the National Preparedness Goal, this section explains what each mitigation core capability entails, the context in which it is employed, and the critical tasks associated with it. This is not an exhaustive list of mitigation capabilities but rather a description of the core capabilities used across the Nation. Individuals and households, communities, private sector and nongovernmental organizations, and all levels of government should evaluate their particular risks and existing resources to determine whether and how to further develop and deploy these capabilities. Table 2 lists the core capabilities associated with each of the five mission areas, including the mitigation core capabilities.

Table 2: Core Capabilities by Mission Area[9]

<table>
<tr><th>Prevention</th><th>Protection</th><th>Mitigation</th><th>Response</th><th>Recovery</th></tr>
<tr><td colspan="5">Planning</td></tr>
<tr><td colspan="5">Public Information and Warning</td></tr>
<tr><td colspan="5">Operational Coordination</td></tr>
<tr><td colspan="2">Intelligence and Information Sharing</td><td rowspan="5">Community Resilience
Long-term Vulnerability Reduction
Risk and Disaster Resilience Assessment
Threats and Hazards Identification</td><td colspan="2">Infrastructure Systems</td></tr>
<tr><td colspan="2">Interdiction and Disruption</td><td rowspan="4">Critical Transportation
Environmental Response/Health and Safety
Fatality Management Services
Fire Management and Suppression
Logistics and Supply Chain Management
Mass Care Services
Mass Search and Rescue Operations
On-scene Security, Protection, and Law Enforcement
Operational Communications
Public Health, Healthcare, and Emergency Medical Services
Situational Assessment</td><td rowspan="4">Economic Recovery
Health and Social Services
Housing
Natural and Cultural Resources</td></tr>
<tr><td colspan="2">Screening, Search, and Detection</td></tr>
<tr><td>Forensics and Attribution</td><td>Access Control and Identity Verification
Cybersecurity
Physical Protective Measures
Risk Management for Protection Programs and Activities
Supply Chain Integrity and Security</td></tr>
</table>

[9] Planning, Public Information and Warning, and Operational Coordination are common to all mission areas.

Comprehensive mitigation strategies consider the systems that make up communities and the Nation. Mitigation activities are implemented through the core capabilities with consideration given to the economy, housing, health and social services, infrastructure, and natural and cultural resources (shown in Figure 3).[10]

Figure 3: Comprehensive Mitigation Includes Strategies for All Community Systems

Figure 4 depicts the seven core capabilities. The Threats and Hazards Identification and Risk and Disaster Resilience Assessment capabilities enable risk-based decision making based on both general and localized information about threats, hazards, and vulnerabilities. The Planning capability enables a process that evaluates and prioritizes mitigation options for reducing risk, which are then implemented through the Long-term Vulnerability Reduction capability by taking actions to reduce risk and increase resilience. The whole community contributes to and benefits from the Operational Coordination capability, which promotes effective collaboration and avoids duplication of effort. The whole community also shares information about risks to increase awareness and ongoing or recommended mitigation activities through the Public Information and Warning capability. The Community Resilience capability enables all of the other capabilities by providing the leadership and

[10] The community systems listed here intentionally parallel the components of the National Disaster Recovery Framework. These are the essential systems that constitute the backbone of effective communities.

collaboration necessary to identify, build support for, initiate, and sustain mitigation efforts that reflect the needs and priorities of all pertinent stakeholders.

There are three capabilities that cross all five mission areas: Planning, Public Information and Warning, and Operational Coordination. These capabilities are shared and provide direct linkages among the mission areas.

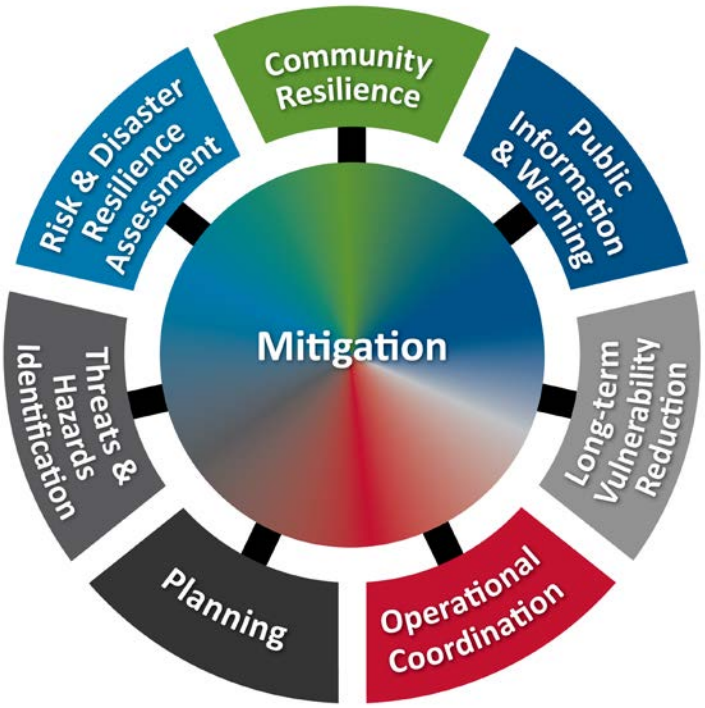

Figure 4: Mitigation Core Capabilities

Threats and Hazards Identification

Identify the threats and hazards that occur in the geographic area; determine the frequency and magnitude; and incorporate this into analysis and planning processes so as to clearly understand the needs of a community or entity.

Capability Description

In the context of mitigation, this capability involves the continual process of collecting timely and accurate data on threats and hazards, including accounting for the future impacts of climate change on weather hazards, to meet the needs of analysts and decision makers. Threats and Hazards Identification relies on two-way data collaboration—nationally generated and locally derived data. The bottom-up approach requires proactive, self-reliant, and empowered communities to gather data. Partners at all levels in the community make use of local, regional, state, tribal, territorial, and national data. Modeling and tools are refined by more specific local data. This approach ensures that existing national data can be reinforced and verified at the local level and improved as new data are generated.

Both approaches generate a strategic, holistic picture that the community can share and use. Outputs derived from Threats and Hazards Identification activities may be used to inform planning activities

in the other mission areas, especially Protection and Response. In return, lessons learned in the other mission areas can be used to augment Threats and Hazards Identification data, models, and tools.

Effective Threats and Hazards Identification is supported by standardized data sets, platforms, methodologies, terminologies, metrics, and reporting to unify levels of effort across all layers of government and society, reducing redundancies. Threats and Hazards Identification also requires the ability to synthesize real-time, static, prospective, and historical data to accurately assess risk.

Critical Tasks for Threats and Hazards Identification

- Identify data requirements across stakeholders.
- Develop and/or gather required data in a timely and accurate manner in order to effectively identify threats and hazards.
- Deploy and maintain continuous, long-term hazards data collection systems.
- Ensure that the right data are received by the right people at the right time.
- Share appropriate data on natural, technological, and human-caused threats and hazards in a transparent and usable manner.
- Strike a proper balance between dissemination and classification of national security and intelligence information.
- Build cooperation among private and public sectors by protecting internal interests, but sharing threats and hazards identification resources and benefits.
- Leverage available third-party data, tools, and information; social media; and open-source technology.
- Translate data into meaningful and actionable information through appropriate analysis and collection tools to aid in preparing the public.

Risk and Disaster Resilience Assessment

Assess risk and disaster resilience so that decision makers, responders, and community members can take informed action to reduce their entity's risk and increase their resilience.

