

Frequently Asked Questions and Answers About the NIST Community Resilience Planning Guide for Buildings and Infrastructure Systems

Q: What is community resilience?

A:

Community resilience is the ability of a community to prepare for anticipated hazards, adapt to changing conditions, and withstand and recover rapidly from disruptions.

Q: How is resilience different from sustainability?

A:

Sustainable development, defined in 1987 by the Brundtland Commission, addresses intergenerational equity as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”

Resilience is the ability to prepare for and adapt to changing conditions and to withstand and recover rapidly from disruptions. The NIST program focuses on the role of buildings and infrastructure systems play to support the resilience of the community.

They both impact community planning and resource allocation, but may have different goals or emphasis. If both sustainability and resilience are being considered, the goals and projects should be compatible. Some community officials are responsible for both.

Q: Briefly, what is the NIST Planning Guide all about?

A:

The Guide helps communities to integrate resilience goals into all community plans to better manage resources, decrease hazard risks, and increase resilience by:

- *setting priorities and allocating resources for managing the risks of prevailing hazards*
- *maintaining and restoring vital services after hazard events*
- *building back better to meet resilience*

goals if a hazard does strike

Q: What’s different about the Planning Guide? Aren’t there other guides available?

A:

While there are other guides available that address resilience issues, NIST’s Planning Guide has three unique aspects:

- *The Guide recognizes that social and economic needs should define goals for how our buildings and physical infrastructure systems should perform.*
- *The Guide acknowledges the unique role of local government as the logical convener for all relevant stakeholders needed to develop a comprehensive resilience plan.*
- *The Guide addresses dependencies among social, economic, and physical systems.*

For example, the availability of gasoline after a severe storm depends upon the availability of electrical power to operate the pumps, communication systems to use credit cards, and transportation systems to provide gasoline to the stations. Healthcare services depend upon

water, power, communications, and transportation systems, as well as buildings in which to operate. Such interconnected infrastructure needs permeate vital community services across the community and are addressed in the Guide's planning processes.

Q. Who is the Guide intended for?

A:

First and foremost, it is intended for community-level decision makers; government officials are expected to take the lead. The Guide's approach is inclusive, stakeholders include: owners and operators of buildings and infrastructure systems, planners, designers, and citizen groups. Service providers – for example, those serving education, healthcare, and other vital community social functions, as well as those that provide utilities and transportation – are expected to participate actively. It is the community where resources can be aggregated and which can take effective actions where individuals and neighborhoods can't.

Q: Who did NIST work with to develop the Guide?

A:

In developing the Guide, NIST:

- *Convened experts from government agencies at many levels including local communities as well from academia, the building and infrastructure sectors, and service providers.*
- *Held five public workshops around the country (Maryland, New Jersey, Oklahoma, California, and Texas) to gather stakeholder input.*
- *Retained nationally recognized experts (NIST Disaster Resilience Fellows) in areas key to resilience planning. Their expertise spanned infrastructure systems (power, transportation, communication, water and wastewater) as well as engineering, emergency management/resilience planning, social science, and business continuity.*
- *Solicited and received public comments on several drafts of the Guide.*

Q: Do communities have to use the Planning Guide?

A:

No. NIST is encouraging communities to use the Planning Guide, but its use is absolutely voluntary. NIST is a non-regulatory agency.

Q. Does the Guide tell communities exactly what they should do to become resilient?

A:

No. It provides an approach that informs their decision-making and helps them to plan for and manage risk. The Guide's approach is intended to be tailored to meet the needs of each community.

Q. Many communities already have taken steps to protect, mitigate, or recover from damage caused by disasters. Is this new Guide really needed?

A:

Yes, it is sorely needed. Across the nation, communities continue to experience significant damage and losses, sometimes despite adoption and enforcement of best practices, codes, and standards. That is partly because those best practices, codes, and standards typically are developed independently for buildings and for each infrastructure system. They don't address dependencies between systems. They also do not address integrated system performance at the community level, or help a community set a desired level of performance. Many communities do not have a process that links the performance of the built environment to their social and economic needs, and supports setting comprehensive community goals and planning activities.

Q: Would use of the process described in the Guide have prevented any of the many disasters communities have experienced recently?

A:

It isn't possible to say how events may have turned out in any specific case. It is safe to say that communities that use the six-step process in the Planning Guide and implement measures to improve their resilience will be better prepared to withstand and recover more rapidly from disruptions.

Q: What kind of events does the Planning Guide apply to?