Capability Description

Risk and Disaster Resilience Assessment is the evaluation of threats, hazards, vulnerabilities, consequences, needs, and resources through algorithms or other methods to define and prioritize risks, so community members, decision makers, and responders can make informed decisions and take the appropriate action. Such an assessment directly connects threats and hazards data and information in order to analyze and understand the potential effects on a community. A robust Risk and Disaster Resilience Assessment capability allows a comparison and prioritization of risks from disparate threats and hazards across a variety of communities and jurisdictions. Outcomes from Risk and Disaster Resilience Assessments can be leveraged to increase risk awareness, inform planning efforts, and allocate resources across the mission areas.

Critical Tasks for Risk and Disaster Resilience Assessment

Data

- Share risk assessment data, both new and existing, to establish common operations across mission areas and standardized data requirements and guidance. Secure sensitive data as appropriate. Establish standard data formats to enable sharing of vulnerability data and risk assessment outputs.
- Provide the right data to the right people at the right time.
- Incorporate vulnerability data sets, such as population, demographic, infrastructure inventory and condition assessment information; climatological, geological, and environmental factors; critical infrastructure, lifelines, and key resources; building stock; and economic data to calculate the risk from the threats and hazards identified.
- Incorporate data from lessons learned and statistical information to target consideration of populations (such as for people with disabilities or access and functional needs, limited English proficiency populations, and racially, culturally, and ethnically diverse communities).
- Update risk assessments to include changes to the risks and the physical environment. This includes aging infrastructure, new development, new mitigation projects and initiatives, post-event verification/validation, new technologies or improved methodologies, and better or more current data.
- Create and maintain redundant systems for storing and protecting information and essential records.

Analysis

- Perform credible risk assessments using scientifically valid and widely used risk assessment techniques.
- Understand social and structural vulnerabilities.
- Incorporate knowledge gained by those who have experienced incidents to help understand all the interdependencies, cascading impacts, and vulnerabilities associated with threats and hazards.
- Validate, calibrate, and enhance risk assessments by relying on experience and knowledge beyond raw data or models.
- Develop analysis tools to provide information more quickly to those who need it and make use of tools and technologies, such as geographic information systems.
- Consolidate analysis efforts to remove useless duplication and provide a more uniform picture of the risks.

Education and Training

- Build the capability within communities to assess, analyze, and apply the knowledge of risk and resilience.
- Ensure that data users and assessment stakeholders get the best available data and understand the assumptions/estimations made in the methodology.

- Train stakeholders to develop risk assessments and have the same accurate and comprehensive standards of assessment outputs.
- Use risk assessments to design exercises for response activities and to determine the feasibility of mitigation projects and initiatives.

Planning

Conduct a systematic process engaging the whole community as appropriate in the development of executable strategic, operational, and/or tactical-level approaches to meet defined objectives.

Capability Description

Planning is vital to mitigation, whether it happens at the individual level; in neighborhoods, cities, regions, tribal communities or states; at the national level; or in groups that do not share the same geographic area. Within mitigation, planning is a systematic process that translates risk assessment data and information into prioritized goals and actions for the whole community. Federal agencies, states, businesses, individuals, and groups all develop plans for increasing their resilience. Effective plans are living documents that evolve over time and address new risks and vulnerabilities as they arise.

The planning process is a tool to integrate risk analysis and assessment of local capabilities and authorities into community priorities and decision making. This includes the development of plans related to family emergencies, land use, critical infrastructure, transportation, capital improvement, business improvement districts, sustainability, continuity, disaster recovery, climate adaptation, energy assurance, housing, public health, and multi-hazard mitigation. Wherever possible, mitigation planning should capitalize on existing community efforts. Integrating planning efforts across sectors, disciplines, and mission areas and sharing risk analyses and vulnerability assessments eliminate redundancy, conserve resources, and identify common solutions.

To these ends, it is vital that plans reflect the values of the whole community. Planning is most effective when it is driven by local, regional, state, tribal, and/or territorial need rather than Federal mandates. Individuals and the private sector bring specific, valuable expertise and resources to the table when developing and executing plans. Planning teams should be integrated and represent a broad spectrum of the population, both public and private, so that plans result in strategies and actions that are more meaningful and relevant to the mitigation process and the community.

Local, state, tribal, territorial, insular area, and Federal governments that integrate the rights of people with disabilities and others with access and functional needs into mitigation planning reduce adverse consequences and barriers that create risk for them and those associated with them and increase independence. For example, the design, construction, alteration, and implementation of access to emergency management facilities and programs permit people with disabilities and others with access and functional needs with the equal opportunity to participate in and benefit from emergency preparedness. Advance planning to ensure disability-related assistance/access and functional needs support services, durable medical equipment, and consumable medical supplies mitigate the adverse effects that disasters have on people with disabilities and others with access and functional needs.

Hazard Mitigation Planning Program

Hazard Mitigation Plans form the foundation for a community's long-term strategy to reduce disaster losses and break the cycle of disaster damage, reconstruction, and repeated damage. The planning process to develop these plans is as important as the plan itself. The process promotes risk-based decision making to reduce damage to lives, property, and the economy from future disasters. Local, state, tribal, territorial, insular area, and Federal governments benefit from mitigation planning by:

•Identifying cost-effective actions for risk reduction that are agreed upon by stakeholders and the public;

•Focusing resources on the greatest risks and vulnerabilities;

•Building partnerships by involving people, organizations, and businesses;

•Increasing education and awareness of hazards and risk;

•Communicating priorities to state and Federal officials; and

•Aligning risk reduction with other community objectives.

Critical Tasks for Planning

- Embed risk-based decision making into the planning processes.
- Collaborate, cooperate, and build consensus across other disciplines that impact plans.
- Understand the demographics and systems that make up the community and their vulnerabilities and interdependencies with each other.
- Include disability and other access and functional needs subject matter experts in mitigation planning to address considerations, such as architectural accessibility through compliance with the Americans with Disabilities Act architectural standards; disability and other access and functional needs advocacy organizations, such as independent living centers; and providers of disability and other access and functional needs-related assistance/functional needs support services. Also, understand the civil rights of service animal users, such as being able to use all parts of facilities the public uses without being separated from their service animals.
- Assess the full range of animal[11]populations and potential issues they post in the community; this will ensure that the jurisdiction is equipped to comprehensively address human and animal issues and take steps to mitigate vulnerabilities in this area before, during, or after a disaster.
- Incorporate the findings from the assessment of risk and disaster resilience into planning processes.
- Seek out and incorporate the whole community in planning efforts.
- Build on the expertise, knowledge, and systems in place within the community.
- Coordinate the planning and development of interconnected initiatives that may have geographic, functional, or funding connections.

[11] As members of the community who may be affected by incidents, animals may include household pets, service and assistance animals, working dogs, livestock, wildlife, exotic animals, zoo animals, research animals, and animals housed in shelters, rescue organizations, breeding facilities, and sanctuaries.

- Share success stories where resilience-based planning has demonstrated measureable effectiveness in creating economic vitality within communities.
- Engage in a peer-to-peer and regional partnership (coalitions) mentoring structure that promotes best practices, particularly when the planning capability is not present in a community.
- Foster public-private partnerships to promote resilience and maximize the use of available resources.
- Promote planning initiatives through multiple media sources.

Effective Planning Practices

- Provide incentives, information, and tools for businesses to exceed minimum standards;
- Strengthen building codes and enforcement to address appropriate local threats and hazards;
- Create economic development opportunities that reduce vulnerabilities;
- Implement strategies before a disaster to ensure post-incident continuity and expedite decision making and planning during the recovery period;
- Create communications networks to reach all partners in the community;
- Exercise the decision-making process outlined in the plan;
- Include a timetable for implementation of mitigation actions;
- Monitor plan usefulness;
- Account for stakeholder values in light of hazard mitigation—find planning initiatives that build off longstanding community values; and
- Include mitigation strategies in community development comprehensive plans.

Community Resilience

Enable the recognition, understanding, communication of, and planning for risk and empower individuals and communities to make informed risk management decisions necessary to adapt to, withstand, and quickly recover from future incidents.

Capability Description

In the context of a core capability, Community Resilience provides the initiative and energy to increase resilience in all the areas that make up a community - economic, health and social sciences, housing, infrastructure, and natural and cultural resources - through risk management and employing the other core capabilities. Community Resilience requires leadership, collaboration, partnership building, education, and skill building. A community uses these skill sets to increase awareness of, understand, and assess its risks and to lead, plan, coordinate, and execute actions that reduce vulnerability over the long term. The Community Resilience capability supports and orchestrates all mitigation activities and builds the capacity of the whole community.

Each community contributes to the Goal by preparing for the risks that are most relevant and urgent for them individually. Official and informal leaders at all levels are important messengers, models, and change agents to ensure that mitigation elements are included in plans and actions on a routine basis. A whole community approach to building sustainable and resilient communities requires

finding ways to support and strengthen the institutions, assets, and networks that already work well in communities and are working on a daily basis to address issues important to community members.

Aspects of the Community Resilience Capability

Leadership: The ability to bring together a group that collaborates to make well-informed, timely decisions.

A resilient community embodies the risk-based culture—one of vigilance, periodic assessment, and continuous improvement. Establishing resilience often requires improvements to the processes, task organization, prioritization, and sometimes even the culture of a community's everyday business. Leading such change, or merely maintaining the resilient character of a community, requires embracing and adopting mitigation principles. Leaders need to demonstrate to community members the intrinsic benefits of implementing change and then project a vision of the future that inspires community members to change mindsets and behaviors to adopt a more resilient outlook.

Keeping mitigation activities credible and relevant to a community will also help address complacency when there has not been an incident in recent history to highlight the need for ongoing mitigation. Maintaining a continual dialogue in a trusted environment is essential for connecting public and private sector interests, as well as individual and shared values, interests, and priorities across multiple communities.

Collaboration: A broad engagement and ongoing dialogue about threats and vulnerabilities and meaningful, sustained participation in community preparedness activities, planning, and decision making.

Meaningful risk reduction measures will frequently include collaboration among private sector interests in community development, public sector or law enforcement interests in community safety, and various other interest groups, such as those representing children, seniors, and those with disabilities and others with access and functional needs. Creating an environment that capitalizes on shared interests and addresses differences is crucial to accomplishing resilience. Collaboration among and by communities provides valuable information, resources, knowledge, skills, and support that facilitate actions and planning to adapt and withstand an emergency or disaster. Further collaboration includes schools and childcare; public, agricultural/animal, and environmental health departments; hospitals/hospital associations; and behavioral health services. A community will recover more effectively with intact school, childcare, and health and medical systems. Leadership should foster inclusion of the whole community, including members with disabilities and others with access and functional needs, limited English proficiency, and ethnically and racially diverse groups.

Partnership Building: The establishment of long-term relationships—well before, during, and after incidents—that support ongoing communication and awareness building, decision making, and the implementation of plans and decisions.

Resilient communities utilize education and outreach tools to create opportunities that advance mitigation. Partnership building is a key to resilient communities. Mitigation capabilities are coordinated through new and existing partnerships at all levels of government with the private sector and nongovernmental organizations. Partnerships and coalitions facilitate the timely exchange of information and provide a potential source of shared resources through mutual aid and assistance agreements. Partnerships also support a vital educational component, promoting or sharing risk management knowledge and strategies within communities, and supporting a variety of skill sets and stakeholders. The continued use of a partnership model promotes the coordinated delivery of mitigation capabilities.

Education and Skill Building

Resilient communities utilize education and outreach tools to create opportunities that advance mitigation. They build skills for society that is robust, adaptable, and has the capacity to withstand an incident that enables rapid recovery. Resilient communities are capable of adapting to change and can integrate new information or educate communities on how to change systems to improve their resilience. Partnerships and professional groups capture mitigation success stories from communities across the country, share experiences, and develop new resources and skills within their own communities. There is a wealth of information on risk reduction activities (available from the private sector; local, state, tribal, territorial, and insular area governments; and Federal sources), as well as a wide range of educational and outreach material available from communities with expertise.

Educational institutions—from preschool to graduate-level programs—professional certification groups, and continuing education programs have a unique opportunity to incorporate resilience topics into their curriculum, affecting education in multiple disciplines.

Resilient communities leverage these resources and integrate them into their training and outreach efforts. Participation in preparedness campaigns fosters a culture of preparedness and highlights the benefits of increased resilience, which lends credibility to all mitigation efforts. Providing individuals and communities with equal access to information and resources will facilitate actions to adapt and withstand an emergency or disaster. By empowering individuals and communities with knowledge and skills, we build a collective understanding of our roles and responsibilities in crisis.

Critical Tasks for Community Resilience

- Know the systems which make up the community and how to build constructive partnerships between those systems.
- Assess and understand the risks facing a community, including physical, social, cultural, economic, and environmental vulnerabilities to all threats and hazards and foster risk adaptive behaviors.
- Recognize and communicate the reinforcing relationships between environmental stewardship and natural hazard risk reduction (e.g., enhancement of flood storage through wetland protection/restoration and holistic floodplain management).
- Communicate and utilize the best available localized climate projections, so that the public and private sectors can make informed decisions about adaptation.
- Know the community's permanent and transient population demographics and use that information to plan ahead to address resilience for the whole community, including people with disabilities and others with access and functional needs.
- Foster sustained communication, civic engagement, and the development and implementation of proactive planning, response, and long-term risk reduction actions in the whole community.
- Conduct community preparedness activities that empower individuals and communities with information and resources that facilitate actions to enhance their resilience and consider accessibility and cultural sensitivities based upon the community makeup.
- Promote mitigation and resilience to the public through preparedness campaigns to increase public awareness and motivate individuals to build societal resilience prior to an event.
- Promote neighborhood activities and encourage volunteerism that advances preparedness.

- Convince community members of the value of mitigation for reducing the impact of disasters and the scale of response and recovery efforts.
- Identify and promote sound choices and discourage choices that increase vulnerabilities and risks.
- Promote transparency in risk management decision making, so that individuals, communities, private organizations, and all levels of government demonstrate how resilience is considered.
- Recognize the interdependent nature of the economy, health and social services, housing infrastructure, and natural and cultural resources within a community.
- Acknowledge and seek out naturally occurring relationships within communities and build partnerships and coalitions before disasters or incidents occur.
- Educate the next generation of community leaders and resilience professionals; learn from the past and from what is working in the present.

Community resilience is expressed through a holistic approach to risk reduction. The success of one element relies upon the resilience capacity of other elements. For example, when a large business facility is retrofitted to account for wind and flood hazards, the community is also motivated to strengthen area schools, employee housing, and transportation infrastructure to ensure that workers will be able to quickly rebound from an incident, return to work, and restore the community's tax base. Similarly, when a school district or parks department ensures that its facilities, which are used as emergency shelters, are architecturally accessible for people with disabilities and others with access and functional needs, the community strengthens its school or park system and emergency management system and maximizes the independence of people with disabilities and others with access and functional needs.