A:

The Planning Guide is 'hazard neutral' in its approach. Hazards vary from community to community, and the Guide supports planning for many types of disruptive events. The six-step resilience process does not start by focusing on a particular hazard or disruptive event.

- *The Guide encourages communities to first assess and prioritize the social and economic functions of the community and the length of disruption in these services that can be tolerated.*
- *Communities then determine the performance needed from buildings and infrastructure systems to meet those goals—without considering a particular hazard.*
- *Finally, the community assesses how the existing systems would perform in the face of its prevailing hazards and what actions should be taken to close the gap between current, anticipated performance and the desired performance.*

Q: Doesn't most of the infrastructure in this country belong to the state and federal governments? What can a local community really do?

A:

- *Most buildings are privately owned and much of the physical infrastructure is privately owned (70 to 80%), especially electrical power and communications systems.*
- *The Planning Guide recognizes that community resilience needs input and support from a variety of stakeholders—both public and private—and needs to address the dependencies between and among systems, regardless of their ownership.*

Q. Does the Guide address near-term as well as long-term actions? Is there a set timeframe that communities should aim for in putting the Guide’s process in place and taking action?

A.

Each community will set its own approach and timeframe for achieving community resilience and for taking actions that it decides are appropriate.

- *Some actions will be short-term, including initial planning work, memorandums of understanding, and adoption of codes and standards for future construction. Other actions may take years or even decades to put in place.*
- *Just beginning the process should yield benefits in better understanding the community’s resilience status, challenges, and opportunities for improvements and collaboration between stakeholders.*

Q: All communities face budget pressures. While everyone wants to be more resilient, who is going to pay for these changes?

A:

Resilience planning can be part of a community’s overall planning and development and an essential element of its long-term strategy for investing in the community—rather than an add-on activity.

- *Resilience planning will make the community more attractive to residents and businesses and contribute to its daily quality of life, regardless of whether a hazard event occurs.*
- *Costs for undertaking resilience activities can be built into everyday planning, including using available federal, state, and local resources.*

Q. How costly will the Guide’s process be for communities to use?

A:

Each community and each plan will be different, and so will the costs.

- *The Guide is designed to better inform decision makers about how to identify and prioritize risks and actions that will help to deal with the risks of hazard events—in a way that is consistent with its available resources.*
- *It helps to identify non-construction strategies first, since they almost always will be lower cost.*
- *Communities can also access the [NIST Community Resilience Economic Decision Guide for Buildings and Infrastructure Systems](#) to find information how to evaluate community resilience investment decisions.*

Q: Will NIST support communities that want to use the Guide and if so, how?

A:

NIST is committed to supporting use of the Planning Guide

- *Both the basic NIST Community Resilience Planning Guide and the NIST Economic Decision Guide will continue to evolve, to reflect scientific and technological advances and lessons learned. NIST will post updates at www.nist.gov/el/resilience.*
- *Tools are being developed to assist communities in implementing both Guides and to inform decision-making.*
- *NIST has partnered with other federal agencies to convene an independent, private*

sector-driven Community Resilience Panel for Buildings and Infrastructure Systems. The Panel is a forum for better communication and collaboration among community resilience stakeholders. Along with other activities, the Panel will compile an online Resilience Knowledge Base to make it easier for communities to quickly find resilience tools – including economic decision aids – to complement the Guides and other community resilience strategies. For more information, visit <https://crpanel.nist.gov>.

- *Specific questions about the Planning Guide should be directed to resilience@nist.gov.*
- *NIST experts may be available to provide assistance in understanding and using the Guide; they will not be able to provide decision-making advice.*

Q: What is the Community Resilience Panel for Buildings and Infrastructure Systems that NIST is forming?

A:

NIST recognizes that better communication and collaboration among an array of stakeholders is needed to strengthen the resilience of the community, and its buildings and infrastructure systems. The Panel is a forum for stakeholder engagement, collaboration and consensus.

The Panel is engaged in the following:

- *Identifying policy and standards-related gaps and impediments to community resilience*
- *Raising awareness of sector dependencies and cascading effects of disasters*
- *Identifying or developing consistent definitions and metrics relating to resilience for use across sectors*
- *Contributing to current and future resilience guidance documents (including the NIST Community Resilience Planning Guide for Buildings and Infrastructure Systems and Implementation Guidelines)*
- *Reducing barriers to achieving community resilience*
- *Developing and maintaining a Resilience Knowledge Base, a web-based repository for available guidance, documents, and tools*

The Panel's first meeting took place on November 9, 2015, at NIST in Gaithersburg, MD, with subsequent meetings held at locations around the country. For more information, see: <https://crpanel.nist.gov>.

March 2017