Collaborative steady-state Prevention and Protection activities support the Community Resilience capability. Increased resilience, brought about through engaged leadership, collaborative partnerships, and education efforts, lessens the Response requirements following an incident. Resilient communities are likely to be better coordinated and prepared for Recovery activities, including the restoration of physical, economic, and social infrastructures. Lessons learned from the other mission areas can be incorporated in subsequent resilience-building initiatives and planning efforts.

Public Information and Warning

Deliver coordinated, prompt, reliable, and actionable information to the whole community through the use of clear, consistent, accessible, and culturally and linguistically appropriate methods to effectively relay information regarding any threat or hazard and, as appropriate, the actions being taken and the assistance being made available.

Capability Description

Effective mitigation is powered throughout its capabilities by risk-informed decision making. For mitigation, the Public Information and Warning capability includes all information targeted toward creating resilient communities. Ideally, the whole community shares information; communicates analytical findings; conducts outreach, engagement, and education; and builds consensus as part of ongoing actions. This capability provides a continuous flow of risk and hazard information to the whole community, in particular to people who authorize action before and following a disaster and drive risk-informed recovery decisions.

Timely, accurate, and open information sharing, along with mutual regard and respect for all stakeholders, provides the foundation for effective engagement. Information should be delivered using multiple platforms and modalities to ensure that a diverse community has the opportunity for full participation. The most critical elements of information concerning hazards, risk, responsibilities, successful practices, preventive measures, situational awareness, capabilities, and available assistance should be clearly and openly communicated by leaders to the whole community—including people with disabilities and others with access and functional needs, the socially isolated, children, seniors, ethnically, culturally, and racially diverse communities, and people with limited English proficiency.

Critical Tasks for Public Information and Warning

Steady-state/Ongoing Operations

- Persuade the public that it is worthwhile to build a resilient community. Encourage private and public sector partners to work together to communicate the benefits of mitigation action and arrive at solutions.
- Increase awareness of the risks and the actions they can take to mitigate those risks through mechanisms like preparedness campaigns.
- Communicate priorities and actions identified through risk analysis and plans to stakeholders and those expected to take action to reduce risk.
- Refine and consider options to publicly release potentially sensitive risk information.
- Use social media, Web sites (e.g., Ready.gov), and smartphone applications, as well as more traditional mechanisms, such as community meetings, social networks, or diverse media outlets, to inform the public of actions to take to connect preparedness to resilience. Information and messaging should ensure effective communication with people who have disabilities or access and functional needs, including those who are deaf, hard-of-hearing, blind, or have low vision, through the use of appropriate auxiliary aids and services, such as sign language and other interpreters and the captioning of audio and video materials. Target messages to reach organizations representing children, people with disabilities or access and functional needs, diverse communities, and people with limited English proficiency to ensure that the information is accessible and effective, so that people are able to understand and act on the information.
- Support and increase the number of communities that develop and share risk reduction products (e.g., building codes, design standards, floodplain management principles and practices, and architectural accessibility standards).

Incident-driven Operations

- Provide the tools necessary to make decisions quickly, such as a synchronization matrix that allows multiple leaders to make independent decisions.
- Share information obtained through coordinating activities to inform prevention, protection, response, and recovery decision making by effectively communicating threat and hazard risk analysis. Conduct outreach with atypical partners. Coordinate common messaging and verified source communications through local community leaders.
- Capitalize on the critical post-disaster window of opportunity and the media information cycle to influence public opinion to take steps toward future mitigation.

Change Management

- Address evolving risk perception and risk communication within a community.
- Practice science-based methods, such as community-based social marketing, to create behavior change.

Long-term Vulnerability Reduction

Build and sustain resilient systems, communities, and critical infrastructure and key resources lifelines so as to reduce their vulnerability to natural, technological, and human-caused threats and hazards by lessening the likelihood, severity, and duration of the adverse consequences.

Capability Description

The Long-term Vulnerability Reduction capability encompasses a variety of actions that reduce vulnerability. A resilient community has taken stock of the threats and hazards it faces; analyzed its available resources, processes, programs, and funding opportunities; and adopted successful practices as it promotes individual and community safety and resilience. The result is an informed action that leads to lasting reductions in vulnerability.

Building this capability enhances resilience and vitality across economic, housing, health and social, natural and cultural resources, and infrastructure considerations. Further, it lessens the effects of natural, technological/accidental, or adversarial/human-caused incidents. Reducing vulnerability over the long term can include actions as varied as including mitigation measures in construction and development plans and projects, adopting and enforcing hazard-resistant building codes and standards, establishing redundant data storage and processing systems, or initiating and maintaining neighborhood civic associations. The Long-term Vulnerability Reduction capability includes initiatives and investments that reduce Response and Recovery resource requirements in the wake of a disaster or incident. Individuals and organizations active across all mission areas can help identify opportunities to reduce risk and build resilience through this capability.

Long-term Vulnerability Reduction requires a commitment to the long-term planning and investment processes to ensure community resilience and vitality after an incident. Community partners and stakeholders should be engaged and educated on risks, vulnerabilities, and mitigation activities. They should share necessary resources to avoid duplication of effort. Reducing long-term vulnerabilities, combined with continuity of operations and recovery planning before a disaster, increase resiliency and the likelihood that communities and organizations can perform essential functions and deliver core capabilities after an event. The result is a safer community that is less reliant on external financial assistance.

Critical Tasks for Long-term Vulnerability Reduction

Mitigation actions are successfully implemented with commitment from the community. Engaging the whole community with a stake in vulnerability reduction ensures that public and private entities, as well as individuals, are invested, fully active partners.

Individual and Local Community

- Broaden the use of natural hazards and catastrophic insurance.
- Develop plans and recognize that a prepared individual or family is the foundation of a resilient community.

- Promote neighborhood activities and encourage volunteerism that advances preparedness awareness campaigns.
- Incorporate mitigation measures into construction and development projects that take into account future conditions based on physical changes as well as climate change.
- Capitalize on opportunities during the recovery building process to further reduce vulnerability.

Private Sector

- Determine the level of appropriate risk reduction to incorporate in operational and capital improvement projects.
- Advance projects and activities that do not increase the residual risk in nearby neighborhoods and communities.
- Coordinate with government and community organizations to reduce duplication of effort and encourage complementary efforts.

Government

- Put community plans that include mitigation and resilience to work.
- Execute identified risk management actions and projects resulting from analysis and planning processes in the community.
- Make risk avoidance and reduction a priority in capital improvement projects.
- Adopt and enforce a suitable building code to ensure resilient construction.
- Adopt appropriate land use measures to limit development in hazardous areas commensurate with identified risk.
- Employ a variety of incentives, statutory and regulatory requirements, and voluntary initiatives to implement successful practices throughout communities.
- Be transparent and explicit about mitigation efforts in order to increase and sustain whole community investment, reduce duplication of effort, and encourage complementary efforts by partners.
- Establish standards and practices to reduce long-term vulnerability.
- Capitalize on opportunities during the recovery building process to further reduce vulnerability, including pausing to evaluate and update current codes, policies, and approaches to redevelopment.

Operational Coordination

Establish and maintain a unified and coordinated operational structure and process that appropriately integrates all critical stakeholders and supports the execution of core capabilities.

Capability Description

Incorporating mitigation efforts into everyday activities, as well as response and recovery efforts following disasters, requires operational coordination. Operational Coordination is an important component in achieving successful mitigation through coordinating structures (see the following

section, Coordinating Structures and Integration) that connects mitigation practitioners with other communities of interest, practice, and expertise. The Operational Coordination capability is fundamental to all the other mitigation capabilities and is necessary to build whole community resilience.

More specifically, it leverages other mitigation capabilities and other mission areas to promote resource sharing, collaboration, and whole community mitigation. This capability is broad and could refer to a physical coordinating body or a document that outlines procedures. Effective Operational Coordination enables efficient information flow and contains a feedback mechanism that incorporates improvements back into the governing process and structures.

Some threats, hazards, or disasters require highly disciplined and uniform operational coordination. This is particularly true during initial response and recovery activities where incident command and control structures are in place to ensure the safety of responders and provide continuity and accountability for survivors. Other situations, such as daily building enforcement operations or community planning efforts, are more decentralized and organic in their coordinating structures, bringing together varied and complex stakeholders with unique authorities and responsibilities. Whatever the coordination required, mitigation works effectively as part of all operational environments and brings risk-informed decisions to support activity across the whole community of national preparedness.

Critical Tasks for Operational Coordination

Steady-state/Ongoing Operations

- Establish procedures and build partnerships and coalitions across the whole community that emphasize a coordinated delivery of mitigation capabilities.
- Identify mitigation roles and responsibilities and engage stakeholders across the whole community to support the information-sharing process.
- Recognize the complexity of various interest groups and integrate organizations across communities, including public-private partnerships.

Incident-driven Operations

- Emphasize mitigation technique integration into Incident Command System (ICS)[12] planning cycles by command and general staff representatives and educate whole community partners.
- Use and leverage mitigation products and capabilities, such as the identification of threats and the assessment of risk, to support incident operations.
- Contribute to the situational awareness and a common operating picture for the entire Federal Government and for local, state, tribal, territorial, and insular area governments, as appropriate, in the event of a natural disaster, act of terrorism, or other manmade disaster.
- Capitalize on opportunities for mitigation actions following disasters and incidents.

[12] ICS is a standardized, on-scene, all-hazards incident management approach that allows for the integration of facilities, equipment, personnel, procedures, and communications operating within a common organizational structure, enables a coordinated response among various jurisdictions and functional agencies, both public and private, and establishes common processes for planning and managing recourses.

Change Management

- Adapt to evolving risks and changing conditions including those as a result of climate change.
- Look for ways to include new stakeholders in mitigation capabilities.

Coordinating Structures and Integration

Coordinating structures are composed of representatives from multiple departments or agencies, public and/or private sector organizations, or a combination of these. Coordinating structures are able to facilitate preparedness and delivery of capabilities, and they provide guidance, support, and integration to aid in the preparedness of the whole community and building resilience at the local, regional, and national levels. They ensure ongoing communication and coordination among all parties involved in preparing and delivering capabilities before and after disasters. Continuity and recovery planning at all levels support coordinating structures being able to provide uninterrupted guidance, support, and integration following an incident.

At the Federal level, the Secretary of Homeland Security coordinates Federal preparedness activities, and multiple departments and agencies provide guidance, support, and integration in order to facilitate community preparedness by delivering core capabilities, except for those activities that may interfere with the authority of the Attorney General or the Federal Bureau of Investigation (FBI) Director, as the Attorney General of the Department of Justice has lead responsibility for criminal investigations of terrorist acts or terrorist threats by individuals or groups inside the United States, or directed at United States citizens or institutions abroad, where such acts are within the Federal criminal jurisdiction of the United States, as well as for related intelligence collection activities within the United States, subject to the National Security Act of 1947 (as amended), and other applicable law, Executive Order 12333 (as amended), and Attorney General-approved procedures pursuant to that Executive Order. Generally acting through the FBI, the Attorney General, in cooperation with other Federal departments and agencies engaged in activities to protect our national security, shall also coordinate the activities of the other members of the law enforcement community to detect, prevent, preempt, and disrupt terrorist attacks against the United States. Generally acting through the FBI Director, the Attorney General has primary responsibility for searching for, finding, and neutralizing WMD within the United States.

Federal agencies facilitate the ongoing communication and coordination of all involved parties. The preponderance of the coordinating structures originates and is sustained at a regional and local scale. The coordinating structures for mitigation should focus on creating a national culture shift that embeds risk management and mitigation in all planning, decision making, and development. Regardless of the level of the coordinating structure, consideration of risk management and mitigation will reduce the Nation’s risk and associated consequences. Coordinating structures at the national level, particularly the Federal Government, should always strive to make Federal programs most useful and reduce the time it takes to go through processes. Figure 5 illustrates examples of coordinating structures.

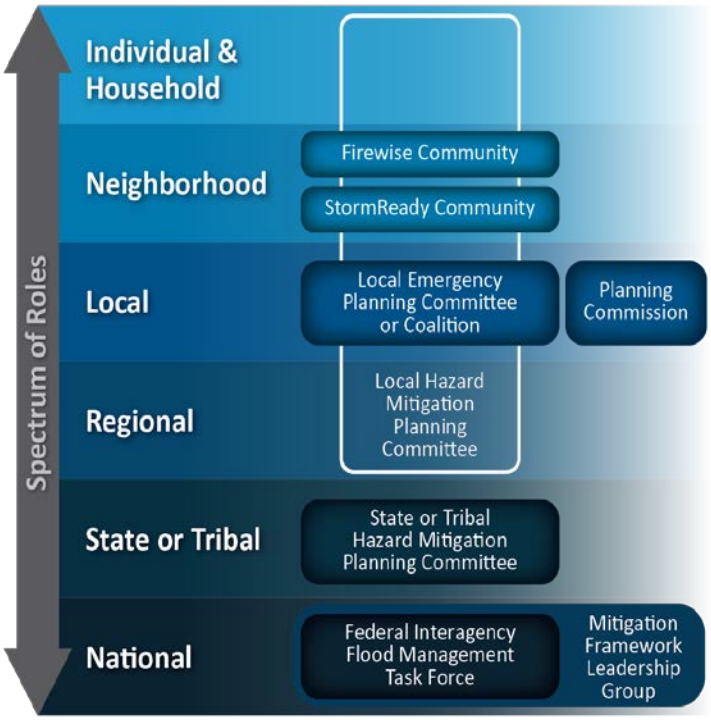

Figure 5: Examples of Coordinating Structures

Local Coordinating Structures

Local communities have specific cultures, values, norms, and laws that reflect their history, residents, and geography. The National Mitigation Framework seeks to use—not dismiss—the local organizations and entities within a community that can build resilience and community vitality. These include, but are not limited to:

- Local and regional economic development organizations
- Public works agencies
- Private development enterprises
- Planning commissions
- Community emergency response teams
- Faith-based organizations
- Citizen Corps Councils
- Service groups
- Voluntary organizations
- Public and private schools
- Resources and referral/advocacy agencies for children, families, and those with disabilities and others with access and functional needs
- Local mitigation committees.

It may be appropriate to establish neighborhood-level resilience teams that focus on long-term vitality across the systems that make up a community of economic, health and social, housing, infrastructure, and natural and cultural resources.

Through multi-jurisdictional, territorial, state, sector, and national coordinating structures, specific efforts should be made to generate and sustain neighborhood and local coordinating structures, which, in turn, help to build a community's economic vitality and sustainability.

Multi-jurisdictional, State, Tribal, Territorial, and Sector Coordinating Structures

Multi-jurisdictional, state, tribal, territorial, and sector-coordinating structures adopt the character of the people and geography they serve. A set of structures has long been in place to advance mitigation. Through the National Mitigation Framework, efforts will be made to use and, where appropriate, expand the scope of existing structures to implement mitigation capabilities. National associations and hazard-specific coalitions offer particularly strong avenues to advance and coordinate mitigation capabilities. Existing structures that can advance elements of mitigation capabilities include:

- State hazard mitigation planning committees
- Long-term recovery groups
- State Disaster Recovery Coordinators and related coordination structures associated with the National Disaster Recovery Framework
- Water conservation boards
- Coastal commissions
- Regional/Metropolitan planning organizations
- Region healthcare coalitions
- Mutual aid compacts.

State and major urban area fusion centers and Joint Terrorism Task Forces can take particular advantage of threat, hazard, risk, and resilience data generated through mitigation capabilities.

Each of the Nation's critical infrastructure sectors has a Coordinating Council structure that should attend to resilience and the deployment of mitigation capabilities. Leveraging the efforts of the State, Local, Tribal, and Territorial Government Coordinating Council; the Regional Consortium Coordinating Council, the Sector and Government Coordinating Councils can encourage multi-jurisdictional and cross-sector leadership and decision making.

Even with the value these existing structures offer, additional integrating structures may be necessary. For example, the Silver Jackets Program developed through the U.S. Army Corps of Engineers brings together multiple state, Federal, and sometimes tribal and local agencies to learn from one another and apply their knowledge to reduce risk at the state level. State agencies come together with the Federal family of agencies in a common forum to address the state's flood risk management priorities. Effective and continuous collaboration among state and Federal agencies is critical to successfully reduce the risk of flooding and other natural disasters in the United States and enhance response and recovery efforts when such incidents do occur. No single agency has all the answers; however, multiple programs can often be combined to provide a cohesive solution. Each of

these entities brings a cross-section of leadership from the whole community to work together on behalf of the people they serve.

Federal Coordinating Structures

While the preponderance of mitigation activities and the investment therein flows from the local and regional level, Federal agencies play a critical role in supporting and incentivizing these actions through the use of Federal resources.

The President leads the Federal Government Mitigation efforts to prepare the Nation for all hazards, including natural disasters, acts of terrorism, and other manmade disasters. Pursuant to Presidential directive, the Secretary of Homeland Security is the principal Federal official for domestic incident consequence management. The Secretary is also responsible for coordinating preparedness activities[13] within the United States to respond to and recover from terrorist attacks, major disasters, and other emergencies.

Risk-based mitigation activities are a key component of preparedness. Consequently, the Secretary of Homeland Security developed the National Mitigation Framework as part of a series of integrated National Planning Frameworks designed to ensure effective domestic incident management. While local, state, and tribal governments generally bear primary responsibility for executing mitigation activities, the Secretary has the broad responsibility to coordinate "preparedness activities," which encompass the coordination of the Federal unity of effort to protect against, prevent, and, when necessary, mitigate terrorist attacks, major disasters, and other emergencies.

Federal unity of effort supports local, state, tribal, and territorial mitigation activities, as appropriate; does not interfere with the supervisory, command, or statutory authorities of relevant Federal departments and agencies; and ensures that Federal response and recovery operations and preparedness activities, such as mitigation, are complete, synchronized, and mutually supportive.

National Coordinating Structures

The National Security Council (NSC) is the principal policy body for consideration of national security policy issues requiring Presidential determination. The NSC advises and assists the President in integrating all aspects of national security policy as it affects the United States—domestic, foreign, military, intelligence, and economic (in conjunction with the National Economic Council). Along with its subordinate committees, the NSC is the President's principal means for coordinating Executive Branch departments and agencies in the development and implementation of national security policy.

Another example of existing coordinating structures that support the Mitigation mission area are Sector-Specific Agencies (SSA). The SSAs were created by Presidential directive in recognition of the statutory and/or regulatory authorities that exist in Federal departments and agencies to leverage expertise and institutional knowledge to enhance the protection and resilience of the Nation's critical infrastructure. In accordance with the National Infrastructure Protection Plan, SSAs serve as a Federal interface to infrastructure owners and operators for the prioritization and coordination of sector-specific security and resilience efforts for all-hazards. The SSAs are also tasked with strengthening national preparedness, timely response, and rapid recovery of critical infrastructure in the event of an attack, natural disaster, or other emergency. The SSAs work with both public and private sector partners to develop protection and mitigation programs and resilience strategies. The

[13] Protection, prevention, and mitigation activities are preparedness activities.

SSAs also work with local, state, tribal, territorial, and Federal governments and nonprofit organizations.

A Mitigation Framework Leadership Group (MitFLG) coordinates mitigation efforts across the Federal Government and assesses the effectiveness of mitigation capabilities as they are developed and deployed across the Nation. The MitFLG includes representatives from local, state, tribal, and Federal Government. It is chaired by FEMA in consultation with Department of Homeland Security leadership. Consistent with Presidential Policy Directive 1: Organization of the National Security Council System, the MitFLG coordinates with the relevant National Security Council Interagency Policy Committees. Non-Federal members of the MitFLG ensure appropriate integration of Federal efforts across the whole community. Private industry and nongovernmental coordination with the MitFLG comes through other mechanisms, such as structures available to SSAs.

The MitFLG serves as a coordinating structure for integrating Federal efforts. Related councils, task forces, and committees can coordinate through the MitFLG. The operation of the MitFLG is not intended to alter or impede the ability of Executive Branch departments and agencies to carry out their authorities or perform their responsibilities under law and consistent with applicable legal authorities and other Presidential guidance.

Mitigation Framework Leadership Group

Non-Federal membership includes:

- Local, state, tribal, and territorial government representatives.

Federal membership includes, but is not limited to:

- Department of Agriculture
- Department of Commerce
- Department of Defense
- Department of Energy
- Environmental Protection Agency
- General Services Administration
- Department of Health and Human Services
- Department of Homeland Security
- Department of Housing and Urban Development
- Department of the Interior
- Department of Justice
- Small Business Administration
- Department of Transportation
- Department of the Treasury.

Integration

While the National Mitigation Framework focuses on risk rather than incidents, the mitigation capabilities serve critical roles that support prevention, protection, response, and recovery efforts. During incidents, the focus in response should be on public safety, yet mitigation resources are still present and will align with the response and recovery coordinating structures. In the immediate aftermath of an event, there is tremendous opportunity to obtain new hazard data, as well as develop

and implement mitigation techniques in preparation for potential future incidents. After an event, there is political will, immediate experience, and strong opportunities for education that promote mitigation strategies and successful practices. The coordinating structures should take advantage of this to ensure that the opportunities available during this unique time are captured and used. Embedding mitigation activities in the recovery process assures that every opportunity is taken to rebuild stronger and smarter in a way that increases the resilience of communities and sustains the economic vitality that is developed before—and recovered after—an incident.

Science and Technology

Science and technology (S&T) capabilities and investments are essential for enabling the delivery and continuous improvement of National Preparedness. The whole community should design, conduct, and improve operations based on the best, most rigorous scientific data, methods, and science-based understandings available. Commitments and investments that ensure global leadership in science and technology will yield leading-edge technology and scientific understanding to guide National Preparedness actions. In addition, coordination across the whole community, including scientific researchers, will ensure that scientific efforts are relevant to National Preparedness.

Effective mitigation relies upon the whole community's ability to establish science-based understanding of their threats and hazards and make well-informed decisions to reduce risks as a result. Mitigation requires technical analyses of vulnerabilities and the ability to invent, design, implement, and validate actions that reduce risk. Science and technology investments in the mitigation mission area include improving fundamental understanding of evolving hazards and threats; design and testing of hazard resilient buildings, materials, and infrastructure; development of improved building, land-use and engineering codes and standards; improved methods to assess vulnerabilities, and science-based approaches to communicating effectively about risk and the value of risk reduction.

Some natural hazards, such as hurricanes, heat waves, extreme precipitation events, and droughts in the Southwest U.S., are expected to increase in intensity due to climate change. Consider, for example, that uncertainty about these climate change effects on natural hazards complicates mitigation-action decision making. Scientific investments providing more reliable and localized information on climate change will enable more effective mitigation and adaptation, such as improved model engineering standards and codes for resilient design and construction, as well as improved communication and incentive structures to encourage communities and business mitigate risk.

Ensuring long-term S&T investments advance the ability to mitigate against hazards, and sustaining a healthy science and technology workforce, supports the mitigation mission area core capabilities for years into the future. Coordination between those with mitigation mission responsibilities and U.S. science and technology communities and institutions will be necessary to ensure that scientific efforts, education, and investments are relevant to mitigation.

Relationship to Other Mission Areas

Mitigation reduces the impact of disasters by supporting protection and prevention activities, easing response, and speeding recovery to create better prepared and more resilient communities. As a critical component of national preparedness, Mitigation capabilities should inform and support the other four mission areas. Many, if not all, frameworks could be in effect simultaneously across the

full spectrum of operations. Mitigation depends on successful coordination and collaboration with each of the mission areas.

Planning, Operational Coordination, and Public Information and Warning are the core capabilities that span all five mission areas. Within the National Mitigation Framework, the Planning capability builds upon existing processes, focusing on the incorporation of risk information to inform decision makers. Planning for critical infrastructure will be coordinated between the Protection and Mitigation mission areas to support shared objectives. Pre- and post-disaster recovery planning will also build on the community-based planning performed under mitigation. Under the Operational Coordination capability, mitigation works effectively as part of all operational environments and brings risk-informed decisions to support activities across the whole community of national preparedness. This can include being a part of command and control structures during response and recovery and part of decentralized structures during steady-state operations. For mitigation, the Public Information and Warning capability focuses on sharing information and communicating risk awareness and mitigation messages among elements of the whole community.

Mitigation activities exist in all of the national preparedness mission areas. Risk management and resilience activities take different forms for different mission areas but are based on the same mitigation principles and practices. In particular, threats and hazards identification and risk assessment products become the basis for each of the other mission areas, providing a clear understanding of the impacts from threats and hazards and providing an assessment of risk and resilience in the built environment and community before, during, and after an event. Insights and lessons learned from the other mission areas can be used to inform mitigation activities and resilience-building efforts.

Prevention Mission Area

Threats and hazards identification and risk assessment information provides decision makers with awareness of and context for a threat or hazard event. Once specific threats and risks are ascertained, communities can then devise appropriate measures for mitigating those threats, thereby ultimately reducing vulnerability. Since prevention is the shared responsibility of all levels of government, the private and nonprofit sectors, and individuals, the risk management process is the means by which all stakeholders can integrate their insights and expertise and collaborate for long-term sustainability and overall community resilience.

The law enforcement, intelligence, and homeland security communities play a significant role in the Mitigation mission area. Outreach and community involvement help to establish and maintain strong partnerships to increase awareness of potential threats. Intelligence-focused relationships among local, state, tribal, territorial, insular area, and Federal law enforcement; intelligence and homeland security entities; and with the public and private sector, academia, and other community organizations and nongovernmental organizations facilitate information sharing. In turn, this creates more opportunities to thwart acts of terrorism and to lessen the effects of large-scale, manmade catastrophes should they occur. Through these dialogues, communities may better deter and detect specific threats and mitigate vulnerabilities. They may also develop new ways of reducing risks and reporting successful practices. Finally, through integrated and risk-informed planning efforts, law enforcement and homeland security partners can help improve the whole community's ability to avoid future loss of life and property.

Protection Mission Area

Activities in the Mitigation and Protection mission areas are typically performed in a steady-state or well before an incident. Protection places particular attention on security and deterrence of threats, while mitigation emphasizes achieving resilience by reducing vulnerabilities. Both seek to minimize consequences and have a shared focus on critical infrastructure. Addressing the security of that infrastructure falls within the Protection mission area, and addressing the resilience of the infrastructure falls within the Mitigation mission area. Threat, hazard, and risk analysis is necessary to effectively design successful strategies for mitigation and protection. Integration of risk information, planning activities, and coordinating structures reduces duplication of effort and streamlines risk management actions in both mission areas.

Response Mission Area

Effective community mitigation efforts directly limit the impact of an emergency or disaster, thereby reducing the required scale of response operations and associated costs of response. Threat and hazard information and risk assessment data can trigger crucial lifesaving and life-sustaining operations, particularly during natural disasters. Tools, such as inundation mapping for flood events, can be used to plan and determine appropriate lifesaving actions. Most importantly, these data can be used to develop a better understanding of the situation in order to deliver information for decision making while easing transition to recovery. When incidents impede the ability to communicate effectively or develop impact assessments, risk analysis and hazard modeling can provide operational assumptions for first responders to help them understand more about the situation and better prepare to respond.

Recovery Mission Area

The Mitigation and Recovery mission areas share a focus on a sustainable economy and rebuilding with overall resilience. Both use the same community systems considerations—economic, health and social services, housing, infrastructure, and natural and cultural resources (see Figure 3). Cross-mission area integration following a disaster is essential to identify risk avoidance and risk reduction actions being taken during the recovery process. Collaboration across the whole community provides an unmatched opportunity to integrate mission-essential functions by infusing mitigation, resilience, and sustainability into the community's short and long-term recovery goals. Integrating mitigation actions into pre- and post-disaster recovery plans embeds systematic risk management actions that ensure a community is building resilience to future impacts. Linking recovery and mitigation breaks the cycle of damage-repair-damage resulting from rebuilding without mitigation following disasters.

> During recovery, effective planning-related mitigation actions can include moratoriums on reconstruction or development until the vulnerabilities have been accurately assessed, and the need for higher or additional regulatory standards to reduce those vulnerabilities has been explored and approved.

Operational Planning

The National Planning Frameworks explain the role of each mission area in national preparedness and provide the overarching strategy and doctrine for how the whole community builds, sustains, and delivers the core capabilities. The concepts in the frameworks are used to guide operational planning, which provides further information regarding roles and responsibilities, identifies the critical tasks an entity will take in executing core capabilities, and identifies resourcing, personnel, and sourcing requirements. Operational planning is conducted across the whole community, including the private

and nonprofit sectors and all levels of government. At the Federal level, each framework is supported by a mission area-specific Federal Interagency Operational Plan (FIOP). Comprehensive Preparedness Guide (CPG) 101 provides further information about the various types of plans and guidance on the fundamentals of planning.

The following sections outline how operational planning is applied within the Mitigation mission area.

Mitigation Operational Planning

The goal of the FIOP is to address critical tasks; responsibilities; and resourcing, personnel, and sourcing requirements necessary to achieve the desired end-state for the Mitigation mission area as described in the National Preparedness Goal. The FIOP addresses the enabling and delivery of the core capabilities described in this Framework. Critical tasks based on the capability targets listed in the National Preparedness Goal are included in the FIOP. Building on the relationships and coordination mechanisms developed while preparing the Framework, whole community engagement will continue during the implementation of the Framework and FIOP. In addition to including diverse representation (e.g., seniors and people with disabilities and others with access and functional needs) during the planning process, the FIOP addresses the unique needs of these specific populations and demonstrate a commitment to delivering core capabilities that will serve all members of the whole community.

Synchronization and integration of the Mitigation FIOP with the remaining mission area FIOPs is critical to achieving a unified system and approach. This includes horizontal and vertical integration across plans and among core capabilities. Synchronizing core capabilities across mission areas should address three integrating and coordinating factors: risk; command, control, and coordination; and resources. In addition to aligning and integrating plans, the FIOP describes processes for ongoing interagency coordination, planning, information sharing, and coordinated program implementation.

FIOP Structure and Contents

The FIOP begins with a list and brief description of planning assumptions that establish context for the Concept of Operations, Authorities and References, and Annexes sections. Next, the Concept of Operations section describes how Federal capabilities that support mitigation activities throughout the whole community are integrated, synchronized, managed, and delivered.

A concept of operations is a written or graphic statement that clearly and concisely explains what the decision maker/leader intends to accomplish in an operation using the available resources. The concept of operations describes how an organization (or group of organizations) accomplishes a mission or set of objectives in order to reach a desired end-state. It includes organizing and assigning responsibilities and identifies primary and supporting Federal departments and agencies based on existing authorities. Critical tasks, responsibilities, assignments, and resources and a supporting resource structure for executing those tasks with detailed resource, personnel, and sourcing requirements are identified for each Federal department and agency consistent with existing statutes and authorities.

The FIOP describes the specific roles and responsibilities for the representatives of the MitFLG.

Responsibilities of specific coordinating structures required to ensure delivery of mitigation core capabilities are identified and the roles of these structures during the steady-state, response, and recovery phases are explained. For the support mitigation capabilities provided during response and recovery, thresholds for activation are identified. The FIOP describes how structures that deliver

mitigation core capabilities and resources during response and recovery will be integrated with and support the established coordinating structures of those mission areas.

After describing the concept of operations, the FIOP lists the relevant authorities and references to other resources, including laws, statutes, ordinances, executive orders, regulations, and formal agreements relevant to mitigation. The list specifies the extent and limits of the authorities granted, including the conditions under which these authorities become effective.

FIOP Review Cycle

The FIOP describes a review cycle with a clear frequency and timeline, monitoring process, and assigned roles and responsibilities. It identifies a responsible entity and process for recording and documenting lessons learned from exercises, disasters, and other incidents that have made a significant impact on the Mitigation mission area. The section describing the review cycle will assign roles and responsibilities to all Federal departments and agencies that will review, adjudicate policy level issues, and approve the Mitigation FIOP. To ensure continued vertical integration, the whole community will be involved in the review cycle.

Department-level Operational Planning

Each Federal executive department and agency will develop and maintain department-level operations plans, as deemed necessary by the respective department or agency. Department-level operations plans describe how the organization will deliver mitigation core capabilities to fulfill their statutory responsibilities and authorities as described in the Framework and FIOP. Existing plans, standard operating procedures, or guides may be used for the development of these plans. The department-level plan should contain the level of detail necessary to identify clearly the department's or agency's specific critical tasks, responsibilities, and resources required to fulfill its mission area tasks. The frequency for reviewing and updating these plans will depend on each department's or agency's internal business practices.

Planning Assumptions

- Federal funding exists at current levels. No new funding sources are created by the Framework.
- The Framework is based upon a broad definition of mitigation within the context of national preparedness that extends beyond its definition in the Stafford Act. Mitigation activities and actions are not limited to what is eligible within the Stafford Act.
- Current authorizations and legislative language remain in effect. The National Mitigation Framework does not create new requirements for the whole community. The term "community resilience" is purposefully used with two distinct meanings.
    - Community Resilience is an inclusive, informed process that addresses social, economic, natural and cultural, technical, and organizational dimensions within a community—preparing a community to consciously mitigate rather than ignore risks.
    - Resilience is an outcome—the state of being able to adapt to changing conditions and then withstand and rebound from the impacts of disasters and incidents.

Framework Application

The National Mitigation Framework can advance operational planning throughout the whole community by facilitating the goal of a secure and resilient Nation. It offers a comprehensive

approach to reducing the loss of life and property by reducing the impact of disasters through the development, implementation, and coordination of seven mitigation core capabilities. Nongovernmental organizations, private sector entities, local governments, and state, tribal, territorial, and insular area governments can draw upon the Framework as a reference when creating or revising the capabilities described in their own operational planning efforts. The Framework can serve as a resource for the whole community to ensure that mitigation efforts are appropriately integrated and synchronized across mission areas.

Supporting Resources

To assist National Mitigation Framework users, FEMA maintains an online repository that contains electronic versions of the National Mitigation Framework documents, as well as information, training materials, and other tools to assist mitigation partners in understanding and executing their roles under the National Mitigation Framework.

Conclusion

Mitigation has long existed at every level—from the family that creates a sheltering plan in case of a tornado, to corporate emergency plans for opening manufacturing plants to the community, to local codes and zoning that systemically address risks in a community's buildings. Building and sustaining a culture of preparedness and widespread resilience throughout communities, however, is a priority for the Nation. Responsibility is shared by individuals; businesses; nonprofit organizations; and local, state, tribal, territorial, insular area, and Federal governments. Drawing upon the support and guidance of the whole community, risk and vulnerability can be managed and community residents can feel confident knowing they live in safer, more secure, and resilient communities.

Working together, risks can be recognized and addressed through a culture of preparedness and mitigation that is built and sustained over time. This begins with a comprehensive understanding of risk that is translated into plans and actions through partnerships. Aiming toward the ultimate goal of sustainability and resilience, mitigation requires a process of continuous learning, adapting to change, managing risk, measuring successes, and evaluating progress.

In implementing the National Mitigation Framework to build national preparedness, partners are encouraged to develop a shared understanding of broad-level, strategic implications as they make critical decisions in building future capacity and capability. The whole community should be engaged in examining and implementing the strategy unifying principles and doctrine contained in this Framework, considering both current and future requirements in the process. This means that this Framework is a living document, and it will be regularly reviewed to evaluate consistency with existing and new policies, evolving conditions, and the experience gained from its use. Reviews of this Framework will be conducted in order to evaluate the effectiveness of the Framework on a quadrennial basis.

The Department of Homeland Security will coordinate and oversee the review and maintenance process for the National Mitigation Framework. The revision process includes developing or updating any documents necessary to carry out capabilities. Significant updates to the Framework will be vetted through a Federal senior-level interagency review process. This Framework will be reviewed in order to accomplish the following:

- Assess and update information on the core capabilities in support of Mitigation goals and objectives.
- Ensure that it adequately reflects the organization of responsible entities.

- Ensure that it is consistent with the other four mission areas.
- Update processes based on changes in the national threat/hazard environment.
- Incorporate lessons learned and effective practices from day-to-day operations, exercises, and actual incidents and alerts.
- Reflect progress in the Nation's Mitigation mission activities and the need to execute new laws, executive orders, and Presidential directives, as well as strategic changes to national priorities and guidance, critical tasks, or national capabilities.

The implementation and review of this Framework will consider effective practices and lessons learned from exercises and operations, as well as pertinent new processes and technologies. Effective practices include continuity planning, which ensures that the capabilities contained in this Framework can continue to be executed regardless of the threat or hazard. Pertinent new processes and technologies should enable the Nation to adapt efficiently to the evolving risk environment and use data relating to location, context, and interdependencies that allow for effective integration across all missions using a standards-based approach.

America's security and resilience work is never finished. While the Nation is safer, stronger, and better prepared than a decade ago, the commitment to safeguard the Nation against the greatest risks it faces, now and for decades to come, remains resolute. By bringing the whole community together to support the collective and integrated action needed now to address the shared future needs, the Nation will continue to ensure its preparedness to face whatever challenges unfold.

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